



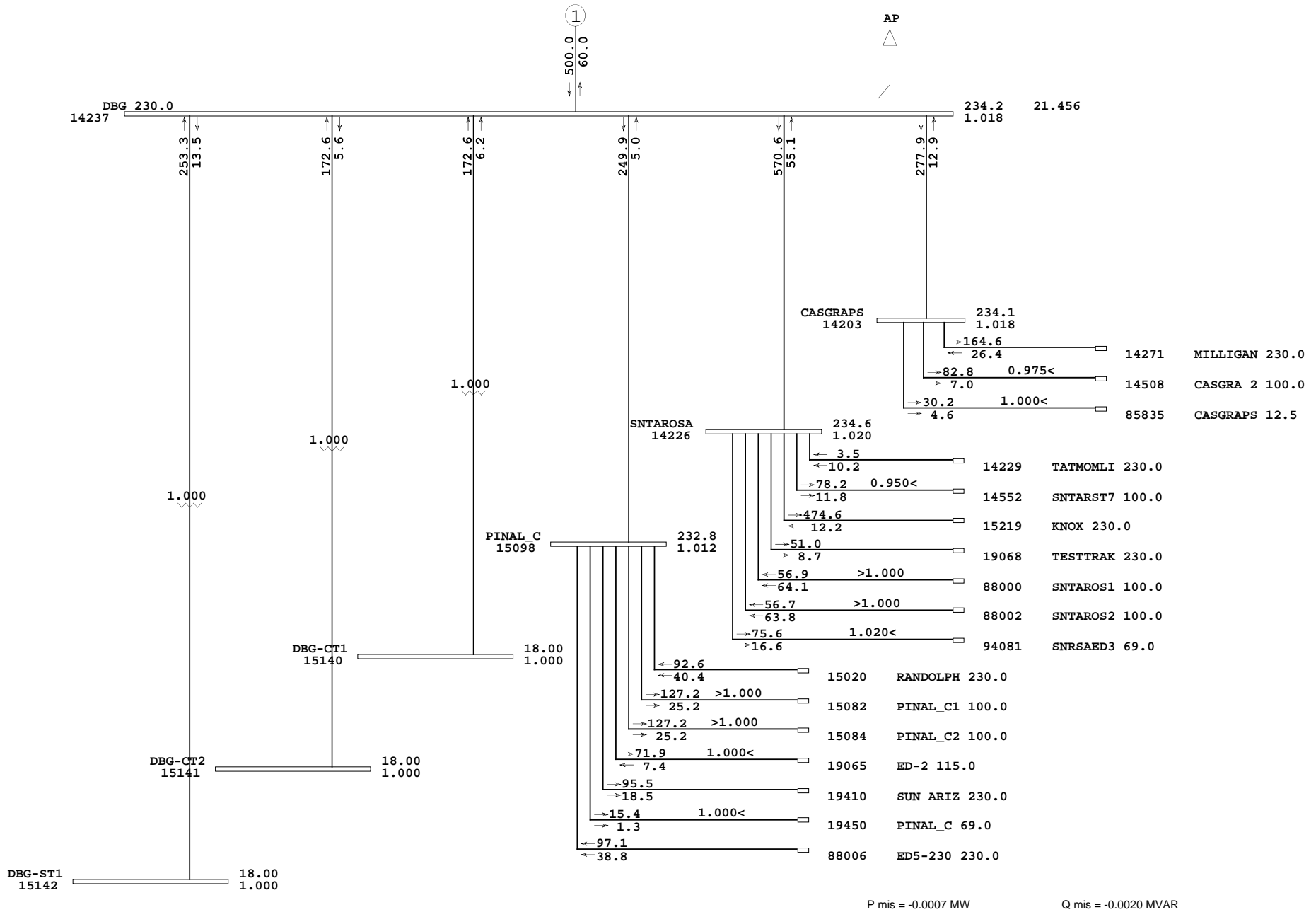
## APPENDIX B TASK 2

### BUS SCANS OUTAGE SUMMARY

#### INCREMENTAL RESOURCE INJECTIONS:

**Desert Basin 230kV: 500MW**  
**Pinal Central 500kV: 1000MW**  
**Pinal West 500kV: 500MW**  
**Saguaro 500kV: 500MW**  
**San Manuel 230kV: 500MW**  
**Sundance 230kV: 500MW**





# CATS HV 2008 Study: TASK 2

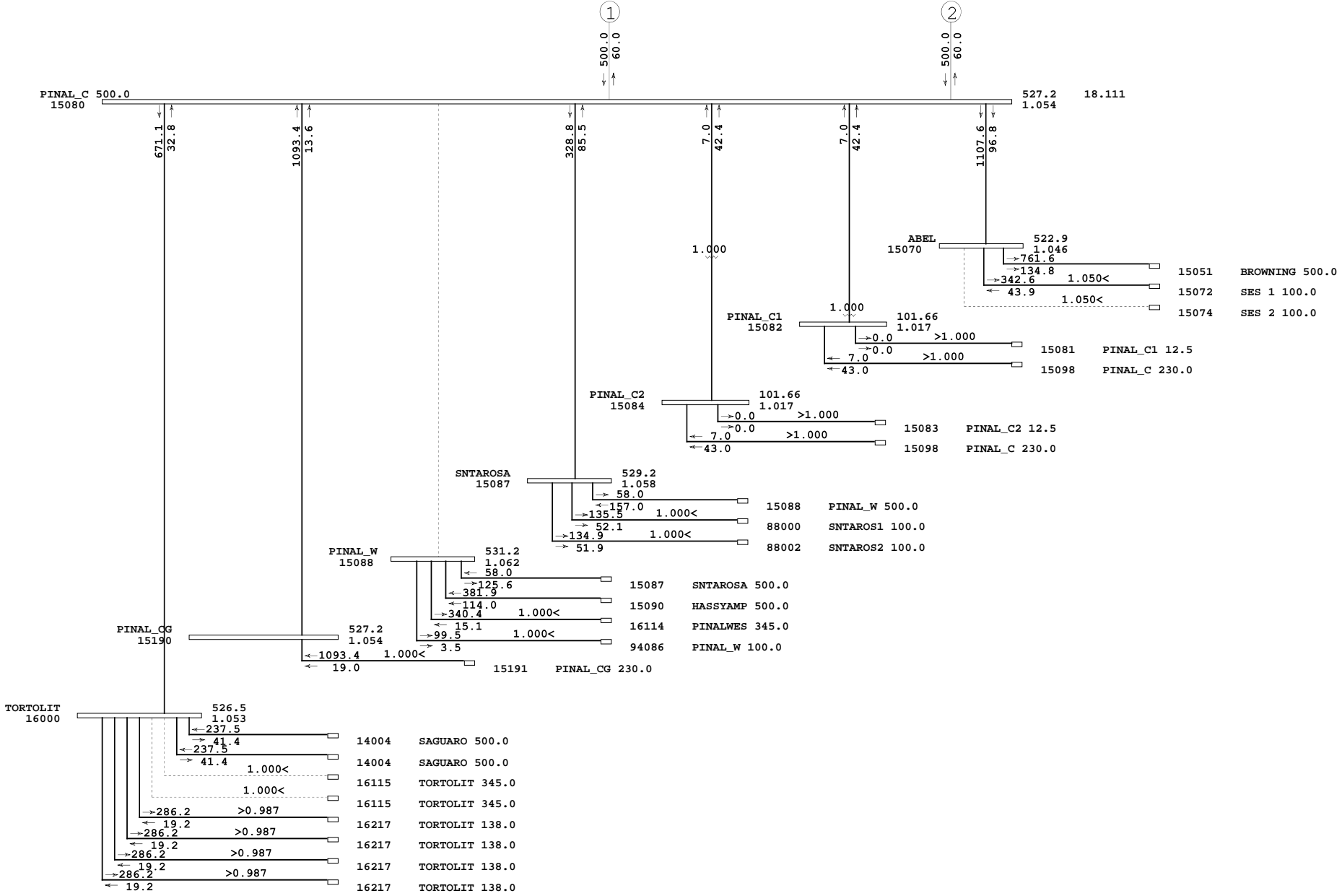
## DESERT BASIN 500MW INJECTION

### N-0 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	DESERT BASIN	INCREMENTAL
14206	CTRYCLUB	230	14216	LINCSTRT	230	1	"base"Base system (n-0)	557.0	99.93%	100.54%	0.60%

### N-1 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	DESERT BASIN	INCREMENTAL
14226	SNTAROSA	230	19068	TESTTRAK	230	181	"line_180"Line KNOX 230.0 to SNTAROSA 230.0 Circuit 1	174.9	67.76%	100.72%	32.96%
19055	LONE BUT	230	19068	TESTTRAK	230	181	"line_180"Line KNOX 230.0 to SNTAROSA 230.0 Circuit 1	174.9	73.84%	100.09%	26.25%
14203	CASGRAPS	230	84848	CASGRAPS	69	58	"line_57"Line SNTAROSA 230.0 to DBG 230.0 Circuit 1	100.0	89.86%	113.10%	23.25%
84848	CASGRAPS	69	84747	SE8	69	58	"line_57"Line SNTAROSA 230.0 to DBG 230.0 Circuit 1	107.6	79.88%	102.00%	22.12%
19055	LONE BUT	230	19068	TESTTRAK	230	107	"line_106"Line PALOVRDE 500.0 to RUDD 500.0 Circuit 1	174.9	82.07%	100.96%	18.90%
14203	CASGRAPS	230	84848	CASGRAPS	69	665	"line_664"Line TOLTEC 69.0 to MILLIGAN 69.0 Circuit 1	100.0	99.00%	108.84%	9.83%
14203	CASGRAPS	230	84848	CASGRAPS	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	100.0	113.06%	122.81%	9.75%
84848	CASGRAPS	69	84747	SE8	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	107.6	100.24%	109.50%	9.25%
17013	MARANATP	115	19210	RATTLSENK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	120.0	110.63%	113.94%	3.31%
19210	RATTLSENK	115	19216	TWINPEAK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	134.14%	137.20%	3.06%
19216	TWINPEAK	115	17670	PICTROCK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	133.01%	136.07%	3.06%
19210	RATTLSENK	115	19216	TWINPEAK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	116.27%	119.32%	3.04%
19216	TWINPEAK	115	17670	PICTROCK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	115.15%	118.19%	3.04%
17670	PICTROCK	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	122.59%	125.62%	3.04%
17089	SNDARIO	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	121.43%	124.46%	3.03%
17670	PICTROCK	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	105.14%	108.16%	3.02%
17089	SNDARIO	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	103.98%	106.99%	3.01%
17013	MARANATP	115	19210	RATTLSENK	115	95	"line_94"Line SAG.EAST 115.0 to NAVISKA 115.0 Circuit 1	120.0	100.57%	103.58%	3.01%
14217	LONEPEAK	230	14221	PNPKAPS	230	50	"line_49"Line REACH 230.0 to PNPKAPS 230.0 Circuit 1	545.4	108.64%	109.03%	0.39%
17019	RIVIERA	69	17087	RIVIERA	230	813	"tran_812"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 1	112.0	154.76%	154.76%	0.00%
17019	RIVIERA	69	17087	RIVIERA	230	814	"tran_813"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 2	112.0	154.17%	154.17%	0.00%
84826	ARABY S	69	84895	AR FH TP	69	401	"line_400"Line N.GILA 69.0 to SW1 69.0 Circuit 1	78.6	102.46%	102.37%	-0.09%



p mis = 0.004                      q mis = 0.008



# CATS HV 2008 Study: TASK 2

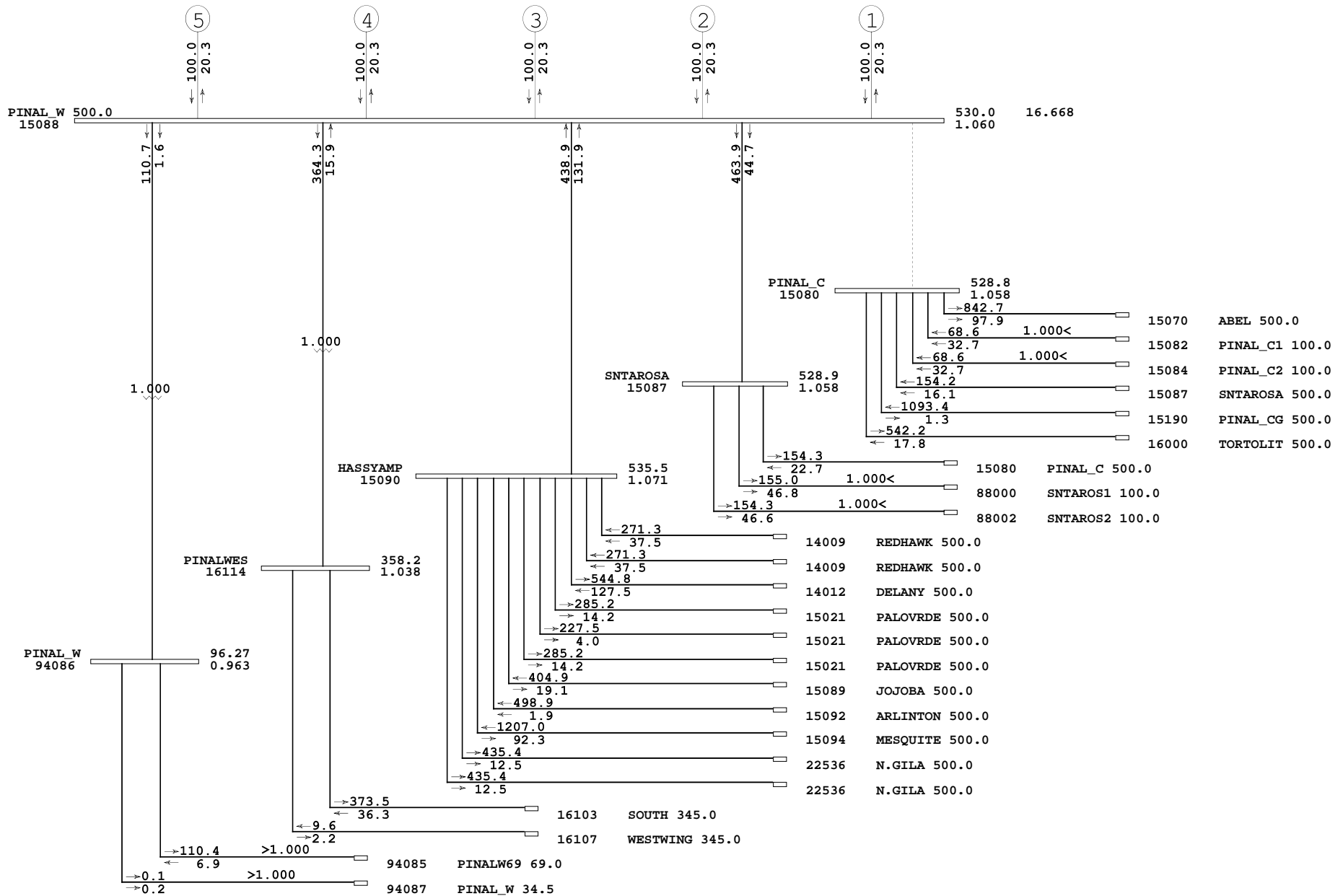
## PINAL CENTRAL 500MW INJECTION

### N-0 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	PINAL CENTRAL	INCREMENTAL
14206	CTRYCLUB	230	14216	LINCSTR	230	1	"base"Base system (n-0)	557.0	99.93%	100.20%	0.26%

### N-1 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	PINAL CENTRAL	INCREMENTAL
17019	RIVIERA	69	17087	RIVIERA	230	813	"tran_812"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 1	112.0	154.76%	154.76%	0.00%
17019	RIVIERA	69	17087	RIVIERA	230	814	"tran_813"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 2	112.0	154.17%	154.17%	0.00%
19210	RATTLSENK	115	19216	TWINPEAK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	134.14%	136.60%	2.46%
15222	BROWNING	230	15050	BROWNING	69	795	"tran_794"Tran BROWNING 230.00 to BROWNING 69.00 Circuit 2	300.0	133.27%	133.33%	0.06%
15222	BROWNING	230	15050	BROWNING	69	794	"tran_793"Tran BROWNING 230.00 to BROWNING 69.00 Circuit 1	300.0	133.27%	133.33%	0.06%
17670	PICTROCK	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	122.59%	125.03%	2.45%
17089	SNDARIO	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	121.43%	123.87%	2.44%
19210	RATTLSENK	115	19216	TWINPEAK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	116.27%	118.73%	2.46%
14203	CASGRAPS	230	84848	CASGRAPS	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	100.0	113.06%	114.49%	1.43%
17013	MARANATP	115	19210	RATTLSENK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	120.0	110.63%	112.97%	2.34%
17670	PICTROCK	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	105.14%	107.58%	2.44%
17089	SNDARIO	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	103.98%	106.42%	2.44%
17013	MARANATP	115	19210	RATTLSENK	115	95	"line_94"Line SAG.EAST 115.0 to NAVISKA 115.0 Circuit 1	120.0	100.57%	102.93%	2.36%
84848	CASGRAPS	69	84747	SE8	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	107.6	100.24%	101.67%	1.43%
14203	CASGRAPS	230	84848	CASGRAPS	69	665	"line_664"Line TOLTEC 69.0 to MILLIGAN 69.0 Circuit 1	100.0	99.00%	100.43%	1.43%



P mis = -0.0006 MW

Q mis = 0.0006 MVAR



# CATS HV 2008 Study: TASK 2

## PINAL WEST 500MW INJECTION

### N-0 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	PINAL WEST	INCREMENTAL
14206	CTRYCLUB	230	14216	LINCSTRT	230	1	"base"Base system (n-0)	557.0	99.93%	100.15%	0.22%

### N-1 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	PINAL WEST	INCREMENTAL
17013	MARANATP	115	19210	RATTLNKN	115	95	"line_94"Line SAG.EAST 115.0 to NAVISKA 115.0 Circuit 1	120.0	100.57%	100.83%	0.26%
17013	MARANATP	115	19210	RATTLNKN	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	120.0	110.63%	110.88%	0.26%
19210	RATTLNKN	115	19216	TWINPEAK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	134.14%	134.25%	0.11%
14217	LONEPEAK	230	14221	PNPKAPS	230	50	"line_49"Line REACH 230.0 to PNPKAPS 230.0 Circuit 1	545.4	108.64%	108.75%	0.10%
19210	RATTLNKN	115	19216	TWINPEAK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	116.27%	116.38%	0.10%
17670	PICTROCK	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	122.59%	122.69%	0.10%
17089	SNDARIO	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	121.43%	121.53%	0.10%
17670	PICTROCK	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	105.14%	105.24%	0.10%
17089	SNDARIO	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	103.98%	104.08%	0.10%
15222	BROWNING	230	15050	BROWNING	69	795	"tran_794"Tran BROWNING 230.00 to BROWNING 69.00 Circuit 2	300.0	133.27%	133.27%	0.00%
15222	BROWNING	230	15050	BROWNING	69	794	"tran_793"Tran BROWNING 230.00 to BROWNING 69.00 Circuit 1	300.0	133.27%	133.27%	0.00%
17019	RIVIERA	69	17087	RIVIERA	230	814	"tran_813"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 2	112.0	154.17%	154.17%	0.00%
17019	RIVIERA	69	17087	RIVIERA	230	813	"tran_812"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 1	112.0	154.76%	154.76%	0.00%
84826	ARABY S	69	84895	AR FH TP	69	401	"line_400"Line N.GILA 69.0 to SW1 69.0 Circuit 1	78.6	102.46%	102.41%	-0.05%
19060	ADAMS TP	115	17001	APACHE	115	196	"line_195"Line APACHE 230.0 to BUTERFLD 230.0 Circuit 1	110.0	105.09%	104.94%	-0.15%
84848	CASGRAPS	69	84747	SE8	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	107.6	100.24%	99.89%	-0.35%
14203	CASGRAPS	230	84848	CASGRAPS	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	100.0	113.06%	112.57%	-0.48%



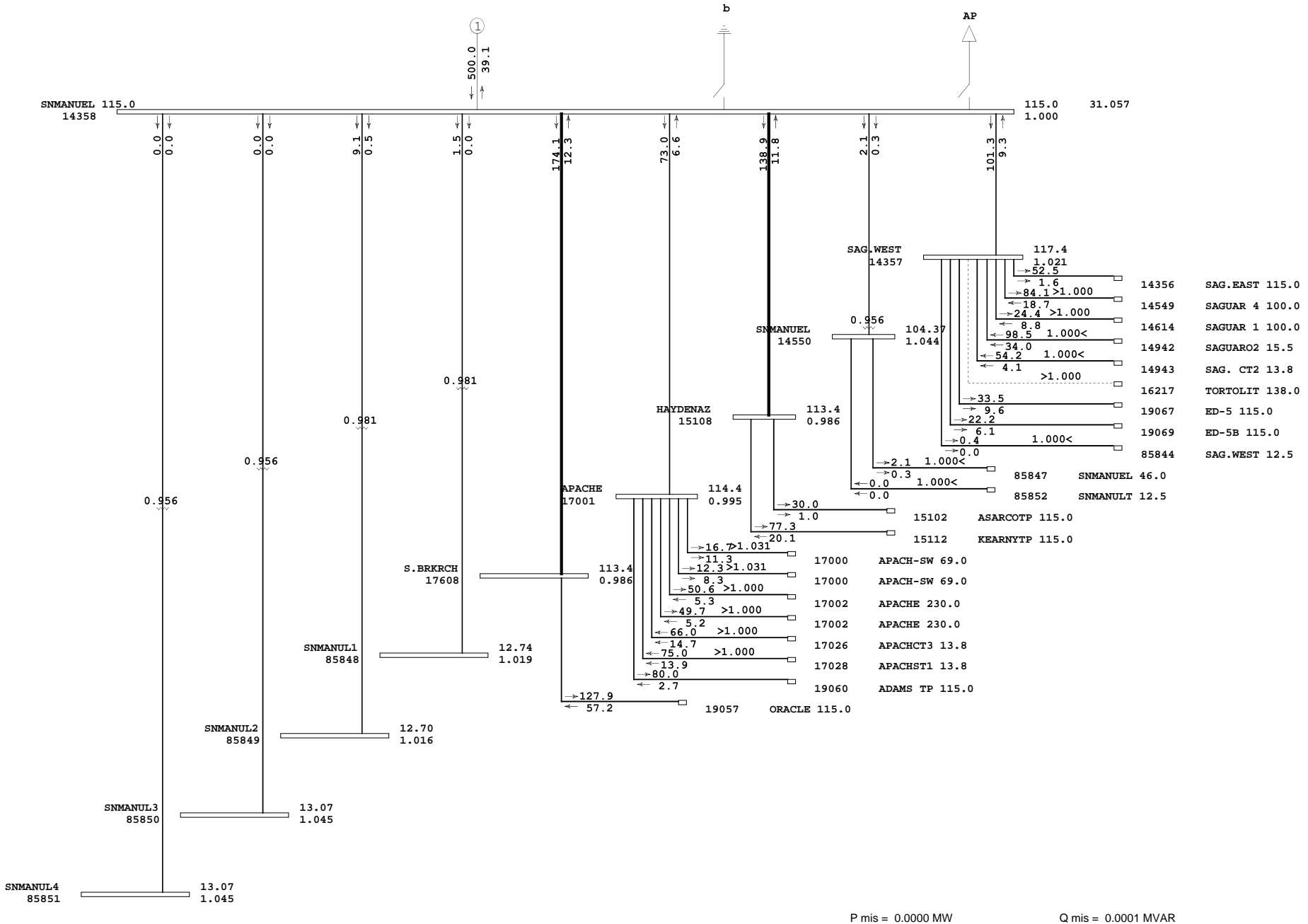
CATS HV 2008 Study: TASK 2  
SAGUARO 500MW INJECTION

N-0 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	SAGUARO	INCREMENTAL
14206	CTRYCLUB	230	14216	LINCSTRT	230	1	"base"Base system (n-0)	557.0	99.93%	100.36%	0.43%

N-1 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	SAGUARO	INCREMENTAL
19210	RATTLNKN	115	19216	TWINPEAK	115	648	"line_647"Line MARANATP 115.0 to MARANA 115.0 Circuit 1	132.0	84.90%	100.03%	15.13%
19210	RATTLNKN	115	19216	TWINPEAK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	134.14%	142.35%	8.21%
19216	TWINPEAK	115	17670	PICTROCK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	133.01%	141.21%	8.20%
19210	RATTLNKN	115	19216	TWINPEAK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	116.27%	124.44%	8.17%
19216	TWINPEAK	115	17670	PICTROCK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	115.15%	123.31%	8.16%
17670	PICTROCK	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	122.59%	130.74%	8.15%
17089	SNDARIO	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	121.43%	129.57%	8.14%
17670	PICTROCK	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	105.14%	113.23%	8.09%
17089	SNDARIO	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	103.98%	112.07%	8.09%
17013	MARANATP	115	19210	RATTLNKN	115	95	"line_94"Line SAG.EAST 115.0 to NAVISKA 115.0 Circuit 1	120.0	100.57%	107.62%	7.05%
17013	MARANATP	115	19210	RATTLNKN	115	218	"line_217"Line NAVISKA 115.0 to ADONIS 115.0 Circuit 1	120.0	94.32%	101.36%	7.04%
17013	MARANATP	115	19210	RATTLNKN	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	120.0	110.63%	114.77%	4.15%
17013	MARANATP	115	19210	RATTLNKN	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	120.0	95.95%	100.06%	4.11%
14203	CASGRAPS	230	84848	CASGRAPS	69	665	"line_664"Line TOLTEC 69.0 to MILLIGAN 69.0 Circuit 1	100.0	99.00%	101.94%	2.93%
14203	CASGRAPS	230	84848	CASGRAPS	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	100.0	113.06%	115.97%	2.92%
84848	CASGRAPS	69	84747	SE8	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	107.6	100.24%	103.08%	2.83%
14217	LONEPEAK	230	14221	PNPKAPS	230	50	"line_49"Line REACH 230.0 to PNPKAPS 230.0 Circuit 1	545.4	108.64%	109.21%	0.57%
17019	RIVIERA	69	17087	RIVIERA	230	813	"tran_812"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 1	112.0	154.76%	154.76%	0.00%
17019	RIVIERA	69	17087	RIVIERA	230	814	"tran_813"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 2	112.0	154.17%	154.17%	0.00%
84826	ARABY S	69	84895	AR FH TP	69	401	"line_400"Line N.GILA 69.0 to SW1 69.0 Circuit 1	78.6	102.46%	102.38%	-0.09%



P mis = 0.0000 MW

Q mis = 0.0001 MVAR



CATS HV 2008 Study: TASK 2

SAN MANUEL 500MW INJECTION

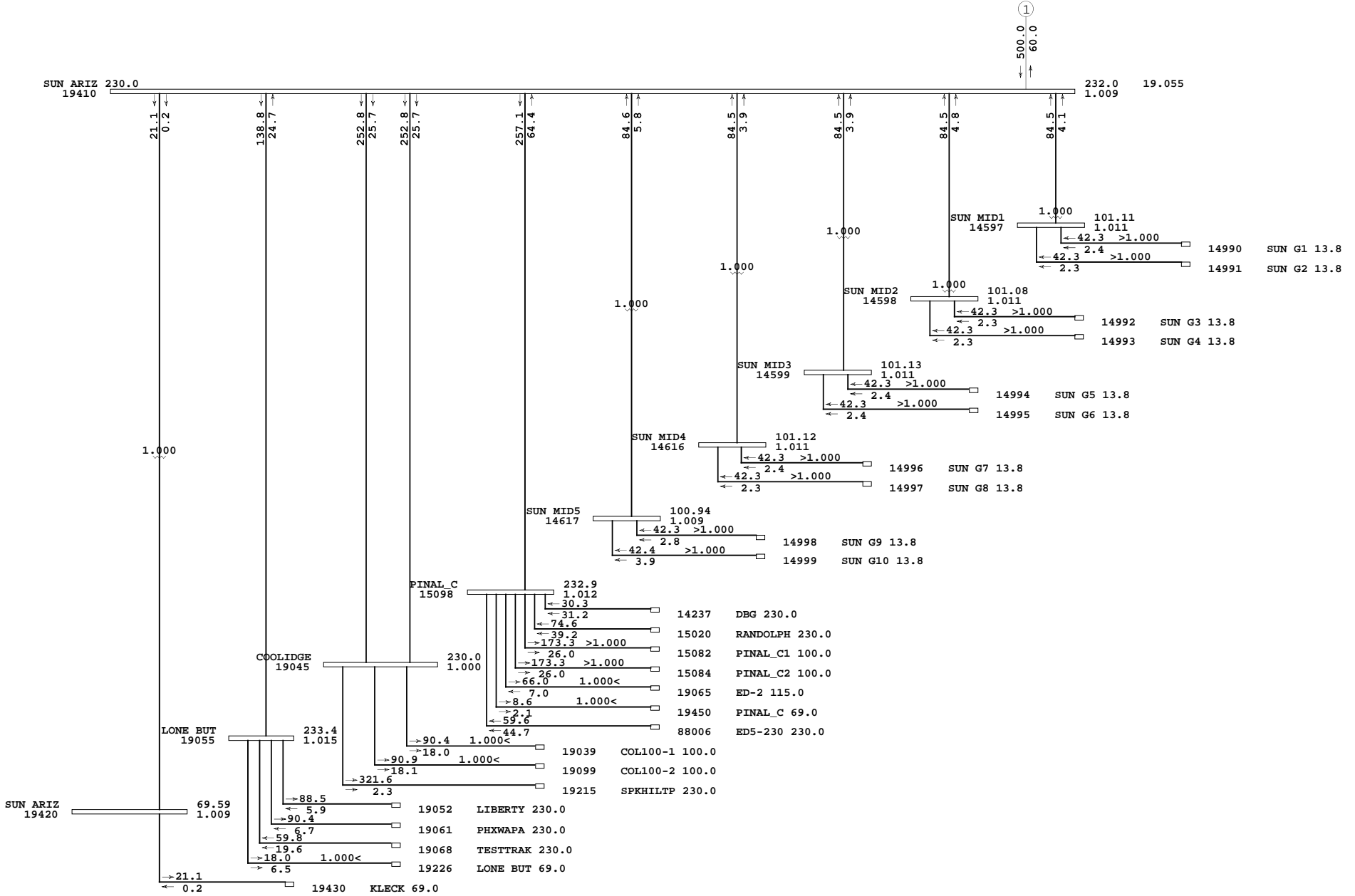
N-0 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	SAN MANUEL	INCREMENTAL
17608	S.BRKRCH	115	14358	SNMANUEL	115	1	"base"Base system (n-0)	145.9	5.73%	119.62%	113.89%
14358	SNMANUEL	115	15108	HAYDENAZ	115	1	"base"Base system (n-0)	167.3	21.28%	112.88%	91.60%

N-1 Summary

(IN ADDITION TO THOSE LISTED ABOVE)

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	SAN MANUEL	INCREMENTAL
19057	ORACLE	115	17608	S.BRKRCH	115	99	"line_98"Line SNMANUEL 115.0 to HAYDENAZ 115.0 Circuit 1	145.9	21.12%	141.48%	120.36%
19057	ORACLE	115	17608	S.BRKRCH	115	97	"line_96"Line SAG.WEST 115.0 to SNMANUEL 115.0 Circuit 1	145.9	40.51%	132.81%	92.31%
14357	SAG.WEST	115	14358	SNMANUEL	115	217	"line_216"Line S.BRKRCH 115.0 to SNMANUEL 115.0 Circuit 1	159.3	21.18%	110.85%	89.67%
19057	ORACLE	115	17608	S.BRKRCH	115	195	"line_194"Line APACHE 115.0 to SNMANUEL 115.0 Circuit 1	145.9	29.86%	118.80%	88.94%
19057	ORACLE	115	17608	S.BRKRCH	115	134	"line_133"Line HAYDENAZ 115.0 to KEARNYTP 115.0 Circuit 1	145.9	26.50%	110.08%	83.58%
19057	ORACLE	115	17608	S.BRKRCH	115	138	"line_137"Line KEARNYTP 115.0 to MORRISAZ 115.0 Circuit 1	145.9	27.99%	108.68%	80.68%
19057	ORACLE	115	17608	S.BRKRCH	115	139	"line_138"Line KNOLL 115.0 to MORRISAZ 115.0 Circuit 1	145.9	30.50%	107.02%	76.52%
19057	ORACLE	115	17608	S.BRKRCH	115	198	"line_197"Line APACHE 230.0 to WINCHSTR 230.0 Circuit 1	145.9	25.77%	101.91%	76.14%
19057	ORACLE	115	17608	S.BRKRCH	115	897	"tran_896"Tran WINCHSTR 345.00 to WINCHSTR 230.00 Circuit 1	145.9	25.76%	101.90%	76.13%
19057	ORACLE	115	17608	S.BRKRCH	115	91	"line_90"Line ADAMS TP 115.0 to APACHE 115.0 Circuit 1	145.9	25.43%	101.49%	76.06%
19057	ORACLE	115	17608	S.BRKRCH	115	110	"line_109"Line SILVERKG 500.0 to BROWNING 500.0 Circuit 1	145.9	25.48%	100.92%	75.44%
19057	ORACLE	115	17608	S.BRKRCH	115	196	"line_195"Line APACHE 230.0 to BUTERFLD 230.0 Circuit 1	145.9	25.44%	100.56%	75.11%
19057	ORACLE	115	17608	S.BRKRCH	115	133	"line_132"Line HAYDENAZ 115.0 to ASARCOTP 115.0 Circuit 1	145.9	30.47%	101.77%	71.30%
14357	SAG.WEST	115	14358	SNMANUEL	115	289	"line_288"Line ORACLE 115.0 to S.BRKRCH 115.0 Circuit 1	159.3	31.72%	100.43%	68.71%
19057	ORACLE	115	17608	S.BRKRCH	115	145	"line_144"Line RAY 115.0 to KNOLL 115.0 Circuit 1	145.9	37.21%	101.62%	64.42%
19210	RATTLNKN	115	19216	TWINPEAK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	134.14%	139.39%	5.25%
19216	TWINPEAK	115	17670	PICTROCK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	133.01%	138.26%	5.25%
19210	RATTLNKN	115	19216	TWINPEAK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	116.27%	121.44%	5.17%
17670	PICTROCK	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	122.59%	127.75%	5.17%
19216	TWINPEAK	115	17670	PICTROCK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	115.15%	120.31%	5.16%
17089	SNDARIO	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	121.43%	126.58%	5.16%
17670	PICTROCK	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	105.14%	110.22%	5.08%
17089	SNDARIO	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	103.98%	109.05%	5.07%
14203	CASGRAPS	230	84848	CASGRAPS	69	665	"line_664"Line TOLTEC 69.0 to MILLIGAN 69.0 Circuit 1	100.0	99.00%	100.46%	1.46%
14203	CASGRAPS	230	84848	CASGRAPS	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	100.0	113.06%	114.51%	1.45%
84848	CASGRAPS	69	84747	SE8	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	107.6	100.24%	101.70%	1.45%
17019	RIVIERA	69	17087	RIVIERA	230	813	"tran_812"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 1	112.0	154.76%	154.76%	0.00%
17019	RIVIERA	69	17087	RIVIERA	230	814	"tran_813"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 2	112.0	154.17%	154.17%	0.00%
17013	MARANATP	115	19210	RATTLNKN	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	120.0	110.63%	95.28%	-15.35%
17013	MARANATP	115	19210	RATTLNKN	115	95	"line_94"Line SAG.EAST 115.0 to NAVISKA 115.0 Circuit 1	120.0	100.57%	84.70%	-15.87%



P mis = 0.0003 MW

Q mis = -0.0015 MVAR



# CATS HV 2008 Study: TASK 2

## SUNDANCE 500MW INJECTION

### N-0 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	SUNDANCE	INCREMENTAL
14206	CTRYCLUB	230	14216	LINCSTRT	230	1	"base"Base system (n-0)	557.0	99.93%	100.24%	0.31%

### N-1 Summary

NO.	NAME	KV	NO. 2	NAME3	KV4	OTG	CONTINGENCY DESCRIPTION	RATING	BASE CASE	SUNDANCE	INCREMENTAL
19215	SPKHILTP	230	19045	COOLIDGE	230	461	"line_460"Line SUN ARIZ 230.0 to PINAL_C 230.0 Circuit 1	390.5	60.31%	100.73%	40.42%
19502	ROGSWAPA	230	19215	SPKHILTP	230	461	"line_460"Line SUN ARIZ 230.0 to PINAL_C 230.0 Circuit 1	390.5	60.20%	100.52%	40.32%
19045	COOLIDGE	230	19410	SUN ARIZ	230	270	"line_269"Line COOLIDGE 230.0 to SUN ARIZ 230.0 Circuit 2	414.7	83.20%	106.35%	23.15%
19045	COOLIDGE	230	19410	SUN ARIZ	230	269	"line_268"Line COOLIDGE 230.0 to SUN ARIZ 230.0 Circuit 1	414.7	83.20%	106.35%	23.15%
17013	MARANATP	115	19210	RATTLSENK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	120.0	110.63%	113.50%	2.87%
19210	RATTLSENK	115	19216	TWINPEAK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	134.14%	136.70%	2.56%
19216	TWINPEAK	115	17670	PICTROCK	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	133.01%	135.57%	2.56%
19210	RATTLSENK	115	19216	TWINPEAK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	116.27%	118.82%	2.55%
19216	TWINPEAK	115	17670	PICTROCK	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	115.15%	117.70%	2.55%
17670	PICTROCK	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	122.59%	125.13%	2.54%
17089	SNDARIO	115	19212	SANDARIO	115	199	"line_198"Line AVRA 115.0 to MARANA 115.0 Circuit 1	132.0	121.43%	123.97%	2.54%
17670	PICTROCK	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	105.14%	107.67%	2.53%
17089	SNDARIO	115	19212	SANDARIO	115	200	"line_199"Line AVRA 115.0 to SNDARIO 115.0 Circuit 1	132.0	103.98%	106.50%	2.52%
17013	MARANATP	115	19210	RATTLSENK	115	95	"line_94"Line SAG.EAST 115.0 to NAVISKA 115.0 Circuit 1	120.0	100.57%	102.43%	1.86%
14203	CASGRAPS	230	84848	CASGRAPS	69	665	"line_664"Line TOLTEC 69.0 to MILLIGAN 69.0 Circuit 1	100.0	99.00%	100.74%	1.73%
14203	CASGRAPS	230	84848	CASGRAPS	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	100.0	113.06%	114.78%	1.73%
84848	CASGRAPS	69	84747	SE8	69	915	"tran_914"Tran MILLIGAN 230.00 to MILLIGAN 69.00 Circuit 1	107.6	100.24%	101.95%	1.71%
14217	LONEPEAK	230	14221	PNPKAPS	230	50	"line_49"Line REACH 230.0 to PNPKAPS 230.0 Circuit 1	545.4	108.64%	109.41%	0.77%
17019	RIVIERA	69	17087	RIVIERA	230	813	"tran_812"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 1	112.0	154.76%	154.76%	0.00%
17019	RIVIERA	69	17087	RIVIERA	230	814	"tran_813"Tran RIVIERA 69.00 to RIVIERA 230.00 Circuit 2	112.0	154.17%	154.17%	0.00%