Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189001 AMARGOSA 138 189008 SANDY 138 1 1	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	< 100	< 100	< 100	< 100	NotConv	< 100	< 100	< 100	104.0	< 100	Combination of curtailing Gamebird PV and shedding data center load / Reinforcements into Charleston Park Area
System	P1_111_ELDORDO2_PRIMM_230_CKT+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	NotConv	NotConv	NotConv	NotConv	NotConv	NotConv	< 100	NotConv	NotConv	< 100	Ivanpah Area RAS
	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	NotConv	NotConv	NotConv	NotConv	NotConv	NotConv	< 100	NotConv	NotConv	< 100	
	P1_59_Tran GAMEBIRD 230.00 to GAMEBIRD 138.00 Circuit 1 0.00	P1	N-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	< 100	124.3	< 100	127.6	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	121.5	125.3	< 100	128.4	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	122.0	125.8	< 100	128.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	122.3	126.1	< 100	128.8	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	122.4	126.2	< 100	129.0	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	122.4	126.3	< 100	127.8	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	122.4	126.3	< 100	127.8	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	122.6	126.4	< 100	129.1	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	122.6	126.5	< 100	127.9	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	122.5	126.6	< 100	129.2	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	123.5	126.8	< 100	130.1	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	123.5	126.8	< 100	130.1	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	122.8	127.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	122.8	127.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	110.6	133.2	141.7	107.6	137.8	< 100	< 100	114.8	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	127.5	< 100	< 100	< 100	< 100	
	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	< 100	< 100	108.8	117.7	< 100	116.6	< 100	< 100	106.5	< 100	
	P4-2-25_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 1 138; BKR GB122	P4	Stuck Brk	< 100	< 100	122.5	125.7	< 100	128.9	< 100	< 100	114.9	< 100	
	P4-2-26_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 2 138; BKR GB152	P4	Stuck Brk	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P4-2-30_GAMEBIRD 138/230kV Tran Bnk. 1 & GAMEBIRD-SANDY 138; BKR GB252	P4	Stuck Brk	< 100	109.0	132.7	138.7	< 100	147.9	< 100	< 100	129.8	< 100	
	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	< 100	110.4	142.4	144.2	< 100	162.5	< 100	< 100	140.0	< 100	
	P1_42_WHEELER_JOHNNIE_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	124.2	< 100	< 100	< 100	< 100	115.7	< 100	
	P1_44_JOHNNIE_VISTA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	120.6	124.3	< 100	< 100	< 100	< 100	115.8	< 100	
	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	120.8	125.3	< 100	< 100	< 100	< 100	113.9	< 100	
	P1_35_TROUTCA_SLOANCY_500_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	120.8	125.3	< 100	127.3	< 100	< 100	113.9	< 100	
	P1_36_VEAPST2_ISTAP_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.2	125.3	< 100	128.0	< 100	< 100	115.0	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.2	125.3	< 100	128.0	< 100	< 100	115.0	< 100	
	P1_53_JOHNNIE_VALLEYT_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.3	125.5	< 100	129.1	< 100	< 100	115.6	< 100	
	P1_54_JOHNNIE_VALLEYT_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.3	125.5	< 100	129.1	< 100	< 100	115.6	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	123.0	125.6	< 100	129.1	< 100	< 100	115.0	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	< 100	< 100	123.0	125.6	< 100	129.1	< 100	< 100	115.0	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	< 100	< 100	123.0	125.6	< 100	129.1	< 100	< 100	115.0	< 100	
	P1_39_WHEELER_GAMEBIR_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.5	125.7	< 100	129.0	< 100	< 100	114.9	< 100	
	P1_38_WHEELER_GAMEBIR_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.5	125.7	< 100	128.9	< 100	< 100	114.9	< 100	
	P1_45_INNOVAT_JOHNNIE_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.9	125.9	< 100	128.9	< 100	< 100	115.4	< 100	
	P1_46_INNOVAT_JOHNNIE_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.9	125.9	< 100	128.9	< 100	< 100	115.4	< 100	
	P1_26_Q1341HV_Q1341HV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.3	126.1	< 100	128.8	< 100	< 100	115.6	< 100	
	P1_27_TROUTCA_Q1341HV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.3	126.1	< 100	128.8	< 100	< 100	115.6	< 100	
	P1_40_PAHRUMP_WHEELER_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.3	126.2	< 100	128.7	< 100	< 100	115.2	< 100	
	P1_50_LTHRPWL_BONDGDT_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.4	126.3	< 100	129.1	< 100	< 100	115.9	< 100	
	P1_49_BEATTY_BONDGDTP_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.3	126.3	< 100	127.8	< 100	< 100	115.9	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P1_21_STOCKWA_VALLEYN_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	123.3	126.4	< 100	129.9	< 100	< 100	116.4	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	< 100	< 100	122.1	126.4	< 100	128.9	< 100	< 100	115.3	< 100	
	P1_41_PAHRUMP_WHEELER_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.5	126.4	< 100	128.9	< 100	< 100	115.4	< 100	
	P1_20_JACKASS_STOCKWA_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	123.4	126.4	< 100	130.0	< 100	< 100	116.5	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	< 100	< 100	123.4	126.4	< 100	129.6	< 100	< 100	116.2	< 100	
	P1_23_VALLEYN_TWEEZER_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	123.5	126.5	< 100	130.1	< 100	< 100	116.6	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	< 100	< 100	123.1	126.5	< 100	128.7	< 100	< 100	115.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_114_SIL_FLG_COLDCREK_138_CK_	P6	N-1-1	< 100	< 100	123.1	126.5	< 100	128.7	< 100	< 100	115.9	< 100	
	P1_22_TWEEZER_FRENCHF_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	123.6	126.6	< 100	130.2	< 100	< 100	116.7	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	122.5	126.6	< 100	129.0	< 100	< 100	115.2	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	< 100	< 100	122.7	126.6	< 100	129.1	< 100	< 100	114.7	< 100	
	P1_51_LTHRPWL_VALLEYT_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.5	126.6	< 100	129.2	< 100	< 100	115.6	< 100	
	P1_52_LTHRPWL_VALLEYT_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.5	126.6	< 100	129.2	< 100	< 100	115.6	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_31_GAMEBIRD_ARES_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_111_ELDORDO2_PRIMM_230_CKT_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	115.6	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	115.6	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_48_NWEST_DESERTV_230_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.8	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.9	126.7	< 100	129.2	< 100	< 100	114.8	< 100	
	P1_24_FRENCHF_MERCDIS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	123.8	126.8	< 100	130.5	< 100	< 100	117.0	< 100	
	P1_28_MEADS_SLOANCA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.9	126.9	< 100	129.0	< 100	< 100	114.9	< 100	
	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	123.0	126.9	< 100	129.2	< 100	< 100	115.5	< 100	
	P1_47_INNOVAT_DESERTV_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	123.0	126.9	< 100	129.2	< 100	< 100	115.5	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	< 100	< 100	123.5	126.9	< 100	128.8	< 100	< 100	115.9	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	< 100	< 100	123.1	127.0	< 100	129.2	< 100	< 100	114.9	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	< 100	< 100	123.3	127.2	< 100	129.2	< 100	< 100	< 100	< 100	
	P1_25_MERCDIS_MERCRYS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	100.1	124.3	127.3	< 100	131.0	< 100	< 100	118.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_123_H_Allen_Mead_500kV_CKT_	P6	N-1-1	< 100	< 100	122.8	127.5	< 100	129.1	< 100	< 100	115.7	< 100	
	P1_30_TROUTCA_Q1800HV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.1	128.0	< 100	128.8	< 100	< 100	115.1	< 100	
	P1_16d_DU_CHAR_LESL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	101.1	125.1	128.7	< 100	130.7	< 100	< 100	116.5	< 100	
	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	100.5	123.7	129.2	< 100	129.2	< 100	< 100	116.7	< 100	
	P1_16c_DU_VIST_LESL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	102.7	127.0	130.2	< 100	132.5	< 100	< 100	117.9	< 100	
	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	122.9	131.0	< 100	131.0	< 100	< 100	122.2	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	101.6	133.4	134.4	< 100	145.4	< 100	< 100	128.8	< 100	
	P1_19_JACKASS_MERCRYS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	102.1	128.9	134.5	< 100	137.5	< 100	< 100	125.6	< 100	
	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	126.9	135.9	< 100	138.0	< 100	< 100	124.9	< 100	
	P1_58_Tra_INN_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	106.2	132.0	137.7	< 100	139.4	< 100	< 100	130.2	< 100	
	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	105.8	129.3	137.9	105.0	133.8	< 100	< 100	< 100	< 100	
	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	109.0	132.7	138.7	< 100	147.9	< 100	< 100	129.8	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	< 100	111.9	135.6	141.5	< 100	151.1	< 100	< 100	132.9	< 100	
	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	112.3	136.2	142.0	< 100	151.6	< 100	< 100	133.4	< 100	
	P1_29_VALLEYVE_T2_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	111.2	133.6	142.5	107.6	138.2	< 100	< 100	116.5	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	105.8	135.7	144.1	< 100	147.6	< 100	< 100	136.5	< 100	
	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	110.4	142.4	144.2	< 100	162.5	< 100	< 100	140.0	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	114.4	141.4	150.1	< 100	154.2	< 100	< 100	148.9	< 100	
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	112.7	142.8	155.5	118.7	148.9	< 100	< 100	119.4	< 100	
	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	112.8	143.0	155.6	118.8	149.0	< 100	< 100	119.5	< 100	
	P1_43_WHEELER_VISTA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	120.5	< 100	< 100	< 100	< 100	< 100	115.7	< 100	
	P1_33_HAESVCL_SLOANCY_500_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	120.9	< 100	< 100	128.7	< 100	< 100	114.2	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	128.7	< 100	< 100	122.1	< 100	
	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	111.7	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	111.8	< 100	
	P1_18_GAMEBIR_TROUTCA_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	113.3	< 100	
	P1_37_GAMEBIR_TROUTCA_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	113.3	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	115.7	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	117.2	< 100	
	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	122.1	< 100	
	P7-1-2_GAMEBIRD-WHEELER_PASS 1 230 & GAMEBIRD-WHEELER_PASS 2 230	P7	DCTL	< 100	< 100	102.6	114.6	107.3	< 100	< 100	< 100	< 100	< 100	
	P1_59_Tran GAMEBIRD 230.00 to GAMEBIRD 138.00 Circuit 1 0.00	P1	N-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	< 100	105.6	< 100	108.4	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	103.2	106.4	< 100	109.1	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	103.6	106.9	< 100	109.3	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	103.9	107.1	< 100	109.4	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	103.9	107.2	< 100	109.6	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	104.0	107.2	< 100	108.6	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	104.0	107.2	< 100	108.6	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	104.1	107.4	< 100	109.6	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	104.2	107.4	< 100	108.6	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	104.1	107.6	< 100	109.8	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	104.9	107.7	< 100	110.5	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	104.9	107.7	< 100	110.5	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	104.3	108.5	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	104.3	108.5	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	< 100	113.2	120.4	< 100	117.1	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	108.3	< 100	< 100	< 100	< 100	
	P4-2-25_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 1 138; BKR GB122	P4	Stuck Brk	< 100	< 100	104.0	106.8	< 100	109.5	< 100	< 100	< 100	< 100	
	P4-2-26_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 2 138; BKR GB152	P4	Stuck Brk	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P4-2-30_GAMEBIRD 138/230kV Tran Bnk. 1 & GAMEBIRD-SANDY 138; BKR GB252	P4	Stuck Brk	< 100	< 100	112.7	117.8	< 100	125.6	< 100	< 100	110.3	< 100	
	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	< 100	< 100	121.0	122.4	< 100	138.1	< 100	< 100	118.9	< 100	
	P1_42_WHEELER_JOHNNIE_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	105.5	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_44_JOHNNIE_VISTA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	102.4	105.6	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	102.6	106.4	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_35_TROUTCA_SLOANCY_500_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	102.6	106.4	< 100	108.1	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.7	106.4	< 100	108.7	< 100	< 100	< 100	< 100	
	P1_36_VEAPST2_ISTAP_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.8	106.4	< 100	108.7	< 100	< 100	< 100	< 100	
	P1_53_JOHNNIE_VALLEYT_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.9	106.6	< 100	109.6	< 100	< 100	< 100	< 100	
	P1_54_JOHNNIE_VALLEYT_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.9	106.6	< 100	109.6	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189000 PAHRUMP 230 189007 PAHRUMP 138 2 1	P1_59_Tra_GAM_230_138_0_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	104.5	106.7	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	< 100	< 100	104.5	106.7	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	< 100	< 100	104.5	106.7	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_38_WHEELER_GAMEBIR_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.0	106.8	< 100	109.5	< 100	< 100	< 100	< 100	
	P1_39_WHEELER_GAMEBIR_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.0	106.8	< 100	109.5	< 100	< 100	< 100	< 100	
	P1_45_INNOVAT_JOHNNIE_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.4	107.0	< 100	109.5	< 100	< 100	< 100	< 100	
	P1_46_INNOVAT_JOHNNIE_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.4	107.0	< 100	109.5	< 100	< 100	< 100	< 100	
	P1_26_Q1341HV_Q1341HV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.9	107.1	< 100	109.4	< 100	< 100	< 100	< 100	
	P1_27_TROUTCA_Q1341HV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.9	107.1	< 100	109.4	< 100	< 100	< 100	< 100	
	P1_40_PAHRUMP_WHEELER_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.9	107.2	< 100	109.3	< 100	< 100	< 100	< 100	
	P1_50_LTHRPWL_BONDGDT_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.9	107.2	< 100	109.6	< 100	< 100	< 100	< 100	
	P1_49_BEATTY_BONDGDTP_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.9	107.2	< 100	108.6	< 100	< 100	< 100	< 100	
	P1_21_STOCKWA_VALLEYN_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.8	107.3	< 100	110.3	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	< 100	< 100	103.7	107.3	< 100	109.5	< 100	< 100	< 100	< 100	
	P1_41_PAHRUMP_WHEELER_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.0	107.4	< 100	109.4	< 100	< 100	< 100	< 100	
	P1_20_JACKASS_STOCKWA_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.8	107.4	< 100	110.4	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	< 100	< 100	104.8	107.4	< 100	110.1	< 100	< 100	< 100	< 100	
	P1_23_VALLEYN_TWEEZER_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.9	107.4	< 100	110.5	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	< 100	< 100	104.5	107.4	< 100	109.3	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_114_SIL_FLG_COLDCREK_138_CK_	P6	N-1-1	< 100	< 100	104.5	107.5	< 100	109.3	< 100	< 100	< 100	< 100	
	P1_22_TWEEZER_FRENCHF_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.9	107.5	< 100	110.6	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	104.1	107.5	< 100	109.6	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	< 100	< 100	104.2	107.5	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_51_LTHRPWL_VALLEYT_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.0	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_52_LTHRPWL_VALLEYT_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.0	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_31_GAMEBIRD_ARES_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_111_ELDORDO2_PRIMM_230_CKT_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_48_NWEST_DESERTV_230_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.3	107.6	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_24_FRENCHF_MERCDIS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	105.2	107.7	< 100	110.8	< 100	< 100	< 100	< 100	
	P1_28_MEADS_SLOANCA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.4	107.7	< 100	109.6	< 100	< 100	< 100	< 100	
	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.5	107.7	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_47_INNOVAT_DESERTV_230_Ckt2+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.5	107.7	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	< 100	< 100	104.9	107.8	< 100	109.4	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	< 100	< 100	104.5	107.8	< 100	109.8	< 100	< 100	< 100	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	< 100	< 100	104.7	108.0	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_25_MERCDIS_MERCRYS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	105.6	108.1	< 100	111.3	< 100	< 100	100.9	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_123_H_Allen_Mead_500kV_CKT_	P6	N-1-1	< 100	< 100	104.3	108.3	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_30_TROUTCA_Q1800HV_230_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	103.7	108.7	< 100	109.4	< 100	< 100	< 100	< 100	
	P1_16d_DU_CHAR_LESL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	106.2	109.3	< 100	111.0	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	105.0	109.7	< 100	109.7	< 100	< 100	< 100	< 100	
	P1_16c_DU_VIST_LESL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.8	110.5	< 100	112.5	< 100	< 100	100.1	< 100	
	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	104.4	111.3	< 100	111.2	< 100	< 100	103.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	113.3	114.2	< 100	123.5	< 100	< 100	109.4	< 100	
	P1_19_JACKASS_MERCRYS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	109.5	114.3	< 100	116.8	< 100	< 100	106.6	< 100	
	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.8	115.4	< 100	117.2	< 100	< 100	106.0	< 100	
	P1_58_Tra_INN_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	112.1	116.9	< 100	118.4	< 100	< 100	110.6	< 100	
	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	109.8	117.1	< 100	113.6	< 100	< 100	< 100	< 100	
	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	112.7	117.8	< 100	125.6	< 100	< 100	110.3	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	115.1	120.2	< 100	128.3	< 100	< 100	112.9	< 100	
	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	115.7	120.6	< 100	128.7	< 100	< 100	113.3	< 100	
	P1_29_VALLEYVE_T2_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	113.5	121.0	< 100	117.4	< 100	< 100	< 100	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	115.3	122.4	< 100	125.4	< 100	< 100	115.9	< 100	
	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	121.0	122.4	< 100	138.1	< 100	< 100	118.9	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	120.1	127.5	< 100	130.9	< 100	< 100	126.5	< 100	
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	121.3	132.1	100.8	126.4	< 100	< 100	101.4	< 100	
	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	121.4	132.2	100.9	126.5	< 100	< 100	101.5	< 100	
	P1_43_WHEELER_VISTA_230_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	102.4	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_33_HAESVCL_SLOANCY_500_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	102.7	< 100	< 100	109.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	111.2	< 100	< 100	105.8	< 100	
	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.7	< 100	
189005 LTHRPWLS 138 189100 JACKASSF 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	< 100	104.6	< 100	< 100	119.7	< 100	< 100	130.6	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	115.1	< 100	< 100	126.6	< 100	
	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 100	< 100	< 100	102.8	< 100	109.2	< 100	< 100	118.8	< 100	
	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 100	106.0	137.0	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 100	< 100	135.7	150.8	< 100	159.9	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	135.9	151.0	< 100	159.6	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 100	105.7	136.9	151.9	< 100	160.4	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 100	106.0	136.7	152.0	< 100	160.7	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 100	106.0	136.7	152.0	< 100	160.7	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 100	106.0	136.9	152.1	< 100	160.4	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 100	105.9	136.9	152.2	< 100	160.4	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 100	105.9	137.0	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 100	106.0	137.0	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	106.0	137.0	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	106.0	137.0	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	137.0	152.2	< 100	160.5	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	137.0	152.2	< 100	160.5	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	137.0	152.2	< 100	160.5	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	137.3	152.5	< 100	160.6	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 100	106.0	137.0	152.7	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 100	106.0	137.0	152.7	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	137.5	152.7	< 100	161.0	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	137.5	153.0	< 100	161.2	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	138.1	153.4	< 100	161.6	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 100	108.7	140.2	154.5	< 100	163.3	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 100	108.7	140.2	154.5	< 100	163.3	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	130.2	162.5	170.9	123.4	185.2	< 100	< 100	141.8	< 100	
	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	109.8	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	< 100	< 100	< 100	103.3	< 100	< 100	< 100	< 100	< 100	< 100	
	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	< 100	< 100	130.4	138.3	< 100	153.5	< 100	< 100	130.6	< 100	
	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	< 100	106.0	136.7	152.3	< 100	159.3	< 100	< 100	140.8	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	< 100	107.1	133.8	149.8	< 100	159.2	< 100	< 100	142.5	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	< 100	105.7	134.8	149.8	< 100	159.9	< 100	< 100	141.1	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	< 100	107.1	134.7	149.8	< 100	< 100	< 100	< 100	142.2	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	< 100	105.2	136.3	150.2	< 100	159.7	< 100	< 100	139.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	< 100	105.2	136.3	150.2	< 100	159.7	< 100	< 100	139.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	< 100	105.9	136.2	151.4	< 100	159.9	< 100	< 100	140.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	< 100	105.9	136.2	151.4	< 100	159.9	< 100	< 100	140.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500kV_CKT_	P6	N-1-1	< 100	106.6	137.1	151.7	< 100	160.8	< 100	< 100	142.4	< 100	
	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	106.4	136.5	151.7	< 100	160.8	< 100	< 100	142.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	< 100	106.4	136.5	151.7	< 100	160.8	< 100	< 100	142.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	< 100	< 100	136.5	151.8	< 100	160.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	< 100	105.7	136.6	151.8	< 100	160.4	< 100	< 100	141.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	< 100	105.6	137.0	151.9	< 100	160.4	< 100	< 100	142.0	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	< 100	105.6	137.0	151.9	< 100	160.4	< 100	< 100	142.0	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	< 100	106.7	137.3	152.1	< 100	160.7	< 100	< 100	142.4	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	< 100	106.7	137.3	152.1	< 100	160.7	< 100	< 100	142.4	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	< 100	106.2	137.2	152.1	< 100	160.6	< 100	< 100	141.8	< 100	
	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	105.5	136.5	152.1	< 100	159.2	< 100	< 100	140.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	< 100	106.4	137.6	152.1	< 100	160.8	< 100	< 100	142.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	< 100	106.4	137.6	152.1	< 100	160.8	< 100	< 100	142.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	< 100	106.4	137.6	152.1	< 100	160.8	< 100	< 100	142.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	< 100	106.3	137.2	152.1	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	< 100	106.0	136.9	152.1	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	106.0	136.9	152.1	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	< 100	106.6	136.1	152.2	< 100	160.8	< 100	< 100	142.3	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	< 100	106.6	136.1	152.2	< 100	160.8	< 100	< 100	142.3	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	< 100	105.5	136.1	152.2	< 100	161.7	< 100	< 100	142.6	< 100	Reinforcements into Charleston Park Area
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	< 100	105.4	136.2	152.2	< 100	161.7	< 100	< 100	142.7	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	< 100	105.8	136.4	152.2	< 100	< 100	< 100	< 100	140.5	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	< 100	106.3	137.0	152.2	< 100	160.5	< 100	< 100	141.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	< 100	106.3	137.4	152.2	< 100	160.6	< 100	< 100	142.0	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	< 100	106.3	137.4	152.2	< 100	160.6	< 100	< 100	142.0	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	106.0	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	106.0	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	106.0	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	< 100	106.0	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	< 100	106.3	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	< 100	106.3	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	< 100	106.3	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	< 100	106.0	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	< 100	106.0	137.1	152.2	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	< 100	106.3	137.1	152.2	< 100	160.6	< 100	< 100	142.0	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIMM_230_CKT_	P6	N-1-1	< 100	106.3	137.2	152.2	< 100	160.6	< 100	< 100	142.0	< 100	
	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	106.0	137.0	152.2	< 100	160.5	< 100	< 100	141.7	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	< 100	106.1	136.8	152.3	< 100	160.4	< 100	< 100	142.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	< 100	106.1	137.1	152.3	< 100	160.6	< 100	< 100	141.6	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	< 100	106.1	137.1	152.3	< 100	160.6	< 100	< 100	141.6	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	< 100	106.0	137.1	152.3	< 100	160.4	< 100	< 100	141.6	< 100	
	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	106.0	136.7	152.3	< 100	159.3	< 100	< 100	140.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	< 100	106.9	137.7	152.4	< 100	160.7	< 100	< 100	142.6	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	< 100	106.3	137.9	152.5	< 100	160.3	< 100	< 100	141.7	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	< 100	106.3	137.9	152.5	< 100	160.3	< 100	< 100	141.7	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	< 100	106.0	137.2	152.5	< 100	160.5	< 100	< 100	141.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	< 100	106.1	136.7	152.5	< 100	160.5	< 100	< 100	142.0	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	< 100	107.0	137.4	152.6	< 100	160.9	< 100	< 100	142.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	< 100	107.1	137.6	152.7	< 100	161.3	< 100	< 100	142.2	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	< 100	105.1	136.5	152.9	< 100	160.1	< 100	< 100	141.6	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	< 100	106.8	138.6	153.3	< 100	163.7	< 100	< 100	143.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	< 100	107.2	138.8	153.4	< 100	163.2	< 100	< 100	144.2	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	< 100	106.8	138.8	153.5	< 100	164.0	< 100	< 100	144.3	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	< 100	107.4	139.1	153.7	< 100	164.3	< 100	< 100	144.5	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	< 100	107.9	139.6	154.1	< 100	164.3	< 100	< 100	145.3	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	< 100	107.5	138.6	154.2	< 100	163.4	< 100	< 100	144.5	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREK_138_CK_	P6	N-1-1	< 100	107.6	138.6	154.3	< 100	163.5	< 100	< 100	144.5	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	< 100	107.8	138.6	155.0	< 100	163.6	< 100	< 100	144.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	110.1	140.7	155.0	< 100	166.2	< 100	< 100	148.6	< 100	
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	117.9	< 100	156.0	113.2	< 100	< 100	< 100	< 100	< 100	
	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	< 100	118.1	< 100	156.1	113.3	< 100	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	116.1	154.5	165.9	< 100	187.8	< 100	< 100	167.0	< 100	
	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	122.1	155.2	166.3	118.3	176.3	< 100	< 100	133.4	< 100	
	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	109.4	157.3	169.2	< 100	197.3	< 100	< 100	173.4	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	< 100	123.9	160.0	169.9	< 100	191.7	< 100	< 100	173.3	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	< 100	130.4	163.1	175.1	124.1	187.0	< 100	< 100	142.3	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	126.1	174.4	182.9	< 100	213.0	< 100	< 100	195.5	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	146.8	186.7	192.4	< 100	223.5	< 100	< 100	213.5	< 100	
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	145.9	189.8	192.8	150.1	213.4	< 100	< 100	161.7	< 100	
	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	146.1	189.9	192.8	150.3	213.5	< 100	< 100	161.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	103.4	134.9	< 100	< 100	161.0	< 100	< 100	138.7	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	103.3	135.1	< 100	< 100	160.6	< 100	< 100	138.8	< 100	
	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	102.2	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	< 100	103.0	< 100	< 100	< 100	< 100	< 100	< 100	147.5	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	103.3	< 100	< 100	< 100	< 100	< 100	< 100	169.1	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	< 100	105.7	< 100	< 100	< 100	< 100	< 100	< 100	141.4	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	< 100	107.2	< 100	< 100	< 100	159.1	< 100	< 100	142.2	< 100	
	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	< 100	110.1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	121.0	< 100	< 100	< 100	164.1	< 100	< 100	190.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	133.1	< 100	
	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	133.4	< 100	
	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	133.6	< 100	
	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	140.6	< 100	
	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	145.3	< 100	
189011 VALLEYTP 138 189005 LTHRPWLS 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	102.6	< 100	< 100	115.1	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	109.6	< 100	
189011 VALLEYTP 138 189018 JOHNNIE 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	< 100	114.0	117.3	110.8	127.2	124.6	< 100	< 100	< 100	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	121.1	129.1	128.3	140.4	135.7	< 100	< 100	104.7	< 100	
189016 INNOVATION 230 189017 INNOVATION 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	< 100	118.1	113.8	< 100	< 100	129.0	< 100	< 100	148.2	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	122.7	120.7	< 100	< 100	132.1	< 100	< 100	151.7	< 100	
189017 INNOVATION 138 189101 MERCRYSW 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	112.7	114.1	101.7	< 100	129.6	< 100	< 100	146.2	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	< 100	107.5	105.8	< 100	< 100	126.4	< 100	< 100	142.4	< 100	
	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	< 100	100.1	104.8	< 100	113.7	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	104.0	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	104.7	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	104.7	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.2	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.2	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	105.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	106.7	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	106.7	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	106.9	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	107.2	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	108.2	< 100	< 100	< 100	< 100	
	P4-2-30_GAMEBIRD 138/230kV Tran Bnk. 1 & GAMEBIRD-SANDY 138; BKR GB252	P4	Stuck Brk	< 100	< 100	< 100	101.9	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	100.6	< 100	115.2	< 100	< 100	105.3	< 100	
	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	101.5	< 100	108.8	< 100	< 100	< 100	< 100	
	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	101.9	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	102.2	< 100	119.8	< 100	< 100	107.8	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	102.3	< 100	116.7	< 100	< 100	107.0	< 100	
	P1_59_Tra_GAM_230_138_0_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	< 100	105.6	< 100	< 100	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	105.8	< 100	114.2	< 100	< 100	< 100	< 100	
	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	106.2	< 100	102.8	< 100	< 100	< 100	< 100	
	P1_16d_DU_CHAR_LESL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	106.5	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	105.5	109.2	< 100	127.5	< 100	< 100	115.8	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	109.9	< 100	102.6	< 100	< 100	< 100	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	109.9	114.1	< 100	132.8	< 100	< 100	124.2	< 100	
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	108.9	114.3	< 100	126.8	< 100	< 100	< 100	< 100	
	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	< 100	108.9	114.3	< 100	126.8	< 100	< 100	< 100	< 100	
	P1_16c_DU_VIST_LESL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	113.0	119.0	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	118.3	127.2	< 100	140.4	< 100	< 100	120.7	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	100.4	120.8	129.5	< 100	142.9	< 100	< 100	122.9	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	102.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	102.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	102.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	102.9	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	104.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.1	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.1	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.2	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.2	< 100	< 100	< 100	< 100	
	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.2	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIMM_230_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.3	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.4	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.5	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.5	< 100	< 100	< 100	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.5	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.5	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500kV_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.5	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.7	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.7	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.9	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.9	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.9	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	105.9	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	106.1	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	106.6	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	106.8	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	106.9	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREK_138_CK_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.0	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.0	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.1	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.1	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.1	< 100	< 100	< 100	< 100	
	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	108.1	< 100	< 100	< 100	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	100.9	< 100	
	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.6	< 100	
	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	105.6	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	108.3	< 100	
189020 GAMEBIRD 138 189050 HAFEN 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_14_INNOVATION_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	101.3	< 100	108.2	< 100	< 100	104.4	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_11_VALLEYTP_JOHNNIE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	101.4	< 100	100.3	< 100	< 100	< 100	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_12_VISTA_JOHNNIE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	101.5	< 100	100.4	< 100	< 100	< 100	< 100	
	P1_6_LTHRPWLS_JACKASSF_138_Ckt1+P1_7_PAHRUMP_VISTA_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	101.9	< 100	< 100	< 100	< 100	
	P1_57_Tran PAHRUMP 230.00 to PAHRUMP 138.00 Circuit 2 0.00	P1	N-1	< 100	< 100	105.7	109.4	< 100	106.2	< 100	< 100	102.3	< 100	
	P1_56_Tran PAHRUMP 230.00 to PAHRUMP 138.00 Circuit 1 0.00	P1	N-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	107.0	110.9	< 100	107.6	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	107.4	111.2	< 100	107.8	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	107.5	111.3	< 100	107.9	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 100	< 100	107.6	111.4	< 100	108.1	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 100	< 100	107.9	111.8	< 100	108.2	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	108.1	112.0	< 100	108.4	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 100	< 100	108.1	112.0	< 100	108.4	< 100	< 100	103.6	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	< 100	108.1	112.3	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	107.2	112.5	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	107.2	112.5	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_57_Tra_PAH_230_138_0_Ckt2+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	< 100	114.8	120.0	< 100	112.3	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 100	< 100	116.5	121.8	< 100	115.7	< 100	< 100	103.6	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 100	< 100	106.9	< 100	< 100	107.5	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.6	< 100	
	P4-2-18_PAHRUMP-GAMEBIRD 138 & PAHRUMP 138/230kV Tran Bnk. 1; BKR PA232	P4	Stuck Brk	< 100	< 100	< 100	104.1	< 100	< 100	< 100	< 100	< 100	< 100	
	P4-2-16_PAHRUMP-VISTA 138kV & PAHRUMP 138/230kV Tran Bnk. 2; BKR PA212	P4	Stuck Brk	< 100	< 100	105.3	108.6	< 100	105.6	< 100	< 100	102.0	< 100	
	P4-2-24_PAHRUMP-WHEELER_PASS #2 230kV & PAHRUMP 138/230kV Tran Bnk. 2; BKR PA142	P4	Stuck Brk	< 100	< 100	105.9	109.5	< 100	106.3	< 100	< 100	102.4	< 100	
	P4-2-22_PAHRUMP-WHEELER_PASS #1 230kV & PAHRUMP 138/230kV Tran Bnk. 2; BKR PA122	P4	Stuck Brk	< 100	< 100	105.9	109.6	< 100	106.4	< 100	< 100	102.4	< 100	
	P4-2-21_PAHRUMP-WHEELER_PASS #2 230kV & PAHRUMP 138/230kV Tran Bnk. 1; BKR PA112	P4	Stuck Brk	< 100	< 100	107.3	111.1	< 100	107.9	< 100	< 100	103.7	< 100	
	P4-2-23_PAHRUMP-WHEELER_PASS #1 230kV & PAHRUMP 138/230kV Tran Bnk. 1; BKR PA132	P4	Stuck Brk	< 100	< 100	107.4	111.2	< 100	107.9	< 100	< 100	103.8	< 100	
	P4-2-17_PAHRUMP-VISTA 138 & PAHRUMP-GAMEBIRD 138; BKR PA222	P4	Stuck Brk	< 100	< 100	101.3	111.4	< 100	103.2	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	< 100	< 100	107.1	110.9	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	< 100	< 100	< 100	110.9	< 100	< 100	< 100	< 100	103.4	< 100	
	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.2	110.9	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_48_NWEST_DESERTV_230_Ckt2+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.2	110.9	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	107.5	110.9	< 100	107.7	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	< 100	< 100	107.5	110.9	< 100	107.7	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	< 100	< 100	107.5	110.9	< 100	107.7	< 100	< 100	< 100	< 100	
	P1_53_JOHNNIE_VALLEYT_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_54_JOHNNIE_VALLEYT_230_Ckt2+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_31_GAMEBIRD_ARES_230_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_51_LTHRPWL_VALLEYT_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_52_LTHRPWL_VALLEYT_230_Ckt2+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P1_56_Tra_PAH_230_138_0_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.8	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_124_IRONMTN_NWEST_230 kV_CKT_	P6	N-1-1	< 100	< 100	107.2	111.0	< 100	107.8	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	< 100	< 100	107.0	111.0	< 100	< 100	< 100	< 100	103.5	< 100	
	P1_41_PAHRUMP_WHEELER_230_Ckt2+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.3	111.1	< 100	107.9	< 100	< 100	103.7	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	< 100	< 100	107.2	111.1	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_111_ELDORDO2_PRIMM_230_CKT_	P6	N-1-1	< 100	< 100	107.2	111.1	< 100	107.7	< 100	< 100	103.6	< 100	
	P1_45_INNOVAT_JOHNNIE_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.5	111.1	< 100	107.6	< 100	< 100	103.5	< 100	
	P1_46_INNOVAT_JOHNNIE_230_Ckt2+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.5	111.1	< 100	107.6	< 100	< 100	103.5	< 100	
	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.3	111.2	< 100	107.7	< 100	< 100	103.7	< 100	
	P1_40_PAHRUMP_WHEELER_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.4	111.2	< 100	107.9	< 100	< 100	103.8	< 100	
	P1_30_TROUTCA_Q1800HV_230_Ckt1+P1_57_Tra_PAH_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	< 100	111.2	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_50_LTHRPWL_BONDGDT_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.4	111.2	< 100	107.8	< 100	< 100	103.7	< 100	
	P1_49_BEATTY_BONDGDTP_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.4	111.2	< 100	107.8	< 100	< 100	103.7	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	< 100	< 100	107.3	111.2	< 100	107.7	< 100	< 100	103.7	< 100	
	P1_28_MEADS_SLOANCA_230_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.3	111.3	< 100	< 100	< 100	< 100	103.7	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_15_GAMEBIRD_PAHRUMP_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	111.4	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_21_STOCKWA_VALLEYN_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.6	111.4	< 100	108.3	< 100	< 100	104.1	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	< 100	< 100	107.5	111.4	< 100	107.7	< 100	< 100	< 100	< 100	
	P1_20_JACKASS_STOCKWA_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.6	111.5	< 100	108.3	< 100	< 100	104.3	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	< 100	< 100	107.7	111.5	< 100	108.4	< 100	< 100	104.2	< 100	
	P1_23_VALLEYN_TWEEZER_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.7	111.5	< 100	108.4	< 100	< 100	104.3	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_114_SIL_FLG_COLDCREK_138_CK_	P6	N-1-1	< 100	< 100	107.7	111.5	< 100	108.4	< 100	< 100	104.3	< 100	
	P1_22_TWEEZER_FRENCHF_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	107.7	111.6	< 100	108.5	< 100	< 100	104.4	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_123_H_Allen_Mead_500kV_CKT_	P6	N-1-1	< 100	< 100	107.4	111.7	< 100	107.7	< 100	< 100	103.7	< 100	
	P1_24_FRENCHF_MERCDIS_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	108.0	111.8	< 100	108.7	< 100	< 100	104.7	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	< 100	< 100	108.2	111.8	< 100	108.2	< 100	< 100	104.2	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	< 100	< 100	108.1	111.9	< 100	108.5	< 100	< 100	104.4	< 100	
	P1_25_MERCDIS_MERCRYS_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	108.4	112.2	< 100	109.2	< 100	< 100	106.0	< 100	
	P1_16d_DU_CHAR_LESL_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	108.6	112.3	< 100	108.0	< 100	< 100	103.4	< 100	
	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_57_Tra_PAH_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	107.2	112.6	< 100	< 100	< 100	< 100	103.3	< 100	
	P1_14_INNOVATION_MERCRYSW_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	< 100	< 100	108.7	112.6	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	109.8	112.6	< 100	118.5	< 100	< 100	110.5	< 100	
	P1_30_TROUTCA_Q1800HV_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	112.8	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_16c_DU_VIST_LESL_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	109.7	112.9	< 100	108.8	< 100	< 100	103.9	< 100	
	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	107.4	113.1	< 100	111.7	< 100	< 100	106.9	< 100	
	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	108.6	114.2	< 100	< 100	< 100	< 100	104.7	< 100	
	P1_19_JACKASS_MERCRYS_138_Ckt1+P1_57_Tra_PAH_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	109.8	114.4	< 100	112.1	< 100	< 100	108.5	< 100	
	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	111.4	114.4	< 100	120.4	< 100	< 100	112.1	< 100	
	P1_16c_DU_VIST_LESL_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	111.2	114.4	< 100	110.3	< 100	< 100	105.3	< 100	
	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	109.0	114.9	< 100	113.5	< 100	< 100	108.6	< 100	
	P1_57_Tra_PAH_230_138_0_Ckt2+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	112.5	115.1	< 100	121.4	< 100	< 100	113.4	< 100	
	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	112.8	115.4	< 100	121.7	< 100	< 100	113.7	< 100	
	P1_19_JACKASS_MERCRYS_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	111.4	116.2	< 100	113.9	< 100	< 100	109.0	< 100	
	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_57_Tra_PAH_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	111.3	116.8	< 100	108.6	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	114.1	116.9	< 100	123.2	< 100	< 100	115.0	< 100	
	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	114.5	117.2	< 100	123.6	< 100	< 100	115.3	< 100	
	P1_57_Tra_PAH_230_138_0_Ckt2+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	112.6	117.3	< 100	113.9	< 100	< 100	111.2	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	113.0	118.5	< 100	109.3	< 100	< 100	< 100	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	114.2	119.1	< 100	115.7	< 100	< 100	111.8	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	113.9	119.6	< 100	118.8	< 100	< 100	114.2	< 100	
	P1_29_VALLEYVE_T2_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	114.5	120.4	< 100	114.2	< 100	< 100	< 100	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	115.6	121.5	< 100	120.7	< 100	< 100	115.9	< 100	
	P1_29_VALLEYVE_T2_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	116.1	122.2	< 100	115.9	< 100	< 100	104.0	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_57_Tra_PAH_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	118.3	124.3	< 100	124.0	< 100	< 100	123.7	< 100	
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_57_Tra_PAH_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	118.0	124.6	< 100	116.1	< 100	< 100	< 100	< 100	
	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	118.1	124.7	< 100	116.2	< 100	< 100	< 100	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	120.2	126.3	< 100	126.1	< 100	< 100	125.6	< 100	
	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	119.0	126.7	101.4	120.8	< 100	< 100	< 100	< 100	
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	119.9	127.0	101.3	117.0	< 100	< 100	< 100	< 100	
	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	106.9	< 100	< 100	107.8	< 100	< 100	103.7	< 100	
	P1_47_INNOVAT_DESERTV_230_Ckt2+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	106.9	< 100	< 100	107.8	< 100	< 100	103.7	< 100	
	P1_16d_DU_CHAR_LESL_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	107.1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_25_MERCDIS_MERCRYS_138_Ckt1+P1_57_Tra_PAH_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.6	< 100	< 100	104.6	< 100	
	P1_36_VEAPST2_ISTAP_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.7	< 100	< 100	103.5	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	107.7	< 100	< 100	103.5	< 100	
	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	108.5	< 100	< 100	< 100	< 100	
	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_14_INNOVATI_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	110.4	< 100	< 100	105.9	< 100	
	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_14_INNOVATI_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	111.9	< 100	< 100	108.8	< 100	
	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_65_Tra_AMA_230_138_0_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	113.0	< 100	< 100	108.5	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.3	< 100	
	P1_26_Q1341HV_Q1341HV_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.6	< 100	
	P1_27_TROUTCA_Q1341HV_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.6	< 100	
	P1_42_WHEELER_JOHNNIE_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.7	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
	P1_43_WHEELER_VISTA_230_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.7	< 100	
	P1_58_Tra_INN_230_138_0_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.8	< 100	
	P1_44_JOHNNIE_VISTA_230_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.8	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	103.9	< 100	
	P1_39_WHEELER_GAMEBIR_230_Ckt2+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	104.6	< 100	
	P1_38_WHEELER_GAMEBIR_230_Ckt1+P1_56_Tra_PAH_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	104.6	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_14_INNOVATION_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	105.7	< 100	
189100 JACKASSF 138 189101 MERCRYSW 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	< 100	127.3	131.2	122.4	< 100	157.1	< 100	< 100	172.6	< 100	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	133.9	142.2	123.3	107.0	164.9	< 100	< 100	176.9	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P1_57_Tra_PAH_230_138_0_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	159.7	176.2	207.0	221.7	148.7	222.4	< 100	< 100	206.0	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 2 1	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	140.4	155.4	183.0	197.7	131.0	197.1	< 100	< 100	181.7	< 100	Reinforcements into Charleston Park Area / Sytem adjustments after the first contingency (2028)
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P1_40_PAHRUMP_WHEELER_230_Ckt1+P1_41_PAHRUMP_WHEELER_230_Ckt2_	P6	N-1-1	106.5	123.9	151.9	157.0	106.6	158.1	< 100	< 100	144.2	< 100	
	P1_56_Tra_PAH_230_138_0_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	106.6	123.9	150.4	157.0	106.6	158.1	< 100	< 100	144.2	< 100	
	P7-1-2_GAMEBIRD-WHEELER_PASS 1 230 & GAMEBIRD-WHEELER_PASS 2 230	P7	DCTL	125.0	103.0	< 100	< 100	< 100	< 100	< 100	< 100	110.3	< 100	Reinforcements into Charleston Park Area / Valley RAS in study phase (2028)
189100 JACKASSF 138 189101 MERCRYSW 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	101.1	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_24_FRENCHFLAT_MERCDIST_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	104.8	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	112.5	
189161 TROUT CANYON 500 189163 TROUT CANYON 24.9 1 1	P1_61_Tra_TRO_500_230_24_Ckt2+P1_62_Tra_TRO_500_230_24_Ckt3_	P6	N-1-1	< 100	< 100	< 100	< 100	101.3	< 100	< 100	< 100	< 100	< 100	System adjustments after the first contingency
189161 TROUT CANYON 500 189164 TROUT CANYON 24.9 3 1	P1_60_Tra_TRO_500_230_24_Ckt1+P1_61_Tra_TRO_500_230_24_Ckt2_	P6	N-1-1	< 100	< 100	< 100	< 100	101.3	< 100	< 100	< 100	< 100	< 100	
189161 TROUT CANYON 500 189166 TROUT CANYON 24.9 2 1	P1_60_Tra_TRO_500_230_24_Ckt1+P1_62_Tra_TRO_500_230_24_Ckt3_	P6	N-1-1	< 100	< 100	< 100	< 100	101.3	< 100	< 100	< 100	< 100	< 100	
System	P1_53_JOHNNIE_VALLEYTP_230_Ckt1 or 2+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	G-1 / N-1	< 100	< 100	< 100	< 100	NotConv	< 100	< 100	< 100	< 100	< 100	
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P7-1-2_GAMEBIRD-WHEELER_PASS 1 230 & GAMEBIRD-WHEELER_PASS 2 230	P7	DCTL	< 100	< 100	< 100	< 100	100.4	< 100	< 100	< 100	< 100	< 100	Valley RAS in study phase
189001 AMARGOSA 138 189008 SANDY 138 1 1	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	115.1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	115.1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
189301 VEA_PST_2 138 18073 IS TAP 138 1 1	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	105.2	< 100	VEA UVLS
	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	105.6	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
System	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NotConv	
	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NotConv	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189016 INNOVATION 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189418 JOHNNIE 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189421 VISTA 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189000 PAHRUMP 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189430 WHEELER_PASS 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189043 GAMEBIRD 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189530 BJ_N 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189531 BJ_W 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189532 BJ_E 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189411 VALLEYTP 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	Adjust high voltage pre-contingency
189160 TROUT CANYON 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.06	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189405 LTHRPWLS 230 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.07	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189418 JOHNNIE 230 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.10	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189016 INNOVATION 230 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.10	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189411 VALLEYTP 230 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.10	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189405 LTHRPWLS 230 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.10	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189402 BEATTY 230 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.11	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189404 BONDGDTP 230 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.11	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189021 DESERT VIEW 230 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.11	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	Base Case	Base Case	Base Case	0.9 < V < 1.05	0.9 < V < 1.05	1.10	1.08	1.12	1.08	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_Line SLOAN_CYN_5 500.0 to ELDORDO 500.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_72_Gen_Q1654_BS1 CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_73_Gen_Q1654_PV2 CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_75_Gen_Q1800_PV G_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_76_Gen_Q1800_ES G_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_77_Gen_Q1800_PV G_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_78_Gen_Q1800_ES G_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_85_Gen_GMBD_PV_ 34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.11	1.14	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_86_Gen_INVTN_PV_ 34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_88_Gen_TROUT_PV _34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.10	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_89_Gen_BEATTY_B ESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_91_Gen_INVTN_BES S_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_79_Gen_ARES_T 1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_80_Gen_ARES_T 1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_83_Gen_LATHRP _WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_84_Gen_BEATTY _PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_87_Gen_LATHRP _PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.11	1.14	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_90_Gen_GMBD_B ESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_76_Gen_Q1800_ESG _1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_78_Gen_Q1800_ESG _2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_35_TROUTCA_SLOANCY_500_Ckt2+P1_76_Gen_Q1800_ESG _1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_35_TROUTCA_SLOANCY_500_Ckt2+P1_78_Gen_Q1800_ESG _2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_47_INNOVAT_DESERTV_230_Ckt2+P1_76_Gen_Q1800_ESG _1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_47_INNOVAT_DESERTV_230_Ckt2+P1_78_Gen_Q1800_ESG _2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_76_Gen_Q1800_ESG_1_0.6_Unit+P1_78_Gen_Q1800_ESG_2 _0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_76_Gen_Q1800_ESG_1_0.6_Unit+P1_89_Gen_BEATTY_BESS _34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_76_Gen_Q1800_ESG_1_0.6_Unit+P1_91_Gen_INVTN_BESS_ 34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_78_Gen_Q1800_ESG_2_0.6_Unit+P1_89_Gen_BEATTY_BESS _34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_78_Gen_Q1800_ESG_2_0.6_Unit+P1_91_Gen_INVTN_BESS_ 34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P4-2-37_SLOAN_CYN_5 to TROUT CANYON 500.0 #1 & SLOAN_CYN_5 500.0 to ELDORADO 500.0 #2; BKR SC882	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.10	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189171 TRCN_LUGO_2 500 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_16c_DU_VIST_LESL_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_16d_DU_CHAR_LESL_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_18_GAMEBIR_TROUTCA_230_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_19_JACKASS_MERCRYS_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_20_JACKASS_STOCKWA_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_21_STOCKWA_VALLEYN_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_22_TWEEZER_FRENCHF_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_23_VALLEYN_TWEEZER_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_24_FRENCHF_MERCDIS_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_25_MERCDIS_MERCRYS_138_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_26_Q1341HV_Q1341HV_230_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_27_TROUTCA_Q1341HV_230_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_28_MEADS_SLOANCA_230_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_29_VALLEYVE_T2_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_30_TROUTCA_Q1800HV_230_Ckt1+P1_32_SLOANCY_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	Close in Trout Canyon - Lugo Line Shunt Reactor pre-contingency
189171 TRCN_LUGO_2 500 kV	P1_31_GAMEBIRD_ARES_230_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO2_500_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.12	1.17	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_114_SIL_FLG_COLD CREK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_117_NWEST_IRONM TN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_118_NWEST_DARLI NG_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_122_MEAD_S_EQUE ST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_124_IRONMTN_NW EST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_33_HAESVCL_SLOA NCY_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_34_TROUTCA_SLOA NCY_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.10	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_35_TROUTCA_SLOA NCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.10	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_37_GAMEBIR_TROU TCA_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_38_WHEELER_GAM EBIR_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_39_WHEELER_GAM EBIR_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_40_PAHRUMP_WHE ELER_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_41_PAHRUMP_WHE ELER_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_42_WHEELER_JOH NNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_43_WHEELER_VIST A_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_45_INNOVAT_JOHN NIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_46_INNOVAT_JOHN NIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_47_INNOVAT_DESE RTV_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_48_NWEST_DESER TVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_49_BEATTY_BOND GDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_50_LTHRPWL_BON DGDT_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.15	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_51_LTHRPWL_VALL EYT_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_52_LTHRPWL_VALL EYT_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_53_JOHNNIE_VALLE YTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_54_JOHNNIE_VALLE YTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_56_Tra_PAH_230_13 8_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_57_Tra_PAH_230_13 8_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_58_Tra_INN_230_13 8_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_59_Tra_GAM_230_1 38_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_60_Tra_TRO_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_61_Tra_TRO_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_62_Tra_TRO_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_63_Tra_SLO_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.11	1.11	1.17	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_64_TranI_VEAPS_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_65_Tra_AMA_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_111_ELDORDO2_PRIMM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_123_H_Allen_Mead_500kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.13	1.13	1.18	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.12	1.11	1.16	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P1_DC_4_BJN_BJW_230_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	1.10	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189171 TRCN_LUGO_2 500 kV	P7-1-4_INNOVATION-DESERT VIEW 1 230 & INNOVATION-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189171 TRCN_LUGO_2 500 kV	P7-1-7_INNOVATION-JOHNNIE 1 230 & INNOVATION-JOHNNIE 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	1.13	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.83	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.83	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.82	0.75	0.75	0.85	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.82	0.75	0.75	0.85	0.74	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.81	0.79	0.88	0.79	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.88	0.83	0.81	0.89	0.81	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.85	0.83	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189068 T2 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.87	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.87	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189050 HAFEN 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189020 GAMEBIRD 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189008 SANDY 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.05	0.86	0.77	0.74	0.90	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.05	0.87	0.78	0.74	0.90	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.79	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189070 LESLIE 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.80	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189013 VISTA 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.82	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189013 VISTA 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_1_NWEST_DESERTVIEW_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.76	0.75	0.85	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.76	0.75	0.85	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.81	0.80	0.88	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.84	0.81	0.89	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.86	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.79	0.71	0.71	0.82	0.69	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.79	0.71	0.71	0.82	0.69	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.77	0.76	0.85	0.74	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.77	0.86	0.76	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.81	0.79	0.87	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.81	0.79	0.87	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.82	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.83	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189013 VISTA 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.79	0.71	0.71	0.82	0.69	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.79	0.71	0.71	0.82	0.69	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.77	0.75	0.85	0.74	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.77	0.86	0.76	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.81	0.79	0.87	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.82	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.83	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.80	0.73	0.73	0.88	0.70	0.9 < V < 1.05	0.9 < V < 1.05	0.72	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.80	0.73	0.73	0.88	0.70	0.9 < V < 1.05	0.9 < V < 1.05	0.72	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.83	0.9 < V < 1.05	0.81	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189106 MERC-DIST 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.83	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189105 FRENCH-FLAT 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189101 MERCRYSW 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189103 TWEEZER 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.75	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189102 STOCK-WASH 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.75	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.75	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.76	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.84	0.79	0.77	0.9 < V < 1.05	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.76	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.86	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189068 T2 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.86	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.85	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.81	0.79	0.9 < V < 1.05	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.85	0.82	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.83	0.81	0.9 < V < 1.05	0.79	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.76	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189106 MERC-DIST 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189105 FRENCH-FLAT 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189101 MERCRYSW 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189103 TWEEZER 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189102 STOCK-WASH 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189068 T2 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.77	0.74	0.90	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.78	0.74	0.90	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.79	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.80	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.82	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.77	0.89	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.76	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.76	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.81	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.84	0.76	0.75	0.89	0.74	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.84	0.76	0.76	0.89	0.74	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.82	0.80	0.9 < V < 1.05	0.79	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.84	0.82	0.9 < V < 1.05	0.81	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189068 T2 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.83	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_20_JACKASSF_STOCKWASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLEYNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.83	0.82	0.9 < V < 1.05	0.81	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCHFLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.83	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEEZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.83	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDIST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.76	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.76	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.83	0.81	0.9 < V < 1.05	0.81	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.83	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.87	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189106 MERC-DIST 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.85	0.79	0.76	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.76	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.81	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	Reinforcements into Charleston Park Area
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.9 < V < 1.05	0.90	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.77	0.75	0.89	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.77	0.76	0.89	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.83	0.80	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.85	0.77	0.75	0.89	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.85	0.78	0.76	0.89	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.83	0.80	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.76	0.75	0.88	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.76	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.76	0.75	0.88	0.74	0.9 < V < 1.05	0.9 < V < 1.05	0.76	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.81	0.80	0.9 < V < 1.05	0.79	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.81	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.85	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189068 T2 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189102 STOCK-WASH 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189103 TWEEZER 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189105 FRENCH-FLAT 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189106 MERC-DIST 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189101 MERCRYSW 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189017 INNOVATION 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.77	0.74	0.90	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.77	0.74	0.90	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.83	0.79	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.81	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.85	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.9 < V < 1.05	0.89	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.82	0.75	0.74	0.85	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.82	0.75	0.74	0.85	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.81	0.78	0.88	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.83	0.80	0.89	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.85	0.82	0.90	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.83	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.85	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.90	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_111_ELDORDO2_PRIM_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_112_ELDORDO2_IVANPAH_230_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_113_Tra_ELD_500_230_13_Ckt5_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_114_SIL_FLG_COLDCREEK_138_CK_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_115_SIL_FLG_CANYON_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_117_NWEST_IRONMTN_230_kV_Li_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_121_MEAD_N_ARDEN_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_122_MEAD_S_EQUEST_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_123_H_Allen_Mead_500 kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_124_IRONMTN_NWEST_230kV_CKT_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.86	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUTCAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_18_GAMEBIRD_TROUT CAN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189068 T2 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_20_JACKASSF_STOCK WASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_20_JACKASSF_STOCK WASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_20_JACKASSF_STOCK WASH_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLE YNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLE YNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_21_STOCKWAS_VALLE YNT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCH FLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCH FLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_22_TWEEZER_FRENCH FLAT_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEE ZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEE ZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_23_VALLEYNTS_TWEE ZER_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDI ST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDI ST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_24_FRENCHFL_MERCDI ST_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_25_MERCDIST_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.88	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_25_MERCDIST_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_25_MERCDIST_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_26_Q1341HV1_Q1341HV2_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_27_TROUTCAN_Q1341HV1_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_28_MEADS_SLOANCANYON_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_32_SLOANCYN5_ELDORDO_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_33_HAESVCL_SLOANCYN5_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_34_TROUTCAN_SLOANCYN_500_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_35_TROUTCAN_SLOANCYN_500_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.86	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_37_GAMEBIRD_TROUTCAN_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_38_WHEELERP_GAMEBIRD_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_39_WHEELERP_GAMEBIRD_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_40_PAHRUMP_WHEELERP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_41_PAHRUMP_WHEELERP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_42_WHEELERP_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_43_WHEELERPASS_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_45_INNOVATION_JOHNNIE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_46_INNOVATION_JOHNNIE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_47_INNOVATI_DESERTVI_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_48_NWEST_DESERTVIEW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_49_BEATTY_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_50_LTHRPWLS_BONDGDTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_51_LTHRPWLS_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_52_LTHRPWLS_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_53_JOHNNIE_VALLEYTP_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_54_JOHNNIE_VALLEYTP_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.88	0.88	0.86	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189004 BONDGDTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189068 T2 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189102 STOCK-WASH 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_60_Tran_TROU_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_61_Tran_TROU_500_230_24_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_62_Tran_TROU_500_230_24_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_63_Tran_SLOA_500_230_24_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_64_TranIN_VEAPST_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_1_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_2_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_DC_3_GAMEBIRD_BJN_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P7_DC_8_GAMEBIRD_BJN_230_Ckt3_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_120_NWEST_AVERA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_31_GAMEBIRD_ARES_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_36_VEAPST2_ISTAP_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_44_JOHNNIE_VISTA_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_4_BJN_BJW_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_5_BJN_BJW_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_6_BJN_BJE_230_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_DC_7_BJN_BJE_230_Ckt2_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.77	0.89	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.82	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.84	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_2_ELDORDO_SLOANCA_230_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.9 < V < 1.05	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189024 CHARLSTN 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_3_AMARGOSA_SANDY_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.78	0.90	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.86	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.89	0.89	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.78	0.90	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.86	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.90	0.89	0.89	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189020 GAMEBIRD 138 kV	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189007 PAHRUMP 138 kV	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189008 SANDY 138 kV	P1_56_Tra_PAH_230_138_0_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_57_Tra_PAH_230_138_0_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_57_Tra_PAH_230_138_0_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_57_Tra_PAH_230_138_0_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189020 GAMEBIRD 138 kV	P1_57_Tra_PAH_230_138_0_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_57_Tra_PAH_230_138_0_Ckt2+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.74	0.73	0.89	0.71	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.84	0.74	0.74	0.89	0.71	0.9 < V < 1.05	0.9 < V < 1.05	0.74	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.80	0.78	0.9 < V < 1.05	0.76	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.79	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.86	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.82	0.80	0.9 < V < 1.05	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189068 T2 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.83	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189068 T2 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189050 HAFEN 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.56	0.48	0.48	0.54	0.43	0.9 < V < 1.05	0.9 < V < 1.05	0.44	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.56	0.48	0.48	0.54	0.43	0.9 < V < 1.05	0.9 < V < 1.05	0.44	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.60	0.52	0.50	0.57	0.46	0.9 < V < 1.05	0.9 < V < 1.05	0.47	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.61	0.53	0.52	0.58	0.48	0.9 < V < 1.05	0.9 < V < 1.05	0.48	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.62	0.55	0.53	0.59	0.49	0.9 < V < 1.05	0.9 < V < 1.05	0.49	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.66	0.59	0.56	0.62	0.53	0.9 < V < 1.05	0.9 < V < 1.05	0.52	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.79	0.74	0.71	0.78	0.69	0.9 < V < 1.05	0.9 < V < 1.05	0.63	0.9 < V < 1.05	
189068 T2 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.79	0.74	0.71	0.78	0.69	0.9 < V < 1.05	0.9 < V < 1.05	0.63	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.78	0.72	0.69	0.76	0.67	0.9 < V < 1.05	0.9 < V < 1.05	0.63	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.80	0.75	0.72	0.79	0.70	0.9 < V < 1.05	0.9 < V < 1.05	0.67	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.80	0.75	0.72	0.79	0.71	0.9 < V < 1.05	0.9 < V < 1.05	0.67	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.82	0.76	0.73	0.80	0.72	0.9 < V < 1.05	0.9 < V < 1.05	0.69	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.87	0.83	0.79	0.86	0.79	0.9 < V < 1.05	0.9 < V < 1.05	0.77	0.9 < V < 1.05	
189102 STOCK-WASH 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.83	0.89	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189103 TWEEZER 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189105 FRENCH-FLAT 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189106 MERC-DIST 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189101 MERCRYSW 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.61	0.58	0.54	0.65	0.53	0.9 < V < 1.05	0.9 < V < 1.05	0.49	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.64	0.61	0.56	0.67	0.56	0.9 < V < 1.05	0.9 < V < 1.05	0.51	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.66	0.62	0.57	0.68	0.57	0.9 < V < 1.05	0.9 < V < 1.05	0.52	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.67	0.63	0.58	0.68	0.58	0.9 < V < 1.05	0.9 < V < 1.05	0.53	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.70	0.66	0.60	0.71	0.61	0.9 < V < 1.05	0.9 < V < 1.05	0.56	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.80	0.73	0.85	0.74	0.9 < V < 1.05	0.9 < V < 1.05	0.66	0.9 < V < 1.05	
189068 T2 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.80	0.73	0.85	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.66	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.81	0.78	0.72	0.83	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.66	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.80	0.73	0.85	0.75	0.9 < V < 1.05	0.9 < V < 1.05	0.69	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.83	0.80	0.74	0.85	0.76	0.9 < V < 1.05	0.9 < V < 1.05	0.69	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189005 LTHRPWLS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.84	0.82	0.75	0.86	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.71	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.87	0.80	0.9 < V < 1.05	0.83	0.9 < V < 1.05	0.9 < V < 1.05	0.78	0.9 < V < 1.05	
189102 STOCK-WASH 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189103 TWEEZER 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189105 FRENCH-FLAT 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.78	0.77	0.89	0.77	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.86	0.79	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.80	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.86	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.88	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189050 HAFEN 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.76	0.75	0.90	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.76	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.85	0.76	0.75	0.90	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.76	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.82	0.80	0.9 < V < 1.05	0.78	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.82	0.9 < V < 1.05	0.80	0.9 < V < 1.05	0.9 < V < 1.05	0.83	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.83	0.9 < V < 1.05	0.82	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.85	0.9 < V < 1.05	0.84	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189068 T2 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.89	0.88	0.87	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.81	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189070 LESLIE 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189010 VALLEYVE 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189068 T2 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189070 LESLIE 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189013 VISTA 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189022 THSNDAIR 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189050 HAFEN 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189002 BEATTY 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189020 GAMEBIRD 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189007 PAHRUMP 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189068 T2 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189008 SANDY 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189405 LTHRPWLS 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189411 VALLEYTP 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189418 JOHNNIE 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.66	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.88	
189022 THSNDAIR 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.66	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	
189020 GAMEBIRD 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.67	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.88	
189008 SANDY 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.73	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189024 CHARLSTN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.66	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.88	
189022 THSNDAIR 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.66	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.89	0.9 < V < 1.05	0.88	0.88	
189020 GAMEBIRD 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.67	0.9 < V < 1.05	0.88	0.84	0.9 < V < 1.05	0.87	0.89	0.9 < V < 1.05	0.88	0.88	
189008 SANDY 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.73	0.9 < V < 1.05	0.90	0.87	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	Reinforcements into Charleston Park Area / VEA UVLS (2028)

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189013 VISTA 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	~~Reinforcements into Charleston Park Area (2028)~~
189002 BEATTY 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189068 T2 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189530 BJ_N 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189531 BJ_W 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189532 BJ_E 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189043 GAMEBIRD 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.88	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189390 ARES 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189000 PAHRUMP 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189430 WHEELER_PASS 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.82	0.9 < V < 1.05	
189421 VISTA 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189402 BEATTY 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189404 BONDGDTP 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.84	0.9 < V < 1.05	
189405 LTHRPWLS 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189411 VALLEYTP 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.85	0.9 < V < 1.05	
189418 JOHNNIE 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189016 INNOVATION 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189998 Q1649-GSU 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189530 BJ_N 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	Shed data center load
189531 BJ_W 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189532 BJ_E 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189043 GAMEBIRD 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189390 ARES 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189000 PAHRUMP 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189160 TROUT CANYON 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189958 Q1654_HV 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189114 Q1341_HV1 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189430 WHEELER_PASS 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189115 Q1341_HV2 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189923 Q1800_HV 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189402 BEATTY 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189404 BONDGDTP 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189161 TROUT CANYON 500 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189421 VISTA 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189068 T2 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.87	0.9 < V < 1.05	
189102 STOCK-WASH 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189103 TWEEZER 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189105 FRENCH-FLAT 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189106 MERC-DIST 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189101 MERCRYSW 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189017 INNOVATION 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189301 VEA_PST_2 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_58_Tra_INN_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.86	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189068 T2 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	VEA UVLS
189018 JOHNNIE 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189102 STOCK-WASH 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189104 VALLEY-NTS 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189103 TWEEZER 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189105 FRENCH-FLAT 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189106 MERC-DIST 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	
189101 MERCRYSW 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189301 VEA_PST_2 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189017 INNOVATION 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	
189013 VISTA 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189018 JOHNNIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189004 BONDGDTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189011 VALLEYTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189010 VALLEYVE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189068 T2 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189005 LTHRPWLS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	
189002 BEATTY 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.88	0.89	0.89	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.88	0.9 < V < 1.05	
189100 JACKASSF 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.9 < V < 1.05	0.90	0.9 < V < 1.05	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189011 VALLEYTP 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	9.19	12.85	14.48	< 8	14.13	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	15.87	22.91	24.04	12.64	23.93	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	11.98	17.16	18.62	9.52	18.37	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	16.36	23.57	24.72	13.07	24.62	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	10.48	14.85	16.41	8.33	16.11	< 8	< 8	14.19	< 8	
189013 VISTA 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	12.59	13.14	13.42	8.13	13.73	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	9.49	9.73	10.08	< 8	10.39	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	8.32	8.43	8.81	< 8	9.13	< 8	< 8	11.06	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	8.37	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	9.21	12.90	14.51	< 8	14.17	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	11.11	12.93	< 8	12.32	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	15.90	22.97	24.07	12.57	23.98	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	12.00	17.22	18.65	9.45	18.42	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	16.39	23.64	24.75	13.00	24.67	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	10.50	14.90	16.44	8.27	16.16	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	9.22	12.85	14.48	< 8	14.13	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	15.91	22.91	24.04	12.67	23.93	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	12.01	17.16	18.62	9.55	18.37	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	16.39	23.57	24.72	13.10	24.62	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	10.51	14.85	16.41	8.36	16.11	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.58	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	9.36	13.31	14.83	< 8	14.58	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	11.46	13.22	< 8	12.68	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	16.09	23.50	24.36	12.97	24.48	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	12.17	17.68	18.95	9.83	18.87	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	16.58	24.17	25.04	13.40	25.16	< 8	< 8	21.95	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	10.66	15.34	16.75	8.64	16.58	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.58	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 8	9.36	13.31	14.83	< 8	14.58	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	11.46	13.22	< 8	12.68	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 8	16.09	23.50	24.36	12.97	24.48	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 8	12.17	17.68	18.95	9.83	18.87	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 8	16.58	24.17	25.04	13.40	25.16	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1B_24.9_Uni_	P3	N-1 / G-1	< 8	10.66	15.34	16.75	8.64	16.58	< 8	< 8	14.19	< 8	
189002 BEATTY 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	9.33	13.27	< 8	10.36	< 8	< 8	< 8	< 8	
189004 BONDGDTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	9.31	13.21	< 8	10.33	< 8	< 8	< 8	< 8	
189005 LTHRPWLS 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	9.18	12.94	< 8	10.17	< 8	< 8	< 8	< 8	
189010 VALLEYVE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	9.39	11.80	15.49	9.36	12.93	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	8.94	11.29	14.87	8.81	12.44	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	12.15	15.65	17.31	11.28	17.24	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	11.23	14.41	16.57	10.36	15.95	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	19.33	26.09	26.10	16.95	27.77	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	15.17	20.14	21.11	13.63	21.84	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	19.82	26.76	26.75	17.39	28.46	< 8	< 8	21.95	< 8	
189068 T2 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	9.43	11.84	15.55	9.41	12.97	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	13.55	17.74	19.09	12.36	19.40	< 8	< 8	14.19	< 8	
189100 JACKASSF 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	10.29	< 8	< 8	< 8	< 8	< 8	< 8	
189102 STOCK-WASH 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	8.66	< 8	< 8	< 8	< 8	< 8	< 8	
189104 VALLEY-NTS 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	8.09	< 8	< 8	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.31	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 8	9.22	12.82	14.45	< 8	14.10	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	11.03	12.87	< 8	12.26	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 8	15.91	22.88	24.02	12.61	23.90	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 8	12.01	17.13	18.59	9.49	18.34	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 8	16.40	23.54	24.70	13.04	24.58	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL_34.5_Uni_	P3	N-1 / G-1	< 8	10.51	14.82	16.38	8.31	16.08	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 8	9.19	12.85	14.48	< 8	14.13	< 8	< 8	12.46	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 8	15.87	22.91	24.04	12.65	23.93	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 8	11.98	17.16	18.62	9.53	18.37	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 8	16.36	23.57	24.72	13.08	24.62	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL_34.5_Uni_	P3	N-1 / G-1	< 8	10.48	14.85	16.41	8.34	16.11	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.28	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	9.11	12.80	14.42	< 8	< 8	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	11.01	12.84	< 8	12.23	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	15.80	22.86	23.99	12.57	< 8	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	11.90	17.11	18.56	9.46	< 8	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	16.29	23.52	24.67	13.01	24.54	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	10.40	14.80	16.35	8.28	< 8	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.32	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	9.00	12.75	14.46	< 8	14.39	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	10.97	12.88	< 8	12.51	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	15.68	22.79	24.03	12.62	24.25	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	11.79	17.05	18.60	9.50	18.66	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	16.16	23.46	24.71	13.05	24.94	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	10.29	14.74	16.39	8.32	16.39	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.31	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	9.19	12.85	14.49	< 8	14.13	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	15.87	22.91	24.06	12.69	23.93	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	11.98	17.16	18.63	9.57	18.37	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	16.36	23.57	24.74	13.12	24.62	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	10.48	14.85	16.42	8.39	16.11	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.32	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	9.00	12.75	14.46	< 8	14.39	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	10.97	12.88	< 8	12.51	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	15.68	22.79	24.03	12.62	24.25	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	11.79	17.05	18.60	9.50	18.66	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	16.16	23.46	24.71	13.05	24.94	< 8	< 8	21.95	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	10.29	14.74	16.39	8.32	16.39	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.31	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	9.19	12.85	14.49	< 8	14.13	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	15.87	22.91	24.06	12.69	23.93	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	11.98	17.16	18.63	9.57	18.37	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	16.36	23.57	24.74	13.12	24.62	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	10.48	14.85	16.42	8.38	16.11	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	9.19	12.85	14.48	< 8	14.13	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	15.87	22.91	24.04	12.64	23.93	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	11.98	17.16	18.62	9.52	18.37	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	16.36	23.57	24.72	13.07	24.62	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	10.48	14.85	16.41	8.33	16.11	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	9.19	12.85	14.48	< 8	14.13	< 8	< 8	12.46	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	11.22	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	15.87	22.91	24.04	12.64	23.93	< 8	< 8	21.35	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	11.98	17.16	18.62	9.52	18.37	< 8	< 8	16.20	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	16.36	23.57	24.72	13.07	24.62	< 8	< 8	21.95	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	10.48	14.85	16.41	8.33	16.11	< 8	< 8	14.19	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.31	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	12.85	14.46	< 8	14.15	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	11.05	12.87	< 8	12.29	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	22.91	24.03	12.49	23.96	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	17.16	18.60	9.38	18.39	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	23.58	24.71	12.92	24.64	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	14.85	16.39	8.20	16.13	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.24	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	12.75	14.39	< 8	14.19	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	10.97	12.80	< 8	12.33	< 8	< 8	< 8	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	22.76	23.96	12.42	24.01	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	17.04	18.53	9.31	18.44	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	23.42	24.64	12.85	24.69	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	14.74	16.32	8.13	16.18	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	8.49	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	12.70	14.58	< 8	14.33	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	10.96	13.03	< 8	12.48	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	22.68	24.14	12.26	24.17	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	16.97	18.72	9.16	18.59	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	23.35	24.82	12.69	24.86	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	14.68	16.51	< 8	16.32	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	< 8	8.41	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	12.97	14.57	< 8	14.26	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	11.13	12.97	< 8	12.38	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	23.07	24.13	12.65	24.09	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	17.30	18.70	9.53	18.51	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	23.73	24.80	13.08	24.77	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	14.98	16.50	8.34	16.25	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.23	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	13.05	14.38	< 8	14.21	< 8	< 8	< 8	< 8	Reinforcements into Charleston Park Area
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	11.22	12.78	< 8	12.35	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	23.09	23.95	12.56	24.03	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	17.35	< 8	9.44	18.46	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	23.76	24.63	12.99	24.71	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	15.05	< 8	8.26	16.20	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	< 8	8.48	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	12.66	14.58	< 8	13.98	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	10.92	13.02	< 8	12.18	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	< 8	24.14	12.59	< 8	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	< 8	18.72	9.47	< 8	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	23.30	24.82	13.02	24.44	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	< 8	16.51	8.29	< 8	< 8	< 8	< 8	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	12.85	14.48	< 8	14.13	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	22.91	24.04	12.56	23.93	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	17.16	18.62	9.44	18.37	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	23.57	24.72	12.99	24.62	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	14.85	16.41	8.26	16.11	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	12.85	14.48	< 8	14.13	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	22.91	24.04	12.58	23.93	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	17.16	18.62	9.46	18.37	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	23.57	24.72	13.01	24.62	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	14.85	16.41	8.28	16.11	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	8.33	< 8	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	12.85	14.48	< 8	14.13	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	11.05	12.89	< 8	12.28	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	22.91	24.04	12.53	23.93	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	17.16	18.62	9.42	18.37	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	23.57	24.72	12.96	24.62	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	14.85	16.41	8.23	16.11	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.08	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	12.49	13.15	13.45	8.07	13.76	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	9.39	9.73	10.11	< 8	10.42	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_66_Gen_Q1341_PV_0.7_Unit_ID_	P3	N-1 / G-1	< 8	8.22	8.44	8.84	< 8	9.16	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	12.54	13.14	13.42	8.16	13.73	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	9.44	9.73	10.08	< 8	10.39	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_67_Gen_Q1341_ES_0.7_Unit_ID_	P3	N-1 / G-1	< 8	8.27	8.43	8.81	< 8	9.13	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1A_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.08	< 8	8.32	< 8	< 8	9.75	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1 A_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1 A_24.9_Uni_	P3	N-1 / G-1	< 8	12.82	13.47	13.80	8.39	14.03	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1 A_24.9_Uni_	P3	N-1 / G-1	< 8	9.71	10.04	10.45	< 8	10.68	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_68_Gen_CMTY_SOL_1 A_24.9_Uni_	P3	N-1 / G-1	< 8	8.54	8.73	9.17	< 8	9.41	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1 B_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	8.08	< 8	8.32	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1 B_24.9_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1 B_24.9_Uni_	P3	N-1 / G-1	< 8	12.82	13.47	13.80	8.39	14.03	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1 B_24.9_Uni_	P3	N-1 / G-1	< 8	9.71	10.04	10.45	< 8	10.68	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_69_Gen_CMTY_SOL_1 B_24.9_Uni_	P3	N-1 / G-1	< 8	8.54	8.73	9.17	< 8	9.41	< 8	< 8	11.06	< 8	
189002 BEATTY 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	9.93	< 8	< 8	< 8	< 8	< 8	< 8	
189004 BONDGDTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	9.90	< 8	< 8	< 8	< 8	< 8	< 8	
189005 LTHRPWLS 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	9.74	< 8	< 8	< 8	< 8	< 8	< 8	
189010 VALLEYVE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	11.77	< 8	8.75	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	11.17	< 8	8.27	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	9.69	9.62	12.29	< 8	10.51	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	9.02	8.92	11.91	< 8	9.87	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	15.24	< 8	< 8	11.50	< 8	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	11.98	< 8	< 8	9.28	< 8	< 8	< 8	12.60	< 8	
189068 T2 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	11.82	< 8	8.80	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_ 34.5_Un_	P3	N-1 / G-1	< 8	10.75	< 8	< 8	8.46	< 8	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL _34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.03	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL _34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL _34.5_Uni_	P3	N-1 / G-1	< 8	12.56	13.12	13.38	8.10	13.71	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL _34.5_Uni_	P3	N-1 / G-1	< 8	9.46	9.71	10.05	< 8	10.37	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_71_Gen_Q1654_PV1CL _34.5_Uni_	P3	N-1 / G-1	< 8	8.29	8.42	8.78	< 8	9.11	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL _34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL _34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL _34.5_Uni_	P3	N-1 / G-1	< 8	12.59	13.14	13.42	8.14	13.73	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL _34.5_Uni_	P3	N-1 / G-1	< 8	9.49	9.73	10.08	< 8	10.39	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_72_Gen_Q1654_BS1CL _34.5_Uni_	P3	N-1 / G-1	< 8	8.32	8.43	8.81	< 8	9.13	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL _34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL _34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	12.43	13.09	13.34	8.07	13.67	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	9.33	9.68	10.00	< 8	10.33	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_73_Gen_Q1654_PV2CL_34.5_Uni_	P3	N-1 / G-1	< 8	8.17	8.39	8.73	< 8	9.07	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	12.55	13.05	13.39	8.12	13.64	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	9.45	9.64	10.06	< 8	10.30	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	N-1 / G-1	< 8	8.28	8.35	8.78	< 8	9.04	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	12.59	13.14	13.44	8.18	13.73	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	9.49	9.73	10.11	< 8	10.39	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	N-1 / G-1	< 8	8.32	8.43	8.83	< 8	9.13	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	12.55	13.05	13.39	8.12	13.64	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	9.45	9.64	10.06	< 8	10.30	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	N-1 / G-1	< 8	8.28	8.35	8.78	< 8	9.04	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	12.59	13.14	13.44	8.17	13.73	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	9.49	9.73	10.11	< 8	10.39	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	N-1 / G-1	< 8	8.32	8.43	8.83	< 8	9.13	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	12.59	13.14	13.42	8.13	13.73	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	9.49	9.73	10.08	< 8	10.39	< 8	< 8	12.60	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_79_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	8.32	8.43	8.81	< 8	9.13	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	9.75	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	8.76	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	12.59	13.14	13.42	8.13	13.73	< 8	< 8	16.68	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	9.49	9.73	10.08	< 8	10.39	< 8	< 8	12.60	< 8	

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Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_80_Gen_ARES_T1_2.2_Unit_ID_	P3	N-1 / G-1	< 8	8.32	8.43	8.81	< 8	9.13	< 8	< 8	11.06	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	13.13	13.38	< 8	13.74	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	9.72	10.05	< 8	10.40	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_83_Gen_LATHRP_WD_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	8.43	8.77	< 8	9.13	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.01	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	13.36	13.31	< 8	13.69	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	9.93	9.97	< 8	10.35	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	8.63	8.70	< 8	9.09	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.07	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	13.30	13.50	< 8	13.76	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	9.88	10.16	< 8	10.42	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	N-1 / G-1	< 8	< 8	8.58	8.89	< 8	9.15	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	13.26	13.51	8.14	13.73	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	9.84	10.17	< 8	10.39	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_86_Gen_INVTN_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	8.54	8.89	< 8	9.13	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.02	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	13.36	13.28	8.08	13.70	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	9.93	9.95	< 8	10.36	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	8.63	8.68	< 8	9.10	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.14	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	13.25	13.50	< 8	13.83	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	9.83	10.16	< 8	10.49	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	N-1 / G-1	< 8	< 8	8.54	8.88	< 8	9.22	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	13.14	13.42	8.05	13.73	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	9.73	10.08	< 8	10.39	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_89_Gen_BEATTY_BESS_34.5_Uni_	P3	N-1 / G-1	< 8	< 8	8.43	8.81	< 8	9.13	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	13.14	13.42	8.07	13.73	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	9.73	10.08	< 8	10.39	< 8	< 8	< 8	< 8	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity)		Project & Potential Mitigation Solutions
				B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_90_Gen_GMBD_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	8.43	8.81	< 8	9.13	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	< 8	< 8	< 8	8.05	< 8	< 8	< 8	< 8	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	13.14	13.42	8.03	13.73	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	9.73	10.08	< 8	10.39	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_91_Gen_INVTN_BESS_34.5_Unit_	P3	N-1 / G-1	< 8	< 8	8.43	8.81	< 8	9.13	< 8	< 8	< 8	< 8	
189010 VALLEYVE 138 kV	P1_59_Tra_GAM_230_138_0_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	8.48	< 8	< 8	< 8	< 8	< 8	< 8	
189068 T2 138 kV	P1_59_Tra_GAM_230_138_0_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	N-1 / G-1	< 8	< 8	< 8	8.53	< 8	< 8	< 8	< 8	< 8	< 8	

Contingency	Category	Category Description	Transient Stability Performance						
			Baseline Scenarios				Sensitivity Scenarios		
			B2_2031-SmrPk	B3_2036-SmrPk	B5_2036-SmrOP	B7_2028-SprOP	S1_2031-SP	S3_2028-SprOP	Potential Mitigation Solutions
01-P1.2 Outage-Amargosa-Sandy 138kV Fault-Armargosa Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
02-P1.2 Outage-Pahrump-Vista 138kV Fault-Pahrump Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
03-P1.2 Outage-Pahrump-Gamebird 138kV Fault-Pahrump Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
04-P1.2 Outage-Vista-Valley Switch-Johnnie 138kV Fault-Vista Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
05-P1.2 Outage-WHEELER_PASS-Vista 230kV line Fault-Pahrump 1 230kV bus 3pb	P1	N-1	No Issues	Diverge	Diverge	No Issues	Diverge	No Issues	Further investigation needed
06-P1.2 Outage-Johnnie-Vista 230kV line Fault-Vista 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
07-P1.2 Outage-CMTY_SOL_SW-VI-MBUS 24.94kV Fault-CMTY_SOL_SW Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
08-P1.2 Outage-Beatty isolated 138kV Fault-Beatty Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
09-P1.2 Outage-Lathrop Wells isolated 138kV Fault-Lathrop Wells Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
11-P1.2 Outage-Lathrop Wells-Jackass Flats 138kV Fault-Lathrop Wells -Jackass Flats bus 3	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
12-P1.2 Outage-Sandy isolated 138kV Fault-Sandy Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
13-P1.2 Outage-Valley Sub isolated 138kV Fault-Valley Sub Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
15-P1.2 Outage-Valley Sub - Valley Switch 138kV Fault-Valley Sub 138kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
16-P1.2 Outage-Valley Switch 138kV isolated Fault-Valley Switch Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
17-P1.3 Outage-Gamebird 230-138kV trf Fault-Gamebird Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
18-P1.2 Outage-Gamebird-Sandy 138kV Fault-Gamebird Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
19-P1.2 Outage-Gamebird-Thousandaire 138kV Fault-Gamebird bus 3pb	P1	N-1	N/A	N/A	N/A	No Issues	N/A	No Issues	
19a-P1.2 Outage-Gamebird-HAFEN 138kV Fault-Gamebird bus 3pb	P1	N-1	No Issues	No Issues	No Issues	N/A	No Issues	N/A	
19b-P1.2 Outage-Thousandaire-HAFEN 138kV Fault-Gamebird bus 3pb	P1	N-1	No Issues	No Issues	No Issues	N/A	No Issues	N/A	
20-P1.2 Outage-Thousandaire 138kV isolated Fault-Thousandaire Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
21-P1.2 Outage-Charleston Park-Thousandaire 138kV Fault-Thousandaire bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
22-P1.2 Outage-Charleston Park- 138kV isolated Fault-Charleston Park Bus 3pb	P1	N-1	N/A	N/A	N/A	No Issues	N/A	No Issues	
22a-P1.2 Outage-Charleston Park-LESLIE 138kV Fault-Charleston Park Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	N/A	No Issues	N/A	
22b-P1.2 Outage-VISTA-LESLIE 138kV Fault-Charleston Park Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	N/A	No Issues	N/A	
23-P1.2 Outage-Lathrop Wells-Bondgap 230kV line Fault-Lathrop Wells bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
24-P1.2 Outage-Lathrop Wells-Valley Switch 230kV line Fault-athrop Wells bus 230kV bus 3p	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
25-P1.2 Outage-Johnnie-Valley Switch 230kV line Fault-Johnnie 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
26-P1.2 Outage-Johnnie-Innovation 230kV line Fault-Johnnie 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
27-P1.2 Outage-Desert View-Northwest 230kV line Fault-Desert View 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
28-P1.2 Outage-Desert View-Innovation 230kV line Fault-Desert View 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
29-P1.3 Outage-Innovation 230-138kV trf Fault-Innovation 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
30-P1.2 Outage-VEA_PST_2-IS Tap line Fault-VEA_PST_2 bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
31-P1.2 Outage-Innovation-Mercury Switch 138kV line Fault-Innovation 138kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
32-P1.2 Outage-Johnnie-WHEELER_PASS 230kV line Fault JOHNNIE 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
33-P1.2 Outage-Gamebird-WHEELER_PASS 230kV line Fault-Gamebird 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
34-P1.3 Outage-Pahrump 230-138kV trf #1 Fault-Pahrump 230kV Bus 3pb	P1	N-1	Diverge	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
35-P1.3 Outage-Pahrump 138-230kV Tran Bnk. 2 Fault-Pahrump 230kV bus 3pb	P1	N-1	Diverge	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
36-P1.2 Outage-Pahrump-WHEELER_PASS 230kV line Fault-Pahrump 230kV bus 3pb	P1	N-1	Diverge	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
37-P1.2 Outage-Gamebird-Trout Canyon 230kV line Fault-Gamebird 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
38-P1.2 Outage-Trout Canyon-Sloan Canyon5 500kV line Fault Trout Canyon 500kV bus 3pb	P1	N-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
39-P1.3 Outage-Trout Canyon 500-230kV trf #2 Fault-Trout Canyon 500kV bus 3pb	P1	N-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
40-P1.1 Outage-Yellow Pine 2-Trout Canyon 230kV line Fault-Yellow Pine 2-Trout Canyon 23	P1	N-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
41-P1.2 Outage-Sloan Canyon-Eldorado 230kV line Fault-Sloan Canyon 230kV Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
42-P1.2 Outage-Sloan Canyon-Mead 230kV line Fault-Sloan Canyon 230kV Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
43-P1.3 Outage-Trout Canyon 500-230kV trf #1 Fault-HAE SVC 500kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	Diverge	Diverge	No Issues	Further investigation needed
44-P1.2 Outage-Sloan Canyon-Eldorado 500kV line Fault-HAE SVC 500kV bus 3pb	P1	N-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
46-P1.2 Outage-SLOAN_CYN_5 500/230kV Fault-SLOAN_CYN_5 500kV bus 3pb	P1	N-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
47-P1.2 Outage-Sloan Canyon-Harry Allen 500kV line Fault-SLOAN_CYN_5 500kV bus 3pb	P1	N-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	Further investigation needed
47-P4.1 Outage-CMTY_SOL_SOL_1A&1B Gen Fault- 24.94kV Bus slg	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
48-P4.1 Outage-Yellow Pine 2 PV&ES Gen Fault-TROUT CANYON Bus slg	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
49-P1.1 Outage-Sunshine Valley PV Gen Fault-VALLEYVE Bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
50-P1.1 Outage-Purple Sage 1 PV1&ES1 Gen Fault-TROUT CANYON Bus slg	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
51-P4.1 Outage-Purple Sage 2 PV2&ES2 Gen Fault-TROUT CANYON Bus slg	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
52-P4.1 Outage-Yellow Pine 3 PV1&ES1 Gen Fault-TROUT CANYON Bus slg	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
54-P4.1 Outage-ARES PV&ES Gen Fault-SLOAN CANYON Bus slg	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
56-P1.1 Outage-Lathrop Wells Wind RPS gen Fault-Lathrop WElls 230kV Bus 3pb	P1	N-1	N/A	No Issues	No Issues	N/A	N/A	N/A	
57-P4.1 Outage-Beatty PV RPS gen and Beatty-Bondgap 230kV line Fault-Beatty 230kV Bus	P4	Stuck breaker	N/A	No Issues	No Issues	N/A	N/A	N/A	
58-P4.1 Outage-GAMEBIRD PV RPS gen Fault-GAMEBIRD 230kV Bus slg	P4	Stuck breaker	N/A	No Issues	No Issues	N/A	N/A	N/A	
59-P4.1 Outage-Innovation PV-BESS RPS gen Fault-Innovation 230kV Bus slg	P4	Stuck breaker	N/A	No Issues	No Issues	N/A	N/A	N/A	
60-P1.1 Outage-Lathrop Wells Wind RPS gen Fault-Lathrop WElls 230kV Bus 3pb	P1	N-1	N/A	No Issues	No Issues	N/A	N/A	N/A	
61-P1.1 Outage-Trout PV1-BESS#1#2 RPS gen Fault-Trout Canyon 230kV Bus slg	P1	N-1	N/A	No Issues	No Issues	N/A	N/A	N/A	
62-P4.2 Outage-Innocation-Desert View and Desert View-Northwest 230kV lines Fault-Desert	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	

Contingency	Category	Category Description	Transient Stability Performance						Potential Mitigation Solutions
			Baseline Scenarios				Sensitivity Scenarios		
			B2_2031-SmrPk	B3_2036-SmrPk	B5_2036-SmrOP	B7_2028-SprOP	S1_2031-SP	S3_2028-SprOP	
63-P4.2 Outage-Innovation-Desert View #2 and Desert View-Northwest 230kV #1 lines Fault-	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
64-P4.2 Outage-Innovation-Desert View #2 and Desert View-Northwest 230kV #2 lines Fault-	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
65-P4.2 Outage-Innovation-Desert View #1 and Desert View-Northwest 230kV #2 lines Fault-	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
66-P4.2 Outage-Innovation-Desert View #2 line and Innovation 230-138kV trf Fault-Innovatior	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
67-P4.2 Outage-Innovation-Desert View #2 and Innovation-Johnnie 230kV lines Fault-Innovat	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
68-P4.5 Outage-Innovation 138kV bus isolated Fault-Innovation 230kV Bus slg	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
69-P4.2 Outage-Innovation-Mercury Switch 138kV line and Innovation 230-138kV trf Fault-Inn	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
70-P4.2 Outage-JOHNNIE-VISTA #1 & JOHNNIE- VALLEYTP 2 230kV; Fault-Johnnie 230kV	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
71-P4.2 Outage-Johnnie-Valley Switch #1 and Johnnie-Innovation 230kV #2 lines Fault-Johnn	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
72-P4.2 Outage-Johnnie-WHEELER_PASS and Johnnie-Innovation 230kV lines Fault-Johnni	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
73-P4.2 Outage-Pahrump 230-138kV trf #2 and Pahrump-Vista 138kV line Fault-Pahrump 13	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
74-P4.2 Outage-Pahrump-Vista and Gambird-Pahrump 138kV lines Fault-Pahrump 138kV bu	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
75-P4.2 Outage-Pahrump 230-138kV trf #1 and Pahrump-Gamebird 138kV line Fault-Pahrum	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
76-P4.2 PAHRUMP-MBUS & PAHRUMP 138/230kV Tran Bnk. 2; BKR PA242	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
77-P4.2 PAHRUMP-MBUS & PAHRUMP 138/230kV Tran Bnk. 1; BKR PA242	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
78-P4.2 Outage-Pahrump 230-138kV trf 1 and Pahrump-Wheeler_Pass #2 230kV line Fault-P	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
79-P4.2 Outage-Pahrump 230-138kV trf #2 and Pahrump-Wheeler_Pass 230kV line Fault-Pal	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
80-P4.2 Outage-Pahrump 230-138kV trf 2 and Pahrump-Wheeler_Pass #2 230kV line Fault-P	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
81-P4.2 Outage-Pahrump 230-138kV trf #1 and Pahrump-Wheeler_Pass 230kV line Fault-Pal	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
82-P4.2 Outage-WHEELER_PASS-JOHNNIE #1 & WHEELER_PASS-GAMEBIRD #1 230kV	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
83-P4.2 Outage-WHEELER_PASS-VISTA #1 & WHEELER_PASS-PAHRUMP #2 230kV Fau	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
84-P4.2 Outage-WHEELER_PASS-PAHRUMP #1 & WHEELER_PASS-GAMEBIRD #2 230k	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
85-P4.2 Outage-Gamebird 230-138kV trf and WHEELER_PASS-GAMEBIRD #1 230kV line	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
86-P4.2 Outage-Gamebird 230-138kV trf and ARES-GAMEBIRD #1 230kV line Fault-Game	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
87-P4.2 Outage-Gamebird 230-138kV trf and Gamebird-Pahrump 138kV line Fault-Gamebird	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
88-P4.2 Outage-Gamebird-Pahrump and Gamebird-Thousandair 138kV lines Fault-Gamebird	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
89-P4.2 Outage-Gamebird-Sandy 138kV line and Gamebird-Thousandair 138kV lines Fault-G	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
90-P4.2 Outage-Gamebird 230-138kV trf and Gamebird-Sandy 138kV line Fault-Gamebird 13	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
91-P4.2 Outage-Gamebird-Trout Canyon #1 and Yellow Pine 3 -Trout Canyon 230kV lines Fa	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
92-P4.2 Outage-Gamebird-Trout Canyon #2 and Yellow Pine 2 -Trout Canyon 230kV lines Fa	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
93-P4.2 Outage-Trout Canyon 500-230kV trf #3 and Trout Canyon-Sloan Canyon5 500kV lin	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
94-P4.2 Outage-Trout Canyon 500-230kV trf #2 and Trout Canyon-Sloan Canyon5 500kV lin	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
95-P5.2 Outage-Sandy-Gamebird 138kV line Fault-Sandy-Gamebird 138kV line slg	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
96-P4.2 Outage-Sloan Canyon5 500-230kV trf and HAE SVCL-Sloan Canyon5 500kV line F	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
97-P4.2 Outage-Sloan Canyon-Trout Canyon #1 and Sloan Canyon-Eldorado 500kV lines Fa	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
98-P4.2 Outage-LTHRPWLS-Valley Switch #2 and BONDGDTP-Lathrop Wells 230kV #1 line	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
99-P4.2 Outage-Johnnie-Valley Switch #2 and Johnnie-Lathrop Wells 230kV #2 lines Fault-V	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
100-P4.2 Outage-Johnnie-Valley Switch #1 and Johnnie-Vista 230kV #1 lines Fault-Valley Sw	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
101-P5.2 Outage-Sandy-Amargosa 138kV line Fault-Sandy-Amargosa 138kV line slg	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
102-P5.2 Outage-Johnnie-Valley Switch 138kV line Fault-Johnnie-Valley Switch 138kV line s	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
103-P5.2 Outage-Valley Switch-Lathrop Wells 138kV line Fault-Valley Switch-Lathrop Wells	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
104-P5.2 Outage-Valley Switch-Valley Sub 138kV line Fault-Valley Switch-Valley Sub 138kV	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
105-P5.5 Outage-Valley Sub 138kV isolated Fault-Valley Sub 138kV Bus slg	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
106-P5.2 Outage-Lathrop Wells-Bondgap 138kV line Fault-Lathrop Wells-Bondgap 138kV lin	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
107-P5.2 Outage-Lathrop Wells-Jackass Flats 138kV line Fault-Lathrop Wells-Jackass Flats	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
108-P5.5 Outage-Lathrop Wells 138kV isolated Fault-Lathrop Wells 138kV Bus slg	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
109-P5.5 Outage-Thousandairs 138kV isolated Fault-Thousandairs 138kV Bus slg	P5	Non-redundant relay	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
110-P6.1 Outage-Sloan Canyon500-Eldorado 500kV and HAE SVCL-Sloan Canyon5 500kV	P6	N-1-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	System adjustments after the first contingency
111-P6.1 Outage Sloan Canyon-Mead and Sloan Canyon-Eldorado 230kV lines Fault-Sloan (	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
112-P6.1 Outage ELDORDO-MOHAVE & ELDORDO-MCCULLGH 500kV lines Fault-Sloan (	P6	N-1-1	Diverge	Diverge	Diverge	No Issues	Diverge	No Issues	System adjustments after the first contingency
113-P6.1 Outage ELDORDO2-PRIMM & ELDORDO2-IVANPAH 230kV lines Fault-Sloan Ca	P6	N-1-1	WECC Criteria Not Met	No Issues	No Issues	No Issues	WECC Criteria Not Met	No Issues	Ivanpah area RAS
114-P6.1 Outage Sloan Canyon-Eldorado 500kV and Sloan Canyon-Eldorado 230kV lines Fa	P6	N-1-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	System adjustments after the first contingency
115-P6.1 Outage Trout Canyon-Sloan Canyon 500kV and Sloan Canyon-Eldorado 500kV line	P6	N-1-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	System adjustments after the first contingency
116-P6.1 Outage Trout Canyon-Sloan Canyon 500kV and Trout Canyon-Gamebird 230kV line	P6	N-1-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	System adjustments after the first contingency
117-P6.1 Outage Gamebird - Trout Canyon 230kV and Gamebird - Wheeler Pass 230kV lines	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
118-P6.1 Outage Desert View-Northwest 230kV and Gamebird - Wheeler Pass 230kV lines F	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
119-P6.1 Outage Desert View-Northwest 230kV and Gamebird - Trout Canyon 230kV lines Fa	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
120-P6.1 Outage Yellow Pine 2 and Trout Canyon-Gamebird 230kV lines Fault-Trout Canyon	P6	N-1-1	No Issues	Diverge	Diverge	No Issues	No Issues	No Issues	System adjustments after the first contingency
121-P7.1 Outage Innovation-Desert View 230kV line #1 and #2 Fault-Innovation 230kV bus s	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
122-P7.1 Outage Trout Canyon-Sloan Canyon5 500kV #1 and #2 lines Fault-Trout Canyon 50	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
123-P7.1 Outage Trout Canyon-Gamebird 230kV #1 and #2 lines Fault-Gamebird 230kV bus	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
124-P7.1 Outage Desert View-Northwest 230kV #1 and #2 lines Fault-Desert View- 230kV b	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	

Contingency	Category	Category Description	Transient Stability Performance						Potential Mitigation Solutions
			Baseline Scenarios				Sensitivity Scenarios		
			B2_2031-SmrPk	B3_2036-SmrPk	B5_2036-SmrOP	B7_2028-SprOP	S1_2031-SP	S3_2028-SprOP	
125-P7.1 Outage WHEELER_PASS-Gamebird 230kV #1 and #2 lines Fault-Pahrump2 230k	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
126-P7.1 Outage Innovation-Johnnie 230kV #1 and #2 lines Fault-Johnnie 230kV bus slg	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
127-P7.1 Outage Valley Switch-Johnnie #1 230kV #1 and #2 lines Fault-Valley Switch bus sl	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
128-P7.1 Outage Valley Switch-Lathrop Wells #1 230kV #1 and #2 lines Fault-Valley Switch	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
129-P7.1 Outage WHEELER_PASS-Johnnie 230kV and Vistat 230kV lines Fault-Wheeler Pa	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
130-P7.1 Outage Harry Allen-Sloan Cayon 500kV and Harry Allen-Mead 500kV bus slg	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
DC1-P1.2 Outage-Gamebird-BJ_N 230kV line Fault-Gamebird 230kV bus 3pb	P1	N-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
DC2-P7.2 Outage-Gamebird-BJ_N 230kV line Fault-Gamebird 230kV bus slg	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	

Worst Contingency	Category	Category Description	Amount of Load Drop (MW)										Potential Mitigation Solutions
			B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	

No single contingency resulted in total load drop of more than 250 MW

Substation	Load Served (MW)										Potential Mitigation Solutions
	B1_2028-SmrPk	B2_2031-SmrPk	B3_2036-SmrPk	B4_2041-SmrPk	B5_2036-SmrOP	B6_2041-WtrPk	B7_2028-SprOP	B8_2031-SprOP	S1_2031-SP	S3_2028-SprOP	

No single source substation with more than 100 MW