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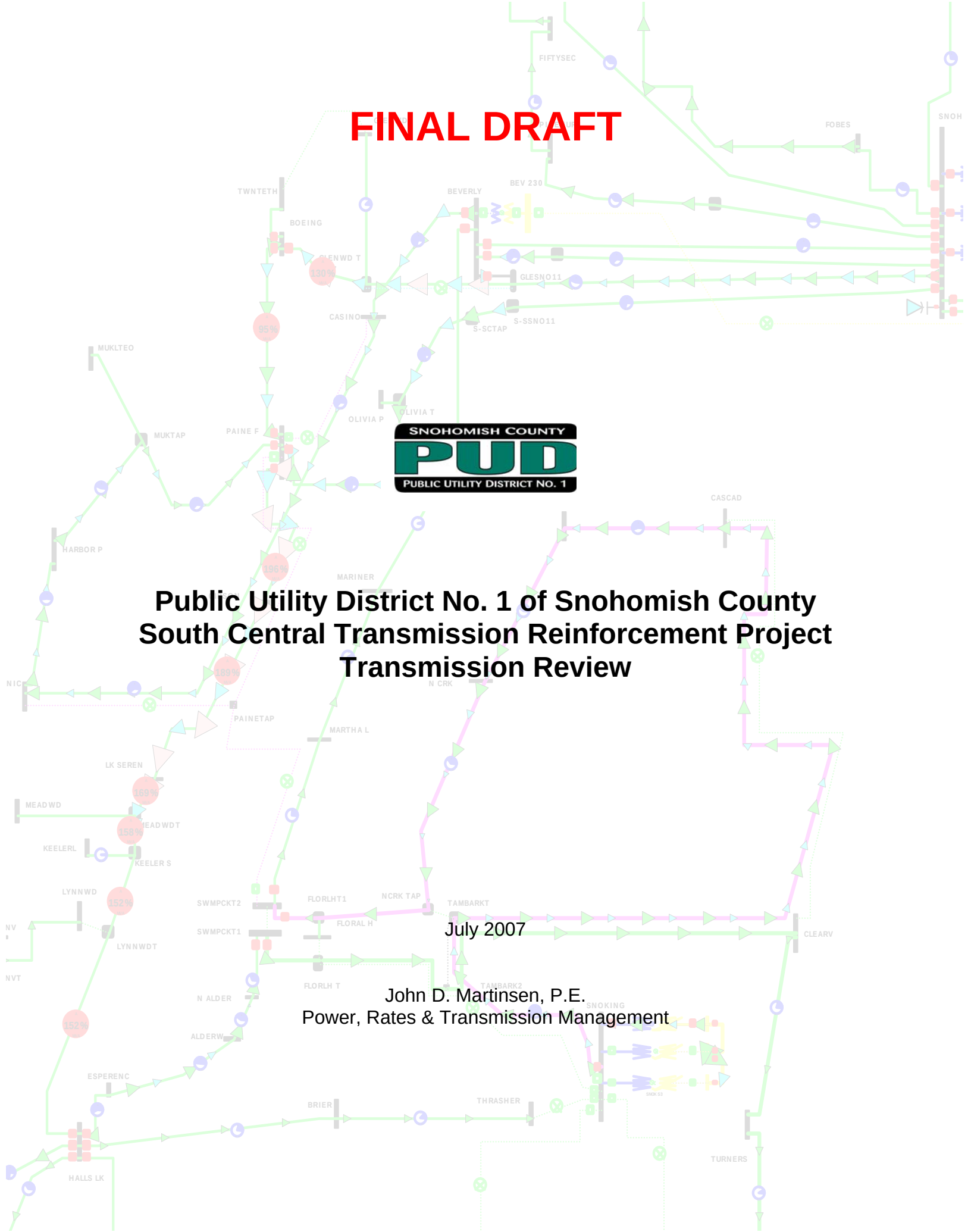

SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

Public Utility District No. 1 of Snohomish County
South Central Transmission Reinforcement Project
Transmission Review

July 2007

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Power, Rates & Transmission Management

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Summary:

Project Description

The Public Utility District No. 1 of Snohomish County ("District") identified a load service need to reinforce the District 115kV system in addition to a 230-115 kV transformer reinforcements at the District Beverly Park substation. This project is identified as the South Central Transmission Reinforcement Project ("SCTP").

These system modifications include the following additions (see Figure 14: South County 115kV Transmission Expansion and Figure 15: District Beverly Park to Paine Field 115kV Transmission for details):

- **Beverly Park 230-115kV transformer**
- **Swamp Creek 115kV switching station**
- **SnoKing-Clearview 115 kV transmission line**
- **Swamp Creek to Paine Field switching station 115kV transmission line**
- **Paine Field area switching station upgrades (add two 115kV breaker positions)**

Currently two-230kV constructed lines (operated at 115kV) serve the District Paine Field and Boeing substations. These two lines originate from the BPA Snohomish substation and are located adjacent to the Beverly Park substation. This project will initially convert one of these lines to 230kV operation to serve the new 230-115kV, 300 MVA, Beverly Park transformer. This transformer installation along with the other District 115kV upgrades will address transformer overloads at BPA Snohomish and Murray and central Snohomish county load service. Preliminary review and coordination have taken place with BPA and PSE to address the need date and to coordinate land and permitting issues.

The North Central Transmission Project ("NCTP") was also identified in the study to identify the long range performance of the planned reinforcements. These North County improvements include the:

- **Stimson's Crossing switching station area 230-115kV transformer that is tapped off the BPA Murray to Snohomish 230kV line**
- **Everett to Glenwood 115kV transmission line**
- **Pinehurst 115kV line looped into the Beverly Park**
- **BPA up-rate of BPA Snohomish to Murray 230kV transmission line**

Study Overview

This study used two methods to review the District's power system:

1. **Total Transfer Capability ("TTC") Analysis into the District service area**
2. **2006-2012 Seven Year Capital Construction Plan Contingency Analysis**

This TTC assessment of the District's 115kV system was developed to review the maximum transfer capability into the District 115kV system. The analysis identifies what load level the current District transmission system and BPA points of delivery ("POD") can reliably supply power to District customers. The study also evaluates the benefits of the planned District South Central Transmission Project ("SCTP") and the North Central Transmission Project ("NCTP") 115kV reinforcement facilities. The TTC analysis provides a good indicator of system capability. However, it does not address all internal operational flexibility and system efficiency issues. Therefore, the calculated TTC should be considered minimum limits when evaluating system transfer capability.

In addition, to the TTC assessment of the District's 115kV system cases a contingency analysis was performed using 1-in-5 high winter peak load forecasts and projects identified in the District's 2006-2012 Seven Year Capital Construction Plan. The years 2006, 2010, and 2015 were reviewed. The year 2006 was identified as the base year or starting point and the years 2010 and 2015 are points where major 115kV transmission infrastructure installations are currently identified in the District Seven Year Capital Construction Plan.

It is practically impossible to protect District's entire load from all one-element out ("N-1") contingencies under all conditions. To address this dilemma, the electric industry has developed standards and practices to provide a high Level of Service ("LOS") at reasonable costs. This analysis benchmarked the system performance against current District planning guidelines and the applicable Western Electricity Coordinating Council ("WECC") and North American Electric Reliability Council ("NERC") electric industry reliability standards. The study also included a review of District and Bonneville Power Administration ("BPA") service facilities, including the major BPA-to-District points of delivery ("POD") facility outages.

System Concerns

Recent bus-sectionalizing breaker installations at the BPA SnoKing and Snohomish substations have helped reduce the impact of significant loss of load to District customers resulting from both bus-sectionalizing breaker failures and bus outages. The District is currently working with BPA to add the second bus-sectionalizing breaker at BPA SnoKing. The planned energization date is 2007.

However, consistent with previous planning studies, BPA Snohomish and Murray 115-230kV transformer overloads continue to be the largest planning problems facing the District today. Outages of BPA POD facilities cause the most significant overloads to District and BPA systems that serve District customers. These outages can expose the District to significant loss of load during normal winter and winter peak conditions. In the case of a BPA Snohomish POD bus, transformer, or bus-sectionalizing breaker failure, the District could drop a significant portion of its load. Approximately 50 to 70 percent of the load would likely be restored within four to eight hours depending on the weather conditions and system loading. Failed 300 MVA, 115-230 kV transformers

typically take months to replace since system spares are limited and transporting these transformers during the winter can be challenging. These types of failures at BPA Snohomish or Murray would cause significant operational constraints and increased load loss exposure, especially during the winter season.

In 2004, the District implemented a separation scheme to address transformer overloads at BPA Snohomish. This manual scheme consists of standing orders that would be initiated by BPA and implemented by the District. The scheme would use supervisory control and data acquisition ("SCADA") to separate the two North County Transmission Project lines from Everett to Marysville (no load would be dropped). This would separate two of the three District 115kV lines that connect central and north Snohomish County. This scheme is required to off load BPA Snohomish by increasing the load onto BPA Murray. This is not an ideal solution, since a second outage at BPA Murray while this scheme is implemented would result in the loss of all District load north of Everett. Conversely, if the scheme is not implemented, the remaining transformers at Snohomish would overload and the District could lose approximately 50 percent of its load. The only other operational solution to this problem is to initiate the District manual load dropping plan in the event of a transformer overload.

In the winter of 2005, the District was contacted by BPA regarding the winter 2005-2006 Northern Intertie ("NI") winter season operating nomograms. It was noticed that the NI operating nomograms were significantly reduced by the overloading of the Snohomish 230-115kV transformer bank No. 3 for operating nomogram No. 468. Nomogram No. 468 describes the Snohomish-Murray 230-kV line out of service operating conditions. This Operating Transfer Capability ("OTC") limitation occurred at Snohomish ambient temperature of 25 °F, 35 °F, and 45°F. To resolve this issue, at least temporarily, the District and BPA reviewed implementing the Delta switching station separation scheme. This added approximately 700 MW to the OTC limits for the nomogram No. 468 conditions. This standing order has been implemented and is still in service.

These limitations are currently impacting both the internal District system operations as well as the regional NI operations. The District and other Puget Sound and Northwest utilities power supply is dependent on the NI operations since the NI impacts the District schedules into and through the Puget Sound area. Limitation on the NI would typically be resolved financially and would not result in loss of load.

Solution

There are a number of proposed solutions that support the transformer overloading issues at BPA Snohomish and Murray. The first and least expensive option is providing more bus-sectionalizing capability at these substations. These projects reduce the lines and transformers affected during bus fault conditions. The District and BPA have been adding bus-sectionalizing breaker at Snohomish and SnoKing. BPA has funded the 230kV bus-sectionalizing breaker installations and the District has funded the 115kV bus-sectionalizing breaker installations. A bus-sectionalizing breaker has not been added to BPA Murray, since there is only one 115-230kV transformer located there and sectionalizing the 115kV bus would not provide significant improvements.

The next solution set includes adding 115kV lines or networking existing 115kV lines between BPA PODs. These projects provide better transfer capability between the BPA PODs and balance lines and transformers more efficiently. The Swamp Creek switching station and the Paine Field-to-Swamp Creek 115kV lines are examples of this type of networking project. In addition to providing transfer capability, these projects typically reduce system losses by better balancing existing facilities. The "North County Transmission Project" finished in the mid 1990s was the last major 115kV networking project the District completed. This project added two additional 115kV lines between Everett and Marysville and two switching stations: the Delta switching station and the Stimson's Crossing switching station with associated 115kV upgrades.

The final solution is to add more 115-230kV transformer capacity near the system overloads. A District example includes the Beverly Park 230-115kV transformer project. Ideally, the most efficient placement of these transformers is near major load centers. Siting these near the loads reduces system losses on the 115kV system. The District was successful in permitting the Beverly Park switching station for 230kV and is planning to use the site for the next major 230kV capacity installation. The Beverly Park site is ideal since it is near the central Snohomish County load center and has two-230kV (currently operated at 115kV) lines that are located adjacent to the station. This transformer addition will significantly reduce loading on the BPA Snohomish POD.

Presently, approximately 90 percent of the District peak load is served by three BPA POD substations; SnoKing in the south, Murray in the north, and Snohomish serving central Snohomish County. Of this 90 percent, approximately 50 percent of the load is served by BPA Snohomish, 30 percent by BPA SnoKing, and 20 percent by BPA Murray. Of these three PODs, SnoKing has the most nameplate transformer capacity at 860 MVA. Snohomish has 810 MVA, and Murray has 300MVA. Based on the POD loading, SnoKing is underutilized and Snohomish and Murray are over utilized, resulting in overload conditions during outage conditions.

Recommendation

It is recommended that the District continue to follow the Seven Year Capital Construction Plan and possibly accelerate the 115kV reinforcement projects depending on actual load growth. These are large load service projects and can take four to eight years to permit and construct and may encounter siting complications and some level of regional review.

TTC Study Results

ALL IN

The results of the TTC analysis identify that if load shedding was not used and the District reliability guidelines, applicable North American Electric Reliability Council ("NERC"), and Western Electricity Coordinating Council ("WECC") criteria were observed, the District "N-1" TTC into the present 2006 system is currently 943.16 MW. The addition of the facilities in the SCTP described in the "System Configurations" section below increases the TTC to 1004.63 MW. The NCTP increases the TTC to 1184.84 MW. The contingency set used in the "ALL IN" analysis included bus-sectionalizing breaker failures at the District-BPA major POD.

NO ZZZ

The "NO ZZZ" includes all BPA POD bus-sectionalizing breaker failures but does not include multiple bus-sectionalizing breaker failures or bus-sectionalizing breaker failures that are planned to be resolved by 2007 or 2008. This analysis identified that the SCTP adds over 330 MW of TTC into the District system. The SCTP increases the TTC from 955.11 MW to 1293.81 MW. The 115kV bus-sectionalizing breaker failure outages at the BPA Snohomish substation are limited by District transmission facilities in North Snohomish County as well as single BPA Murray 230-115kV transformer. To resolve these issues, the NCTP described in the "System Configurations" below is needed to increase the TTC from 1293.81 MW to 1772.68 MW.

CONTINGENCY AND SYSTEM SET	ATC	Base Load(i)	TTC
BASE ALL IN	-156.8	1100	943.16
SCTP ALL IN	-95.37	1100	1004.63
NCTP ALL IN	84.84	1100	1184.84
BASE NO ZZZ	-144.9	1100	955.11
SCTP NO ZZZ	193.81	1100	1293.81
NCTP NO ZZZ	672.68	1100	1772.68
BASE NO ZZZ ZZ C	332.13	1100	1432.13
SCTP NO ZZZ ZZ C	546.64	1100	1646.64
NCTP NO ZZZ ZZ C	689.74	1100	1789.74

Figure 1 District System Upgrades Impacts on TTC

NO ZZZ ZZ C

If BPA POD bus-sectionalizing breaker failures and common mode transmission outages are not considered in the ATC analysis the 2006 system TTC increases from 955.11 MW to 1432.13 MW. The SCTP increases the TTC to 1646.65 and the NCTP increase the TTC to 1789.74 MW.

Based on this analysis the SCTP does not address 115kV BPA POD bus-sectionalizing breaker failures, however the project does address the BPA POD transformer outages. The North County transmission reinforcements are ultimately needed to address all credible contingency cases without the need of load dropping.

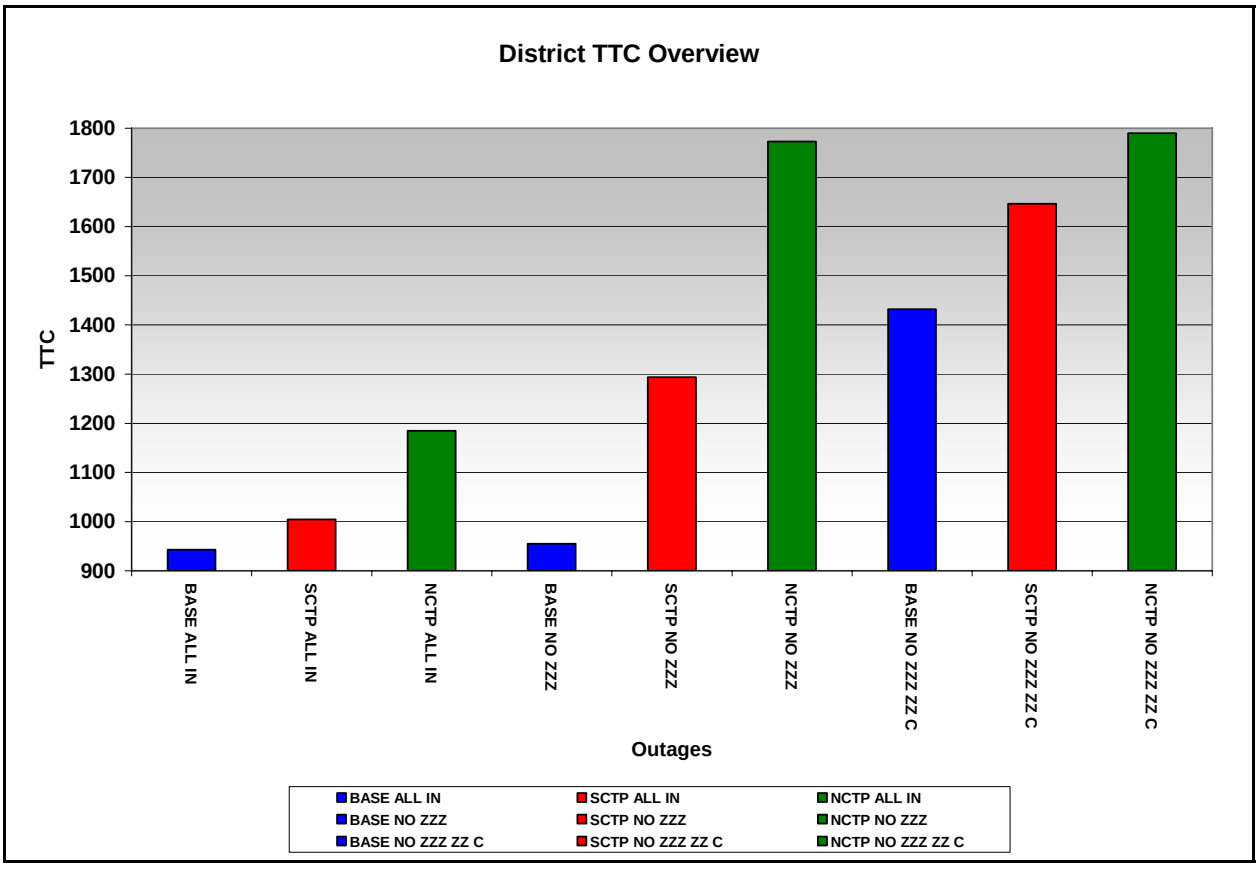

Figure 2 District TTC Overview

Figure 1 District System Upgrades Impacts on TTC clearly identifies that the NCTP addresses the bus-sectionalizing breaker failure outages. However, it is recommended that the SCTP be completed first and the NCTP completed second. This will allow the District to address the most likely outages first and reduce the impact to the District customers.

The contingency set identified as “ALL IN” include all one element out (“N-1”) contingency and common mode outages on the District and District-BPA POD boundaries. However, a number of these outage impacts have been reduced over the past few years by the installation of bus-sectionalizing breakers. Based on current schedules the contingencies set identified as “ZZZ” will not be credible events by the end of the year 2008.

TTC Study Assumptions

The District load was set at 1,100 MW and the District system zone was added to an injection group. Maximum transfers were made from the Northwest area injection group to the District injection group. The District local generation was set to zero with Automatic Voltage Regulator ("AVR") enabled. The PowerWorld Available Transfer Capability ("ATC") analysis tool was used and the stable ATC value was added to the 1,100 MW to calculate the system TTC value. The 1,100 MW was use since it was just under the most restricted base system contingency scenario TTC value.

TTC Contingency Scenarios

Three contingency scenarios were performed:

1. All in: This includes all credible outages included loss of the SnoKing 115kV bus since a second bus-sectionalizing breaker will not be installed until or 2007.
2. No ZZZ: This includes all credible outages except for the SnoKing bus-sectionalizing breaker failures and common mode line failures
3. No ZZZ ZZ C: This includes all credible outages except for all bus-sectionalizing breaker failures.

TTC System Configurations

Three system configurations were also reviewed:

1. Base system: No improvements were to the February 2006 District system
2. SCTP: This System Modification configuration includes the addition of the:
    - **Beverly Park 230-115kV transformer**
    - **Swamp Creek 115kV switching station**
    - **SnoKing-Clearview 115 kV transmission line**
    - **Swamp Creek to Paine Field switching station 115kV transmission line**
    - **Paine Field area switching station upgrades (add two 115kV breaker positions)**
3. NCTP: This System Modification configuration included all SCTP improvements in addition to the North county transmission improvements. These North County improvements include the:
    - **Stimson's Crossing switching station area 230-115kV transformer that is tapped off the BPA Murray to Snohomish 230kV line**
    - **Everett to Glenwood 115kV transmission line**
    - **Pinehurst 115kV line looped into the Beverly Park**
    - **BPA up rate of BPA Snohomish to Murray 230kV transmission line**

Capital Construction Plan Contingency Study Results

2006 Case - 1530 MW

The majority of significant overloads occur on the BPA Snohomish and Murray 115-230kV transformers. The outages that result in these overloads are BPA bus-sectionalizing breaker, bus, and 115-230kV transformer failures. Currently, loss of the BPA Snohomish bus is not considered credible since the second bus-sectionalizing breaker was completed in the fall of 2005. After 2007, loss of the SnoKing bus will not be considered credible because the bus will be sectionalized by two ("2") 115kV power circuit breakers ("PCB"). Therefore, a bus-sectionalizing breaker failure will not result in the loss of the entire POD.

The most significant bus-sectionalizing breaker failure occurs when the PCB tying the BPA Snohomish 115kV east and central bus faults. This causes the BPA Snohomish 115-230kV transformer No. 3 to load to 159 percent of its emergency winter rating. This would cause the Snohomish transformer No. 3 to trip out of service and result in significant loss of District load (up to 50 percent of District load loss depending on temperature and local generation dispatch). Note the CONTINGENCY ZZ-SNOH WEST CENT BUS G BS did not solve. This contingency involves faulting the bus-sectionalizing breaker that ties the west and central 115kV Snohomish buses together in addition to the Kimberly Clark and Jackson Hydro Project generation off line.

The major 115kV facilities added to the 2006 system include the Beverly Park-to-Silver Lake 115kV line and the 115kV line from Turners Corner to the Park Ridge substation. These facilities will provide better transfer capability between BPA Snohomish and the SnoKing substations via the Beverly Park switching station. However, most of the benefits of these lines will not be realized until the Swamp Creek switching station and the Beverly Park 230kV transformer installation are completed.

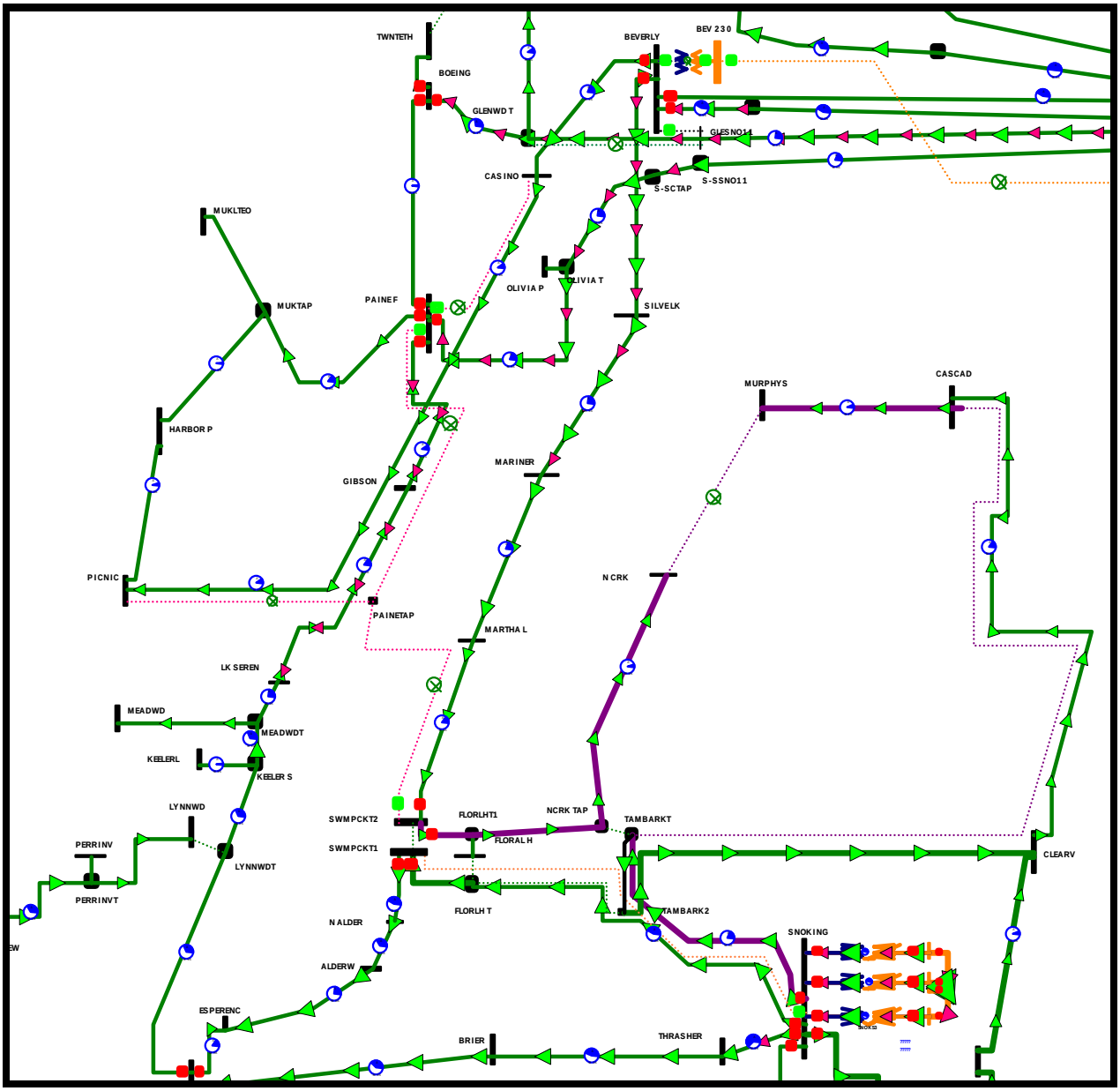

Figure 3: 2006 Case - 1530 MW

2006 Case Thermal Contingency Violation Matrix

CONTINGENCY ZZ-SNOH WEST CENT BUS G BUS-SECTIONALIZING BREAKER did not solve

2006 Percent of Thermal Limit																						
Contingency	ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1	MURRAY (40767) TO MURRAY (40765) CKT 1	MURRAY (40765) TO SMOKEYPT (45777) CKT 1	MURRAY (40767) TO SNOH S1 (41327) CKT 1	SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3	SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2	SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1	SNOK S3 (41008) TO SNOKING (41003) CKT 2	SNOKING (41003) TO THRASHER (45801) CKT 1	FLORLH T (45844) TO SNOKING (41003) CKT 1	BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1	BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2	BEVERLY (45608) TO GLDBRTIE (42399) CKT 1	GIBSON (45657) TO LK SEREN (45701) CKT 1	GIBSON (45657) TO PAINE F (45745) CKT 1	JACKSN1 (45687) TO JACKSN (45685) CKT 1	LK SEREN (45701) TO MEADWDT (45715) CKT 1	KEELER S (45708) TO LYNNWDT (45707) CKT 1	HALLS LK (45848) TO LYNNWDT (45707) CKT 1	KEELER S (45708) TO MEADWDT (45715) CKT 1	SMOKEYPT (45777) TO STIMSONS (45785) CKT 1
ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)					110.12	111.21	96.96							133.77	143.21		122.75	112.87	111.76	113.53	
ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)					101.06	102.05								133.24	142.55		122.44	112.63	111.59	113.27	
ZZZ-SNOH BUS G (NOT CREDIBLE)	90.68	159.56	125.44	120.89					93.74				90.31	95.23			103.37	113.66	116.32	112.11	98.46
ZZZ-SNOH BUS (NOT CREDIBLE)	90.68	140.87	117.77	109.38					92.84				91.59	94.77		148.15	102.83	112.88	115.13	111.51	98.56
ZZZ-500 TP SNOKING G (NOT CREDIBLE)	90.68												92.98								
ZZZ-500 TP SNOKING (NOT CREDIBLE)	90.68												91.12								
ZZ-SNOK SOUTH CENT BUS G BS					90.6	91.49				90.35											
ZZ-SNOK NORTH CENT BUS G BS					91.22	92.12		91.77													
ZZ-SNOH WEST CENT BUS BS		99.46	114.43				99.42														97.58
ZZ-SNOH EAST CENT BUS G BS	90.68				158.88																
ZZ-SNOH EAST CENT BUS BS					139.12																
Z-SNOH XF3 G						110.12	96.95														
Z-SNOH XF3						99.71															
Z-SNOH XF2 G					109.35		97.57														
Z-SNOH XF2					99.02																
Z-SNOH XF1 G					106.96	108.37															
Z-SNOH XF1					96.93	98.19															
Z-SNOH WEST BUS-G						100															
Z-SNOH EAST BUS G					102.68	104.16															
Z-SNOH EAST BUS					91.35	92.67															
Z-SNOH CENT BUS G					107.72		94.21														
Z-SNOH CENT BUS					96.6																
Z-MURRAY XF G					95.81	96.5															
Z-MURRAY BUS G					97.36	98.08															
Z-MURRAY BUS																					
Z-230 SNOK3 G											92.46										
Z-230 SNOK1 G												91.97									
Z-230 SNOH4 G					104.42	105.48															
Z-230 SNOH4					94.95	95.94															
Z-230 SNOH3 G	90.34				105.95		93.94														
Z-230 SNOH3					97.11																
Z-230 SNOH2 G	90.46					109.02	96.14														
Z-230 SNOH2						98.83															
Z-230 SNOH1 G					90.46	90.81															
L_45647FIVECOR-45848HALLSLKC1																					
L_45622MARINER-45857SILVELKC1																					
L_45608BEVERLY-45857SILVELKC1																					
C-SILLS- LK GDW FAULT																					
C-BEV-SILVER-OLIVIA FAULT																					
C-BEV-SILVER-GLENWD FAULT																					
C-BEV-CASINO-OLIVIA FAULT																					

Figure 4: 2006 Case Thermal Contingency Violation Matrix

2010 Case - 1585 MW

Consistent with the 2006 case, the majority of significant overloads occur on the BPA Snohomish and Murray 115-230kV transformers. However, the two 115kV lines from SnoKing to Brier and SnoKing to Thrasher serving the Halls Lake switching station overload due to single bus outages at BPA SnoKing

The most significant bus-sectionalizing breaker failure occurs when the PCB tying the BPA Snohomish 115kV east and central busses faults. This results in overloading the BPA Snohomish 115-230kV transformer to 155 percent of its emergency winter rating. This would cause the Snohomish transformer to trip out of service and result in significant loss of District load (up to 50 percent of District load loss depending on temperature and local generation dispatch).

The South Snohomish county transmission networking project was configured to provide for “closed loop” service into the proposed Brightwater substation. In addition with the Swamp Creek switching station, this configuration would provide more transfer capability between Snohomish and SnoKing, while reducing outage exposure to District distribution substations. The Swamp Creek switching station is currently scheduled to be completed in 2015.

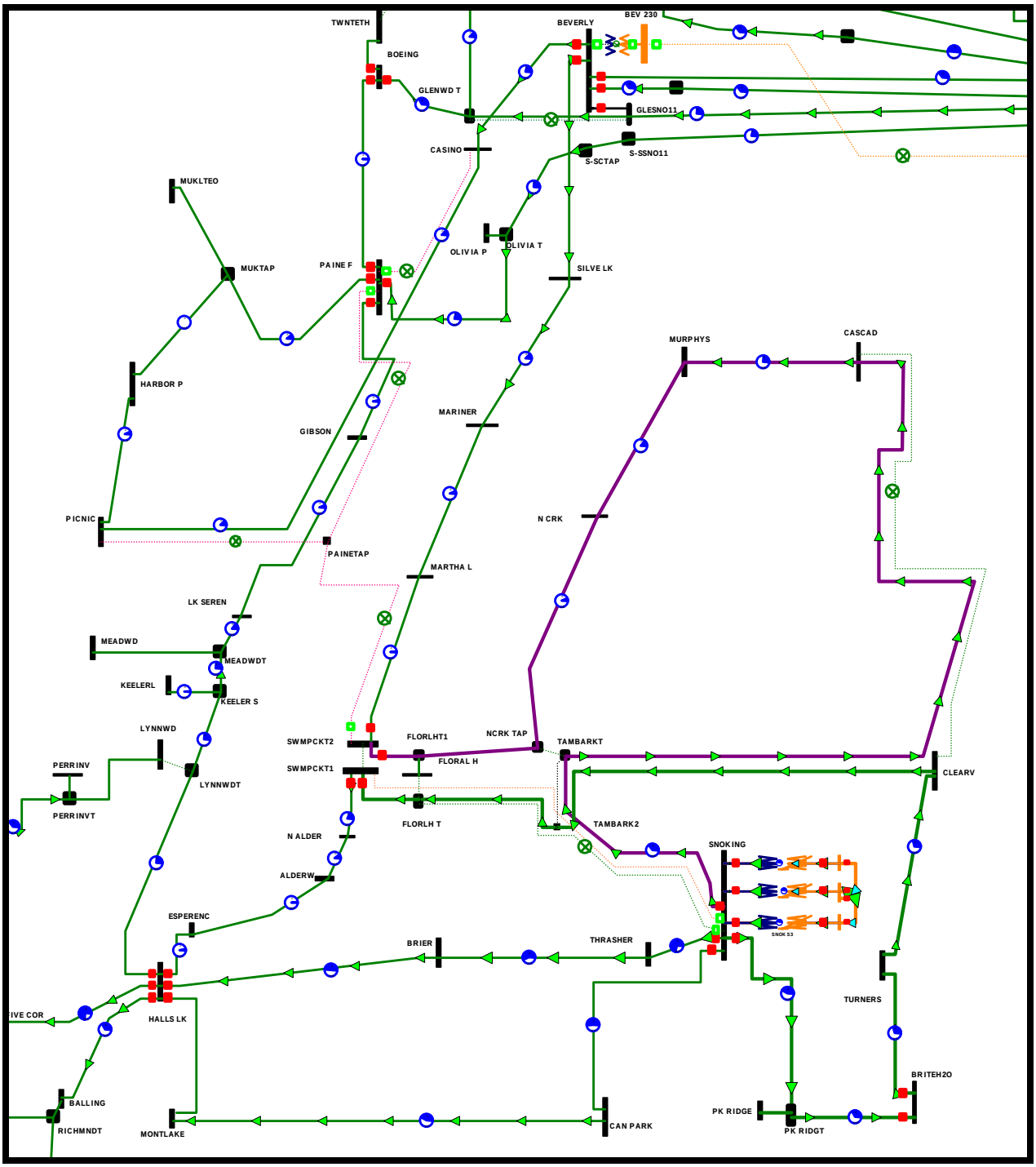

Figure 5: 2010 Case - 1585 MW

2010 Case Thermal Contingency Violation Matrix

2010 Percent of Thermal Limit											
Contingency	MURRAY (40767) TO MURRAY (40765) CKT 1	MURRAY (40765) TO SMOKEYPT (45777) CKT 1	MURRAY (40767) TO SNOH S1 (41327) CKT 1	SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3	SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2	SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1	SNOK S3 (41008) TO SNOKING (41003) CKT 2	SNOKING (41003) TO THRASHER (45801) CKT 1	BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1	BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2	BOEING (45607) TO PAINE F (45745) CKT 1
ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)				129.7	131.07	113.51			92.45	95.35	91.19
ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)				119.52	120.79	104.45				91.41	91.19
ZZZ-SNOH BUS G (NOT CREDIBLE)	168.99	134.63	126.44					104.87			
ZZZ-SNOH BUS (NOT CREDIBLE)	149.12	123.81	114.13					104.73			
ZZ-SNOK SOUTH CENT BUS G BS				116.82	118.08	102.21					95.32
ZZ-SNOK SOUTH CENT BUS BS				106.81	107.95	93.43					93.11
ZZ-SNOK NORTH CENT BUS G BS				93.52	94.49		94.36				
ZZ-SNOK NORTH CENT BUS BS							91.92				
ZZ-SNOH WEST CENT BUS G BS	123.89	139.24	93.89			115.91		98.41			
ZZ-SNOH WEST CENT BUS BS	104.06	119.98				96.33		95.89			
ZZ-SNOH EAST CENT BUS G BS				154.83							
ZZ-SNOH EAST CENT BUS BS				136.1							
Z-SNOK SOUTH BUS G								140.96			
Z-SNOK SOUTH BUS								137.73			
Z-SNOH XF3 G					109.61	96.84					
Z-SNOH XF3					99.6						
Z-SNOH XF2 G				108.81		97.43					
Z-SNOH XF2				98.88							
Z-SNOH XF1 G				106.58	108.02						
Z-SNOH XF1				96.96	98.25						
Z-SNOH WEST BUS-G					99.55						
Z-SNOH EAST BUS G				102.28	103.81						
Z-SNOH EAST BUS				91.39	92.75						
Z-SNOH CENT BUS G				106.55		93.52					
Z-SNOH CENT BUS				95.82							
Z-MURRAY XF G				96.3	97.02						
Z-MURRAY BUS G				97.81	98.57						
Z-MURRAY BUS											
Z-230 SNOH4				94.67	95.67						
Z-230 SNOH3 G				104.63		94.82					
Z-230 SNOH3				96.72							
Z-230 SNOH2 G					108.76	96.07					
Z-230 SNOH2					98.94						
Z-230 SNOH1 G				90.89	91.24						
L_45757PKRIDGT-41003SNOKINGC1								94.75			
L_45619CANPARK-45717MONTLAKEC1								93.21			
L_45619CANPARK-41003SNOKINGC1								97.18			
C-BEV-SILVER-OLIVIA FAULT											
C-BEV-SILVER-GLENWD FAULT											
C-BEV-CASINO-OLIVIA FAULT											

Figure 6: 2010 Case Thermal Contingency Violation Matrix 1/2

2010 Percent of Thermal Limit													
Contingency	BOEING (45607) TO GLENWD T (45847) CKT 1	BRIER (45609) TO THRASHER (45801) CKT 1	BRIER (45609) TO HALLS LK (45848) CKT 1	GIBSON (45657) TO LK SEREN (45701) CKT 1	GIBSON (45657) TO PAINE F (45745) CKT 1	JACKSN1 (45687) TO JACKSN (45685) CKT 1	LK SEREN (45701) TO MEADWDT (45715) CKT 1	KEELER S (45708) TO LYNNWDT (45707) CKT 1	HALLS LK (45848) TO LYNNWDT (45707) CKT 1	KEELER S (45708) TO MEADWDT (45715) CKT 1	SMOKEYPT (45777) TO STIMSONS (45785) CKT 1	GLENWD T (45847) TO GLESNO11 (49900) CKT 1	S-SCTAP (45854) TO S-SSNO11 (49845) CKT 1
ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	125.66			186.26	201.87		165.07	151.59	147.25	153.32		154.06	91.28
ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	125.71			189.94	204.44		170.58	157.61	153.83	159.15		153.43	92.32
ZZZ-SNOH BUS G (NOT CREDIBLE)								94.95	96.48	93.9	106.33		
ZZZ-SNOH BUS (NOT CREDIBLE)						157.15		94.97	96.45	93.94	102.84		
ZZ-SNOK SOUTH CENT BUS G BS	130.03			189.09	203.93		169.16	156.01	152.06	157.61		158.72	
ZZ-SNOK SOUTH CENT BUS BS	127.79			188.56	202.04		170.9	158.5	155.26	159.86		155.39	
ZZ-SNOK NORTH CENT BUS G BS													
ZZ-SNOK NORTH CENT BUS BS													
ZZ-SNOH WEST CENT BUS G BS											113.13		
ZZ-SNOH WEST CENT BUS BS											101.76		
ZZ-SNOH EAST CENT BUS G BS													
ZZ-SNOH EAST CENT BUS BS													
Z-SNOK SOUTH BUS G		123.67	114.21										
Z-SNOK SOUTH BUS		120.56	111.26										
Z-SNOH XF3 G													
Z-SNOH XF3													
Z-SNOH XF2 G													
Z-SNOH XF2													
Z-SNOH XF1 G													
Z-SNOH XF1													
Z-SNOH WEST BUS-G													
Z-SNOH EAST BUS G													
Z-SNOH EAST BUS													
Z-SNOH CENT BUS G													
Z-SNOH CENT BUS													
Z-MURRAY XF G													
Z-MURRAY BUS G													
Z-MURRAY BUS													
Z-230 SNOH4													
Z-230 SNOH3 G													
Z-230 SNOH3													
Z-230 SNOH2 G													
Z-230 SNOH2													
Z-230 SNOH1 G													
L_45757PKRIDGT-41003SNOKINGC1													
L_45619CANPARK-45717MONTLAKEC1													
L_45619CANPARK-41003SNOKINGC1													
C-BEV-SILVER-OLIVIA FAULT													
C-BEV-SILVER-GLENWD FAULT													
C-BEV-CASINO-OLIVIA FAULT													

Figure 7: 2010 Case Thermal Contingency Violation Matrix 2/2

2015 Case - 1650 MW

The addition of the Beverly Park 115-230kV transformer resolved all but one Snohomish transformer overload caused by a bus-sectionalizing breaker failure between the east and central Snohomish 115kV busses. This outage overloads the Snohomish 230-115kV transformer to 115 percent of its winter rating. This is a major improvement in transformer overload issues at BPA Snohomish and SnoKing even though the system load is increased by 65 MW.

However, the Beverly Park transformer installation does not resolve a number of the BPA Murray transformer overload issues. Additional 115-230kV transformer capacity in North Snohomish County would be necessary to address this issue at the 1650 MW load level.

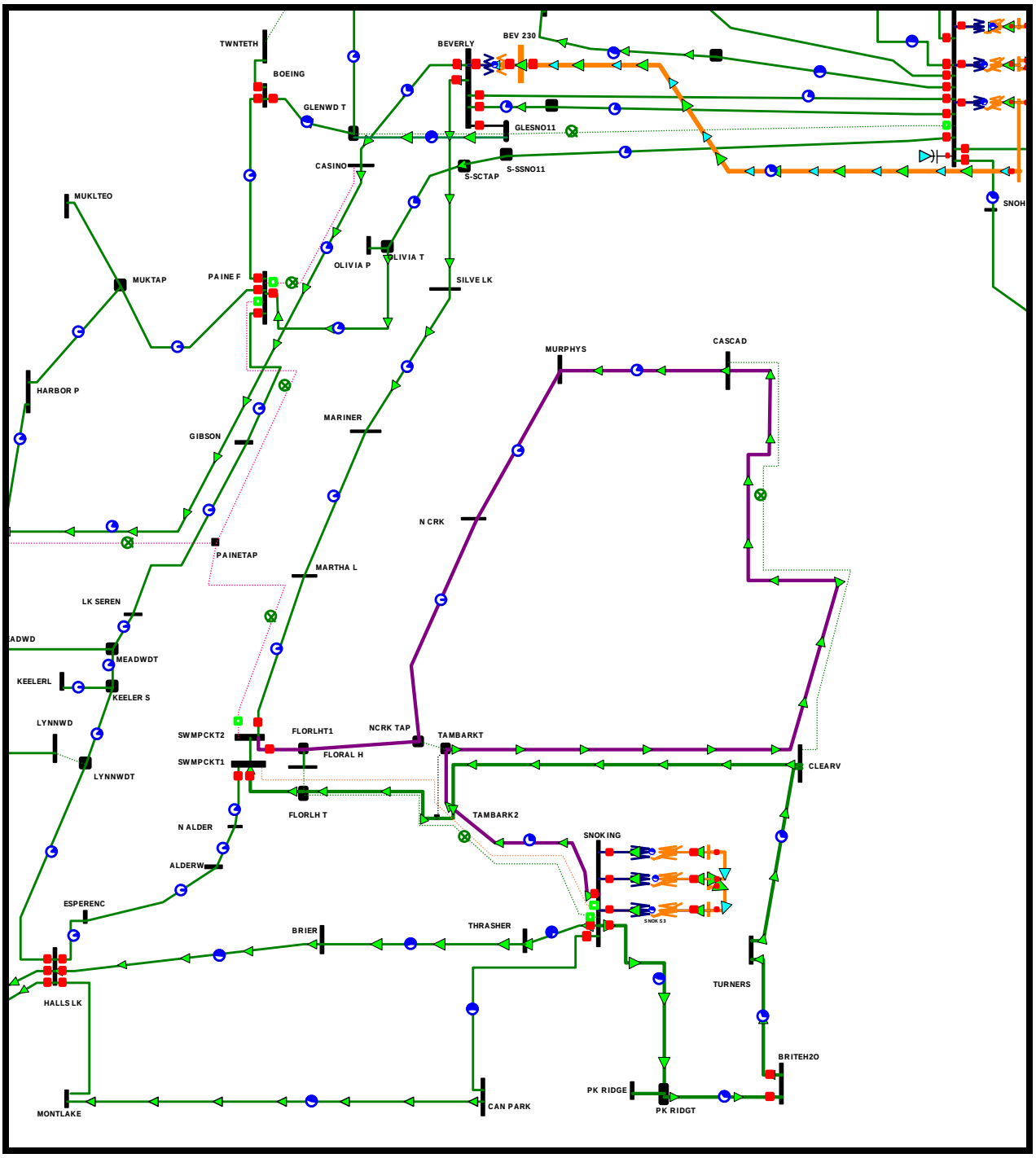

Figure 8: 2015 Case - 1650 MW

2015 Case Thermal Contingency Violation Matrix

2015 Percent of Thermal Limit											
Contingency	MURRAY (40767) TO MURRAY (40765) CKT 1	E ARLG (45629) TO MURRAY (40765) CKT 1	MURRAY (40765) TO SMOKEYPT (45777) CKT 1	MURRAY (40767) TO SNOH S1 (41327) CKT 1	SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3	SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2	SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1	FOBES (45651) TO SNOHOMSH (40997) CKT 1	SNOHM (45779) TO SNOHOMSH (40997) CKT 1	SNOKING (41003) TO THRASHER (45801) CKT 1	BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1
ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)					93.73	95.5					96.76
ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)											92.75
ZZZ-SNOH BUS G (NOT CREDIBLE)	171.28		131.51	123.78							
ZZZ-SNOH BUS (NOT CREDIBLE)	162.4		131.12	118.02							
ZZZ-500 TP SNOKING G (NOT CREDIBLE)											
ZZZ-500 TP SNOKING (NOT CREDIBLE)											
ZZ-SNOK SOUTH CENT BUS G BS											
ZZ-SNOK SOUTH CENT BUS BS											
ZZ-SNOH WEST CENT BUS G BS	124.57	90.88	145.32	92.01							
ZZ-SNOH WEST CENT BUS BS	106.34		126.1								
ZZ-SNOH EAST CENT BUS G BS					115.47				93.21		
ZZ-SNOH EAST CENT BUS BS					97.89						
Z-SNOK SOUTH BUS G										114.92	
Z-SNOK SOUTH BUS										111.83	
Z-SNOH WEST BUS-G								96.88			
Z-SNOH WEST BUS								90.02			
Z-SNOH EAST BUS G									93.07		
Z-230 SNOK3 G											99.12
Z-230 SNOK3											95
Z-230 SNOK1 G											
Z-230 SNOK1											
Z-230 SNOH2 G						108.22	95.67				
Z-230 SNOH2						98.49					
L_45619CANPARK-45717MONTLAKEC1										90.63	
L_45619CANPARK-41003SNOKINGC1										94.24	
C-BEV-SILVER-GLENWD FAULT										91.34	

Figure 9: 2015 Case Thermal Contingency Violation Matrix 1/2

2015 Percent of Thermal Limit															
Contingency	BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2	BEVERLY (45608) TO GLDBRTIE (42399) CKT 1	BEVERLY (45608) TO BEV 230 (45605) CKT 1	BEVERLY (45608) TO SILVE LK (45857) CKT 1	BRIER (45609) TO THRASHER (45801) CKT 1	MARINER (45622) TO MARTHA L (45711) CKT 1	MARINER (45622) TO SILVE LK (45857) CKT 1	GIBSON (45657) TO LK SEREN (45701) CKT 1	GIBSON (45657) TO PAINE F (45745) CKT 1	JACKSN1 (45687) TO JACKSN (45685) CKT 1	MARTHA L (45711) TO SWMPCKT2 (45860) CKT 1	SMOKEYPT (45777) TO STIMSONS (45785) CKT 1	GLENWD T (45847) TO GLESNO11 (49900) CKT 2	SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1
ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	99.54		99.53	120.04		103.64	110.37	90.1	98.85		123.37		97.12	
ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	95.39		96.18	119.35		103.18	109.86	90.18	98.88		122.97		95.86	
ZZZ-SNOH BUS G (NOT CREDIBLE)												101.45		
ZZZ-SNOH BUS (NOT CREDIBLE)										167.99		106.24		
ZZZ-500 TP SNOKING G (NOT CREDIBLE)		92.46												
ZZZ-500 TP SNOKING (NOT CREDIBLE)		91.01												
ZZ-SNOK SOUTH CENT BUS G BS														107.06
ZZ-SNOK SOUTH CENT BUS BS														106.15
ZZ-SNOH WEST CENT BUS G BS												119.33		
ZZ-SNOH WEST CENT BUS BS												106.57		
ZZ-SNOH EAST CENT BUS G BS														
ZZ-SNOH EAST CENT BUS BS														
Z-SNOK SOUTH BUS G					97.63									
Z-SNOK SOUTH BUS					94.62									
Z-SNOH WEST BUS-G														
Z-SNOH WEST BUS														
Z-SNOH EAST BUS G														
Z-230 SNOK3 G														
Z-230 SNOK3														
Z-230 SNOK1 G	95.93													
Z-230 SNOK1	91.76													
Z-230 SNOH2 G														
Z-230 SNOH2														
L_45619CANPARK-45717MONTLAKEC1														
L_45619CANPARK-41003SNOKINGC1														
C-BEV-SILVER-GLENWD FAULT														

Not an Issue this would be a ring bus

Figure 10: 2015 Case Thermal Contingency Violation Matrix 2/2

2015 Case - 1650 MW with Option A

The 2015 case was reviewed with the Paine Field - Swamp Creek switching station 115 kV line and without the addition of the Beverly Park 115-230kV transformer installation (option A). Based on the significant overloads identified in Figure 12: 2015 Case Thermal Contingency Violation Matrix with Option A 1/2 and Figure 13: 2015 Case Thermal Contingency Violation Matrix with Option A 2/2, it appears that the Paine Field – Swamp Creek 115kV line would not defer the Beverly Park transformer installation.

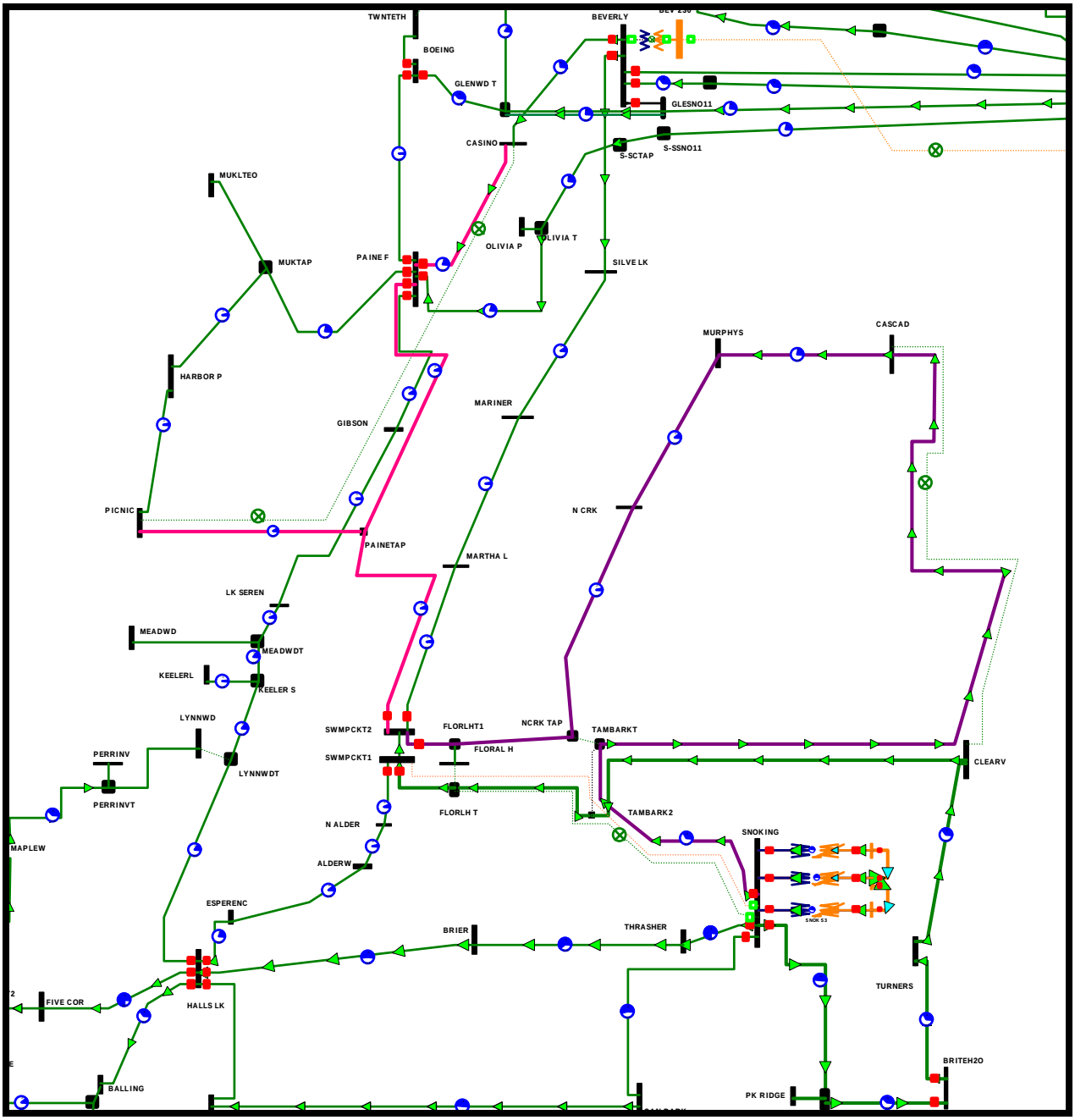

Figure 11: 2015 Case - 1650 MW Option A

2015 Case Thermal Contingency Violation Matrix with Option A

1650 MW 2015 NO 230kV AT BEVERLY PARK WITH PAINE FIELD LINE

Contingency	MURRAY (40767) TO MURRAY (40765) CKT 1	E ARLG (45629) TO MURRAY (40765) CKT 1	MURRAY (40765) TO SMOKEYPT (45777) CKT 1	MURRAY (40767) TO SNOH S1 (41327) CKT 1	SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3	SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2	SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1	FOBES (45651) TO SNOHOMSH (40997) CKT 1	SNOHM (45779) TO SNOHOMSH (40997) CKT 1
ZZZ-SNOK SOUTH CENT BUS G BS					108.18	113.88	99.22		
ZZZ-SNOK SOUTH CENT BUS BS					100.03	105.2	91.66		
ZZZ-SNOK NORTH CENT BUS G BS					95.28	99.89			
ZZZ-SNOK NORTH CENT BUS BS						91.94			
ZZZ-SNOH WEST CENT BUS G BS	127.32	90.73	145.01	95.58			119.27		
ZZZ-SNOH WEST CENT BUS BS	109.93		126.5				101.93		
ZZZ-SNOH EAST CENT BUS G BS					152.42				93.41
ZZZ-SNOH EAST CENT BUS BS					134.63				
ZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)					123.74	130.56	113.59		
ZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)					114.49	120.79	105.01		
ZZ-SNOH BUS G (NOT CREDIBLE)	166.16		124.1	122.45					
ZZ-SNOH BUS (NOT CREDIBLE)	161.63		126.26	121.16					
ZZ-500 TP SNOKING (NOT CREDIBLE)									
Z-SNOK SOUTH BUS G					90.57	94.93			
Z-SNOK SOUTH BUS									
Z-SNOK CENT BUS G						91.07			
Z-SNOH XF3 G						111.6	98		
Z-SNOH XF3						101.9			
Z-SNOH XF2 G					108.24		99.23		
Z-SNOH XF2					98.96		90.63		
Z-SNOH XF1 G					106.13	110.88			
Z-SNOH XF1					97.21	101.21			
Z-SNOH WEST BUS-G						101.3		94.43	
Z-SNOH WEST BUS						91.03			
Z-SNOH EAST BUS G					100.63	107.62			93.13
Z-SNOH EAST BUS					90.31	96.77			
Z-SNOH CENT BUS G					105.4		96.83		
Z-SNOH CENT BUS					95.25				
Z-MURRAY XF G					96.16	100.46			
Z-MURRAY XF						91.87			
Z-MURRAY BUS G					97.09	102.5			
Z-MURRAY BUS						93.55			
Z-230 SNOK3 G									
Z-230 SNOK1 G									
Z-230 SNOH4 G					103.27	107.33			
Z-230 SNOH4					95.2	98.28			
Z-230 SNOH3 G					104.46		96.01		
Z-230 SNOH3					96.98				
Z-230 SNOH2 G						110.3	97.01		
Z-230 SNOH2						100.81			
Z-230 SNOH1 G					90.55	93.93			
L_45848HALLSLK-45717MONTLAKEC1									
L_45757PKRIDGT-41003SNOKINGC1									
L_45619CANPARK-45717MONTLAKEC1									
L_45619CANPARK-41003SNOKINGC1									
L_45607BOEING-45811TWNTETHC1									
L_45603BALLING-45848HALLSLKC1									
C-SILLS- LK GDW FAULT									
C-BEV-SILVER-GLENWD FAULT									

Figure 12: 2015 Case Thermal Contingency Violation Matrix with Option A 1/2

1650 MW 2015 NO 230kV AT BEVERLY PARK WITH PAINE FIELD LINE										
Contingency	SNOK S3 (41008) TO SNOKING (41003) CKT 2	SNOKING (41003) TO THRASHER (45801) CKT 1	BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1	BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2	BEVERLY (45608) TO GLDBRTIE (42399) CKT 1	BRIER (45609) TO THRASHER (45801) CKT 1	BRIER (45609) TO HALLS LK (45848) CKT 1	JACKSN1 (45687) TO JACKSN (45685) CKT 1	SMOKEYPT (45777) TO STIMSONS (45785) CKT 1	SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1
ZZZ-SNOK SOUTH CENT BUS G BS										113.73
ZZZ-SNOK SOUTH CENT BUS BS										113.19
ZZZ-SNOK NORTH CENT BUS G BS	95.86									
ZZZ-SNOK NORTH CENT BUS BS	92.5									
ZZZ-SNOH WEST CENT BUS G BS		98.42							119.38	
ZZZ-SNOH WEST CENT BUS BS		94.99							106.68	
ZZZ-SNOH EAST CENT BUS G BS		97.71								
ZZZ-SNOH EAST CENT BUS BS		93.73								
ZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)			96.43	99.2						100.91
ZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)			92.31	94.93						100.75
ZZ-SNOH BUS G (NOT CREDIBLE)		111.32				93.64			93.9	
ZZ-SNOH BUS (NOT CREDIBLE)		110.86				93.28		167.99	100.33	
ZZ-500 TP SNOKING (NOT CREDIBLE)					93.15					
Z-SNOK SOUTH BUS G		122.55				105.12	96.14			
Z-SNOK SOUTH BUS		118.6				101.27	92.44			
Z-SNOK CENT BUS G										
Z-SNOH XF3 G										
Z-SNOH XF3										
Z-SNOH XF2 G										
Z-SNOH XF2										
Z-SNOH XF1 G										
Z-SNOH XF1										
Z-SNOH WEST BUS-G										
Z-SNOH WEST BUS										
Z-SNOH EAST BUS G										
Z-SNOH EAST BUS										
Z-SNOH CENT BUS G										
Z-SNOH CENT BUS										
Z-MURRAY XF G										
Z-MURRAY XF										
Z-MURRAY BUS G										
Z-MURRAY BUS										
Z-230 SNOK3 G			93.14							
Z-230 SNOK1 G				90.19						
Z-230 SNOH4 G										
Z-230 SNOH4										
Z-230 SNOH3 G										
Z-230 SNOH3										
Z-230 SNOH2 G										
Z-230 SNOH2										
Z-230 SNOH1 G										
L_45848HALLSLK-45717MONTLAKEC1		93.46								
L_45757PKRIDGT-41003SNOKINGC1		91.06								
L_45619CANPARK-45717MONTLAKEC1		96.7								
L_45619CANPARK-41003SNOKINGC1		100.32								
L_45607BOEING-45811TWNTETHC1										
L_45603BALLING-45848HALLSLKC1										
C-SILLS- LK GDW FAULT										
C-BEV-SILVER-GLENWD FAULT		90.42								

Figure 13: 2015 Case Thermal Contingency Violation Matrix with Option A 2/2

Capital Plan Study Assumptions

The most recent November 2005 District load forecast was used in this analysis. The District currently adjusts the system load to 20.5 °F. The average annual winter-peaks were adjusted upward to a 95 percentile (2σ) of being less than or equal to this occurrence. The load growth between 2006 and 2015 is based on the District Total System Load Forecast.

- 1530 MW was used for the 2006 case
- 1585 MW was used for the 2010 case
- 1650 MW was used for the 2015 case

It should be noted that the District all time peak occurred during the winter of 1989-1990 with a load of 1602 MW at 2 °F. Just recently, on December 1, 2005 the District instantaneous system peak load was 1331 MW at 33 °F.

The years 2006, 2010, and 2015 were modeled with the following facility additions and are consistent with the 2006-2012 District Seven Year Capital Construction Plan

2006
- Beverly Park - Silver Lake 115kV line
- Turners Corner - Park Ridge 115kV line

2010
- Clearview - Tambark Junctions double circuit 115kV rebuild
- Brightwater 115kV substation and South Snohomish county circuit reconfiguration

2015
- Swamp Creek 115kV switching station
- Beverly Park 115-230kV transformer installation

2015 Option A
- Swamp Creek 115kV switching station
- Paine Field - Swamp Creek switching station 115kV line
- Without the Beverly Park 115-230kV transformer installation

The 2015 case was reviewed with the new 115 kV line between the Paine Field and Swamp Creek switching station and without the addition of the Beverly Park 115-230kV transformer installation (option A). This was performed to determine if the additional Beverly Park 115-230kV transformer capacity could be deferred by adding more transfer capacity between the BPA Snohomish and SnoKing substations. The review identified that the Paine Field - Swamp Creek switching station 115kV line did help, but did not resolve, the District-BPA POD 230-115kV transformer overload issues. In summary, the Beverly Park 230kV capacity better resolved the District 230-115kV transformer overloading issues.

Capital Plan Powerflow Base Case:

The most recent (2005 developed) BPA heavy winter, 2015 powerflow base case was used in this analysis. This case corresponded with the ultimate 2015 review of the

District transmission system. The case was modified to reflect changes to the District system and loads for the 2006 and 2010 representation.

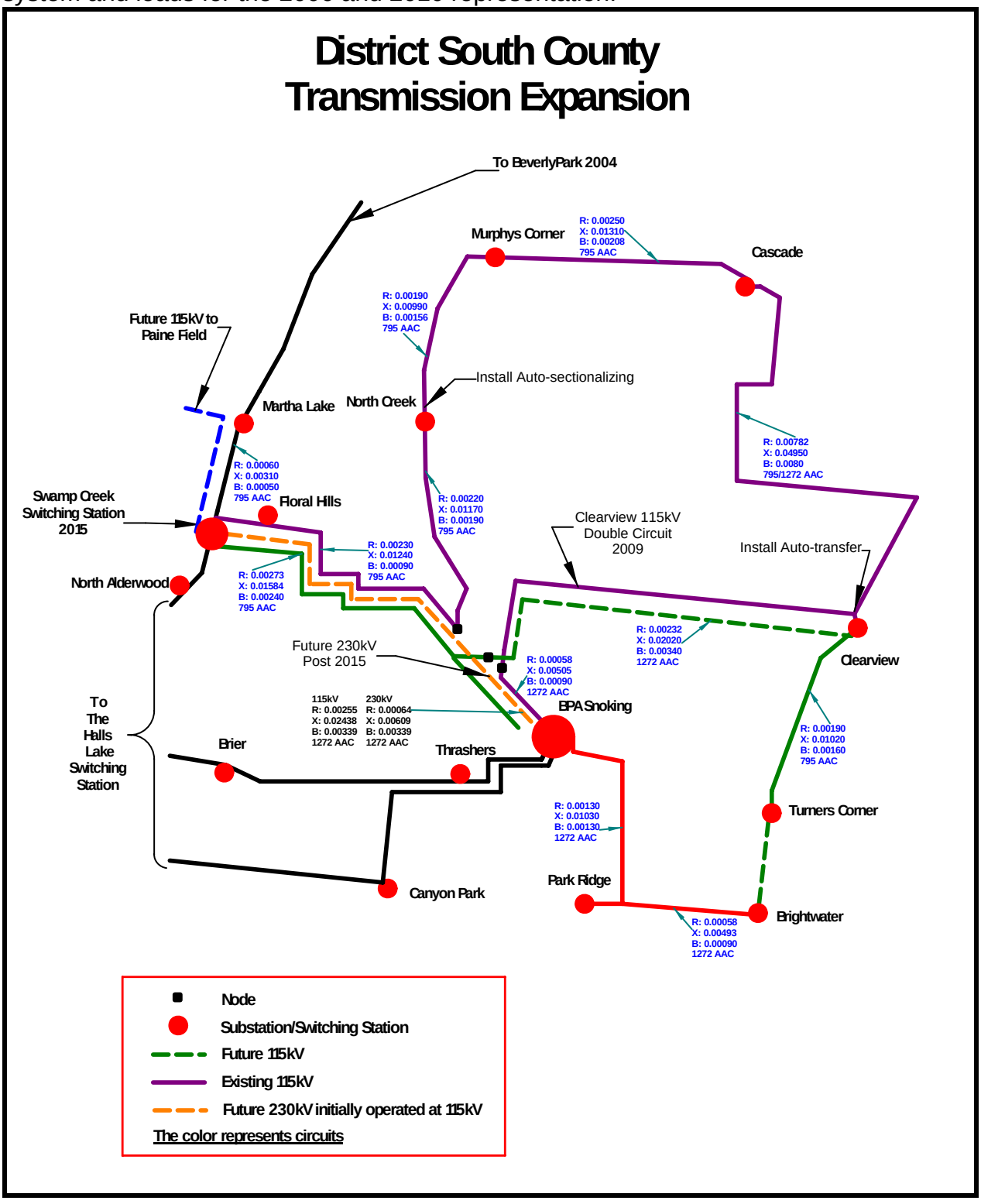

Figure 14: South County 115kV Transmission Expansion

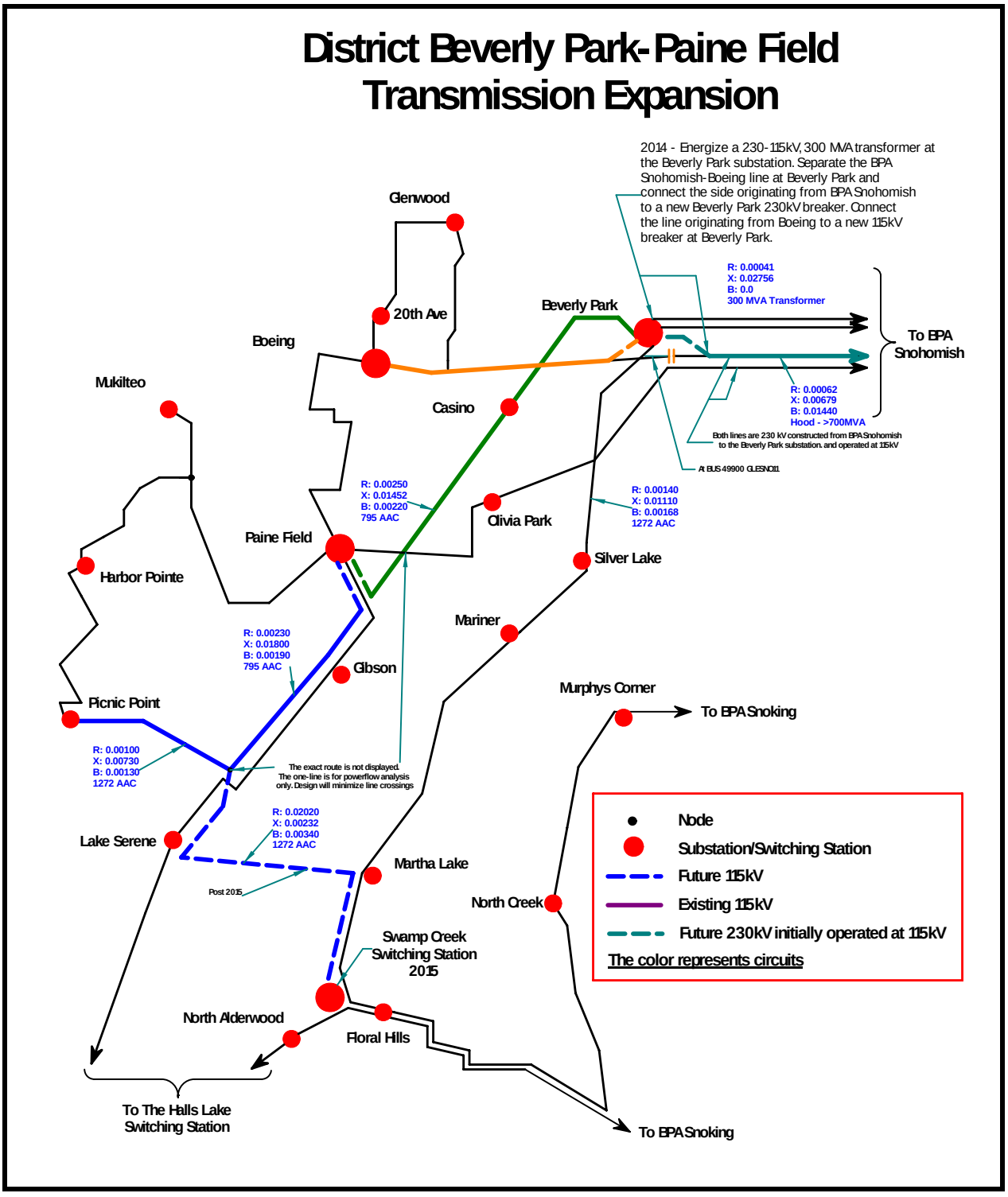

Figure 15: District Beverly Park to Paine Field 115kV Transmission

Appendix (Analysis Output)

TTC Base Case All in - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
-156.84	**Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]**	ZZZ-SNOH BUS G (NOT CREDIBLE)	**-26.37**	**-524.49**	**-525.9**	**0**	**0**
-146.3	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-24.57	-524.96	-525.9	0	0
-146.3	POWERFLOW DIVERGENCE	ZZZ-SNOH BUS (NOT CREDIBLE)	0	0	0	0	0
-144.89	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	27.96	375.2	375	0	0
-142.2	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	27.96	374.28	375	0	0
-70.97	Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	18.34	240.2	256	0	0
-70.41	Branch KEELER S (45708) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-18.34	-240.09	-256	0	0
-70.41	Branch KEELER S (45708) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	-18.34	-240.09	-256	0	0
-66.01	Branch KEELER S (45708) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	18.27	239.35	256	0	0
-66.01	Branch KEELER S (45708) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	18.27	239.35	256	0	0
-15.77	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	40.94	392.13	450	0	0
-15.77	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	40.94	392.13	450	0	0
17.09	Branch LK SEREN (45701) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-16.92	-226.53	-256	0	0
17.09	Branch LK SEREN (45701) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	-16.92	-226.53	-256	0	0
38.68	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	22.19	212.56	256	0	0
38.68	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	22.19	212.56	256	0	0
70.91	Branch GIBSON (45657) TO PAINE F (45745) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-21.71	-206.49	-256	0	0
70.91	Branch GIBSON (45657) TO PAINE F (45745) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-21.71	-206.49	-256	0	0
103.45	Branch GIBSON (45657) TO LK SEREN (45701) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-15.71	-215.07	-256	0	0
103.45	Branch GIBSON (45657) TO LK SEREN (45701) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	-15.71	-215.07	-256	0	0
132.95	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	20.51	196.52	256	0	0
132.95	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	20.51	196.52	256	0	0
136.45	Branch MAPLE VL (40689) TO SNOK S1 (41004) CKT 2 [230.00 - 230.00 kV]	ZZZ-500 TP SNOKING G (NOT CREDIBLE)	14.88	472.63	516.3	0	0
136.45	Branch MAPLE VL (40689) TO SNOK S1 (41004) CKT 2 [230.00 - 230.00 kV]	ZZZ-500 TP SNOKING (NOT CREDIBLE)	14.88	472.63	516.3	0	0
137.84	Branch GIBSON (45657) TO LK SEREN (45701) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	20.54	195.41	256	0	0
137.84	Branch GIBSON (45657) TO LK SEREN (45701) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	20.54	195.41	256	0	0
147.52	Branch MAPLE VL (40689) TO SNOK S3 (41008) CKT 1 [230.00 - 230.00 kV]	ZZZ-500 TP SNOKING G (NOT CREDIBLE)	14.82	471.16	516.3	0	0
147.52	Branch MAPLE VL (40689) TO SNOK S3 (41008) CKT 1 [230.00 - 230.00 kV]	ZZZ-500 TP SNOKING (NOT CREDIBLE)	14.82	471.16	516.3	0	0
200.85	Branch GIBSON (45657) TO PAINE F (45745) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	14.54	203.96	256	0	0
200.85	Branch GIBSON (45657) TO PAINE F (45745) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	14.54	203.96	256	0	0
215.7	Branch LK SEREN (45701) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	19.33	183.93	256	0	0
215.7	Branch LK SEREN (45701) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	19.33	183.93	256	0	0
226.09	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	19.15	182.61	256	0	0
226.09	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	19.15	182.61	256	0	0
276.19	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	22.86	320.96	420	0	0
276.19	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	22.86	320.96	420	0	0
315.13	Branch KEELER S (45708) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-17.98	-171.09	-256	0	0
315.13	Branch KEELER S (45708) TO MEADWDT (45715) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-17.98	-171.09	-256	0	0
315.54	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-18.09	-440.41	-525.9	0	0
315.54	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-18.09	-440.41	-525.9	0	0
320.99	Branch KEELER S (45708) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	17.91	170.39	256	0	0
320.99	Branch KEELER S (45708) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	17.91	170.39	256	0	0
321.28	Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-17.91	-170.34	-256	0	0
321.28	Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-17.91	-170.34	-256	0	0
327.59	Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	14.3	255.81	256	0	0
348.45	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH3	17.56	286.2	375	0	0
348.45	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH3 G	17.56	286.2	375	0	0
354.2	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3	19.99	272.77	375	0	0
354.2	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3 G	19.99	272.77	375	0	0
354.8	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	17.47	166.58	256	0	0
354.8	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	17.47	166.58	256	0	0

TTC Base Case No ZZZ - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
-144.89	**Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]**	**ZZ-SNOH EAST CENT BUS BS**	**27.96**	**375.2**	**375**	**0**	**0**
-142.2	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	27.96	374.28	375	0	0
198.29	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	19.15	256.05	256	0	0
199.48	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	19.15	256.03	256	0	0
276.19	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	22.86	320.96	420	0	0
282.64	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	22.86	419.92	420	0	0
315.54	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-18.09	-440.41	-525.9	0	0
315.54	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-18.09	-440.41	-525.9	0	0
348.45	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH3	17.56	286.2	375	0	0
348.45	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH3 G	17.56	286.2	375	0	0
354.2	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3	19.99	272.77	375	0	0
354.2	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3 G	19.99	272.77	375	0	0
354.8	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	17.47	166.58	256	0	0
354.8	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	17.47	166.58	256	0	0
366.63	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	19.72	271.71	375	0	0
366.63	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	19.72	271.71	375	0	0
367.37	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2	19.82	271.04	375	0	0
367.37	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2 G	19.82	271.04	375	0	0
372.99	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1	19.9	269.53	375	0	0
372.99	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1 G	19.9	269.53	375	0	0
373.36	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4	18.82	275.16	375	0	0
373.36	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4 G	18.82	275.16	375	0	0
398.43	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1	19.58	266.22	375	0	0
398.43	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1 G	19.58	266.22	375	0	0
400.02	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4	18.65	271.11	375	0	0
400.02	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4 G	18.65	271.11	375	0	0
455.91	Branch GLENWD T (45847) TO BEV TAP (40998) CKT 1 [115.00 - 115.00 kV]	C-BEV-CASINO-OLIVIA FAULT	-14.73	-139.79	-230.1	0	0
465.61	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	30.11	262.48	450	0	0
465.61	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	30.11	262.48	450	0	0
494.49	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH WEST BUS-G	18.67	253.38	375	0	0
494.49	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH WEST BUS	18.67	253.38	375	0	0
494.76	Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS BS	-15.11	-157.52	-256	0	0
494.76	Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS G BS	-15.11	-157.52	-256	0	0
581.33	Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK NORTH CENT BUS BS	-14.36	-149.95	-256	0	0
581.33	Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK NORTH CENT BUS G BS	-14.36	-149.95	-256	0	0
645.9	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	-13.02	-151.45	-256	0	0
645.9	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	-13.02	-151.45	-256	0	0
654.42	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF2	19.52	261.6	420	0	0
654.42	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF2 G	19.52	261.6	420	0	0
668.74	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF3	19.38	259.99	420	0	0
668.74	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF3 G	19.38	259.99	420	0	0
672.37	Branch FLORLH T (45844) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS BS	13.61	143.11	256	0	0
672.37	Branch FLORLH T (45844) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS G BS	13.61	143.11	256	0	0
672.6	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS BS	-13.61	-143.08	-256	0	0
672.6	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS G BS	-13.61	-143.08	-256	0	0
679.21	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2	19.14	259.91	420	0	0
679.21	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2 G	19.14	259.91	420	0	0
687.26	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-40997SNOHOMSHC1	-8.59	-96.77	-169.3	0	0
729.12	Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK NORTH CENT BUS BS	13.21	138.91	256	0	0
729.12	Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK NORTH CENT BUS G BS	13.21	138.91	256	0	0

TTC Base Case No ZZZ ZZ C - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
332.13	**Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]**	**Z-SNOH XF3**	**19.99**	**372.78**	**375**	**0**	**0**
346.3	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3 G	19.99	375.12	375	0	0
348.5	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	19.72	374.65	375	0	0
357.64	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH3	17.56	375	375	0	0
361	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	19.72	371.01	375	0	0
362.4	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2 G	19.82	370.72	375	0	0
362.4	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2	19.82	370.72	375	0	0
363.39	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH3 G	17.56	375.07	375	0	0
368	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1	19.9	369.59	375	0	0
368	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1 G	19.9	369.59	375	0	0
369.84	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4	18.82	369.53	375	0	0
369.84	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4 G	18.82	369.53	375	0	0
393.84	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1	19.58	364.61	375	0	0
393.84	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1 G	19.58	364.61	375	0	0
396.75	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4 G	18.65	364.57	375	0	0
396.75	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4	18.65	364.57	375	0	0
455.83	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH CENT BUS	18.71	353.47	375	0	0
455.83	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH CENT BUS G	18.71	353.47	375	0	0
488.67	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH WEST BUS-G	18.67	347.4	375	0	0
488.67	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH WEST BUS	18.67	347.4	375	0	0
650.12	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF2	19.52	359.62	420	0	0
650.12	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF2 G	19.52	359.62	420	0	0
656.45	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	-13.02	-214.9	-256	0	0
656.45	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	-13.02	-214.9	-256	0	0
664.59	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF3	19.38	357.26	420	0	0
664.59	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH XF3 G	19.38	357.26	420	0	0
674.74	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2	19.14	356.07	420	0	0
674.74	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2 G	19.14	356.07	420	0	0
697.53	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-40997SNOHOMSHC1	-8.59	-138.66	-169.3	0	0
758.57	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH CENT BUS	18.44	342.94	420	0	0
758.57	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH CENT BUS G	18.44	342.94	420	0	0
791.41	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS	-7.85	-112.65	-148	0	0
791.41	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_40997SNOHOMSH-45803THREELKC1	-7.85	-112.65	-148	0	0
791.41	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-7.85	-112.65	-148	0	0
791.67	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45844FLORLHT-41003SNOKINGC1	13.02	197.3	256	0	0
825.37	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH WEST BUS-G	18.1	332.29	420	0	0
825.37	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-SNOH WEST BUS	18.1	332.29	420	0	0
838.19	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS	-8.73	-125.88	-169.3	0	0
838.19	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS G	-8.73	-125.88	-169.3	0	0
855.4	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	12.6	191.15	256	0	0
871.35	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	11.61	194.42	256	0	0
871.35	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	11.61	194.42	256	0	0
892.21	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45844FLORLHT-45859SWMPCKT1C1	12.36	187.85	256	0	0
892.53	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45725NALDER-45859SWMPCKT1C1	12.36	187.81	256	0	0
896.82	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Base Case	9.66	146.3	200	0	0
907.67	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-45843EVRETTT2C1	-7.69	-125.73	-169.3	0	0
916.29	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK NORTH BUS	12.24	185.57	256	0	0
916.29	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK NORTH BUS G	12.24	185.57	256	0	0
935.47	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-45717MONTLAKEC1	12.1	184.02	256	0	0
963.51	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45601ALDERW-45725NALDERC1	11.93	181.7	256	0	0

TTC SCTP Case All in - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
-95.37	**Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]**	**ZZZ-SNOH BUS G (NOT CREDIBLE)**	**-25.68**	**-526.66**	**-525.9**	**0**	**0**
-73.75	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-23.34	-526.12	-525.9	0	0
-73.75	POWERFLOW DIVERGENCE	ZZZ-SNOH BUS (NOT CREDIBLE)	0	0	0	0	0
29.41	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	-30.96	-797.08	-796.7	0	0
45.55	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	41.42	450.94	450	0	0
74.29	POWERFLOW DIVERGENCE	ZZZ-SNOH BUS (NOT CREDIBLE)	0	0	0	0	0
74.29	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	37.91	447.48	450	0	0
137.55	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-25.87	-746.29	-796.7	0	0
219.4	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	19.28	202.66	256	0	0
219.4	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	19.28	202.66	256	0	0
228.34	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	19.15	201.3	256	0	0
228.34	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	19.15	201.3	256	0	0
337.96	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	21.33	290.67	375	0	0
337.96	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	21.33	290.67	375	0	0
346.27	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	17.59	184.99	256	0	0
346.27	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	17.59	184.99	256	0	0
356.99	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	17.47	183.63	256	0	0
356.99	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	17.47	183.63	256	0	0
446.74	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-17.06	-439.89	-525.9	0	0
446.74	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-17.06	-439.89	-525.9	0	0
457.9	Branch SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-16.27	-172.18	-256	0	0
457.9	Branch SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-16.27	-172.18	-256	0	0
547.35	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	29.09	274.13	450	0	0
547.35	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	29.09	274.13	450	0	0
557.8	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	-13.53	-172.76	-256	0	0
557.8	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	-13.53	-172.76	-256	0	0
641.6	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-40997SNOHOMSHC1	-8.76	-108.07	-169.3	0	0
654.03	Branch GLENWD T (45847) TO BEV TAP (40998) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-13.32	-135.38	-230.1	0	0
654.03	Branch GLENWD T (45847) TO BEV TAP (40998) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-13.32	-135.38	-230.1	0	0
659.98	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	16.87	253.98	375	0	0
659.98	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	16.87	253.98	375	0	0
662.18	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	13.6	158.16	256	0	0
677.94	Branch BOTHELL (46403) TO SNOK S3 (41008) CKT 2 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-15.4	-408.28	-521.5	0	0
677.94	Branch BOTHELL (46403) TO SNOK S3 (41008) CKT 2 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-15.4	-408.28	-521.5	0	0
708.13	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-19.9	-644.41	-796.7	0	0
708.13	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-19.9	-644.41	-796.7	0	0
720.74	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	17.74	236.99	375	0	0
720.74	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	17.74	236.99	375	0	0
724.1	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Base Case	10.3	119.49	200	0	0
731.97	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-45717MONTLAKEC1	13.08	152.76	256	0	0
752.65	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	12.12	157.83	256	0	0
752.65	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	12.12	157.83	256	0	0
758.28	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	17.39	233.19	375	0	0
758.28	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	17.39	233.19	375	0	0
782.26	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS	-7.85	-82.13	-148	0	0
782.26	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_40997SNOHOMSH-45803THREELKC1	-7.85	-82.13	-148	0	0
782.26	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-7.85	-82.13	-148	0	0
782.26	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	-7.85	-82.13	-148	0	0
782.26	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-7.85	-82.13	-148	0	0
785.98	Branch BOTHELL (46403) TO SNOK S1 (41004) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-14.89	-395.9	-521.5	0	0
785.98	Branch BOTHELL (46403) TO SNOK S1 (41004) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-14.89	-395.9	-521.5	0	0
799.68	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1	14.91	247.25	375	0	0

TTC SCTP Case No ZZZ - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
193.81	**Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]**	**ZZ-SNOH WEST CENT BUS BS**	**19.15**	**255.88**	**256**	**0**	**0**
193.98	Branch MURRAY (40765) TO SMOKEYPT (45777) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	19.15	256.23	256	0	0
343.49	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	21.33	375.24	375	0	0
344.74	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	17.47	255.95	256	0	0
350.89	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	21.33	374.92	375	0	0
363	Branch SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	17.47	233.82	256	0	0
452.34	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-17.06	-488.99	-525.9	0	0
452.34	Branch MURRAY (40767) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-17.06	-488.99	-525.9	0	0
551.49	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	29.09	358.25	450	0	0
551.49	Branch MURRAY (40767) TO MURRAY (40765) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	29.09	358.25	450	0	0
565.96	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	-13.53	-211.35	-256	0	0
565.96	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	-13.53	-211.35	-256	0	0
649.73	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-40997SNOHOMSHC1	-8.76	-133.06	-169.3	0	0
664	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	16.87	302.8	375	0	0
664	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	16.87	302.8	375	0	0
667.47	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	13.6	197.33	256	0	0
720.82	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-19.9	-700.25	-796.7	0	0
720.82	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-19.9	-700.25	-796.7	0	0
729.01	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Base Case	10.3	149.21	200	0	0
737.13	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-45717MONTLAKEC1	13.08	190.46	256	0	0
761.57	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	12.12	192.31	256	0	0
761.57	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	12.12	192.31	256	0	0
788.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_40997SNOHOMSH-45803THREELKC1	-7.85	-104.68	-148	0	0
788.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-7.85	-104.68	-148	0	0
788.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	-7.85	-104.68	-148	0	0
788.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS	-7.85	-104.68	-148	0	0
788.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-7.85	-104.68	-148	0	0
804.5	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.91	290.26	375	0	0
804.5	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1	14.91	290.26	375	0	0
805.63	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45848HALLSLK-45717MONTLAKEC1	12.62	184.13	256	0	0
806.73	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS G	12.66	183.73	256	0	0
806.73	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS	12.66	183.73	256	0	0
808.83	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.68	290.93	375	0	0
808.83	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1	14.68	290.93	375	0	0
832.35	Branch GLENWD T (45847) TO BEV TAP (40998) CKT 1 [115.00 - 115.00 kV]	C-BEV-CASINO-OLIVIA FAULT	-12.82	-153.67	-230.1	0	0
835.34	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS	-8.73	-116.98	-169.3	0	0
835.34	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS G	-8.73	-116.98	-169.3	0	0
846.33	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	C-BEV-SILVER-GLENWD FAULT	12.65	178.82	256	0	0
850.12	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-45843EVRETTT2C1	-7.86	-121.06	-169.3	0	0
856.51	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3	16.15	274.79	375	0	0
856.51	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3 G	16.15	274.79	375	0	0
865.82	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1	16.15	273.27	375	0	0
865.82	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1 G	16.15	273.27	375	0	0
880.53	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	C-BEV-SILVER-OLIVIA FAULT	12.42	175.92	256	0	0
881.27	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2	15.95	272.06	375	0	0
881.27	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2 G	15.95	272.06	375	0	0
882.92	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS BS	-12.64	-174.22	-256	0	0
882.92	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS G BS	-12.64	-174.22	-256	0	0
903.94	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4	15.16	273.72	375	0	0
903.94	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4 G	15.16	273.72	375	0	0

TTC SCTP Case No ZZZ ZZ C - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
546.64	**Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]**	**Z-SNOH WEST BUS**	**-13.53**	**-256.09**	**-256**	**0**	**0**
546.9	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	-13.53	-255.7	-256	0	0
642.02	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-40997SNOHOMSHC1	-8.76	-169.27	-169.3	0	0
659.6	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	16.87	374.85	375	0	0
664.54	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	13.6	243.24	256	0	0
669.04	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	16.87	375.1	375	0	0
725.62	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Base Case	10.3	184.04	200	0	0
733.98	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-45717MONTLAKEC1	13.08	234.64	256	0	0
762.61	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	12.12	232.74	256	0	0
762.61	Branch FOBES (45651) TO SCOTT 2 (45842) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	12.12	232.74	256	0	0
787.11	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS	-7.85	-131.02	-148	0	0
787.11	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_40997SNOHOMSH-45803THREELKC1	-7.85	-131.02	-148	0	0
787.11	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-7.85	-131.02	-148	0	0
798.16	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.91	341.09	375	0	0
798.16	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1	14.91	341.09	375	0	0
802.73	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.68	340.94	375	0	0
802.73	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1	14.68	340.94	375	0	0
803.05	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45848HALLSLK-45717MONTLAKEC1	12.62	226.68	256	0	0
803.87	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS	12.66	226.47	256	0	0
803.87	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS G	12.66	226.47	256	0	0
832.39	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS	-8.73	-146.45	-169.3	0	0
832.39	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS G	-8.73	-146.45	-169.3	0	0
849.18	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45637EVERETT-45843EVRETTT2C1	-7.86	-147.42	-169.3	0	0
850.5	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3	16.15	329.81	375	0	0
850.5	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3 G	16.15	329.81	375	0	0
859.76	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1	16.15	328.3	375	0	0
859.76	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1 G	16.15	328.3	375	0	0
875.57	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2	15.95	326.36	375	0	0
875.57	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2 G	15.95	326.36	375	0	0
899.31	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4	15.16	325.17	375	0	0
899.31	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4 G	15.16	325.17	375	0	0
906.09	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1	15.8	322	375	0	0
906.09	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1 G	15.8	322	375	0	0
913.97	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45651FOBES-40997SNOHOMSHC1	-7.66	-143	-169.3	0	0
942.59	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4	14.97	319.34	375	0	0
942.59	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4 G	14.97	319.34	375	0	0
983.46	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH CENT BUS	-7.45	-138.56	-169.3	0	0
983.46	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH CENT BUS G	-7.45	-138.56	-169.3	0	0
997.57	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS	-12.1	-204.34	-256	0	0
997.57	Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-MURRAY BUS G	-12.1	-204.34	-256	0	0
1006.93	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45625CLEARV-45809TURNERSC1	11.48	205.9	256	0	0
1010.74	Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 [115.00 - 115.00 kV]	L_41003SNOKING-45801THRASHERC1	-11.44	-205.65	-256	0	0
1015.8	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH CENT BUS	15.01	308.2	375	0	0
1015.8	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH CENT BUS G	15.01	308.2	375	0	0
1020.58	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2	16.38	346.29	420	0	0
1020.58	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2 G	16.38	346.29	420	0	0
1021.96	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH1 G	11.31	204.95	256	0	0
1021.96	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH1	11.31	204.95	256	0	0
1022.55	Branch PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45651FOBES-45842SCOTT2C1	-7.27	-136.46	-169.3	0	0
1033.72	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_41003SNOKING-45795TAMBARKTC1	11.37	203.34	256	0	0

TTC NCTP Case All in - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
84.84	**Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]**	**ZZZ-SNOH BUS G (NOT CREDIBLE)**	**-29.86**	**-797.18**	**-796.7**	**0**	**0**
272.12	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-23.46	-796.72	-796.7	0	0
272.12	POWERFLOW DIVERGENCE	ZZZ-SNOH BUS (NOT CREDIBLE)	0	0	0	0	0
556.55	Branch SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-16.14	-255.78	-256	0	0
557.59	Branch SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-16.14	-255.96	-256	0	0
559.72	Branch SNMURTAP (40768) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	-16.87	-526.05	-525.9	0	0
660.41	Branch SNMURTAP (40768) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	-14.83	-468.36	-525.9	0	0
663.52	Branch BEV 230 (45610) TO BEVERLY (45608) CKT 1 [230.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	18.86	355.21	429	0	0
663.52	Branch BEV 230 (45610) TO BEVERLY (45608) CKT 1 [230.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	18.86	355.21	429	0	0
678.22	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	13.55	200.99	256	0	0
684.25	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	16.88	305.46	375	0	0
684.25	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	16.88	305.46	375	0	0
691.86	Branch BOTHELL (46403) TO SNOK S3 (41008) CKT 2 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-15.36	-457.06	-521.5	0	0
691.86	Branch BOTHELL (46403) TO SNOK S3 (41008) CKT 2 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-15.36	-457.06	-521.5	0	0
735.25	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Base Case	10.29	152.36	200	0	0
747.94	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-45717MONTLAKEC1	13.04	193.98	256	0	0
751.4	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS (NOT CREDIBLE)	12.63	195.49	256	0	0
751.4	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOH BUS G (NOT CREDIBLE)	12.63	195.49	256	0	0
765.25	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-19.48	-700.68	-796.7	0	0
765.25	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-19.48	-700.68	-796.7	0	0
782.13	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	15.4	296.48	375	0	0
782.13	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	15.4	296.48	375	0	0
786.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS	-7.85	-107.69	-148	0	0
786.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-7.85	-107.69	-148	0	0
786.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	-7.85	-107.69	-148	0	0
786.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_40997SNOHOMSH-45803THREELKC1	-7.85	-107.69	-148	0	0
786.22	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-7.85	-107.69	-148	0	0
800.06	Branch BOTHELL (46403) TO SNOK S1 (41004) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	-14.86	-443.09	-521.5	0	0
800.06	Branch BOTHELL (46403) TO SNOK S1 (41004) CKT 1 [230.00 - 230.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	-14.86	-443.09	-521.5	0	0
802.51	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	16.71	286.41	375	0	0
802.51	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	16.71	286.41	375	0	0
816.5	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45848HALLSLK-45717MONTLAKEC1	12.58	187.53	256	0	0
820.04	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.32	296.58	375	0	0
820.04	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1	14.32	296.58	375	0	0
822.26	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS	12.6	186.74	256	0	0
822.26	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS G	12.6	186.74	256	0	0
828.06	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.1	296.64	375	0	0
828.06	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1	14.1	296.64	375	0	0
845.1	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)	16.35	281.35	375	0	0
845.1	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	16.35	281.35	375	0	0
846.05	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS BS	-18.93	-688.09	-796.7	0	0
846.05	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-18.93	-688.09	-796.7	0	0
876.01	Branch SNMURTAP (40768) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS BS	-13.73	-443	-525.9	0	0
876.01	Branch SNMURTAP (40768) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-13.73	-443	-525.9	0	0
891.08	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_41003SNOKING-45757PKRIDGTC1	12.2	180.52	256	0	0
898.51	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	C-BEV-SILVER-OLIVIA FAULT	12.34	178.72	256	0	0
901.62	Branch BOTHELL (46403) TO SNOH S1 (41327) CKT 2 [230.00 - 230.00 kV]	Z-230 SNOH2	16.67	366.02	470.9	0	0
901.62	Branch BOTHELL (46403) TO SNOH S1 (41327) CKT 2 [230.00 - 230.00 kV]	Z-230 SNOH2 G	16.67	366.02	470.9	0	0
904.32	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS BS	-12.48	-177.11	-256	0	0
904.32	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS G BS	-12.48	-177.11	-256	0	0
972.1	Branch BEVERLY (45608) TO CASINO (45623) CKT 1 [115.00 - 115.00 kV]	ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)	12.52	168.42	256	0	0

TTC NCTP Case No ZZZ - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
672.68	**Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]**	**ZZ-SNOH EAST CENT BUS BS**	**16.88**	**374.54**	**375**	**0**	**0**
678.02	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	13.55	255.73	256	0	0
695.39	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	16.88	375.49	375	0	0
750.87	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Base Case	10.29	199.79	200	0	0
754	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-45717MONTLAKEC1	13.04	255.04	256	0	0
778.97	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	15.4	359.93	375	0	0
778.97	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	15.4	359.93	375	0	0
795.97	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-7.85	-138.99	-148	0	0
795.97	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH EAST CENT BUS BS	-7.85	-138.99	-148	0	0
795.97	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-7.85	-138.99	-148	0	0
795.97	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_40997SNOHOMSH-45803THREELKC1	-7.85	-138.99	-148	0	0
795.97	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS	-7.85	-138.99	-148	0	0
803.14	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS G BS	-19.48	-772.94	-796.7	0	0
803.14	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH WEST CENT BUS BS	-19.48	-772.94	-796.7	0	0
821.89	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1	14.32	354.85	375	0	0
821.89	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.32	354.85	375	0	0
830.18	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45848HALLSLK-45717MONTLAKEC1	12.58	237.25	256	0	0
831.01	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1	14.1	353.87	375	0	0
831.01	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.1	353.87	375	0	0
835.16	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS	12.6	236.6	256	0	0
835.16	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS G	12.6	236.6	256	0	0
887.58	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS BS	-18.93	-757.62	-796.7	0	0
887.58	Branch SNOH S1 (41327) TO SNOH S2 (41328) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-18.93	-757.62	-796.7	0	0
900.77	Branch SNMURTAP (40768) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS BS	-13.73	-495.74	-525.9	0	0
900.77	Branch SNMURTAP (40768) TO SNOH S1 (41327) CKT 1 [230.00 - 230.00 kV]	ZZ-SNOH EAST CENT BUS G BS	-13.73	-495.74	-525.9	0	0
903.49	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_41003SNOKING-45757PKRIDGTC1	12.2	228.88	256	0	0
908.05	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS BS	-12.48	-227.68	-256	0	0
908.05	Branch N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS G BS	-12.48	-227.68	-256	0	0
913.22	Branch BOTHELL (46403) TO SNOH S1 (41327) CKT 2 [230.00 - 230.00 kV]	Z-230 SNOH2	16.67	432.22	470.9	0	0
913.22	Branch BOTHELL (46403) TO SNOH S1 (41327) CKT 2 [230.00 - 230.00 kV]	Z-230 SNOH2 G	16.67	432.22	470.9	0	0
914.83	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	C-BEV-SILVER-OLIVIA FAULT	12.34	227.16	256	0	0
931.65	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	C-BEV-SILVER-GLENWD FAULT	12.17	225.51	256	0	0
936.96	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	11.75	225.95	256	0	0
968.81	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45757PKRIDGT-45758BRIGHTH2C1	11.8	224.02	256	0	0
968.89	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45758BRIGHTH2-45809TURNERSC1	11.8	224.02	256	0	0
1022.6	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH1	11.34	219.17	256	0	0
1036.63	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS G BS	16.48	361.43	420	0	0
1036.63	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	ZZ-SNOH WEST CENT BUS BS	16.48	361.43	420	0	0
1042.15	Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 [115.00 - 115.00 kV]	L_41003SNOKING-45801THRASHERC1	-11.39	-214.89	-256	0	0
1063.22	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3 G	14.25	320.56	375	0	0
1063.22	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3	14.25	320.56	375	0	0
1070.32	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1 G	14.28	319.44	375	0	0
1070.32	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1	14.28	319.44	375	0	0
1071.25	Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 [230.00 - 115.00 kV]	ZZ-SNOK NORTH CENT BUS BS	18.42	347.13	419	0	0
1071.25	Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 [230.00 - 115.00 kV]	ZZ-SNOK NORTH CENT BUS G BS	18.42	347.13	419	0	0
1074.69	Branch ALDERW (45601) TO N ALDER (45725) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS BS	-11.52	-210.67	-256	0	0
1074.69	Branch ALDERW (45601) TO N ALDER (45725) CKT 1 [115.00 - 115.00 kV]	ZZ-SNOK SOUTH CENT BUS G BS	-11.52	-210.67	-256	0	0
1086.15	Branch BRIER (45609) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	-11.1	-211.03	-256	0	0
1091.36	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45697LKCHAP-45803THREELKC1	-6.79	-120.16	-148	0	0
1095.67	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2	14.05	316.77	375	0	0
1095.67	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2 G	14.05	316.77	375	0	0
1128.31	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1	13.93	312.73	375	0	0
1128.31	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1 G	13.93	312.73	375	0	0
1130.09	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4	13.24	317.76	375	0	0
1130.09	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4 G	13.24	317.76	375	0	0
1145.16	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45685JACKSN-45697LKCHAPC1	-6.62	-118.4	-148	0	0
1145.23	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45685JACKSN-45787SULTGBTC1	-6.62	-118.4	-148	0	0
1176.22	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2	14.96	348.42	420	0	0
1176.22	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2 G	14.96	348.42	420	0	0
1183.77	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Base Case	-5.49	-98.34	-125	0	0
1183.87	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4	13.04	311.61	375	0	0
1183.87	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4 G	13.04	311.61	375	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH3 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH XF1 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH4 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH XF2 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH2 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH XF3 G	-5.49	-98.34	-125.1	0	0

TTC NCTP Case No ZZZ ZZ C - ATC Analysis

Trans Lim	Limiting Element	Limiting CTG	% OTDF	Pre-Trans Est	Limit Used	ATC Mon:	ATC Mon:
689.74	**Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]**	**L_45619CANPARK-41003SNOKINGC1**	**13.55**	**256.19**	**256**	**0**	**0**
737.75	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Base Case	10.29	198.84	200	0	0
764.02	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-45717MONTLAKEC1	13.04	256.19	256	0	0
783.76	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2 G	15.4	374.61	375	0	0
784.33	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH2	15.4	375.38	375	0	0
793.64	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-7.85	-140.48	-148	0	0
793.64	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS	-7.85	-140.48	-148	0	0
793.64	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_40997SNOHOMSH-45803THREELKC1	-7.85	-140.48	-148	0	0
819.51	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1	14.32	357.58	375	0	0
819.51	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.32	357.58	375	0	0
827.93	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45848HALLSLK-45717MONTLAKEC1	12.58	239.63	256	0	0
828.68	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1	14.1	356.55	375	0	0
828.68	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH1 G	14.1	356.55	375	0	0
832.87	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS G	12.6	238.99	256	0	0
832.87	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-SNOK SOUTH BUS	12.6	238.99	256	0	0
901.18	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_41003SNOKING-45757PKRIDGTC1	12.2	231.19	256	0	0
910.62	Branch BOTHELL (46403) TO SNOH S1 (41327) CKT 2 [230.00 - 230.00 kV]	Z-230 SNOH2 G	16.67	435.44	470.9	0	0
910.62	Branch BOTHELL (46403) TO SNOH S1 (41327) CKT 2 [230.00 - 230.00 kV]	Z-230 SNOH2	16.67	435.44	470.9	0	0
968.81	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45757PKRIDGT-45758BRIGHTH2C1	11.8	224.02	256	0	0
968.89	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45758BRIGHTH2-45809TURNERSC1	11.8	224.02	256	0	0
1022.6	Branch SNOKING (41003) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH1	11.34	219.17	256	0	0
1039.81	Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 [115.00 - 115.00 kV]	L_41003SNOKING-45801THRASHERC1	-11.39	-217.06	-256	0	0
1060.72	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3 G	14.25	323.29	375	0	0
1060.72	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF3	14.25	323.29	375	0	0
1067.82	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1 G	14.28	322.18	375	0	0
1067.82	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-SNOH XF1	14.28	322.18	375	0	0
1083.9	Branch BRIER (45609) TO THRASHER (45801) CKT 1 [115.00 - 115.00 kV]	L_45619CANPARK-41003SNOKINGC1	-11.1	-213.13	-256	0	0
1089.07	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45697LKCHAP-45803THREELKC1	-6.79	-121.44	-148	0	0
1093.18	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2 G	14.05	319.47	375	0	0
1093.18	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF2	14.05	319.47	375	0	0
1125.82	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1 G	13.93	315.4	375	0	0
1125.82	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-SNOH XF1	13.93	315.4	375	0	0
1130.09	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4 G	13.24	317.76	375	0	0
1130.09	Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 [230.00 - 115.00 kV]	Z-230 SNOH4	13.24	317.76	375	0	0
1145.16	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45685JACKSN-45697LKCHAPC1	-6.62	-118.4	-148	0	0
1145.23	Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 [115.00 - 115.00 kV]	L_45685JACKSN-45787SULTGBTC1	-6.62	-118.4	-148	0	0
1176.22	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2 G	14.96	348.42	420	0	0
1176.22	Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 [230.00 - 115.00 kV]	Z-230 SNOH2	14.96	348.42	420	0	0
1183.77	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Base Case	-5.49	-98.34	-125	0	0
1183.87	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4 G	13.04	311.61	375	0	0
1183.87	Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 [230.00 - 115.00 kV]	Z-230 SNOH4	13.04	311.61	375	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH WEST BUS-G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH XF3 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH2 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH XF2 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH XF1 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH3 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-230 SNOH4 G	-5.49	-98.34	-125.1	0	0
1185.6	Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 [115.00 - 115.00 kV]	Z-SNOH EAST BUS G	-5.49	-98.34	-125.1	0	0

TTC Contingency List

Contingency Records
Label
ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)
ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)
ZZZ-SNOH BUS G (NOT CREDIBLE)
ZZZ-SNOH BUS (NOT CREDIBLE)
ZZZ-500 TP SNOKING G (NOT CREDIBLE)
ZZZ-500 TP SNOKING (NOT CREDIBLE)
ZZ-SNOK SOUTH CENT BUS G BS
ZZ-SNOK SOUTH CENT BUS BS
ZZ-SNOK NORTH CENT BUS G BS
ZZ-SNOK NORTH CENT BUS BS
ZZ-SNOH WEST CENT BUS G BS
ZZ-SNOH WEST CENT BUS BS
ZZ-SNOH EAST CENT BUS G BS
ZZ-SNOH EAST CENT BUS BS
C-SILLS- LK GDW FAULT
C-BEV-SILVER-OLIVIA FAULT
C-BEV-SILVER-GLENWD FAULT
C-BEV-CASINO-OLIVIA FAULT
C-BEV-CASINO-GLENWOOD FAULT
Z-SNOK XF3 G
Z-SNOK XF3
Z-SNOK XF2 G
Z-SNOK XF2
Z-SNOK XF1 G
Z-SNOK XF1
Z-SNOK SOUTH BUS G
Z-SNOK SOUTH BUS
Z-SNOK NORTH BUS G
Z-SNOK NORTH BUS
Z-SNOK CENT BUS G
Z-SNOK CENT BUS
Z-SNOH XF3 G
Z-SNOH XF3
Z-SNOH XF2 G
Z-SNOH XF2
Z-SNOH XF1 G
Z-SNOH XF1
Z-SNOH WEST BUS-G
Z-SNOH WEST BUS
Z-SNOH EAST BUS G
Z-SNOH EAST BUS
Z-SNOH CENT BUS G
Z-SNOH CENT BUS
Z-MURRAY XF G
Z-MURRAY XF
Z-MURRAY BUS G
Z-MURRAY BUS
Z-345 4 SNOH
Z-345 3 SNOH
Z-230 SNOK3 G
Z-230 SNOK3
Z-230 SNOK2 G
Z-230 SNOK2
Z-230 SNOK1 G
Z-230 SNOK1
Z-230 SNOH4 G
Z-230 SNOH4
Z-230 SNOH3 G
Z-230 SNOH3

Z-230 SNOH2 G
Z-230 SNOH2
Z-230 SNOH1 G
Z-230 SNOH1
X-BASE NG
X-BASE
T_45849KIMCLK-45850KIMCLKLC2
T_45849KIMCLK-45850KIMCLKLC1
T_45691JACKSN3-45685JACKSNC1
T_45689JACKSN2-45685JACKSNC1
T_45687JACKSN1-45685JACKSNC1
L_45859SWMPCKT1-45860SWMPCKT2C1
L_45855SILLSC-45785STIMSONSC1
L_45854S-SCTAP-40997SNOHOMSHC1
L_45852NCRKTAP-45795TAMBARKTC1
L_45851MUKLTEO-45721MUKTAPC1
L_45849KIMCLK-45861WATRFRTC1
L_45848HALLSLK-45717MONTLAKEC1
L_45848HALLSLK-45707LYNNWDTC1
L_45847GLENWDT-40997SNOHOMSHC1
L_45846GETCHLT-45695KELLOGMTC1
L_45846GETCHLT-45681HARTFORDC1
L_45846GETCHLT-45665GRANFALC1
L_45846GETCHLT-40765MURRAYC1
L_45845FLORLHT1-45860SWMPCKT2C1
L_45845FLORLHT1-45852NCRKTAPC1
L_45844FLORLHT-45859SWMPCKT1C1
L_45844FLORLHT-41003SNOKINGC1
L_45843EVRETTT2-45849KIMCLKC1
L_45843EVRETTT2-45733NAVYC1
L_45842SCOTT2-45824SCOTT2LC1
L_45842SCOTT2-45799TENTHTC1
L_45841CMARYST-45729NMARYSC1
L_45841CMARYST-45693KELLOGMC1
L_45840CMARYST-45841CMARYSTC1
L_45840CMARYST-45627DELTASWC1
L_45813WMONROE-45823WOODSCKC1
L_45805TULALIP-45807TULALIPTC1
L_45797TENTH-45799TENTHTC1
L_45789SULTAN-45823WOODSCKC1
L_45787SULTGBT-45789SULTANC1
L_45779SNOHM-45813WMONROEC1
L_45779SNOHM-40997SNOHOMSHC1
L_45777SMOKEYPT-45785STIMSONSC1
L_45775SMOKEYP-45777SMOKEYPTC1
L_45761RICHMNDT-45819WESTGATEC1
L_45759RICHMND-45761RICHMNDTC1
L_45757PKRIDGT-45809TURNERSC1
L_45757PKRIDGT-45756PKRDGTPC1
L_45756PKRDGTP-41003SNOKINGC1
L_45755PKRIDGE-45757PKRIDGTC1
L_45753PINEHURS-40997SNOHOMSHC1
L_45747PERRINV-45749PERRINVTC1
L_45741OLIVIAT-45854S-SCTAPC1
L_45741OLIVIAT-45745PAINEFC1
L_45739OLIVIAP-45741OLIVIATC1
L_45733NAVY-45737NORTONSC1
L_45731NSTAN-45785STIMSONSC1
L_45729NMARYS-45785STIMSONSC1
L_45727NCRK-45852NCRKTAPC1
L_45725NALDER-45859SWMPCKT1C1
L_45723MURPHYS-45727NCRKC1
L_45721MUKTAP-45745PAINEFC1
L_45713MEADWD-45715MEADWDTC1
L_45711MARTHAL-45860SWMPCKT2C1
L_45709MAPLEW-45749PERRINVTC1

L_45708KEELERS-45715MEADWDTC1
L_45708KEELERS-45710KEELERLC1
L_45708KEELERS-45707LYNNWDTC1
L_45705LYNNWD-45749PERRINVTC1
L_45705LYNNWD-45707LYNNWDTC1
L_45703LKSTEVE-40997SNOHOMSHC1
L_45701LKSEREN-45715MEADWDTC1
L_45699LKGDW-45855SILLSCC1
L_45697LKCHAP-45803THREELKC1
L_45693KELLOGM-45695KELLOGMTC1
L_45685JACKSN-45787SULTGBTC1
L_45685JACKSN-45697LKCHAPC1
L_45679HARBORP-45751PICNICC1
L_45679HARBORP-45721MUKTAPC1
L_45663GOLDBAR-45787SULTGBTC1
L_45659GLENWD-45847GLENWDTC1
L_45659GLENWD-45811TWNTETHC1
L_45657GIBSON-45745PAINEFC1
L_45657GIBSON-45701LKSERENC1
L_45653FRONTIER-45703LKSTEVEC1
L_45651FOBES-45842SCOTT2C1
L_45651FOBES-40997SNOHOMSHC1
L_45649FLORALH-45845FLORLHT1C1
L_45649FLORALH-45844FLORLHTC1
L_45647FIVECOR-45848HALLSLKC1
L_45645FIFTYSEC-45861WATRFRTC1
L_45645FIFTYSEC-45753PINEHURSC1
L_45637EVERETT-45843EVRETTT2C1
L_45637EVERETT-40997SNOHOMSHC1
L_45635ESPERENC-45848HALLSLKC1
L_45633EDMONDT2-45819WESTGATEC1
L_45633EDMONDT2-45709MAPLEWC1
L_45633EDMONDT2-45647FIVECORC1
L_45632QUILCEDA-45807TULALIPTC1
L_45632QUILCEDA-45785STIMSONSC1
L_45631EMARY-45695KELLOGMTC1
L_45631EMARY-45653FRONTIERC1
L_45630PORTAGE-45855SILLSCC1
L_45629EARLG-45630PORTAGEC1
L_45629EARLG-41221JIMCREEKC1
L_45629EARLG-40765MURRAYC1
L_45627DELTASW-45807TULALIPTC1
L_45627DELTASW-45799TENTHTC1
L_45627DELTASW-45737NORTONSC1
L_45625CLEARV-45809TURNERSC1
L_45625CLEARV-45795TAMBARKTC1
L_45623CASINO-45751PICNICC1
L_45622MARINER-45857SILVELKC1
L_45622MARINER-45711MARTHALC1
L_45621CASCAD-45723MURPHYSC1
L_45621CASCAD-45625CLEARVC1
L_45619CANPARK-45717MONTLAKEC1
L_45619CANPARK-41003SNOKINGC1
L_45617CAMANO-45853SCAMANOC1
L_45617CAMANO-45731NSTANC1
L_45611CMARY-45840CMARYSTC1
L_45609BRIER-45848HALLSLKC1
L_45609BRIER-45801THRASHERC1
L_45608BEVERLY-45857SILVELKC1
L_45608BEVERLY-45623CASINOC1
L_45608BEVERLY-42402HILTNLKTC1
L_45608BEVERLY-42399GLDBRTIEC1
L_45608BEVERLY-40997SNOHOMSHC4
L_45608BEVERLY-40997SNOHOMSHC3
L_45607BOEING-45847GLENWDTC1
L_45607BOEING-45811TWNTETHC1

L_45607BOEING-45745PAINEFC1
L_45603BALLING-45848HALLSLKC1
L_45603BALLING-45761RICHMNDTC1
L_45601ALDERW-45725NALDERC1
L_45601ALDERW-45635ESPERENCC1
L_42435OLYCANYT-45743OLYMPICC1
L_42402HILTNLKT-45683HILTONC1
L_42399GLDBRTIE-45663GOLDBARC1
L_42160ARLNGTON-45629EARLGC1
L_42160ARLNGTON-45608BEVERLYC1
L_41003SNOKING-45801THRASHERC1
L_41003SNOKING-45795TAMBARKTC1
L_40997SNOHOMSH-45803THREELKC1
L_40765MURRAY-45777SMOKEYPTC1

2006 Case Voltage and Thermal Contingency Violation Output

Branch Flow Extremes

From Bus	To Bus	Ckt ID	Max % Flow	Due To Contingency
MURRAY	MURRAY	1	159.560	ZZZ-SNOH BUS G (NOT CRED
MURRAY	SMOKEYPT	1	125.441	ZZZ-SNOH BUS G (NOT CRED
MURRAY	SNOH S1	1	120.888	ZZZ-SNOH BUS G (NOT CRED
SNOH S2	SNOHOMSH	3	158.877	ZZ-SNOH EAST CENT BUS G
SNOH S3	SNOHOMSH	2	111.209	ZZZ-SNOKING BUS G (NOT C
SNOH S4	SNOHOMSH	1	99.416	ZZ-SNOH WEST CENT BUS BS
SNOK S3	SNOKING	2	91.768	ZZ-SNOK NORTH CENT BUS G
SNOKING	THRASHER	1	93.739	ZZZ-SNOH BUS G (NOT CRED
FLORLH T	SNOKING	1	90.353	ZZ-SNOK SOUTH CENT BUS G
BOTSNO11	SNOK S1	1	92.459	Z-230 SNOK3 G
BOTSNO21	SNOK S3	2	91.968	Z-230 SNOK1 G
BEVERLY	GLDBRTIE	1	92.977	ZZZ-500 TP SNOKING G (NO
GIBSON LK	SEREN	1	133.770	ZZZ-SNOKING BUS G (NOT C
GIBSON	PAINE F	1	143.209	ZZZ-SNOKING BUS G (NOT C
JACKSN1	JACKSN	1	148.151	ZZZ-SNOH BUS (NOT CREDIB
LK SEREN	MEADWDT	1	122.748	ZZZ-SNOKING BUS G (NOT C
KEELER S	LYNNWDT	1	113.662	ZZZ-SNOH BUS G (NOT CRED
HALLS LK	LYNNWDT	1	116.322	ZZZ-SNOH BUS G (NOT CRED
KEELER S	MEADWDT	1	113.529	ZZZ-SNOKING BUS G (NOT C
SMOKEYPT	STIMSONS	1	98.563	ZZZ-SNOH BUS (NOT CREDIB
GLENWD T	GLESNO11	1	100.932	ZZZ-SNOKING BUS (NOT CRE

Contingency Results

CONTINGENCY ZZZ-SNOKING BUS G (NOT CREDIBLE AFTER 07)
ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 38)
BRANCH: 10
BUS VOLTAGE: 28
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 366.6 LIMIT: 256.0 %: 143.2 Base Case Value: 32.3
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 342.5 LIMIT: 256.0 %: 133.8 Base Case Value: 44.7
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 314.2 LIMIT: 256.0 %: 122.7 Base Case Value: 60.9

KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 290.6 LIMIT: 256.0 %: 113.5 Base Case Value: 80.6
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 288.9 LIMIT: 256.0 %: 112.9 Base Case Value: 81.5
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 286.1 LIMIT: 256.0 %: 111.8 Base Case Value: 81.6
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 410.4 LIMIT: 369.0 %: 111.2 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 406.3 LIMIT: 369.0 %: 110.1 Base Case Value: 266.7
GLENWD T (45847) TO GLESNO11 (49900) CKT 1 MVA: 232.2 LIMIT: 230.1 %: 100.9 Base Case Value: 98.7
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 381.1 LIMIT: 393.0 %: 97.0 Base Case Value: 256.2

BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
LYNNWD (45705) LOW V VOLT: 0.8113 LIMIT: 0.9000 Base Case Value: 0.9681
PERRINV (45747) LOW V VOLT: 0.8126 LIMIT: 0.9000 Base Case Value: 0.9692
PERRINVT (45749) LOW V VOLT: 0.8127 LIMIT: 0.9000 Base Case Value: 0.9693
MAPLEW (45709) LOW V VOLT: 0.8160 LIMIT: 0.9000 Base Case Value: 0.9720
THRASHER (45801) LOW V VOLT: 0.8206 LIMIT: 0.9000 Base Case Value: 0.9906
EDMONDT2 (45633) LOW V VOLT: 0.8216 LIMIT: 0.9000 Base Case Value: 0.9767
FIVE COR (45647) LOW V VOLT: 0.8225 LIMIT: 0.9000 Base Case Value: 0.9774
BRIER (45609) LOW V VOLT: 0.8228 LIMIT: 0.9000 Base Case Value: 0.9862
CAN PARK (45619) LOW V VOLT: 0.8242 LIMIT: 0.9000 Base Case Value: 0.9887
WESTGATE (45819) LOW V VOLT: 0.8246 LIMIT: 0.9000 Base Case Value: 0.9791
RICHMND (45759) LOW V VOLT: 0.8250 LIMIT: 0.9000 Base Case Value: 0.9794
N ALDER (45725) LOW V VOLT: 0.8252 LIMIT: 0.9000 Base Case Value: 0.9850
SWMPCKT1 (45859) LOW V VOLT: 0.8252 LIMIT: 0.9000 Base Case Value: 0.9857
FLORLH T (45844) LOW V VOLT: 0.8252 LIMIT: 0.9000 Base Case Value: 0.9871
RICHMNDT (45761) LOW V VOLT: 0.8255 LIMIT: 0.9000 Base Case Value: 0.9799
ALDERW (45601) LOW V VOLT: 0.8256 LIMIT: 0.9000 Base Case Value: 0.9835
BALLING (45603) LOW V VOLT: 0.8256 LIMIT: 0.9000 Base Case Value: 0.9800
MONTLAKE (45717) LOW V VOLT: 0.8258 LIMIT: 0.9000 Base Case Value: 0.9836
ESPERENC (45635) LOW V VOLT: 0.8274 LIMIT: 0.9000 Base Case Value: 0.9817
HALLS LK (45848) LOW V VOLT: 0.8275 LIMIT: 0.9000 Base Case Value: 0.9816
LYNNWDT (45707) LOW V VOLT: 0.8435 LIMIT: 0.9000 Base Case Value: 0.9811
KEELERL (45710) LOW V VOLT: 0.8519 LIMIT: 0.9000 Base Case Value: 0.9808
KEELER S (45708) LOW V VOLT: 0.8519 LIMIT: 0.9000 Base Case Value: 0.9808
MEADWD (45713) LOW V VOLT: 0.8540 LIMIT: 0.9000 Base Case Value: 0.9803
MEADWDT (45715) LOW V VOLT: 0.8545 LIMIT: 0.9000 Base Case Value: 0.9808
LK SEREN (45701) LOW V VOLT: 0.8606 LIMIT: 0.9000 Base Case Value: 0.9810
GIBSON (45657) LOW V VOLT: 0.8842 LIMIT: 0.9000 Base Case Value: 0.9826
PAINE F (45745) LOW V VOLT: 0.8982 LIMIT: 0.9000 Base Case Value: 0.9840

BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY ZZZ-SNOKING BUS (NOT CREDIBLE AFTER 07)

ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |

APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW

NUMBER OF VIOLATIONS BY CATEGORY (Total = 35)
BRANCH: 9
BUS VOLTAGE: 26
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 364.9 LIMIT: 256.0 %: 142.5 Base Case Value: 32.3
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 341.1 LIMIT: 256.0 %: 133.2 Base Case Value: 44.7
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 313.5 LIMIT: 256.0 %: 122.4 Base Case Value: 60.9
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 290.0 LIMIT: 256.0 %: 113.3 Base Case Value: 80.6
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 288.3 LIMIT: 256.0 %: 112.6 Base Case Value: 81.5
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 285.7 LIMIT: 256.0 %: 111.6 Base Case Value: 81.6
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 376.6 LIMIT: 369.0 %: 102.0 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 372.9 LIMIT: 369.0 %: 101.1 Base Case Value: 266.7
GLENWD T (45847) TO GLESNO11 (49900) CKT 1 MVA: 232.2 LIMIT: 230.1 %: 100.9 Base Case Value: 98.7

BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
LYNNWD (45705) LOW V VOLT: 0.8343 LIMIT: 0.9000 Base Case Value: 0.9681
PERRINV (45747) LOW V VOLT: 0.8356 LIMIT: 0.9000 Base Case Value: 0.9692
PERRINVT (45749) LOW V VOLT: 0.8357 LIMIT: 0.9000 Base Case Value: 0.9693
MAPLEW (45709) LOW V VOLT: 0.8389 LIMIT: 0.9000 Base Case Value: 0.9720
THRASHER (45801) LOW V VOLT: 0.8433 LIMIT: 0.9000 Base Case Value: 0.9906
EDMONDT2 (45633) LOW V VOLT: 0.8443 LIMIT: 0.9000 Base Case Value: 0.9767

FIVE COR (45647) LOW V VOLT: 0.8452 LIMIT: 0.9000 Base Case Value: 0.9774
BRIER (45609) LOW V VOLT: 0.8455 LIMIT: 0.9000 Base Case Value: 0.9862
CAN PARK (45619) LOW V VOLT: 0.8468 LIMIT: 0.9000 Base Case Value: 0.9887
WESTGATE (45819) LOW V VOLT: 0.8472 LIMIT: 0.9000 Base Case Value: 0.9791
RICHMND (45759) LOW V VOLT: 0.8476 LIMIT: 0.9000 Base Case Value: 0.9794
SWMPCKT1 (45859) LOW V VOLT: 0.8479 LIMIT: 0.9000 Base Case Value: 0.9857
N ALDER (45725) LOW V VOLT: 0.8479 LIMIT: 0.9000 Base Case Value: 0.9850
FLORLH T (45844) LOW V VOLT: 0.8479 LIMIT: 0.9000 Base Case Value: 0.9871
RICHMNDT (45761) LOW V VOLT: 0.8482 LIMIT: 0.9000 Base Case Value: 0.9799
ALDERW (45601) LOW V VOLT: 0.8482 LIMIT: 0.9000 Base Case Value: 0.9835
BALLING (45603) LOW V VOLT: 0.8482 LIMIT: 0.9000 Base Case Value: 0.9800
MONTLAKE (45717) LOW V VOLT: 0.8484 LIMIT: 0.9000 Base Case Value: 0.9836
ESPERENC (45635) LOW V VOLT: 0.8499 LIMIT: 0.9000 Base Case Value: 0.9817
HALLS LK (45848) LOW V VOLT: 0.8501 LIMIT: 0.9000 Base Case Value: 0.9816
LYNNWDT (45707) LOW V VOLT: 0.8655 LIMIT: 0.9000 Base Case Value: 0.9811
KEELERL (45710) LOW V VOLT: 0.8737 LIMIT: 0.9000 Base Case Value: 0.9808
KEELER S (45708) LOW V VOLT: 0.8737 LIMIT: 0.9000 Base Case Value: 0.9808
MEADWD (45713) LOW V VOLT: 0.8757 LIMIT: 0.9000 Base Case Value: 0.9803
MEADWDT (45715) LOW V VOLT: 0.8762 LIMIT: 0.9000 Base Case Value: 0.9808
LK SEREN (45701) LOW V VOLT: 0.8821 LIMIT: 0.9000 Base Case Value: 0.9810
BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY ZZZ-SNOH BUS G (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOHOMSH (40997) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOHOMSH (40997) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 127)
BRANCH: 12
BUS VOLTAGE: 115
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 714.8 LIMIT: 448.0 %: 159.6 Base Case Value: 184.3
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 321.1 LIMIT: 256.0 %: 125.4 Base Case Value: 87.1
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 664.6 LIMIT: 549.8 %: 120.9 Base Case Value: 272.6
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 297.8 LIMIT: 256.0 %: 116.3 Base Case Value: 81.6
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 291.0 LIMIT: 256.0 %: 113.7 Base Case Value: 81.5
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 287.0 LIMIT: 256.0 %: 112.1 Base Case Value: 80.6
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 264.6 LIMIT: 256.0 %: 103.4 Base Case Value: 60.9
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 252.1 LIMIT: 256.0 %: 98.5 Base Case Value: 59.8
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 243.8 LIMIT: 256.0 %: 95.2 Base Case Value: 44.7
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 240.0 LIMIT: 256.0 %: 93.7 Base Case Value: 150.4
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BEVERLY (45608) TO GLDBRTIE (42399) CKT 1 MVA: 64.9 LIMIT: 71.9 %: 90.3 Base Case Value: 55.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.5005 LIMIT: 0.9000 Base Case Value: 0.9921
FIFTYSEC (45645) LOW V VOLT: 0.5012 LIMIT: 0.9000 Base Case Value: 0.9913
WATRFRT (45861) LOW V VOLT: 0.5059 LIMIT: 0.9000 Base Case Value: 0.9893
EVERETT (45637) LOW V VOLT: 0.5064 LIMIT: 0.9000 Base Case Value: 0.9912
KIMCLK (45849) LOW V VOLT: 0.5073 LIMIT: 0.9000 Base Case Value: 0.9892
EVRETTT2 (45843) LOW V VOLT: 0.5083 LIMIT: 0.9000 Base Case Value: 0.9891
NAVY (45733) LOW V VOLT: 0.5100 LIMIT: 0.9000 Base Case Value: 0.9887
NORTON S (45737) LOW V VOLT: 0.5121 LIMIT: 0.9000 Base Case Value: 0.9883
FOBES (45651) LOW V VOLT: 0.5205 LIMIT: 0.9000 Base Case Value: 0.9979
S CAMANO (45853) LOW V VOLT: 0.5214 LIMIT: 0.9000 Base Case Value: 0.9534
SCOTT 2L (45824) LOW V VOLT: 0.5244 LIMIT: 0.9000 Base Case Value: 0.9895
SCOTT 2 (45842) LOW V VOLT: 0.5246 LIMIT: 0.9000 Base Case Value: 0.9897
TENTH (45797) LOW V VOLT: 0.5256 LIMIT: 0.9000 Base Case Value: 0.9876
TENTHT (45799) LOW V VOLT: 0.5258 LIMIT: 0.9000 Base Case Value: 0.9877
DELTA SW (45627) LOW V VOLT: 0.5272 LIMIT: 0.9000 Base Case Value: 0.9870

CAMANO (45617) LOW V VOLT: 0.5297 LIMIT: 0.9000 Base Case Value: 0.9586
N STAN (45731) LOW V VOLT: 0.5383 LIMIT: 0.9000 Base Case Value: 0.9638
TULALIP (45805) LOW V VOLT: 0.5414 LIMIT: 0.9000 Base Case Value: 0.9845
TULALIPT (45807) LOW V VOLT: 0.5421 LIMIT: 0.9000 Base Case Value: 0.9849
C MARY (45611) LOW V VOLT: 0.5482 LIMIT: 0.9000 Base Case Value: 0.9833
C MARYST (45840) LOW V VOLT: 0.5490 LIMIT: 0.9000 Base Case Value: 0.9838
QUILCEDA (45632) LOW V VOLT: 0.5511 LIMIT: 0.9000 Base Case Value: 0.9844
KELLOGM (45693) LOW V VOLT: 0.5529 LIMIT: 0.9000 Base Case Value: 0.9829
CMARYST (45841) LOW V VOLT: 0.5540 LIMIT: 0.9000 Base Case Value: 0.9836
N MARYS (45729) LOW V VOLT: 0.5593 LIMIT: 0.9000 Base Case Value: 0.9837
STIMSONS (45785) LOW V VOLT: 0.5752 LIMIT: 0.9000 Base Case Value: 0.9850
SMOKEYP (45775) LOW V VOLT: 0.5799 LIMIT: 0.9000 Base Case Value: 0.9854
SMOKEYPT (45777) LOW V VOLT: 0.5807 LIMIT: 0.9000 Base Case Value: 0.9859
LK GDW (45699) LOW V VOLT: 0.5857 LIMIT: 0.9000 Base Case Value: 0.9835
SILLS C (45855) LOW V VOLT: 0.5908 LIMIT: 0.9000 Base Case Value: 0.9866
PORTAGE (45630) LOW V VOLT: 0.6176 LIMIT: 0.9000 Base Case Value: 0.9904
LK STEVE (45703) LOW V VOLT: 0.6342 LIMIT: 0.9000 Base Case Value: 0.9968
FRONTIER (45653) LOW V VOLT: 0.6359 LIMIT: 0.9000 Base Case Value: 0.9952
E ARLG (45629) LOW V VOLT: 0.6391 LIMIT: 0.9000 Base Case Value: 0.9937
E MARY (45631) LOW V VOLT: 0.6427 LIMIT: 0.9000 Base Case Value: 0.9943
KELLOGMT (45695) LOW V VOLT: 0.6453 LIMIT: 0.9000 Base Case Value: 0.9945
GRANFAL (45665) LOW V VOLT: 0.6459 LIMIT: 0.9000 Base Case Value: 0.9917
HARTFORD (45681) LOW V VOLT: 0.6496 LIMIT: 0.9000 Base Case Value: 0.9941
GETCHL T (45846) LOW V VOLT: 0.6512 LIMIT: 0.9000 Base Case Value: 0.9952
MURRAY (40765) LOW V VOLT: 0.6740 LIMIT: 0.9000 Base Case Value: 1.0014
N CRK (45727) LOW V VOLT: 0.7691 LIMIT: 0.9000 Base Case Value: 0.9793
NCRK TAP (45852) LOW V VOLT: 0.7703 LIMIT: 0.9000 Base Case Value: 0.9802
GLENWD (45659) LOW V VOLT: 0.7705 LIMIT: 0.9000 Base Case Value: 0.9858
FLORLHT1 (45845) LOW V VOLT: 0.7715 LIMIT: 0.9000 Base Case Value: 0.9811
FLORAL H (45649) LOW V VOLT: 0.7715 LIMIT: 0.9000 Base Case Value: 0.9811
TWNTETH (45811) LOW V VOLT: 0.7722 LIMIT: 0.9000 Base Case Value: 0.9844
SWMPCKT2 (45860) LOW V VOLT: 0.7723 LIMIT: 0.9000 Base Case Value: 0.9817
GLENWD T (45847) LOW V VOLT: 0.7723 LIMIT: 0.9000 Base Case Value: 0.9872
BOEING (45607) LOW V VOLT: 0.7729 LIMIT: 0.9000 Base Case Value: 0.9850
MARTHA L (45711) LOW V VOLT: 0.7729 LIMIT: 0.9000 Base Case Value: 0.9822
MARINER (45622) LOW V VOLT: 0.7771 LIMIT: 0.9000 Base Case Value: 0.9854
HARBOR P (45679) LOW V VOLT: 0.7779 LIMIT: 0.9000 Base Case Value: 0.9831
MUKLTEO (45851) LOW V VOLT: 0.7779 LIMIT: 0.9000 Base Case Value: 0.9827
MUKTAP (45721) LOW V VOLT: 0.7783 LIMIT: 0.9000 Base Case Value: 0.9830
PICNIC (45751) LOW V VOLT: 0.7784 LIMIT: 0.9000 Base Case Value: 0.9841
SILVE LK (45857) LOW V VOLT: 0.7788 LIMIT: 0.9000 Base Case Value: 0.9868
OLIVIA P (45739) LOW V VOLT: 0.7800 LIMIT: 0.9000 Base Case Value: 0.9874
S-SCTAP (45854) LOW V VOLT: 0.7801 LIMIT: 0.9000 Base Case Value: 0.9893
OLIVIA T (45741) LOW V VOLT: 0.7801 LIMIT: 0.9000 Base Case Value: 0.9875
PAINE F (45745) LOW V VOLT: 0.7808 LIMIT: 0.9000 Base Case Value: 0.9840
CASINO (45623) LOW V VOLT: 0.7821 LIMIT: 0.9000 Base Case Value: 0.9887
BEVERLY (45608) LOW V VOLT: 0.7839 LIMIT: 0.9000 Base Case Value: 0.9905
GIBSON (45657) LOW V VOLT: 0.7879 LIMIT: 0.9000 Base Case Value: 0.9826
HILTON (45683) LOW V VOLT: 0.7997 LIMIT: 0.9000 Base Case Value: 0.9916
MURRAY (40767) LOW V VOLT: 0.8032 LIMIT: 0.9000 Base Case Value: 1.0245
LK SEREN (45701) LOW V VOLT: 0.8036 LIMIT: 0.9000 Base Case Value: 0.9810
MEADWD (45713) LOW V VOLT: 0.8081 LIMIT: 0.9000 Base Case Value: 0.9803
MEADWDT (45715) LOW V VOLT: 0.8087 LIMIT: 0.9000 Base Case Value: 0.9808
KEELERL (45710) LOW V VOLT: 0.8114 LIMIT: 0.9000 Base Case Value: 0.9808
KEELER S (45708) LOW V VOLT: 0.8114 LIMIT: 0.9000 Base Case Value: 0.9808
LYNNWDT (45707) LOW V VOLT: 0.8204 LIMIT: 0.9000 Base Case Value: 0.9811
LYNNWD (45705) LOW V VOLT: 0.8237 LIMIT: 0.9000 Base Case Value: 0.9681
PERRINV (45747) LOW V VOLT: 0.8250 LIMIT: 0.9000 Base Case Value: 0.9692
PERRINVT (45749) LOW V VOLT: 0.8251 LIMIT: 0.9000 Base Case Value: 0.9693
MAPLEW (45709) LOW V VOLT: 0.8283 LIMIT: 0.9000 Base Case Value: 0.9720
EDMONDT2 (45633) LOW V VOLT: 0.8339 LIMIT: 0.9000 Base Case Value: 0.9767
FIVE COR (45647) LOW V VOLT: 0.8347 LIMIT: 0.9000 Base Case Value: 0.9774
OLYMPIC (45743) LOW V VOLT: 0.8354 LIMIT: 0.9000 Base Case Value: 0.9962
WESTGATE (45819) LOW V VOLT: 0.8368 LIMIT: 0.9000 Base Case Value: 0.9791
RICHMND (45759) LOW V VOLT: 0.8371 LIMIT: 0.9000 Base Case Value: 0.9794
RICHMNDT (45761) LOW V VOLT: 0.8377 LIMIT: 0.9000 Base Case Value: 0.9799
BALLING (45603) LOW V VOLT: 0.8378 LIMIT: 0.9000 Base Case Value: 0.9800
HALLS LK (45848) LOW V VOLT: 0.8397 LIMIT: 0.9000 Base Case Value: 0.9816
ESPERENC (45635) LOW V VOLT: 0.8401 LIMIT: 0.9000 Base Case Value: 0.9817
MONTLAKE (45717) LOW V VOLT: 0.8476 LIMIT: 0.9000 Base Case Value: 0.9836

ALDERW (45601) LOW V VOLT: 0.8480 LIMIT: 0.9000 Base Case Value: 0.9835
N ALDER (45725) LOW V VOLT: 0.8530 LIMIT: 0.9000 Base Case Value: 0.9850
SWMPCKT1 (45859) LOW V VOLT: 0.8551 LIMIT: 0.9000 Base Case Value: 0.9857
BRIER (45609) LOW V VOLT: 0.8570 LIMIT: 0.9000 Base Case Value: 0.9862
FLORLH T (45844) LOW V VOLT: 0.8592 LIMIT: 0.9000 Base Case Value: 0.9871
CAN PARK (45619) LOW V VOLT: 0.8646 LIMIT: 0.9000 Base Case Value: 0.9887
MURPHYS (45723) LOW V VOLT: 0.8680 LIMIT: 0.9000 Base Case Value: 0.9834
BLYN (47556) LOW V VOLT: 0.8684 LIMIT: 0.9000 Base Case Value: 0.9617
OLYMPC C (47563) LOW V VOLT: 0.8685 LIMIT: 0.9000 Base Case Value: 0.9618
DUNGENES (47559) LOW V VOLT: 0.8688 LIMIT: 0.9000 Base Case Value: 0.9621
SUNLAND (47567) LOW V VOLT: 0.8693 LIMIT: 0.9000 Base Case Value: 0.9625
DUN JCT (47558) LOW V VOLT: 0.8693 LIMIT: 0.9000 Base Case Value: 0.9625
CASCAD (45621) LOW V VOLT: 0.8694 LIMIT: 0.9000 Base Case Value: 0.9847
SEQUIM (47565) LOW V VOLT: 0.8695 LIMIT: 0.9000 Base Case Value: 0.9627
SUN TAP (47566) LOW V VOLT: 0.8702 LIMIT: 0.9000 Base Case Value: 0.9633
EVERGRNC (47560) LOW V VOLT: 0.8706 LIMIT: 0.9000 Base Case Value: 0.9637
THRASHER (45801) LOW V VOLT: 0.8710 LIMIT: 0.9000 Base Case Value: 0.9906
PRAIRIEC (47564) LOW V VOLT: 0.8734 LIMIT: 0.9000 Base Case Value: 0.9662
CLEARV (45625) LOW V VOLT: 0.8754 LIMIT: 0.9000 Base Case Value: 0.9899
TURNERS (45809) LOW V VOLT: 0.8763 LIMIT: 0.9000 Base Case Value: 0.9907
BRITEH2O (45758) LOW V VOLT: 0.8768 LIMIT: 0.9000 Base Case Value: 0.9911
PK RIDGE (45755) LOW V VOLT: 0.8770 LIMIT: 0.9000 Base Case Value: 0.9913
PK RIDGT (45757) LOW V VOLT: 0.8772 LIMIT: 0.9000 Base Case Value: 0.9914
HAPPY V (47561) LOW V VOLT: 0.8786 LIMIT: 0.9000 Base Case Value: 0.9708
TAMBARK2 (45790) LOW V VOLT: 0.8791 LIMIT: 0.9000 Base Case Value: 0.9931
TAMBARKT (45795) LOW V VOLT: 0.8791 LIMIT: 0.9000 Base Case Value: 0.9931
SNOKING (41003) LOW V VOLT: 0.8802 LIMIT: 0.9000 Base Case Value: 0.9941
AGNEW C (47555) LOW V VOLT: 0.8944 LIMIT: 0.9000 Base Case Value: 0.9902
DEER P C (47557) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9920
MONROE C (47562) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 0.9934

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY ZZZ-SNOH BUS (NOT CREDIBLE)

ELEMENTS:

OPEN Bus SNOHOMSH (40997) | | CHECK |

APPLIED AND SKIPPED ELEMENTS:

Applied:

OPEN Bus SNOHOMSH (40997) | | CHECK | | Opened 0.00 MW

NUMBER OF VIOLATIONS BY CATEGORY (Total = 101)

BRANCH: 13
BUS VOLTAGE: 88
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:

JACKSN1 (45687) TO JACKSN (45685) CKT 1 MVA: 90.4 LIMIT: 61.0 %: 148.2 Base Case Value: 40.7
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 631.1 LIMIT: 448.0 %: 140.9 Base Case Value: 184.3
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 301.5 LIMIT: 256.0 %: 117.8 Base Case Value: 87.1
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 294.7 LIMIT: 256.0 %: 115.1 Base Case Value: 81.6
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 289.0 LIMIT: 256.0 %: 112.9 Base Case Value: 81.5
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 285.5 LIMIT: 256.0 %: 111.5 Base Case Value: 80.6
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 601.4 LIMIT: 549.8 %: 109.4 Base Case Value: 272.6
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 263.2 LIMIT: 256.0 %: 102.8 Base Case Value: 60.9
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 252.3 LIMIT: 256.0 %: 98.6 Base Case Value: 59.8
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 242.6 LIMIT: 256.0 %: 94.8 Base Case Value: 44.7
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 237.7 LIMIT: 256.0 %: 92.8 Base Case Value: 150.4
BEVERLY (45608) TO GLDBRTIE (42399) CKT 1 MVA: 65.9 LIMIT: 71.9 %: 91.6 Base Case Value: 55.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6

BRANCH AMP VIOLATIONS:

None.

BUS LOW VOLTAGE VIOLATIONS:

PINEHURS (45753) LOW V VOLT: 0.7002 LIMIT: 0.9000 Base Case Value: 0.9921
FIFTYSEC (45645) LOW V VOLT: 0.7008 LIMIT: 0.9000 Base Case Value: 0.9913
S CAMANO (45853) LOW V VOLT: 0.7013 LIMIT: 0.9000 Base Case Value: 0.9534
WATRFRT (45861) LOW V VOLT: 0.7048 LIMIT: 0.9000 Base Case Value: 0.9893
EVERETT (45637) LOW V VOLT: 0.7049 LIMIT: 0.9000 Base Case Value: 0.9912
KIMCLK (45849) LOW V VOLT: 0.7060 LIMIT: 0.9000 Base Case Value: 0.9892
EVRETTT2 (45843) LOW V VOLT: 0.7064 LIMIT: 0.9000 Base Case Value: 0.9891
NAVY (45733) LOW V VOLT: 0.7073 LIMIT: 0.9000 Base Case Value: 0.9887
NORTON S (45737) LOW V VOLT: 0.7084 LIMIT: 0.9000 Base Case Value: 0.9883
CAMANO (45617) LOW V VOLT: 0.7085 LIMIT: 0.9000 Base Case Value: 0.9586

FOBES (45651) LOW V VOLT: 0.7110 LIMIT: 0.9000 Base Case Value: 0.9979
SCOTT 2L (45824) LOW V VOLT: 0.7144 LIMIT: 0.9000 Base Case Value: 0.9895
SCOTT 2 (45842) LOW V VOLT: 0.7146 LIMIT: 0.9000 Base Case Value: 0.9897
TENTH (45797) LOW V VOLT: 0.7154 LIMIT: 0.9000 Base Case Value: 0.9876
TENTHT (45799) LOW V VOLT: 0.7155 LIMIT: 0.9000 Base Case Value: 0.9877
N STAN (45731) LOW V VOLT: 0.7157 LIMIT: 0.9000 Base Case Value: 0.9638
DELTA SW (45627) LOW V VOLT: 0.7167 LIMIT: 0.9000 Base Case Value: 0.9870
TULALIP (45805) LOW V VOLT: 0.7250 LIMIT: 0.9000 Base Case Value: 0.9845
TULALIPT (45807) LOW V VOLT: 0.7256 LIMIT: 0.9000 Base Case Value: 0.9849
C MARY (45611) LOW V VOLT: 0.7288 LIMIT: 0.9000 Base Case Value: 0.9833
C MARYST (45840) LOW V VOLT: 0.7295 LIMIT: 0.9000 Base Case Value: 0.9838
QUILCEDA (45632) LOW V VOLT: 0.7311 LIMIT: 0.9000 Base Case Value: 0.9844
KELLOGM (45693) LOW V VOLT: 0.7317 LIMIT: 0.9000 Base Case Value: 0.9829
CMARYST (45841) LOW V VOLT: 0.7326 LIMIT: 0.9000 Base Case Value: 0.9836
N MARYS (45729) LOW V VOLT: 0.7359 LIMIT: 0.9000 Base Case Value: 0.9837
STIMSONS (45785) LOW V VOLT: 0.7460 LIMIT: 0.9000 Base Case Value: 0.9850
SMOKEYP (45775) LOW V VOLT: 0.7489 LIMIT: 0.9000 Base Case Value: 0.9854
SMOKEYPT (45777) LOW V VOLT: 0.7496 LIMIT: 0.9000 Base Case Value: 0.9859
LK GDW (45699) LOW V VOLT: 0.7516 LIMIT: 0.9000 Base Case Value: 0.9835
SILLS C (45855) LOW V VOLT: 0.7558 LIMIT: 0.9000 Base Case Value: 0.9866
PORTAGE (45630) LOW V VOLT: 0.7732 LIMIT: 0.9000 Base Case Value: 0.9904
LK STEVE (45703) LOW V VOLT: 0.7789 LIMIT: 0.9000 Base Case Value: 0.9968
FRONTIER (45653) LOW V VOLT: 0.7802 LIMIT: 0.9000 Base Case Value: 0.9952
E MARY (45631) LOW V VOLT: 0.7858 LIMIT: 0.9000 Base Case Value: 0.9943
E ARLG (45629) LOW V VOLT: 0.7869 LIMIT: 0.9000 Base Case Value: 0.9937
KELLOGMT (45695) LOW V VOLT: 0.7879 LIMIT: 0.9000 Base Case Value: 0.9945
GRANFAL (45665) LOW V VOLT: 0.7882 LIMIT: 0.9000 Base Case Value: 0.9917
HARTFORD (45681) LOW V VOLT: 0.7913 LIMIT: 0.9000 Base Case Value: 0.9941
GETCHL T (45846) LOW V VOLT: 0.7926 LIMIT: 0.9000 Base Case Value: 0.9952
MURRAY (40765) LOW V VOLT: 0.8102 LIMIT: 0.9000 Base Case Value: 1.0014
GLENWD (45659) LOW V VOLT: 0.8215 LIMIT: 0.9000 Base Case Value: 0.9858
N CRK (45727) LOW V VOLT: 0.8217 LIMIT: 0.9000 Base Case Value: 0.9793
NCRK TAP (45852) LOW V VOLT: 0.8228 LIMIT: 0.9000 Base Case Value: 0.9802
TWNTETH (45811) LOW V VOLT: 0.8231 LIMIT: 0.9000 Base Case Value: 0.9844
GLENWD T (45847) LOW V VOLT: 0.8232 LIMIT: 0.9000 Base Case Value: 0.9872
BOEING (45607) LOW V VOLT: 0.8238 LIMIT: 0.9000 Base Case Value: 0.9850
FLORLHT1 (45845) LOW V VOLT: 0.8239 LIMIT: 0.9000 Base Case Value: 0.9811
FLORAL H (45649) LOW V VOLT: 0.8239 LIMIT: 0.9000 Base Case Value: 0.9811
SWMPCKT2 (45860) LOW V VOLT: 0.8246 LIMIT: 0.9000 Base Case Value: 0.9817
MARTHA L (45711) LOW V VOLT: 0.8253 LIMIT: 0.9000 Base Case Value: 0.9822
MUKLTEO (45851) LOW V VOLT: 0.8287 LIMIT: 0.9000 Base Case Value: 0.9827
HARBOR P (45679) LOW V VOLT: 0.8288 LIMIT: 0.9000 Base Case Value: 0.9831
MUKTAP (45721) LOW V VOLT: 0.8290 LIMIT: 0.9000 Base Case Value: 0.9830
MARINER (45622) LOW V VOLT: 0.8291 LIMIT: 0.9000 Base Case Value: 0.9854
PICNIC (45751) LOW V VOLT: 0.8296 LIMIT: 0.9000 Base Case Value: 0.9841
OLIVIA P (45739) LOW V VOLT: 0.8304 LIMIT: 0.9000 Base Case Value: 0.9874
OLIVIA T (45741) LOW V VOLT: 0.8305 LIMIT: 0.9000 Base Case Value: 0.9875
S-SCTAP (45854) LOW V VOLT: 0.8305 LIMIT: 0.9000 Base Case Value: 0.9893
SILVE LK (45857) LOW V VOLT: 0.8308 LIMIT: 0.9000 Base Case Value: 0.9868
PAINE F (45745) LOW V VOLT: 0.8311 LIMIT: 0.9000 Base Case Value: 0.9840
CASINO (45623) LOW V VOLT: 0.8336 LIMIT: 0.9000 Base Case Value: 0.9887
BEVERLY (45608) LOW V VOLT: 0.8354 LIMIT: 0.9000 Base Case Value: 0.9905
GIBSON (45657) LOW V VOLT: 0.8376 LIMIT: 0.9000 Base Case Value: 0.9826
HILTON (45683) LOW V VOLT: 0.8497 LIMIT: 0.9000 Base Case Value: 0.9916
LK SEREN (45701) LOW V VOLT: 0.8518 LIMIT: 0.9000 Base Case Value: 0.9810
MEADWD (45713) LOW V VOLT: 0.8559 LIMIT: 0.9000 Base Case Value: 0.9803
MEADWDT (45715) LOW V VOLT: 0.8565 LIMIT: 0.9000 Base Case Value: 0.9808
KEELER S (45708) LOW V VOLT: 0.8589 LIMIT: 0.9000 Base Case Value: 0.9808
KEELERL (45710) LOW V VOLT: 0.8589 LIMIT: 0.9000 Base Case Value: 0.9808
LYNNWDT (45707) LOW V VOLT: 0.8670 LIMIT: 0.9000 Base Case Value: 0.9811
LYNNWD (45705) LOW V VOLT: 0.8693 LIMIT: 0.9000 Base Case Value: 0.9681
PERRINV (45747) LOW V VOLT: 0.8706 LIMIT: 0.9000 Base Case Value: 0.9692
PERRINVT (45749) LOW V VOLT: 0.8707 LIMIT: 0.9000 Base Case Value: 0.9693
MAPLEW (45709) LOW V VOLT: 0.8737 LIMIT: 0.9000 Base Case Value: 0.9720
EDMONDT2 (45633) LOW V VOLT: 0.8790 LIMIT: 0.9000 Base Case Value: 0.9767
FIVE COR (45647) LOW V VOLT: 0.8798 LIMIT: 0.9000 Base Case Value: 0.9774
WESTGATE (45819) LOW V VOLT: 0.8817 LIMIT: 0.9000 Base Case Value: 0.9791
OLYMPIC (45743) LOW V VOLT: 0.8820 LIMIT: 0.9000 Base Case Value: 0.9962
RICHMND (45759) LOW V VOLT: 0.8821 LIMIT: 0.9000 Base Case Value: 0.9794
RICHMNDT (45761) LOW V VOLT: 0.8826 LIMIT: 0.9000 Base Case Value: 0.9799

BALLING (45603) LOW V VOLT: 0.8827 LIMIT: 0.9000 Base Case Value: 0.9800
HALLS LK (45848) LOW V VOLT: 0.8845 LIMIT: 0.9000 Base Case Value: 0.9816
ESPERENC (45635) LOW V VOLT: 0.8848 LIMIT: 0.9000 Base Case Value: 0.9817
MONTLAKE (45717) LOW V VOLT: 0.8917 LIMIT: 0.9000 Base Case Value: 0.9836
ALDERW (45601) LOW V VOLT: 0.8921 LIMIT: 0.9000 Base Case Value: 0.9835
MURRAY (40767) LOW V VOLT: 0.8923 LIMIT: 0.9000 Base Case Value: 1.0245
N ALDER (45725) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9850
SWMPCKT1 (45859) LOW V VOLT: 0.8985 LIMIT: 0.9000 Base Case Value: 0.9857
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY ZZZ-500 TP SNOKING G (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOK TAP (41001) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK TAP (41001) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 21)
BRANCH: 2
BUS VOLTAGE: 19
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BEVERLY (45608) TO GLDBRTIE (42399) CKT 1 MVA: 66.9 LIMIT: 71.9 %: 93.0 Base Case Value: 55.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8743 LIMIT: 0.9000 Base Case Value: 0.9534
CAMANO (45617) LOW V VOLT: 0.8800 LIMIT: 0.9000 Base Case Value: 0.9586
N STAN (45731) LOW V VOLT: 0.8857 LIMIT: 0.9000 Base Case Value: 0.9638
BLYN (47556) LOW V VOLT: 0.8892 LIMIT: 0.9000 Base Case Value: 0.9617
OLYMPC C (47563) LOW V VOLT: 0.8894 LIMIT: 0.9000 Base Case Value: 0.9618
DUNGENES (47559) LOW V VOLT: 0.8897 LIMIT: 0.9000 Base Case Value: 0.9621
LYNNWD (45705) LOW V VOLT: 0.8898 LIMIT: 0.9000 Base Case Value: 0.9681
SUNLAND (47567) LOW V VOLT: 0.8901 LIMIT: 0.9000 Base Case Value: 0.9625
DUN JCT (47558) LOW V VOLT: 0.8902 LIMIT: 0.9000 Base Case Value: 0.9625
SEQUIM (47565) LOW V VOLT: 0.8903 LIMIT: 0.9000 Base Case Value: 0.9627
PERRINV (45747) LOW V VOLT: 0.8910 LIMIT: 0.9000 Base Case Value: 0.9692
SUN TAP (47566) LOW V VOLT: 0.8910 LIMIT: 0.9000 Base Case Value: 0.9633
PERRINVT (45749) LOW V VOLT: 0.8910 LIMIT: 0.9000 Base Case Value: 0.9693
EVERGRNC (47560) LOW V VOLT: 0.8914 LIMIT: 0.9000 Base Case Value: 0.9637
MAPLEW (45709) LOW V VOLT: 0.8941 LIMIT: 0.9000 Base Case Value: 0.9720
PRAIRIEC (47564) LOW V VOLT: 0.8942 LIMIT: 0.9000 Base Case Value: 0.9662
EDMONDT2 (45633) LOW V VOLT: 0.8992 LIMIT: 0.9000 Base Case Value: 0.9767
HAPPY V (47561) LOW V VOLT: 0.8992 LIMIT: 0.9000 Base Case Value: 0.9708
FIVE COR (45647) LOW V VOLT: 0.8999 LIMIT: 0.9000 Base Case Value: 0.9774
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY ZZZ-500 TP SNOKING (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOK TAP (41001) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK TAP (41001) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BEVERLY (45608) TO GLDBRTIE (42399) CKT 1 MVA: 65.5 LIMIT: 71.9 %: 91.1 Base Case Value: 55.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY ZZ-SNOK SOUTH CENT BUS G BS
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 157.09 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 105.20 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 79.37 MVA
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 167.74 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 150.35 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 337.6 LIMIT: 369.0 %: 91.5 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 334.3 LIMIT: 369.0 %: 90.6 Base Case Value: 266.7
FLORLH T (45844) TO SNOKING (41003) CKT 1 MVA: 231.3 LIMIT: 256.0 %: 90.4 Base Case Value: 105.9
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY ZZ-SNOK NORTH CENT BUS G BS
ELEMENTS:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK |
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK | | Opened flow of 171.40 MVA
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 105.91 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 50.18 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 167.74 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 150.35 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 339.9 LIMIT: 369.0 %: 92.1 Base Case Value: 269.3
SNOK S3 (41008) TO SNOKING (41003) CKT 2 MVA: 365.2 LIMIT: 398.0 %: 91.8 Base Case Value: 157.1
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 336.6 LIMIT: 369.0 %: 91.2 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY ZZ-SNOH WEST CENT BUS G BS
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
*** UNSOLVABLE ***
--------*----*----*----*----*----*----*----*----*----*----*----*----*
CONTINGENCY ZZ-SNOH WEST CENT BUS BS
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 46.35 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 92.12 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 80.83 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 98.68 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 103.27 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 266.71 MVA
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.28 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 108.37 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.41 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 69)
BRANCH: 4
BUS VOLTAGE: 65
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 292.9 LIMIT: 256.0 %: 114.4 Base Case Value: 87.1
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 445.6 LIMIT: 448.0 %: 99.5 Base Case Value: 184.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 390.7 LIMIT: 393.0 %: 99.4 Base Case Value: 256.2
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 249.8 LIMIT: 256.0 %: 97.6 Base Case Value: 59.8
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.7999 LIMIT: 0.9000 Base Case Value: 0.9921
FIFTYSEC (45645) LOW V VOLT: 0.8004 LIMIT: 0.9000 Base Case Value: 0.9913
S CAMANO (45853) LOW V VOLT: 0.8005 LIMIT: 0.9000 Base Case Value: 0.9534
WATRFRT (45861) LOW V VOLT: 0.8039 LIMIT: 0.9000 Base Case Value: 0.9893
EVERETT (45637) LOW V VOLT: 0.8039 LIMIT: 0.9000 Base Case Value: 0.9912
KIMCLK (45849) LOW V VOLT: 0.8049 LIMIT: 0.9000 Base Case Value: 0.9892
EVRETTT2 (45843) LOW V VOLT: 0.8053 LIMIT: 0.9000 Base Case Value: 0.9891
NAVY (45733) LOW V VOLT: 0.8060 LIMIT: 0.9000 Base Case Value: 0.9887
CAMANO (45617) LOW V VOLT: 0.8067 LIMIT: 0.9000 Base Case Value: 0.9586
NORTON S (45737) LOW V VOLT: 0.8070 LIMIT: 0.9000 Base Case Value: 0.9883
FOBES (45651) LOW V VOLT: 0.8092 LIMIT: 0.9000 Base Case Value: 0.9979

SCOTT 2L (45824) LOW V VOLT: 0.8121 LIMIT: 0.9000 Base Case Value: 0.9895
SCOTT 2 (45842) LOW V VOLT: 0.8123 LIMIT: 0.9000 Base Case Value: 0.9897
TENTH (45797) LOW V VOLT: 0.8130 LIMIT: 0.9000 Base Case Value: 0.9876
N STAN (45731) LOW V VOLT: 0.8130 LIMIT: 0.9000 Base Case Value: 0.9638
TENTHT (45799) LOW V VOLT: 0.8131 LIMIT: 0.9000 Base Case Value: 0.9877
DELTA SW (45627) LOW V VOLT: 0.8141 LIMIT: 0.9000 Base Case Value: 0.9870
TULALIP (45805) LOW V VOLT: 0.8212 LIMIT: 0.9000 Base Case Value: 0.9845
TULALIPT (45807) LOW V VOLT: 0.8217 LIMIT: 0.9000 Base Case Value: 0.9849
C MARY (45611) LOW V VOLT: 0.8244 LIMIT: 0.9000 Base Case Value: 0.9833
C MARYST (45840) LOW V VOLT: 0.8250 LIMIT: 0.9000 Base Case Value: 0.9838
QUILCEDA (45632) LOW V VOLT: 0.8264 LIMIT: 0.9000 Base Case Value: 0.9844
KELLOGM (45693) LOW V VOLT: 0.8268 LIMIT: 0.9000 Base Case Value: 0.9829
CMARYST (45841) LOW V VOLT: 0.8276 LIMIT: 0.9000 Base Case Value: 0.9836
N MARYS (45729) LOW V VOLT: 0.8304 LIMIT: 0.9000 Base Case Value: 0.9837
STIMSONS (45785) LOW V VOLT: 0.8390 LIMIT: 0.9000 Base Case Value: 0.9850
SMOKEYP (45775) LOW V VOLT: 0.8414 LIMIT: 0.9000 Base Case Value: 0.9854
SMOKEYPT (45777) LOW V VOLT: 0.8420 LIMIT: 0.9000 Base Case Value: 0.9859
LK GDW (45699) LOW V VOLT: 0.8433 LIMIT: 0.9000 Base Case Value: 0.9835
SILLS C (45855) LOW V VOLT: 0.8471 LIMIT: 0.9000 Base Case Value: 0.9866
PORTAGE (45630) LOW V VOLT: 0.8616 LIMIT: 0.9000 Base Case Value: 0.9904
E ARLG (45629) LOW V VOLT: 0.8729 LIMIT: 0.9000 Base Case Value: 0.9937
GLENWD (45659) LOW V VOLT: 0.8746 LIMIT: 0.9000 Base Case Value: 0.9858
TWNTETH (45811) LOW V VOLT: 0.8761 LIMIT: 0.9000 Base Case Value: 0.9844
GLENWD T (45847) LOW V VOLT: 0.8762 LIMIT: 0.9000 Base Case Value: 0.9872
BOEING (45607) LOW V VOLT: 0.8767 LIMIT: 0.9000 Base Case Value: 0.9850
SNOHM (45779) LOW V VOLT: 0.8813 LIMIT: 0.9000 Base Case Value: 1.0001
OLIVIA P (45739) LOW V VOLT: 0.8829 LIMIT: 0.9000 Base Case Value: 0.9874
S-SCTAP (45854) LOW V VOLT: 0.8830 LIMIT: 0.9000 Base Case Value: 0.9893
OLIVIA T (45741) LOW V VOLT: 0.8830 LIMIT: 0.9000 Base Case Value: 0.9875
W MONROE (45813) LOW V VOLT: 0.8834 LIMIT: 0.9000 Base Case Value: 0.9961
PAINE F (45745) LOW V VOLT: 0.8836 LIMIT: 0.9000 Base Case Value: 0.9840
WOODS CK (45823) LOW V VOLT: 0.8853 LIMIT: 0.9000 Base Case Value: 0.9961
MUKLTEO (45851) LOW V VOLT: 0.8856 LIMIT: 0.9000 Base Case Value: 0.9827
MUKTAP (45721) LOW V VOLT: 0.8859 LIMIT: 0.9000 Base Case Value: 0.9830
HARBOR P (45679) LOW V VOLT: 0.8876 LIMIT: 0.9000 Base Case Value: 0.9831
GIBSON (45657) LOW V VOLT: 0.8878 LIMIT: 0.9000 Base Case Value: 0.9826
GRANFAL (45665) LOW V VOLT: 0.8891 LIMIT: 0.9000 Base Case Value: 0.9917
PICNIC (45751) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9841
HARTFORD (45681) LOW V VOLT: 0.8919 LIMIT: 0.9000 Base Case Value: 0.9941
MURRAY (40765) LOW V VOLT: 0.8923 LIMIT: 0.9000 Base Case Value: 1.0014
GETCHL T (45846) LOW V VOLT: 0.8930 LIMIT: 0.9000 Base Case Value: 0.9952
N CRK (45727) LOW V VOLT: 0.8942 LIMIT: 0.9000 Base Case Value: 0.9793
NCRK TAP (45852) LOW V VOLT: 0.8952 LIMIT: 0.9000 Base Case Value: 0.9802
KELLOGMT (45695) LOW V VOLT: 0.8959 LIMIT: 0.9000 Base Case Value: 0.9945
FLORAL H (45649) LOW V VOLT: 0.8962 LIMIT: 0.9000 Base Case Value: 0.9811
FLORLHT1 (45845) LOW V VOLT: 0.8962 LIMIT: 0.9000 Base Case Value: 0.9811
SULTAN (45789) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9988
SWMPCKT2 (45860) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9817
LK SEREN (45701) LOW V VOLT: 0.8970 LIMIT: 0.9000 Base Case Value: 0.9810
E MARY (45631) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9943
MARTHA L (45711) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9822
GOLD BAR (45663) LOW V VOLT: 0.8975 LIMIT: 0.9000 Base Case Value: 0.9980
MEADWD (45713) LOW V VOLT: 0.8995 LIMIT: 0.9000 Base Case Value: 0.9803
SULT GBT (45787) LOW V VOLT: 0.8998 LIMIT: 0.9000 Base Case Value: 1.0001

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY ZZ-SNOH EAST CENT BUS G BS

ELEMENTS:

OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:

Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 256.19 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 105.58 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 90.17 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 4.16 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.28 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 108.37 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.41 MVA

NUMBER OF VIOLATIONS BY CATEGORY (Total = 61)
BRANCH: 2
BUS VOLTAGE: 59
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 586.3 LIMIT: 369.0 %: 158.9 Base Case Value: 266.7
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6

BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8613 LIMIT: 0.9000 Base Case Value: 0.9534
CAMANO (45617) LOW V VOLT: 0.8671 LIMIT: 0.9000 Base Case Value: 0.9586
N STAN (45731) LOW V VOLT: 0.8729 LIMIT: 0.9000 Base Case Value: 0.9638
THREE LK (45803) LOW V VOLT: 0.8738 LIMIT: 0.9000 Base Case Value: 1.0021
GOLD BAR (45663) LOW V VOLT: 0.8770 LIMIT: 0.9000 Base Case Value: 0.9980
LK CHAP (45697) LOW V VOLT: 0.8776 LIMIT: 0.9000 Base Case Value: 1.0039
JACKSN (45685) LOW V VOLT: 0.8779 LIMIT: 0.9000 Base Case Value: 1.0040
SULT GBT (45787) LOW V VOLT: 0.8794 LIMIT: 0.9000 Base Case Value: 1.0001
SULTAN (45789) LOW V VOLT: 0.8806 LIMIT: 0.9000 Base Case Value: 0.9988
FOBES (45651) LOW V VOLT: 0.8859 LIMIT: 0.9000 Base Case Value: 0.9979
WOODS CK (45823) LOW V VOLT: 0.8879 LIMIT: 0.9000 Base Case Value: 0.9961
SCOTT 2L (45824) LOW V VOLT: 0.8885 LIMIT: 0.9000 Base Case Value: 0.9895
SCOTT 2 (45842) LOW V VOLT: 0.8887 LIMIT: 0.9000 Base Case Value: 0.9897
TENTH (45797) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9876
TENTHT (45799) LOW V VOLT: 0.8894 LIMIT: 0.9000 Base Case Value: 0.9877
N CRK (45727) LOW V VOLT: 0.8903 LIMIT: 0.9000 Base Case Value: 0.9793
DELTA SW (45627) LOW V VOLT: 0.8903 LIMIT: 0.9000 Base Case Value: 0.9870
W MONROE (45813) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9961
TULALIP (45805) LOW V VOLT: 0.8909 LIMIT: 0.9000 Base Case Value: 0.9845
C MARY (45611) LOW V VOLT: 0.8911 LIMIT: 0.9000 Base Case Value: 0.9833
NCRK TAP (45852) LOW V VOLT: 0.8913 LIMIT: 0.9000 Base Case Value: 0.9802
TULALIPT (45807) LOW V VOLT: 0.8914 LIMIT: 0.9000 Base Case Value: 0.9849
KELLOGM (45693) LOW V VOLT: 0.8915 LIMIT: 0.9000 Base Case Value: 0.9829
C MARYST (45840) LOW V VOLT: 0.8917 LIMIT: 0.9000 Base Case Value: 0.9838
NORTON S (45737) LOW V VOLT: 0.8922 LIMIT: 0.9000 Base Case Value: 0.9883
CMARYST (45841) LOW V VOLT: 0.8923 LIMIT: 0.9000 Base Case Value: 0.9836
FLORAL H (45649) LOW V VOLT: 0.8923 LIMIT: 0.9000 Base Case Value: 0.9811
FLORLHT1 (45845) LOW V VOLT: 0.8923 LIMIT: 0.9000 Base Case Value: 0.9811
QUILCEDA (45632) LOW V VOLT: 0.8925 LIMIT: 0.9000 Base Case Value: 0.9844
NAVY (45733) LOW V VOLT: 0.8927 LIMIT: 0.9000 Base Case Value: 0.9887
SWMPCKT2 (45860) LOW V VOLT: 0.8930 LIMIT: 0.9000 Base Case Value: 0.9817
KIMCLK (45849) LOW V VOLT: 0.8932 LIMIT: 0.9000 Base Case Value: 0.9892
EVRETTT2 (45843) LOW V VOLT: 0.8932 LIMIT: 0.9000 Base Case Value: 0.9891
N MARYS (45729) LOW V VOLT: 0.8933 LIMIT: 0.9000 Base Case Value: 0.9837
WATRFRT (45861) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9893
MARTHA L (45711) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9822
MUKLTEO (45851) LOW V VOLT: 0.8959 LIMIT: 0.9000 Base Case Value: 0.9827
HARBOR P (45679) LOW V VOLT: 0.8962 LIMIT: 0.9000 Base Case Value: 0.9831
MUKTAP (45721) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9830
EVERETT (45637) LOW V VOLT: 0.8964 LIMIT: 0.9000 Base Case Value: 0.9912
STIMSONS (45785) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9850
FIFTYSEC (45645) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9913
LK GDW (45699) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9835
TWNTETH (45811) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9844
PICNIC (45751) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9841
MARINER (45622) LOW V VOLT: 0.8971 LIMIT: 0.9000 Base Case Value: 0.9854
OLIVIA P (45739) LOW V VOLT: 0.8972 LIMIT: 0.9000 Base Case Value: 0.9874

OLIVIA T (45741) LOW V VOLT: 0.8973 LIMIT: 0.9000 Base Case Value: 0.9875
S-SCTAP (45854) LOW V VOLT: 0.8973 LIMIT: 0.9000 Base Case Value: 0.9893
LK STEVE (45703) LOW V VOLT: 0.8975 LIMIT: 0.9000 Base Case Value: 0.9968
BOEING (45607) LOW V VOLT: 0.8975 LIMIT: 0.9000 Base Case Value: 0.9850
SMOKEYP (45775) LOW V VOLT: 0.8977 LIMIT: 0.9000 Base Case Value: 0.9854
PAINE F (45745) LOW V VOLT: 0.8978 LIMIT: 0.9000 Base Case Value: 0.9840
GLENWD (45659) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 0.9858
PINEHURS (45753) LOW V VOLT: 0.8981 LIMIT: 0.9000 Base Case Value: 0.9921
SMOKEYPT (45777) LOW V VOLT: 0.8983 LIMIT: 0.9000 Base Case Value: 0.9859
SILVE LK (45857) LOW V VOLT: 0.8986 LIMIT: 0.9000 Base Case Value: 0.9868
FRONTIER (45653) LOW V VOLT: 0.8987 LIMIT: 0.9000 Base Case Value: 0.9952
GLENWD T (45847) LOW V VOLT: 0.8995 LIMIT: 0.9000 Base Case Value: 0.9872
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY ZZ-SNOH EAST CENT BUS BS
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 256.19 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 105.58 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 90.17 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 4.16 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.28 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 108.37 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.41 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)
BRANCH: 1
BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 513.3 LIMIT: 369.0 %: 139.1 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8880 LIMIT: 0.9000 Base Case Value: 0.9534
CAMANO (45617) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9586
N STAN (45731) LOW V VOLT: 0.8992 LIMIT: 0.9000 Base Case Value: 0.9638
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF3 G
ELEMENTS:
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 266.71 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 406.4 LIMIT: 369.0 %: 110.1 Base Case Value: 269.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 381.0 LIMIT: 393.0 %: 97.0 Base Case Value: 256.2
BRANCH AMP VIOLATIONS:

None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF3
ELEMENTS:
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 266.71 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 367.9 LIMIT: 369.0 %: 99.7 Base Case Value: 269.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF2 G
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.28 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 403.5 LIMIT: 369.0 %: 109.4 Base Case Value: 266.7
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 383.4 LIMIT: 393.0 %: 97.6 Base Case Value: 256.2
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF2
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.28 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 365.4 LIMIT: 369.0 %: 99.0 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF1 G

ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 256.19 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 399.9 LIMIT: 369.0 %: 108.4 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 394.7 LIMIT: 369.0 %: 107.0 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF1
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 256.19 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 362.3 LIMIT: 369.0 %: 98.2 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 357.7 LIMIT: 369.0 %: 96.9 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST BUS-G
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 46.35 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 92.12 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 80.83 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 98.68 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 103.27 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 266.71 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0

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      INTERFACE:            0
      ISOLATED BUSES:       0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   369.0   LIMIT:   369.0   %: 100.0   Base Case Value:   269.3
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-SNOH EAST BUS G
   ELEMENTS:
      OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN Branch BEVERLY (45608)  TO  SNOHOMSH (40997) CKT 4 |  | CHECK |
      OPEN Branch LK STEVE (45703)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN Branch SNOHOMSH (40997)  TO  THREE LK (45803) CKT 1 |  | CHECK |
      OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of 256.19 MVA
        OPEN Branch BEVERLY (45608)  TO  SNOHOMSH (40997) CKT 4 |  | CHECK |  | Opened flow of 105.58 MVA
        OPEN Branch LK STEVE (45703)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of  90.17 MVA
        OPEN Branch SNOHOMSH (40997)  TO  THREE LK (45803) CKT 1 |  | CHECK |  | Opened flow of   4.16 MVA
        OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |  | Opened 216.90 Mvar (nominal)
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
      BRANCH:               2
      BUS VOLTAGE:          1
      INTERFACE:            0
      ISOLATED BUSES:       0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   384.3   LIMIT:   369.0   %: 104.2   Base Case Value:   269.3
      SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   378.9   LIMIT:   369.0   %: 102.7   Base Case Value:   266.7
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      S CAMANO (45853)   LOW V    VOLT:    0.8945   LIMIT:  0.9000   Base Case Value:  0.9534
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-SNOH EAST BUS
   ELEMENTS:
      OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN Branch BEVERLY (45608)  TO  SNOHOMSH (40997) CKT 4 |  | CHECK |
      OPEN Branch LK STEVE (45703)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN Branch SNOHOMSH (40997)  TO  THREE LK (45803) CKT 1 |  | CHECK |
      OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of 256.19 MVA
        OPEN Branch BEVERLY (45608)  TO  SNOHOMSH (40997) CKT 4 |  | CHECK |  | Opened flow of 105.58 MVA
        OPEN Branch LK STEVE (45703)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of  90.17 MVA
        OPEN Branch SNOHOMSH (40997)  TO  THREE LK (45803) CKT 1 |  | CHECK |  | Opened flow of   4.16 MVA
        OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |  | Opened 216.90 Mvar (nominal)
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
      BRANCH:               2
      BUS VOLTAGE:          0
      INTERFACE:            0
      ISOLATED BUSES:       0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   341.9   LIMIT:   369.0   %:  92.7   Base Case Value:   269.3
      SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   337.1   LIMIT:   369.0   %:  91.4   Base Case Value:   266.7
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
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BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH CENT BUS G
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.28 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 108.37 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.41 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
BRANCH: 2
BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 397.5 LIMIT: 369.0 %: 107.7 Base Case Value: 266.7
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 370.2 LIMIT: 393.0 %: 94.2 Base Case Value: 256.2
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8884 LIMIT: 0.9000 Base Case Value: 0.9534
CAMANO (45617) LOW V VOLT: 0.8940 LIMIT: 0.9000 Base Case Value: 0.9586
N STAN (45731) LOW V VOLT: 0.8996 LIMIT: 0.9000 Base Case Value: 0.9638
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH CENT BUS
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.28 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 108.37 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.41 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 356.5 LIMIT: 369.0 %: 96.6 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-MURRAY XF G
ELEMENTS:
OPEN Branch MURRAY (40767) TO MURRAY (40765) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch MURRAY (40767) TO MURRAY (40765) CKT 1 | | CHECK | | Opened flow of 184.28 MVA

OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 356.1 LIMIT: 369.0 %: 96.5 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 353.6 LIMIT: 369.0 %: 95.8 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-MURRAY BUS G
ELEMENTS:
OPEN Bus MURRAY (40765) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus MURRAY (40765) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 20)
BRANCH: 2
BUS VOLTAGE: 18
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 361.9 LIMIT: 369.0 %: 98.1 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 359.2 LIMIT: 369.0 %: 97.4 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8442 LIMIT: 0.9000 Base Case Value: 0.9534
CAMANO (45617) LOW V VOLT: 0.8502 LIMIT: 0.9000 Base Case Value: 0.9586
N STAN (45731) LOW V VOLT: 0.8561 LIMIT: 0.9000 Base Case Value: 0.9638
E ARLG (45629) LOW V VOLT: 0.8663 LIMIT: 0.9000 Base Case Value: 0.9937
PORTAGE (45630) LOW V VOLT: 0.8695 LIMIT: 0.9000 Base Case Value: 0.9904
LK GDW (45699) LOW V VOLT: 0.8717 LIMIT: 0.9000 Base Case Value: 0.9835
SILLS C (45855) LOW V VOLT: 0.8753 LIMIT: 0.9000 Base Case Value: 0.9866
SMOKEYP (45775) LOW V VOLT: 0.8796 LIMIT: 0.9000 Base Case Value: 0.9854
SMOKEYPT (45777) LOW V VOLT: 0.8802 LIMIT: 0.9000 Base Case Value: 0.9859
STIMSONS (45785) LOW V VOLT: 0.8805 LIMIT: 0.9000 Base Case Value: 0.9850
N MARYS (45729) LOW V VOLT: 0.8854 LIMIT: 0.9000 Base Case Value: 0.9837
KELLOGM (45693) LOW V VOLT: 0.8870 LIMIT: 0.9000 Base Case Value: 0.9829
CMARYST (45841) LOW V VOLT: 0.8877 LIMIT: 0.9000 Base Case Value: 0.9836
C MARY (45611) LOW V VOLT: 0.8902 LIMIT: 0.9000 Base Case Value: 0.9833
C MARYST (45840) LOW V VOLT: 0.8907 LIMIT: 0.9000 Base Case Value: 0.9838
QUILCEDA (45632) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9844
TULALIP (45805) LOW V VOLT: 0.8961 LIMIT: 0.9000 Base Case Value: 0.9845
TULALIPT (45807) LOW V VOLT: 0.8965 LIMIT: 0.9000 Base Case Value: 0.9849
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-MURRAY BUS
ELEMENTS:
OPEN Bus MURRAY (40765) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus MURRAY (40765) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 7)
BRANCH: 0
BUS VOLTAGE: 7
INTERFACE: 0

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      ISOLATED BUSES:        0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      S CAMANO (45853)   LOW V    VOLT:    0.8679   LIMIT:  0.9000   Base Case Value:  0.9534
      CAMANO (45617)   LOW V    VOLT:    0.8736   LIMIT:  0.9000   Base Case Value:  0.9586
      N STAN (45731)   LOW V    VOLT:    0.8794   LIMIT:  0.9000   Base Case Value:  0.9638
      E ARLG (45629)   LOW V    VOLT:    0.8893   LIMIT:  0.9000   Base Case Value:  0.9937
      PORTAGE (45630)   LOW V    VOLT:    0.8923   LIMIT:  0.9000   Base Case Value:  0.9904
      LK GDW (45699)   LOW V    VOLT:    0.8945   LIMIT:  0.9000   Base Case Value:  0.9835
      SILLS  C (45855)   LOW V    VOLT:    0.8981   LIMIT:  0.9000   Base Case Value:  0.9866
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-230 SNOK3 G
   ELEMENTS:
      OPEN Bus SNOK S3 (41008) |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Bus SNOK S3 (41008) |  | CHECK |  | Opened   0.00 MW
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              1
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      BOTSNO11 (49962)  TO  SNOK S1 (41004) CKT 1    MVA:   508.3   LIMIT:   549.8   %:  92.5   Base Case Value:   288.0
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-230 SNOK1 G
   ELEMENTS:
      OPEN Bus SNOK S1 (41004) |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Bus SNOK S1 (41004) |  | CHECK |  | Opened   0.00 MW
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              1
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      BOTSNO21 (49961)  TO  SNOK S3 (41008) CKT 2    MVA:   505.6   LIMIT:   549.8   %:  92.0   Base Case Value:   297.1
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-230 SNOH4 G
   ELEMENTS:
      OPEN Bus SNOH S4 (41330) |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
```

OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S4 (41330) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 389.2 LIMIT: 369.0 %: 105.5 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 385.3 LIMIT: 369.0 %: 104.4 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH4
ELEMENTS:
OPEN Bus SNOH S4 (41330) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S4 (41330) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 354.0 LIMIT: 369.0 %: 95.9 Base Case Value: 269.3
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 350.4 LIMIT: 369.0 %: 94.9 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH3 G
ELEMENTS:
OPEN Bus SNOH S3 (41329) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S3 (41329) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
BRANCH: 3
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 390.9 LIMIT: 369.0 %: 105.9 Base Case Value: 266.7
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 369.2 LIMIT: 393.0 %: 93.9 Base Case Value: 256.2
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.3 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS3 (40993) HIGH V VOLT: 1.0947 LIMIT: 1.0500 Base Case Value: 1.0214
CHISNO31 (49940) HIGH V VOLT: 1.0835 LIMIT: 1.0500 Base Case Value: 1.0173
CONTINGENCY Z-230 SNOH3

ELEMENTS:
OPEN Bus SNOH S3 (41329) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S3 (41329) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 1
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 358.3 LIMIT: 369.0 %: 97.1 Base Case Value: 266.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS3 (40993) HIGH V VOLT: 1.0969 LIMIT: 1.0500 Base Case Value: 1.0214
CHISNO31 (49940) HIGH V VOLT: 1.0857 LIMIT: 1.0500 Base Case Value: 1.0173
CONTINGENCY Z-230 SNOH2 G
ELEMENTS:
OPEN Bus SNOH S2 (41328) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S2 (41328) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
BRANCH: 3
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 402.3 LIMIT: 369.0 %: 109.0 Base Case Value: 269.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 377.8 LIMIT: 393.0 %: 96.1 Base Case Value: 256.2
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.5 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS4 (40994) HIGH V VOLT: 1.0940 LIMIT: 1.0500 Base Case Value: 1.0207
CHISNO41 (49939) HIGH V VOLT: 1.0829 LIMIT: 1.0500 Base Case Value: 1.0171
CONTINGENCY Z-230 SNOH2
ELEMENTS:
OPEN Bus SNOH S2 (41328) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S2 (41328) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 1
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 364.7 LIMIT: 369.0 %: 98.8 Base Case Value: 269.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS4 (40994) HIGH V VOLT: 1.0962 LIMIT: 1.0500 Base Case Value: 1.0207
CHISNO41 (49939) HIGH V VOLT: 1.0851 LIMIT: 1.0500 Base Case Value: 1.0171
CONTINGENCY Z-230 SNOH1 G
ELEMENTS:
OPEN Bus SNOH S1 (41327) | | CHECK |

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        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Bus SNOH S1 (41327) |  | CHECK |  | Opened   0.00 MW
         OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
         OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
         OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
        BRANCH:              2
        BUS VOLTAGE:         0
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   335.1   LIMIT:   369.0   %:  90.8   Base Case Value:   269.3
        SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   333.8   LIMIT:   369.0   %:  90.5   Base Case Value:   266.7
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY L_45647FIVECOR-45848HALLSLKC1
    ELEMENTS:
        OPEN Branch FIVE COR (45647)  TO  HALLS LK (45848) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch FIVE COR (45647)  TO  HALLS LK (45848) CKT 1 |  | CHECK |  | Opened flow of  87.83 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        MV-SVC (40769)   HIGH V   VOLT:    1.0504   LIMIT:  1.0500   Base Case Value:  1.0460
CONTINGENCY L_45622MARINER-45857SILVELKC1
    ELEMENTS:
        OPEN Branch MARINER (45622)  TO  SILVE LK (45857) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch MARINER (45622)  TO  SILVE LK (45857) CKT 1 |  | CHECK |  | Opened flow of  87.22 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        MV-SVC (40769)   HIGH V   VOLT:    1.0504   LIMIT:  1.0500   Base Case Value:  1.0460
CONTINGENCY L_45608BEVERLY-45857SILVELKC1
    ELEMENTS:
        OPEN Branch BEVERLY (45608)  TO  SILVE LK (45857) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch BEVERLY (45608)  TO  SILVE LK (45857) CKT 1 |  | CHECK |  | Opened flow of 109.64 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
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INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0513 LIMIT: 1.0500 Base Case Value: 1.0460
CONTINGENCY C-SILLS- LK GDW FAULT
ELEMENTS:
OPEN Branch E ARLG (45629) TO PORTAGE (45630) CKT 1 | | CHECK |
OPEN Branch N STAN (45731) TO STIMSONS (45785) CKT 1 | | CHECK |
OPEN Branch SILLS C (45855) TO STIMSONS (45785) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch E ARLG (45629) TO PORTAGE (45630) CKT 1 | | CHECK | | Opened flow of 36.79 MVA
OPEN Branch N STAN (45731) TO STIMSONS (45785) CKT 1 | | CHECK | | Opened flow of 61.54 MVA
OPEN Branch SILLS C (45855) TO STIMSONS (45785) CKT 1 | | CHECK | | Opened flow of 10.48 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0506 LIMIT: 1.0500 Base Case Value: 1.0460
CONTINGENCY C-BEV-SILVER-OLIVIA FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK | | Opened flow of 109.64 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 50.18 MVA
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 68.78 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.41 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0515 LIMIT: 1.0500 Base Case Value: 1.0460
CONTINGENCY C-BEV-SILVER-GLENWD FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK | | Opened flow of 109.64 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 50.18 MVA
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK | | Opened flow of 77.53 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 98.68 MVA

NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0517 LIMIT: 1.0500 Base Case Value: 1.0460
CONTINGENCY C-BEV-CASINO-OLIVIA FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK |
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK |
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK | | Opened flow of 49.31 MVA
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 68.78 MVA
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK | | Opened flow of 81.55 MVA
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 25.64 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 98.68 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0581 LIMIT: 1.0500 Base Case Value: 1.0460
None.

2006 Case Islanded Load

C-BEV-CASINO-OLIVIA FAULT	284.8
C-BEV-SILVER-GLENWD FAULT	127.2
C-BEV-SILVER-OLIVIA FAULT	122
L_45608BEVERLY-45857SILVELKC1	106.8
C-BEV-CASINO-GLENWOOD FAULT	93.2
C-SILLS- LK GDW FAULT	89.5
L_45647FIVECOR-45848HALLSLKC1	85.3
L_45622MARINER-45857SILVELKC1	85.2
L_45622MARINER-45711MARTHALC1	67.4
L_45633EDMONDT2-45647FIVECORC1	66.6
L_45633EDMONDT2-45709MAPLEWC1	66.6
L_45731NSTAN-45785STIMSONSC1	59.1
L_45709MAPLEW-45749PERRINVTC1	49.9
L_45621CASCAD-45625CLEARVC1	45
L_45845FLORLHT1-45860SWMPCKT2C1	42.8
L_45711MARTHAL-45860SWMPCKT2C1	42.8
L_45603BALLING-45848HALLSLKC1	41.2
L_45607BOEING-45811TWNTETHC1	38.5
L_45705LYNNWD-45749PERRINVTC1	33.3
L_45617CAMANO-45731NSTANC1	32.9
L_45755PKRIDGE-45757PKRIDGTC1	26.2
L_45775SMOKEYP-45777SMOKEYPTC1	26.2
L_45621CASCAD-45723MURPHYSC1	24.1
L_45603BALLING-45761RICHMNDTC1	23.4
L_45649FLORALH-45845FLORLHT1C1	23.3
L_45846GETCHLT-45665GRANFALC1	22.5
L_45797TENTH-45799TENTHTC1	21.4
L_45713MEADWD-45715MEADWDTC1	21
L_45841CMARYST-45693KELLOGMC1	21
L_42402HILTNLKT-45683HILTONC1	20.6
L_45659GLENWD-45847GLENWDTC1	20.5
L_45699LKGDW-45855SILLSCC1	20
L_45727NCRK-45852NCRKTAPC1	19.5
L_45845FLORLHT1-45852NCRKTAPC1	19.5
L_45846GETCHLT-45681HARTFORDC1	19.3
L_45617CAMANO-45853SCAMANOC1	18.9
L_45851MUKLTEO-45721MUKTAPC1	17.5
L_45611CMARY-45840CMARYSTC1	17.3
L_45747PERRINV-45749PERRINVTC1	16.7
L_45805TULALIP-45807TULALIPTC1	15.7
L_45761RICHMNDT-45819WESTGATEC1	15.6
L_45739OLIVIAP-45741OLIVIATC1	15.2
L_45663GOLDBAR-45787SULTGBTC1	12.1
L_45759RICHMND-45761RICHMNDTC1	7.8
L_42435OLYCANYT-45743OLYMPICC1	2.5
L_45629EARLG-41221JIMCREEKC1	2.1
L_45842SCOTT2-45824SCOTT2LC1	2
L_45708KEELERS-45710KEELERLC1	0.8

2010 Case Voltage and Thermal Contingency Violation Output

Branch Flow Extremes

From Bus	To Bus	Ckt ID	Max % Flow	Due To Contingency
MURRAY	MURRAY 1		168.992	Z-SNOH BUS G (NOT CREDIB
MURRAY	SMOKEYPT 1		139.241	Z-SNOH WEST CENT BUS G B
MURRAY	SNOH S1 1		126.438	Z-SNOH BUS G (NOT CREDIB
SNOH S2	SNOHOMSH 3		154.829	Z-SNOH EAST CENT BUS G B
SNOH S3	SNOHOMSH 2		131.072	Z-SNOKING BUS G (NOT CRE
SNOH S4	SNOHOMSH 1		115.906	Z-SNOH WEST CENT BUS G B
SNOK S3	SNOKING 2		94.359	Z-SNOK NORTH CENT BUS G
SNOKING	THRASHER 1		140.961	Z-SNOK SOUTH BUS G
BOTSNO11	SNOK S1 1		92.447	Z-SNOKING BUS G (NOT CRE
BOTSNO21	SNOK S3 2		95.351	Z-SNOKING BUS G (NOT CRE
BOEING	PAINE F 1		95.321	Z-SNOK SOUTH CENT BUS G
BOEING	GLENWD T 1		130.027	Z-SNOK SOUTH CENT BUS G
BRIER	THRASHER 1		123.673	Z-SNOK SOUTH BUS G
BRIER	HALLS LK 1		114.207	Z-SNOK SOUTH BUS G
GIBSON	LK SEREN 1		189.936	Z-SNOKING BUS (NOT CREDI
GIBSON	PAINE F 1		204.436	Z-SNOKING BUS (NOT CREDI
JACKSN1	JACKSN 1		157.153	Z-SNOH BUS (NOT CREDIBLE
LK SEREN	MEADWDT 1		170.903	Z-SNOK SOUTH CENT BUS BS
KEELER S	LYNNWDT 1		158.503	Z-SNOK SOUTH CENT BUS BS
HALLS LK	LYNNWDT 1		155.264	Z-SNOK SOUTH CENT BUS BS
KEELER S	MEADWDT 1		159.865	Z-SNOK SOUTH CENT BUS BS
SMOKEYPT	STIMSONS 1		113.127	Z-SNOH WEST CENT BUS G B
GLENWD T	GLESNO11 1		158.721	Z-SNOK SOUTH CENT BUS G
S-SCTAP	S-SSNO11 1		92.321	Z-SNOKING BUS (NOT CREDI

Contingency Results

CONTINGENCY Z-SNOKING BUS (NOT CREDIBLE AFTER 07)
ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 118)
BRANCH: 15
BUS VOLTAGE: 103
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 523.4 LIMIT: 256.0 %: 204.4 Base Case Value: 12.8
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 486.2 LIMIT: 256.0 %: 189.9 Base Case Value: 24.9
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 436.7 LIMIT: 256.0 %: 170.6 Base Case Value: 43.2
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 407.4 LIMIT: 256.0 %: 159.1 Base Case Value: 64.8
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 403.5 LIMIT: 256.0 %: 157.6 Base Case Value: 65.7
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 393.8 LIMIT: 256.0 %: 153.8 Base Case Value: 65.8
GLENWD T (45847) TO GLESNO11 (49900) CKT 1 MVA: 353.1 LIMIT: 230.1 %: 153.4 Base Case Value: 107.2
BOEING (45607) TO GLENWD T (45847) CKT 1 MVA: 321.8 LIMIT: 256.0 %: 125.7 Base Case Value: 85.2
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 445.7 LIMIT: 369.0 %: 120.8 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 441.0 LIMIT: 369.0 %: 119.5 Base Case Value: 268.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 410.5 LIMIT: 393.0 %: 104.5 Base Case Value: 259.2
S-SCTAP (45854) TO S-SSNO11 (49845) CKT 1 MVA: 293.7 LIMIT: 318.1 %: 92.3 Base Case Value: 89.0
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 502.6 LIMIT: 549.8 %: 91.4 Base Case Value: 285.6
BOEING (45607) TO PAINE F (45745) CKT 1 MVA: 233.4 LIMIT: 256.0 %: 91.2 Base Case Value: 3.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PK RIDGE (45755) LOW V VOLT: 0.6160 LIMIT: 0.9000 Base Case Value: 0.9974
PK RIDGT (45757) LOW V VOLT: 0.6162 LIMIT: 0.9000 Base Case Value: 0.9975

BRITEH2O (45758) LOW V VOLT: 0.6165 LIMIT: 0.9000 Base Case Value: 0.9968
TURNERS (45809) LOW V VOLT: 0.6170 LIMIT: 0.9000 Base Case Value: 0.9958
CLEARV (45625) LOW V VOLT: 0.6207 LIMIT: 0.9000 Base Case Value: 0.9928
TAMBARK2 (45790) LOW V VOLT: 0.6300 LIMIT: 0.9000 Base Case Value: 0.9895
LYNNWD (45705) LOW V VOLT: 0.6351 LIMIT: 0.9000 Base Case Value: 0.9701
PERRINV (45747) LOW V VOLT: 0.6369 LIMIT: 0.9000 Base Case Value: 0.9713
PERRINVT (45749) LOW V VOLT: 0.6370 LIMIT: 0.9000 Base Case Value: 0.9714
FLORLH T (45844) LOW V VOLT: 0.6391 LIMIT: 0.9000 Base Case Value: 0.9865
MAPLEW (45709) LOW V VOLT: 0.6413 LIMIT: 0.9000 Base Case Value: 0.9743
SWMPCKT1 (45859) LOW V VOLT: 0.6416 LIMIT: 0.9000 Base Case Value: 0.9857
N ALDER (45725) LOW V VOLT: 0.6429 LIMIT: 0.9000 Base Case Value: 0.9853
ALDERW (45601) LOW V VOLT: 0.6469 LIMIT: 0.9000 Base Case Value: 0.9846
THRASHER (45801) LOW V VOLT: 0.6473 LIMIT: 0.9000 Base Case Value: 0.9976
EDMONDT2 (45633) LOW V VOLT: 0.6486 LIMIT: 0.9000 Base Case Value: 0.9791
FIVE COR (45647) LOW V VOLT: 0.6498 LIMIT: 0.9000 Base Case Value: 0.9798
BRIER (45609) LOW V VOLT: 0.6503 LIMIT: 0.9000 Base Case Value: 0.9913
CAN PARK (45619) LOW V VOLT: 0.6521 LIMIT: 0.9000 Base Case Value: 0.9948
WESTGATE (45819) LOW V VOLT: 0.6527 LIMIT: 0.9000 Base Case Value: 0.9816
RICHMND (45759) LOW V VOLT: 0.6532 LIMIT: 0.9000 Base Case Value: 0.9819
RICHMNDT (45761) LOW V VOLT: 0.6539 LIMIT: 0.9000 Base Case Value: 0.9824
BALLING (45603) LOW V VOLT: 0.6540 LIMIT: 0.9000 Base Case Value: 0.9825
MONTLAKE (45717) LOW V VOLT: 0.6543 LIMIT: 0.9000 Base Case Value: 0.9874
ESPERENC (45635) LOW V VOLT: 0.6559 LIMIT: 0.9000 Base Case Value: 0.9841
HALLS LK (45848) LOW V VOLT: 0.6565 LIMIT: 0.9000 Base Case Value: 0.9841
LYNNWDT (45707) LOW V VOLT: 0.6872 LIMIT: 0.9000 Base Case Value: 0.9826
KEELERL (45710) LOW V VOLT: 0.7040 LIMIT: 0.9000 Base Case Value: 0.9819
KEELER S (45708) LOW V VOLT: 0.7041 LIMIT: 0.9000 Base Case Value: 0.9819
MEADWD (45713) LOW V VOLT: 0.7088 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.7095 LIMIT: 0.9000 Base Case Value: 0.9817
LK SEREN (45701) LOW V VOLT: 0.7217 LIMIT: 0.9000 Base Case Value: 0.9815
GIBSON (45657) LOW V VOLT: 0.7693 LIMIT: 0.9000 Base Case Value: 0.9820
PAINE F (45745) LOW V VOLT: 0.7977 LIMIT: 0.9000 Base Case Value: 0.9827
MUKLTEO (45851) LOW V VOLT: 0.8078 LIMIT: 0.9000 Base Case Value: 0.9815
MUKTAP (45721) LOW V VOLT: 0.8081 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.8140 LIMIT: 0.9000 Base Case Value: 0.9819
OLIVIA P (45739) LOW V VOLT: 0.8165 LIMIT: 0.9000 Base Case Value: 0.9858
OLIVIA T (45741) LOW V VOLT: 0.8166 LIMIT: 0.9000 Base Case Value: 0.9859
PICNIC (45751) LOW V VOLT: 0.8233 LIMIT: 0.9000 Base Case Value: 0.9829
TWNTETH (45811) LOW V VOLT: 0.8244 LIMIT: 0.9000 Base Case Value: 0.9825
BOEING (45607) LOW V VOLT: 0.8251 LIMIT: 0.9000 Base Case Value: 0.9830
S-SCTAP (45854) LOW V VOLT: 0.8258 LIMIT: 0.9000 Base Case Value: 0.9876
CASCAD (45621) LOW V VOLT: 0.8335 LIMIT: 0.9000 Base Case Value: 0.9869
TAMBARKT (45795) LOW V VOLT: 0.8337 LIMIT: 0.9000 Base Case Value: 1.0007
MURPHYS (45723) LOW V VOLT: 0.8347 LIMIT: 0.9000 Base Case Value: 0.9843
N CRK (45727) LOW V VOLT: 0.8369 LIMIT: 0.9000 Base Case Value: 0.9832
GLENWD (45659) LOW V VOLT: 0.8369 LIMIT: 0.9000 Base Case Value: 0.9837
GLENWD T (45847) LOW V VOLT: 0.8386 LIMIT: 0.9000 Base Case Value: 0.9851
NCRK TAP (45852) LOW V VOLT: 0.8405 LIMIT: 0.9000 Base Case Value: 0.9830
S-SSNO11 (49845) LOW V VOLT: 0.8419 LIMIT: 0.9000 Base Case Value: 0.9905
FLORAL H (45649) LOW V VOLT: 0.8444 LIMIT: 0.9000 Base Case Value: 0.9827
FLORLHT1 (45845) LOW V VOLT: 0.8444 LIMIT: 0.9000 Base Case Value: 0.9827
SWMPCKT2 (45860) LOW V VOLT: 0.8460 LIMIT: 0.9000 Base Case Value: 0.9830
MARTHA L (45711) LOW V VOLT: 0.8474 LIMIT: 0.9000 Base Case Value: 0.9832
MARINER (45622) LOW V VOLT: 0.8542 LIMIT: 0.9000 Base Case Value: 0.9854
CASINO (45623) LOW V VOLT: 0.8545 LIMIT: 0.9000 Base Case Value: 0.9876
S CAMANO (45853) LOW V VOLT: 0.8569 LIMIT: 0.9000 Base Case Value: 0.9493
SILVE LK (45857) LOW V VOLT: 0.8569 LIMIT: 0.9000 Base Case Value: 0.9864
CAMANO (45617) LOW V VOLT: 0.8629 LIMIT: 0.9000 Base Case Value: 0.9548
GLESNO11 (49900) LOW V VOLT: 0.8640 LIMIT: 0.9000 Base Case Value: 0.9895
BEVERLY (45608) LOW V VOLT: 0.8640 LIMIT: 0.9000 Base Case Value: 0.9895
BEVSNO31 (49975) LOW V VOLT: 0.8679 LIMIT: 0.9000 Base Case Value: 0.9907
N STAN (45731) LOW V VOLT: 0.8690 LIMIT: 0.9000 Base Case Value: 0.9602
HILTON (45683) LOW V VOLT: 0.8771 LIMIT: 0.9000 Base Case Value: 0.9908
C MARY (45611) LOW V VOLT: 0.8891 LIMIT: 0.9000 Base Case Value: 0.9804
NORTON S (45737) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9853
KELLOGM (45693) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9800
TULALIP (45805) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9816
NAVY (45733) LOW V VOLT: 0.8894 LIMIT: 0.9000 Base Case Value: 0.9857
WATRFRT (45861) LOW V VOLT: 0.8894 LIMIT: 0.9000 Base Case Value: 0.9863
DELTA SW (45627) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9840

TENTH (45797) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9846
C MARYST (45840) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9810
KIMCLK (45849) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9862
EVRETTT2 (45843) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9862
TENTHT (45799) LOW V VOLT: 0.8897 LIMIT: 0.9000 Base Case Value: 0.9848
TULALIPT (45807) LOW V VOLT: 0.8897 LIMIT: 0.9000 Base Case Value: 0.9820
FIFTYSEC (45645) LOW V VOLT: 0.8900 LIMIT: 0.9000 Base Case Value: 0.9882
CMARYST (45841) LOW V VOLT: 0.8900 LIMIT: 0.9000 Base Case Value: 0.9807
QUILCEDA (45632) LOW V VOLT: 0.8905 LIMIT: 0.9000 Base Case Value: 0.9816
PINEHURS (45753) LOW V VOLT: 0.8905 LIMIT: 0.9000 Base Case Value: 0.9891
SCOTT 2L (45824) LOW V VOLT: 0.8907 LIMIT: 0.9000 Base Case Value: 0.9865
EVERETT (45637) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9883
SCOTT 2 (45842) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9867
N MARYS (45729) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9809
PINSNO11 (49854) LOW V VOLT: 0.8919 LIMIT: 0.9000 Base Case Value: 0.9908
W MONROE (45813) LOW V VOLT: 0.8930 LIMIT: 0.9000 Base Case Value: 0.9933
WOODS CK (45823) LOW V VOLT: 0.8932 LIMIT: 0.9000 Base Case Value: 0.9932
LK GDW (45699) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9808
STIMSONS (45785) LOW V VOLT: 0.8939 LIMIT: 0.9000 Base Case Value: 0.9823
SMOKEYP (45775) LOW V VOLT: 0.8948 LIMIT: 0.9000 Base Case Value: 0.9827
SMOKEYPT (45777) LOW V VOLT: 0.8954 LIMIT: 0.9000 Base Case Value: 0.9833
FOBES (45651) LOW V VOLT: 0.8961 LIMIT: 0.9000 Base Case Value: 0.9950
GOLD BAR (45663) LOW V VOLT: 0.8966 LIMIT: 0.9000 Base Case Value: 0.9955
SNOHM (45779) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9972
SILLS C (45855) LOW V VOLT: 0.8972 LIMIT: 0.9000 Base Case Value: 0.9841
SULTAN (45789) LOW V VOLT: 0.8973 LIMIT: 0.9000 Base Case Value: 0.9963
LK STEVE (45703) LOW V VOLT: 0.8978 LIMIT: 0.9000 Base Case Value: 0.9940
FRONTIER (45653) LOW V VOLT: 0.8982 LIMIT: 0.9000 Base Case Value: 0.9924
SULT GBT (45787) LOW V VOLT: 0.8990 LIMIT: 0.9000 Base Case Value: 0.9977
SNOHOMSH (40997) LOW V VOLT: 0.8999 LIMIT: 0.9000 Base Case Value: 1.0000
THREE LK (45803) LOW V VOLT: 0.9000 LIMIT: 0.9000 Base Case Value: 0.9994

BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY Z-SNOK SOUTH CENT BUS G BS

ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 172.19 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.07 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 137.04 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 183.76 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 180.48 MVA

NUMBER OF VIOLATIONS BY CATEGORY (Total = 134)
BRANCH: 13
BUS VOLTAGE: 121
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 522.1 LIMIT: 256.0 %: 203.9 Base Case Value: 12.8
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 484.1 LIMIT: 256.0 %: 189.1 Base Case Value: 24.9
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 433.0 LIMIT: 256.0 %: 169.2 Base Case Value: 43.2
GLENWD T (45847) TO GLESNO11 (49900) CKT 1 MVA: 365.2 LIMIT: 230.1 %: 158.7 Base Case Value: 107.2
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 403.5 LIMIT: 256.0 %: 157.6 Base Case Value: 64.8
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 399.4 LIMIT: 256.0 %: 156.0 Base Case Value: 65.7
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 389.3 LIMIT: 256.0 %: 152.1 Base Case Value: 65.8
BOEING (45607) TO GLENWD T (45847) CKT 1 MVA: 332.9 LIMIT: 256.0 %: 130.0 Base Case Value: 85.2
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 435.7 LIMIT: 369.0 %: 118.1 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 431.1 LIMIT: 369.0 %: 116.8 Base Case Value: 268.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 401.7 LIMIT: 393.0 %: 102.2 Base Case Value: 259.2

BOEING (45607) TO PAINE F (45745) CKT 1 MVA: 244.0 LIMIT: 256.0 %: 95.3 Base Case Value: 3.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6

BRANCH AMP VIOLATIONS:

None.

BUS LOW VOLTAGE VIOLATIONS:

PK RIDGE (45755) LOW V VOLT: 0.5953 LIMIT: 0.9000 Base Case Value: 0.9974
PK RIDGT (45757) LOW V VOLT: 0.5955 LIMIT: 0.9000 Base Case Value: 0.9975
BRITEH2O (45758) LOW V VOLT: 0.5958 LIMIT: 0.9000 Base Case Value: 0.9968
TURNERS (45809) LOW V VOLT: 0.5963 LIMIT: 0.9000 Base Case Value: 0.9958
CLEARV (45625) LOW V VOLT: 0.6001 LIMIT: 0.9000 Base Case Value: 0.9928
TAMBARK2 (45790) LOW V VOLT: 0.6095 LIMIT: 0.9000 Base Case Value: 0.9895
LYNNWD (45705) LOW V VOLT: 0.6148 LIMIT: 0.9000 Base Case Value: 0.9701
PERRINV (45747) LOW V VOLT: 0.6166 LIMIT: 0.9000 Base Case Value: 0.9713
PERRINVT (45749) LOW V VOLT: 0.6167 LIMIT: 0.9000 Base Case Value: 0.9714
FLORLH T (45844) LOW V VOLT: 0.6188 LIMIT: 0.9000 Base Case Value: 0.9865
MAPLEW (45709) LOW V VOLT: 0.6211 LIMIT: 0.9000 Base Case Value: 0.9743
SWMPCKT1 (45859) LOW V VOLT: 0.6214 LIMIT: 0.9000 Base Case Value: 0.9857
N ALDER (45725) LOW V VOLT: 0.6227 LIMIT: 0.9000 Base Case Value: 0.9853
ALDERW (45601) LOW V VOLT: 0.6268 LIMIT: 0.9000 Base Case Value: 0.9846
THRASHER (45801) LOW V VOLT: 0.6273 LIMIT: 0.9000 Base Case Value: 0.9976
EDMONDT2 (45633) LOW V VOLT: 0.6286 LIMIT: 0.9000 Base Case Value: 0.9791
FIVE COR (45647) LOW V VOLT: 0.6298 LIMIT: 0.9000 Base Case Value: 0.9798
BRIER (45609) LOW V VOLT: 0.6302 LIMIT: 0.9000 Base Case Value: 0.9913
CAN PARK (45619) LOW V VOLT: 0.6322 LIMIT: 0.9000 Base Case Value: 0.9948
WESTGATE (45819) LOW V VOLT: 0.6327 LIMIT: 0.9000 Base Case Value: 0.9816
RICHMND (45759) LOW V VOLT: 0.6332 LIMIT: 0.9000 Base Case Value: 0.9819
RICHMNDT (45761) LOW V VOLT: 0.6340 LIMIT: 0.9000 Base Case Value: 0.9824
BALLING (45603) LOW V VOLT: 0.6341 LIMIT: 0.9000 Base Case Value: 0.9825
MONTLAKE (45717) LOW V VOLT: 0.6343 LIMIT: 0.9000 Base Case Value: 0.9874
ESPERENC (45635) LOW V VOLT: 0.6360 LIMIT: 0.9000 Base Case Value: 0.9841
HALLS LK (45848) LOW V VOLT: 0.6366 LIMIT: 0.9000 Base Case Value: 0.9841
LYNNWDT (45707) LOW V VOLT: 0.6680 LIMIT: 0.9000 Base Case Value: 0.9826
KEELERL (45710) LOW V VOLT: 0.6854 LIMIT: 0.9000 Base Case Value: 0.9819
KEELER S (45708) LOW V VOLT: 0.6854 LIMIT: 0.9000 Base Case Value: 0.9819
MEADWD (45713) LOW V VOLT: 0.6903 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.6910 LIMIT: 0.9000 Base Case Value: 0.9817
LK SEREN (45701) LOW V VOLT: 0.7036 LIMIT: 0.9000 Base Case Value: 0.9815
GIBSON (45657) LOW V VOLT: 0.7527 LIMIT: 0.9000 Base Case Value: 0.9820
PAINE F (45745) LOW V VOLT: 0.7820 LIMIT: 0.9000 Base Case Value: 0.9827
MUKLTEO (45851) LOW V VOLT: 0.7928 LIMIT: 0.9000 Base Case Value: 0.9815
MUKTAP (45721) LOW V VOLT: 0.7932 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.7994 LIMIT: 0.9000 Base Case Value: 0.9819
OLIVIA P (45739) LOW V VOLT: 0.8007 LIMIT: 0.9000 Base Case Value: 0.9858
OLIVIA T (45741) LOW V VOLT: 0.8008 LIMIT: 0.9000 Base Case Value: 0.9859
PICNIC (45751) LOW V VOLT: 0.8093 LIMIT: 0.9000 Base Case Value: 0.9829
S-SCTAP (45854) LOW V VOLT: 0.8098 LIMIT: 0.9000 Base Case Value: 0.9876
TWNTETH (45811) LOW V VOLT: 0.8105 LIMIT: 0.9000 Base Case Value: 0.9825
BOEING (45607) LOW V VOLT: 0.8112 LIMIT: 0.9000 Base Case Value: 0.9830
GLENWD (45659) LOW V VOLT: 0.8238 LIMIT: 0.9000 Base Case Value: 0.9837
GLENWD T (45847) LOW V VOLT: 0.8255 LIMIT: 0.9000 Base Case Value: 0.9851
S-SSNO11 (49845) LOW V VOLT: 0.8258 LIMIT: 0.9000 Base Case Value: 0.9905
S CAMANO (45853) LOW V VOLT: 0.8358 LIMIT: 0.9000 Base Case Value: 0.9493
CAMANO (45617) LOW V VOLT: 0.8421 LIMIT: 0.9000 Base Case Value: 0.9548
CASINO (45623) LOW V VOLT: 0.8424 LIMIT: 0.9000 Base Case Value: 0.9876
N STAN (45731) LOW V VOLT: 0.8483 LIMIT: 0.9000 Base Case Value: 0.9602
GLESNO11 (49900) LOW V VOLT: 0.8524 LIMIT: 0.9000 Base Case Value: 0.9895
BEVERLY (45608) LOW V VOLT: 0.8525 LIMIT: 0.9000 Base Case Value: 0.9895
SILVE LK (45857) LOW V VOLT: 0.8535 LIMIT: 0.9000 Base Case Value: 0.9864
MARINER (45622) LOW V VOLT: 0.8542 LIMIT: 0.9000 Base Case Value: 0.9854
BEVSNO31 (49975) LOW V VOLT: 0.8558 LIMIT: 0.9000 Base Case Value: 0.9907
MARTHA L (45711) LOW V VOLT: 0.8575 LIMIT: 0.9000 Base Case Value: 0.9832
SWMPCKT2 (45860) LOW V VOLT: 0.8587 LIMIT: 0.9000 Base Case Value: 0.9830
FLORAL H (45649) LOW V VOLT: 0.8601 LIMIT: 0.9000 Base Case Value: 0.9827
FLORLHT1 (45845) LOW V VOLT: 0.8601 LIMIT: 0.9000 Base Case Value: 0.9827
HILTON (45683) LOW V VOLT: 0.8644 LIMIT: 0.9000 Base Case Value: 0.9908
GOLD BAR (45663) LOW V VOLT: 0.8648 LIMIT: 0.9000 Base Case Value: 0.9955
NCRK TAP (45852) LOW V VOLT: 0.8662 LIMIT: 0.9000 Base Case Value: 0.9830
SULTAN (45789) LOW V VOLT: 0.8668 LIMIT: 0.9000 Base Case Value: 0.9963
SULT GBT (45787) LOW V VOLT: 0.8673 LIMIT: 0.9000 Base Case Value: 0.9977
WOODS CK (45823) LOW V VOLT: 0.8676 LIMIT: 0.9000 Base Case Value: 0.9932

KIMCLK (45849) LOW V VOLT: 0.8682 LIMIT: 0.9000 Base Case Value: 0.9862
WATRFRT (45861) LOW V VOLT: 0.8682 LIMIT: 0.9000 Base Case Value: 0.9863
NORTON S (45737) LOW V VOLT: 0.8682 LIMIT: 0.9000 Base Case Value: 0.9853
NAVY (45733) LOW V VOLT: 0.8683 LIMIT: 0.9000 Base Case Value: 0.9857
EVRETTT2 (45843) LOW V VOLT: 0.8684 LIMIT: 0.9000 Base Case Value: 0.9862
W MONROE (45813) LOW V VOLT: 0.8688 LIMIT: 0.9000 Base Case Value: 0.9933
C MARY (45611) LOW V VOLT: 0.8689 LIMIT: 0.9000 Base Case Value: 0.9804
TULALIP (45805) LOW V VOLT: 0.8691 LIMIT: 0.9000 Base Case Value: 0.9816
KELLOGM (45693) LOW V VOLT: 0.8691 LIMIT: 0.9000 Base Case Value: 0.9800
DELTA SW (45627) LOW V VOLT: 0.8693 LIMIT: 0.9000 Base Case Value: 0.9840
C MARYST (45840) LOW V VOLT: 0.8695 LIMIT: 0.9000 Base Case Value: 0.9810
JACKSN (45685) LOW V VOLT: 0.8695 LIMIT: 0.9000 Base Case Value: 1.0018
TULALIPT (45807) LOW V VOLT: 0.8696 LIMIT: 0.9000 Base Case Value: 0.9820
TENTH (45797) LOW V VOLT: 0.8696 LIMIT: 0.9000 Base Case Value: 0.9846
TENTHT (45799) LOW V VOLT: 0.8697 LIMIT: 0.9000 Base Case Value: 0.9848
LK CHAP (45697) LOW V VOLT: 0.8698 LIMIT: 0.9000 Base Case Value: 1.0017
FIFTYSEC (45645) LOW V VOLT: 0.8699 LIMIT: 0.9000 Base Case Value: 0.9882
CMARYST (45841) LOW V VOLT: 0.8699 LIMIT: 0.9000 Base Case Value: 0.9807
QUILCEDA (45632) LOW V VOLT: 0.8704 LIMIT: 0.9000 Base Case Value: 0.9816
EVERETT (45637) LOW V VOLT: 0.8704 LIMIT: 0.9000 Base Case Value: 0.9883
N MARYS (45729) LOW V VOLT: 0.8708 LIMIT: 0.9000 Base Case Value: 0.9809
PINEHURS (45753) LOW V VOLT: 0.8708 LIMIT: 0.9000 Base Case Value: 0.9891
SCOTT 2L (45824) LOW V VOLT: 0.8711 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2 (45842) LOW V VOLT: 0.8712 LIMIT: 0.9000 Base Case Value: 0.9867
N CRK (45727) LOW V VOLT: 0.8720 LIMIT: 0.9000 Base Case Value: 0.9832
PINSNO11 (49854) LOW V VOLT: 0.8726 LIMIT: 0.9000 Base Case Value: 0.9908
LK GDW (45699) LOW V VOLT: 0.8736 LIMIT: 0.9000 Base Case Value: 0.9808
STIMSONS (45785) LOW V VOLT: 0.8739 LIMIT: 0.9000 Base Case Value: 0.9823
SMOKEYP (45775) LOW V VOLT: 0.8749 LIMIT: 0.9000 Base Case Value: 0.9827
SMOKEYPT (45777) LOW V VOLT: 0.8755 LIMIT: 0.9000 Base Case Value: 0.9833
THREE LK (45803) LOW V VOLT: 0.8765 LIMIT: 0.9000 Base Case Value: 0.9994
SILLS C (45855) LOW V VOLT: 0.8774 LIMIT: 0.9000 Base Case Value: 0.9841
SNOHM (45779) LOW V VOLT: 0.8774 LIMIT: 0.9000 Base Case Value: 0.9972
MURPHYS (45723) LOW V VOLT: 0.8781 LIMIT: 0.9000 Base Case Value: 0.9843
FOBES (45651) LOW V VOLT: 0.8781 LIMIT: 0.9000 Base Case Value: 0.9950
LK STEVE (45703) LOW V VOLT: 0.8801 LIMIT: 0.9000 Base Case Value: 0.9940
FRONTIER (45653) LOW V VOLT: 0.8802 LIMIT: 0.9000 Base Case Value: 0.9924
SNOHOMSH (40997) LOW V VOLT: 0.8828 LIMIT: 0.9000 Base Case Value: 1.0000
E MARY (45631) LOW V VOLT: 0.8832 LIMIT: 0.9000 Base Case Value: 0.9918
GRANFAL (45665) LOW V VOLT: 0.8838 LIMIT: 0.9000 Base Case Value: 0.9893
PORTAGE (45630) LOW V VOLT: 0.8840 LIMIT: 0.9000 Base Case Value: 0.9882
KELLOGMT (45695) LOW V VOLT: 0.8845 LIMIT: 0.9000 Base Case Value: 0.9920
HARTFORD (45681) LOW V VOLT: 0.8867 LIMIT: 0.9000 Base Case Value: 0.9919
CASCAD (45621) LOW V VOLT: 0.8877 LIMIT: 0.9000 Base Case Value: 0.9869
GETCHL T (45846) LOW V VOLT: 0.8878 LIMIT: 0.9000 Base Case Value: 0.9930
E ARLG (45629) LOW V VOLT: 0.8895 LIMIT: 0.9000 Base Case Value: 0.9916
OLYMPIC (45743) LOW V VOLT: 0.8909 LIMIT: 0.9000 Base Case Value: 0.9962
BLYN (47556) LOW V VOLT: 0.8917 LIMIT: 0.9000 Base Case Value: 0.9590
OLYMPC C (47563) LOW V VOLT: 0.8919 LIMIT: 0.9000 Base Case Value: 0.9592
DUNGENES (47559) LOW V VOLT: 0.8922 LIMIT: 0.9000 Base Case Value: 0.9595
SUNLAND (47567) LOW V VOLT: 0.8926 LIMIT: 0.9000 Base Case Value: 0.9599
DUN JCT (47558) LOW V VOLT: 0.8927 LIMIT: 0.9000 Base Case Value: 0.9599
SEQUIM (47565) LOW V VOLT: 0.8928 LIMIT: 0.9000 Base Case Value: 0.9600
SUN TAP (47566) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9607
EVERGRNC (47560) LOW V VOLT: 0.8940 LIMIT: 0.9000 Base Case Value: 0.9611
PRAIRIEC (47564) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9636

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY Z-SNOK SOUTH CENT BUS BS

ELEMENTS:

OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:

Applied:

OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 172.19 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.07 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 137.04 MVA

OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 183.76 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 180.48 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 66)
BRANCH: 12
BUS VOLTAGE: 54
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 517.2 LIMIT: 256.0 %: 202.0 Base Case Value: 12.8
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 482.7 LIMIT: 256.0 %: 188.6 Base Case Value: 24.9
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 437.5 LIMIT: 256.0 %: 170.9 Base Case Value: 43.2
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 409.3 LIMIT: 256.0 %: 159.9 Base Case Value: 64.8
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 405.8 LIMIT: 256.0 %: 158.5 Base Case Value: 65.7
GLENWD T (45847) TO GLESNO11 (49900) CKT 1 MVA: 357.6 LIMIT: 230.1 %: 155.4 Base Case Value: 107.2
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 397.5 LIMIT: 256.0 %: 155.3 Base Case Value: 65.8
BOEING (45607) TO GLENWD T (45847) CKT 1 MVA: 327.1 LIMIT: 256.0 %: 127.8 Base Case Value: 85.2
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 398.3 LIMIT: 369.0 %: 108.0 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 394.1 LIMIT: 369.0 %: 106.8 Base Case Value: 268.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 367.2 LIMIT: 393.0 %: 93.4 Base Case Value: 259.2
BOEING (45607) TO PAINE F (45745) CKT 1 MVA: 238.3 LIMIT: 256.0 %: 93.1 Base Case Value: 3.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PK RIDGE (45755) LOW V VOLT: 0.6708 LIMIT: 0.9000 Base Case Value: 0.9974
PK RIDGT (45757) LOW V VOLT: 0.6710 LIMIT: 0.9000 Base Case Value: 0.9975
BRITEH2O (45758) LOW V VOLT: 0.6713 LIMIT: 0.9000 Base Case Value: 0.9968
TURNERS (45809) LOW V VOLT: 0.6718 LIMIT: 0.9000 Base Case Value: 0.9958
CLEARV (45625) LOW V VOLT: 0.6753 LIMIT: 0.9000 Base Case Value: 0.9928
TAMBARK2 (45790) LOW V VOLT: 0.6840 LIMIT: 0.9000 Base Case Value: 0.9895
LYNNWD (45705) LOW V VOLT: 0.6885 LIMIT: 0.9000 Base Case Value: 0.9701
PERRINV (45747) LOW V VOLT: 0.6902 LIMIT: 0.9000 Base Case Value: 0.9713
PERRINVT (45749) LOW V VOLT: 0.6902 LIMIT: 0.9000 Base Case Value: 0.9714
FLORLH T (45844) LOW V VOLT: 0.6924 LIMIT: 0.9000 Base Case Value: 0.9865
MAPLEW (45709) LOW V VOLT: 0.6943 LIMIT: 0.9000 Base Case Value: 0.9743
SWMPCKT1 (45859) LOW V VOLT: 0.6948 LIMIT: 0.9000 Base Case Value: 0.9857
N ALDER (45725) LOW V VOLT: 0.6959 LIMIT: 0.9000 Base Case Value: 0.9853
ALDERW (45601) LOW V VOLT: 0.6996 LIMIT: 0.9000 Base Case Value: 0.9846
THRASHER (45801) LOW V VOLT: 0.7000 LIMIT: 0.9000 Base Case Value: 0.9976
EDMONDT2 (45633) LOW V VOLT: 0.7012 LIMIT: 0.9000 Base Case Value: 0.9791
FIVE COR (45647) LOW V VOLT: 0.7023 LIMIT: 0.9000 Base Case Value: 0.9798
BRIER (45609) LOW V VOLT: 0.7027 LIMIT: 0.9000 Base Case Value: 0.9913
CAN PARK (45619) LOW V VOLT: 0.7045 LIMIT: 0.9000 Base Case Value: 0.9948
WESTGATE (45819) LOW V VOLT: 0.7050 LIMIT: 0.9000 Base Case Value: 0.9816
RICHMND (45759) LOW V VOLT: 0.7054 LIMIT: 0.9000 Base Case Value: 0.9819
RICHMNDT (45761) LOW V VOLT: 0.7061 LIMIT: 0.9000 Base Case Value: 0.9824
BALLING (45603) LOW V VOLT: 0.7062 LIMIT: 0.9000 Base Case Value: 0.9825
MONTLAKE (45717) LOW V VOLT: 0.7065 LIMIT: 0.9000 Base Case Value: 0.9874
ESPERENC (45635) LOW V VOLT: 0.7080 LIMIT: 0.9000 Base Case Value: 0.9841
HALLS LK (45848) LOW V VOLT: 0.7085 LIMIT: 0.9000 Base Case Value: 0.9841
LYNNWDT (45707) LOW V VOLT: 0.7367 LIMIT: 0.9000 Base Case Value: 0.9826
KEELERL (45710) LOW V VOLT: 0.7521 LIMIT: 0.9000 Base Case Value: 0.9819
KEELER S (45708) LOW V VOLT: 0.7521 LIMIT: 0.9000 Base Case Value: 0.9819
MEADWD (45713) LOW V VOLT: 0.7564 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.7571 LIMIT: 0.9000 Base Case Value: 0.9817
LK SEREN (45701) LOW V VOLT: 0.7682 LIMIT: 0.9000 Base Case Value: 0.9815
GIBSON (45657) LOW V VOLT: 0.8113 LIMIT: 0.9000 Base Case Value: 0.9820
PAINE F (45745) LOW V VOLT: 0.8369 LIMIT: 0.9000 Base Case Value: 0.9827
MUKLTEO (45851) LOW V VOLT: 0.8463 LIMIT: 0.9000 Base Case Value: 0.9815
MUKTAP (45721) LOW V VOLT: 0.8466 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.8520 LIMIT: 0.9000 Base Case Value: 0.9819
OLIVIA P (45739) LOW V VOLT: 0.8535 LIMIT: 0.9000 Base Case Value: 0.9858
OLIVIA T (45741) LOW V VOLT: 0.8536 LIMIT: 0.9000 Base Case Value: 0.9859
PICNIC (45751) LOW V VOLT: 0.8607 LIMIT: 0.9000 Base Case Value: 0.9829
S-SCTAP (45854) LOW V VOLT: 0.8616 LIMIT: 0.9000 Base Case Value: 0.9876
TWNTETH (45811) LOW V VOLT: 0.8616 LIMIT: 0.9000 Base Case Value: 0.9825
BOEING (45607) LOW V VOLT: 0.8623 LIMIT: 0.9000 Base Case Value: 0.9830
GLENWD (45659) LOW V VOLT: 0.8732 LIMIT: 0.9000 Base Case Value: 0.9837
GLENWD T (45847) LOW V VOLT: 0.8749 LIMIT: 0.9000 Base Case Value: 0.9851
S-SSNO11 (49845) LOW V VOLT: 0.8758 LIMIT: 0.9000 Base Case Value: 0.9905
S CAMANO (45853) LOW V VOLT: 0.8817 LIMIT: 0.9000 Base Case Value: 0.9493

CAMANO (45617) LOW V VOLT: 0.8876 LIMIT: 0.9000 Base Case Value: 0.9548
CASINO (45623) LOW V VOLT: 0.8897 LIMIT: 0.9000 Base Case Value: 0.9876
N STAN (45731) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9602
GLESNO11 (49900) LOW V VOLT: 0.8985 LIMIT: 0.9000 Base Case Value: 0.9895
BEVERLY (45608) LOW V VOLT: 0.8986 LIMIT: 0.9000 Base Case Value: 0.9895
SILVE LK (45857) LOW V VOLT: 0.8989 LIMIT: 0.9000 Base Case Value: 0.9864
MARINER (45622) LOW V VOLT: 0.8994 LIMIT: 0.9000 Base Case Value: 0.9854
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOKING BUS G (NOT CREDIBLE AFTER 07)
ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 139)
BRANCH: 16
BUS VOLTAGE: 123
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 516.8 LIMIT: 256.0 %: 201.9 Base Case Value: 12.8
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 476.8 LIMIT: 256.0 %: 186.3 Base Case Value: 24.9
LK SEREN (45701) TO MEADWDT (45715) CKT 1 MVA: 422.6 LIMIT: 256.0 %: 165.1 Base Case Value: 43.2
GLENWD T (45847) TO GLESNO11 (49900) CKT 1 MVA: 354.5 LIMIT: 230.1 %: 154.1 Base Case Value: 107.2
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 392.5 LIMIT: 256.0 %: 153.3 Base Case Value: 64.8
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 388.1 LIMIT: 256.0 %: 151.6 Base Case Value: 65.7
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 377.0 LIMIT: 256.0 %: 147.2 Base Case Value: 65.8
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 483.7 LIMIT: 369.0 %: 131.1 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 478.6 LIMIT: 369.0 %: 129.7 Base Case Value: 268.3
BOEING (45607) TO GLENWD T (45847) CKT 1 MVA: 321.7 LIMIT: 256.0 %: 125.7 Base Case Value: 85.2
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 446.1 LIMIT: 393.0 %: 113.5 Base Case Value: 259.2
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 524.2 LIMIT: 549.8 %: 95.4 Base Case Value: 285.6
BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1 MVA: 508.3 LIMIT: 549.8 %: 92.4 Base Case Value: 276.4
S-SCTAP (45854) TO S-SSNO11 (49845) CKT 1 MVA: 290.4 LIMIT: 318.1 %: 91.3 Base Case Value: 89.0
BOEING (45607) TO PAINE F (45745) CKT 1 MVA: 233.4 LIMIT: 256.0 %: 91.2 Base Case Value: 3.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PK RIDGE (45755) LOW V VOLT: 0.5488 LIMIT: 0.9000 Base Case Value: 0.9974
PK RIDGT (45757) LOW V VOLT: 0.5490 LIMIT: 0.9000 Base Case Value: 0.9975
BRITEH2O (45758) LOW V VOLT: 0.5493 LIMIT: 0.9000 Base Case Value: 0.9968
TURNERS (45809) LOW V VOLT: 0.5499 LIMIT: 0.9000 Base Case Value: 0.9958
CLEARV (45625) LOW V VOLT: 0.5537 LIMIT: 0.9000 Base Case Value: 0.9928
TAMBARK2 (45790) LOW V VOLT: 0.5635 LIMIT: 0.9000 Base Case Value: 0.9895
LYNNWD (45705) LOW V VOLT: 0.5694 LIMIT: 0.9000 Base Case Value: 0.9701
PERRINV (45747) LOW V VOLT: 0.5713 LIMIT: 0.9000 Base Case Value: 0.9713
PERRINVT (45749) LOW V VOLT: 0.5714 LIMIT: 0.9000 Base Case Value: 0.9714
FLORLH T (45844) LOW V VOLT: 0.5733 LIMIT: 0.9000 Base Case Value: 0.9865
MAPLEW (45709) LOW V VOLT: 0.5759 LIMIT: 0.9000 Base Case Value: 0.9743
SWMPCKT1 (45859) LOW V VOLT: 0.5760 LIMIT: 0.9000 Base Case Value: 0.9857
N ALDER (45725) LOW V VOLT: 0.5774 LIMIT: 0.9000 Base Case Value: 0.9853
ALDERW (45601) LOW V VOLT: 0.5817 LIMIT: 0.9000 Base Case Value: 0.9846
THRASHER (45801) LOW V VOLT: 0.5823 LIMIT: 0.9000 Base Case Value: 0.9976
EDMONDT2 (45633) LOW V VOLT: 0.5836 LIMIT: 0.9000 Base Case Value: 0.9791
FIVE COR (45647) LOW V VOLT: 0.5849 LIMIT: 0.9000 Base Case Value: 0.9798
BRIER (45609) LOW V VOLT: 0.5854 LIMIT: 0.9000 Base Case Value: 0.9913
CAN PARK (45619) LOW V VOLT: 0.5874 LIMIT: 0.9000 Base Case Value: 0.9948
WESTGATE (45819) LOW V VOLT: 0.5880 LIMIT: 0.9000 Base Case Value: 0.9816
RICHMND (45759) LOW V VOLT: 0.5885 LIMIT: 0.9000 Base Case Value: 0.9819
RICHMNDT (45761) LOW V VOLT: 0.5893 LIMIT: 0.9000 Base Case Value: 0.9824
BALLING (45603) LOW V VOLT: 0.5894 LIMIT: 0.9000 Base Case Value: 0.9825
MONTLAKE (45717) LOW V VOLT: 0.5897 LIMIT: 0.9000 Base Case Value: 0.9874

ESPERENC (45635) LOW V VOLT: 0.5914 LIMIT: 0.9000 Base Case Value: 0.9841
HALLS LK (45848) LOW V VOLT: 0.5920 LIMIT: 0.9000 Base Case Value: 0.9841
LYNNWDT (45707) LOW V VOLT: 0.6252 LIMIT: 0.9000 Base Case Value: 0.9826
KEELERL (45710) LOW V VOLT: 0.6437 LIMIT: 0.9000 Base Case Value: 0.9819
KEELER S (45708) LOW V VOLT: 0.6437 LIMIT: 0.9000 Base Case Value: 0.9819
MEADWD (45713) LOW V VOLT: 0.6489 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.6497 LIMIT: 0.9000 Base Case Value: 0.9817
LK SEREN (45701) LOW V VOLT: 0.6631 LIMIT: 0.9000 Base Case Value: 0.9815
GIBSON (45657) LOW V VOLT: 0.7156 LIMIT: 0.9000 Base Case Value: 0.9820
PAINE F (45745) LOW V VOLT: 0.7469 LIMIT: 0.9000 Base Case Value: 0.9827
MUKLTEO (45851) LOW V VOLT: 0.7581 LIMIT: 0.9000 Base Case Value: 0.9815
MUKTAP (45721) LOW V VOLT: 0.7585 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.7650 LIMIT: 0.9000 Base Case Value: 0.9819
OLIVIA P (45739) LOW V VOLT: 0.7676 LIMIT: 0.9000 Base Case Value: 0.9858
OLIVIA T (45741) LOW V VOLT: 0.7677 LIMIT: 0.9000 Base Case Value: 0.9859
PICNIC (45751) LOW V VOLT: 0.7753 LIMIT: 0.9000 Base Case Value: 0.9829
TWNTETH (45811) LOW V VOLT: 0.7767 LIMIT: 0.9000 Base Case Value: 0.9825
BOEING (45607) LOW V VOLT: 0.7774 LIMIT: 0.9000 Base Case Value: 0.9830
S-SCTAP (45854) LOW V VOLT: 0.7777 LIMIT: 0.9000 Base Case Value: 0.9876
CASCAD (45621) LOW V VOLT: 0.7877 LIMIT: 0.9000 Base Case Value: 0.9869
TAMBARKT (45795) LOW V VOLT: 0.7879 LIMIT: 0.9000 Base Case Value: 1.0007
MURPHYS (45723) LOW V VOLT: 0.7891 LIMIT: 0.9000 Base Case Value: 0.9843
GLENWD (45659) LOW V VOLT: 0.7905 LIMIT: 0.9000 Base Case Value: 0.9837
N CRK (45727) LOW V VOLT: 0.7913 LIMIT: 0.9000 Base Case Value: 0.9832
GLENWD T (45847) LOW V VOLT: 0.7923 LIMIT: 0.9000 Base Case Value: 0.9851
NCRK TAP (45852) LOW V VOLT: 0.7952 LIMIT: 0.9000 Base Case Value: 0.9830
S-SSNO11 (49845) LOW V VOLT: 0.7954 LIMIT: 0.9000 Base Case Value: 0.9905
FLORAL H (45649) LOW V VOLT: 0.7994 LIMIT: 0.9000 Base Case Value: 0.9827
FLORLHT1 (45845) LOW V VOLT: 0.7994 LIMIT: 0.9000 Base Case Value: 0.9827
SWMPCKT2 (45860) LOW V VOLT: 0.8010 LIMIT: 0.9000 Base Case Value: 0.9830
MARTHA L (45711) LOW V VOLT: 0.8025 LIMIT: 0.9000 Base Case Value: 0.9832
MARINER (45622) LOW V VOLT: 0.8098 LIMIT: 0.9000 Base Case Value: 0.9854
CASINO (45623) LOW V VOLT: 0.8099 LIMIT: 0.9000 Base Case Value: 0.9876
SILVE LK (45857) LOW V VOLT: 0.8127 LIMIT: 0.9000 Base Case Value: 0.9864
S CAMANO (45853) LOW V VOLT: 0.8139 LIMIT: 0.9000 Base Case Value: 0.9493
GLESNO11 (49900) LOW V VOLT: 0.8203 LIMIT: 0.9000 Base Case Value: 0.9895
CAMANO (45617) LOW V VOLT: 0.8203 LIMIT: 0.9000 Base Case Value: 0.9548
BEVERLY (45608) LOW V VOLT: 0.8204 LIMIT: 0.9000 Base Case Value: 0.9895
BEVSNO31 (49975) LOW V VOLT: 0.8245 LIMIT: 0.9000 Base Case Value: 0.9907
N STAN (45731) LOW V VOLT: 0.8267 LIMIT: 0.9000 Base Case Value: 0.9602
HILTON (45683) LOW V VOLT: 0.8356 LIMIT: 0.9000 Base Case Value: 0.9908
GOLD BAR (45663) LOW V VOLT: 0.8405 LIMIT: 0.9000 Base Case Value: 0.9955
SULTAN (45789) LOW V VOLT: 0.8426 LIMIT: 0.9000 Base Case Value: 0.9963
SULT GBT (45787) LOW V VOLT: 0.8431 LIMIT: 0.9000 Base Case Value: 0.9977
WOODS CK (45823) LOW V VOLT: 0.8434 LIMIT: 0.9000 Base Case Value: 0.9932
W MONROE (45813) LOW V VOLT: 0.8446 LIMIT: 0.9000 Base Case Value: 0.9933
WATRFRT (45861) LOW V VOLT: 0.8450 LIMIT: 0.9000 Base Case Value: 0.9863
KIMCLK (45849) LOW V VOLT: 0.8450 LIMIT: 0.9000 Base Case Value: 0.9862
NAVY (45733) LOW V VOLT: 0.8452 LIMIT: 0.9000 Base Case Value: 0.9857
EVRETTT2 (45843) LOW V VOLT: 0.8453 LIMIT: 0.9000 Base Case Value: 0.9862
NORTON S (45737) LOW V VOLT: 0.8453 LIMIT: 0.9000 Base Case Value: 0.9853
JACKSN (45685) LOW V VOLT: 0.8454 LIMIT: 0.9000 Base Case Value: 1.0018
LK CHAP (45697) LOW V VOLT: 0.8457 LIMIT: 0.9000 Base Case Value: 1.0017
FIFTYSEC (45645) LOW V VOLT: 0.8465 LIMIT: 0.9000 Base Case Value: 0.9882
DELTA SW (45627) LOW V VOLT: 0.8469 LIMIT: 0.9000 Base Case Value: 0.9840
TENTH (45797) LOW V VOLT: 0.8470 LIMIT: 0.9000 Base Case Value: 0.9846
EVERETT (45637) LOW V VOLT: 0.8471 LIMIT: 0.9000 Base Case Value: 0.9883
TENTHT (45799) LOW V VOLT: 0.8472 LIMIT: 0.9000 Base Case Value: 0.9848
TULALIP (45805) LOW V VOLT: 0.8472 LIMIT: 0.9000 Base Case Value: 0.9816
PINEHURS (45753) LOW V VOLT: 0.8473 LIMIT: 0.9000 Base Case Value: 0.9891
C MARY (45611) LOW V VOLT: 0.8473 LIMIT: 0.9000 Base Case Value: 0.9804
KELLOGM (45693) LOW V VOLT: 0.8477 LIMIT: 0.9000 Base Case Value: 0.9800
TULALIPT (45807) LOW V VOLT: 0.8477 LIMIT: 0.9000 Base Case Value: 0.9820
C MARYST (45840) LOW V VOLT: 0.8479 LIMIT: 0.9000 Base Case Value: 0.9810
SCOTT 2L (45824) LOW V VOLT: 0.8483 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2 (45842) LOW V VOLT: 0.8484 LIMIT: 0.9000 Base Case Value: 0.9867
CMARYST (45841) LOW V VOLT: 0.8485 LIMIT: 0.9000 Base Case Value: 0.9807
QUILCEDA (45632) LOW V VOLT: 0.8488 LIMIT: 0.9000 Base Case Value: 0.9816
PINSNO11 (49854) LOW V VOLT: 0.8491 LIMIT: 0.9000 Base Case Value: 0.9908
N MARYS (45729) LOW V VOLT: 0.8495 LIMIT: 0.9000 Base Case Value: 0.9809

THREE LK (45803) LOW V VOLT: 0.8526 LIMIT: 0.9000 Base Case Value: 0.9994
STIMSONS (45785) LOW V VOLT: 0.8531 LIMIT: 0.9000 Base Case Value: 0.9823
LK GDW (45699) LOW V VOLT: 0.8532 LIMIT: 0.9000 Base Case Value: 0.9808
SNOHM (45779) LOW V VOLT: 0.8535 LIMIT: 0.9000 Base Case Value: 0.9972
SMOKEYP (45775) LOW V VOLT: 0.8543 LIMIT: 0.9000 Base Case Value: 0.9827
FOBES (45651) LOW V VOLT: 0.8547 LIMIT: 0.9000 Base Case Value: 0.9950
SMOKEYPT (45777) LOW V VOLT: 0.8549 LIMIT: 0.9000 Base Case Value: 0.9833
SILLS C (45855) LOW V VOLT: 0.8570 LIMIT: 0.9000 Base Case Value: 0.9841
LK STEVE (45703) LOW V VOLT: 0.8575 LIMIT: 0.9000 Base Case Value: 0.9940
FRONTIER (45653) LOW V VOLT: 0.8581 LIMIT: 0.9000 Base Case Value: 0.9924
SNOHOMSH (40997) LOW V VOLT: 0.8591 LIMIT: 0.9000 Base Case Value: 1.0000
E MARY (45631) LOW V VOLT: 0.8622 LIMIT: 0.9000 Base Case Value: 0.9918
GRANFAL (45665) LOW V VOLT: 0.8636 LIMIT: 0.9000 Base Case Value: 0.9893
KELLOGMT (45695) LOW V VOLT: 0.8638 LIMIT: 0.9000 Base Case Value: 0.9920
PORTAGE (45630) LOW V VOLT: 0.8643 LIMIT: 0.9000 Base Case Value: 0.9882
HARTFORD (45681) LOW V VOLT: 0.8665 LIMIT: 0.9000 Base Case Value: 0.9919
GETCHL T (45846) LOW V VOLT: 0.8678 LIMIT: 0.9000 Base Case Value: 0.9930
OLYMPIC (45743) LOW V VOLT: 0.8687 LIMIT: 0.9000 Base Case Value: 0.9962
E ARLG (45629) LOW V VOLT: 0.8703 LIMIT: 0.9000 Base Case Value: 0.9916
MURRAY (40765) LOW V VOLT: 0.8823 LIMIT: 0.9000 Base Case Value: 0.9998
BLYN (47556) LOW V VOLT: 0.8920 LIMIT: 0.9000 Base Case Value: 0.9590
OLYMPC C (47563) LOW V VOLT: 0.8921 LIMIT: 0.9000 Base Case Value: 0.9592
DUNGENES (47559) LOW V VOLT: 0.8924 LIMIT: 0.9000 Base Case Value: 0.9595
SUNLAND (47567) LOW V VOLT: 0.8929 LIMIT: 0.9000 Base Case Value: 0.9599
DUN JCT (47558) LOW V VOLT: 0.8929 LIMIT: 0.9000 Base Case Value: 0.9599
SEQUIM (47565) LOW V VOLT: 0.8931 LIMIT: 0.9000 Base Case Value: 0.9600
SUN TAP (47566) LOW V VOLT: 0.8938 LIMIT: 0.9000 Base Case Value: 0.9607
EVERGRNC (47560) LOW V VOLT: 0.8942 LIMIT: 0.9000 Base Case Value: 0.9611
PRAIRIEC (47564) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9636
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH BUS (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOHOMSH (40997) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOHOMSH (40997) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 99)
BRANCH: 10
BUS VOLTAGE: 89
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
JACKSN1 (45687) TO JACKSN (45685) CKT 1 MVA: 95.9 LIMIT: 61.0 %: 157.2 Base Case Value: 41.0
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 668.0 LIMIT: 448.0 %: 149.1 Base Case Value: 191.3
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 317.0 LIMIT: 256.0 %: 123.8 Base Case Value: 91.3
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 627.5 LIMIT: 549.8 %: 114.1 Base Case Value: 277.8
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 268.1 LIMIT: 256.0 %: 104.7 Base Case Value: 180.5
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 263.3 LIMIT: 256.0 %: 102.8 Base Case Value: 63.0
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 246.9 LIMIT: 256.0 %: 96.4 Base Case Value: 65.8
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 243.1 LIMIT: 256.0 %: 95.0 Base Case Value: 65.7
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 240.5 LIMIT: 256.0 %: 93.9 Base Case Value: 64.8
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.6815 LIMIT: 0.9000 Base Case Value: 0.9891
FIFTYSEC (45645) LOW V VOLT: 0.6821 LIMIT: 0.9000 Base Case Value: 0.9882
S CAMANO (45853) LOW V VOLT: 0.6831 LIMIT: 0.9000 Base Case Value: 0.9493
WATRFRT (45861) LOW V VOLT: 0.6863 LIMIT: 0.9000 Base Case Value: 0.9863
EVERETT (45637) LOW V VOLT: 0.6864 LIMIT: 0.9000 Base Case Value: 0.9883
KIMCLK (45849) LOW V VOLT: 0.6877 LIMIT: 0.9000 Base Case Value: 0.9862
EVRETTT2 (45843) LOW V VOLT: 0.6881 LIMIT: 0.9000 Base Case Value: 0.9862
NAVY (45733) LOW V VOLT: 0.6890 LIMIT: 0.9000 Base Case Value: 0.9857
NORTON S (45737) LOW V VOLT: 0.6902 LIMIT: 0.9000 Base Case Value: 0.9853
CAMANO (45617) LOW V VOLT: 0.6908 LIMIT: 0.9000 Base Case Value: 0.9548
FOBES (45651) LOW V VOLT: 0.6932 LIMIT: 0.9000 Base Case Value: 0.9950
SCOTT 2L (45824) LOW V VOLT: 0.6967 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2 (45842) LOW V VOLT: 0.6969 LIMIT: 0.9000 Base Case Value: 0.9867
TENTH (45797) LOW V VOLT: 0.6978 LIMIT: 0.9000 Base Case Value: 0.9846

TENTHT (45799) LOW V VOLT: 0.6980 LIMIT: 0.9000 Base Case Value: 0.9848
N STAN (45731) LOW V VOLT: 0.6985 LIMIT: 0.9000 Base Case Value: 0.9602
DELTA SW (45627) LOW V VOLT: 0.6992 LIMIT: 0.9000 Base Case Value: 0.9840
TULALIP (45805) LOW V VOLT: 0.7082 LIMIT: 0.9000 Base Case Value: 0.9816
TULALIPT (45807) LOW V VOLT: 0.7088 LIMIT: 0.9000 Base Case Value: 0.9820
C MARY (45611) LOW V VOLT: 0.7124 LIMIT: 0.9000 Base Case Value: 0.9804
C MARYST (45840) LOW V VOLT: 0.7131 LIMIT: 0.9000 Base Case Value: 0.9810
QUILCEDA (45632) LOW V VOLT: 0.7148 LIMIT: 0.9000 Base Case Value: 0.9816
KELLOGM (45693) LOW V VOLT: 0.7154 LIMIT: 0.9000 Base Case Value: 0.9800
CMARYST (45841) LOW V VOLT: 0.7164 LIMIT: 0.9000 Base Case Value: 0.9807
N MARYS (45729) LOW V VOLT: 0.7200 LIMIT: 0.9000 Base Case Value: 0.9809
STIMSONS (45785) LOW V VOLT: 0.7309 LIMIT: 0.9000 Base Case Value: 0.9823
SMOKEYP (45775) LOW V VOLT: 0.7341 LIMIT: 0.9000 Base Case Value: 0.9827
SMOKEYPT (45777) LOW V VOLT: 0.7348 LIMIT: 0.9000 Base Case Value: 0.9833
LK GDW (45699) LOW V VOLT: 0.7372 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.7416 LIMIT: 0.9000 Base Case Value: 0.9841
PORTAGE (45630) LOW V VOLT: 0.7606 LIMIT: 0.9000 Base Case Value: 0.9882
LK STEVE (45703) LOW V VOLT: 0.7676 LIMIT: 0.9000 Base Case Value: 0.9940
FRONTIER (45653) LOW V VOLT: 0.7690 LIMIT: 0.9000 Base Case Value: 0.9924
E MARY (45631) LOW V VOLT: 0.7749 LIMIT: 0.9000 Base Case Value: 0.9918
E ARLG (45629) LOW V VOLT: 0.7755 LIMIT: 0.9000 Base Case Value: 0.9916
KELLOGMT (45695) LOW V VOLT: 0.7771 LIMIT: 0.9000 Base Case Value: 0.9920
GRANFAL (45665) LOW V VOLT: 0.7774 LIMIT: 0.9000 Base Case Value: 0.9893
HARTFORD (45681) LOW V VOLT: 0.7807 LIMIT: 0.9000 Base Case Value: 0.9919
GETCHL T (45846) LOW V VOLT: 0.7821 LIMIT: 0.9000 Base Case Value: 0.9930
MURRAY (40765) LOW V VOLT: 0.8008 LIMIT: 0.9000 Base Case Value: 0.9998
GLENWD (45659) LOW V VOLT: 0.8417 LIMIT: 0.9000 Base Case Value: 0.9837
TWNTETH (45811) LOW V VOLT: 0.8433 LIMIT: 0.9000 Base Case Value: 0.9825
GLENWD T (45847) LOW V VOLT: 0.8434 LIMIT: 0.9000 Base Case Value: 0.9851
BOEING (45607) LOW V VOLT: 0.8439 LIMIT: 0.9000 Base Case Value: 0.9830
OLIVIA P (45739) LOW V VOLT: 0.8507 LIMIT: 0.9000 Base Case Value: 0.9858
S-SCTAP (45854) LOW V VOLT: 0.8508 LIMIT: 0.9000 Base Case Value: 0.9876
OLIVIA T (45741) LOW V VOLT: 0.8508 LIMIT: 0.9000 Base Case Value: 0.9859
PAINE F (45745) LOW V VOLT: 0.8514 LIMIT: 0.9000 Base Case Value: 0.9827
MUKLTEO (45851) LOW V VOLT: 0.8523 LIMIT: 0.9000 Base Case Value: 0.9815
MUKTAP (45721) LOW V VOLT: 0.8526 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.8539 LIMIT: 0.9000 Base Case Value: 0.9819
GIBSON (45657) LOW V VOLT: 0.8564 LIMIT: 0.9000 Base Case Value: 0.9820
PICNIC (45751) LOW V VOLT: 0.8566 LIMIT: 0.9000 Base Case Value: 0.9829
CASINO (45623) LOW V VOLT: 0.8669 LIMIT: 0.9000 Base Case Value: 0.9876
LK SEREN (45701) LOW V VOLT: 0.8676 LIMIT: 0.9000 Base Case Value: 0.9815
SILVE LK (45857) LOW V VOLT: 0.8699 LIMIT: 0.9000 Base Case Value: 0.9864
MARINER (45622) LOW V VOLT: 0.8701 LIMIT: 0.9000 Base Case Value: 0.9854
BEVERLY (45608) LOW V VOLT: 0.8705 LIMIT: 0.9000 Base Case Value: 0.9895
GLESNO11 (49900) LOW V VOLT: 0.8705 LIMIT: 0.9000 Base Case Value: 0.9895
MEADWD (45713) LOW V VOLT: 0.8707 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.8713 LIMIT: 0.9000 Base Case Value: 0.9817
MARTHA L (45711) LOW V VOLT: 0.8715 LIMIT: 0.9000 Base Case Value: 0.9832
SWMPCKT2 (45860) LOW V VOLT: 0.8723 LIMIT: 0.9000 Base Case Value: 0.9830
FLORLHT1 (45845) LOW V VOLT: 0.8731 LIMIT: 0.9000 Base Case Value: 0.9827
FLORAL H (45649) LOW V VOLT: 0.8731 LIMIT: 0.9000 Base Case Value: 0.9827
KEELERL (45710) LOW V VOLT: 0.8732 LIMIT: 0.9000 Base Case Value: 0.9819
KEELER S (45708) LOW V VOLT: 0.8732 LIMIT: 0.9000 Base Case Value: 0.9819
NCRK TAP (45852) LOW V VOLT: 0.8774 LIMIT: 0.9000 Base Case Value: 0.9830
LYNNWD (45705) LOW V VOLT: 0.8781 LIMIT: 0.9000 Base Case Value: 0.9701
PERRINV (45747) LOW V VOLT: 0.8794 LIMIT: 0.9000 Base Case Value: 0.9713
PERRINVT (45749) LOW V VOLT: 0.8794 LIMIT: 0.9000 Base Case Value: 0.9714
LYNNWDT (45707) LOW V VOLT: 0.8797 LIMIT: 0.9000 Base Case Value: 0.9826
HILTON (45683) LOW V VOLT: 0.8817 LIMIT: 0.9000 Base Case Value: 0.9908
N CRK (45727) LOW V VOLT: 0.8817 LIMIT: 0.9000 Base Case Value: 0.9832
MAPLEW (45709) LOW V VOLT: 0.8826 LIMIT: 0.9000 Base Case Value: 0.9743
MURPHYS (45723) LOW V VOLT: 0.8864 LIMIT: 0.9000 Base Case Value: 0.9843
EDMONDT2 (45633) LOW V VOLT: 0.8880 LIMIT: 0.9000 Base Case Value: 0.9791
FIVE COR (45647) LOW V VOLT: 0.8888 LIMIT: 0.9000 Base Case Value: 0.9798
MURRAY (40767) LOW V VOLT: 0.8907 LIMIT: 0.9000 Base Case Value: 1.0244
WESTGATE (45819) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9816
RICHMND (45759) LOW V VOLT: 0.8911 LIMIT: 0.9000 Base Case Value: 0.9819
RICHMNDT (45761) LOW V VOLT: 0.8917 LIMIT: 0.9000 Base Case Value: 0.9824
BALLING (45603) LOW V VOLT: 0.8918 LIMIT: 0.9000 Base Case Value: 0.9825
HALLS LK (45848) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9841

ESPERENC (45635) LOW V VOLT: 0.8937 LIMIT: 0.9000 Base Case Value: 0.9841
CASCAD (45621) LOW V VOLT: 0.8942 LIMIT: 0.9000 Base Case Value: 0.9869
ALDERW (45601) LOW V VOLT: 0.8965 LIMIT: 0.9000 Base Case Value: 0.9846
N ALDER (45725) LOW V VOLT: 0.8986 LIMIT: 0.9000 Base Case Value: 0.9853
SWMPCKT1 (45859) LOW V VOLT: 0.8996 LIMIT: 0.9000 Base Case Value: 0.9857
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK SOUTH BUS G
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 172.19 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.07 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 137.04 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 360.9 LIMIT: 256.0 %: 141.0 Base Case Value: 180.5
BRIER (45609) TO THRASHER (45801) CKT 1 MVA: 316.6 LIMIT: 256.0 %: 123.7 Base Case Value: 139.4
BRIER (45609) TO HALLS LK (45848) CKT 1 MVA: 292.4 LIMIT: 256.0 %: 114.2 Base Case Value: 119.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST CENT BUS G BS
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 49.09 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 95.61 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 83.86 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 107.23 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 93.26 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 268.32 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 271.03 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 112.20 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.03 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 129)
BRANCH: 7

BUS VOLTAGE: 122
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 356.5 LIMIT: 256.0 %: 139.2 Base Case Value: 91.3
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 555.0 LIMIT: 448.0 %: 123.9 Base Case Value: 191.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 455.5 LIMIT: 393.0 %: 115.9 Base Case Value: 259.2
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 289.6 LIMIT: 256.0 %: 113.1 Base Case Value: 63.0
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 251.9 LIMIT: 256.0 %: 98.4 Base Case Value: 180.5
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 516.2 LIMIT: 549.8 %: 93.9 Base Case Value: 277.8
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.6096 LIMIT: 0.9000 Base Case Value: 0.9891
FIFTYSEC (45645) LOW V VOLT: 0.6103 LIMIT: 0.9000 Base Case Value: 0.9882
WATRFRT (45861) LOW V VOLT: 0.6149 LIMIT: 0.9000 Base Case Value: 0.9863
EVERETT (45637) LOW V VOLT: 0.6154 LIMIT: 0.9000 Base Case Value: 0.9883
KIMCLK (45849) LOW V VOLT: 0.6163 LIMIT: 0.9000 Base Case Value: 0.9862
EVRETTT2 (45843) LOW V VOLT: 0.6173 LIMIT: 0.9000 Base Case Value: 0.9862
NAVY (45733) LOW V VOLT: 0.6189 LIMIT: 0.9000 Base Case Value: 0.9857
NORTON S (45737) LOW V VOLT: 0.6209 LIMIT: 0.9000 Base Case Value: 0.9853
FOBES (45651) LOW V VOLT: 0.6289 LIMIT: 0.9000 Base Case Value: 0.9950
S CAMANO (45853) LOW V VOLT: 0.6291 LIMIT: 0.9000 Base Case Value: 0.9493
SCOTT 2L (45824) LOW V VOLT: 0.6327 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2 (45842) LOW V VOLT: 0.6329 LIMIT: 0.9000 Base Case Value: 0.9867
TENTH (45797) LOW V VOLT: 0.6339 LIMIT: 0.9000 Base Case Value: 0.9846
TENTHT (45799) LOW V VOLT: 0.6341 LIMIT: 0.9000 Base Case Value: 0.9848
DELTA SW (45627) LOW V VOLT: 0.6354 LIMIT: 0.9000 Base Case Value: 0.9840
CAMANO (45617) LOW V VOLT: 0.6372 LIMIT: 0.9000 Base Case Value: 0.9548
N STAN (45731) LOW V VOLT: 0.6455 LIMIT: 0.9000 Base Case Value: 0.9602
TULALIP (45805) LOW V VOLT: 0.6489 LIMIT: 0.9000 Base Case Value: 0.9816
TULALIPT (45807) LOW V VOLT: 0.6495 LIMIT: 0.9000 Base Case Value: 0.9820
C MARY (45611) LOW V VOLT: 0.6552 LIMIT: 0.9000 Base Case Value: 0.9804
C MARYST (45840) LOW V VOLT: 0.6560 LIMIT: 0.9000 Base Case Value: 0.9810
QUILCEDA (45632) LOW V VOLT: 0.6580 LIMIT: 0.9000 Base Case Value: 0.9816
KELLOGM (45693) LOW V VOLT: 0.6597 LIMIT: 0.9000 Base Case Value: 0.9800
CMARYST (45841) LOW V VOLT: 0.6607 LIMIT: 0.9000 Base Case Value: 0.9807
N MARYS (45729) LOW V VOLT: 0.6657 LIMIT: 0.9000 Base Case Value: 0.9809
STIMSONS (45785) LOW V VOLT: 0.6805 LIMIT: 0.9000 Base Case Value: 0.9823
SMOKEYP (45775) LOW V VOLT: 0.6848 LIMIT: 0.9000 Base Case Value: 0.9827
SMOKEYPT (45777) LOW V VOLT: 0.6856 LIMIT: 0.9000 Base Case Value: 0.9833
LK GDW (45699) LOW V VOLT: 0.6902 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.6949 LIMIT: 0.9000 Base Case Value: 0.9841
PORTAGE (45630) LOW V VOLT: 0.7197 LIMIT: 0.9000 Base Case Value: 0.9882
E ARLG (45629) LOW V VOLT: 0.7392 LIMIT: 0.9000 Base Case Value: 0.9916
SNOHM (45779) LOW V VOLT: 0.7489 LIMIT: 0.9000 Base Case Value: 0.9972
W MONROE (45813) LOW V VOLT: 0.7513 LIMIT: 0.9000 Base Case Value: 0.9933
WOODS CK (45823) LOW V VOLT: 0.7537 LIMIT: 0.9000 Base Case Value: 0.9932
SULTAN (45789) LOW V VOLT: 0.7674 LIMIT: 0.9000 Base Case Value: 0.9963
GOLD BAR (45663) LOW V VOLT: 0.7691 LIMIT: 0.9000 Base Case Value: 0.9955
MURRAY (40765) LOW V VOLT: 0.7710 LIMIT: 0.9000 Base Case Value: 0.9998
SULT GBT (45787) LOW V VOLT: 0.7720 LIMIT: 0.9000 Base Case Value: 0.9977
GRANFAL (45665) LOW V VOLT: 0.7787 LIMIT: 0.9000 Base Case Value: 0.9893
HARTFORD (45681) LOW V VOLT: 0.7820 LIMIT: 0.9000 Base Case Value: 0.9919
GETCHL T (45846) LOW V VOLT: 0.7833 LIMIT: 0.9000 Base Case Value: 0.9930
JACKSN (45685) LOW V VOLT: 0.7841 LIMIT: 0.9000 Base Case Value: 1.0018
LK CHAP (45697) LOW V VOLT: 0.7862 LIMIT: 0.9000 Base Case Value: 1.0017
KELLOGMT (45695) LOW V VOLT: 0.7922 LIMIT: 0.9000 Base Case Value: 0.9920
E MARY (45631) LOW V VOLT: 0.7962 LIMIT: 0.9000 Base Case Value: 0.9918
GLENWD (45659) LOW V VOLT: 0.8105 LIMIT: 0.9000 Base Case Value: 0.9837
TWNTETH (45811) LOW V VOLT: 0.8122 LIMIT: 0.9000 Base Case Value: 0.9825
GLENWD T (45847) LOW V VOLT: 0.8123 LIMIT: 0.9000 Base Case Value: 0.9851
BOEING (45607) LOW V VOLT: 0.8129 LIMIT: 0.9000 Base Case Value: 0.9830
FRONTIER (45653) LOW V VOLT: 0.8138 LIMIT: 0.9000 Base Case Value: 0.9924
OLIVIA P (45739) LOW V VOLT: 0.8199 LIMIT: 0.9000 Base Case Value: 0.9858
S-SCTAP (45854) LOW V VOLT: 0.8200 LIMIT: 0.9000 Base Case Value: 0.9876
OLIVIA T (45741) LOW V VOLT: 0.8200 LIMIT: 0.9000 Base Case Value: 0.9859
PAINE F (45745) LOW V VOLT: 0.8206 LIMIT: 0.9000 Base Case Value: 0.9827
MUKLTEO (45851) LOW V VOLT: 0.8227 LIMIT: 0.9000 Base Case Value: 0.9815

MUKTAP (45721) LOW V VOLT: 0.8230 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.8246 LIMIT: 0.9000 Base Case Value: 0.9819
THREE LK (45803) LOW V VOLT: 0.8247 LIMIT: 0.9000 Base Case Value: 0.9994
LK STEVE (45703) LOW V VOLT: 0.8247 LIMIT: 0.9000 Base Case Value: 0.9940
GIBSON (45657) LOW V VOLT: 0.8255 LIMIT: 0.9000 Base Case Value: 0.9820
PICNIC (45751) LOW V VOLT: 0.8280 LIMIT: 0.9000 Base Case Value: 0.9829
LK SEREN (45701) LOW V VOLT: 0.8362 LIMIT: 0.9000 Base Case Value: 0.9815
MEADWD (45713) LOW V VOLT: 0.8392 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.8398 LIMIT: 0.9000 Base Case Value: 0.9817
CASINO (45623) LOW V VOLT: 0.8408 LIMIT: 0.9000 Base Case Value: 0.9876
KEELERL (45710) LOW V VOLT: 0.8416 LIMIT: 0.9000 Base Case Value: 0.9819
KEELER S (45708) LOW V VOLT: 0.8416 LIMIT: 0.9000 Base Case Value: 0.9819
SILVE LK (45857) LOW V VOLT: 0.8445 LIMIT: 0.9000 Base Case Value: 0.9864
MARINER (45622) LOW V VOLT: 0.8446 LIMIT: 0.9000 Base Case Value: 0.9854
LYNNWD (45705) LOW V VOLT: 0.8449 LIMIT: 0.9000 Base Case Value: 0.9701
BEVERLY (45608) LOW V VOLT: 0.8453 LIMIT: 0.9000 Base Case Value: 0.9895
GLESNO11 (49900) LOW V VOLT: 0.8453 LIMIT: 0.9000 Base Case Value: 0.9895
MARTHA L (45711) LOW V VOLT: 0.8457 LIMIT: 0.9000 Base Case Value: 0.9832
PERRINV (45747) LOW V VOLT: 0.8462 LIMIT: 0.9000 Base Case Value: 0.9713
SWMPCKT2 (45860) LOW V VOLT: 0.8463 LIMIT: 0.9000 Base Case Value: 0.9830
PERRINVT (45749) LOW V VOLT: 0.8463 LIMIT: 0.9000 Base Case Value: 0.9714
FLORAL H (45649) LOW V VOLT: 0.8469 LIMIT: 0.9000 Base Case Value: 0.9827
FLORLHT1 (45845) LOW V VOLT: 0.8470 LIMIT: 0.9000 Base Case Value: 0.9827
LYNNWDT (45707) LOW V VOLT: 0.8479 LIMIT: 0.9000 Base Case Value: 0.9826
MAPLEW (45709) LOW V VOLT: 0.8496 LIMIT: 0.9000 Base Case Value: 0.9743
NCRK TAP (45852) LOW V VOLT: 0.8508 LIMIT: 0.9000 Base Case Value: 0.9830
SNOHOMSH (40997) LOW V VOLT: 0.8521 LIMIT: 0.9000 Base Case Value: 1.0000
N CRK (45727) LOW V VOLT: 0.8544 LIMIT: 0.9000 Base Case Value: 0.9832
EDMONDT2 (45633) LOW V VOLT: 0.8552 LIMIT: 0.9000 Base Case Value: 0.9791
HILTON (45683) LOW V VOLT: 0.8557 LIMIT: 0.9000 Base Case Value: 0.9908
FIVE COR (45647) LOW V VOLT: 0.8560 LIMIT: 0.9000 Base Case Value: 0.9798
WESTGATE (45819) LOW V VOLT: 0.8581 LIMIT: 0.9000 Base Case Value: 0.9816
RICHMND (45759) LOW V VOLT: 0.8585 LIMIT: 0.9000 Base Case Value: 0.9819
MURPHYS (45723) LOW V VOLT: 0.8585 LIMIT: 0.9000 Base Case Value: 0.9843
RICHMNDT (45761) LOW V VOLT: 0.8591 LIMIT: 0.9000 Base Case Value: 0.9824
BALLING (45603) LOW V VOLT: 0.8592 LIMIT: 0.9000 Base Case Value: 0.9825
MURRAY (40767) LOW V VOLT: 0.8607 LIMIT: 0.9000 Base Case Value: 1.0244
HALLS LK (45848) LOW V VOLT: 0.8611 LIMIT: 0.9000 Base Case Value: 0.9841
ESPERENC (45635) LOW V VOLT: 0.8612 LIMIT: 0.9000 Base Case Value: 0.9841
ALDERW (45601) LOW V VOLT: 0.8638 LIMIT: 0.9000 Base Case Value: 0.9846
CASCAD (45621) LOW V VOLT: 0.8655 LIMIT: 0.9000 Base Case Value: 0.9869
N ALDER (45725) LOW V VOLT: 0.8659 LIMIT: 0.9000 Base Case Value: 0.9853
SWMPCKT1 (45859) LOW V VOLT: 0.8668 LIMIT: 0.9000 Base Case Value: 0.9857
FLORLH T (45844) LOW V VOLT: 0.8686 LIMIT: 0.9000 Base Case Value: 0.9865
MONTLAKE (45717) LOW V VOLT: 0.8688 LIMIT: 0.9000 Base Case Value: 0.9874
TAMBARK2 (45790) LOW V VOLT: 0.8756 LIMIT: 0.9000 Base Case Value: 0.9895
BRIER (45609) LOW V VOLT: 0.8778 LIMIT: 0.9000 Base Case Value: 0.9913
OLYMPIC (45743) LOW V VOLT: 0.8792 LIMIT: 0.9000 Base Case Value: 0.9962
BLYN (47556) LOW V VOLT: 0.8821 LIMIT: 0.9000 Base Case Value: 0.9590
OLYMPC C (47563) LOW V VOLT: 0.8822 LIMIT: 0.9000 Base Case Value: 0.9592
DUNGENES (47559) LOW V VOLT: 0.8825 LIMIT: 0.9000 Base Case Value: 0.9595
SUNLAND (47567) LOW V VOLT: 0.8830 LIMIT: 0.9000 Base Case Value: 0.9599
DUN JCT (47558) LOW V VOLT: 0.8830 LIMIT: 0.9000 Base Case Value: 0.9599
SEQUIM (47565) LOW V VOLT: 0.8832 LIMIT: 0.9000 Base Case Value: 0.9600
CLEARV (45625) LOW V VOLT: 0.8837 LIMIT: 0.9000 Base Case Value: 0.9928
SUN TAP (47566) LOW V VOLT: 0.8839 LIMIT: 0.9000 Base Case Value: 0.9607
EVERGRNC (47560) LOW V VOLT: 0.8843 LIMIT: 0.9000 Base Case Value: 0.9611
CAN PARK (45619) LOW V VOLT: 0.8853 LIMIT: 0.9000 Base Case Value: 0.9948
PRAIRIEC (47564) LOW V VOLT: 0.8870 LIMIT: 0.9000 Base Case Value: 0.9636
TURNERS (45809) LOW V VOLT: 0.8897 LIMIT: 0.9000 Base Case Value: 0.9958
BRITEH2O (45758) LOW V VOLT: 0.8915 LIMIT: 0.9000 Base Case Value: 0.9968
THRASHER (45801) LOW V VOLT: 0.8915 LIMIT: 0.9000 Base Case Value: 0.9976
HAPPY V (47561) LOW V VOLT: 0.8921 LIMIT: 0.9000 Base Case Value: 0.9682
PK RIDGE (45755) LOW V VOLT: 0.8926 LIMIT: 0.9000 Base Case Value: 0.9974
PK RIDGT (45757) LOW V VOLT: 0.8928 LIMIT: 0.9000 Base Case Value: 0.9975
TAMBARKT (45795) LOW V VOLT: 0.8971 LIMIT: 0.9000 Base Case Value: 1.0007

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY Z-SNOK SOUTH BUS

ELEMENTS:

OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 172.19 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.07 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 137.04 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 352.6 LIMIT: 256.0 %: 137.7 Base Case Value: 180.5
BRIER (45609) TO THRASHER (45801) CKT 1 MVA: 308.6 LIMIT: 256.0 %: 120.6 Base Case Value: 139.4
BRIER (45609) TO HALLS LK (45848) CKT 1 MVA: 284.8 LIMIT: 256.0 %: 111.3 Base Case Value: 119.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH BUS G (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOHOMSH (40997) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOHOMSH (40997) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 102)
BRANCH: 8
BUS VOLTAGE: 94
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 757.1 LIMIT: 448.0 %: 169.0 Base Case Value: 191.3
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 344.6 LIMIT: 256.0 %: 134.6 Base Case Value: 91.3
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 695.2 LIMIT: 549.8 %: 126.4 Base Case Value: 277.8
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 272.2 LIMIT: 256.0 %: 106.3 Base Case Value: 63.0
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 268.5 LIMIT: 256.0 %: 104.9 Base Case Value: 180.5
HALLS LK (45848) TO LYNNWDT (45707) CKT 1 MVA: 247.0 LIMIT: 256.0 %: 96.5 Base Case Value: 65.8
KEELER S (45708) TO LYNNWDT (45707) CKT 1 MVA: 243.1 LIMIT: 256.0 %: 94.9 Base Case Value: 65.7
KEELER S (45708) TO MEADWDT (45715) CKT 1 MVA: 240.4 LIMIT: 256.0 %: 93.9 Base Case Value: 64.8
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.5306 LIMIT: 0.9000 Base Case Value: 0.9891
FIFTYSEC (45645) LOW V VOLT: 0.5312 LIMIT: 0.9000 Base Case Value: 0.9882
WATRFRT (45861) LOW V VOLT: 0.5361 LIMIT: 0.9000 Base Case Value: 0.9863
EVERETT (45637) LOW V VOLT: 0.5366 LIMIT: 0.9000 Base Case Value: 0.9883
KIMCLK (45849) LOW V VOLT: 0.5375 LIMIT: 0.9000 Base Case Value: 0.9862
EVRETTT2 (45843) LOW V VOLT: 0.5385 LIMIT: 0.9000 Base Case Value: 0.9862
NAVY (45733) LOW V VOLT: 0.5403 LIMIT: 0.9000 Base Case Value: 0.9857
NORTON S (45737) LOW V VOLT: 0.5424 LIMIT: 0.9000 Base Case Value: 0.9853
FOBES (45651) LOW V VOLT: 0.5510 LIMIT: 0.9000 Base Case Value: 0.9950
S CAMANO (45853) LOW V VOLT: 0.5519 LIMIT: 0.9000 Base Case Value: 0.9493
SCOTT 2L (45824) LOW V VOLT: 0.5551 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2 (45842) LOW V VOLT: 0.5553 LIMIT: 0.9000 Base Case Value: 0.9867
TENTH (45797) LOW V VOLT: 0.5563 LIMIT: 0.9000 Base Case Value: 0.9846
TENTHT (45799) LOW V VOLT: 0.5565 LIMIT: 0.9000 Base Case Value: 0.9848
DELTA SW (45627) LOW V VOLT: 0.5579 LIMIT: 0.9000 Base Case Value: 0.9840
CAMANO (45617) LOW V VOLT: 0.5605 LIMIT: 0.9000 Base Case Value: 0.9548
N STAN (45731) LOW V VOLT: 0.5693 LIMIT: 0.9000 Base Case Value: 0.9602
TULALIP (45805) LOW V VOLT: 0.5725 LIMIT: 0.9000 Base Case Value: 0.9816

TULALIPT (45807) LOW V VOLT: 0.5731 LIMIT: 0.9000 Base Case Value: 0.9820
C MARY (45611) LOW V VOLT: 0.5794 LIMIT: 0.9000 Base Case Value: 0.9804
C MARYST (45840) LOW V VOLT: 0.5802 LIMIT: 0.9000 Base Case Value: 0.9810
QUILCEDA (45632) LOW V VOLT: 0.5824 LIMIT: 0.9000 Base Case Value: 0.9816
KELLOGM (45693) LOW V VOLT: 0.5842 LIMIT: 0.9000 Base Case Value: 0.9800
CMARYST (45841) LOW V VOLT: 0.5853 LIMIT: 0.9000 Base Case Value: 0.9807
N MARYS (45729) LOW V VOLT: 0.5907 LIMIT: 0.9000 Base Case Value: 0.9809
STIMSONS (45785) LOW V VOLT: 0.6069 LIMIT: 0.9000 Base Case Value: 0.9823
SMOKEYP (45775) LOW V VOLT: 0.6117 LIMIT: 0.9000 Base Case Value: 0.9827
SMOKEYPT (45777) LOW V VOLT: 0.6125 LIMIT: 0.9000 Base Case Value: 0.9833
LK GDW (45699) LOW V VOLT: 0.6176 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.6228 LIMIT: 0.9000 Base Case Value: 0.9841
PORTAGE (45630) LOW V VOLT: 0.6501 LIMIT: 0.9000 Base Case Value: 0.9882
LK STEVE (45703) LOW V VOLT: 0.6678 LIMIT: 0.9000 Base Case Value: 0.9940
FRONTIER (45653) LOW V VOLT: 0.6694 LIMIT: 0.9000 Base Case Value: 0.9924
E ARLG (45629) LOW V VOLT: 0.6718 LIMIT: 0.9000 Base Case Value: 0.9916
E MARY (45631) LOW V VOLT: 0.6762 LIMIT: 0.9000 Base Case Value: 0.9918
KELLOGMT (45695) LOW V VOLT: 0.6788 LIMIT: 0.9000 Base Case Value: 0.9920
GRANFAL (45665) LOW V VOLT: 0.6793 LIMIT: 0.9000 Base Case Value: 0.9893
HARTFORD (45681) LOW V VOLT: 0.6831 LIMIT: 0.9000 Base Case Value: 0.9919
GETCHL T (45846) LOW V VOLT: 0.6847 LIMIT: 0.9000 Base Case Value: 0.9930
MURRAY (40765) LOW V VOLT: 0.7071 LIMIT: 0.9000 Base Case Value: 0.9998
GLENWD (45659) LOW V VOLT: 0.8281 LIMIT: 0.9000 Base Case Value: 0.9837
TWNTETH (45811) LOW V VOLT: 0.8298 LIMIT: 0.9000 Base Case Value: 0.9825
GLENWD T (45847) LOW V VOLT: 0.8299 LIMIT: 0.9000 Base Case Value: 0.9851
BOEING (45607) LOW V VOLT: 0.8304 LIMIT: 0.9000 Base Case Value: 0.9830
MURRAY (40767) LOW V VOLT: 0.8371 LIMIT: 0.9000 Base Case Value: 1.0244
OLIVIA P (45739) LOW V VOLT: 0.8373 LIMIT: 0.9000 Base Case Value: 0.9858
OLIVIA T (45741) LOW V VOLT: 0.8374 LIMIT: 0.9000 Base Case Value: 0.9859
S-SCTAP (45854) LOW V VOLT: 0.8374 LIMIT: 0.9000 Base Case Value: 0.9876
PAINE F (45745) LOW V VOLT: 0.8380 LIMIT: 0.9000 Base Case Value: 0.9827
MUKLTEO (45851) LOW V VOLT: 0.8389 LIMIT: 0.9000 Base Case Value: 0.9815
MUKTAP (45721) LOW V VOLT: 0.8393 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.8406 LIMIT: 0.9000 Base Case Value: 0.9819
GIBSON (45657) LOW V VOLT: 0.8432 LIMIT: 0.9000 Base Case Value: 0.9820
PICNIC (45751) LOW V VOLT: 0.8433 LIMIT: 0.9000 Base Case Value: 0.9829
CASINO (45623) LOW V VOLT: 0.8538 LIMIT: 0.9000 Base Case Value: 0.9876
LK SEREN (45701) LOW V VOLT: 0.8545 LIMIT: 0.9000 Base Case Value: 0.9815
SILVE LK (45857) LOW V VOLT: 0.8569 LIMIT: 0.9000 Base Case Value: 0.9864
MARINER (45622) LOW V VOLT: 0.8571 LIMIT: 0.9000 Base Case Value: 0.9854
GLESNO11 (49900) LOW V VOLT: 0.8575 LIMIT: 0.9000 Base Case Value: 0.9895
BEVERLY (45608) LOW V VOLT: 0.8575 LIMIT: 0.9000 Base Case Value: 0.9895
MEADWD (45713) LOW V VOLT: 0.8577 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.8583 LIMIT: 0.9000 Base Case Value: 0.9817
MARTHA L (45711) LOW V VOLT: 0.8586 LIMIT: 0.9000 Base Case Value: 0.9832
SWMPCKT2 (45860) LOW V VOLT: 0.8593 LIMIT: 0.9000 Base Case Value: 0.9830
FLORAL H (45649) LOW V VOLT: 0.8602 LIMIT: 0.9000 Base Case Value: 0.9827
FLORLHT1 (45845) LOW V VOLT: 0.8602 LIMIT: 0.9000 Base Case Value: 0.9827
KEELERL (45710) LOW V VOLT: 0.8602 LIMIT: 0.9000 Base Case Value: 0.9819
KEELER S (45708) LOW V VOLT: 0.8603 LIMIT: 0.9000 Base Case Value: 0.9819
NCRK TAP (45852) LOW V VOLT: 0.8646 LIMIT: 0.9000 Base Case Value: 0.9830
LYNNWD (45705) LOW V VOLT: 0.8653 LIMIT: 0.9000 Base Case Value: 0.9701
PERRINV (45747) LOW V VOLT: 0.8666 LIMIT: 0.9000 Base Case Value: 0.9713
PERRINVT (45749) LOW V VOLT: 0.8667 LIMIT: 0.9000 Base Case Value: 0.9714
LYNNWDT (45707) LOW V VOLT: 0.8669 LIMIT: 0.9000 Base Case Value: 0.9826
N CRK (45727) LOW V VOLT: 0.8690 LIMIT: 0.9000 Base Case Value: 0.9832
HILTON (45683) LOW V VOLT: 0.8695 LIMIT: 0.9000 Base Case Value: 0.9908
MAPLEW (45709) LOW V VOLT: 0.8699 LIMIT: 0.9000 Base Case Value: 0.9743
MURPHYS (45723) LOW V VOLT: 0.8737 LIMIT: 0.9000 Base Case Value: 0.9843
EDMONDT2 (45633) LOW V VOLT: 0.8753 LIMIT: 0.9000 Base Case Value: 0.9791
FIVE COR (45647) LOW V VOLT: 0.8762 LIMIT: 0.9000 Base Case Value: 0.9798
WESTGATE (45819) LOW V VOLT: 0.8782 LIMIT: 0.9000 Base Case Value: 0.9816
RICHMND (45759) LOW V VOLT: 0.8786 LIMIT: 0.9000 Base Case Value: 0.9819
RICHMNDT (45761) LOW V VOLT: 0.8791 LIMIT: 0.9000 Base Case Value: 0.9824
BALLING (45603) LOW V VOLT: 0.8792 LIMIT: 0.9000 Base Case Value: 0.9825
HALLS LK (45848) LOW V VOLT: 0.8811 LIMIT: 0.9000 Base Case Value: 0.9841
ESPERENC (45635) LOW V VOLT: 0.8812 LIMIT: 0.9000 Base Case Value: 0.9841
CASCAD (45621) LOW V VOLT: 0.8817 LIMIT: 0.9000 Base Case Value: 0.9869
ALDERW (45601) LOW V VOLT: 0.8841 LIMIT: 0.9000 Base Case Value: 0.9846
N ALDER (45725) LOW V VOLT: 0.8862 LIMIT: 0.9000 Base Case Value: 0.9853

SWMPCKT1 (45859) LOW V VOLT: 0.8872 LIMIT: 0.9000 Base Case Value: 0.9857
MONTLAKE (45717) LOW V VOLT: 0.8891 LIMIT: 0.9000 Base Case Value: 0.9874
FLORLH T (45844) LOW V VOLT: 0.8891 LIMIT: 0.9000 Base Case Value: 0.9865
TAMBARK2 (45790) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9895
OLYMPIC (45743) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9962
BRIER (45609) LOW V VOLT: 0.8985 LIMIT: 0.9000 Base Case Value: 0.9913
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST CENT BUS BS
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 49.09 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 95.61 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 83.86 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 107.23 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 93.26 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 268.32 MVA
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 271.03 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 112.20 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.03 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 72)
BRANCH: 6
BUS VOLTAGE: 66
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 307.1 LIMIT: 256.0 %: 120.0 Base Case Value: 91.3
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 466.2 LIMIT: 448.0 %: 104.1 Base Case Value: 191.3
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 260.5 LIMIT: 256.0 %: 101.8 Base Case Value: 63.0
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 378.6 LIMIT: 393.0 %: 96.3 Base Case Value: 259.2
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 245.5 LIMIT: 256.0 %: 95.9 Base Case Value: 180.5
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.7798 LIMIT: 0.9000 Base Case Value: 0.9891
FIFTYSEC (45645) LOW V VOLT: 0.7803 LIMIT: 0.9000 Base Case Value: 0.9882
S CAMANO (45853) LOW V VOLT: 0.7808 LIMIT: 0.9000 Base Case Value: 0.9493
WATRFRT (45861) LOW V VOLT: 0.7840 LIMIT: 0.9000 Base Case Value: 0.9863
EVERETT (45637) LOW V VOLT: 0.7840 LIMIT: 0.9000 Base Case Value: 0.9883
KIMCLK (45849) LOW V VOLT: 0.7851 LIMIT: 0.9000 Base Case Value: 0.9862
EVRETTT2 (45843) LOW V VOLT: 0.7855 LIMIT: 0.9000 Base Case Value: 0.9862
NAVY (45733) LOW V VOLT: 0.7863 LIMIT: 0.9000 Base Case Value: 0.9857
NORTON S (45737) LOW V VOLT: 0.7873 LIMIT: 0.9000 Base Case Value: 0.9853
CAMANO (45617) LOW V VOLT: 0.7875 LIMIT: 0.9000 Base Case Value: 0.9548
FOBES (45651) LOW V VOLT: 0.7898 LIMIT: 0.9000 Base Case Value: 0.9950
SCOTT 2L (45824) LOW V VOLT: 0.7929 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2 (45842) LOW V VOLT: 0.7931 LIMIT: 0.9000 Base Case Value: 0.9867
TENTH (45797) LOW V VOLT: 0.7938 LIMIT: 0.9000 Base Case Value: 0.9846
TENTHT (45799) LOW V VOLT: 0.7940 LIMIT: 0.9000 Base Case Value: 0.9848
N STAN (45731) LOW V VOLT: 0.7942 LIMIT: 0.9000 Base Case Value: 0.9602
DELTA SW (45627) LOW V VOLT: 0.7951 LIMIT: 0.9000 Base Case Value: 0.9840
TULALIP (45805) LOW V VOLT: 0.8027 LIMIT: 0.9000 Base Case Value: 0.9816
TULALIPT (45807) LOW V VOLT: 0.8032 LIMIT: 0.9000 Base Case Value: 0.9820
C MARY (45611) LOW V VOLT: 0.8062 LIMIT: 0.9000 Base Case Value: 0.9804
C MARYST (45840) LOW V VOLT: 0.8068 LIMIT: 0.9000 Base Case Value: 0.9810
QUILCEDA (45632) LOW V VOLT: 0.8083 LIMIT: 0.9000 Base Case Value: 0.9816
KELLOGM (45693) LOW V VOLT: 0.8088 LIMIT: 0.9000 Base Case Value: 0.9800

CMARYST (45841) LOW V VOLT: 0.8096 LIMIT: 0.9000 Base Case Value: 0.9807
N MARYS (45729) LOW V VOLT: 0.8127 LIMIT: 0.9000 Base Case Value: 0.9809
STIMSONS (45785) LOW V VOLT: 0.8219 LIMIT: 0.9000 Base Case Value: 0.9823
SMOKEYP (45775) LOW V VOLT: 0.8245 LIMIT: 0.9000 Base Case Value: 0.9827
SMOKEYPT (45777) LOW V VOLT: 0.8252 LIMIT: 0.9000 Base Case Value: 0.9833
LK GDW (45699) LOW V VOLT: 0.8268 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.8307 LIMIT: 0.9000 Base Case Value: 0.9841
PORTAGE (45630) LOW V VOLT: 0.8465 LIMIT: 0.9000 Base Case Value: 0.9882
E ARLG (45629) LOW V VOLT: 0.8587 LIMIT: 0.9000 Base Case Value: 0.9916
GLENWD (45659) LOW V VOLT: 0.8692 LIMIT: 0.9000 Base Case Value: 0.9837
TWNTETH (45811) LOW V VOLT: 0.8707 LIMIT: 0.9000 Base Case Value: 0.9825
GLENWD T (45847) LOW V VOLT: 0.8708 LIMIT: 0.9000 Base Case Value: 0.9851
SNOHM (45779) LOW V VOLT: 0.8712 LIMIT: 0.9000 Base Case Value: 0.9972
BOEING (45607) LOW V VOLT: 0.8714 LIMIT: 0.9000 Base Case Value: 0.9830
W MONROE (45813) LOW V VOLT: 0.8733 LIMIT: 0.9000 Base Case Value: 0.9933
WOODS CK (45823) LOW V VOLT: 0.8753 LIMIT: 0.9000 Base Case Value: 0.9932
GRANFAL (45665) LOW V VOLT: 0.8776 LIMIT: 0.9000 Base Case Value: 0.9893
OLIVIA P (45739) LOW V VOLT: 0.8779 LIMIT: 0.9000 Base Case Value: 0.9858
OLIVIA T (45741) LOW V VOLT: 0.8780 LIMIT: 0.9000 Base Case Value: 0.9859
S-SCTAP (45854) LOW V VOLT: 0.8780 LIMIT: 0.9000 Base Case Value: 0.9876
PAINE F (45745) LOW V VOLT: 0.8786 LIMIT: 0.9000 Base Case Value: 0.9827
MURRAY (40765) LOW V VOLT: 0.8798 LIMIT: 0.9000 Base Case Value: 0.9998
HARTFORD (45681) LOW V VOLT: 0.8805 LIMIT: 0.9000 Base Case Value: 0.9919
MUKLTEO (45851) LOW V VOLT: 0.8814 LIMIT: 0.9000 Base Case Value: 0.9815
GETCHL T (45846) LOW V VOLT: 0.8817 LIMIT: 0.9000 Base Case Value: 0.9930
MUKTAP (45721) LOW V VOLT: 0.8817 LIMIT: 0.9000 Base Case Value: 0.9818
GIBSON (45657) LOW V VOLT: 0.8827 LIMIT: 0.9000 Base Case Value: 0.9820
HARBOR P (45679) LOW V VOLT: 0.8837 LIMIT: 0.9000 Base Case Value: 0.9819
KELLOGMT (45695) LOW V VOLT: 0.8853 LIMIT: 0.9000 Base Case Value: 0.9920
SULTAN (45789) LOW V VOLT: 0.8869 LIMIT: 0.9000 Base Case Value: 0.9963
E MARY (45631) LOW V VOLT: 0.8872 LIMIT: 0.9000 Base Case Value: 0.9918
PICNIC (45751) LOW V VOLT: 0.8875 LIMIT: 0.9000 Base Case Value: 0.9829
GOLD BAR (45663) LOW V VOLT: 0.8882 LIMIT: 0.9000 Base Case Value: 0.9955
SULT GBT (45787) LOW V VOLT: 0.8906 LIMIT: 0.9000 Base Case Value: 0.9977
LK SEREN (45701) LOW V VOLT: 0.8917 LIMIT: 0.9000 Base Case Value: 0.9815
MEADWD (45713) LOW V VOLT: 0.8941 LIMIT: 0.9000 Base Case Value: 0.9811
MEADWDT (45715) LOW V VOLT: 0.8947 LIMIT: 0.9000 Base Case Value: 0.9817
KEELERL (45710) LOW V VOLT: 0.8962 LIMIT: 0.9000 Base Case Value: 0.9819
FRONTIER (45653) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9924
KEELER S (45708) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9819
LYNNWD (45705) LOW V VOLT: 0.8976 LIMIT: 0.9000 Base Case Value: 0.9701
PERRINV (45747) LOW V VOLT: 0.8989 LIMIT: 0.9000 Base Case Value: 0.9713
PERRINVT (45749) LOW V VOLT: 0.8989 LIMIT: 0.9000 Base Case Value: 0.9714

BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY L_45619CANPARK-41003SNOKINGC1
ELEMENTS:
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.07 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 248.8 LIMIT: 256.0 %: 97.2 Base Case Value: 180.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY L_45757PKRIDGT-41003SNOKINGC1
ELEMENTS:
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 137.04 MVA

NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 242.6 LIMIT: 256.0 %: 94.8 Base Case Value: 180.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45619CANPARK-45717MONTLAKEC1
ELEMENTS:
OPEN Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 | | CHECK | | Opened flow of 109.32 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 238.6 LIMIT: 256.0 %: 93.2 Base Case Value: 180.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK NORTH CENT BUS G BS
ELEMENTS:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK | | Opened flow of 187.88 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 90.20 MVA
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK | | was already open
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 183.76 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 180.48 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 348.7 LIMIT: 369.0 %: 94.5 Base Case Value: 271.0
SNOK S3 (41008) TO SNOKING (41003) CKT 2 MVA: 375.6 LIMIT: 398.0 %: 94.4 Base Case Value: 172.2
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 345.1 LIMIT: 369.0 %: 93.5 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK NORTH CENT BUS BS
ELEMENTS:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK |

OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK | | Opened flow of 187.88 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 90.20 MVA
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK | | was already open
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 183.76 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 180.48 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOK S3 (41008) TO SNOKING (41003) CKT 2 MVA: 365.8 LIMIT: 398.0 %: 91.9 Base Case Value: 172.2
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH4 G
ELEMENTS:
OPEN Bus SNOH S4 (41330) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S4 (41330) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)
BRANCH: 3
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 386.5 LIMIT: 369.0 %: 104.7 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 382.6 LIMIT: 369.0 %: 103.7 Base Case Value: 268.3
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.5 LIMIT: 15.0 %: 90.0 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8972 LIMIT: 0.9000 Base Case Value: 0.9493
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST BUS-G
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 49.09 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 95.61 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 83.86 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 107.23 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 93.26 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 268.32 MVA

OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)
BRANCH: 1
BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 367.3 LIMIT: 369.0 %: 99.5 Base Case Value: 271.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
SNOHM (45779) LOW V VOLT: 0.8929 LIMIT: 0.9000 Base Case Value: 0.9972
W MONROE (45813) LOW V VOLT: 0.8949 LIMIT: 0.9000 Base Case Value: 0.9933
WOODS CK (45823) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9932
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH EAST CENT BUS G BS
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 259.19 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 95.19 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 93.14 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 2.61 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 271.03 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 112.20 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.03 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 57)
BRANCH: 2
BUS VOLTAGE: 55
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 571.3 LIMIT: 369.0 %: 154.8 Base Case Value: 268.3
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8548 LIMIT: 0.9000 Base Case Value: 0.9493
CAMANO (45617) LOW V VOLT: 0.8609 LIMIT: 0.9000 Base Case Value: 0.9548
N STAN (45731) LOW V VOLT: 0.8670 LIMIT: 0.9000 Base Case Value: 0.9602
THREE LK (45803) LOW V VOLT: 0.8695 LIMIT: 0.9000 Base Case Value: 0.9994
GOLD BAR (45663) LOW V VOLT: 0.8729 LIMIT: 0.9000 Base Case Value: 0.9955
LK CHAP (45697) LOW V VOLT: 0.8735 LIMIT: 0.9000 Base Case Value: 1.0017
JACKSN (45685) LOW V VOLT: 0.8738 LIMIT: 0.9000 Base Case Value: 1.0018
SULT GBT (45787) LOW V VOLT: 0.8754 LIMIT: 0.9000 Base Case Value: 0.9977
SULTAN (45789) LOW V VOLT: 0.8766 LIMIT: 0.9000 Base Case Value: 0.9963
FOBES (45651) LOW V VOLT: 0.8811 LIMIT: 0.9000 Base Case Value: 0.9950
SCOTT 2L (45824) LOW V VOLT: 0.8839 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2 (45842) LOW V VOLT: 0.8840 LIMIT: 0.9000 Base Case Value: 0.9867
WOODS CK (45823) LOW V VOLT: 0.8842 LIMIT: 0.9000 Base Case Value: 0.9932
TENTH (45797) LOW V VOLT: 0.8846 LIMIT: 0.9000 Base Case Value: 0.9846
TENTHT (45799) LOW V VOLT: 0.8848 LIMIT: 0.9000 Base Case Value: 0.9848

DELTA SW (45627) LOW V VOLT: 0.8857 LIMIT: 0.9000 Base Case Value: 0.9840
TULALIP (45805) LOW V VOLT: 0.8862 LIMIT: 0.9000 Base Case Value: 0.9816
C MARY (45611) LOW V VOLT: 0.8863 LIMIT: 0.9000 Base Case Value: 0.9804
TULALIPT (45807) LOW V VOLT: 0.8867 LIMIT: 0.9000 Base Case Value: 0.9820
KELLOGM (45693) LOW V VOLT: 0.8867 LIMIT: 0.9000 Base Case Value: 0.9800
C MARYST (45840) LOW V VOLT: 0.8869 LIMIT: 0.9000 Base Case Value: 0.9810
W MONROE (45813) LOW V VOLT: 0.8873 LIMIT: 0.9000 Base Case Value: 0.9933
CMARYST (45841) LOW V VOLT: 0.8875 LIMIT: 0.9000 Base Case Value: 0.9807
QUILCEDA (45632) LOW V VOLT: 0.8878 LIMIT: 0.9000 Base Case Value: 0.9816
NORTON S (45737) LOW V VOLT: 0.8880 LIMIT: 0.9000 Base Case Value: 0.9853
N MARYS (45729) LOW V VOLT: 0.8885 LIMIT: 0.9000 Base Case Value: 0.9809
NAVY (45733) LOW V VOLT: 0.8885 LIMIT: 0.9000 Base Case Value: 0.9857
KIMCLK (45849) LOW V VOLT: 0.8891 LIMIT: 0.9000 Base Case Value: 0.9862
EVRETTT2 (45843) LOW V VOLT: 0.8892 LIMIT: 0.9000 Base Case Value: 0.9862
WATRFRT (45861) LOW V VOLT: 0.8895 LIMIT: 0.9000 Base Case Value: 0.9863
STIMSONS (45785) LOW V VOLT: 0.8919 LIMIT: 0.9000 Base Case Value: 0.9823
LK GDW (45699) LOW V VOLT: 0.8920 LIMIT: 0.9000 Base Case Value: 0.9808
LK STEVE (45703) LOW V VOLT: 0.8923 LIMIT: 0.9000 Base Case Value: 0.9940
EVERETT (45637) LOW V VOLT: 0.8927 LIMIT: 0.9000 Base Case Value: 0.9883
SMOKEYP (45775) LOW V VOLT: 0.8930 LIMIT: 0.9000 Base Case Value: 0.9827
FIFTYSEC (45645) LOW V VOLT: 0.8931 LIMIT: 0.9000 Base Case Value: 0.9882
FRONTIER (45653) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9924
SMOKEYPT (45777) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9833
PINEHURS (45753) LOW V VOLT: 0.8945 LIMIT: 0.9000 Base Case Value: 0.9891
SILLS C (45855) LOW V VOLT: 0.8956 LIMIT: 0.9000 Base Case Value: 0.9841
MUKLTEO (45851) LOW V VOLT: 0.8959 LIMIT: 0.9000 Base Case Value: 0.9815
MUKTAP (45721) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9818
HARBOR P (45679) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9819
OLIVIA P (45739) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9858
TWNTETH (45811) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9825
OLIVIA T (45741) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9859
S-SCTAP (45854) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9876
PINSNO11 (49854) LOW V VOLT: 0.8971 LIMIT: 0.9000 Base Case Value: 0.9908
PICNIC (45751) LOW V VOLT: 0.8973 LIMIT: 0.9000 Base Case Value: 0.9829
BOEING (45607) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9830
PAINE F (45745) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9827
GLENWD (45659) LOW V VOLT: 0.8980 LIMIT: 0.9000 Base Case Value: 0.9837
E MARY (45631) LOW V VOLT: 0.8985 LIMIT: 0.9000 Base Case Value: 0.9918
GLENWD T (45847) LOW V VOLT: 0.8996 LIMIT: 0.9000 Base Case Value: 0.9851
GIBSON (45657) LOW V VOLT: 0.9000 LIMIT: 0.9000 Base Case Value: 0.9820

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY Z-SNOH EAST CENT BUS BS

ELEMENTS:

OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:

Applied:

OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 259.19 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 95.19 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 93.14 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 2.61 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 271.03 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 112.20 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.03 MVA

NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)

BRANCH: 1
BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:

SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 502.2 LIMIT: 369.0 %: 136.1 Base Case Value: 268.3

BRANCH AMP VIOLATIONS:

None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8827 LIMIT: 0.9000 Base Case Value: 0.9493
CAMANO (45617) LOW V VOLT: 0.8886 LIMIT: 0.9000 Base Case Value: 0.9548
N STAN (45731) LOW V VOLT: 0.8944 LIMIT: 0.9000 Base Case Value: 0.9602
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH EAST BUS G
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 259.19 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 95.19 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 93.14 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 2.61 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
BRANCH: 3
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 383.0 LIMIT: 369.0 %: 103.8 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 377.4 LIMIT: 369.0 %: 102.3 Base Case Value: 268.3
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.5 LIMIT: 15.0 %: 90.1 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8886 LIMIT: 0.9000 Base Case Value: 0.9493
CAMANO (45617) LOW V VOLT: 0.8945 LIMIT: 0.9000 Base Case Value: 0.9548
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH EAST BUS
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 259.19 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 95.19 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 93.14 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 2.61 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 342.2 LIMIT: 369.0 %: 92.7 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 337.2 LIMIT: 369.0 %: 91.4 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:

None.
CONTINGENCY Z-SNOH CENT BUS G
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 271.03 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 112.20 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.03 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 6)
BRANCH: 3
BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 393.2 LIMIT: 369.0 %: 106.5 Base Case Value: 268.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 367.5 LIMIT: 393.0 %: 93.5 Base Case Value: 259.2
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.5 LIMIT: 15.0 %: 90.1 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8822 LIMIT: 0.9000 Base Case Value: 0.9493
CAMANO (45617) LOW V VOLT: 0.8881 LIMIT: 0.9000 Base Case Value: 0.9548
N STAN (45731) LOW V VOLT: 0.8940 LIMIT: 0.9000 Base Case Value: 0.9602
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF1
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 259.19 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 362.5 LIMIT: 369.0 %: 98.2 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 357.8 LIMIT: 369.0 %: 97.0 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF1 G
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 259.19 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2

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        BUS VOLTAGE:          0
        INTERFACE:            0
        ISOLATED BUSES:       0
    BRANCH MVA VIOLATIONS:
        SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   398.6   LIMIT:   369.0   %: 108.0   Base Case Value:   271.0
        SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   393.3   LIMIT:   369.0   %: 106.6   Base Case Value:   268.3
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY Z-SNOH XF2
    ELEMENTS:
        OPEN Branch SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2 |  | CHECK |  | Opened flow of 271.03 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:               1
        BUS VOLTAGE:          0
        INTERFACE:            0
        ISOLATED BUSES:       0
    BRANCH MVA VIOLATIONS:
        SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   364.9   LIMIT:   369.0   %:  98.9   Base Case Value:   268.3
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY Z-500 TP SNOKING G (NOT CREDIBLE)
    ELEMENTS:
        OPEN Bus SNOK TAP (41001) |  | CHECK |
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
*** UNSOLVABLE ***
*----*----*----*----*----*----*----*----*----*----*----*----*----*----*
CONTINGENCY Z-MURRAY BUS
    ELEMENTS:
        OPEN Bus MURRAY (40765) |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Bus MURRAY (40765) |  | CHECK |  | Opened   0.00 MW
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 11)
        BRANCH:               0
        BUS VOLTAGE:          11
        INTERFACE:            0
        ISOLATED BUSES:       0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        S CAMANO (45853)   LOW V    VOLT:    0.8565   LIMIT:  0.9000   Base Case Value:  0.9493
        CAMANO (45617)   LOW V    VOLT:    0.8626   LIMIT:  0.9000   Base Case Value:  0.9548
        N STAN (45731)   LOW V    VOLT:    0.8686   LIMIT:  0.9000   Base Case Value:  0.9602
        E ARLG (45629)   LOW V    VOLT:    0.8791   LIMIT:  0.9000   Base Case Value:  0.9916
        PORTAGE (45630)   LOW V    VOLT:    0.8823   LIMIT:  0.9000   Base Case Value:  0.9882
        LK GDW (45699)   LOW V    VOLT:    0.8846   LIMIT:  0.9000   Base Case Value:  0.9808
        SILLS  C (45855)   LOW V    VOLT:    0.8883   LIMIT:  0.9000   Base Case Value:  0.9841
        SMOKEYP (45775)   LOW V    VOLT:    0.8927   LIMIT:  0.9000   Base Case Value:  0.9827
        SMOKEYPT (45777)   LOW V    VOLT:    0.8932   LIMIT:  0.9000   Base Case Value:  0.9833
        STIMSONS (45785)   LOW V    VOLT:    0.8935   LIMIT:  0.9000   Base Case Value:  0.9823
        N MARYS (45729)   LOW V    VOLT:    0.8986   LIMIT:  0.9000   Base Case Value:  0.9809
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY Z-SNOH XF2 G
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ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 271.03 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 401.5 LIMIT: 369.0 %: 108.8 Base Case Value: 268.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 382.9 LIMIT: 393.0 %: 97.4 Base Case Value: 259.2
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH4
ELEMENTS:
OPEN Bus SNOH S4 (41330) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S4 (41330) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 353.0 LIMIT: 369.0 %: 95.7 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 349.3 LIMIT: 369.0 %: 94.7 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH3 G
ELEMENTS:
OPEN Bus SNOH S3 (41329) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S3 (41329) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
BRANCH: 3
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 386.1 LIMIT: 369.0 %: 104.6 Base Case Value: 268.3
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 372.7 LIMIT: 393.0 %: 94.8 Base Case Value: 259.2
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.

BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS3 (40993) HIGH V VOLT: 1.0938 LIMIT: 1.0500 Base Case Value: 1.0233
CHISNO31 (49940) HIGH V VOLT: 1.0827 LIMIT: 1.0500 Base Case Value: 1.0177
CONTINGENCY Z-230 SNOH3
ELEMENTS:
OPEN Bus SNOH S3 (41329) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S3 (41329) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 1
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 356.9 LIMIT: 369.0 %: 96.7 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS3 (40993) HIGH V VOLT: 1.0962 LIMIT: 1.0500 Base Case Value: 1.0233
CHISNO31 (49940) HIGH V VOLT: 1.0850 LIMIT: 1.0500 Base Case Value: 1.0177
CONTINGENCY Z-230 SNOH2 G
ELEMENTS:
OPEN Bus SNOH S2 (41328) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S2 (41328) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
BRANCH: 3
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 401.3 LIMIT: 369.0 %: 108.8 Base Case Value: 271.0
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 377.5 LIMIT: 393.0 %: 96.1 Base Case Value: 259.2
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS4 (40994) HIGH V VOLT: 1.0933 LIMIT: 1.0500 Base Case Value: 1.0225
CHISNO41 (49939) HIGH V VOLT: 1.0822 LIMIT: 1.0500 Base Case Value: 1.0174
CONTINGENCY Z-230 SNOH2
ELEMENTS:
OPEN Bus SNOH S2 (41328) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S2 (41328) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 1
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 365.1 LIMIT: 369.0 %: 98.9 Base Case Value: 271.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS4 (40994) HIGH V VOLT: 1.0956 LIMIT: 1.0500 Base Case Value: 1.0225

CHISNO41 (49939) HIGH V VOLT: 1.0845 LIMIT: 1.0500 Base Case Value: 1.0174
CONTINGENCY Z-230 SNOH1 G
ELEMENTS:
OPEN Bus SNOH S1 (41327) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S1 (41327) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 336.7 LIMIT: 369.0 %: 91.2 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 335.4 LIMIT: 369.0 %: 90.9 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-MURRAY BUS G
ELEMENTS:
OPEN Bus MURRAY (40765) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus MURRAY (40765) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 20)
BRANCH: 2
BUS VOLTAGE: 18
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 363.7 LIMIT: 369.0 %: 98.6 Base Case Value: 271.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 360.9 LIMIT: 369.0 %: 97.8 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8313 LIMIT: 0.9000 Base Case Value: 0.9493
CAMANO (45617) LOW V VOLT: 0.8375 LIMIT: 0.9000 Base Case Value: 0.9548
N STAN (45731) LOW V VOLT: 0.8438 LIMIT: 0.9000 Base Case Value: 0.9602
E ARLG (45629) LOW V VOLT: 0.8547 LIMIT: 0.9000 Base Case Value: 0.9916
PORTAGE (45630) LOW V VOLT: 0.8579 LIMIT: 0.9000 Base Case Value: 0.9882
LK GDW (45699) LOW V VOLT: 0.8603 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.8641 LIMIT: 0.9000 Base Case Value: 0.9841
SMOKEYP (45775) LOW V VOLT: 0.8687 LIMIT: 0.9000 Base Case Value: 0.9827
SMOKEYPT (45777) LOW V VOLT: 0.8693 LIMIT: 0.9000 Base Case Value: 0.9833
STIMSONS (45785) LOW V VOLT: 0.8696 LIMIT: 0.9000 Base Case Value: 0.9823
N MARYS (45729) LOW V VOLT: 0.8748 LIMIT: 0.9000 Base Case Value: 0.9809
KELLOGM (45693) LOW V VOLT: 0.8764 LIMIT: 0.9000 Base Case Value: 0.9800
CMARYST (45841) LOW V VOLT: 0.8772 LIMIT: 0.9000 Base Case Value: 0.9807
C MARY (45611) LOW V VOLT: 0.8799 LIMIT: 0.9000 Base Case Value: 0.9804
C MARYST (45840) LOW V VOLT: 0.8804 LIMIT: 0.9000 Base Case Value: 0.9810
QUILCEDA (45632) LOW V VOLT: 0.8805 LIMIT: 0.9000 Base Case Value: 0.9816
TULALIP (45805) LOW V VOLT: 0.8861 LIMIT: 0.9000 Base Case Value: 0.9816
TULALIPT (45807) LOW V VOLT: 0.8866 LIMIT: 0.9000 Base Case Value: 0.9820
BUS HIGH VOLTAGE VIOLATIONS:
None.

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CONTINGENCY Z-SNOH XF3
   ELEMENTS:
      OPEN Branch SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3 |  | CHECK |  | Opened flow of 268.32 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              1
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   367.5   LIMIT:   369.0   %:  99.6   Base Case Value:   271.0
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-MURRAY XF G
   ELEMENTS:
      OPEN Branch MURRAY (40767)  TO  MURRAY (40765) CKT 1 |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch MURRAY (40767)  TO  MURRAY (40765) CKT 1 |  | CHECK |  | Opened flow of 191.32 MVA
       OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
       OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
      BRANCH:              2
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   358.0   LIMIT:   369.0   %:  97.0   Base Case Value:   271.0
      SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   355.3   LIMIT:   369.0   %:  96.3   Base Case Value:   268.3
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-SNOH XF3 G
   ELEMENTS:
      OPEN Branch SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3 |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3 |  | CHECK |  | Opened flow of 268.32 MVA
       OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
       OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
      BRANCH:              2
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   404.5   LIMIT:   369.0   %: 109.6   Base Case Value:   271.0
      SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1    MVA:   380.6   LIMIT:   393.0   %:  96.8   Base Case Value:   259.2
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
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None.
CONTINGENCY Z-SNOH CENT BUS
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 271.03 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 112.20 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.03 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 353.6 LIMIT: 369.0 %: 95.8 Base Case Value: 268.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY C-BEV-SILVER-OLIVIA FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK | | Opened flow of 72.36 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 90.20 MVA
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 72.68 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.03 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0520 LIMIT: 1.0500 Base Case Value: 1.0439
CONTINGENCY C-BEV-SILVER-GLENWD FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK | | Opened flow of 72.36 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 90.20 MVA
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK | | Opened flow of 85.17 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 107.23 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.

BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0522 LIMIT: 1.0500 Base Case Value: 1.0439
CONTINGENCY C-BEV-CASINO-OLIVIA FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK |
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK |
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK | | Opened flow of 58.07 MVA
OPEN Branch OLIVIA T (45741) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 72.68 MVA
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK | | Opened flow of 65.79 MVA
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 19.09 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 107.23 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 0
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0573 LIMIT: 1.0500 Base Case Value: 1.0439
MONROE T (40751) HIGH V VOLT: 1.0561 LIMIT: 1.0500 Base Case Value: 1.0402
None.

2010 Case Islanded Load

Label	Islanded Load in MW
C-BEV-CASINO-OLIVIA FAULT	295
C-BEV-CASINO-GLENWOOD FAULT	96.6
C-SILLS- LK GDW FAULT	92.8
L_45647FIVECOR-45848HALLSLKC1	88.3
L_45633EDMONDT2-45647FIVECORC1	69
L_45633EDMONDT2-45709MAPLEWC1	69
L_45731NSTAN-45785STIMSONSC1	61.2
L_45709MAPLEW-45749PERRINVTC1	51.7
L_45603BALLING-45848HALLSLKC1	42.7
L_45607BOEING-45811TWNTETHC1	39.9
L_45705LYNNWD-45749PERRINVTC1	34.5
L_45617CAMANO-45731NSTANC1	34
L_45775SMOKEYP-45777SMOKEYPTC1	27.1
L_45755PKRIDGE-45757PKRIDGTC1	27.1
L_45603BALLING-45761RICHMNDTC1	24.3
L_45649FLORALH-45845FLORLHT1C1	24.2
L_45846GETCHLT-45665GRANFALC1	23.3
L_45797TENTH-45799TENTHTC1	22.2
L_45841CMARYST-45693KELLOGMC1	21.8
L_45713MEADWD-45715MEADWDTC1	21.8
L_42402HILTNLKT-45683HILTONC1	21.4
L_45659GLENWD-45847GLENWDTC1	21.2
C-BEV-SILVER-GLENWD FAULT	21.2
L_45699LKGDW-45855SILLSCC1	20.7
L_45846GETCHLT-45681HARTFORDC1	20
L_45617CAMANO-45853SCAMANOC1	19.6
L_45851MUKLTEO-45721MUKTAPC1	18.1
L_45611CMARY-45840CMARYSTC1	18
L_45747PERRINV-45749PERRINVTC1	17.3
L_45805TULALIP-45807TULALIPTC1	16.3
L_45761RICHMNDT-45819WESTGATEC1	16.2
L_45739OLIVIAP-45741OLIVIATC1	15.7
C-BEV-SILVER-OLIVIA FAULT	15.7
L_45663GOLDBAR-45787SULTGBTC1	12.5
L_45759RICHMND-45761RICHMNDTC1	8.1
L_42435OLYCANYT-45743OLYMPICC1	2.6
L_45629EARLG-41221JIMCREEKC1	2.1
L_45842SCOTT2-45824SCOTT2LC1	2
L_45708KEELERS-45710KEELERLC1	0.9

2015 Case Voltage and Thermal Contingency Violation Output

Branch Flow Extremes

From Bus	To Bus	Ckt ID	Max % Flow	Due To Contingency
MURRAY	MURRAY	1	171.282	Z-SNOH BUS G (NOT CREDIB
E ARLG	MURRAY	1	90.882	Z-SNOH WEST CENT BUS G B
MURRAY	SMOKEYPT	1	145.319	Z-SNOH WEST CENT BUS G B
MURRAY	SNOH S1	1	123.780	Z-SNOH BUS G (NOT CREDIB
SNOH S2	SNOHOMSH	3	115.471	Z-SNOH EAST CENT BUS G B
SNOH S3	SNOHOMSH	2	108.224	Z-230 SNOH2 G
SNOH S4	SNOHOMSH	1	95.670	Z-230 SNOH2 G
FOBES	SNOHOMSH	1	96.877	Z-SNOH WEST BUS-G
SNOHM	SNOHOMSH	1	93.211	Z-SNOH EAST CENT BUS G B
SNOKING	THRASHER	1	114.922	Z-SNOK SOUTH BUS G
BOTSNO11	SNOK S1	1	99.117	Z-230 SNOK3 G
BOTSNO21	SNOK S3	2	99.543	Z-SNOKING BUS G (NOT CRE
BEVERLY	GLDBRTIE	1	92.462	Z-500 TP SNOKING G (NOT
BEVERLY	BEV 230	1	99.527	Z-SNOKING BUS G (NOT CRE
BEVERLY	SILVE LK	1	120.038	Z-SNOKING BUS G (NOT CRE
BRIER	THRASHER	1	97.634	Z-SNOK SOUTH BUS G
MARINER	MARTHA L	1	103.638	Z-SNOKING BUS G (NOT CRE
MARINER	SILVE LK	1	110.373	Z-SNOKING BUS G (NOT CRE
GIBSON	LK SEREN	1	90.176	Z-SNOKING BUS (NOT CREDI
GIBSON	PAINE F	1	98.880	Z-SNOKING BUS (NOT CREDI
JACKSN1	JACKSN	1	167.993	Z-SNOH BUS (NOT CREDIBLE
MARTHA L	SWMPCKT2	1	123.374	Z-SNOKING BUS G (NOT CRE
SMOKEYPT	STIMSONS	1	119.327	Z-SNOH WEST CENT BUS G B
GLENWD T	GLESNO11	2	103.219	C-BEV-CASINO-OLIVIA FAUL
SWMPCKT1	SWMPCKT2	1	107.061	Z-SNOK SOUTH CENT BUS G

Contingency Results

CONTINGENCY Z-SNOH BUS G (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOHOMSH (40997) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOHOMSH (40997) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 106)
BRANCH: 5
BUS VOLTAGE: 101
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 767.3 LIMIT: 448.0 %: 171.3 Base Case Value: 186.9
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 336.7 LIMIT: 256.0 %: 131.5 Base Case Value: 90.8
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 680.5 LIMIT: 549.8 %: 123.8 Base Case Value: 268.6
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 259.7 LIMIT: 256.0 %: 101.5 Base Case Value: 61.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.4793 LIMIT: 0.9000 Base Case Value: 0.9899
FIFTYSEC (45645) LOW V VOLT: 0.4800 LIMIT: 0.9000 Base Case Value: 0.9890
WATRFRT (45861) LOW V VOLT: 0.4849 LIMIT: 0.9000 Base Case Value: 0.9869
EVERETT (45637) LOW V VOLT: 0.4855 LIMIT: 0.9000 Base Case Value: 0.9890
KIMCLK (45849) LOW V VOLT: 0.4864 LIMIT: 0.9000 Base Case Value: 0.9868

EVRETTT2 (45843) LOW V VOLT: 0.4875 LIMIT: 0.9000 Base Case Value: 0.9868
NAVY (45733) LOW V VOLT: 0.4893 LIMIT: 0.9000 Base Case Value: 0.9863
NORTON S (45737) LOW V VOLT: 0.4915 LIMIT: 0.9000 Base Case Value: 0.9858
FOBES (45651) LOW V VOLT: 0.5005 LIMIT: 0.9000 Base Case Value: 0.9961
S CAMANO (45853) LOW V VOLT: 0.5017 LIMIT: 0.9000 Base Case Value: 0.9480
SCOTT 2L (45824) LOW V VOLT: 0.5047 LIMIT: 0.9000 Base Case Value: 0.9871
SCOTT 2 (45842) LOW V VOLT: 0.5049 LIMIT: 0.9000 Base Case Value: 0.9872
TENTH (45797) LOW V VOLT: 0.5060 LIMIT: 0.9000 Base Case Value: 0.9851
TENTHT (45799) LOW V VOLT: 0.5062 LIMIT: 0.9000 Base Case Value: 0.9852
DELTA SW (45627) LOW V VOLT: 0.5076 LIMIT: 0.9000 Base Case Value: 0.9844
CAMANO (45617) LOW V VOLT: 0.5106 LIMIT: 0.9000 Base Case Value: 0.9536
N STAN (45731) LOW V VOLT: 0.5197 LIMIT: 0.9000 Base Case Value: 0.9593
TULALIP (45805) LOW V VOLT: 0.5229 LIMIT: 0.9000 Base Case Value: 0.9818
TULALIPT (45807) LOW V VOLT: 0.5236 LIMIT: 0.9000 Base Case Value: 0.9822
C MARY (45611) LOW V VOLT: 0.5301 LIMIT: 0.9000 Base Case Value: 0.9805
C MARYST (45840) LOW V VOLT: 0.5310 LIMIT: 0.9000 Base Case Value: 0.9811
QUILCEDA (45632) LOW V VOLT: 0.5333 LIMIT: 0.9000 Base Case Value: 0.9817
KELLOGM (45693) LOW V VOLT: 0.5353 LIMIT: 0.9000 Base Case Value: 0.9801
CMARYST (45841) LOW V VOLT: 0.5364 LIMIT: 0.9000 Base Case Value: 0.9808
N MARYS (45729) LOW V VOLT: 0.5421 LIMIT: 0.9000 Base Case Value: 0.9810
STIMSONS (45785) LOW V VOLT: 0.5592 LIMIT: 0.9000 Base Case Value: 0.9824
SMOKEYP (45775) LOW V VOLT: 0.5644 LIMIT: 0.9000 Base Case Value: 0.9829
SMOKEYPT (45777) LOW V VOLT: 0.5652 LIMIT: 0.9000 Base Case Value: 0.9834
LK GDW (45699) LOW V VOLT: 0.5707 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.5762 LIMIT: 0.9000 Base Case Value: 0.9843
PORTAGE (45630) LOW V VOLT: 0.6053 LIMIT: 0.9000 Base Case Value: 0.9885
LK STEVE (45703) LOW V VOLT: 0.6230 LIMIT: 0.9000 Base Case Value: 0.9950
FRONTIER (45653) LOW V VOLT: 0.6248 LIMIT: 0.9000 Base Case Value: 0.9932
E ARLG (45629) LOW V VOLT: 0.6287 LIMIT: 0.9000 Base Case Value: 0.9921
E MARY (45631) LOW V VOLT: 0.6322 LIMIT: 0.9000 Base Case Value: 0.9923
KELLOGMT (45695) LOW V VOLT: 0.6351 LIMIT: 0.9000 Base Case Value: 0.9926
GRANFAL (45665) LOW V VOLT: 0.6357 LIMIT: 0.9000 Base Case Value: 0.9897
HARTFORD (45681) LOW V VOLT: 0.6398 LIMIT: 0.9000 Base Case Value: 0.9924
GETCHL T (45846) LOW V VOLT: 0.6416 LIMIT: 0.9000 Base Case Value: 0.9935
MURRAY (40765) LOW V VOLT: 0.6667 LIMIT: 0.9000 Base Case Value: 1.0005
MURRAY (40767) LOW V VOLT: 0.8089 LIMIT: 0.9000 Base Case Value: 1.0261
LYNNWD (45705) LOW V VOLT: 0.8746 LIMIT: 0.9000 Base Case Value: 0.9697
PERRINV (45747) LOW V VOLT: 0.8760 LIMIT: 0.9000 Base Case Value: 0.9710
PERRINVT (45749) LOW V VOLT: 0.8760 LIMIT: 0.9000 Base Case Value: 0.9710
MAPLEW (45709) LOW V VOLT: 0.8794 LIMIT: 0.9000 Base Case Value: 0.9740
OLIVIA P (45739) LOW V VOLT: 0.8813 LIMIT: 0.9000 Base Case Value: 0.9892
OLIVIA T (45741) LOW V VOLT: 0.8814 LIMIT: 0.9000 Base Case Value: 0.9893
S-SCTAP (45854) LOW V VOLT: 0.8814 LIMIT: 0.9000 Base Case Value: 0.9908
PAINE F (45745) LOW V VOLT: 0.8820 LIMIT: 0.9000 Base Case Value: 0.9867
MUKLTEO (45851) LOW V VOLT: 0.8821 LIMIT: 0.9000 Base Case Value: 0.9861
GIBSON (45657) LOW V VOLT: 0.8823 LIMIT: 0.9000 Base Case Value: 0.9853
MUKTAP (45721) LOW V VOLT: 0.8825 LIMIT: 0.9000 Base Case Value: 0.9865
HARBOR P (45679) LOW V VOLT: 0.8832 LIMIT: 0.9000 Base Case Value: 0.9869
LK SEREN (45701) LOW V VOLT: 0.8839 LIMIT: 0.9000 Base Case Value: 0.9837
MEADWD (45713) LOW V VOLT: 0.8841 LIMIT: 0.9000 Base Case Value: 0.9830
MEADWDT (45715) LOW V VOLT: 0.8847 LIMIT: 0.9000 Base Case Value: 0.9835
EDMONDT2 (45633) LOW V VOLT: 0.8850 LIMIT: 0.9000 Base Case Value: 0.9790
TWNTETH (45811) LOW V VOLT: 0.8850 LIMIT: 0.9000 Base Case Value: 0.9880
KEELERL (45710) LOW V VOLT: 0.8852 LIMIT: 0.9000 Base Case Value: 0.9835
KEELER S (45708) LOW V VOLT: 0.8852 LIMIT: 0.9000 Base Case Value: 0.9836
PICNIC (45751) LOW V VOLT: 0.8853 LIMIT: 0.9000 Base Case Value: 0.9884
BOEING (45607) LOW V VOLT: 0.8856 LIMIT: 0.9000 Base Case Value: 0.9886
FIVE COR (45647) LOW V VOLT: 0.8858 LIMIT: 0.9000 Base Case Value: 0.9798
LYNNWDT (45707) LOW V VOLT: 0.8871 LIMIT: 0.9000 Base Case Value: 0.9838
GLENWD (45659) LOW V VOLT: 0.8877 LIMIT: 0.9000 Base Case Value: 0.9899
WESTGATE (45819) LOW V VOLT: 0.8879 LIMIT: 0.9000 Base Case Value: 0.9817
BLYN (47556) LOW V VOLT: 0.8882 LIMIT: 0.9000 Base Case Value: 0.9635
RICHMND (45759) LOW V VOLT: 0.8883 LIMIT: 0.9000 Base Case Value: 0.9820
OLYMPC C (47563) LOW V VOLT: 0.8883 LIMIT: 0.9000 Base Case Value: 0.9637
DUNGENES (47559) LOW V VOLT: 0.8886 LIMIT: 0.9000 Base Case Value: 0.9640
RICHMNDT (45761) LOW V VOLT: 0.8889 LIMIT: 0.9000 Base Case Value: 0.9825
BALLING (45603) LOW V VOLT: 0.8890 LIMIT: 0.9000 Base Case Value: 0.9826
SUNLAND (47567) LOW V VOLT: 0.8891 LIMIT: 0.9000 Base Case Value: 0.9643
DUN JCT (47558) LOW V VOLT: 0.8891 LIMIT: 0.9000 Base Case Value: 0.9644
SEQUIM (47565) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9645

GLENWD T (45847) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9914
SUN TAP (47566) LOW V VOLT: 0.8900 LIMIT: 0.9000 Base Case Value: 0.9652
EVERGRNC (47560) LOW V VOLT: 0.8904 LIMIT: 0.9000 Base Case Value: 0.9656
ESPERENC (45635) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9843
HALLS LK (45848) LOW V VOLT: 0.8909 LIMIT: 0.9000 Base Case Value: 0.9843
ALDERW (45601) LOW V VOLT: 0.8912 LIMIT: 0.9000 Base Case Value: 0.9850
N ALDER (45725) LOW V VOLT: 0.8920 LIMIT: 0.9000 Base Case Value: 0.9859
FLORAL H (45649) LOW V VOLT: 0.8922 LIMIT: 0.9000 Base Case Value: 0.9860
FLORLHT1 (45845) LOW V VOLT: 0.8922 LIMIT: 0.9000 Base Case Value: 0.9860
MARTHA L (45711) LOW V VOLT: 0.8923 LIMIT: 0.9000 Base Case Value: 0.9870
SWMPCKT1 (45859) LOW V VOLT: 0.8924 LIMIT: 0.9000 Base Case Value: 0.9864
SWMPCKT2 (45860) LOW V VOLT: 0.8924 LIMIT: 0.9000 Base Case Value: 0.9864
NCRK TAP (45852) LOW V VOLT: 0.8927 LIMIT: 0.9000 Base Case Value: 0.9856
PRAIRIEC (47564) LOW V VOLT: 0.8931 LIMIT: 0.9000 Base Case Value: 0.9680
N CRK (45727) LOW V VOLT: 0.8933 LIMIT: 0.9000 Base Case Value: 0.9853
MARINER (45622) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9910
FLORLH T (45844) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9871
CASINO (45623) LOW V VOLT: 0.8938 LIMIT: 0.9000 Base Case Value: 0.9947
SILVE LK (45857) LOW V VOLT: 0.8943 LIMIT: 0.9000 Base Case Value: 0.9926
MURPHYS (45723) LOW V VOLT: 0.8946 LIMIT: 0.9000 Base Case Value: 0.9858
MONTLAKE (45717) LOW V VOLT: 0.8956 LIMIT: 0.9000 Base Case Value: 0.9871
GLESNO11 (49900) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9970
BEVERLY (45608) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9971
CASCAD (45621) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 0.9879
HAPPY V (47561) LOW V VOLT: 0.8982 LIMIT: 0.9000 Base Case Value: 0.9726
TAMBARK2 (45790) LOW V VOLT: 0.8983 LIMIT: 0.9000 Base Case Value: 0.9895

BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY Z-SNOH BUS (NOT CREDIBLE)

ELEMENTS:
OPEN Bus SNOHOMSH (40997) | | CHECK |

APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOHOMSH (40997) | | CHECK | | Opened 0.00 MW

NUMBER OF VIOLATIONS BY CATEGORY (Total = 47)
BRANCH: 6
BUS VOLTAGE: 41
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
JACKSN1 (45687) TO JACKSN (45685) CKT 1 MVA: 102.5 LIMIT: 61.0 %: 168.0 Base Case Value: 40.9
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 727.5 LIMIT: 448.0 %: 162.4 Base Case Value: 186.9
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 335.7 LIMIT: 256.0 %: 131.1 Base Case Value: 90.8
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 648.9 LIMIT: 549.8 %: 118.0 Base Case Value: 268.6
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 272.0 LIMIT: 256.0 %: 106.2 Base Case Value: 61.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.5

BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.6122 LIMIT: 0.9000 Base Case Value: 0.9899
FIFTYSEC (45645) LOW V VOLT: 0.6129 LIMIT: 0.9000 Base Case Value: 0.9890
S CAMANO (45853) LOW V VOLT: 0.6150 LIMIT: 0.9000 Base Case Value: 0.9480
WATRFRT (45861) LOW V VOLT: 0.6177 LIMIT: 0.9000 Base Case Value: 0.9869
EVERETT (45637) LOW V VOLT: 0.6178 LIMIT: 0.9000 Base Case Value: 0.9890
KIMCLK (45849) LOW V VOLT: 0.6192 LIMIT: 0.9000 Base Case Value: 0.9868
EVRETTT2 (45843) LOW V VOLT: 0.6197 LIMIT: 0.9000 Base Case Value: 0.9868
NAVY (45733) LOW V VOLT: 0.6208 LIMIT: 0.9000 Base Case Value: 0.9863
NORTON S (45737) LOW V VOLT: 0.6221 LIMIT: 0.9000 Base Case Value: 0.9858
CAMANO (45617) LOW V VOLT: 0.6236 LIMIT: 0.9000 Base Case Value: 0.9536
FOBES (45651) LOW V VOLT: 0.6256 LIMIT: 0.9000 Base Case Value: 0.9961
SCOTT 2L (45824) LOW V VOLT: 0.6296 LIMIT: 0.9000 Base Case Value: 0.9871
SCOTT 2 (45842) LOW V VOLT: 0.6298 LIMIT: 0.9000 Base Case Value: 0.9872
TENTH (45797) LOW V VOLT: 0.6308 LIMIT: 0.9000 Base Case Value: 0.9851
TENTHT (45799) LOW V VOLT: 0.6310 LIMIT: 0.9000 Base Case Value: 0.9852
N STAN (45731) LOW V VOLT: 0.6324 LIMIT: 0.9000 Base Case Value: 0.9593
DELTA SW (45627) LOW V VOLT: 0.6324 LIMIT: 0.9000 Base Case Value: 0.9844
TULALIP (45805) LOW V VOLT: 0.6429 LIMIT: 0.9000 Base Case Value: 0.9818
TULALIPT (45807) LOW V VOLT: 0.6436 LIMIT: 0.9000 Base Case Value: 0.9822
C MARY (45611) LOW V VOLT: 0.6478 LIMIT: 0.9000 Base Case Value: 0.9805
C MARYST (45840) LOW V VOLT: 0.6486 LIMIT: 0.9000 Base Case Value: 0.9811

QUILCEDA (45632) LOW V VOLT: 0.6505 LIMIT: 0.9000 Base Case Value: 0.9817
KELLOGM (45693) LOW V VOLT: 0.6514 LIMIT: 0.9000 Base Case Value: 0.9801
CMARYST (45841) LOW V VOLT: 0.6525 LIMIT: 0.9000 Base Case Value: 0.9808
N MARYS (45729) LOW V VOLT: 0.6567 LIMIT: 0.9000 Base Case Value: 0.9810
STIMSONS (45785) LOW V VOLT: 0.6695 LIMIT: 0.9000 Base Case Value: 0.9824
SMOKEYP (45775) LOW V VOLT: 0.6733 LIMIT: 0.9000 Base Case Value: 0.9829
SMOKEYPT (45777) LOW V VOLT: 0.6741 LIMIT: 0.9000 Base Case Value: 0.9834
LK GDW (45699) LOW V VOLT: 0.6772 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.6823 LIMIT: 0.9000 Base Case Value: 0.9843
PORTAGE (45630) LOW V VOLT: 0.7049 LIMIT: 0.9000 Base Case Value: 0.9885
LK STEVE (45703) LOW V VOLT: 0.7150 LIMIT: 0.9000 Base Case Value: 0.9950
FRONTIER (45653) LOW V VOLT: 0.7166 LIMIT: 0.9000 Base Case Value: 0.9932
E ARLG (45629) LOW V VOLT: 0.7228 LIMIT: 0.9000 Base Case Value: 0.9921
E MARY (45631) LOW V VOLT: 0.7232 LIMIT: 0.9000 Base Case Value: 0.9923
KELLOGMT (45695) LOW V VOLT: 0.7257 LIMIT: 0.9000 Base Case Value: 0.9926
GRANFAL (45665) LOW V VOLT: 0.7262 LIMIT: 0.9000 Base Case Value: 0.9897
HARTFORD (45681) LOW V VOLT: 0.7298 LIMIT: 0.9000 Base Case Value: 0.9924
GETCHL T (45846) LOW V VOLT: 0.7314 LIMIT: 0.9000 Base Case Value: 0.9935
MURRAY (40765) LOW V VOLT: 0.7529 LIMIT: 0.9000 Base Case Value: 1.0005
MURRAY (40767) LOW V VOLT: 0.8627 LIMIT: 0.9000 Base Case Value: 1.0261

BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY Z-SNOH WEST CENT BUS G BS

ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |

APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.67 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 102.64 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.56 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | was already open
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 58.93 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 223.29 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 226.89 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 120.49 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.82 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)

NUMBER OF VIOLATIONS BY CATEGORY (Total = 59)
BRANCH: 5
BUS VOLTAGE: 54
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 372.0 LIMIT: 256.0 %: 145.3 Base Case Value: 90.8
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 558.1 LIMIT: 448.0 %: 124.6 Base Case Value: 186.9
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 305.5 LIMIT: 256.0 %: 119.3 Base Case Value: 61.6
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 505.9 LIMIT: 549.8 %: 92.0 Base Case Value: 268.6
E ARLG (45629) TO MURRAY (40765) CKT 1 MVA: 232.7 LIMIT: 256.0 %: 90.9 Base Case Value: 94.9

BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.6543 LIMIT: 0.9000 Base Case Value: 0.9899
FIFTYSEC (45645) LOW V VOLT: 0.6550 LIMIT: 0.9000 Base Case Value: 0.9890
WATRFRT (45861) LOW V VOLT: 0.6596 LIMIT: 0.9000 Base Case Value: 0.9869
EVERETT (45637) LOW V VOLT: 0.6601 LIMIT: 0.9000 Base Case Value: 0.9890

KIMCLK (45849) LOW V VOLT: 0.6610 LIMIT: 0.9000 Base Case Value: 0.9868
EVRETTT2 (45843) LOW V VOLT: 0.6619 LIMIT: 0.9000 Base Case Value: 0.9868
NAVY (45733) LOW V VOLT: 0.6635 LIMIT: 0.9000 Base Case Value: 0.9863
NORTON S (45737) LOW V VOLT: 0.6655 LIMIT: 0.9000 Base Case Value: 0.9858
S CAMANO (45853) LOW V VOLT: 0.6733 LIMIT: 0.9000 Base Case Value: 0.9480
FOBES (45651) LOW V VOLT: 0.6734 LIMIT: 0.9000 Base Case Value: 0.9961
SCOTT 2L (45824) LOW V VOLT: 0.6772 LIMIT: 0.9000 Base Case Value: 0.9871
SCOTT 2 (45842) LOW V VOLT: 0.6774 LIMIT: 0.9000 Base Case Value: 0.9872
TENTH (45797) LOW V VOLT: 0.6783 LIMIT: 0.9000 Base Case Value: 0.9851
TENTHT (45799) LOW V VOLT: 0.6785 LIMIT: 0.9000 Base Case Value: 0.9852
DELTA SW (45627) LOW V VOLT: 0.6798 LIMIT: 0.9000 Base Case Value: 0.9844
CAMANO (45617) LOW V VOLT: 0.6814 LIMIT: 0.9000 Base Case Value: 0.9536
N STAN (45731) LOW V VOLT: 0.6897 LIMIT: 0.9000 Base Case Value: 0.9593
TULALIP (45805) LOW V VOLT: 0.6931 LIMIT: 0.9000 Base Case Value: 0.9818
TULALIPT (45807) LOW V VOLT: 0.6937 LIMIT: 0.9000 Base Case Value: 0.9822
C MARY (45611) LOW V VOLT: 0.6993 LIMIT: 0.9000 Base Case Value: 0.9805
C MARYST (45840) LOW V VOLT: 0.7000 LIMIT: 0.9000 Base Case Value: 0.9811
QUILCEDA (45632) LOW V VOLT: 0.7020 LIMIT: 0.9000 Base Case Value: 0.9817
KELLOGM (45693) LOW V VOLT: 0.7037 LIMIT: 0.9000 Base Case Value: 0.9801
CMARYST (45841) LOW V VOLT: 0.7047 LIMIT: 0.9000 Base Case Value: 0.9808
N MARYS (45729) LOW V VOLT: 0.7096 LIMIT: 0.9000 Base Case Value: 0.9810
STIMSONS (45785) LOW V VOLT: 0.7240 LIMIT: 0.9000 Base Case Value: 0.9824
SMOKEYP (45775) LOW V VOLT: 0.7283 LIMIT: 0.9000 Base Case Value: 0.9829
SMOKEYPT (45777) LOW V VOLT: 0.7290 LIMIT: 0.9000 Base Case Value: 0.9834
LK GDW (45699) LOW V VOLT: 0.7334 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.7380 LIMIT: 0.9000 Base Case Value: 0.9843
PORTAGE (45630) LOW V VOLT: 0.7621 LIMIT: 0.9000 Base Case Value: 0.9885
E ARLG (45629) LOW V VOLT: 0.7811 LIMIT: 0.9000 Base Case Value: 0.9921
SNOHM (45779) LOW V VOLT: 0.7982 LIMIT: 0.9000 Base Case Value: 0.9985
W MONROE (45813) LOW V VOLT: 0.8006 LIMIT: 0.9000 Base Case Value: 0.9941
WOODS CK (45823) LOW V VOLT: 0.8029 LIMIT: 0.9000 Base Case Value: 0.9940
MURRAY (40765) LOW V VOLT: 0.8119 LIMIT: 0.9000 Base Case Value: 1.0005
SULTAN (45789) LOW V VOLT: 0.8162 LIMIT: 0.9000 Base Case Value: 0.9969
GOLD BAR (45663) LOW V VOLT: 0.8178 LIMIT: 0.9000 Base Case Value: 0.9960
GRANFAL (45665) LOW V VOLT: 0.8203 LIMIT: 0.9000 Base Case Value: 0.9897
SULT GBT (45787) LOW V VOLT: 0.8206 LIMIT: 0.9000 Base Case Value: 0.9983
HARTFORD (45681) LOW V VOLT: 0.8236 LIMIT: 0.9000 Base Case Value: 0.9924
GETCHL T (45846) LOW V VOLT: 0.8249 LIMIT: 0.9000 Base Case Value: 0.9935
JACKSN (45685) LOW V VOLT: 0.8323 LIMIT: 0.9000 Base Case Value: 1.0025
KELLOGMT (45695) LOW V VOLT: 0.8342 LIMIT: 0.9000 Base Case Value: 0.9926
LK CHAP (45697) LOW V VOLT: 0.8343 LIMIT: 0.9000 Base Case Value: 1.0024
E MARY (45631) LOW V VOLT: 0.8384 LIMIT: 0.9000 Base Case Value: 0.9923
FRONTIER (45653) LOW V VOLT: 0.8570 LIMIT: 0.9000 Base Case Value: 0.9932
LK STEVE (45703) LOW V VOLT: 0.8686 LIMIT: 0.9000 Base Case Value: 0.9950
THREE LK (45803) LOW V VOLT: 0.8712 LIMIT: 0.9000 Base Case Value: 1.0006
LYNNWD (45705) LOW V VOLT: 0.8966 LIMIT: 0.9000 Base Case Value: 0.9697
SNOHOMSH (40997) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 1.0015
MURRAY (40767) LOW V VOLT: 0.8976 LIMIT: 0.9000 Base Case Value: 1.0261
PERRINV (45747) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 0.9710
PERRINVT (45749) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 0.9710

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY Z-SNOH WEST CENT BUS BS

ELEMENTS:

OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |

APPLIED AND SKIPPED ELEMENTS:

Applied:

OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.67 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 102.64 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.56 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | was already open

OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 58.93 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 223.29 MVA
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 226.89 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 120.49 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.82 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 46)
BRANCH: 3
BUS VOLTAGE: 43
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 322.8 LIMIT: 256.0 %: 126.1 Base Case Value: 90.8
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 272.8 LIMIT: 256.0 %: 106.6 Base Case Value: 61.6
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 476.4 LIMIT: 448.0 %: 106.3 Base Case Value: 186.9
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.7742 LIMIT: 0.9000 Base Case Value: 0.9899
FIFTYSEC (45645) LOW V VOLT: 0.7748 LIMIT: 0.9000 Base Case Value: 0.9890
S CAMANO (45853) LOW V VOLT: 0.7758 LIMIT: 0.9000 Base Case Value: 0.9480
WATRFRT (45861) LOW V VOLT: 0.7787 LIMIT: 0.9000 Base Case Value: 0.9869
EVERETT (45637) LOW V VOLT: 0.7788 LIMIT: 0.9000 Base Case Value: 0.9890
KIMCLK (45849) LOW V VOLT: 0.7799 LIMIT: 0.9000 Base Case Value: 0.9868
EVRETTT2 (45843) LOW V VOLT: 0.7803 LIMIT: 0.9000 Base Case Value: 0.9868
NAVY (45733) LOW V VOLT: 0.7812 LIMIT: 0.9000 Base Case Value: 0.9863
NORTON S (45737) LOW V VOLT: 0.7823 LIMIT: 0.9000 Base Case Value: 0.9858
CAMANO (45617) LOW V VOLT: 0.7828 LIMIT: 0.9000 Base Case Value: 0.9536
FOBES (45651) LOW V VOLT: 0.7850 LIMIT: 0.9000 Base Case Value: 0.9961
SCOTT 2L (45824) LOW V VOLT: 0.7882 LIMIT: 0.9000 Base Case Value: 0.9871
SCOTT 2 (45842) LOW V VOLT: 0.7884 LIMIT: 0.9000 Base Case Value: 0.9872
TENTH (45797) LOW V VOLT: 0.7892 LIMIT: 0.9000 Base Case Value: 0.9851
TENTHT (45799) LOW V VOLT: 0.7893 LIMIT: 0.9000 Base Case Value: 0.9852
N STAN (45731) LOW V VOLT: 0.7898 LIMIT: 0.9000 Base Case Value: 0.9593
DELTA SW (45627) LOW V VOLT: 0.7905 LIMIT: 0.9000 Base Case Value: 0.9844
TULALIP (45805) LOW V VOLT: 0.7986 LIMIT: 0.9000 Base Case Value: 0.9818
TULALIPT (45807) LOW V VOLT: 0.7992 LIMIT: 0.9000 Base Case Value: 0.9822
C MARY (45611) LOW V VOLT: 0.8023 LIMIT: 0.9000 Base Case Value: 0.9805
C MARYST (45840) LOW V VOLT: 0.8030 LIMIT: 0.9000 Base Case Value: 0.9811
QUILCEDA (45632) LOW V VOLT: 0.8045 LIMIT: 0.9000 Base Case Value: 0.9817
KELLOGM (45693) LOW V VOLT: 0.8051 LIMIT: 0.9000 Base Case Value: 0.9801
CMARYST (45841) LOW V VOLT: 0.8060 LIMIT: 0.9000 Base Case Value: 0.9808
N MARYS (45729) LOW V VOLT: 0.8092 LIMIT: 0.9000 Base Case Value: 0.9810
STIMSONS (45785) LOW V VOLT: 0.8190 LIMIT: 0.9000 Base Case Value: 0.9824
SMOKEYP (45775) LOW V VOLT: 0.8218 LIMIT: 0.9000 Base Case Value: 0.9829
SMOKEYPT (45777) LOW V VOLT: 0.8225 LIMIT: 0.9000 Base Case Value: 0.9834
LK GDW (45699) LOW V VOLT: 0.8243 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.8284 LIMIT: 0.9000 Base Case Value: 0.9843
PORTAGE (45630) LOW V VOLT: 0.8452 LIMIT: 0.9000 Base Case Value: 0.9885
E ARLG (45629) LOW V VOLT: 0.8582 LIMIT: 0.9000 Base Case Value: 0.9921
MURRAY (40765) LOW V VOLT: 0.8806 LIMIT: 0.9000 Base Case Value: 1.0005
GRANFAL (45665) LOW V VOLT: 0.8808 LIMIT: 0.9000 Base Case Value: 0.9897
SNOHM (45779) LOW V VOLT: 0.8815 LIMIT: 0.9000 Base Case Value: 0.9985
W MONROE (45813) LOW V VOLT: 0.8836 LIMIT: 0.9000 Base Case Value: 0.9941
HARTFORD (45681) LOW V VOLT: 0.8838 LIMIT: 0.9000 Base Case Value: 0.9924
GETCHL T (45846) LOW V VOLT: 0.8850 LIMIT: 0.9000 Base Case Value: 0.9935
WOODS CK (45823) LOW V VOLT: 0.8857 LIMIT: 0.9000 Base Case Value: 0.9940
KELLOGMT (45695) LOW V VOLT: 0.8900 LIMIT: 0.9000 Base Case Value: 0.9926
E MARY (45631) LOW V VOLT: 0.8925 LIMIT: 0.9000 Base Case Value: 0.9923
SULTAN (45789) LOW V VOLT: 0.8976 LIMIT: 0.9000 Base Case Value: 0.9969
GOLD BAR (45663) LOW V VOLT: 0.8990 LIMIT: 0.9000 Base Case Value: 0.9960
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOKING BUS G (NOT CREDIBLE AFTER 07)
ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:

Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW

NUMBER OF VIOLATIONS BY CATEGORY (Total = 58)
BRANCH: 12
BUS VOLTAGE: 46
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
MARTHA L (45711) TO SWMPCKT2 (45860) CKT 1 MVA: 315.8 LIMIT: 256.0 %: 123.4 Base Case Value: 19.0
BEVERLY (45608) TO SILVE LK (45857) CKT 1 MVA: 406.9 LIMIT: 339.0 %: 120.0 Base Case Value: 79.7
MARINER (45622) TO SILVE LK (45857) CKT 1 MVA: 374.2 LIMIT: 339.0 %: 110.4 Base Case Value: 56.5
MARINER (45622) TO MARTHA L (45711) CKT 1 MVA: 351.3 LIMIT: 339.0 %: 103.6 Base Case Value: 38.3
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 547.3 LIMIT: 549.8 %: 99.5 Base Case Value: 314.6
BEVERLY (45608) TO BEV 230 (45605) CKT 1 MVA: 427.0 LIMIT: 429.0 %: 99.5 Base Case Value: 244.7
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 253.1 LIMIT: 256.0 %: 98.8 Base Case Value: 27.0
GLENWD T (45847) TO GLESNO11 (49900) CKT 2 MVA: 223.5 LIMIT: 230.1 %: 97.1 Base Case Value: 135.4
BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1 MVA: 532.0 LIMIT: 549.8 %: 96.8 Base Case Value: 306.2
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 352.4 LIMIT: 369.0 %: 95.5 Base Case Value: 226.9
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 345.8 LIMIT: 369.0 %: 93.7 Base Case Value: 223.3
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 230.7 LIMIT: 256.0 %: 90.1 Base Case Value: 12.6

BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
LYNNWD (45705) LOW V VOLT: 0.8417 LIMIT: 0.9000 Base Case Value: 0.9697
PERRINV (45747) LOW V VOLT: 0.8431 LIMIT: 0.9000 Base Case Value: 0.9710
PERRINVT (45749) LOW V VOLT: 0.8432 LIMIT: 0.9000 Base Case Value: 0.9710
MAPLEW (45709) LOW V VOLT: 0.8466 LIMIT: 0.9000 Base Case Value: 0.9740
PK RIDGE (45755) LOW V VOLT: 0.8482 LIMIT: 0.9000 Base Case Value: 0.9961
PK RIDGT (45757) LOW V VOLT: 0.8484 LIMIT: 0.9000 Base Case Value: 0.9962
BRITEH2O (45758) LOW V VOLT: 0.8486 LIMIT: 0.9000 Base Case Value: 0.9956
TURNERS (45809) LOW V VOLT: 0.8490 LIMIT: 0.9000 Base Case Value: 0.9947
THRASHER (45801) LOW V VOLT: 0.8513 LIMIT: 0.9000 Base Case Value: 0.9963
CLEARV (45625) LOW V VOLT: 0.8519 LIMIT: 0.9000 Base Case Value: 0.9920
EDMONDT2 (45633) LOW V VOLT: 0.8524 LIMIT: 0.9000 Base Case Value: 0.9790
FIVE COR (45647) LOW V VOLT: 0.8533 LIMIT: 0.9000 Base Case Value: 0.9798
BRIER (45609) LOW V VOLT: 0.8537 LIMIT: 0.9000 Base Case Value: 0.9906
CASCAD (45621) LOW V VOLT: 0.8547 LIMIT: 0.9000 Base Case Value: 0.9879
TAMBARKT (45795) LOW V VOLT: 0.8549 LIMIT: 0.9000 Base Case Value: 0.9995
CAN PARK (45619) LOW V VOLT: 0.8551 LIMIT: 0.9000 Base Case Value: 0.9938
WESTGATE (45819) LOW V VOLT: 0.8555 LIMIT: 0.9000 Base Case Value: 0.9817
RICHMND (45759) LOW V VOLT: 0.8559 LIMIT: 0.9000 Base Case Value: 0.9820
MURPHYS (45723) LOW V VOLT: 0.8560 LIMIT: 0.9000 Base Case Value: 0.9858
RICHMNDT (45761) LOW V VOLT: 0.8565 LIMIT: 0.9000 Base Case Value: 0.9825
BALLING (45603) LOW V VOLT: 0.8566 LIMIT: 0.9000 Base Case Value: 0.9826
MONTLAKE (45717) LOW V VOLT: 0.8568 LIMIT: 0.9000 Base Case Value: 0.9871
N CRK (45727) LOW V VOLT: 0.8582 LIMIT: 0.9000 Base Case Value: 0.9853
HALLS LK (45848) LOW V VOLT: 0.8586 LIMIT: 0.9000 Base Case Value: 0.9843
ESPERENC (45635) LOW V VOLT: 0.8588 LIMIT: 0.9000 Base Case Value: 0.9843
TAMBARK2 (45790) LOW V VOLT: 0.8589 LIMIT: 0.9000 Base Case Value: 0.9895
NCRK TAP (45852) LOW V VOLT: 0.8619 LIMIT: 0.9000 Base Case Value: 0.9856
ALDERW (45601) LOW V VOLT: 0.8631 LIMIT: 0.9000 Base Case Value: 0.9850
FLORLH T (45844) LOW V VOLT: 0.8655 LIMIT: 0.9000 Base Case Value: 0.9871
FLORAL H (45649) LOW V VOLT: 0.8658 LIMIT: 0.9000 Base Case Value: 0.9860
FLORLHT1 (45845) LOW V VOLT: 0.8658 LIMIT: 0.9000 Base Case Value: 0.9860
N ALDER (45725) LOW V VOLT: 0.8661 LIMIT: 0.9000 Base Case Value: 0.9859
SWMPCKT1 (45859) LOW V VOLT: 0.8673 LIMIT: 0.9000 Base Case Value: 0.9864
SWMPCKT2 (45860) LOW V VOLT: 0.8674 LIMIT: 0.9000 Base Case Value: 0.9864
LYNNWDT (45707) LOW V VOLT: 0.8677 LIMIT: 0.9000 Base Case Value: 0.9838
MARTHA L (45711) LOW V VOLT: 0.8722 LIMIT: 0.9000 Base Case Value: 0.9870
KEELERL (45710) LOW V VOLT: 0.8724 LIMIT: 0.9000 Base Case Value: 0.9835
KEELER S (45708) LOW V VOLT: 0.8724 LIMIT: 0.9000 Base Case Value: 0.9836
MEADWD (45713) LOW V VOLT: 0.8733 LIMIT: 0.9000 Base Case Value: 0.9830
MEADWDT (45715) LOW V VOLT: 0.8739 LIMIT: 0.9000 Base Case Value: 0.9835
LK SEREN (45701) LOW V VOLT: 0.8774 LIMIT: 0.9000 Base Case Value: 0.9837
S CAMANO (45853) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9480
GIBSON (45657) LOW V VOLT: 0.8914 LIMIT: 0.9000 Base Case Value: 0.9853
MARINER (45622) LOW V VOLT: 0.8940 LIMIT: 0.9000 Base Case Value: 0.9910

CAMANO (45617) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9536
PAINE F (45745) LOW V VOLT: 0.8999 LIMIT: 0.9000 Base Case Value: 0.9867
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOKING BUS (NOT CREDIBLE AFTER 07)
ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 51)
BRANCH: 10
BUS VOLTAGE: 41
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MARTHA L (45711) TO SWMPCKT2 (45860) CKT 1 MVA: 314.8 LIMIT: 256.0 %: 123.0 Base Case Value: 19.0
BEVERLY (45608) TO SILVE LK (45857) CKT 1 MVA: 404.6 LIMIT: 339.0 %: 119.4 Base Case Value: 79.7
MARINER (45622) TO SILVE LK (45857) CKT 1 MVA: 372.4 LIMIT: 339.0 %: 109.9 Base Case Value: 56.5
MARINER (45622) TO MARTHA L (45711) CKT 1 MVA: 349.8 LIMIT: 339.0 %: 103.2 Base Case Value: 38.3
GIBSON (45657) TO PAINE F (45745) CKT 1 MVA: 253.1 LIMIT: 256.0 %: 98.9 Base Case Value: 27.0
BEVERLY (45608) TO BEV 230 (45605) CKT 1 MVA: 412.6 LIMIT: 429.0 %: 96.2 Base Case Value: 244.7
GLENWD T (45847) TO GLESNO11 (49900) CKT 2 MVA: 220.6 LIMIT: 230.1 %: 95.9 Base Case Value: 135.4
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 524.5 LIMIT: 549.8 %: 95.4 Base Case Value: 314.6
BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1 MVA: 509.9 LIMIT: 549.8 %: 92.7 Base Case Value: 306.2
GIBSON (45657) TO LK SEREN (45701) CKT 1 MVA: 230.9 LIMIT: 256.0 %: 90.2 Base Case Value: 12.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
LYNNWD (45705) LOW V VOLT: 0.8639 LIMIT: 0.9000 Base Case Value: 0.9697
PERRINV (45747) LOW V VOLT: 0.8652 LIMIT: 0.9000 Base Case Value: 0.9710
PERRINVT (45749) LOW V VOLT: 0.8653 LIMIT: 0.9000 Base Case Value: 0.9710
MAPLEW (45709) LOW V VOLT: 0.8687 LIMIT: 0.9000 Base Case Value: 0.9740
PK RIDGE (45755) LOW V VOLT: 0.8703 LIMIT: 0.9000 Base Case Value: 0.9961
PK RIDGT (45757) LOW V VOLT: 0.8704 LIMIT: 0.9000 Base Case Value: 0.9962
BRITEH2O (45758) LOW V VOLT: 0.8706 LIMIT: 0.9000 Base Case Value: 0.9956
TURNERS (45809) LOW V VOLT: 0.8710 LIMIT: 0.9000 Base Case Value: 0.9947
THRASHER (45801) LOW V VOLT: 0.8733 LIMIT: 0.9000 Base Case Value: 0.9963
CLEARV (45625) LOW V VOLT: 0.8738 LIMIT: 0.9000 Base Case Value: 0.9920
EDMONDT2 (45633) LOW V VOLT: 0.8743 LIMIT: 0.9000 Base Case Value: 0.9790
FIVE COR (45647) LOW V VOLT: 0.8752 LIMIT: 0.9000 Base Case Value: 0.9798
BRIER (45609) LOW V VOLT: 0.8755 LIMIT: 0.9000 Base Case Value: 0.9906
CASCAD (45621) LOW V VOLT: 0.8766 LIMIT: 0.9000 Base Case Value: 0.9879
TAMBARKT (45795) LOW V VOLT: 0.8767 LIMIT: 0.9000 Base Case Value: 0.9995
CAN PARK (45619) LOW V VOLT: 0.8769 LIMIT: 0.9000 Base Case Value: 0.9938
WESTGATE (45819) LOW V VOLT: 0.8773 LIMIT: 0.9000 Base Case Value: 0.9817
RICHMND (45759) LOW V VOLT: 0.8777 LIMIT: 0.9000 Base Case Value: 0.9820
MURPHYS (45723) LOW V VOLT: 0.8778 LIMIT: 0.9000 Base Case Value: 0.9858
RICHMNDT (45761) LOW V VOLT: 0.8783 LIMIT: 0.9000 Base Case Value: 0.9825
BALLING (45603) LOW V VOLT: 0.8784 LIMIT: 0.9000 Base Case Value: 0.9826
MONTLAKE (45717) LOW V VOLT: 0.8786 LIMIT: 0.9000 Base Case Value: 0.9871
N CRK (45727) LOW V VOLT: 0.8799 LIMIT: 0.9000 Base Case Value: 0.9853
HALLS LK (45848) LOW V VOLT: 0.8803 LIMIT: 0.9000 Base Case Value: 0.9843
ESPERENC (45635) LOW V VOLT: 0.8805 LIMIT: 0.9000 Base Case Value: 0.9843
TAMBARK2 (45790) LOW V VOLT: 0.8806 LIMIT: 0.9000 Base Case Value: 0.9895
NCRK TAP (45852) LOW V VOLT: 0.8835 LIMIT: 0.9000 Base Case Value: 0.9856
ALDERW (45601) LOW V VOLT: 0.8847 LIMIT: 0.9000 Base Case Value: 0.9850
FLORLH T (45844) LOW V VOLT: 0.8870 LIMIT: 0.9000 Base Case Value: 0.9871
FLORAL H (45649) LOW V VOLT: 0.8874 LIMIT: 0.9000 Base Case Value: 0.9860
FLORLHT1 (45845) LOW V VOLT: 0.8874 LIMIT: 0.9000 Base Case Value: 0.9860
N ALDER (45725) LOW V VOLT: 0.8876 LIMIT: 0.9000 Base Case Value: 0.9859
SWMPCKT1 (45859) LOW V VOLT: 0.8888 LIMIT: 0.9000 Base Case Value: 0.9864
SWMPCKT2 (45860) LOW V VOLT: 0.8888 LIMIT: 0.9000 Base Case Value: 0.9864
LYNNWDT (45707) LOW V VOLT: 0.8892 LIMIT: 0.9000 Base Case Value: 0.9838
MARTHA L (45711) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9870
KEELERL (45710) LOW V VOLT: 0.8937 LIMIT: 0.9000 Base Case Value: 0.9835
KEELER S (45708) LOW V VOLT: 0.8938 LIMIT: 0.9000 Base Case Value: 0.9836
MEADWD (45713) LOW V VOLT: 0.8946 LIMIT: 0.9000 Base Case Value: 0.9830
MEADWDT (45715) LOW V VOLT: 0.8952 LIMIT: 0.9000 Base Case Value: 0.9835
LK SEREN (45701) LOW V VOLT: 0.8986 LIMIT: 0.9000 Base Case Value: 0.9837

BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH EAST CENT BUS G BS
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 223.94 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 59.84 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 101.75 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 3.24 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 226.89 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 120.49 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.82 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 24)
BRANCH: 2
BUS VOLTAGE: 22
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 426.1 LIMIT: 369.0 %: 115.5 Base Case Value: 223.3
SNOHM (45779) TO SNOHOMSH (40997) CKT 1 MVA: 138.0 LIMIT: 148.0 %: 93.2 Base Case Value: 52.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8650 LIMIT: 0.9000 Base Case Value: 0.9480
CAMANO (45617) LOW V VOLT: 0.8712 LIMIT: 0.9000 Base Case Value: 0.9536
N STAN (45731) LOW V VOLT: 0.8775 LIMIT: 0.9000 Base Case Value: 0.9593
THREE LK (45803) LOW V VOLT: 0.8874 LIMIT: 0.9000 Base Case Value: 1.0006
GOLD BAR (45663) LOW V VOLT: 0.8909 LIMIT: 0.9000 Base Case Value: 0.9960
LK CHAP (45697) LOW V VOLT: 0.8915 LIMIT: 0.9000 Base Case Value: 1.0024
JACKSN (45685) LOW V VOLT: 0.8918 LIMIT: 0.9000 Base Case Value: 1.0025
SULT GBT (45787) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9983
FOBES (45651) LOW V VOLT: 0.8941 LIMIT: 0.9000 Base Case Value: 0.9961
SULTAN (45789) LOW V VOLT: 0.8947 LIMIT: 0.9000 Base Case Value: 0.9969
SCOTT 2L (45824) LOW V VOLT: 0.8970 LIMIT: 0.9000 Base Case Value: 0.9871
SCOTT 2 (45842) LOW V VOLT: 0.8971 LIMIT: 0.9000 Base Case Value: 0.9872
TENTH (45797) LOW V VOLT: 0.8978 LIMIT: 0.9000 Base Case Value: 0.9851
TENTHT (45799) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 0.9852
C MARY (45611) LOW V VOLT: 0.8983 LIMIT: 0.9000 Base Case Value: 0.9805
KELLOGM (45693) LOW V VOLT: 0.8985 LIMIT: 0.9000 Base Case Value: 0.9801
TULALIP (45805) LOW V VOLT: 0.8986 LIMIT: 0.9000 Base Case Value: 0.9818
DELTA SW (45627) LOW V VOLT: 0.8989 LIMIT: 0.9000 Base Case Value: 0.9844
C MARYST (45840) LOW V VOLT: 0.8989 LIMIT: 0.9000 Base Case Value: 0.9811
TULALIPT (45807) LOW V VOLT: 0.8990 LIMIT: 0.9000 Base Case Value: 0.9822
CMARYST (45841) LOW V VOLT: 0.8993 LIMIT: 0.9000 Base Case Value: 0.9808
QUILCEDA (45632) LOW V VOLT: 0.8998 LIMIT: 0.9000 Base Case Value: 0.9817
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK SOUTH BUS G
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |

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      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOK S3 (41008)  TO  SNOKING (41003) CKT 2 |  | CHECK |  | Opened flow of 169.35 MVA
       OPEN Branch CAN PARK (45619)  TO  SNOKING (41003) CKT 1 |  | CHECK |  | Opened flow of 129.12 MVA
       OPEN Branch PK RIDGT (45757)  TO  SNOKING (41003) CKT 1 |  | CHECK |  | Opened flow of 143.62 MVA
       OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
       OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
      BRANCH:              2
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOKING (41003)  TO  THRASHER (45801) CKT 1    MVA:   294.2   LIMIT:   256.0   %: 114.9   Base Case Value:   181.4
      BRIER (45609)  TO  THRASHER (45801) CKT 1    MVA:   249.9   LIMIT:   256.0   %:  97.6   Base Case Value:   138.7
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-SNOK SOUTH BUS
   ELEMENTS:
      OPEN Branch SNOK S3 (41008)  TO  SNOKING (41003) CKT 2 |  | CHECK |
      OPEN Branch CAN PARK (45619)  TO  SNOKING (41003) CKT 1 |  | CHECK |
      OPEN Branch PK RIDGT (45757)  TO  SNOKING (41003) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOK S3 (41008)  TO  SNOKING (41003) CKT 2 |  | CHECK |  | Opened flow of 169.35 MVA
       OPEN Branch CAN PARK (45619)  TO  SNOKING (41003) CKT 1 |  | CHECK |  | Opened flow of 129.12 MVA
       OPEN Branch PK RIDGT (45757)  TO  SNOKING (41003) CKT 1 |  | CHECK |  | Opened flow of 143.62 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
      BRANCH:              2
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOKING (41003)  TO  THRASHER (45801) CKT 1    MVA:   286.3   LIMIT:   256.0   %: 111.8   Base Case Value:   181.4
      BRIER (45609)  TO  THRASHER (45801) CKT 1    MVA:   242.2   LIMIT:   256.0   %:  94.6   Base Case Value:   138.7
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-230 SNOH2 G
   ELEMENTS:
      OPEN Bus SNOH S2 (41328) |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Bus SNOH S2 (41328) |  | CHECK |  | Opened   0.00 MW
       OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
       OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
      BRANCH:              3
      BUS VOLTAGE:         2
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   399.3   LIMIT:   369.0   %: 108.2   Base Case Value:   226.9
      SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1    MVA:   376.0   LIMIT:   393.0   %:  95.7   Base Case Value:   223.9
      ABERDEEN (40007)  TO  WYNOOCHE (46792) CKT 1    MVA:    13.6   LIMIT:    15.0   %:  90.7   Base Case Value:    12.5
   BRANCH AMP VIOLATIONS:
      None.
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BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS4 (40994) HIGH V VOLT: 1.0936 LIMIT: 1.0500 Base Case Value: 1.0237
CHISNO41 (49939) HIGH V VOLT: 1.0825 LIMIT: 1.0500 Base Case Value: 1.0179
CONTINGENCY Z-SNOK SOUTH CENT BUS G BS
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 169.35 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.12 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 143.62 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 180.84 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 181.43 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 17)
BRANCH: 1
BUS VOLTAGE: 16
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 MVA: 274.1 LIMIT: 256.0 %: 107.1 Base Case Value: 21.1
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
LYNNWD (45705) LOW V VOLT: 0.8863 LIMIT: 0.9000 Base Case Value: 0.9697
PERRINV (45747) LOW V VOLT: 0.8876 LIMIT: 0.9000 Base Case Value: 0.9710
PERRINVT (45749) LOW V VOLT: 0.8877 LIMIT: 0.9000 Base Case Value: 0.9710
MAPLEW (45709) LOW V VOLT: 0.8909 LIMIT: 0.9000 Base Case Value: 0.9740
THRASHER (45801) LOW V VOLT: 0.8954 LIMIT: 0.9000 Base Case Value: 0.9963
PK RIDGE (45755) LOW V VOLT: 0.8962 LIMIT: 0.9000 Base Case Value: 0.9961
PK RIDGT (45757) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9962
EDMONDT2 (45633) LOW V VOLT: 0.8964 LIMIT: 0.9000 Base Case Value: 0.9790
BRITEH2O (45758) LOW V VOLT: 0.8965 LIMIT: 0.9000 Base Case Value: 0.9956
TURNERS (45809) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9947
FIVE COR (45647) LOW V VOLT: 0.8973 LIMIT: 0.9000 Base Case Value: 0.9798
BRIER (45609) LOW V VOLT: 0.8976 LIMIT: 0.9000 Base Case Value: 0.9906
CAN PARK (45619) LOW V VOLT: 0.8990 LIMIT: 0.9000 Base Case Value: 0.9938
WESTGATE (45819) LOW V VOLT: 0.8994 LIMIT: 0.9000 Base Case Value: 0.9817
CLEARV (45625) LOW V VOLT: 0.8997 LIMIT: 0.9000 Base Case Value: 0.9920
RICHMND (45759) LOW V VOLT: 0.8997 LIMIT: 0.9000 Base Case Value: 0.9820
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK SOUTH CENT BUS BS
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 169.35 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.12 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 143.62 MVA
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 180.84 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 181.43 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0

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      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SWMPCKT1 (45859)  TO  SWMPCKT2 (45860) CKT 1    MVA:   271.7   LIMIT:   256.0   %: 106.1   Base Case Value:    21.1
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY C-BEV-CASINO-OLIVIA FAULT
   ELEMENTS:
      OPEN Branch BEVERLY (45608)  TO  CASINO (45623) CKT 1 |  | CHECK |
      OPEN Branch OLIVIA T (45741)  TO  PAINE F (45745) CKT 1 |  | CHECK |
      OPEN Branch HALLS LK (45848)  TO  LYNNWDT (45707) CKT 1 |  | CHECK |
      OPEN Branch MUKTAP (45721)  TO  PAINE F (45745) CKT 1 |  | CHECK |
      OPEN MultiSectionLine GLENWD T (45847)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Branch BEVERLY (45608)  TO  CASINO (45623) CKT 1 |  | CHECK |  | Opened flow of  71.42 MVA
        OPEN Branch OLIVIA T (45741)  TO  PAINE F (45745) CKT 1 |  | CHECK |  | Opened flow of  67.83 MVA
        OPEN Branch HALLS LK (45848)  TO  LYNNWDT (45707) CKT 1 |  | CHECK |  | Opened flow of  42.25 MVA
        OPEN Branch MUKTAP (45721)  TO  PAINE F (45745) CKT 1 |  | CHECK |  | Opened flow of   9.40 MVA
        OPEN MultiSectionLine GLENWD T (45847)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | was already open
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
      BRANCH:              1
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      GLENWD T (45847)  TO  GLESNO11 (49900) CKT 2    MVA:   237.5   LIMIT:   230.1   %: 103.2   Base Case Value:   135.4
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)   HIGH V   VOLT:    1.0524   LIMIT:  1.0500   Base Case Value:  1.0490
CONTINGENCY Z-230 SNOK3 G
   ELEMENTS:
      OPEN Bus SNOK S3 (41008) |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Bus SNOK S3 (41008) |  | CHECK |  | Opened   0.00 MW
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              1
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      BOTSNO11 (49962)  TO  SNOK S1 (41004) CKT 1    MVA:   544.9   LIMIT:   549.8   %:  99.1   Base Case Value:   306.2
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-230 SNOH2
   ELEMENTS:
      OPEN Bus SNOH S2 (41328) |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Bus SNOH S2 (41328) |  | CHECK |  | Opened   0.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
      BRANCH:              1
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BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 363.4 LIMIT: 369.0 %: 98.5 Base Case Value: 226.9
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS4 (40994) HIGH V VOLT: 1.0960 LIMIT: 1.0500 Base Case Value: 1.0237
CHISNO41 (49939) HIGH V VOLT: 1.0848 LIMIT: 1.0500 Base Case Value: 1.0179
CONTINGENCY Z-SNOH EAST CENT BUS BS
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 223.94 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 59.84 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 101.75 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 3.24 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 226.89 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 120.49 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 84.82 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 1
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 361.2 LIMIT: 369.0 %: 97.9 Base Case Value: 223.3
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8899 LIMIT: 0.9000 Base Case Value: 0.9480
CAMANO (45617) LOW V VOLT: 0.8959 LIMIT: 0.9000 Base Case Value: 0.9536
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST BUS-G
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.67 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 102.64 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.56 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | was already open
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 58.93 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 223.29 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)
BRANCH: 1

BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
FOBES (45651) TO SNOHOMSH (40997) CKT 1 MVA: 248.0 LIMIT: 256.0 %: 96.9 Base Case Value: 120.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
SNOHM (45779) LOW V VOLT: 0.8945 LIMIT: 0.9000 Base Case Value: 0.9985
W MONROE (45813) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9941
WOODS CK (45823) LOW V VOLT: 0.8987 LIMIT: 0.9000 Base Case Value: 0.9940
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOK1 G
ELEMENTS:
OPEN Bus SNOK S1 (41004) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK S1 (41004) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 527.4 LIMIT: 549.8 %: 95.9 Base Case Value: 314.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.5 LIMIT: 15.0 %: 90.1 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOK3
ELEMENTS:
OPEN Bus SNOK S3 (41008) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK S3 (41008) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1 MVA: 522.3 LIMIT: 549.8 %: 95.0 Base Case Value: 306.2
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45619CANPARK-41003SNOKINGC1
ELEMENTS:
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 129.12 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:

SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 241.3 LIMIT: 256.0 %: 94.2 Base Case Value: 181.4
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH EAST BUS G
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 223.94 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 59.84 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 101.75 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 3.24 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 1
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOHM (45779) TO SNOHOMSH (40997) CKT 1 MVA: 137.7 LIMIT: 148.0 %: 93.1 Base Case Value: 52.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8911 LIMIT: 0.9000 Base Case Value: 0.9480
CAMANO (45617) LOW V VOLT: 0.8972 LIMIT: 0.9000 Base Case Value: 0.9536
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-500 TP SNOKING G (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOK TAP (41001) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK TAP (41001) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 88)
BRANCH: 2
BUS VOLTAGE: 86
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BEVERLY (45608) TO GLDBRTIE (42399) CKT 1 MVA: 66.5 LIMIT: 71.9 %: 92.5 Base Case Value: 54.7
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8540 LIMIT: 0.9000 Base Case Value: 0.9480
CAMANO (45617) LOW V VOLT: 0.8603 LIMIT: 0.9000 Base Case Value: 0.9536
N STAN (45731) LOW V VOLT: 0.8667 LIMIT: 0.9000 Base Case Value: 0.9593
BLYN (47556) LOW V VOLT: 0.8679 LIMIT: 0.9000 Base Case Value: 0.9635
OLYMPC C (47563) LOW V VOLT: 0.8680 LIMIT: 0.9000 Base Case Value: 0.9637
DUNGENES (47559) LOW V VOLT: 0.8684 LIMIT: 0.9000 Base Case Value: 0.9640

SUNLAND (47567) LOW V VOLT: 0.8688 LIMIT: 0.9000 Base Case Value: 0.9643
DUN JCT (47558) LOW V VOLT: 0.8689 LIMIT: 0.9000 Base Case Value: 0.9644
SEQUIM (47565) LOW V VOLT: 0.8690 LIMIT: 0.9000 Base Case Value: 0.9645
SUN TAP (47566) LOW V VOLT: 0.8698 LIMIT: 0.9000 Base Case Value: 0.9652
EVERGRNC (47560) LOW V VOLT: 0.8702 LIMIT: 0.9000 Base Case Value: 0.9656
PRAIRIEC (47564) LOW V VOLT: 0.8730 LIMIT: 0.9000 Base Case Value: 0.9680
HAPPY V (47561) LOW V VOLT: 0.8781 LIMIT: 0.9000 Base Case Value: 0.9726
LYNNWD (45705) LOW V VOLT: 0.8782 LIMIT: 0.9000 Base Case Value: 0.9697
PERRINV (45747) LOW V VOLT: 0.8795 LIMIT: 0.9000 Base Case Value: 0.9710
PERRINVT (45749) LOW V VOLT: 0.8796 LIMIT: 0.9000 Base Case Value: 0.9710
MAPLEW (45709) LOW V VOLT: 0.8829 LIMIT: 0.9000 Base Case Value: 0.9740
EDMONDT2 (45633) LOW V VOLT: 0.8885 LIMIT: 0.9000 Base Case Value: 0.9790
FIVE COR (45647) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9798
KELLOGM (45693) LOW V VOLT: 0.8898 LIMIT: 0.9000 Base Case Value: 0.9801
C MARY (45611) LOW V VOLT: 0.8902 LIMIT: 0.9000 Base Case Value: 0.9805
CMARYST (45841) LOW V VOLT: 0.8906 LIMIT: 0.9000 Base Case Value: 0.9808
C MARYST (45840) LOW V VOLT: 0.8908 LIMIT: 0.9000 Base Case Value: 0.9811
N MARYS (45729) LOW V VOLT: 0.8910 LIMIT: 0.9000 Base Case Value: 0.9810
LK GDW (45699) LOW V VOLT: 0.8913 LIMIT: 0.9000 Base Case Value: 0.9808
TULALIP (45805) LOW V VOLT: 0.8913 LIMIT: 0.9000 Base Case Value: 0.9818
WESTGATE (45819) LOW V VOLT: 0.8914 LIMIT: 0.9000 Base Case Value: 0.9817
QUILCEDA (45632) LOW V VOLT: 0.8915 LIMIT: 0.9000 Base Case Value: 0.9817
RICHMND (45759) LOW V VOLT: 0.8918 LIMIT: 0.9000 Base Case Value: 0.9820
TULALIPT (45807) LOW V VOLT: 0.8918 LIMIT: 0.9000 Base Case Value: 0.9822
RICHMNDT (45761) LOW V VOLT: 0.8924 LIMIT: 0.9000 Base Case Value: 0.9825
BALLING (45603) LOW V VOLT: 0.8925 LIMIT: 0.9000 Base Case Value: 0.9826
STIMSONS (45785) LOW V VOLT: 0.8928 LIMIT: 0.9000 Base Case Value: 0.9824
MEADWD (45713) LOW V VOLT: 0.8929 LIMIT: 0.9000 Base Case Value: 0.9830
SMOKEYP (45775) LOW V VOLT: 0.8934 LIMIT: 0.9000 Base Case Value: 0.9829
MEADWDT (45715) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9835
KEELERL (45710) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9835
KEELER S (45708) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9836
LK SEREN (45701) LOW V VOLT: 0.8937 LIMIT: 0.9000 Base Case Value: 0.9837
DELTA SW (45627) LOW V VOLT: 0.8938 LIMIT: 0.9000 Base Case Value: 0.9844
LYNNWDT (45707) LOW V VOLT: 0.8938 LIMIT: 0.9000 Base Case Value: 0.9838
AGNEW C (47555) LOW V VOLT: 0.8939 LIMIT: 0.9000 Base Case Value: 0.9922
SMOKEYPT (45777) LOW V VOLT: 0.8940 LIMIT: 0.9000 Base Case Value: 0.9834
HALLS LK (45848) LOW V VOLT: 0.8943 LIMIT: 0.9000 Base Case Value: 0.9843
ESPERENC (45635) LOW V VOLT: 0.8943 LIMIT: 0.9000 Base Case Value: 0.9843
TENTH (45797) LOW V VOLT: 0.8946 LIMIT: 0.9000 Base Case Value: 0.9851
NORTON S (45737) LOW V VOLT: 0.8946 LIMIT: 0.9000 Base Case Value: 0.9858
TENTHT (45799) LOW V VOLT: 0.8947 LIMIT: 0.9000 Base Case Value: 0.9852
NAVY (45733) LOW V VOLT: 0.8949 LIMIT: 0.9000 Base Case Value: 0.9863
SILLS C (45855) LOW V VOLT: 0.8952 LIMIT: 0.9000 Base Case Value: 0.9843
ALDERW (45601) LOW V VOLT: 0.8952 LIMIT: 0.9000 Base Case Value: 0.9850
KIMCLK (45849) LOW V VOLT: 0.8953 LIMIT: 0.9000 Base Case Value: 0.9868
EVRETTT2 (45843) LOW V VOLT: 0.8954 LIMIT: 0.9000 Base Case Value: 0.9868
N CRK (45727) LOW V VOLT: 0.8955 LIMIT: 0.9000 Base Case Value: 0.9853
WATRFRT (45861) LOW V VOLT: 0.8955 LIMIT: 0.9000 Base Case Value: 0.9869
GIBSON (45657) LOW V VOLT: 0.8956 LIMIT: 0.9000 Base Case Value: 0.9853
GOLD BAR (45663) LOW V VOLT: 0.8958 LIMIT: 0.9000 Base Case Value: 0.9960
DEER P C (47557) LOW V VOLT: 0.8959 LIMIT: 0.9000 Base Case Value: 0.9939
NCRK TAP (45852) LOW V VOLT: 0.8959 LIMIT: 0.9000 Base Case Value: 0.9856
MURPHYS (45723) LOW V VOLT: 0.8960 LIMIT: 0.9000 Base Case Value: 0.9858
N ALDER (45725) LOW V VOLT: 0.8962 LIMIT: 0.9000 Base Case Value: 0.9859
FLORAL H (45649) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9860
FLORLHT1 (45845) LOW V VOLT: 0.8963 LIMIT: 0.9000 Base Case Value: 0.9860
MUKLTEO (45851) LOW V VOLT: 0.8966 LIMIT: 0.9000 Base Case Value: 0.9861
SWMPCKT1 (45859) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9864
SWMPCKT2 (45860) LOW V VOLT: 0.8968 LIMIT: 0.9000 Base Case Value: 0.9864
MUKTAP (45721) LOW V VOLT: 0.8969 LIMIT: 0.9000 Base Case Value: 0.9865
SCOTT 2L (45824) LOW V VOLT: 0.8970 LIMIT: 0.9000 Base Case Value: 0.9871
SCOTT 2 (45842) LOW V VOLT: 0.8971 LIMIT: 0.9000 Base Case Value: 0.9872
PAINE F (45745) LOW V VOLT: 0.8972 LIMIT: 0.9000 Base Case Value: 0.9867
MONTLAKE (45717) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9871
MONROE C (47562) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9953
HARBOR P (45679) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9869
FLORLH T (45844) LOW V VOLT: 0.8975 LIMIT: 0.9000 Base Case Value: 0.9871
MARTHA L (45711) LOW V VOLT: 0.8975 LIMIT: 0.9000 Base Case Value: 0.9870
SULTAN (45789) LOW V VOLT: 0.8978 LIMIT: 0.9000 Base Case Value: 0.9969

EVERETT (45637) LOW V VOLT: 0.8982 LIMIT: 0.9000 Base Case Value: 0.9890
CASCAD (45621) LOW V VOLT: 0.8983 LIMIT: 0.9000 Base Case Value: 0.9879
FIFTYSEC (45645) LOW V VOLT: 0.8983 LIMIT: 0.9000 Base Case Value: 0.9890
SULT GBT (45787) LOW V VOLT: 0.8984 LIMIT: 0.9000 Base Case Value: 0.9983
WOODS CK (45823) LOW V VOLT: 0.8987 LIMIT: 0.9000 Base Case Value: 0.9940
TWNTETH (45811) LOW V VOLT: 0.8987 LIMIT: 0.9000 Base Case Value: 0.9880
PICNIC (45751) LOW V VOLT: 0.8991 LIMIT: 0.9000 Base Case Value: 0.9884
BOEING (45607) LOW V VOLT: 0.8993 LIMIT: 0.9000 Base Case Value: 0.9886
PINEHURS (45753) LOW V VOLT: 0.8995 LIMIT: 0.9000 Base Case Value: 0.9899
W MONROE (45813) LOW V VOLT: 0.8999 LIMIT: 0.9000 Base Case Value: 0.9941
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOK1
ELEMENTS:
OPEN Bus SNOK S1 (41004) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK S1 (41004) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 504.5 LIMIT: 549.8 %: 91.8 Base Case Value: 314.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY C-BEV-SILVER-GLENWD FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK | | Opened flow of 79.69 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 74.67 MVA
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK | | Opened flow of 112.14 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | was already open
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 233.8 LIMIT: 256.0 %: 91.3 Base Case Value: 181.4
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-500 TP SNOKING (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOK TAP (41001) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK TAP (41001) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BEVERLY (45608) TO GLDBRTIE (42399) CKT 1 MVA: 65.4 LIMIT: 71.9 %: 91.0 Base Case Value: 54.7
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.5

BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45619CANPARK-45717MONTLAKEC1
ELEMENTS:
OPEN Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 | | CHECK | | Opened flow of 108.69 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 232.0 LIMIT: 256.0 %: 90.6 Base Case Value: 181.4
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST BUS
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.67 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 102.64 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 89.56 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | was already open
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 58.93 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 223.29 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
FOBES (45651) TO SNOHOMSH (40997) CKT 1 MVA: 230.5 LIMIT: 256.0 %: 90.0 Base Case Value: 120.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-MURRAY BUS G
ELEMENTS:
OPEN Bus MURRAY (40765) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus MURRAY (40765) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 18)
BRANCH: 0
BUS VOLTAGE: 18
INTERFACE: 0

ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8284 LIMIT: 0.9000 Base Case Value: 0.9480
CAMANO (45617) LOW V VOLT: 0.8350 LIMIT: 0.9000 Base Case Value: 0.9536
N STAN (45731) LOW V VOLT: 0.8415 LIMIT: 0.9000 Base Case Value: 0.9593
E ARLG (45629) LOW V VOLT: 0.8530 LIMIT: 0.9000 Base Case Value: 0.9921
PORTAGE (45630) LOW V VOLT: 0.8564 LIMIT: 0.9000 Base Case Value: 0.9885
LK GDW (45699) LOW V VOLT: 0.8589 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.8629 LIMIT: 0.9000 Base Case Value: 0.9843
SMOKEYP (45775) LOW V VOLT: 0.8676 LIMIT: 0.9000 Base Case Value: 0.9829
SMOKEYPT (45777) LOW V VOLT: 0.8683 LIMIT: 0.9000 Base Case Value: 0.9834
STIMSONS (45785) LOW V VOLT: 0.8686 LIMIT: 0.9000 Base Case Value: 0.9824
N MARYS (45729) LOW V VOLT: 0.8741 LIMIT: 0.9000 Base Case Value: 0.9810
KELLOGM (45693) LOW V VOLT: 0.8758 LIMIT: 0.9000 Base Case Value: 0.9801
CMARYST (45841) LOW V VOLT: 0.8766 LIMIT: 0.9000 Base Case Value: 0.9808
C MARY (45611) LOW V VOLT: 0.8794 LIMIT: 0.9000 Base Case Value: 0.9805
C MARYST (45840) LOW V VOLT: 0.8800 LIMIT: 0.9000 Base Case Value: 0.9811
QUILCEDA (45632) LOW V VOLT: 0.8801 LIMIT: 0.9000 Base Case Value: 0.9817
TULALIP (45805) LOW V VOLT: 0.8860 LIMIT: 0.9000 Base Case Value: 0.9818
TULALIPT (45807) LOW V VOLT: 0.8864 LIMIT: 0.9000 Base Case Value: 0.9822
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-MURRAY BUS
ELEMENTS:
OPEN Bus MURRAY (40765) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus MURRAY (40765) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 13)
BRANCH: 0
BUS VOLTAGE: 13
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8525 LIMIT: 0.9000 Base Case Value: 0.9480
CAMANO (45617) LOW V VOLT: 0.8589 LIMIT: 0.9000 Base Case Value: 0.9536
N STAN (45731) LOW V VOLT: 0.8652 LIMIT: 0.9000 Base Case Value: 0.9593
E ARLG (45629) LOW V VOLT: 0.8763 LIMIT: 0.9000 Base Case Value: 0.9921
PORTAGE (45630) LOW V VOLT: 0.8796 LIMIT: 0.9000 Base Case Value: 0.9885
LK GDW (45699) LOW V VOLT: 0.8820 LIMIT: 0.9000 Base Case Value: 0.9808
SILLS C (45855) LOW V VOLT: 0.8859 LIMIT: 0.9000 Base Case Value: 0.9843
SMOKEYP (45775) LOW V VOLT: 0.8905 LIMIT: 0.9000 Base Case Value: 0.9829
SMOKEYPT (45777) LOW V VOLT: 0.8911 LIMIT: 0.9000 Base Case Value: 0.9834
STIMSONS (45785) LOW V VOLT: 0.8914 LIMIT: 0.9000 Base Case Value: 0.9824
N MARYS (45729) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9810
KELLOGM (45693) LOW V VOLT: 0.8983 LIMIT: 0.9000 Base Case Value: 0.9801
CMARYST (45841) LOW V VOLT: 0.8991 LIMIT: 0.9000 Base Case Value: 0.9808
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH3 G
ELEMENTS:
OPEN Bus SNOH S3 (41329) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S3 (41329) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)

```
        BRANCH:              0
        BUS VOLTAGE:         2
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        SNOHOMS3 (40993)  HIGH V  VOLT:   1.0943  LIMIT:  1.0500  Base Case Value:  1.0246
        CHISNO31 (49940)  HIGH V  VOLT:   1.0832  LIMIT:  1.0500  Base Case Value:  1.0182
CONTINGENCY L_45607BOEING-45811TWNTETHC1
    ELEMENTS:
        OPEN Branch BOEING (45607)  TO  TWNTETH (45811) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch BOEING (45607)  TO  TWNTETH (45811) CKT 1 |  | CHECK |  | Opened flow of  42.41 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        MV-SVC (40769)  HIGH V  VOLT:   1.0512  LIMIT:  1.0500  Base Case Value:  1.0490
CONTINGENCY Z-230 SNOH3
    ELEMENTS:
        OPEN Bus SNOH S3 (41329) |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Bus SNOH S3 (41329) |  | CHECK |  | Opened   0.00 MW
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
        BRANCH:              0
        BUS VOLTAGE:         2
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        SNOHOMS3 (40993)  HIGH V  VOLT:   1.0966  LIMIT:  1.0500  Base Case Value:  1.0246
        CHISNO31 (49940)  HIGH V  VOLT:   1.0854  LIMIT:  1.0500  Base Case Value:  1.0182
CONTINGENCY L_45775SMOKEYP-45777SMOKEYPTC1
    ELEMENTS:
        OPEN Branch SMOKEYP (45775)  TO  SMOKEYPT (45777) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch SMOKEYP (45775)  TO  SMOKEYPT (45777) CKT 1 |  | CHECK |  | Opened flow of  28.84 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
```

MV-SVC (40769) HIGH V VOLT: 1.0505 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_42402HILTNLKT-45683HILTONC1
ELEMENTS:
OPEN Branch HILTNLKT (42402) TO HILTON (45683) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch HILTNLKT (42402) TO HILTON (45683) CKT 1 | | CHECK | | Opened flow of 22.69 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0502 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45705LYNNWD-45749PERRINVTC1
ELEMENTS:
OPEN Branch LYNNWD (45705) TO PERRINVT (45749) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch LYNNWD (45705) TO PERRINVT (45749) CKT 1 | | CHECK | | Opened flow of 36.64 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0510 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY C-SILLS- LK GDW FAULT
ELEMENTS:
OPEN Branch E ARLG (45629) TO PORTAGE (45630) CKT 1 | | CHECK |
OPEN Branch N STAN (45731) TO STIMSONS (45785) CKT 1 | | CHECK |
OPEN Branch SILLS C (45855) TO STIMSONS (45785) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch E ARLG (45629) TO PORTAGE (45630) CKT 1 | | CHECK | | Opened flow of 38.22 MVA
OPEN Branch N STAN (45731) TO STIMSONS (45785) CKT 1 | | CHECK | | Opened flow of 66.57 MVA
OPEN Branch SILLS C (45855) TO STIMSONS (45785) CKT 1 | | CHECK | | Opened flow of 11.72 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0538 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45731NSTAN-45785STIMSONSC1
ELEMENTS:
OPEN Branch N STAN (45731) TO STIMSONS (45785) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch N STAN (45731) TO STIMSONS (45785) CKT 1 | | CHECK | | Opened flow of 66.57 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0

BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0524 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45603BALLING-45761RICHMNDTC1
ELEMENTS:
OPEN Branch BALLING (45603) TO RICHMNDT (45761) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BALLING (45603) TO RICHMNDT (45761) CKT 1 | | CHECK | | Opened flow of 25.74 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0504 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45603BALLING-45848HALLSLKC1
ELEMENTS:
OPEN Branch BALLING (45603) TO HALLS LK (45848) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BALLING (45603) TO HALLS LK (45848) CKT 1 | | CHECK | | Opened flow of 45.41 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0514 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45611CMARY-45840CMARYSTC1
ELEMENTS:
OPEN Branch C MARY (45611) TO C MARYST (45840) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch C MARY (45611) TO C MARYST (45840) CKT 1 | | CHECK | | Opened flow of 19.08 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0500 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45617CAMANO-45731NSTANC1
ELEMENTS:

OPEN Branch CAMANO (45617) TO N STAN (45731) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAMANO (45617) TO N STAN (45731) CKT 1 | | CHECK | | Opened flow of 36.33 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0510 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45617CAMANO-45853SCAMANOC1
ELEMENTS:
OPEN Branch CAMANO (45617) TO S CAMANO (45853) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAMANO (45617) TO S CAMANO (45853) CKT 1 | | CHECK | | Opened flow of 20.82 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0503 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45633EDMONDT2-45647FIVECORC1
ELEMENTS:
OPEN Branch EDMONDT2 (45633) TO FIVE COR (45647) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch EDMONDT2 (45633) TO FIVE COR (45647) CKT 1 | | CHECK | | Opened flow of 73.88 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0528 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45846GETCHLT-45665GRANFALC1
ELEMENTS:
OPEN Branch GETCHL T (45846) TO GRANFAL (45665) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch GETCHL T (45846) TO GRANFAL (45665) CKT 1 | | CHECK | | Opened flow of 24.80 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0503 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45649FLORALH-45845FLORLHT1C1
ELEMENTS:
OPEN Branch FLORAL H (45649) TO FLORLHT1 (45845) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch FLORAL H (45649) TO FLORLHT1 (45845) CKT 1 | | CHECK | | Opened flow of 25.68 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0504 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45659GLENWD-45847GLENWDTC1
ELEMENTS:
OPEN Branch GLENWD (45659) TO GLENWD T (45847) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch GLENWD (45659) TO GLENWD T (45847) CKT 1 | | CHECK | | Opened flow of 22.52 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0502 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45846GETCHLT-45681HARTFORDC1
ELEMENTS:
OPEN Branch GETCHL T (45846) TO HARTFORD (45681) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch GETCHL T (45846) TO HARTFORD (45681) CKT 1 | | CHECK | | Opened flow of 21.25 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0501 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45647FIVECOR-45848HALLSLKC1
ELEMENTS:
OPEN Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch FIVE COR (45647) TO HALLS LK (45848) CKT 1 | | CHECK | | Opened flow of 94.81 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1

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      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)  HIGH V  VOLT:   1.0537  LIMIT:  1.0500  Base Case Value:  1.0490
CONTINGENCY L_45841CMARYST-45693KELLOGMC1
   ELEMENTS:
      OPEN Branch CMARYST (45841)  TO  KELLOGM (45693) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch CMARYST (45841)  TO  KELLOGM (45693) CKT 1 |  | CHECK |  | Opened flow of  23.14 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)  HIGH V  VOLT:   1.0503  LIMIT:  1.0500  Base Case Value:  1.0490
CONTINGENCY L_45699LKGDW-45855SILLSCC1
   ELEMENTS:
      OPEN Branch LK GDW (45699)  TO  SILLS  C (45855) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch LK GDW (45699)  TO  SILLS  C (45855) CKT 1 |  | CHECK |  | Opened flow of  21.97 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)  HIGH V  VOLT:   1.0502  LIMIT:  1.0500  Base Case Value:  1.0490
CONTINGENCY Z-SNOH CENT BUS G
   ELEMENTS:
      OPEN Branch SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2 |  | CHECK |
      OPEN Branch FOBES (45651)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN MultiSectionLine S-SCTAP (45854)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
      OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2 |  | CHECK |  | Opened flow of 226.89 MVA
       OPEN Branch FOBES (45651)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of 120.49 MVA
       OPEN MultiSectionLine S-SCTAP (45854)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of  84.82 MVA
       OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
       OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |  | Opened 216.90 Mvar (nominal)
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
      BRANCH:              0
      BUS VOLTAGE:         3
      INTERFACE:           0
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      ISOLATED BUSES:        0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      S CAMANO (45853)   LOW V    VOLT:    0.8857   LIMIT:  0.9000   Base Case Value:  0.9480
      CAMANO (45617)   LOW V    VOLT:    0.8918   LIMIT:  0.9000   Base Case Value:  0.9536
      N STAN (45731)   LOW V    VOLT:    0.8979   LIMIT:  0.9000   Base Case Value:  0.9593
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY L_45709MAPLEW-45749PERRINVTC1
   ELEMENTS:
      OPEN Branch MAPLEW (45709)  TO  PERRINVT (45749) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch MAPLEW (45709)  TO  PERRINVT (45749) CKT 1 |  | CHECK |  | Opened flow of  55.13 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)   HIGH V   VOLT:    1.0519   LIMIT:  1.0500   Base Case Value:  1.0490
CONTINGENCY L_45713MEADWD-45715MEADWDTC1
   ELEMENTS:
      OPEN Branch MEADWD (45713)  TO  MEADWDT (45715) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch MEADWD (45713)  TO  MEADWDT (45715) CKT 1 |  | CHECK |  | Opened flow of  23.14 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)   HIGH V   VOLT:    1.0503   LIMIT:  1.0500   Base Case Value:  1.0490
CONTINGENCY L_45851MUKLTEO-45721MUKTAPC1
   ELEMENTS:
      OPEN Branch MUKLTEO (45851)  TO  MUKTAP (45721) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch MUKLTEO (45851)  TO  MUKTAP (45721) CKT 1 |  | CHECK |  | Opened flow of  19.25 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)   HIGH V   VOLT:    1.0500   LIMIT:  1.0500   Base Case Value:  1.0490
CONTINGENCY L_45747PERRINV-45749PERRINVTC1
   ELEMENTS:
```

OPEN Branch PERRINV (45747) TO PERRINVT (45749) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch PERRINV (45747) TO PERRINVT (45749) CKT 1 | | CHECK | | Opened flow of 18.35 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0501 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45755PKRIDGE-45757PKRIDGTC1
ELEMENTS:
OPEN Branch PK RIDGE (45755) TO PK RIDGT (45757) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch PK RIDGE (45755) TO PK RIDGT (45757) CKT 1 | | CHECK | | Opened flow of 28.84 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0504 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45633EDMONDT2-45709MAPLEWC1
ELEMENTS:
OPEN Branch EDMONDT2 (45633) TO MAPLEW (45709) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch EDMONDT2 (45633) TO MAPLEW (45709) CKT 1 | | CHECK | | Opened flow of 73.83 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0528 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY L_45797TENTH-45799TENTHTC1
ELEMENTS:
OPEN Branch TENTH (45797) TO TENTHT (45799) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch TENTH (45797) TO TENTHT (45799) CKT 1 | | CHECK | | Opened flow of 23.59 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0502 LIMIT: 1.0500 Base Case Value: 1.0490
CONTINGENCY C-BEV-CASINO-GLENWOOD FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK |
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK |
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK |
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK | | Opened flow of 71.42 MVA
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK | | Opened flow of 112.14 MVA
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK | | Opened flow of 42.25 MVA
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 9.40 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | was already open
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0522 LIMIT: 1.0500 Base Case Value: 1.0490
None.

2015 Case Islanded Load

Label	Islanded Load
C-SILLS- LK GDW FAULT	96.6
L_45647FIVECOR-45848HALLSLKC1	92
C-BEV-CASINO-OLIVIA FAULT	78.5
C-BEV-CASINO-GLENWOOD FAULT	78.5
L_45633EDMONDT2-45647FIVECORC1	71.8
L_45633EDMONDT2-45709MAPLEWC1	71.8
L_45731NSTAN-45785STIMSONSC1	63.7
L_45709MAPLEW-45749PERRINVTC1	53.9
L_45603BALLING-45848HALLSLKC1	44.5
L_45607BOEING-45811TWNTETHC1	41.5
L_45705LYNNWD-45749PERRINVTC1	35.9
L_45617CAMANO-45731NSTANC1	35.4
L_45775SMOKEYP-45777SMOKEYPTC1	28.3
L_45755PKRIDGE-45757PKRIDGTC1	28.3
L_45649FLORALH-45845FLORLHT1C1	25.2
L_45603BALLING-45761RICHMNDTC1	25.2
L_45846GETCHLT-45665GRANFALC1	24.3
L_45797TENTH-45799TENTHTC1	23.1
L_45713MEADWD-45715MEADWDTC1	22.7
L_45841CMARYST-45693KELLOGMC1	22.7
L_42402HILTNLKT-45683HILTONC1	22.2
L_45659GLENWD-45847GLENWDTC1	22.1
L_45699LKGDW-45855SILLSCC1	21.5
L_45846GETCHLT-45681HARTFORDC1	20.8
L_45617CAMANO-45853SCAMANOC1	20.4
L_45851MUKLTEO-45721MUKTAPC1	18.9
L_45611CMARY-45840CMARYSTC1	18.7
L_45747PERRINV-45749PERRINVTC1	18
L_45805TULALIP-45807TULALIPTC1	16.9
L_45761RICHMNDT-45819WESTGATEC1	16.8
L_45739OLIVIAP-45741OLIVIATC1	16.4
C-BEV-SILVER-OLIVIA FAULT	16.4
L_45663GOLDBAR-45787SULTGBTC1	13
L_45759RICHMND-45761RICHMNDTC1	8.4
L_42435OLYCANYT-45743OLYMPICC1	2.7
L_45629EARLG-41221JIMCREEKC1	2.1
L_45842SCOTT2-45824SCOTT2LC1	2.1
L_45708KEELERS-45710KEELERLC1	0.9

2015 Case Voltage and Thermal Contingency Violation Output with Option A

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PowerWorld Simulator 11.0 OPF, ATC, PVQV
Contingency Analysis

Name of Base Case: Z:\1PowerWorld Data Files\2005-bpanew\heavy winter\SOUTH COUNTY 1650 e15cy05r5 no 230 wth lines.pwb
Report printed at: 12/7/2005 4:08:29 PM

Branch Flow Extremes

From Bus	To Bus	Ckt ID	Max % Flow	Due To Contingency
MURRAY	MURRAY	1	162.780	Z-SNOH BUS (NOT CREDIBLE
E ARLG	MURRAY	1	90.926	Z-SNOH WEST CENT BUS G B
MURRAY	SMOKEYPT	1	145.411	Z-SNOH WEST CENT BUS G B
MURRAY	SNOH S1	1	121.302	Z-SNOH BUS (NOT CREDIBLE
SNOH S2	SNOHOMSH	3	143.467	Z-SNOH EAST CENT BUS G B
SNOH S3	SNOHOMSH	2	130.537	Z-SNOKING BUS G (NOT CRE
SNOH S4	SNOHOMSH	1	113.572	Z-SNOKING BUS G (NOT CRE
FOBES	SNOHOMSH	1	95.386	Z-SNOH WEST BUS-G
SNOHM	SNOHOMSH	1	93.340	Z-SNOH EAST CENT BUS G B
SNOK S3	SNOKING	2	95.852	Z-SNOK NORTH CENT BUS G
SNOKING	TAMBARKT	1	144.376	Z-SNOK SOUTH CENT BUS G
SNOKING	THRASHER	1	90.411	C-BEV-SILVER-GLENWD FAUL
BOTSNO11	SNOK S1	1	96.424	Z-SNOKING BUS G (NOT CRE
BOTSNO21	SNOK S3	2	99.190	Z-SNOKING BUS G (NOT CRE
BEVERLY	GLDBRTIE	1	92.364	Z-500 TP SNOKING (NOT CR
DELTA SW	TULALIPT	1	0.000	none
JACKSN1	JACKSN	1	167.993	Z-SNOH BUS (NOT CREDIBLE
N ALDER	SWMPCKT1	1	90.023	Z-SNOK SOUTH CENT BUS G
SMOKEYPT	STIMSONS	1	119.389	Z-SNOH WEST CENT BUS G B
FLORLHT1	NCRK TAP	1	115.049	Z-SNOK SOUTH CENT BUS G
FLORLHT1	SWMPCKT2	1	103.412	Z-SNOK SOUTH CENT BUS G
SWMPCKT1	SWMPCKT2	1	125.604	Z-SNOK SOUTH CENT BUS G

Contingency Results

CONTINGENCY Z-SNOH BUS (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOHOMSH (40997) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOHOMSH (40997) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 111)
BRANCH: 9
BUS VOLTAGE: 102
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
JACKSN1 (45687) TO JACKSN (45685) CKT 1 MVA: 102.5 LIMIT: 61.0 %: 168.0 Base Case Value: 40.8
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 729.3 LIMIT: 448.0 %: 162.8 Base Case Value: 196.2
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 332.5 LIMIT: 256.0 %: 129.9 Base Case Value: 93.9
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 326.8 LIMIT: 256.0 %: 127.7 Base Case Value: 213.0
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 666.9 LIMIT: 549.8 %: 121.3 Base Case Value: 279.2
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 301.4 LIMIT: 256.0 %: 117.7 Base Case Value: 189.5
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 267.5 LIMIT: 256.0 %: 104.5 Base Case Value: 64.4
FLORLHT1 (45845) TO NCRK TAP (45852) CKT 1 MVA: 252.1 LIMIT: 256.0 %: 98.5 Base Case Value: 141.6
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:

PINEHURS (45753) LOW V VOLT: 0.5899 LIMIT: 0.9000 Base Case Value: 0.9909
FIFTYSEC (45645) LOW V VOLT: 0.5906 LIMIT: 0.9000 Base Case Value: 0.9899
S CAMANO (45853) LOW V VOLT: 0.5927 LIMIT: 0.9000 Base Case Value: 0.9488
WATRFRT (45861) LOW V VOLT: 0.5955 LIMIT: 0.9000 Base Case Value: 0.9879
EVERETT (45637) LOW V VOLT: 0.5956 LIMIT: 0.9000 Base Case Value: 0.9899
KIMCLK (45849) LOW V VOLT: 0.5970 LIMIT: 0.9000 Base Case Value: 0.9877
EVRETTT2 (45843) LOW V VOLT: 0.5975 LIMIT: 0.9000 Base Case Value: 0.9877
NAVY (45733) LOW V VOLT: 0.5986 LIMIT: 0.9000 Base Case Value: 0.9872
NORTON S (45737) LOW V VOLT: 0.5999 LIMIT: 0.9000 Base Case Value: 0.9868
CAMANO (45617) LOW V VOLT: 0.6014 LIMIT: 0.9000 Base Case Value: 0.9545
FOBES (45651) LOW V VOLT: 0.6035 LIMIT: 0.9000 Base Case Value: 0.9971
SCOTT 2L (45824) LOW V VOLT: 0.6076 LIMIT: 0.9000 Base Case Value: 0.9881
SCOTT 2 (45842) LOW V VOLT: 0.6078 LIMIT: 0.9000 Base Case Value: 0.9882
TENTH (45797) LOW V VOLT: 0.6088 LIMIT: 0.9000 Base Case Value: 0.9860
TENTHT (45799) LOW V VOLT: 0.6090 LIMIT: 0.9000 Base Case Value: 0.9861
N STAN (45731) LOW V VOLT: 0.6104 LIMIT: 0.9000 Base Case Value: 0.9601
DELTA SW (45627) LOW V VOLT: 0.6104 LIMIT: 0.9000 Base Case Value: 0.9853
TULALIP (45805) LOW V VOLT: 0.6211 LIMIT: 0.9000 Base Case Value: 0.9827
TULALIPT (45807) LOW V VOLT: 0.6217 LIMIT: 0.9000 Base Case Value: 0.9831
C MARY (45611) LOW V VOLT: 0.6261 LIMIT: 0.9000 Base Case Value: 0.9814
C MARYST (45840) LOW V VOLT: 0.6269 LIMIT: 0.9000 Base Case Value: 0.9819
QUILCEDA (45632) LOW V VOLT: 0.6288 LIMIT: 0.9000 Base Case Value: 0.9826
KELLOGM (45693) LOW V VOLT: 0.6298 LIMIT: 0.9000 Base Case Value: 0.9809
CMARYST (45841) LOW V VOLT: 0.6309 LIMIT: 0.9000 Base Case Value: 0.9817
N MARYS (45729) LOW V VOLT: 0.6352 LIMIT: 0.9000 Base Case Value: 0.9819
STIMSONS (45785) LOW V VOLT: 0.6483 LIMIT: 0.9000 Base Case Value: 0.9832
SMOKEYP (45775) LOW V VOLT: 0.6522 LIMIT: 0.9000 Base Case Value: 0.9837
SMOKEYPT (45777) LOW V VOLT: 0.6530 LIMIT: 0.9000 Base Case Value: 0.9842
LK GDW (45699) LOW V VOLT: 0.6562 LIMIT: 0.9000 Base Case Value: 0.9816
SILLS C (45855) LOW V VOLT: 0.6614 LIMIT: 0.9000 Base Case Value: 0.9851
PORTAGE (45630) LOW V VOLT: 0.6846 LIMIT: 0.9000 Base Case Value: 0.9892
LK STEVE (45703) LOW V VOLT: 0.6948 LIMIT: 0.9000 Base Case Value: 0.9960
FRONTIER (45653) LOW V VOLT: 0.6965 LIMIT: 0.9000 Base Case Value: 0.9942
E ARLG (45629) LOW V VOLT: 0.7031 LIMIT: 0.9000 Base Case Value: 0.9928
E MARY (45631) LOW V VOLT: 0.7033 LIMIT: 0.9000 Base Case Value: 0.9933
KELLOGMT (45695) LOW V VOLT: 0.7059 LIMIT: 0.9000 Base Case Value: 0.9935
GRANFAL (45665) LOW V VOLT: 0.7064 LIMIT: 0.9000 Base Case Value: 0.9905
HARTFORD (45681) LOW V VOLT: 0.7102 LIMIT: 0.9000 Base Case Value: 0.9932
GETCHL T (45846) LOW V VOLT: 0.7117 LIMIT: 0.9000 Base Case Value: 0.9943
MURRAY (40765) LOW V VOLT: 0.7341 LIMIT: 0.9000 Base Case Value: 1.0012
MURRAY (40767) LOW V VOLT: 0.8482 LIMIT: 0.9000 Base Case Value: 1.0263
PICNIC (45751) LOW V VOLT: 0.8547 LIMIT: 0.9000 Base Case Value: 0.9804
PAINETAP (45746) LOW V VOLT: 0.8548 LIMIT: 0.9000 Base Case Value: 0.9804
HARBOR P (45679) LOW V VOLT: 0.8550 LIMIT: 0.9000 Base Case Value: 0.9807
MUKLTEO (45851) LOW V VOLT: 0.8556 LIMIT: 0.9000 Base Case Value: 0.9813
MUKTAP (45721) LOW V VOLT: 0.8559 LIMIT: 0.9000 Base Case Value: 0.9816
OLIVIA P (45739) LOW V VOLT: 0.8579 LIMIT: 0.9000 Base Case Value: 0.9876
S-SCTAP (45854) LOW V VOLT: 0.8580 LIMIT: 0.9000 Base Case Value: 0.9895
OLIVIA T (45741) LOW V VOLT: 0.8580 LIMIT: 0.9000 Base Case Value: 0.9877
TWNTETH (45811) LOW V VOLT: 0.8581 LIMIT: 0.9000 Base Case Value: 0.9854
PAINE F (45745) LOW V VOLT: 0.8587 LIMIT: 0.9000 Base Case Value: 0.9844
BOEING (45607) LOW V VOLT: 0.8588 LIMIT: 0.9000 Base Case Value: 0.9860
GLENWD (45659) LOW V VOLT: 0.8594 LIMIT: 0.9000 Base Case Value: 0.9872
GLENWD T (45847) LOW V VOLT: 0.8612 LIMIT: 0.9000 Base Case Value: 0.9887
GIBSON (45657) LOW V VOLT: 0.8613 LIMIT: 0.9000 Base Case Value: 0.9835
CASINO (45623) LOW V VOLT: 0.8632 LIMIT: 0.9000 Base Case Value: 0.9885
LYNNWD (45705) LOW V VOLT: 0.8658 LIMIT: 0.9000 Base Case Value: 0.9703
GLESNO11 (49900) LOW V VOLT: 0.8663 LIMIT: 0.9000 Base Case Value: 0.9914
BEVERLY (45608) LOW V VOLT: 0.8664 LIMIT: 0.9000 Base Case Value: 0.9914
PERRINV (45747) LOW V VOLT: 0.8672 LIMIT: 0.9000 Base Case Value: 0.9715
PERRINVT (45749) LOW V VOLT: 0.8672 LIMIT: 0.9000 Base Case Value: 0.9716
LK SEREN (45701) LOW V VOLT: 0.8673 LIMIT: 0.9000 Base Case Value: 0.9827
MEADWD (45713) LOW V VOLT: 0.8688 LIMIT: 0.9000 Base Case Value: 0.9822
MEADWDT (45715) LOW V VOLT: 0.8694 LIMIT: 0.9000 Base Case Value: 0.9828
KEELERL (45710) LOW V VOLT: 0.8705 LIMIT: 0.9000 Base Case Value: 0.9830
KEELER S (45708) LOW V VOLT: 0.8706 LIMIT: 0.9000 Base Case Value: 0.9830
MAPLEW (45709) LOW V VOLT: 0.8706 LIMIT: 0.9000 Base Case Value: 0.9746
SILVE LK (45857) LOW V VOLT: 0.8719 LIMIT: 0.9000 Base Case Value: 0.9899
LYNNWDT (45707) LOW V VOLT: 0.8744 LIMIT: 0.9000 Base Case Value: 0.9836
MARINER (45622) LOW V VOLT: 0.8746 LIMIT: 0.9000 Base Case Value: 0.9896

HILTON (45683) LOW V VOLT: 0.8762 LIMIT: 0.9000 Base Case Value: 0.9927
EDMONDT2 (45633) LOW V VOLT: 0.8762 LIMIT: 0.9000 Base Case Value: 0.9796
FIVE COR (45647) LOW V VOLT: 0.8771 LIMIT: 0.9000 Base Case Value: 0.9804
WESTGATE (45819) LOW V VOLT: 0.8792 LIMIT: 0.9000 Base Case Value: 0.9822
RICHMND (45759) LOW V VOLT: 0.8796 LIMIT: 0.9000 Base Case Value: 0.9826
RICHMNDT (45761) LOW V VOLT: 0.8802 LIMIT: 0.9000 Base Case Value: 0.9831
BALLING (45603) LOW V VOLT: 0.8803 LIMIT: 0.9000 Base Case Value: 0.9832
HALLS LK (45848) LOW V VOLT: 0.8822 LIMIT: 0.9000 Base Case Value: 0.9849
ESPERENC (45635) LOW V VOLT: 0.8823 LIMIT: 0.9000 Base Case Value: 0.9850
MARTHA L (45711) LOW V VOLT: 0.8841 LIMIT: 0.9000 Base Case Value: 0.9895
ALDERW (45601) LOW V VOLT: 0.8843 LIMIT: 0.9000 Base Case Value: 0.9872
N ALDER (45725) LOW V VOLT: 0.8859 LIMIT: 0.9000 Base Case Value: 0.9890
SWMPCKT1 (45859) LOW V VOLT: 0.8867 LIMIT: 0.9000 Base Case Value: 0.9898
SWMPCKT2 (45860) LOW V VOLT: 0.8868 LIMIT: 0.9000 Base Case Value: 0.9898
MONTLAKE (45717) LOW V VOLT: 0.8879 LIMIT: 0.9000 Base Case Value: 0.9872
FLORLH T (45844) LOW V VOLT: 0.8881 LIMIT: 0.9000 Base Case Value: 0.9901
FLORAL H (45649) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9906
FLORLHT1 (45845) LOW V VOLT: 0.8897 LIMIT: 0.9000 Base Case Value: 0.9906
TAMBARK2 (45790) LOW V VOLT: 0.8931 LIMIT: 0.9000 Base Case Value: 0.9913
BRIER (45609) LOW V VOLT: 0.8948 LIMIT: 0.9000 Base Case Value: 0.9903
BLYN (47556) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9629
OLYMPC C (47563) LOW V VOLT: 0.8976 LIMIT: 0.9000 Base Case Value: 0.9631
DUNGENES (47559) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 0.9634
SUNLAND (47567) LOW V VOLT: 0.8983 LIMIT: 0.9000 Base Case Value: 0.9638
DUN JCT (47558) LOW V VOLT: 0.8984 LIMIT: 0.9000 Base Case Value: 0.9638
SEQUIM (47565) LOW V VOLT: 0.8985 LIMIT: 0.9000 Base Case Value: 0.9639
OLYMPIC (45743) LOW V VOLT: 0.8986 LIMIT: 0.9000 Base Case Value: 0.9982
MURPHYS (45723) LOW V VOLT: 0.8987 LIMIT: 0.9000 Base Case Value: 0.9915
CLEARV (45625) LOW V VOLT: 0.8987 LIMIT: 0.9000 Base Case Value: 0.9925
SUN TAP (47566) LOW V VOLT: 0.8992 LIMIT: 0.9000 Base Case Value: 0.9646
EVERGRNC (47560) LOW V VOLT: 0.8996 LIMIT: 0.9000 Base Case Value: 0.9650
N CRK (45727) LOW V VOLT: 0.8998 LIMIT: 0.9000 Base Case Value: 0.9926

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY Z-SNOH WEST CENT BUS G BS

ELEMENTS:

OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |

APPLIED AND SKIPPED ELEMENTS:

Applied:

OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.75 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 100.86 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 88.28 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 57.50 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 85.65 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 259.70 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.88 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 118.08 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 76.37 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)

NUMBER OF VIOLATIONS BY CATEGORY (Total = 92)

BRANCH: 8
BUS VOLTAGE: 84
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:

MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 372.3 LIMIT: 256.0 %: 145.4 Base Case Value: 93.9
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 567.9 LIMIT: 448.0 %: 126.8 Base Case Value: 196.2
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 305.6 LIMIT: 256.0 %: 119.4 Base Case Value: 64.4
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 292.6 LIMIT: 256.0 %: 114.3 Base Case Value: 213.0
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 442.1 LIMIT: 393.0 %: 112.5 Base Case Value: 252.5
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 267.7 LIMIT: 256.0 %: 104.6 Base Case Value: 189.5
MURRAY (40767) TO SNOH S1 (41327) CKT 1 MVA: 525.0 LIMIT: 549.8 %: 95.5 Base Case Value: 279.2
E ARLG (45629) TO MURRAY (40765) CKT 1 MVA: 232.8 LIMIT: 256.0 %: 90.9 Base Case Value: 96.5

BRANCH AMP VIOLATIONS:

None.

BUS LOW VOLTAGE VIOLATIONS:

PINEHURS (45753) LOW V VOLT: 0.6540 LIMIT: 0.9000 Base Case Value: 0.9909
FIFTYSEC (45645) LOW V VOLT: 0.6546 LIMIT: 0.9000 Base Case Value: 0.9899
WATRFRT (45861) LOW V VOLT: 0.6592 LIMIT: 0.9000 Base Case Value: 0.9879
EVERETT (45637) LOW V VOLT: 0.6597 LIMIT: 0.9000 Base Case Value: 0.9899
KIMCLK (45849) LOW V VOLT: 0.6607 LIMIT: 0.9000 Base Case Value: 0.9877
EVRETTT2 (45843) LOW V VOLT: 0.6616 LIMIT: 0.9000 Base Case Value: 0.9877
NAVY (45733) LOW V VOLT: 0.6632 LIMIT: 0.9000 Base Case Value: 0.9872
NORTON S (45737) LOW V VOLT: 0.6652 LIMIT: 0.9000 Base Case Value: 0.9868
FOBES (45651) LOW V VOLT: 0.6730 LIMIT: 0.9000 Base Case Value: 0.9971
S CAMANO (45853) LOW V VOLT: 0.6731 LIMIT: 0.9000 Base Case Value: 0.9488
SCOTT 2L (45824) LOW V VOLT: 0.6769 LIMIT: 0.9000 Base Case Value: 0.9881
SCOTT 2 (45842) LOW V VOLT: 0.6771 LIMIT: 0.9000 Base Case Value: 0.9882
TENTH (45797) LOW V VOLT: 0.6780 LIMIT: 0.9000 Base Case Value: 0.9860
TENTHT (45799) LOW V VOLT: 0.6782 LIMIT: 0.9000 Base Case Value: 0.9861
DELTA SW (45627) LOW V VOLT: 0.6795 LIMIT: 0.9000 Base Case Value: 0.9853
CAMANO (45617) LOW V VOLT: 0.6812 LIMIT: 0.9000 Base Case Value: 0.9545
N STAN (45731) LOW V VOLT: 0.6894 LIMIT: 0.9000 Base Case Value: 0.9601
TULALIP (45805) LOW V VOLT: 0.6928 LIMIT: 0.9000 Base Case Value: 0.9827
TULALIPT (45807) LOW V VOLT: 0.6934 LIMIT: 0.9000 Base Case Value: 0.9831
C MARY (45611) LOW V VOLT: 0.6990 LIMIT: 0.9000 Base Case Value: 0.9814
C MARYST (45840) LOW V VOLT: 0.6998 LIMIT: 0.9000 Base Case Value: 0.9819
QUILCEDA (45632) LOW V VOLT: 0.7018 LIMIT: 0.9000 Base Case Value: 0.9826
KELLOGM (45693) LOW V VOLT: 0.7034 LIMIT: 0.9000 Base Case Value: 0.9809
CMARYST (45841) LOW V VOLT: 0.7044 LIMIT: 0.9000 Base Case Value: 0.9817
N MARYS (45729) LOW V VOLT: 0.7093 LIMIT: 0.9000 Base Case Value: 0.9819
STIMSONS (45785) LOW V VOLT: 0.7238 LIMIT: 0.9000 Base Case Value: 0.9832
SMOKEYP (45775) LOW V VOLT: 0.7280 LIMIT: 0.9000 Base Case Value: 0.9837
SMOKEYPT (45777) LOW V VOLT: 0.7288 LIMIT: 0.9000 Base Case Value: 0.9842
LK GDW (45699) LOW V VOLT: 0.7332 LIMIT: 0.9000 Base Case Value: 0.9816
SILLS C (45855) LOW V VOLT: 0.7378 LIMIT: 0.9000 Base Case Value: 0.9851
PORTAGE (45630) LOW V VOLT: 0.7619 LIMIT: 0.9000 Base Case Value: 0.9892
E ARLG (45629) LOW V VOLT: 0.7809 LIMIT: 0.9000 Base Case Value: 0.9928
SNOHM (45779) LOW V VOLT: 0.7939 LIMIT: 0.9000 Base Case Value: 0.9995
W MONROE (45813) LOW V VOLT: 0.7963 LIMIT: 0.9000 Base Case Value: 0.9950
WOODS CK (45823) LOW V VOLT: 0.7986 LIMIT: 0.9000 Base Case Value: 0.9949
MURRAY (40765) LOW V VOLT: 0.8118 LIMIT: 0.9000 Base Case Value: 1.0012
SULTAN (45789) LOW V VOLT: 0.8121 LIMIT: 0.9000 Base Case Value: 0.9977
GOLD BAR (45663) LOW V VOLT: 0.8137 LIMIT: 0.9000 Base Case Value: 0.9968
SULT GBT (45787) LOW V VOLT: 0.8165 LIMIT: 0.9000 Base Case Value: 0.9991
GRANFAL (45665) LOW V VOLT: 0.8197 LIMIT: 0.9000 Base Case Value: 0.9905
HARTFORD (45681) LOW V VOLT: 0.8230 LIMIT: 0.9000 Base Case Value: 0.9932
GETCHL T (45846) LOW V VOLT: 0.8243 LIMIT: 0.9000 Base Case Value: 0.9943
JACKSN (45685) LOW V VOLT: 0.8283 LIMIT: 0.9000 Base Case Value: 1.0032
LK CHAP (45697) LOW V VOLT: 0.8303 LIMIT: 0.9000 Base Case Value: 1.0030
KELLOGMT (45695) LOW V VOLT: 0.8333 LIMIT: 0.9000 Base Case Value: 0.9935
E MARY (45631) LOW V VOLT: 0.8373 LIMIT: 0.9000 Base Case Value: 0.9933
FRONTIER (45653) LOW V VOLT: 0.8552 LIMIT: 0.9000 Base Case Value: 0.9942
LK STEVE (45703) LOW V VOLT: 0.8662 LIMIT: 0.9000 Base Case Value: 0.9960
THREE LK (45803) LOW V VOLT: 0.8675 LIMIT: 0.9000 Base Case Value: 1.0014
HARBOR P (45679) LOW V VOLT: 0.8798 LIMIT: 0.9000 Base Case Value: 0.9807
PICNIC (45751) LOW V VOLT: 0.8798 LIMIT: 0.9000 Base Case Value: 0.9804
PAINETAP (45746) LOW V VOLT: 0.8801 LIMIT: 0.9000 Base Case Value: 0.9804
MUKLTEO (45851) LOW V VOLT: 0.8801 LIMIT: 0.9000 Base Case Value: 0.9813
MUKTAP (45721) LOW V VOLT: 0.8805 LIMIT: 0.9000 Base Case Value: 0.9816
OLIVIA P (45739) LOW V VOLT: 0.8821 LIMIT: 0.9000 Base Case Value: 0.9876
TWNTETH (45811) LOW V VOLT: 0.8822 LIMIT: 0.9000 Base Case Value: 0.9854
S-SCTAP (45854) LOW V VOLT: 0.8822 LIMIT: 0.9000 Base Case Value: 0.9895
OLIVIA T (45741) LOW V VOLT: 0.8822 LIMIT: 0.9000 Base Case Value: 0.9877
PAINE F (45745) LOW V VOLT: 0.8828 LIMIT: 0.9000 Base Case Value: 0.9844

BOEING (45607) LOW V VOLT: 0.8829 LIMIT: 0.9000 Base Case Value: 0.9860
GLENWD (45659) LOW V VOLT: 0.8835 LIMIT: 0.9000 Base Case Value: 0.9872
GIBSON (45657) LOW V VOLT: 0.8849 LIMIT: 0.9000 Base Case Value: 0.9835
GLENWD T (45847) LOW V VOLT: 0.8852 LIMIT: 0.9000 Base Case Value: 0.9887
LYNNWD (45705) LOW V VOLT: 0.8866 LIMIT: 0.9000 Base Case Value: 0.9703
CASINO (45623) LOW V VOLT: 0.8870 LIMIT: 0.9000 Base Case Value: 0.9885
PERRINV (45747) LOW V VOLT: 0.8879 LIMIT: 0.9000 Base Case Value: 0.9715
PERRINVT (45749) LOW V VOLT: 0.8880 LIMIT: 0.9000 Base Case Value: 0.9716
LK SEREN (45701) LOW V VOLT: 0.8898 LIMIT: 0.9000 Base Case Value: 0.9827
GLESNO11 (49900) LOW V VOLT: 0.8901 LIMIT: 0.9000 Base Case Value: 0.9914
BEVERLY (45608) LOW V VOLT: 0.8901 LIMIT: 0.9000 Base Case Value: 0.9914
MEADWD (45713) LOW V VOLT: 0.8910 LIMIT: 0.9000 Base Case Value: 0.9822
MAPLEW (45709) LOW V VOLT: 0.8912 LIMIT: 0.9000 Base Case Value: 0.9746
MEADWDT (45715) LOW V VOLT: 0.8916 LIMIT: 0.9000 Base Case Value: 0.9828
KEELERL (45710) LOW V VOLT: 0.8926 LIMIT: 0.9000 Base Case Value: 0.9830
KEELER S (45708) LOW V VOLT: 0.8926 LIMIT: 0.9000 Base Case Value: 0.9830
SNOHOMSH (40997) LOW V VOLT: 0.8939 LIMIT: 0.9000 Base Case Value: 1.0025
SILVE LK (45857) LOW V VOLT: 0.8945 LIMIT: 0.9000 Base Case Value: 0.9899
LYNNWDT (45707) LOW V VOLT: 0.8959 LIMIT: 0.9000 Base Case Value: 0.9836
EDMONDT2 (45633) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9796
MARINER (45622) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9896
FIVE COR (45647) LOW V VOLT: 0.8976 LIMIT: 0.9000 Base Case Value: 0.9804
MURRAY (40767) LOW V VOLT: 0.8979 LIMIT: 0.9000 Base Case Value: 1.0263
HILTON (45683) LOW V VOLT: 0.8989 LIMIT: 0.9000 Base Case Value: 0.9927
WESTGATE (45819) LOW V VOLT: 0.8997 LIMIT: 0.9000 Base Case Value: 0.9822

BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY Z-SNOK SOUTH CENT BUS G BS

ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 196.80 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 113.77 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 124.85 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 209.96 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 162.56 MVA

NUMBER OF VIOLATIONS BY CATEGORY (Total = 8)
BRANCH: 8
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 369.6 LIMIT: 256.0 %: 144.4 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 343.9 LIMIT: 256.0 %: 134.3 Base Case Value: 189.5
SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 MVA: 321.5 LIMIT: 256.0 %: 125.6 Base Case Value: 36.0
FLORLHT1 (45845) TO NCRK TAP (45852) CKT 1 MVA: 294.5 LIMIT: 256.0 %: 115.0 Base Case Value: 141.6
FLORLHT1 (45845) TO SWMPCKT2 (45860) CKT 1 MVA: 264.7 LIMIT: 256.0 %: 103.4 Base Case Value: 115.7
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 369.9 LIMIT: 369.0 %: 100.2 Base Case Value: 269.9
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 352.3 LIMIT: 369.0 %: 95.5 Base Case Value: 259.7
N ALDER (45725) TO SWMPCKT1 (45859) CKT 1 MVA: 230.5 LIMIT: 256.0 %: 90.0 Base Case Value: 66.3

BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
None.

BUS HIGH VOLTAGE VIOLATIONS:
None.

CONTINGENCY Z-SNOH EAST CENT BUS G BS

ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |

OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:

Applied:

OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 252.49 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 87.44 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 98.25 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 3.60 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.88 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 118.08 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 76.37 MVA

NUMBER OF VIOLATIONS BY CATEGORY (Total = 47)

BRANCH: 5
BUS VOLTAGE: 42
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:

SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 529.4 LIMIT: 369.0 %: 143.5 Base Case Value: 259.7
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 292.6 LIMIT: 256.0 %: 114.3 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 267.9 LIMIT: 256.0 %: 104.6 Base Case Value: 189.5
SNOHM (45779) TO SNOHOMSH (40997) CKT 1 MVA: 138.1 LIMIT: 148.0 %: 93.3 Base Case Value: 52.7
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.5

BRANCH AMP VIOLATIONS:

None.

BUS LOW VOLTAGE VIOLATIONS:

S CAMANO (45853) LOW V VOLT: 0.8548 LIMIT: 0.9000 Base Case Value: 0.9488
CAMANO (45617) LOW V VOLT: 0.8611 LIMIT: 0.9000 Base Case Value: 0.9545
N STAN (45731) LOW V VOLT: 0.8674 LIMIT: 0.9000 Base Case Value: 0.9601
THREE LK (45803) LOW V VOLT: 0.8710 LIMIT: 0.9000 Base Case Value: 1.0014
GOLD BAR (45663) LOW V VOLT: 0.8746 LIMIT: 0.9000 Base Case Value: 0.9968
LK CHAP (45697) LOW V VOLT: 0.8752 LIMIT: 0.9000 Base Case Value: 1.0030
JACKSN (45685) LOW V VOLT: 0.8755 LIMIT: 0.9000 Base Case Value: 1.0032
SULT GBT (45787) LOW V VOLT: 0.8772 LIMIT: 0.9000 Base Case Value: 0.9991
SULTAN (45789) LOW V VOLT: 0.8784 LIMIT: 0.9000 Base Case Value: 0.9977
FOBES (45651) LOW V VOLT: 0.8824 LIMIT: 0.9000 Base Case Value: 0.9971
SCOTT 2L (45824) LOW V VOLT: 0.8852 LIMIT: 0.9000 Base Case Value: 0.9881
SCOTT 2 (45842) LOW V VOLT: 0.8854 LIMIT: 0.9000 Base Case Value: 0.9882
TENTH (45797) LOW V VOLT: 0.8861 LIMIT: 0.9000 Base Case Value: 0.9860
TENTHT (45799) LOW V VOLT: 0.8862 LIMIT: 0.9000 Base Case Value: 0.9861
WOODS CK (45823) LOW V VOLT: 0.8864 LIMIT: 0.9000 Base Case Value: 0.9949
DELTA SW (45627) LOW V VOLT: 0.8872 LIMIT: 0.9000 Base Case Value: 0.9853
TULALIP (45805) LOW V VOLT: 0.8876 LIMIT: 0.9000 Base Case Value: 0.9827
C MARY (45611) LOW V VOLT: 0.8877 LIMIT: 0.9000 Base Case Value: 0.9814
KELLOGM (45693) LOW V VOLT: 0.8881 LIMIT: 0.9000 Base Case Value: 0.9809
TULALIPT (45807) LOW V VOLT: 0.8881 LIMIT: 0.9000 Base Case Value: 0.9831
C MARYST (45840) LOW V VOLT: 0.8883 LIMIT: 0.9000 Base Case Value: 0.9819
CMARYST (45841) LOW V VOLT: 0.8889 LIMIT: 0.9000 Base Case Value: 0.9817
QUILCEDA (45632) LOW V VOLT: 0.8892 LIMIT: 0.9000 Base Case Value: 0.9826
W MONROE (45813) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9950
NORTON S (45737) LOW V VOLT: 0.8896 LIMIT: 0.9000 Base Case Value: 0.9868
N MARYS (45729) LOW V VOLT: 0.8899 LIMIT: 0.9000 Base Case Value: 0.9819
NAVY (45733) LOW V VOLT: 0.8903 LIMIT: 0.9000 Base Case Value: 0.9872
KIMCLK (45849) LOW V VOLT: 0.8909 LIMIT: 0.9000 Base Case Value: 0.9877
EVRETTT2 (45843) LOW V VOLT: 0.8910 LIMIT: 0.9000 Base Case Value: 0.9877
WATRFRT (45861) LOW V VOLT: 0.8914 LIMIT: 0.9000 Base Case Value: 0.9879
STIMSONS (45785) LOW V VOLT: 0.8935 LIMIT: 0.9000 Base Case Value: 0.9832
LK GDW (45699) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9816
LK STEVE (45703) LOW V VOLT: 0.8937 LIMIT: 0.9000 Base Case Value: 0.9960

SMOKEYP (45775) LOW V VOLT: 0.8946 LIMIT: 0.9000 Base Case Value: 0.9837
EVERETT (45637) LOW V VOLT: 0.8947 LIMIT: 0.9000 Base Case Value: 0.9899
FRONTIER (45653) LOW V VOLT: 0.8950 LIMIT: 0.9000 Base Case Value: 0.9942
FIFTYSEC (45645) LOW V VOLT: 0.8952 LIMIT: 0.9000 Base Case Value: 0.9899
SMOKEYPT (45777) LOW V VOLT: 0.8952 LIMIT: 0.9000 Base Case Value: 0.9842
PINEHURS (45753) LOW V VOLT: 0.8967 LIMIT: 0.9000 Base Case Value: 0.9909
SILLS C (45855) LOW V VOLT: 0.8974 LIMIT: 0.9000 Base Case Value: 0.9851
PINSNO11 (49854) LOW V VOLT: 0.8995 LIMIT: 0.9000 Base Case Value: 0.9928
PICNIC (45751) LOW V VOLT: 0.8999 LIMIT: 0.9000 Base Case Value: 0.9804
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK SOUTH CENT BUS BS
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 196.80 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 113.77 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 124.85 MVA
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 209.96 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 162.56 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 6)
BRANCH: 6
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 356.5 LIMIT: 256.0 %: 139.3 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 331.1 LIMIT: 256.0 %: 129.3 Base Case Value: 189.5
SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 MVA: 319.1 LIMIT: 256.0 %: 124.6 Base Case Value: 36.0
FLORLHT1 (45845) TO NCRK TAP (45852) CKT 1 MVA: 281.9 LIMIT: 256.0 %: 110.1 Base Case Value: 141.6
FLORLHT1 (45845) TO SWMPCKT2 (45860) CKT 1 MVA: 252.6 LIMIT: 256.0 %: 98.7 Base Case Value: 115.7
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 340.6 LIMIT: 369.0 %: 92.3 Base Case Value: 269.9
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOKING BUS G (NOT CREDIBLE AFTER 07)
ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 71)
BRANCH: 6
BUS VOLTAGE: 65
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 481.7 LIMIT: 369.0 %: 130.5 Base Case Value: 269.9
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 456.6 LIMIT: 369.0 %: 123.7 Base Case Value: 259.7
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 446.3 LIMIT: 393.0 %: 113.6 Base Case Value: 252.5
SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 MVA: 258.3 LIMIT: 256.0 %: 100.9 Base Case Value: 36.0
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 545.3 LIMIT: 549.8 %: 99.2 Base Case Value: 278.9
BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1 MVA: 530.1 LIMIT: 549.8 %: 96.4 Base Case Value: 271.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:

LYNNWD (45705) LOW V VOLT: 0.8158 LIMIT: 0.9000 Base Case Value: 0.9703
PERRINV (45747) LOW V VOLT: 0.8173 LIMIT: 0.9000 Base Case Value: 0.9715
PERRINVT (45749) LOW V VOLT: 0.8173 LIMIT: 0.9000 Base Case Value: 0.9716
PK RIDGE (45755) LOW V VOLT: 0.8204 LIMIT: 0.9000 Base Case Value: 0.9954
PK RIDGT (45757) LOW V VOLT: 0.8206 LIMIT: 0.9000 Base Case Value: 0.9955
BRITEH2O (45758) LOW V VOLT: 0.8208 LIMIT: 0.9000 Base Case Value: 0.9950
MAPLEW (45709) LOW V VOLT: 0.8209 LIMIT: 0.9000 Base Case Value: 0.9746
TURNERS (45809) LOW V VOLT: 0.8212 LIMIT: 0.9000 Base Case Value: 0.9944
CLEARV (45625) LOW V VOLT: 0.8242 LIMIT: 0.9000 Base Case Value: 0.9925
THRASHER (45801) LOW V VOLT: 0.8258 LIMIT: 0.9000 Base Case Value: 0.9953
EDMONDT2 (45633) LOW V VOLT: 0.8269 LIMIT: 0.9000 Base Case Value: 0.9796
FIVE COR (45647) LOW V VOLT: 0.8278 LIMIT: 0.9000 Base Case Value: 0.9804
BRIER (45609) LOW V VOLT: 0.8282 LIMIT: 0.9000 Base Case Value: 0.9903
CASCAD (45621) LOW V VOLT: 0.8296 LIMIT: 0.9000 Base Case Value: 0.9922
CAN PARK (45619) LOW V VOLT: 0.8297 LIMIT: 0.9000 Base Case Value: 0.9931
WESTGATE (45819) LOW V VOLT: 0.8301 LIMIT: 0.9000 Base Case Value: 0.9822
RICHMND (45759) LOW V VOLT: 0.8305 LIMIT: 0.9000 Base Case Value: 0.9826
MURPHYS (45723) LOW V VOLT: 0.8308 LIMIT: 0.9000 Base Case Value: 0.9915
RICHMNDT (45761) LOW V VOLT: 0.8311 LIMIT: 0.9000 Base Case Value: 0.9831
BALLING (45603) LOW V VOLT: 0.8312 LIMIT: 0.9000 Base Case Value: 0.9832
TAMBARK2 (45790) LOW V VOLT: 0.8314 LIMIT: 0.9000 Base Case Value: 0.9913
MONTLAKE (45717) LOW V VOLT: 0.8314 LIMIT: 0.9000 Base Case Value: 0.9872
N CRK (45727) LOW V VOLT: 0.8320 LIMIT: 0.9000 Base Case Value: 0.9926
HALLS LK (45848) LOW V VOLT: 0.8333 LIMIT: 0.9000 Base Case Value: 0.9849
ESPERENC (45635) LOW V VOLT: 0.8334 LIMIT: 0.9000 Base Case Value: 0.9850
TAMBARKT (45795) LOW V VOLT: 0.8344 LIMIT: 0.9000 Base Case Value: 0.9962
NCRK TAP (45852) LOW V VOLT: 0.8346 LIMIT: 0.9000 Base Case Value: 0.9947
ALDERW (45601) LOW V VOLT: 0.8367 LIMIT: 0.9000 Base Case Value: 0.9872
FLORLH T (45844) LOW V VOLT: 0.8384 LIMIT: 0.9000 Base Case Value: 0.9901
FLORAL H (45649) LOW V VOLT: 0.8387 LIMIT: 0.9000 Base Case Value: 0.9906
FLORLHT1 (45845) LOW V VOLT: 0.8387 LIMIT: 0.9000 Base Case Value: 0.9906
N ALDER (45725) LOW V VOLT: 0.8392 LIMIT: 0.9000 Base Case Value: 0.9890
SWMPCKT1 (45859) LOW V VOLT: 0.8403 LIMIT: 0.9000 Base Case Value: 0.9898
SWMPCKT2 (45860) LOW V VOLT: 0.8403 LIMIT: 0.9000 Base Case Value: 0.9898
LYNNWDT (45707) LOW V VOLT: 0.8438 LIMIT: 0.9000 Base Case Value: 0.9836
MARTHA L (45711) LOW V VOLT: 0.8451 LIMIT: 0.9000 Base Case Value: 0.9895
KEELERL (45710) LOW V VOLT: 0.8491 LIMIT: 0.9000 Base Case Value: 0.9830
KEELER S (45708) LOW V VOLT: 0.8491 LIMIT: 0.9000 Base Case Value: 0.9830
MEADWD (45713) LOW V VOLT: 0.8502 LIMIT: 0.9000 Base Case Value: 0.9822
MEADWDT (45715) LOW V VOLT: 0.8508 LIMIT: 0.9000 Base Case Value: 0.9828
LK SEREN (45701) LOW V VOLT: 0.8547 LIMIT: 0.9000 Base Case Value: 0.9827
MARINER (45622) LOW V VOLT: 0.8666 LIMIT: 0.9000 Base Case Value: 0.9896
GIBSON (45657) LOW V VOLT: 0.8698 LIMIT: 0.9000 Base Case Value: 0.9835
SILVE LK (45857) LOW V VOLT: 0.8743 LIMIT: 0.9000 Base Case Value: 0.9899
S CAMANO (45853) LOW V VOLT: 0.8744 LIMIT: 0.9000 Base Case Value: 0.9488
MUKLTEO (45851) LOW V VOLT: 0.8756 LIMIT: 0.9000 Base Case Value: 0.9813
HARBOR P (45679) LOW V VOLT: 0.8756 LIMIT: 0.9000 Base Case Value: 0.9807
MUKTAP (45721) LOW V VOLT: 0.8759 LIMIT: 0.9000 Base Case Value: 0.9816
PICNIC (45751) LOW V VOLT: 0.8763 LIMIT: 0.9000 Base Case Value: 0.9804
PAINETAP (45746) LOW V VOLT: 0.8775 LIMIT: 0.9000 Base Case Value: 0.9804
PAINE F (45745) LOW V VOLT: 0.8788 LIMIT: 0.9000 Base Case Value: 0.9844
CAMANO (45617) LOW V VOLT: 0.8806 LIMIT: 0.9000 Base Case Value: 0.9545
TWNTETH (45811) LOW V VOLT: 0.8839 LIMIT: 0.9000 Base Case Value: 0.9854
BOEING (45607) LOW V VOLT: 0.8846 LIMIT: 0.9000 Base Case Value: 0.9860
N STAN (45731) LOW V VOLT: 0.8867 LIMIT: 0.9000 Base Case Value: 0.9601
OLIVIA P (45739) LOW V VOLT: 0.8869 LIMIT: 0.9000 Base Case Value: 0.9876
OLIVIA T (45741) LOW V VOLT: 0.8870 LIMIT: 0.9000 Base Case Value: 0.9877
GLENWD (45659) LOW V VOLT: 0.8877 LIMIT: 0.9000 Base Case Value: 0.9872
CASINO (45623) LOW V VOLT: 0.8877 LIMIT: 0.9000 Base Case Value: 0.9885
GLENWD T (45847) LOW V VOLT: 0.8893 LIMIT: 0.9000 Base Case Value: 0.9887
S-SCTAP (45854) LOW V VOLT: 0.8912 LIMIT: 0.9000 Base Case Value: 0.9895
BEVERLY (45608) LOW V VOLT: 0.8939 LIMIT: 0.9000 Base Case Value: 0.9914
GLESNO11 (49900) LOW V VOLT: 0.8939 LIMIT: 0.9000 Base Case Value: 0.9914
BEVSNO31 (49975) LOW V VOLT: 0.8971 LIMIT: 0.9000 Base Case Value: 0.9927
S-SSNO11 (49845) LOW V VOLT: 0.8986 LIMIT: 0.9000 Base Case Value: 0.9925

BUS HIGH VOLTAGE VIOLATIONS:

None.

CONTINGENCY Z-SNOH EAST CENT BUS BS

ELEMENTS:

OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |

OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 252.49 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 87.44 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 98.25 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 3.60 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.88 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 118.08 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 76.37 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 6)
BRANCH: 3
BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 466.2 LIMIT: 369.0 %: 126.3 Base Case Value: 259.7
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 277.5 LIMIT: 256.0 %: 108.4 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 253.1 LIMIT: 256.0 %: 98.9 Base Case Value: 189.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8814 LIMIT: 0.9000 Base Case Value: 0.9488
CAMANO (45617) LOW V VOLT: 0.8875 LIMIT: 0.9000 Base Case Value: 0.9545
N STAN (45731) LOW V VOLT: 0.8936 LIMIT: 0.9000 Base Case Value: 0.9601
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST CENT BUS BS
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.75 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 100.86 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 88.28 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 57.50 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 85.65 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 259.70 MVA
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.88 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 118.08 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 76.37 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 51)
BRANCH: 7
BUS VOLTAGE: 44
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
MURRAY (40765) TO SMOKEYPT (45777) CKT 1 MVA: 323.2 LIMIT: 256.0 %: 126.2 Base Case Value: 93.9
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 279.2 LIMIT: 256.0 %: 109.1 Base Case Value: 213.0
MURRAY (40767) TO MURRAY (40765) CKT 1 MVA: 486.8 LIMIT: 448.0 %: 108.7 Base Case Value: 196.2
SMOKEYPT (45777) TO STIMSONS (45785) CKT 1 MVA: 272.9 LIMIT: 256.0 %: 106.6 Base Case Value: 64.4
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 254.6 LIMIT: 256.0 %: 99.5 Base Case Value: 189.5
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 374.5 LIMIT: 393.0 %: 95.3 Base Case Value: 252.5

ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.5 LIMIT: 15.0 %: 90.1 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
PINEHURS (45753) LOW V VOLT: 0.7706 LIMIT: 0.9000 Base Case Value: 0.9909
FIFTYSEC (45645) LOW V VOLT: 0.7712 LIMIT: 0.9000 Base Case Value: 0.9899
S CAMANO (45853) LOW V VOLT: 0.7722 LIMIT: 0.9000 Base Case Value: 0.9488
WATRFRT (45861) LOW V VOLT: 0.7751 LIMIT: 0.9000 Base Case Value: 0.9879
EVERETT (45637) LOW V VOLT: 0.7752 LIMIT: 0.9000 Base Case Value: 0.9899
KIMCLK (45849) LOW V VOLT: 0.7763 LIMIT: 0.9000 Base Case Value: 0.9877
EVRETTT2 (45843) LOW V VOLT: 0.7767 LIMIT: 0.9000 Base Case Value: 0.9877
NAVY (45733) LOW V VOLT: 0.7776 LIMIT: 0.9000 Base Case Value: 0.9872
NORTON S (45737) LOW V VOLT: 0.7787 LIMIT: 0.9000 Base Case Value: 0.9868
CAMANO (45617) LOW V VOLT: 0.7792 LIMIT: 0.9000 Base Case Value: 0.9545
FOBES (45651) LOW V VOLT: 0.7814 LIMIT: 0.9000 Base Case Value: 0.9971
SCOTT 2L (45824) LOW V VOLT: 0.7847 LIMIT: 0.9000 Base Case Value: 0.9881
SCOTT 2 (45842) LOW V VOLT: 0.7849 LIMIT: 0.9000 Base Case Value: 0.9882
TENTH (45797) LOW V VOLT: 0.7856 LIMIT: 0.9000 Base Case Value: 0.9860
TENTHT (45799) LOW V VOLT: 0.7858 LIMIT: 0.9000 Base Case Value: 0.9861
N STAN (45731) LOW V VOLT: 0.7863 LIMIT: 0.9000 Base Case Value: 0.9601
DELTA SW (45627) LOW V VOLT: 0.7869 LIMIT: 0.9000 Base Case Value: 0.9853
TULALIP (45805) LOW V VOLT: 0.7951 LIMIT: 0.9000 Base Case Value: 0.9827
TULALIPT (45807) LOW V VOLT: 0.7957 LIMIT: 0.9000 Base Case Value: 0.9831
C MARY (45611) LOW V VOLT: 0.7989 LIMIT: 0.9000 Base Case Value: 0.9814
C MARYST (45840) LOW V VOLT: 0.7995 LIMIT: 0.9000 Base Case Value: 0.9819
QUILCEDA (45632) LOW V VOLT: 0.8011 LIMIT: 0.9000 Base Case Value: 0.9826
KELLOGM (45693) LOW V VOLT: 0.8016 LIMIT: 0.9000 Base Case Value: 0.9809
CMARYST (45841) LOW V VOLT: 0.8025 LIMIT: 0.9000 Base Case Value: 0.9817
N MARYS (45729) LOW V VOLT: 0.8058 LIMIT: 0.9000 Base Case Value: 0.9819
STIMSONS (45785) LOW V VOLT: 0.8156 LIMIT: 0.9000 Base Case Value: 0.9832
SMOKEYP (45775) LOW V VOLT: 0.8185 LIMIT: 0.9000 Base Case Value: 0.9837
SMOKEYPT (45777) LOW V VOLT: 0.8191 LIMIT: 0.9000 Base Case Value: 0.9842
LK GDW (45699) LOW V VOLT: 0.8210 LIMIT: 0.9000 Base Case Value: 0.9816
SILLS C (45855) LOW V VOLT: 0.8251 LIMIT: 0.9000 Base Case Value: 0.9851
PORTAGE (45630) LOW V VOLT: 0.8420 LIMIT: 0.9000 Base Case Value: 0.9892
E ARLG (45629) LOW V VOLT: 0.8551 LIMIT: 0.9000 Base Case Value: 0.9928
SNOHM (45779) LOW V VOLT: 0.8755 LIMIT: 0.9000 Base Case Value: 0.9995
GRANFAL (45665) LOW V VOLT: 0.8775 LIMIT: 0.9000 Base Case Value: 0.9905
MURRAY (40765) LOW V VOLT: 0.8777 LIMIT: 0.9000 Base Case Value: 1.0012
W MONROE (45813) LOW V VOLT: 0.8777 LIMIT: 0.9000 Base Case Value: 0.9950
WOODS CK (45823) LOW V VOLT: 0.8798 LIMIT: 0.9000 Base Case Value: 0.9949
HARTFORD (45681) LOW V VOLT: 0.8805 LIMIT: 0.9000 Base Case Value: 0.9932
GETCHL T (45846) LOW V VOLT: 0.8818 LIMIT: 0.9000 Base Case Value: 0.9943
KELLOGMT (45695) LOW V VOLT: 0.8866 LIMIT: 0.9000 Base Case Value: 0.9935
E MARY (45631) LOW V VOLT: 0.8889 LIMIT: 0.9000 Base Case Value: 0.9933
SULTAN (45789) LOW V VOLT: 0.8918 LIMIT: 0.9000 Base Case Value: 0.9977
GOLD BAR (45663) LOW V VOLT: 0.8932 LIMIT: 0.9000 Base Case Value: 0.9968
SULT GBT (45787) LOW V VOLT: 0.8957 LIMIT: 0.9000 Base Case Value: 0.9991
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOKING BUS (NOT CREDIBLE AFTER 07)
ELEMENTS:
OPEN Bus SNOKING (41003) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOKING (41003) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 51)
BRANCH: 6
BUS VOLTAGE: 45
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 445.7 LIMIT: 369.0 %: 120.8 Base Case Value: 269.9
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 422.4 LIMIT: 369.0 %: 114.5 Base Case Value: 259.7
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 412.6 LIMIT: 393.0 %: 105.0 Base Case Value: 252.5
SWMPCKT1 (45859) TO SWMPCKT2 (45860) CKT 1 MVA: 257.9 LIMIT: 256.0 %: 100.7 Base Case Value: 36.0
BOTSNO21 (49961) TO SNOK S3 (41008) CKT 2 MVA: 521.9 LIMIT: 549.8 %: 94.9 Base Case Value: 278.9
BOTSNO11 (49962) TO SNOK S1 (41004) CKT 1 MVA: 507.5 LIMIT: 549.8 %: 92.3 Base Case Value: 271.7
BRANCH AMP VIOLATIONS:
None.

BUS LOW VOLTAGE VIOLATIONS:
LYNNWD (45705) LOW V VOLT: 0.8436 LIMIT: 0.9000 Base Case Value: 0.9703
PERRINV (45747) LOW V VOLT: 0.8450 LIMIT: 0.9000 Base Case Value: 0.9715
PERRINVT (45749) LOW V VOLT: 0.8450 LIMIT: 0.9000 Base Case Value: 0.9716
PK RIDGE (45755) LOW V VOLT: 0.8480 LIMIT: 0.9000 Base Case Value: 0.9954
PK RIDGT (45757) LOW V VOLT: 0.8482 LIMIT: 0.9000 Base Case Value: 0.9955
BRITEH2O (45758) LOW V VOLT: 0.8484 LIMIT: 0.9000 Base Case Value: 0.9950
MAPLEW (45709) LOW V VOLT: 0.8485 LIMIT: 0.9000 Base Case Value: 0.9746
TURNERS (45809) LOW V VOLT: 0.8488 LIMIT: 0.9000 Base Case Value: 0.9944
CLEARV (45625) LOW V VOLT: 0.8517 LIMIT: 0.9000 Base Case Value: 0.9925
THRASHER (45801) LOW V VOLT: 0.8532 LIMIT: 0.9000 Base Case Value: 0.9953
EDMONDT2 (45633) LOW V VOLT: 0.8543 LIMIT: 0.9000 Base Case Value: 0.9796
FIVE COR (45647) LOW V VOLT: 0.8552 LIMIT: 0.9000 Base Case Value: 0.9804
BRIER (45609) LOW V VOLT: 0.8555 LIMIT: 0.9000 Base Case Value: 0.9903
CASCAD (45621) LOW V VOLT: 0.8568 LIMIT: 0.9000 Base Case Value: 0.9922
CAN PARK (45619) LOW V VOLT: 0.8570 LIMIT: 0.9000 Base Case Value: 0.9931
WESTGATE (45819) LOW V VOLT: 0.8574 LIMIT: 0.9000 Base Case Value: 0.9822
RICHMND (45759) LOW V VOLT: 0.8578 LIMIT: 0.9000 Base Case Value: 0.9826
MURPHYS (45723) LOW V VOLT: 0.8580 LIMIT: 0.9000 Base Case Value: 0.9915
RICHMNDT (45761) LOW V VOLT: 0.8584 LIMIT: 0.9000 Base Case Value: 0.9831
BALLING (45603) LOW V VOLT: 0.8584 LIMIT: 0.9000 Base Case Value: 0.9832
TAMBARK2 (45790) LOW V VOLT: 0.8586 LIMIT: 0.9000 Base Case Value: 0.9913
MONTLAKE (45717) LOW V VOLT: 0.8587 LIMIT: 0.9000 Base Case Value: 0.9872
N CRK (45727) LOW V VOLT: 0.8592 LIMIT: 0.9000 Base Case Value: 0.9926
HALLS LK (45848) LOW V VOLT: 0.8604 LIMIT: 0.9000 Base Case Value: 0.9849
ESPERENC (45635) LOW V VOLT: 0.8605 LIMIT: 0.9000 Base Case Value: 0.9850
TAMBARKT (45795) LOW V VOLT: 0.8614 LIMIT: 0.9000 Base Case Value: 0.9962
NCRK TAP (45852) LOW V VOLT: 0.8617 LIMIT: 0.9000 Base Case Value: 0.9947
ALDERW (45601) LOW V VOLT: 0.8637 LIMIT: 0.9000 Base Case Value: 0.9872
FLORLH T (45844) LOW V VOLT: 0.8653 LIMIT: 0.9000 Base Case Value: 0.9901
FLORAL H (45649) LOW V VOLT: 0.8656 LIMIT: 0.9000 Base Case Value: 0.9906
FLORLHT1 (45845) LOW V VOLT: 0.8656 LIMIT: 0.9000 Base Case Value: 0.9906
N ALDER (45725) LOW V VOLT: 0.8661 LIMIT: 0.9000 Base Case Value: 0.9890
SWMPCKT1 (45859) LOW V VOLT: 0.8671 LIMIT: 0.9000 Base Case Value: 0.9898
SWMPCKT2 (45860) LOW V VOLT: 0.8672 LIMIT: 0.9000 Base Case Value: 0.9898
LYNNWDT (45707) LOW V VOLT: 0.8706 LIMIT: 0.9000 Base Case Value: 0.9836
MARTHA L (45711) LOW V VOLT: 0.8717 LIMIT: 0.9000 Base Case Value: 0.9895
KEELERL (45710) LOW V VOLT: 0.8757 LIMIT: 0.9000 Base Case Value: 0.9830
KEELER S (45708) LOW V VOLT: 0.8757 LIMIT: 0.9000 Base Case Value: 0.9830
MEADWD (45713) LOW V VOLT: 0.8767 LIMIT: 0.9000 Base Case Value: 0.9822
MEADWDT (45715) LOW V VOLT: 0.8773 LIMIT: 0.9000 Base Case Value: 0.9828
LK SEREN (45701) LOW V VOLT: 0.8811 LIMIT: 0.9000 Base Case Value: 0.9827
MARINER (45622) LOW V VOLT: 0.8925 LIMIT: 0.9000 Base Case Value: 0.9896
GIBSON (45657) LOW V VOLT: 0.8957 LIMIT: 0.9000 Base Case Value: 0.9835
SILVE LK (45857) LOW V VOLT: 0.8998 LIMIT: 0.9000 Base Case Value: 0.9899
S CAMANO (45853) LOW V VOLT: 0.8999 LIMIT: 0.9000 Base Case Value: 0.9488
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK SOUTH BUS G
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 196.80 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 113.77 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 124.85 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:

SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 300.2 LIMIT: 256.0 %: 117.3 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 275.7 LIMIT: 256.0 %: 107.7 Base Case Value: 189.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK SOUTH BUS
ELEMENTS:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK |
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S3 (41008) TO SNOKING (41003) CKT 2 | | CHECK | | Opened flow of 196.80 MVA
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 113.77 MVA
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 124.85 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 289.0 LIMIT: 256.0 %: 112.9 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 264.7 LIMIT: 256.0 %: 103.4 Base Case Value: 189.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF3 G
ELEMENTS:
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 259.70 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 393.0 LIMIT: 369.0 %: 106.5 Base Case Value: 269.9
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 243.0 LIMIT: 256.0 %: 94.9 Base Case Value: 213.0
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 367.7 LIMIT: 393.0 %: 93.6 Base Case Value: 252.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45757PKRIDGT-41003SNOKINGC1
ELEMENTS:
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch PK RIDGT (45757) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 124.85 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 271.1 LIMIT: 256.0 %: 105.9 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 247.1 LIMIT: 256.0 %: 96.5 Base Case Value: 189.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF1 G
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 252.49 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 390.5 LIMIT: 369.0 %: 105.8 Base Case Value: 269.9
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 373.9 LIMIT: 369.0 %: 101.3 Base Case Value: 259.7
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 242.6 LIMIT: 256.0 %: 94.8 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH2 G
ELEMENTS:
OPEN Bus SNOH S2 (41328) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S2 (41328) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 6)
BRANCH: 4
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 388.7 LIMIT: 369.0 %: 105.3 Base Case Value: 269.9
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 247.7 LIMIT: 256.0 %: 96.8 Base Case Value: 213.0
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 364.1 LIMIT: 393.0 %: 92.6 Base Case Value: 252.5
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.4 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS4 (40994) HIGH V VOLT: 1.0940 LIMIT: 1.0500 Base Case Value: 1.0244
CHISNO41 (49939) HIGH V VOLT: 1.0829 LIMIT: 1.0500 Base Case Value: 1.0187
CONTINGENCY Z-SNOH XF2 G
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |

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      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2 |  | CHECK |  | Opened flow of 269.88 MVA
       OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
       OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
      BRANCH:              3
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   381.1   LIMIT:   369.0   %: 103.3   Base Case Value:   259.7
      SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   244.8   LIMIT:   256.0   %:  95.6   Base Case Value:   213.0
      SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1    MVA:   372.0   LIMIT:   393.0   %:  94.7   Base Case Value:   252.5
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY L_41003SNOKING-45801THRASHERC1
   ELEMENTS:
      OPEN Branch SNOKING (41003)  TO  THRASHER (45801) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOKING (41003)  TO  THRASHER (45801) CKT 1 |  | CHECK |  | Opened flow of 162.56 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
      BRANCH:              2
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   263.9   LIMIT:   256.0   %: 103.1   Base Case Value:   213.0
      NCRK TAP (45852)  TO  TAMBARKT (45795) CKT 1    MVA:   240.0   LIMIT:   256.0   %:  93.7   Base Case Value:   189.5
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-SNOH EAST BUS G
   ELEMENTS:
      OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN Branch BEVERLY (45608)  TO  SNOHOMSH (40997) CKT 4 |  | CHECK |
      OPEN Branch LK STEVE (45703)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
      OPEN Branch SNOHOMSH (40997)  TO  THREE LK (45803) CKT 1 |  | CHECK |
      OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |
      OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
      OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
      OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of 252.49 MVA
       OPEN Branch BEVERLY (45608)  TO  SNOHOMSH (40997) CKT 4 |  | CHECK |  | Opened flow of  87.44 MVA
       OPEN Branch LK STEVE (45703)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of  98.25 MVA
       OPEN Branch SNOHOMSH (40997)  TO  THREE LK (45803) CKT 1 |  | CHECK |  | Opened flow of   3.60 MVA
       OPEN Shunt SNOHOMSH (40997) #s |  | CHECK |  | Opened 216.90 Mvar (nominal)
       OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
       OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
       OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 6)
      BRANCH:              4
      BUS VOLTAGE:         2
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   378.1   LIMIT:   369.0   %: 102.5   Base Case Value:   269.9
      SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   249.0   LIMIT:   256.0   %:  97.3   Base Case Value:   213.0
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SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 353.0 LIMIT: 369.0 %: 95.7 Base Case Value: 259.7
SNOHM (45779) TO SNOHOMSH (40997) CKT 1 MVA: 137.8 LIMIT: 148.0 %: 93.1 Base Case Value: 52.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8888 LIMIT: 0.9000 Base Case Value: 0.9488
CAMANO (45617) LOW V VOLT: 0.8949 LIMIT: 0.9000 Base Case Value: 0.9545
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH4 G
ELEMENTS:
OPEN Bus SNOH S4 (41330) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S4 (41330) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)
BRANCH: 3
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 377.9 LIMIT: 369.0 %: 102.4 Base Case Value: 269.9
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 363.9 LIMIT: 369.0 %: 98.6 Base Case Value: 259.7
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 248.5 LIMIT: 256.0 %: 97.1 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8996 LIMIT: 0.9000 Base Case Value: 0.9488
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45757PKRIDGT-45758BRITEH2OC1
ELEMENTS:
OPEN Branch PK RIDGT (45757) TO BRITEH2O (45758) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch PK RIDGT (45757) TO BRITEH2O (45758) CKT 1 | | CHECK | | Opened flow of 95.60 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 257.6 LIMIT: 256.0 %: 100.6 Base Case Value: 213.0
NCRK TAP (45852) TO TAMBARKT (45795) CKT 1 MVA: 233.7 LIMIT: 256.0 %: 91.3 Base Case Value: 189.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH CENT BUS G
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.88 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 118.08 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 76.37 MVA

OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 6)
BRANCH: 3
BUS VOLTAGE: 3
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 370.3 LIMIT: 369.0 %: 100.3 Base Case Value: 259.7
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 254.6 LIMIT: 256.0 %: 99.4 Base Case Value: 213.0
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 362.3 LIMIT: 393.0 %: 92.2 Base Case Value: 252.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8825 LIMIT: 0.9000 Base Case Value: 0.9488
CAMANO (45617) LOW V VOLT: 0.8886 LIMIT: 0.9000 Base Case Value: 0.9545
N STAN (45731) LOW V VOLT: 0.8947 LIMIT: 0.9000 Base Case Value: 0.9601
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK NORTH CENT BUS G BS
ELEMENTS:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK | | Opened flow of 214.88 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 162.56 MVA
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK | | was already open
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 213.03 MVA
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 209.96 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 368.6 LIMIT: 369.0 %: 99.9 Base Case Value: 269.9
SNOK S3 (41008) TO SNOKING (41003) CKT 2 MVA: 381.5 LIMIT: 398.0 %: 95.9 Base Case Value: 196.8
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 351.6 LIMIT: 369.0 %: 95.3 Base Case Value: 259.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH3 G
ELEMENTS:
OPEN Bus SNOH S3 (41329) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S3 (41329) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 6)
BRANCH: 4

BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 368.1 LIMIT: 369.0 %: 99.8 Base Case Value: 259.7
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 253.0 LIMIT: 256.0 %: 98.8 Base Case Value: 213.0
SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 MVA: 358.4 LIMIT: 393.0 %: 91.2 Base Case Value: 252.5
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.5 LIMIT: 15.0 %: 90.3 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS3 (40993) HIGH V VOLT: 1.0947 LIMIT: 1.0500 Base Case Value: 1.0251
CHISNO31 (49940) HIGH V VOLT: 1.0835 LIMIT: 1.0500 Base Case Value: 1.0188
CONTINGENCY L_45758BRITEH2O-45809TURNERSC1
ELEMENTS:
OPEN Branch BRITEH2O (45758) TO TURNERS (45809) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BRITEH2O (45758) TO TURNERS (45809) CKT 1 | | CHECK | | Opened flow of 86.53 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 253.4 LIMIT: 256.0 %: 99.0 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST BUS-G
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.75 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 100.86 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 88.28 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 57.50 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 85.65 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 259.70 MVA
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 5)
BRANCH: 3
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 252.6 LIMIT: 256.0 %: 98.7 Base Case Value: 213.0
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 356.9 LIMIT: 369.0 %: 96.7 Base Case Value: 269.9
FOBES (45651) TO SNOHOMSH (40997) CKT 1 MVA: 244.2 LIMIT: 256.0 %: 95.4 Base Case Value: 118.1
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
SNOHM (45779) LOW V VOLT: 0.8970 LIMIT: 0.9000 Base Case Value: 0.9995
W MONROE (45813) LOW V VOLT: 0.8991 LIMIT: 0.9000 Base Case Value: 0.9950

BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-MURRAY BUS G
ELEMENTS:
OPEN Bus MURRAY (40765) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus MURRAY (40765) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 21)
BRANCH: 3
BUS VOLTAGE: 18
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 362.8 LIMIT: 369.0 %: 98.3 Base Case Value: 269.9
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 241.0 LIMIT: 256.0 %: 94.1 Base Case Value: 213.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 343.4 LIMIT: 369.0 %: 93.1 Base Case Value: 259.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
S CAMANO (45853) LOW V VOLT: 0.8283 LIMIT: 0.9000 Base Case Value: 0.9488
CAMANO (45617) LOW V VOLT: 0.8348 LIMIT: 0.9000 Base Case Value: 0.9545
N STAN (45731) LOW V VOLT: 0.8414 LIMIT: 0.9000 Base Case Value: 0.9601
E ARLG (45629) LOW V VOLT: 0.8528 LIMIT: 0.9000 Base Case Value: 0.9928
PORTAGE (45630) LOW V VOLT: 0.8563 LIMIT: 0.9000 Base Case Value: 0.9892
LK GDW (45699) LOW V VOLT: 0.8588 LIMIT: 0.9000 Base Case Value: 0.9816
SILLS C (45855) LOW V VOLT: 0.8627 LIMIT: 0.9000 Base Case Value: 0.9851
SMOKEYP (45775) LOW V VOLT: 0.8675 LIMIT: 0.9000 Base Case Value: 0.9837
SMOKEYPT (45777) LOW V VOLT: 0.8681 LIMIT: 0.9000 Base Case Value: 0.9842
STIMSONS (45785) LOW V VOLT: 0.8684 LIMIT: 0.9000 Base Case Value: 0.9832
N MARYS (45729) LOW V VOLT: 0.8739 LIMIT: 0.9000 Base Case Value: 0.9819
KELLOGM (45693) LOW V VOLT: 0.8756 LIMIT: 0.9000 Base Case Value: 0.9809
CMARYST (45841) LOW V VOLT: 0.8765 LIMIT: 0.9000 Base Case Value: 0.9817
C MARY (45611) LOW V VOLT: 0.8792 LIMIT: 0.9000 Base Case Value: 0.9814
C MARYST (45840) LOW V VOLT: 0.8798 LIMIT: 0.9000 Base Case Value: 0.9819
QUILCEDA (45632) LOW V VOLT: 0.8799 LIMIT: 0.9000 Base Case Value: 0.9826
TULALIP (45805) LOW V VOLT: 0.8858 LIMIT: 0.9000 Base Case Value: 0.9827
TULALIPT (45807) LOW V VOLT: 0.8863 LIMIT: 0.9000 Base Case Value: 0.9831
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45609BRIER-45801THRASHERC1
ELEMENTS:
OPEN Branch BRIER (45609) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BRIER (45609) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 120.02 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 250.7 LIMIT: 256.0 %: 97.9 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF3
ELEMENTS:
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:

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        OPEN Branch SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3 |  | CHECK |  | Opened flow of 259.70 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
        BRANCH:              2
        BUS VOLTAGE:         0
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   358.3   LIMIT:   369.0   %:  97.1   Base Case Value:   269.9
        SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   231.8   LIMIT:   256.0   %:  90.6   Base Case Value:   213.0
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY Z-SNOH XF1
    ELEMENTS:
        OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch SNOH S4 (41330)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of 252.49 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
        BRANCH:              3
        BUS VOLTAGE:         0
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   355.9   LIMIT:   369.0   %:  96.5   Base Case Value:   269.9
        SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   342.3   LIMIT:   369.0   %:  92.8   Base Case Value:   259.7
        SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   231.5   LIMIT:   256.0   %:  90.4   Base Case Value:   213.0
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY Z-MURRAY XF G
    ELEMENTS:
        OPEN Branch MURRAY (40767)  TO  MURRAY (40765) CKT 1 |  | CHECK |
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch MURRAY (40767)  TO  MURRAY (40765) CKT 1 |  | CHECK |  | Opened flow of 196.18 MVA
         OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
         OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
         OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
        BRANCH:              3
        BUS VOLTAGE:         0
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   355.7   LIMIT:   369.0   %:  96.4   Base Case Value:   269.9
        SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   237.3   LIMIT:   256.0   %:  92.7   Base Case Value:   213.0
        SNOH S2 (41328)  TO  SNOHOMSH (40997) CKT 3    MVA:   340.5   LIMIT:   369.0   %:  92.3   Base Case Value:   259.7
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY Z-SNOK CENT BUS G
    ELEMENTS:
        OPEN Branch SNOK S2 (41006)  TO  SNOKING (41003) CKT 1 |  | CHECK |
        OPEN Branch SNOKING (41003)  TO  THRASHER (45801) CKT 1 |  | CHECK |
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
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   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Branch SNOK S2 (41006)  TO  SNOKING (41003) CKT 1 |  | CHECK |  | Opened flow of 209.96 MVA
        OPEN Branch SNOKING (41003)  TO  THRASHER (45801) CKT 1 |  | CHECK |  | Opened flow of 162.56 MVA
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |  | Opened  35.00 MW
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |  | Opened  40.00 MW
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |  | Opened  40.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              1
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   246.7   LIMIT:   256.0   %:  96.4   Base Case Value:   213.0
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY C-BEV-CASINO-OLIVIA FAULT
   ELEMENTS:
      OPEN Branch BEVERLY (45608)  TO  CASINO (45623) CKT 1 |  | CHECK |
      OPEN Branch OLIVIA T (45741)  TO  PAINE F (45745) CKT 1 |  | CHECK |
      OPEN Branch HALLS LK (45848)  TO  LYNNWDT (45707) CKT 1 |  | CHECK |
      OPEN Branch MUKTAP (45721)  TO  PAINE F (45745) CKT 1 |  | CHECK |
      OPEN MultiSectionLine GLENWD T (45847)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Branch BEVERLY (45608)  TO  CASINO (45623) CKT 1 |  | CHECK |  | Opened flow of  65.03 MVA
        OPEN Branch OLIVIA T (45741)  TO  PAINE F (45745) CKT 1 |  | CHECK |  | Opened flow of  59.73 MVA
        OPEN Branch HALLS LK (45848)  TO  LYNNWDT (45707) CKT 1 |  | CHECK |  | Opened flow of  35.70 MVA
        OPEN Branch MUKTAP (45721)  TO  PAINE F (45745) CKT 1 |  | CHECK |  | Opened flow of  26.63 MVA
        OPEN MultiSectionLine GLENWD T (45847)  TO  SNOHOMSH (40997) CKT 1 |  | CHECK |  | Opened flow of  57.50 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              1
      BUS VOLTAGE:         0
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   246.4   LIMIT:   256.0   %:  96.2   Base Case Value:   213.0
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      None.
CONTINGENCY Z-230 SNOH2
   ELEMENTS:
      OPEN Bus SNOH S2 (41328) |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
        OPEN Bus SNOH S2 (41328) |  | CHECK |  | Opened   0.00 MW
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)
      BRANCH:              2
      BUS VOLTAGE:         2
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      SNOH S3 (41329)  TO  SNOHOMSH (40997) CKT 2    MVA:   354.7   LIMIT:   369.0   %:  96.1   Base Case Value:   269.9
      SNOKING (41003)  TO  TAMBARKT (45795) CKT 1    MVA:   235.8   LIMIT:   256.0   %:  92.1   Base Case Value:   213.0
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      SNOHOMS4 (40994)   HIGH V   VOLT:    1.0963   LIMIT:  1.0500   Base Case Value:  1.0244
      CHISNO41 (49939)   HIGH V   VOLT:    1.0851   LIMIT:  1.0500   Base Case Value:  1.0187
CONTINGENCY L_45619CANPARK-41003SNOKINGC1
   ELEMENTS:
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OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAN PARK (45619) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 113.77 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 245.9 LIMIT: 256.0 %: 96.1 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45609BRIER-45848HALLSLKC1
ELEMENTS:
OPEN Branch BRIER (45609) TO HALLS LK (45848) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BRIER (45609) TO HALLS LK (45848) CKT 1 | | CHECK | | Opened flow of 99.87 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 244.5 LIMIT: 256.0 %: 95.5 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH CENT BUS
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.88 MVA
OPEN Branch FOBES (45651) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 118.08 MVA
OPEN MultiSectionLine S-SCTAP (45854) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 76.37 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 243.6 LIMIT: 256.0 %: 95.2 Base Case Value: 213.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 333.8 LIMIT: 369.0 %: 90.5 Base Case Value: 259.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH WEST BUS
ELEMENTS:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK |
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOHM (45779) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 52.75 MVA
OPEN Branch EVERETT (45637) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 100.86 MVA
OPEN MultiSectionLine PINEHURS (45753) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 88.28 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 57.50 MVA
OPEN MultiSectionLine BEVERLY (45608) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 85.65 MVA
OPEN Branch SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 | | CHECK | | Opened flow of 259.70 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 242.7 LIMIT: 256.0 %: 94.8 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY C-BEV-CASINO-GLENWOOD FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK |
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK |
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK |
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO CASINO (45623) CKT 1 | | CHECK | | Opened flow of 65.03 MVA
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK | | Opened flow of 92.41 MVA
OPEN Branch HALLS LK (45848) TO LYNNWDT (45707) CKT 1 | | CHECK | | Opened flow of 35.70 MVA
OPEN Branch MUKTAP (45721) TO PAINE F (45745) CKT 1 | | CHECK | | Opened flow of 26.63 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 57.50 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 242.3 LIMIT: 256.0 %: 94.6 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45625CLEARV-45809TURNERSC1
ELEMENTS:
OPEN Branch CLEARV (45625) TO TURNERS (45809) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CLEARV (45625) TO TURNERS (45809) CKT 1 | | CHECK | | Opened flow of 61.87 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 241.9 LIMIT: 256.0 %: 94.5 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH XF2
ELEMENTS:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK |

APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 | | CHECK | | Opened flow of 269.88 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 347.9 LIMIT: 369.0 %: 94.3 Base Case Value: 259.7
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 233.5 LIMIT: 256.0 %: 91.2 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH3
ELEMENTS:
OPEN Bus SNOH S3 (41329) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S3 (41329) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 4)
BRANCH: 2
BUS VOLTAGE: 2
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 240.8 LIMIT: 256.0 %: 94.0 Base Case Value: 213.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 341.4 LIMIT: 369.0 %: 92.5 Base Case Value: 259.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
SNOHOMS3 (40993) HIGH V VOLT: 1.0970 LIMIT: 1.0500 Base Case Value: 1.0251
CHISNO31 (49940) HIGH V VOLT: 1.0858 LIMIT: 1.0500 Base Case Value: 1.0188
CONTINGENCY L_45619CANPARK-45717MONTLAKEC1
ELEMENTS:
OPEN Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAN PARK (45619) TO MONTLAKE (45717) CKT 1 | | CHECK | | Opened flow of 93.52 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 240.2 LIMIT: 256.0 %: 93.8 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH4
ELEMENTS:
OPEN Bus SNOH S4 (41330) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S4 (41330) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 3)
BRANCH: 3
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 345.7 LIMIT: 369.0 %: 93.7 Base Case Value: 269.9

SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 235.8 LIMIT: 256.0 %: 92.1 Base Case Value: 213.0
SNOH S2 (41328) TO SNOHOMSH (40997) CKT 3 MVA: 335.6 LIMIT: 369.0 %: 91.0 Base Case Value: 259.7
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOH EAST BUS
ELEMENTS:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK |
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK |
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK |
OPEN Shunt SNOHOMSH (40997) #s | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOH S4 (41330) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 252.49 MVA
OPEN Branch BEVERLY (45608) TO SNOHOMSH (40997) CKT 4 | | CHECK | | Opened flow of 87.44 MVA
OPEN Branch LK STEVE (45703) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 98.25 MVA
OPEN Branch SNOHOMSH (40997) TO THREE LK (45803) CKT 1 | | CHECK | | Opened flow of 3.60 MVA
OPEN Shunt SNOHOMSH (40997) #s | | CHECK | | Opened 216.90 Mvar (nominal)
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 237.6 LIMIT: 256.0 %: 92.8 Base Case Value: 213.0
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 339.1 LIMIT: 369.0 %: 91.9 Base Case Value: 269.9
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK CENT BUS
ELEMENTS:
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 209.96 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 162.56 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 237.1 LIMIT: 256.0 %: 92.6 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-SNOK NORTH CENT BUS BS
ELEMENTS:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK |
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK |
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SNOK S1 (41004) TO SNOKING (41003) CKT 3 | | CHECK | | Opened flow of 214.88 MVA
OPEN Branch SNOKING (41003) TO THRASHER (45801) CKT 1 | | CHECK | | Opened flow of 162.56 MVA
OPEN Branch FLORLH T (45844) TO SNOKING (41003) CKT 1 | | CHECK | | was already open
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 213.03 MVA

OPEN Branch SNOK S2 (41006) TO SNOKING (41003) CKT 1 | | CHECK | | Opened flow of 209.96 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOK S3 (41008) TO SNOKING (41003) CKT 2 MVA: 368.1 LIMIT: 398.0 %: 92.5 Base Case Value: 196.8
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 339.3 LIMIT: 369.0 %: 91.9 Base Case Value: 269.9
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-500 TP SNOKING (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOK TAP (41001) | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK TAP (41001) | | CHECK | | Opened 0.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 2)
BRANCH: 2
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
BEVERLY (45608) TO GLDBRTIE (42399) CKT 1 MVA: 66.4 LIMIT: 71.9 %: 92.4 Base Case Value: 55.7
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.7 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45848HALLSLK-45717MONTLAKEC1
ELEMENTS:
OPEN Branch HALLS LK (45848) TO MONTLAKE (45717) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch HALLS LK (45848) TO MONTLAKE (45717) CKT 1 | | CHECK | | Opened flow of 75.44 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO TAMBARKT (45795) CKT 1 MVA: 235.1 LIMIT: 256.0 %: 91.8 Base Case Value: 213.0
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY C-BEV-SILVER-GLENWD FAULT
ELEMENTS:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK |
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK |
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK |
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BEVERLY (45608) TO SILVE LK (45857) CKT 1 | | CHECK | | Opened flow of 30.71 MVA
OPEN Branch SNOKING (41003) TO TAMBARKT (45795) CKT 1 | | CHECK | | Opened flow of 213.03 MVA
OPEN Branch BOEING (45607) TO GLENWD T (45847) CKT 1 | | CHECK | | Opened flow of 92.41 MVA
OPEN MultiSectionLine GLENWD T (45847) TO SNOHOMSH (40997) CKT 1 | | CHECK | | Opened flow of 57.50 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0

ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOKING (41003) TO THRASHER (45801) CKT 1 MVA: 231.5 LIMIT: 256.0 %: 90.4 Base Case Value: 162.6
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOK1 G
ELEMENTS:
OPEN Bus SNOK S1 (41004) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOK S1 (41004) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
ABERDEEN (40007) TO WYNOOCHE (46792) CKT 1 MVA: 13.6 LIMIT: 15.0 %: 90.4 Base Case Value: 12.5
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY Z-230 SNOH1 G
ELEMENTS:
OPEN Bus SNOH S1 (41327) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |
OPEN Gen JACKSN2 (45689) #1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Bus SNOH S1 (41327) | | CHECK | | Opened 0.00 MW
OPEN Gen KIMCLK L (45850) #1 | | CHECK | | Opened 35.00 MW
OPEN Gen JACKSN1 (45687) #1 | | CHECK | | Opened 40.00 MW
OPEN Gen JACKSN2 (45689) #1 | | CHECK | | Opened 40.00 MW
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 1
BUS VOLTAGE: 0
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
SNOH S3 (41329) TO SNOHOMSH (40997) CKT 2 MVA: 333.7 LIMIT: 369.0 %: 90.4 Base Case Value: 269.9
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
None.
CONTINGENCY L_45617CAMANO-45731NSTANC1
ELEMENTS:
OPEN Branch CAMANO (45617) TO N STAN (45731) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch CAMANO (45617) TO N STAN (45731) CKT 1 | | CHECK | | Opened flow of 36.33 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0

BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0506 LIMIT: 1.0500 Base Case Value: 1.0485
CONTINGENCY L_45633EDMONDT2-45709MAPLEWC1
ELEMENTS:
OPEN Branch EDMONDT2 (45633) TO MAPLEW (45709) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch EDMONDT2 (45633) TO MAPLEW (45709) CKT 1 | | CHECK | | Opened flow of 73.83 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0523 LIMIT: 1.0500 Base Case Value: 1.0485
CONTINGENCY L_45775SMOKEYP-45777SMOKEYPTC1
ELEMENTS:
OPEN Branch SMOKEYP (45775) TO SMOKEYPT (45777) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch SMOKEYP (45775) TO SMOKEYPT (45777) CKT 1 | | CHECK | | Opened flow of 28.84 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0501 LIMIT: 1.0500 Base Case Value: 1.0485
CONTINGENCY L_45603BALLING-45848HALLSLKC1
ELEMENTS:
OPEN Branch BALLING (45603) TO HALLS LK (45848) CKT 1 | | CHECK |
APPLIED AND SKIPPED ELEMENTS:
Applied:
OPEN Branch BALLING (45603) TO HALLS LK (45848) CKT 1 | | CHECK | | Opened flow of 45.41 MVA
NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
BRANCH: 0
BUS VOLTAGE: 1
INTERFACE: 0
ISOLATED BUSES: 0
BRANCH MVA VIOLATIONS:
None.
BRANCH AMP VIOLATIONS:
None.
BUS LOW VOLTAGE VIOLATIONS:
None.
BUS HIGH VOLTAGE VIOLATIONS:
MV-SVC (40769) HIGH V VOLT: 1.0509 LIMIT: 1.0500 Base Case Value: 1.0485
CONTINGENCY Z-500 TP SNOKING G (NOT CREDIBLE)
ELEMENTS:
OPEN Bus SNOK TAP (41001) | | CHECK |
OPEN Gen KIMCLK L (45850) #1 | | CHECK |
OPEN Gen JACKSN1 (45687) #1 | | CHECK |

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        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
*** UNSOLVABLE ***
*----*----*----*----*----*----*----*----*----*----*----*----*----*----*
CONTINGENCY L_45731NSTAN-45785STIMSONSC1
    ELEMENTS:
        OPEN Branch N STAN (45731)  TO  STIMSONS (45785) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch N STAN (45731)  TO  STIMSONS (45785) CKT 1 |  | CHECK |  | Opened flow of  66.56 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        MV-SVC (40769)   HIGH V   VOLT:    1.0520   LIMIT:  1.0500   Base Case Value:  1.0485
CONTINGENCY L_45727NCRK-45852NCRKTAPC1
    ELEMENTS:
        OPEN Branch N CRK (45727)  TO  NCRK TAP (45852) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch N CRK (45727)  TO  NCRK TAP (45852) CKT 1 |  | CHECK |  | Opened flow of  48.07 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        MV-SVC (40769)   HIGH V   VOLT:    1.0509   LIMIT:  1.0500   Base Case Value:  1.0485
CONTINGENCY L_45633EDMONDT2-45647FIVECORC1
    ELEMENTS:
        OPEN Branch EDMONDT2 (45633)  TO  FIVE COR (45647) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch EDMONDT2 (45633)  TO  FIVE COR (45647) CKT 1 |  | CHECK |  | Opened flow of  73.88 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
        INTERFACE:           0
        ISOLATED BUSES:      0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        MV-SVC (40769)   HIGH V   VOLT:    1.0523   LIMIT:  1.0500   Base Case Value:  1.0485
CONTINGENCY L_45709MAPLEW-45749PERRINVTC1
    ELEMENTS:
        OPEN Branch MAPLEW (45709)  TO  PERRINVT (45749) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
         OPEN Branch MAPLEW (45709)  TO  PERRINVT (45749) CKT 1 |  | CHECK |  | Opened flow of  55.13 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:         1
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      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)  HIGH V  VOLT:   1.0515  LIMIT:  1.0500  Base Case Value:  1.0485
CONTINGENCY L_45607BOEING-45811TWNTETHC1
   ELEMENTS:
      OPEN Branch BOEING (45607)  TO  TWNTETH (45811) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch BOEING (45607)  TO  TWNTETH (45811) CKT 1 |  | CHECK |  | Opened flow of  42.41 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)  HIGH V  VOLT:   1.0507  LIMIT:  1.0500  Base Case Value:  1.0485
CONTINGENCY L_45647FIVECOR-45848HALLSLKC1
   ELEMENTS:
      OPEN Branch FIVE COR (45647)  TO  HALLS LK (45848) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch FIVE COR (45647)  TO  HALLS LK (45848) CKT 1 |  | CHECK |  | Opened flow of  94.80 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
      MV-SVC (40769)  HIGH V  VOLT:   1.0533  LIMIT:  1.0500  Base Case Value:  1.0485
CONTINGENCY C-SILLS- LK GDW FAULT
   ELEMENTS:
      OPEN Branch E ARLG (45629)  TO  PORTAGE (45630) CKT 1 |  | CHECK |
      OPEN Branch N STAN (45731)  TO  STIMSONS (45785) CKT 1 |  | CHECK |
      OPEN Branch SILLS  C (45855)  TO  STIMSONS (45785) CKT 1 |  | CHECK |
   APPLIED AND SKIPPED ELEMENTS:
      Applied:
       OPEN Branch E ARLG (45629)  TO  PORTAGE (45630) CKT 1 |  | CHECK |  | Opened flow of  39.66 MVA
       OPEN Branch N STAN (45731)  TO  STIMSONS (45785) CKT 1 |  | CHECK |  | Opened flow of  66.56 MVA
       OPEN Branch SILLS  C (45855)  TO  STIMSONS (45785) CKT 1 |  | CHECK |  | Opened flow of  11.51 MVA
   NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
      BRANCH:              0
      BUS VOLTAGE:         1
      INTERFACE:           0
      ISOLATED BUSES:      0
   BRANCH MVA VIOLATIONS:
      None.
   BRANCH AMP VIOLATIONS:
      None.
   BUS LOW VOLTAGE VIOLATIONS:
      None.
   BUS HIGH VOLTAGE VIOLATIONS:
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        MV-SVC (40769)   HIGH V   VOLT:    1.0534   LIMIT:  1.0500   Base Case Value:  1.0485
CONTINGENCY Z-MURRAY BUS
    ELEMENTS:
        OPEN Bus MURRAY (40765) |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
          OPEN Bus MURRAY (40765) |  | CHECK |  | Opened   0.00 MW
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 13)
        BRANCH:              0
        BUS VOLTAGE:           13
        INTERFACE:           0
        ISOLATED BUSES:        0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        S CAMANO (45853)   LOW V    VOLT:    0.8531   LIMIT:  0.9000   Base Case Value:  0.9488
        CAMANO (45617)   LOW V    VOLT:    0.8594   LIMIT:  0.9000   Base Case Value:  0.9545
        N STAN (45731)   LOW V    VOLT:    0.8658   LIMIT:  0.9000   Base Case Value:  0.9601
        E ARLG (45629)   LOW V    VOLT:    0.8768   LIMIT:  0.9000   Base Case Value:  0.9928
        PORTAGE (45630)   LOW V    VOLT:    0.8802   LIMIT:  0.9000   Base Case Value:  0.9892
        LK GDW (45699)   LOW V    VOLT:    0.8826   LIMIT:  0.9000   Base Case Value:  0.9816
        SILLS  C (45855)   LOW V    VOLT:    0.8864   LIMIT:  0.9000   Base Case Value:  0.9851
        SMOKEYP (45775)   LOW V    VOLT:    0.8910   LIMIT:  0.9000   Base Case Value:  0.9837
        SMOKEYPT (45777)   LOW V    VOLT:    0.8916   LIMIT:  0.9000   Base Case Value:  0.9842
        STIMSONS (45785)   LOW V    VOLT:    0.8919   LIMIT:  0.9000   Base Case Value:  0.9832
        N MARYS (45729)   LOW V    VOLT:    0.8972   LIMIT:  0.9000   Base Case Value:  0.9819
        KELLOGM (45693)   LOW V    VOLT:    0.8989   LIMIT:  0.9000   Base Case Value:  0.9809
        CMARYST (45841)   LOW V    VOLT:    0.8997   LIMIT:  0.9000   Base Case Value:  0.9817
    BUS HIGH VOLTAGE VIOLATIONS:
        None.
CONTINGENCY L_45705LYNNWD-45749PERRINVTC1
    ELEMENTS:
        OPEN Branch LYNNWD (45705)  TO  PERRINVT (45749) CKT 1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
        Applied:
          OPEN Branch LYNNWD (45705)  TO  PERRINVT (45749) CKT 1 |  | CHECK |  | Opened flow of  36.64 MVA
    NUMBER OF VIOLATIONS BY CATEGORY (Total = 1)
        BRANCH:              0
        BUS VOLTAGE:           1
        INTERFACE:           0
        ISOLATED BUSES:        0
    BRANCH MVA VIOLATIONS:
        None.
    BRANCH AMP VIOLATIONS:
        None.
    BUS LOW VOLTAGE VIOLATIONS:
        None.
    BUS HIGH VOLTAGE VIOLATIONS:
        MV-SVC (40769)   HIGH V   VOLT:    1.0505   LIMIT:  1.0500   Base Case Value:  1.0485
CONTINGENCY Z-SNOH BUS G (NOT CREDIBLE)
    ELEMENTS:
        OPEN Bus SNOHOMSH (40997) |  | CHECK |
        OPEN Gen KIMCLK L (45850) #1 |  | CHECK |
        OPEN Gen JACKSN1 (45687) #1 |  | CHECK |
        OPEN Gen JACKSN2 (45689) #1 |  | CHECK |
    APPLIED AND SKIPPED ELEMENTS:
*** UNSOLVABLE ***
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