

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity Scenarios)		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	Base Case	Base Case	(blank)	< 100	< 100	102.2	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Reinforcements into Charleston Park Area
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P1_59_Tran GAMEBIRD 230.00 to GAMEBIRD 138.00 Circuit 1 0.00	P1	N-1	< 100	104.4	129.2	140.4	< 100	136.9	< 100	< 100	123.4	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 2 1	P1_59_Tran GAMEBIRD 230.00 to GAMEBIRD 138.00 Circuit 1 0.00	P1	N-1	< 100	< 100	109.8	119.3	< 100	116.2	< 100	< 100	104.8	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 100	< 100	< 100	100.7	< 100	109.9	< 100	< 100	119.1	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 100	108.8	128.1	144.4	< 100	150.5	< 100	< 100	139.1	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P1_56_Tran PAHRUMP 230.00 to PAHRUMP 138.00 Circuit 1 0.00	P1	N-1	< 100	< 100	113.6	117.2	< 100	113.9	< 100	< 100	107.1	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P1_59_Tra_GAM_230_138_0_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	G-1 / N-1	< 100	115.9	140.6	151.4	110.2	145.9	< 100	< 100	< 100	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	G-1 / N-1	< 100	132.0	149.3	165.7	129.9	168.0	< 100	< 100	< 100	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P1_56_Tra_PAH_230_138_0_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	G-1 / N-1	< 100	102.0	124.4	128.6	< 100	119.6	< 100	< 100	< 100	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P4-2-25_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 1 138; BKR GB122	P4	Stuck Brk	< 100	104.7	129.1	140.0	< 100	136.6	< 100	< 100	122.3	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P4-2-26_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 2 138; BKR GB152	P4	Stuck Brk	< 100	104.4	129.2	140.4	< 100	136.9	< 100	< 100	123.4	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P4-2-30_GAMEBIRD 138/230kV Tran Bnk. 1 & GAMEBIRD-SANDY 138; BKR GB252	P4	Stuck Brk	< 100	115.0	140.9	151.5	< 100	156.7	< 100	< 100	136.5	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	< 100	114.1	134.4	144.5	< 100	153.4	< 100	< 100	141.4	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 2 1	P4-2-25_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 1 138; BKR GB122	P4	Stuck Brk	< 100	< 100	109.7	118.9	< 100	116.0	< 100	< 100	103.9	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 2 1	P4-2-26_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 2 138; BKR GB152	P4	Stuck Brk	< 100	< 100	109.8	119.3	< 100	116.2	< 100	< 100	104.8	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 2 1	P4-2-30_GAMEBIRD 138/230kV Tran Bnk. 1 & GAMEBIRD-SANDY 138; BKR GB252	P4	Stuck Brk	< 100	< 100	119.6	128.7	< 100	133.1	< 100	< 100	115.9	< 100	
189000 PAHRUMP 230 189007 PAHRUMP 138 2 1	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	< 100	< 100	114.2	122.7	< 100	130.3	< 100	< 100	120.1	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	< 100	101.8	120.0	135.9	< 100	141.2	< 100	< 100	132.4	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	< 100	108.8	128.1	143.5	< 100	149.6	< 100	< 100	138.4	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	< 100	< 100	< 100	105.8	< 100	101.6	< 100	< 100	< 100	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P4-2-21_PAHRUMP-WHEELER_PASS #2 230kV & PAHRUMP 138/230kV Tran Bnk. 1; BKR PA112	P4	Stuck Brk	< 100	< 100	112.7	117.3	< 100	114.0	< 100	< 100	107.2	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P4-2-23_PAHRUMP-WHEELER_PASS #1 230kV & PAHRUMP 138/230kV Tran Bnk. 1; BKR PA132	P4	Stuck Brk	< 100	< 100	112.8	117.4	< 100	114.1	< 100	< 100	107.2	< 100	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Loading % (Baseline Scenarios)								Loading % (Sensitivity Scenarios)		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	P4-2-16_PAHRUMP-VISTA 138kV & PAHRUMP 138/230kV Tran Bnk. 2; BKR PA212	P4	Stuck Brk	< 100	< 100	112.5	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Reinforcements into Charleston Park Area
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P4-2-17_PAHRUMP-VISTA 138 & PAHRUMP-GAMEBIRD 138; BKR PA222	P4	Stuck Brk	< 100	< 100	< 100	123.3	< 100	112.6	< 100	< 100	< 100	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P4-2-22_PAHRUMP-WHEELER_PASS #1 230kV & PAHRUMP 138/230kV Tran Bnk. 2; BKR PA122	P4	Stuck Brk	< 100	< 100	112.3	116.8	< 100	110.5	< 100	< 100	< 100	< 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_- Worst	P6	N-1-1	143.4	186.0	221.0	238.1	153.1	236.8	< 100	< 100	217.8	< 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_- Worst	P6	N-1-1	126.0	163.9	195.4	210.1	134.7	210.4	< 100	< 100	191.5	< 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	< 100	< 100	< 100	111.7	< 100	< 100	124.7	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_- Worst	P6	N-1-1	< 100	142.0	161.8	183.0	< 100	199.3	< 100	< 100	197.9	< 100	
189007 PAHRUMP 138 189013 VISTA 138 1 1	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_- Worst	P6	N-1-1	< 100	143.9	170.0	192.6	155.0	194.1	< 100	< 100	< 100	< 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	< 100	< 100	< 100	108.2	< 100	
189011 VALLEYTP 138 189018 JOHNNIE 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	113.7	120.7	128.1	133.8	127.1	< 100	< 100	< 100	< 100	
189016 INNOVATION 230 189017 INNOVATION 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	116.2	112.2	116.6	< 100	125.4	< 100	< 100	146.5	< 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	103.8	103.9	108.2	< 100	121.7	< 100	< 100	139.5	< 100	
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_56_Tran_PAHR_230_138_0_Ckt1_- Worst	P6	N-1-1	< 100	< 100	113.5	118.8	< 100	132.3	< 100	< 100	119.8	< 100	
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P1_16c_DU_VIST_LESL_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_- Worst	P6	N-1-1	< 100	< 100	126.5	131.4	< 100	117.3	< 100	< 100	< 100	< 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	107.2	< 100	112.9	< 100	< 100	108.3	< 100	
189020 GAMEBIRD 138 189050 HAFEN 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_12_VISTA_JOHNNIE_138_Ckt1_	P6	N-1-1	< 100	< 100	< 100	108.4	< 100	106.2	< 100	< 100	< 100	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P1_40_PAHRUMP_WHEELER_230_Ckt1+P1_41_PAHRUMP_WHEELER_230_Ckt2_- Worst	P6	N-1-1	< 100	130.9	162.3	176.6	109.0	171.1	< 100	< 100	151.4	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P1_56_Tra_PAH_230_138_0_Ckt1+P1_57_Tran_PAHR_230_138_0_Ckt2_- Worst	P6	N-1-1	< 100	130.8	162.1	176.6	109.0	171.1	< 100	< 100	151.4	< 100	
189100 JACKASSF 138 189101 MERCRYSW 138 1 1	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	< 100	122.6	129.3	136.0	< 100	153.4	< 100	< 100	169.6	< 100	
189100 JACKASSF 138 189101 MERCRYSW 138 1 1	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	112.2	
189000 PAHRUMP 230 189007 PAHRUMP 138 1 1	P7-1-2_GAMEBIRD-WHEELER_PASS 1 230 & GAMEBIRD-WHEELER_PASS 2 230	P7	DCTL	< 100	< 100	< 100	< 100	107.2	< 100	< 100	< 100	< 100	< 100	
189043 GAMEBIRD 230 189020 GAMEBIRD 138 1 1	P7-1-2_GAMEBIRD-WHEELER_PASS 1 230 & GAMEBIRD-WHEELER_PASS 2 230	P7	DCTL	< 100	105.6	< 100	< 100	< 100	< 100	< 100	< 100	113.7	< 100	

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				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	
18505 AMARGOSA T1 230 19011 MEAD N 230 1 1	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	100.9	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NotConv	Sloan Canyon RAS
189001 AMARGOSA 138 189008 SANDY 138 1 1	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	< 100	< 100	< 100	< 100	< 100	< 100	100.7	< 100	100.9	NotConv	
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	101.0	< 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	101.0	< 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	101.0	< 100	< 100	< 100	< 100	< 100	
189301 VEA_PST_2 138 18073 IS TAP 138 1 1	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	105.7	< 100	
18505 AMARGOSA T1 230 19011 MEAD N 230 1 1	P4-2-27_PAHRUMP 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	100.2	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	VEA UVLS
189001 AMARGOSA 138 189008 SANDY 138 1 1	P4-2-27_PAHRUMP 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	116.2	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
18505 AMARGOSA T1 230 19011 MEAD N 230 1 1	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	110.5	< 100	< 100	< 100	NotConv	< 100	< 100	< 100	< 100	< 100	Gamebird RAS
19011 MEAD N 230 18004 ARDEN 230 1 1	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	105.8	< 100	< 100	< 100	NotConv	< 100	< 100	< 100	< 100	< 100	
189001 AMARGOSA 138 189008 SANDY 138 1 1	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	125.4	< 100	< 100	< 100	NotConv	< 100	103.2	< 100	104.8	109.3	
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P1_59_Tran GAMEBIRD 230.00 to GAMEBIRD 138.00 Circuit 1 0.00	P1	N-1	< 100	< 100	< 100	100.1	< 100	< 100	< 100	< 100	< 100	< 100	Add second Gamebird 230 / 138 kV Transformer Bank
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P4-2-25_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 1 138; BKR GB122	P4	Stuck Brk	< 100	< 100	< 100	100.3	< 100	< 100	< 100	< 100	< 100	< 100	Further investigation needed
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P4-2-26_PAHRUMP 138/230kV Tran Bnk. 1 & WHEELER_PASS-GAMEBIRD 2 138; BKR GB152	P4	Stuck Brk	< 100	< 100	< 100	100.1	< 100	< 100	< 100	< 100	< 100	< 100	
189020 GAMEBIRD 138 189007 PAHRUMP 138 1 1	P4-2-30_GAMEBIRD 138/230kV Tran Bnk. 1 & GAMEBIRD-SANDY 138; BKR GB252	P4	Stuck Brk	< 100	< 100	104.1	114.0	< 100	111.6	< 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	102.2	< 100	< 100	< 100	< 100	< 100	
19011 MEAD N 230 18004 ARDEN 230 1 1	P7-1-3_Line Harry Allen-Sloan Cayon 500kV and Harry Allen-Mead 500kV	P7	DCTL	103.7	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	Use Existing RAS

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				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 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.74	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	0.81	0.77	Gamebird RAS
189002 BEATTY 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.86	0.85	
189004 BONDGDTP 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.86	0.85	
189005 LTHRPWLS 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.87	0.86	
189007 PAHRUMP 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.85	0.84	
189008 SANDY 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.87	0.87	
189010 VALLEYVE 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.86	0.85	
189011 VALLEYTP 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.86	0.85	
189013 VISTA 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.82	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.84	0.83	
189016 INNOVATION 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.83	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.88	0.86	
189018 JOHNNIE 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.84	0.84	
189020 GAMEBIRD 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.78	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.85	0.84	
189043 GAMEBIRD 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.72	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	0.80	0.76	
189068 T2 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.86	0.86	
189070 LESLIE 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	
189100 JACKASSF 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.88	
189102 STOCK-WASH 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	
189103 TWEEZER 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189104 VALLEY-NTS 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	
189390 ARES 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.73	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	0.80	0.77	
189402 BEATTY 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.79	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.83	0.82	
189404 BONDGDTP 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.79	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.83	0.82	
189405 LTHRPWLS 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.84	0.82	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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	
189411 VALLEYTP 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.84	0.82	
189418 JOHNNIE 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.85	0.82	
189421 VISTA 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.76	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.83	0.80	
189430 WHEELER_PASS 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.74	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	0.81	0.77	
189530 BJ_N 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.72	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	0.80	0.76	
189531 BJ_W 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.72	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	0.80	0.76	
189532 BJ_E 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.72	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	0.80	0.76	
189998 Q1649-GSU 230 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	Operational Action or UVLS
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 < 1.1	0.88	0.89	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.88	0.89	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189101 MERCYSW 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.87	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSNDAIR 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.80	0.74	0.73	0.84	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
189022 THSNDAIR 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.84	0.84	0.84	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.85	0.81	0.79	0.88	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.88	0.88	0.88	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.80	0.74	0.73	0.84	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.88	0.85	0.83	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_16b_DU_Line THSNDAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_3 4.5_Un_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_3 4.5_Un_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_3 4.5_Un_	P3	G-1 / N-1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSNDAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_3 4.5_Un_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_3 4.5_Un_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_3 4.5_Un_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.89	0.85	0.85	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189013 VISTA 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.85	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189013 VISTA 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.87	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.87	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.87	0.82	0.81	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.1	0.80	0.74	0.72	0.85	0.72	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.1	0.80	0.74	0.73	0.84	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.9 < V < 1.1	0.87	0.81	0.81	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.1	0.85	0.80	0.78	0.89	0.78	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.1	0.85	0.81	0.79	0.88	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.86	0.86	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189050 HAFEN 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.1	0.80	0.73	0.71	0.85	0.72	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
189050 HAFEN 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.1	0.80	0.74	0.73	0.84	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
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 < 1.1	0.87	0.81	0.81	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189070 LESLIE 138 kV	P4-2-28_DU_PAHRUMP-GAMEBIRD 138 & GAMEBIRD-HAFEN 138; BKR GB222	P4	Stuck Brk	0.9 < V < 1.1	0.88	0.84	0.82	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189070 LESLIE 138 kV	P4-2-29_DU_SANDY-GAMEBIRD 138 & HAFEN-GAMEBIRD 138; BKR GB232	P4	Stuck Brk	0.9 < V < 1.1	0.88	0.85	0.83	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.89	0.88	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189001 AMARGOSA 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.82	0.77	0.75	0.80	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.69	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSND AIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.82	0.80	0.86	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.71	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.89	0.87	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.88	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_16a_DU_GAME_HAFEN_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_16a_DU_GAME_HAFEN_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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	
189002 BEATTY 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.82	0.78	0.75	0.80	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.69	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.82	0.80	0.86	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.71	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_14_INNOVAT_MERCRY_138_Ckt1+P1_16a_DU_GAME_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.89	0.87	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.88	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_14_INNOVAT_MERCRY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T 2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.84	0.79	0.77	0.81	0.75	0.9 < V < 1.1	0.9 < V < 1.1	0.70	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.86	0.83	0.81	0.87	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.73	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_14_INNOVAT_MERCRY_138_Ckt1+P1_16a_DU_GAME_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.88	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_14_INNOVAT_MERCRY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCR YSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189005 LTHRPWLS 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRY_SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.90	0.89	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189007 PAHRUMP 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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189008 SANDY 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.72	0.89	0.85	0.85	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.90	0.89	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.82	0.76	0.74	0.79	0.72	0.9 < V < 1.1	0.9 < V < 1.1	0.65	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSND AIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.84	0.81	0.79	0.85	0.76	0.9 < V < 1.1	0.9 < V < 1.1	0.68	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_14_INNOVAT_MERCRY S_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_14_INNOVAT_MERCRY S_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189010 VALLEYVE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.80	0.75	0.72	0.78	0.70	0.9 < V < 1.1	0.9 < V < 1.1	0.65	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSND AIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.83	0.80	0.78	0.84	0.75	0.9 < V < 1.1	0.9 < V < 1.1	0.68	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_14_INNOVAT_MERCRY S_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189011 VALLEYTP 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.64	0.58	0.54	0.60	0.52	0.9 < V < 1.1	0.9 < V < 1.1	0.51	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.69	0.65	0.62	0.69	0.60	0.9 < V < 1.1	0.9 < V < 1.1	0.55	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.87	0.83	0.80	0.86	0.80	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.87	0.83	0.80	0.86	0.80	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.87	0.85	0.83	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.90	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.90	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_118_NWEST_WESTSIDE_230_CKT_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRY_SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_16b_DU_THSND AIR_HAFEN_138_Ckt1+P1_120_NWEST_AVE_RA_230_CKT_1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRY_SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.68	0.62	0.58	0.64	0.56	0.9 < V < 1.1	0.9 < V < 1.1	0.54	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSND AIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.72	0.68	0.65	0.72	0.63	0.9 < V < 1.1	0.9 < V < 1.1	0.58	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.87	0.83	0.80	0.86	0.80	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_14_INNOVAT_MERCRY_S_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.87	0.84	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.85	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_14_INNOVAT_MERCRY_S_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_THSND AIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	Reinforcements into Charleston Park Area
189018 JOHNNIE 138 kV	P1_4_BONDG DTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRY SW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189020 GAMEBIRD 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.66	0.87	0.82	0.81	0.9 < V < 1.1	0.81	0.89	0.9 < V < 1.1	0.85	0.88	
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 < 1.1	0.9 < V < 1.1	0.88	0.87	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.89	0.88	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAF EN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.56	0.48	0.45	0.54	0.44	0.9 < V < 1.1	0.9 < V < 1.1	0.44	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSND AIR_HAF EN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.61	0.58	0.55	0.64	0.54	0.9 < V < 1.1	0.9 < V < 1.1	0.49	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAF EN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.76	0.70	0.67	0.77	0.68	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.76	0.70	0.67	0.77	0.68	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_14_INNOVAT_MERCRY S_138_Ckt1+P1_16a_DU_GAME_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.76	0.72	0.70	0.9 < V < 1.1	0.69	0.9 < V < 1.1	0.9 < V < 1.1	0.71	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_4_BONDG DTP_BEATTY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.84	0.84	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.84	0.84	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 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 < 1.1	0.9 < V < 1.1	0.86	0.85	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189022 THSND AIR 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 < 1.1	0.9 < V < 1.1	0.88	0.86	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800H V_230_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.65	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.85	0.88	
189022 THSND AIR 138 kV	P1_10_VALLEYT_VALLEYV_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.74	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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 THSNAIR 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSNAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSNAIR 138 kV	P1_16b_DU_THSNAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189022 THSNAIR 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189022 THSNAIR 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.72	0.9 < V < 1.1	
189022 THSNAIR 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.60	0.53	0.49	0.57	0.48	0.9 < V < 1.1	0.9 < V < 1.1	0.48	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.65	0.61	0.58	0.66	0.56	0.9 < V < 1.1	0.9 < V < 1.1	0.52	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.81	0.76	0.73	0.81	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.81	0.76	0.73	0.81	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.81	0.78	0.76	0.9 < V < 1.1	0.74	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.88	0.88	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.88	0.88	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 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 < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.65	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.88	0.87	
189024 CHARLSTN 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_16b_DU_THSNAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_59_Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.56	0.48	0.45	0.53	0.44	0.9 < V < 1.1	0.9 < V < 1.1	0.44	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.76	0.70	0.67	0.77	0.67	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.76	0.70	0.67	0.77	0.67	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.76	0.71	0.69	0.9 < V < 1.1	0.68	0.9 < V < 1.1	0.9 < V < 1.1	0.70	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.72	0.70	0.9 < V < 1.1	0.70	0.9 < V < 1.1	0.9 < V < 1.1	0.72	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.81	0.75	0.74	0.84	0.73	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.81	0.75	0.73	0.84	0.74	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.87	0.81	0.81	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.87	0.86	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.88	0.87	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.80	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_30_TROUTCAN_Q1800HV_230_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.74	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189050 HAFEN 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.74	0.9 < V < 1.1	
189068 T2 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.82	0.76	0.74	0.79	0.72	0.9 < V < 1.1	0.9 < V < 1.1	0.65	0.9 < V < 1.1	
189068 T2 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.82	0.79	0.86	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.68	0.9 < V < 1.1	
189068 T2 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.87	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	
189068 T2 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189068 T2 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCROYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189068 T2 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189068 T2 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	
189068 T2 138 kV	P1_9_VALLEYT_LTHRPWL_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189068 T2 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.62	0.55	0.52	0.58	0.50	0.9 < V < 1.1	0.9 < V < 1.1	0.49	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.67	0.63	0.60	0.68	0.58	0.9 < V < 1.1	0.9 < V < 1.1	0.53	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_12_VISTA_JOHNNIE_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.84	0.80	0.77	0.84	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_11_VALLEYT_JOHNNIE_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.84	0.80	0.77	0.84	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.85	0.82	0.80	0.9 < V < 1.1	0.78	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1+P1_29_VALLEYVE_T2_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_59-Tran_GAME_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_65_Tran_AMAR_230_138_0_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_4_BONDGDTP_BEATTY_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_5_LTHRPWL_BONDGDT_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_6_LTHRPWL_JACKASS_138_Ckt1+P1_16a_DU_GAME_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_8_SANDY_GAMEBIRD_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_15_GAMEBIR_PAHRUMP_138_Ckt1+P1_59_Tra_GAM_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189100 JACKASSF 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.89	0.85	0.83	0.87	0.82	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
189100 JACKASSF 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.86	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	
189100 JACKASSF 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.88	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189100 JACKASSF 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	
189100 JACKASSF 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_19_JACKASSF_MERCRYSW_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189100 JACKASSF 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189101 MERCRYSW 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.89	0.87	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189101 MERCRYSW 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.89	0.87	0.90	0.86	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	
189102 STOCK-WASH 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.88	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.77	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_16a_DU_GAME_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189103 TWEEZER 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.89	0.87	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189103 TWEEZER 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16b_DU_THSN_HAFE_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189103 TWEEZER 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_58_Tran_INNO_230_138_0_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189103 TWEEZER 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16a_DU_GAMEBIRD_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189103 TWEEZER 138 kV	P1_7_PAHRUMP_VISTA_138_Ckt1+P1_16b_DU_THSNDAIR_HAFEN_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189104 VALLEY-NTS 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.87	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.90	0.89	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.79	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	
189105 FRENCH-FLAT 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.89	0.87	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189106 MERC-DIST 138 kV	P1_14_INNOVAT_MERCRYS_138_Ckt1+P1_16a_DU_GAME_HAF E_138_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.90	0.89	0.87	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.9 < V < 1.1	0.76	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.78	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189301 VEA_PST_2 138 kV	P1_58_Tra_INN_230_138_0_Ckt1+P1_116_NWEST_SNOW_MTN_138_CKT_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189022 THSND AIR 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.84	0.84	
189022 THSND AIR 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189024 CHARLSTN 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.77	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.83	0.83	
189024 CHARLSTN 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189050 HAFEN 138 kV	P7-1-1_GAMEBIRD-TROUT CANYON 1 230 & GAMEBIRD-TROUT CANYON 2 230	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.84	0.9 < V < 1.1	
189050 HAFEN 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189000 PAHRUMP 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189002 BEATTY 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189007 PAHRUMP 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189013 VISTA 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189016 INNOVATION 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189020 GAMEBIRD 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189043 GAMEBIRD 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189070 LESLIE 138 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189114 Q1341_HV1 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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	
189115 Q1341_HV2 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	System adjustments in between contingencies
189160 TROUT CANYON 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189161 TROUT CANYON 500 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	0.86	0.9 < V < 1.1	
189390 ARES 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189402 BEATTY 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189404 BONDGDTP 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189405 LTHRPWLS 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189411 VALLEYTP 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189418 JOHNNIE 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189421 VISTA 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189430 WHEELER_PASS 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189530 BJ_N 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189531 BJ_W 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189532 BJ_E 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189923 Q1800_HV 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189958 Q1654_HV 230 kV	P1_34_TROUTCA_SLOANCY_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	Base Case	Base Case	Base Case	1.04 < V < 1.08	1.04 < V < 1.08	1.10	1.08	1.12	1.08	1.04 < V < 1.08	1.04 < V < 1.08	1.04 < V < 1.08	1.04 < V < 1.08	
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 < 1.1	0.9 < V < 1.1	1.12	1.11	1.15	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCYN5_ELDORDO_500_Ckt1+P1_87_Gen_LATHRP_PV_34.5_Unit_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.10	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_85_Gen_GMBD_PV_34.5_Unit_ID_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	1.11	1.10	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_88_Gen_TROUT_PV_34.5_Unit_I_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	1.11	1.10	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_76_Gen_Q1800_ESG_1_0.6_Unit_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.11	1.16	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.11	1.16	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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_34_TROUTCA_SLOANCY_500_Ckt1+P1_91_Gen_INVTN_BES S_34.5_Unit_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	Close in Trout Canyon - Lugo Line Shunt Reactor pre-contingency
189171 TRCN_LUGO_2 500 kV	P1_35_TROUTCA_SLOANCY_500_Ckt2+P1_91_Gen_INVTN_BES S_34.5_Unit_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_45_INNOVAT_JOHNNIE_230_Ckt1+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_46_INNOVAT_JOHNNIE_230_Ckt2+P1_78_Gen_Q1800_ESG_2_0.6_Unit_	P3	G-1 / N-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	1.11	1.10	1.15	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	1.10	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_34_TROUTCA_SLOANCY_500_Ckt1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	1.11	1.10	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	1.11	1.10	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_118_NWEST_DARLING_230_CKT_1_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_32_SLOANCY_ELDORDO_500_Ckt1+P1_47_INNOVAT_DESERTV_230_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	1.12	1.11	1.16	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	1.13	1.12	1.17	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P1_13_INNOVAT_DESERTV_230_Ckt1+P1_35_TROUTCA_SLOANCY_500_Ckt2_	P6	N-1-1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.12	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.11	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.16	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P7-1-4_INNOVATION-DESERT VIEW 1 230 & INNOVATION-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.13	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P7-1-5_NWEST-DESERT VIEW 1 230 & NWEST-DESERT VIEW 2 230	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.13	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189171 TRCN_LUGO_2 500 kV	P7-1-7_INNOVATION-JOHNIE 1 230 & INNOVATION-JOHNIE 2 230	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	1.13	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189000 PAHRUMP 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189002 BEATTY 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189004 BONDGDTP 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189007 PAHRUMP 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.90	0.9 < V < 1.1	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.88	0.9 < V < 1.1	Trout Canyon RAS
189016 INNOVATION 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189018 JOHNNIE 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.90	0.9 < V < 1.1	0.89	0.9 < V < 1.1	
189020 GAMEBIRD 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.90	0.9 < V < 1.1	
189043 GAMEBIRD 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189070 LESLIE 138 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.82	0.9 < V < 1.1	0.86	0.9 < V < 1.1	
189390 ARES 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
189402 BEATTY 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189404 BONDGDTP 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
189405 LTHRPWLS 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189411 VALLEYTP 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.86	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189418 JOHNNIE 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.85	0.9 < V < 1.1	0.88	0.9 < V < 1.1	
189421 VISTA 230 kV	P7-1-6_TROUT CANYON-SLOAN_CYN #1 500 & TROUT CANYON-SLOAN_CYN_#2 500	P7	DCTL	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.83	0.9 < V < 1.1	0.87	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.80	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	
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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.81	0.9 < V < 1.1	0.85	0.9 < V < 1.1	



Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Voltage PU (Baseline Scenarios)								Voltage PU (Sensitivity Scenarios)		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 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.90	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	VEA UVLS
189008 SANDY 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.72	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	
189020 GAMEBIRD 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 < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.89	0.9 < V < 1.1	0.9 < V < 1.1	0.88	
189022 THSND AIR 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.65	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.88	
189024 CHARLSTN 138 kV	P4-2-27_GAMEBIRD 138/230kV Tran Bnk. 1 & PAHRUMP-GAMEBIRD 1 138; BKR GB212	P4	Stuck Brk	0.65	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.9 < V < 1.1	0.88	0.9 < V < 1.1	0.9 < V < 1.1	0.87	

Overloaded Facility	Contingency (All and Worst P6)	Category	Category Description	Post Cont. Voltage Deviation % (Baseline Scenarios)								Post Cont. Voltage Deviation % (Sensitivity Scenarios)		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_Line THSNDIAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	12.53	12.40	11.83	< 8	12.72	< 8	< 8	15.46	< 8	Reinforcements into Charleston Park Area
189070 LESLIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	12.61	15.41	15.88	10.65	16.38	< 8	< 8	15.60	< 8	
189024 CHARLSTN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	15.68	19.42	19.88	13.21	20.34	< 8	< 8	19.15	< 8	
189022 THSNDIAIR 138 kV	P1_16b_DU_Line THSNDIAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	16.75	16.83	15.94	< 8	16.89	< 8	< 8	20.47	< 8	
189022 THSNDIAIR 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	20.84	26.20	26.52	17.57	26.89	< 8	< 8	25.15	< 8	
189050 HAFEN 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	21.48	27.09	27.49	18.12	27.79	< 8	< 8	25.93	< 8	
189013 VISTA 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	12.01	12.48	< 8	12.99	< 8	< 8	12.59	< 8	
189013 VISTA 138 kV	P1_16b_DU_Line THSNDIAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	10.10	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_Line GAMEBIRD 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	10.20	10.63	< 8	11.17	< 8	< 8	11.29	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_Line THSNDIAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_Line THSNDIAIR 138.0 to HAFEN 138.0 Circuit 1	P1	N-1	< 8	< 8	9.84	9.43	< 8	10.28	< 8	< 8	12.54	< 8	
189018 JOHNNIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	11.94	< 8	< 8	11.36	< 8	< 8	< 8	< 8	< 8	
189010 VALLEYVE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	11.52	< 8	11.66	< 8	< 8	< 8	< 8	
189011 VALLEYTP 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	10.92	< 8	11.12	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	< 8	12.41	< 8	< 8	< 8	< 8	< 8	
189013 VISTA 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	10.10	10.00	< 8	< 8	< 8	< 8	< 8	< 8	
189018 JOHNNIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	9.34	< 8	9.74	< 8	< 8	< 8	< 8	
189022 THSNDIAIR 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	< 8	14.11	< 8	< 8	< 8	< 8	< 8	
189024 CHARLSTN 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	< 8	11.32	< 8	< 8	< 8	< 8	< 8	
189050 HAFEN 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	< 8	22.49	< 8	< 8	< 8	< 8	< 8	
189068 T2 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_70_Gen_Sunshine_Val_34.5_Un_	P3	(blank)	< 8	< 8	< 8	11.58	< 8	11.71	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16a_DU_GAME_HAFE_138_Ckt1+P1_84_Gen_BEATTY_PV_34.5_Unit_	P3	(blank)	< 8	< 8	< 8	< 8	10.47	< 8	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_75_Gen_Q1800_PVG_1_0.6_Unit_	P3	(blank)	< 8	< 8	9.76	< 8	< 8	< 8	< 8	< 8	< 8	< 8	
189070 LESLIE 138 kV	P1_16b_DU_THSN_HAFE_138_Ckt1+P1_77_Gen_Q1800_PVG_2_0.6_Unit_	P3	(blank)	< 8	< 8	9.76	< 8	< 8	< 8	< 8	< 8	< 8	< 8	

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	
72-P4.2 Outage-Johnnie-WHEELER_PASS and Johnnie-Innovation 230kV lines Fault-Johnnie	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 138kV	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 bus	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-Pahrump	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-Pa	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-Pa	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
82-P4.2 Outage-WHEELER_PASS-JOHNIE #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 230kV	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-Gameb	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 line	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 line	P4	Stuck breaker	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 Fa	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 Fau	P4	Stuck breaker	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
98-P4.2 Outage-LTHRPWLS-Valley Switch #2 and BONDGTP-Lathrop Wells 230kV #1 lines	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-Va	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 protection	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 protection	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 sl	P5	Non-redundant protection	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	Reduce BESS charging
103-P5.2 Outage-Valley Switch-Lathrop Wells 138kV line Fault-Valley Switch-Lathrop Wells 1	P5	Non-redundant protection	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 protection	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 protection	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	Reduce BESS charging
106-P5.2 Outage-Lathrop Wells-Bondgap 138kV line Fault-Lathrop Wells-Bondgap 138kV line	P5	Non-redundant protection	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	Reduce BESS charging
107-P5.2 Outage-Lathrop Wells-Jackass Flats 138kV line Fault-Lathrop Wells-Jackass Flats	P5	Non-redundant protection	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 protection	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 protection	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 li	P6	N-1-1	WECC Criteria Not Met	Diverge	Diverge	No Issues	WECC Criteria Not Met	No Issues	Further investigation needed
111-P6.1 Outage Sloan Canyon-Mead and Sloan Canyon-Eldorado 230kV lines Fault-Sloan C	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 C	P6	N-1-1	Diverge	Diverge	Diverge	No Issues	Diverge	No Issues	Further investigation needed
113-P6.1 Outage ELDORDO2-PRIMM & ELDORDO2-IVANPAH 230kV lines Fault-Sloan Can	P6	N-1-1	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
114-P6.1 Outage Sloan Canyon-Eldorado 500kV and Sloan Canyon-Eldorado 230kV lines Fau	P6	N-1-1	WECC Criteria Not Met	Diverge	Diverge	No Issues	WECC Criteria Not Met	No Issues	Further investigation needed
115-P6.1 Outage Trout Canyon-Sloan Canyon 500kV and Sloan Canyon-Eldorado 500kV line	P6	N-1-1	WECC Criteria Not Met	Diverge	Diverge	No Issues	WECC Criteria Not Met	No Issues	Further investigation needed
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	Further investigation needed
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 Fa	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	Further investigation needed
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	WECC Criteria Not Met	Further investigation needed
123-P7.1 Outage Trout Canyon-Gamebird 230kV #1 and #2 lines Fault-Gamebird 230kV bus	P7	DCTL	No Issues	WECC Criteria Not Met	WECC Criteria Not Met	No Issues	No Issues	WECC Criteria Not Met	Further investigation needed
124-P7.1 Outage Desert View-Northwest 230kV #1 and #2 lines Fault-Desert View- 230kV bu	P7	DCTL	No Issues	No Issues	No Issues	No Issues	No Issues	No Issues	
125-P7.1 Outage WHEELER_PASS-Gamebird 230kV #1 and #2 lines Fault-Pahrump2 230kV	P7	DCTL	Diverge	Diverge	Diverge	Diverge	Diverge	Diverge	Further investigation needed
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 slg	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 b	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 Pas	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	



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