



Report on

GEN-2025-SR13

Surplus Interconnection Service Impact Study

Revision R1 July 17, 2026

Submitted to
SPP



anedenconsulting.com

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Revision History

DATE OR VERSION NUMBER	AUTHOR	CHANGE DESCRIPTION
7/16/2026	Aneden Consulting	Initial Report Issued

Executive Summary

Aneden Consulting (Aneden) was retained by SPP to perform a Surplus Interconnection Service Impact Study (Study) for GEN-2025-SR13 to utilize the Surplus Interconnection Service being made available by the Seminole 138 kV Unit at its existing Point of Interconnection (POI), the Seminole 138 kV Substation in the Oklahoma Gas & Electric (OG&E) control area.

GEN-2025-SR13, the proposed Surplus Generating Facility (SGF), will connect to the existing Seminole 138 kV Unit POI via a separate generation interconnection line.

Seminole 138 kV Unit, the Existing Generating Facility (EGF), has a nameplate POI capacity of 630 MW and is making 125 MW of Surplus Interconnection Service available at its POI. The EGF unit is modeled in the DISIS-2022-001-1 models with a maximum dispatch of 494 MW. After discussion with SPP and the Interconnection Customer (IC), the modeled capacity of the Seminole 138 kV Unit was updated to a maximum dispatch of 500 MW based on the provided Network Integration Transmission Service (NITS) information.

Per the SPP Open Access Transmission Tariff (SPP Tariff), the amount of Surplus Interconnection Service available to the SGF is limited by the amount of Interconnection Service granted to the EGF at the same POI. In addition, the Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring Network Upgrades except those specified in the SPP Tariff¹.

The proposed SGF configuration consists of 6 x INDAR/Ingeteam synchronous gas-fired units operating at 21.7534 MW for a total assumed dispatch of 130.5204 MW. The generating capability of the SGF exceeds its requested Surplus Interconnection Service of 125 MW. The injection amount of the SGF must be limited to 125 MW at the POI and the combined generation from both the SGF and the EGF may not exceed 630 MW at the POI. The SGF and EGF information is shown in Table ES-1 below.

The detailed SGF configuration is captured in Table ES-2 below.

Table ES-1: EGF & SGF Configuration

Request	Interconnection Queue Capacity (MW)	Generator Fuel Type	Point of Interconnection
GEN-2025-SR13 (SGF)	125	Combustion Turbine	Seminole 138 kV (515044)
Seminole 138 kV Unit (EGF)	630	Combustion Turbine	Seminole 138 kV (515044)

¹ Allowed Network Upgrades detailed in SPP Open Access Transmission Tariff Attachment V Section 3.3

Table ES-2: SGF Interconnection Configuration

Facility	SGF Configuration
Point of Interconnection	Seminole 138 kV (515044)
Configuration/Capacity	6 x INDAR/Ingeteam synchronous Generator 21.7534 MW (Thermal) = 130.5204 MW [dispatch] Units are rated at 25.358 MVA, GEN-2025-SR13 limited to 125 MW at the POI and total POI injection w/ Seminole 138 kV Unit limited to 630 MW
Generation Interconnection Line ¹	Length = 0.5 miles R = 0.0001629 pu X = 0.0020601 pu B = 0.014372 pu Rating MVA = 324 MVA
GSU Transformer ²	X12 = 17.993% R12 = 0.514%, X23 = 35.985% R23 = 1.028%, X13 = 17.993% R13 = 0.514%, Winding MVA = 108 MVA, Winding 1 Rating MVA = 180 MVA Winding 2 Rating MVA = 90 MVA Winding 3 Rating MVA = 90 MVA
Station Service Load	Total of 5.12 MW + 2.48 MVAR modeled as two loads at each generator bus as: 2.95 MW + 1.43 MVAR and 2.17 MW + 1.05 MVAR
Generator Dynamic Model ³ & Power Factor	6 x INDAR/Ingeteam synchronous Generator 25.358 MVA (GENQECU) ³ Leading: 0.85785 Lagging: 0.85785

1) All pu are on 100 MVA Base, 2) X and R based on Winding MVA, 3) DYN stability model name

SPP determined that steady-state analysis was required because the combined dispatch of the EGF and SGF exceeded what has been modeled and studied in the previous Definitive Interconnection System Impact Studies (DISIS) study models. The addition of the SGF increased the maximum active power output above what is currently modeled for the EGF in the DISIS-2022-001-1 Low Variable Energy Resource (LVER) steady state models. The LVER models were used based on the fuel type of the SGF (thermal).

The scope of this study included short circuit analysis, steady-state analysis, and dynamic stability analysis.

Aneden performed the analyses using the study data provided for the SGF and the DISIS-2022-001-1 study models.

All analyses were performed using the Siemens PTI PSS/E² version 34 and PowerGEM TARA software and the results are summarized below.

The steady-state analysis was performed using powerflow models derived from the 24SP, 27SP, and 27WP SPP DISIS-2022-001-1 Transfer Case (TC) LVER model set. These models were updated to include the GEN-2025-SR13 surplus project and the modeled EGF capacity based on provided NITS information.

The results of the steady-state analysis showed that there were no non-convergence, thermal, or voltage criteria impacts in the study system due to the addition of GEN-2025-SR13.

² Power System Simulator for Engineering

The short circuit analysis was performed using the 25SP stability model modified for short circuit analysis. The results from the short circuit analysis compared the 25SP model with the EGF online and SGF not connected to the SGF study model (EGF and SGF online). The maximum contribution to three-phase fault currents in the immediate transmission systems due to the addition of the SGF was not greater than 1.59 kA. The maximum three-phase fault current level within 5 buses of the POI with the EGF and SGF generators online was 52.9 kA for the 25SP model. There were several buses with a maximum three-phase fault current over 40 kA. These buses are highlighted in Appendix B.

The dynamic stability analysis was performed using Siemens PTI PSS/E version 34.8.1 software for the two modified study models: 25SP and 25WP, each with two dispatch scenarios. 345 fault events were simulated, which included three-phase faults and single-line-to-ground stuck breaker faults.

- Scenario 1: SGF at maximum assumed dispatch, 130.5204 MW, and EGF disconnected.
- Scenario 2: SGF at maximum assumed dispatch, 130.5204 MW, and EGF dispatched at its modeled capacity based on provided NITS information, 500 MW, for a total combination of 630.5204 MW. With the station service loads, the net POI injection is below the limit of 630 MW.

The results of the dynamic stability analysis showed several existing base case issues that were found in both the original DISIS-2022-001-1 model and in the model with GEN-2025-SR13 included. These issues were not attributed to the GEN-2025-SR13 surplus request and are detailed in Appendix C.

There were no damping or voltage recovery violations attributed to the GEN-2025-SR13 surplus request observed during the simulated faults.

The results of the study showed that the Surplus Interconnection Service Request by GEN-2025-SR13 did not negatively impact the reliability of the Transmission System. There were no additional Interconnection Facilities or Network Upgrades identified by the analyses.

SPP has determined that GEN-2025-SR13 may utilize the requested 125 MW of Surplus Interconnection Service being made available by the EGF. The combined generation from both the SGF and the EGF may not exceed 630 MW at the POI.

The customer must install monitoring and control equipment as needed to ensure that the SGF does not exceed the granted surplus amount and to ensure that combination of the SGF and EGF power injected at the POI does not exceed the EGF's Interconnection Service amount. The monitoring and control scheme may be reviewed by the TO and documented in Appendix C of the SGF Generation Interconnection Agreement (GIA).

It is likely that the customer may be required to reduce its generation output to 0 MW in real-time, also known as curtailment, under certain system conditions to allow system operators to maintain the reliability of the transmission network.

Nothing in this study should be construed as a guarantee of transmission service or delivery rights. If the customer wishes to obtain deliverability to final customers, a separate request for transmission service must be requested on SPP's OASIS by the customer.

1.0 Scope of Study

Aneden Consulting (Aneden) was retained by SPP to perform a Surplus Service Impact Study (Study) for GEN-2025-SR13, the Surplus Generating Facility (SGF). A Surplus Service Impact Study is performed to identify the impact of the Surplus Interconnection Service on the transmission system reliability and any additional Interconnection Facilities necessary pursuant to the SPP Generator Interconnection Procedures (“GIP”) contained in Attachment V Section 3.3 of the SPP Open Access Transmission Tariff (SPP Tariff). The amount of Surplus Interconnection Service available to the SGF is limited by the amount of Interconnection Service granted to the existing interconnection customer for the Existing Generating Facility (EGF) at the same POI. The Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring additional Network Upgrades except those specified in the SPP Tariff³. The required scope of the study is dependent upon the EGF and SGF specifications. The criteria sections below include the basis of the analyses included in the scope of study.

All analyses were performed using the Siemens PTI PSS/E version 34 and PowerGEM TARA software. The results of each analysis are presented in the following sections.

1.1 Reactive Power Analysis

SPP requires that a reactive power analysis be performed on the requested configuration if it is a non-synchronous resource. The reactive power analysis determines the added capacitive effect at the POI caused by the project’s collection system and transmission line’s capacitance. A shunt reactor size was determined for the SGF to offset the capacitive effect and maintain zero (0) MVar injection at the POI while the plant’s generators and capacitors were offline, and the EGF project had a shunt compensating for its charging effects.

1.2 Short Circuit Analysis

SPP requires that a short circuit analysis be performed to determine the maximum available fault current requiring interruption by protective equipment with both the SGF and EGF online, along with the amount of increase in maximum fault current due to the addition of the SGF. The analysis was performed on two scenarios, with the EGF in service and SGF offline, and the modified model with both EGF and SGF in service.

1.3 Stability Analysis

SPP requires that a dynamic stability analysis be performed to determine whether the SGF, EGF, and the transmission system will remain stable and within applicable criteria. Dynamic stability analysis was performed on two dispatch scenarios, the first where the SGF was online at 100% of the assumed dispatch with the EGF offline and disconnected, and the second where the SGF was online at 100% of the assumed dispatch and the EGF was picking up the remaining EGF capacity up to its modeled capacity. The stability analyses will identify any additional Interconnection Facilities and Network Upgrades necessary.

1.4 Steady-State Analysis

The steady-state (thermal/voltage) analyses may be performed as necessary to ensure that all required reliability conditions are studied. If the EGF was not studied under off-peak conditions, off-peak steady state analyses shall be performed to the required level necessary to demonstrate reliable operation of the Surplus Interconnection Service. If the original system impact study is not available for the

³ Allowed Network Upgrades detailed in SPP Open Access Transmission Tariff Attachment V Section 3.3

Interconnection Service, both off-peak and peak analysis may need to be performed for the EGF associated with the request.

An SGF that includes a fuel type (synchronous/non-synchronous) different from the EGF may require a steady-state analysis to study impacts resultant from changes in dispatch to all equal and lower queued requests. The steady-state analyses will identify any additional Interconnection Facilities and Network Upgrades necessary.

SPP determined that steady-state analysis was required because the combined dispatch of the EGF and SGF exceeded what has been modeled and studied in the previous Definitive Interconnection System Impact Studies (DISIS) study models. The addition of the SGF increased the maximum active power output above what is currently modeled for the EGF in the DISIS-2022-001-1 Low Variable Energy Resource (LVER) steady-state models. The LVER models were used based on the fuel type of the SGF (thermal).

1.5 Necessary Interconnection Facilities & Network Upgrades

The SPP Tariff⁴ states that the reactive power, short circuit/fault duty, stability, and steady-state analyses (where applicable) for the Surplus Interconnection Service will identify any additional Interconnection Facilities necessary. In addition, the analyses will determine if any Network Upgrades are required for mitigation. The Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring additional Network Upgrades unless (a) those additional Network Upgrades are either (1) located at the Point of Interconnection substation and at the same voltage level as the Generating Facility with an effective GIA, or (2) are System Protection Facilities; and (b) there are no material adverse impacts on the cost or timing of any Interconnection Requests pending at the time the Surplus Interconnection Service request is submitted.

1.6 Study Limitations

The assessments and conclusions provided in this report are based on assumptions and information provided to Aneden by others. While the assumptions and information provided may be appropriate for the purposes of this report, Aneden does not guarantee that those conditions assumed will occur. In addition, Aneden did not independently verify the accuracy or completeness of the information provided. As such, the conclusions and results presented in this report may vary depending on the extent to which actual future conditions differ from the assumptions made or information used herein.

⁴ SPP Open Access Transmission Tariff Section 3.3.4.1

2.0 Surplus Interconnection Service Request

The GEN-2025-SR13 Interconnection Customer has requested a Surplus Interconnection Service Impact Study (Study) for GEN-2025-SR13 to utilize the Surplus Interconnection Service being made available by Seminole 138 kV Unit at its existing Point of Interconnection (POI), the Seminole 138 kV Substation in the Oklahoma Gas & Electric (OG&E) control area.

GEN-2025-SR13, the proposed SGF, will connect to the existing Seminole 138 kV Unit POI via a separate generation interconnection line.

Seminole 138 kV Unit, the EGF, has an effective nameplate POI capacity of 630 MW and is making 125 MW of Surplus Interconnection Service available at its POI. The EGF unit is modeled in the DISIS-2022-001-1 models with a maximum dispatch of 494 MW. After discussion with SPP and the Interconnection Customer (IC), the modeled capacity of the Seminole 138 kV Unit was updated to a maximum dispatch of 500 MW based on the provided Network Integration Transmission Service (NITS) information.

At the time of the posting of this report, Seminole 138 kV Unit (EGF) is an active existing power plant at the same POI (Seminole 138 kV) and is a legacy unit and as such does not have an active Generation Interconnection Agreement (GIA). Figure 2-1 shows the power flow model single line diagram for the EGF configuration.

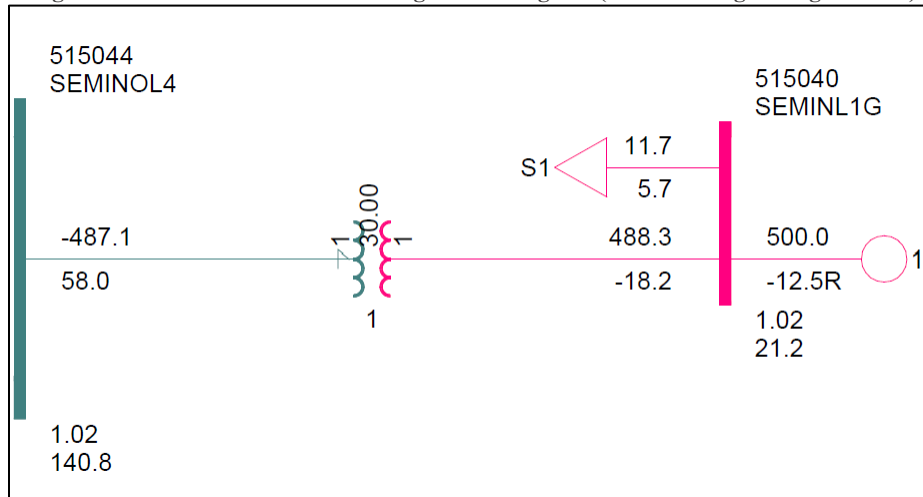
The proposed SGF configuration consists of 6 x INDAR/Ingeteam synchronous gas-fired units operating at 21.7534 MW for a total assumed dispatch of 130.5204 MW. The generating capability of the SGF exceeds its requested Surplus Interconnection Service of 125 MW. The injection amount of the SGF must be limited to 125 MW at the POI and the combined generation from both the SGF and the EGF may not exceed 630 MW at the POI. The SGF and EGF information is shown in Table 2-1 below.

Table 2-1: EGF & SGF Configuration

Request	Interconnection Queue Capacity (MW)	Generator Fuel Type	Point of Interconnection
GEN-2025-SR13 (SGF)	125	Combustion Turbine	Seminole 138 kV (515044)
Seminole 138 kV Unit (EGF)	630	Combustion Turbine	Seminole 138 kV (515044)

The proposed detailed SGF configuration is captured in Figure 2-2 and Table 2-2 below.

Figure 2-1: Seminole 138 kV Unit Single Line Diagram (EGF Existing Configuration*)



*based on the DISIS-2022-001-1 25SP stability models

Figure 2-2: Seminole 138 kV Unit & GEN-2025-SR13 Single Line Diagram (EGF & SGF Configuration)

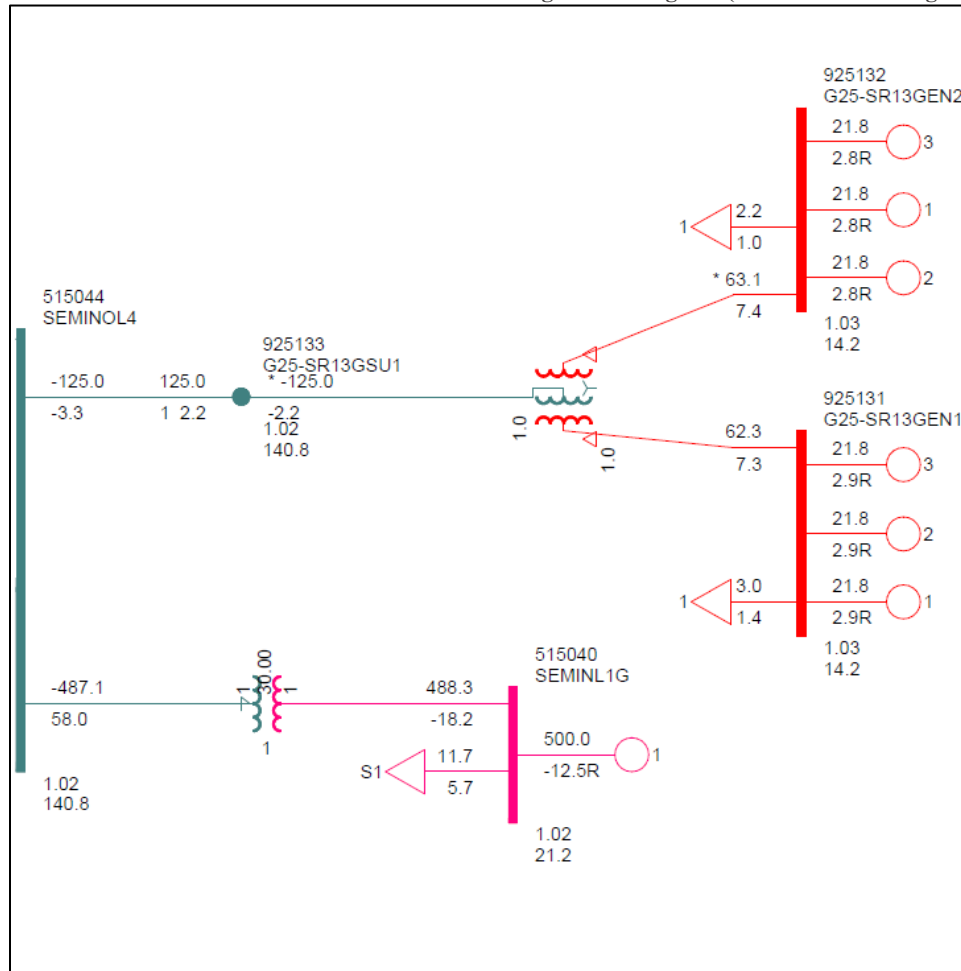


Table 2-2: SGF Interconnection Configuration

Facility	SGF Configuration
Point of Interconnection	Seminole 138 kV (515044)
Configuration/Capacity	6 x INDAR/Ingeteam synchronous Generator 21.7534 MW (Thermal) = 130.5204 MW [dispatch] Units are rated at 25.358 MVA, GEN-2025-SR13 limited to 125 MW at the POI and total POI injection w/ Seminole 138 kV Unit limited to 630 MW
Generation Interconnection Line ¹	Length = 0.5 miles R = 0.0001629 pu X = 0.0020601 pu B = 0.014372 pu Rating MVA = 324 MVA
GSU Transformer ²	X12 = 17.993% R12 = 0.514%, X23 = 35.985% R23 = 1.028%, X13 = 17.993% R13 = 0.514%, Winding MVA = 108 MVA, Winding 1 Rating MVA = 180 MVA Winding 2 Rating MVA = 90 MVA Winding 3 Rating MVA = 90 MVA
Station Service Load	Total of 5.12 MW + 2.48 MVAR modeled as two loads at each generator bus as: 2.95 MW + 1.43 MVAR and 2.17 MW + 1.05 MVAR
Generator Dynamic Model ³ & Power Factor	6 x INDAR/Ingeteam synchronous Generator 25.358 MVA (GENQECU) ³ Leading: 0.85785 Lagging: 0.85785

1) All pu are on 100 MVA Base, 2) X and R based on Winding MVA, 3) DYN stability model name

3.0 Steady-State Analysis

Aneden performed a steady-state contingency analysis using PowerGEM TARA to evaluate the non-convergence, thermal, and voltage impacts of interconnecting GEN-2025-SR13 in the existing SPP transmission system. The methodology, criteria, and results of the steady-state contingency analysis are presented in the following sections.

3.1 Modeling

The steady-state analysis was performed using powerflow models derived from the SPP DISIS-2022-001-1 Transfer Case (TC) LVER model set. These models were updated to include the GEN-2025-SR13 surplus project.

The following study cases were evaluated:

- Year 2 Summer Peak (24SP)
- Year 5 Summer Peak (27SP)
- Year 5 Winter Peak (27WP)

A set of Pre-Project and Post-Project models were created as shown below:

- Pre-Project Models: DISIS-2022-001-1 TC LVER models with the EGF and any thermal Electrically Equivalent (EE) units dispatched to their modeled maximum.
- Post-Project Models: Pre-Project models with the GEN-2025-SR13 unit modeled online at 100% of its assumed dispatch and the EGF unit updated to the maximum dispatch of 500 MW based on the provided NITS information.

Dispatch of the additional generation was performed in accordance with SPP DISIS load-ratio share methodologies. Must-run resources were excluded from sink adjustments. Where necessary, the sink definition was expanded consistent with SPP procedures to resolve system imbalances.

Steady-state analysis was performed for system intact and contingency conditions using SPP contingency definitions and methodology consistent with the DISIS-2022-001-1 ERIS steady-state analysis as laid out in the DISIS Manual⁵.

Constraint identification and impact assessment were based on the Post-Project model set, with comparison to the Pre-Project model set to determine incremental impacts associated with the Surplus Interconnection request.

3.2 Methodology and Criteria

TARA was used to simulate system intact conditions and contingencies provided by SPP. The system facilities were monitored for non-convergence, thermal, and voltage impacts on all 69 kV lines and above.

Network constraints were evaluated using a Transfer Distribution Factor (TDF) analysis.

⁵ GENERATOR INTERCONNECTION MANUAL (DISIS MANUAL) Version 4.4 - October 17, 2025

For ERIS, thermal overloads are defined as being greater than 100% of Rate A for system intact conditions, and greater than 100% of Rate B for contingencies. These impacts were then analyzed to determine if they meet any of the following three criteria:

- At least 3% TDF impact where the constraint is identified under System-Intact conditions,
- At least 20% TDF impact where the constraint is identified under contingency conditions,
- or 3% PTDF on contingent elements that resulted in a non-converged solution.

TARA was also used to determine voltage constraints in accordance with the DISIS Manual and Transmission Owner planning criteria. The identified voltage constraints were analyzed to determine if they met the following ERIS criteria:

- At least 3% PTDF on contingent elements that resulted in a voltage constraint or on the line with the largest system intact MW flow into the bus experiencing the system intact voltage constraint
- and 2% change in pu voltage.

3.3 Results

The results of the steady-state analysis showed that there were no non-convergence, thermal, or voltage criteria impacts in the study system due to the addition of GEN-2025-SR13.

4.0 Short Circuit Analysis

A short circuit study was performed using the 25SP model to determine the maximum available fault current requiring interruption by protective equipment with both the SGF and EGF online for each bus in the relevant subsystem, and the amount of increase in maximum fault current due to the addition of the SGF. The detailed results of the short circuit analysis are provided in Appendix B.

4.1 Methodology

The short circuit analysis included applying a 3-phase fault on buses up to 5 levels away from the 138 kV POI bus. The PSS/E “Automatic Sequence Fault Calculation (ASCC)” fault analysis module was used to calculate the fault current levels in the transmission system with and without the SGF online. The first scenario was studied with both the SGF and EGF in service. In the second scenario the SGF was disconnected while the EGF was online to determine the impact of the SGF.

Aneden created a short circuit model using the 25SP DISIS-2022-001-1 stability study model by adjusting the SGF short circuit parameters consistent with the submitted data. The adjusted parameters used in the short circuit analysis are shown in Table 4-1 below. No other changes were made to the model.

Table 4-1: Short Circuit Model Parameters*

Parameter	Value by Generator Bus#	
	925131 (3 gens)	925132 (3 gens)
Machine MVA Base	25.36	25.36
R (pu)	0.003	0.003
X'' (pu)	0.233	0.233

*pu values based on Machine MVA Base

4.2 Results

The results of the short circuit analysis compared the 25SP model with the EGF online and SGF not connected to the stability Scenario 2 dispatch model with both the EGF and SGF in service as described in Section 5.1. The GEN-2025-SR13 POI bus (Seminole 138 kV) fault current magnitudes for the comparison cases are provided in Table 4-2 showing a fault current of 42.52 kA with the EGF and SGF online. The addition of the SGF configuration increased the POI bus fault current by 1.59 kA. Table 4-3 shows the maximum fault current magnitudes and fault current increases with the SGF project online.

The maximum fault current calculated within 5 buses of the POI was 52.9 kA for the 25SP model. There were several buses with a maximum three-phase fault current over 40 kA. These buses are highlighted in Appendix B. The maximum contribution to three-phase fault currents due to the addition of the SGF was about 3.9% and 1.59 kA.

Table 4-2: POI Short Circuit Comparison Results

Case	EGF Only Current (kA)	SGF & EGF Current (kA)	kA Change	%Change
25SP	40.93	42.52	1.59	3.9%

Table 4-3: 25SP Short Circuit Comparison Results

Voltage (kV)	Max. Current (EGF & SGF) (kA)	Max kA Change	Max %Change
69	14.3	0.05	0.3%
138	52.9	1.59	3.9%
161	22.9	0.00	0.0%
345	36.3	0.25	0.9%
500	8.4	0.00	0.0%
Max	52.9	1.59	3.9%

5.0 Dynamic Stability Analysis

Aneden performed a dynamic stability analysis to identify the impact of the SGF project. The analysis was performed according to SPP's Disturbance Performance Requirements⁶. The project details are described in Section 2.0 above and the dynamic modeling data is provided in Appendix A. The existing base case issues and simulation plots can be found in Appendix C.

5.1 Methodology and Criteria

The dynamic stability analysis was performed using models developed with the requested 6 x INDAR/Ingeteam operating at 21.7534 MW (GENQECU) SGF generating facility configuration included in the models. This stability analysis was performed using Siemens PTI's PSS/E version 34.8.1 software.

Two stability model scenarios were developed using the models from DISIS-2022-001-1. The first scenario (Scenario 1) was comprised of the SGF online at 100% of the assumed dispatch (SGF = 130.5204 MW) while the EGF generator was offline and disconnected. The second scenario (Scenario 2) was comprised of the SGF at 100% of the assumed dispatch (SGF = 130.5204 MW) while the EGF generator picked up the remaining EGF capacity up to its modeled capacity based on provided NITS information (EGF = 500 MW). The study scenarios are shown in Table 5-1.

Table 5-1: Study Scenarios (Generator Dispatch MW)

Scenario	Seminole 138 kV (SEMINL1G) EGF (MW)	GEN-2025-SR13 SGF (MW)	EGF + SGF (MW)
1	0 (Offline)	130.5204	130.5204
2	500*	130.5204	630.5204

*Updated in the models based on provided NITS information

The GEN-2025-SR13 project details were used to create modified stability models for this impact study based on the DISIS-2022-001-1 stability study models:

- 2025 Summer Peak (25SP),
- 2025 Winter Peak (25WP)

The dynamic model data for the GEN-2025-SR13 project is provided in Appendix A. The power flow models and associated dynamic database were initialized (no-fault test) to confirm that there were no errors in the initial conditions of the system and the dynamic data.

The following system adjustments were made to address existing base case issues that are not attributed to the surplus request:

- The frequency protective relays at buses 763134, 763137, 764076, & 771604 were disabled after observing the generators tripping during initial three phase fault simulations. This frequency tripping issue is a known PSS/E limitation when calculating bus frequency as it relates to non-conventional type devices.

⁶ SPP Disturbance Performance Requirements:

[https://www.spp.org/documents/28859/spp%20disturbance%20performance%20requirements%20\(twg%20approved\).pdf](https://www.spp.org/documents/28859/spp%20disturbance%20performance%20requirements%20(twg%20approved).pdf)

- The voltage protective relays at buses 588715, 588713, 588714, 588716, 769704, 769844, 764514, 769884, 764514, 587958, 587953, 511976, 587773, 760958, & 764514 were disabled to avoid generator tripping due to an instantaneous over voltage spike after fault clearing.
- The PSSE dynamic simulation iterations and acceleration factor were adjusted as needed to resolve PSSE dynamic simulation crashes

During the fault simulations, the active power (PELEC), reactive power (QELEC), and terminal voltage (ETERM) were monitored for the EGF and SGF and other current and prior queued projects in Group 4. In addition, voltages of five (5) buses away from the POI of the SGF were monitored and plotted. The machine rotor angle for synchronous machines and speed for asynchronous machines within the study areas including 327 (EES-EAI), 330 (AECI), 351 (EES), 356 (AMMO), 502 (CLEC), 515 (SWPA), 520 (AEPW), 523 (GRDA), 524 (OKGE), 525 (WFEC), 526 (SPS), 527 (OMPA), 534 (SUNC), 536 (WERE), 544 (EMDE), and 546 (SPRM) were monitored. The voltages of all 100 kV and above buses within the study area were monitored as well.

5.2 Fault Definitions

Aneden developed fault events as required to study the SGF. The new set of faults was simulated using the modified study models. The fault events included three-phase faults and single-line-to-ground stuck breaker faults. Single-line-to-ground faults are approximated by applying a fault impedance to bring the faulted bus positive sequence voltage to 0.6 pu. The simulated faults are listed and described in Table 5-2 below. These contingencies were applied to the modified 25SP and 25WP models.

Table 5-2: Fault Definitions

Fault ID	Planning Event	Fault Descriptions
FLT1000-SB	P4	Stuck Breaker on SEMINOL7 (515045) 345 kV Bus a. Apply single phase fault at the SEMINOL7 (515045) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL7 (515045) 345 kV to PITTSB-7 (510907) 345 kV line CKT 1. b.2.Trip the SEMINOL7 (515045) 345 kV / SEMINOL4 (515044) 138 kV / SEMINO11 (515756) 14.4 kV XFMR CKT 1.
FLT1001-SB	P4	Stuck Breaker on SEMINOL7 (515045) 345 kV Bus a. Apply single phase fault at the SEMINOL7 (515045) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL7 (515045) 345 kV to FIREWHL-TAP (588839) 345 kV line CKT 1. b.2.Trip the SEMINOL7 (515045) 345 kV / SEMINOL4 (515044) 138 kV / SEMINO21 (515757) 14.4 kV XFMR CKT 2.
FLT1002-SB	P4	Stuck Breaker on SEMINOL7 (515045) 345 kV Bus a. Apply single phase fault at the SEMINOL7 (515045) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL7 (515045) 345 kV to DRAPER 7 (514934) 345 kV line CKT 1. b.2.Trip the SEMINOL7 (515045) 345 kV / SEMINL2G (515041) 17.1 kV XFMR CKT 1. Trip generator(s) on the Bus SEMINL2G (515041) 17.1 kV
FLT1003-SB	P4	Stuck Breaker on SEMINOL7 (515045) 345 kV Bus a. Apply single phase fault at the SEMINOL7 (515045) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL7 (515045) 345 kV to DRAPER 7 (514934) 345 kV line CKT 2. b.2.Trip the SEMINOL7 (515045) 345 kV / SEMINL3G (515042) 20.9 kV XFMR CKT 1. Trip generator(s) on the Bus SEMINL3G (515042) 20.9 kV
FLT1004-SB	P4	Stuck Breaker on SEMINOL7 (515045) 345 kV Bus a. Apply single phase fault at the SEMINOL7 (515045) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL7 (515045) 345 kV to DRAPER 7 (514934) 345 kV line CKT 3. b.2.Trip the SEMINOL7 (515045) 345 kV to ARCADIA7 (514908) 345 kV line CKT 1.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT1005-SB	P4	Stuck Breaker on SEMINOL4 (515044) 138 kV Bus a. Apply single phase fault at the SEMINOL4 (515044) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL4 (515044) 138 kV / SEMINOL7 (515045) 345 kV / SEMINO11 (515756) 14.4 kV XFMR CKT 1. b.2.Trip the SEMINOL4 (515044) 138 kV / SEMINOL7 (515045) 345 kV / SEMINO21 (515757) 14.4 kV XFMR CKT 2.
FLT1006-SB	P4	Stuck Breaker on SEMINOL4 (515044) 138 kV Bus a. Apply single phase fault at the SEMINOL4 (515044) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL4 (515044) 138 kV / SEMINL1G (515040) 20.9 kV XFMR CKT 1. Trip generator(s) on the Bus SEMINL1G (515040) 20.9 kV
FLT1007-SB	P4	Stuck Breaker on SEMINOL4 (515044) 138 kV Bus a. Apply single phase fault at the SEMINOL4 (515044) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL4 (515044) 138 kV to MAUD 4 (515055) 138 kV line CKT 1. b.2.Trip the SEMINOL4 (515044) 138 kV to LKKONWA4 (515977) 138 kV line CKT 1.
FLT1008-SB	P4	Stuck Breaker on SEMINOL4 (515044) 138 kV Bus a. Apply single phase fault at the SEMINOL4 (515044) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL4 (515044) 138 kV to MAUD 4 (515055) 138 kV line CKT 2. b.2.Trip the SEMINOL4 (515044) 138 kV to PAOLI- 4 (515100) 138 kV line CKT 1.
FLT1009-SB	P4	Stuck Breaker on SEMINOL4 (515044) 138 kV Bus a. Apply single phase fault at the SEMINOL4 (515044) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the SEMINOL4 (515044) 138 kV to VANOSTP4 (515531) 138 kV line CKT 1.
FLT1010-SB	P4	Stuck Breaker on FIREWHL-TAP (588839) 345 kV Bus a. Apply single phase fault at the FIREWHL-TAP (588839) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the FIREWHL-TAP (588839) 345 kV to MUSKOGEE7 (515224) 345 kV line CKT 1. b.2.Trip the FIREWHL-TAP (588839) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1.
FLT1011-SB	P4	Stuck Breaker on FIREWHL-TAP (588839) 345 kV Bus a. Apply single phase fault at the FIREWHL-TAP (588839) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the FIREWHL-TAP (588839) 345 kV to OKTAHA 7 (516091) 345 kV line CKT 1. b.2.Trip the FIREWHL-TAP (588839) 345 kV to G17-092-SWYD (588838) 345 kV line CKT 1. Trip generator(s) on the Bus G18-024GEN1 (762595) 0.7 kV Trip generator(s) on the Bus G17-092-GEN2 (589307) 0.6 kV Trip generator(s) on the Bus G17-092-GEN1 (589303) 0.6 kV Trip generator(s) on the Bus G17-040-GEN1 (588813) 0.7 kV
FLT1012-SB	P4	Stuck Breaker on FIREWHL-TAP (588839) 345 kV Bus a. Apply single phase fault at the FIREWHL-TAP (588839) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the FIREWHL-TAP (588839) 345 kV to C-RIVER7 (515422) 345 kV line CKT 1.
FLT1013-SB	P4	Stuck Breaker on PITTSB-7 (510907) 345 kV Bus a. Apply single phase fault at the PITTSB-7 (510907) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the PITTSB-7 (510907) 345 kV to JOHNCO 7 (514809) 345 kV line CKT 1. b.2.Trip the PITTSB-7 (510907) 345 kV to KIOWA 7 (510925) 345 kV line CKT 1. Trip generator(s) on the Bus KIOWA G1 (511944) 18 kV Trip generator(s) on the Bus KIOWA G2 (511945) 18 kV Trip generator(s) on the Bus KIOWA S1 (511946) 18 kV Trip generator(s) on the Bus KIOWA S2 (511947) 18 kV Trip generator(s) on the Bus KIOWA G3 (511948) 18 kV Trip generator(s) on the Bus KIOWA G4 (511949) 18 kV

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT1014-SB	P4	Stuck Breaker on PITTSB-7 (510907) 345 kV Bus a. Apply single phase fault at the PITTSB-7 (510907) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the PITTSB-7 (510907) 345 kV to KIOWA 7 (510925) 345 kV line CKT 1. b.2. Trip the PITTSB-7 (510907) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1. Trip generator(s) on the Bus KIOWA G1 (511944) 18 kV Trip generator(s) on the Bus KIOWA G2 (511945) 18 kV Trip generator(s) on the Bus KIOWA S1 (511946) 18 kV Trip generator(s) on the Bus KIOWA S2 (511947) 18 kV Trip generator(s) on the Bus KIOWA G3 (511948) 18 kV Trip generator(s) on the Bus KIOWA G4 (511949) 18 kV
FLT1015-SB	P4	Stuck Breaker on PITTSB-7 (510907) 345 kV Bus a. Apply single phase fault at the PITTSB-7 (510907) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the PITTSB-7 (510907) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1. b.2. Trip the PITTSB-7 (510907) 345 kV to C-RIVER7 (515422) 345 kV line CKT 1.
FLT1016-SB	P4	Stuck Breaker on PITTSB-7 (510907) 345 kV Bus a. Apply single phase fault at the PITTSB-7 (510907) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the PITTSB-7 (510907) 345 kV to C-RIVER7 (515422) 345 kV line CKT 1. b.2. Trip the PITTSB-7 (510907) 345 kV to GEN-2018-082 (763131) 345 kV line CKT 1. Trip generator(s) on the Bus G18-082-GEN1 (763134) 0.7 kV Trip generator(s) on the Bus G18-082-GEN2 (763137) 0.7 kV
FLT1017-SB	P4	Stuck Breaker on PITTSB-7 (510907) 345 kV Bus a. Apply single phase fault at the PITTSB-7 (510907) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the PITTSB-7 (510907) 345 kV to VALIANT7 (510911) 345 kV line CKT 1. b.2. Trip the PITTSB-7 (510907) 345 kV to GEN-2018-082 (763131) 345 kV line CKT 1. Trip generator(s) on the Bus G18-082-GEN1 (763134) 0.7 kV Trip generator(s) on the Bus G18-082-GEN2 (763137) 0.7 kV
FLT1018-SB	P4	Stuck Breaker on PITTSB-7 (510907) 345 kV Bus a. Apply single phase fault at the PITTSB-7 (510907) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the PITTSB-7 (510907) 345 kV to VALIANT7 (510911) 345 kV line CKT 1. b.2. Trip the PITTSB-7 (510907) 345 kV to JOHNCO 7 (514809) 345 kV line CKT 1.
FLT1019-SB	P4	Stuck Breaker on DRAPER 7 (514934) 345 kV Bus a. Apply single phase fault at the DRAPER 7 (514934) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 7 (514934) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1.
FLT1020-SB	P4	Stuck Breaker on DRAPER 7 (514934) 345 kV Bus a. Apply single phase fault at the DRAPER 7 (514934) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 7 (514934) 345 kV to SEMINOL7 (515045) 345 kV line CKT 2. b.2. Trip the DRAPER 7 (514934) 345 kV / DRAPER 4 (514933) 138 kV / DRAPER31 (515720) 13.8 kV XFMR CKT 3.
FLT1021-SB	P4	Stuck Breaker on DRAPER 7 (514934) 345 kV Bus a. Apply single phase fault at the DRAPER 7 (514934) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 7 (514934) 345 kV to NORMHLL7 (516096) 345 kV line CKT 1. b.2. Trip the DRAPER 7 (514934) 345 kV / DRAPER 4 (514933) 138 kV / DRAPER41 (515721) 13.8 kV XFMR CKT 4.
FLT1022-SB	P4	Stuck Breaker on DRAPER 7 (514934) 345 kV Bus a. Apply single phase fault at the DRAPER 7 (514934) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 7 (514934) 345 kV to NORMHLL7 (516096) 345 kV line CKT 2.
FLT1023-SB	P4	Stuck Breaker on DRAPER 4 (514933) 138 kV Bus a. Apply single phase fault at the DRAPER 4 (514933) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 4 (514933) 138 kV / DRAPER 7 (514934) 345 kV / DRAPER21 (515792) 13.8 kV XFMR CKT 2.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT1024-SB	P4	Stuck Breaker on DRAPER 4 (514933) 138 kV Bus a. Apply single phase fault at the DRAPER 4 (514933) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 4 (514933) 138 kV to BARNES 4 (515003) 138 kV line CKT 1. b.2. Trip the DRAPER 4 (514933) 138 kV / DRAPER 7 (514934) 345 kV / DRAPER31 (515720) 13.8 kV XFMR CKT 3.
FLT1025-SB	P4	Stuck Breaker on DRAPER 4 (514933) 138 kV Bus a. Apply single phase fault at the DRAPER 4 (514933) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 4 (514933) 138 kV to GM 4 (514961) 138 kV line CKT 1. b.2. Trip the DRAPER 4 (514933) 138 kV / DRAPER 7 (514934) 345 kV / DRAPER41 (515721) 13.8 kV XFMR CKT 4.
FLT1026-SB	P4	Stuck Breaker on DRAPER 4 (514933) 138 kV Bus a. Apply single phase fault at the DRAPER 4 (514933) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the DRAPER 4 (514933) 138 kV to MIDWEST4 (514946) 138 kV line CKT 1. b.2. Trip the DRAPER 4 (514933) 138 kV to SOONRTP4 (514949) 138 kV line CKT 1.
FLT1027-SB	P4	Stuck Breaker on ARCADIA7 (514908) 345 kV Bus a. Apply single phase fault at the ARCADIA7 (514908) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA7 (514908) 345 kV / ARCADIA4 (514907) 138 kV / ARCADI21 (515703) 13.8 kV XFMR CKT 2. b.2. Trip the ARCADIA7 (514908) 345 kV / ARCADIA4 (514907) 138 kV / ARCADI31 (515704) 13.8 kV XFMR CKT 3.
FLT1028-SB	P4	Stuck Breaker on ARCADIA7 (514908) 345 kV Bus a. Apply single phase fault at the ARCADIA7 (514908) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA7 (514908) 345 kV to REDBUD 7 (514909) 345 kV line CKT 1. b.2. Trip the ARCADIA7 (514908) 345 kV / ARCADIA4 (514907) 138 kV / ARCADI41 (515700) 13.8 kV XFMR CKT 4.
FLT1029-SB	P4	Stuck Breaker on ARCADIA7 (514908) 345 kV Bus a. Apply single phase fault at the ARCADIA7 (514908) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA7 (514908) 345 kV to REDBUD 7 (514909) 345 kV line CKT 2. b.2. Trip the ARCADIA7 (514908) 345 kV to NORTWST7 (514880) 345 kV line CKT 1.
FLT1030-SB	P4	Stuck Breaker on ARCADIA7 (514908) 345 kV Bus a. Apply single phase fault at the ARCADIA7 (514908) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA7 (514908) 345 kV to REDBUD 7 (514909) 345 kV line CKT 3. b.2. Trip bus GEN-2017-133 (760032) 345 kV. Trip generator(s) on the Bus G17-133-GEN1 (760055) 0.7 kV Trip generator(s) on the Bus G17-134-GEN1 (760076) 0.7 kV Trip generator(s) on the Bus G17-137-GEN1 (760097) 0.7 kV
FLT1031-SB	P4	Stuck Breaker on ARCADIA7 (514908) 345 kV Bus a. Apply single phase fault at the ARCADIA7 (514908) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA7 (514908) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1.
FLT1032-SB	P4	Stuck Breaker on ARCADIA4 (514907) 138 kV Bus a. Apply single phase fault at the ARCADIA4 (514907) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA4 (514907) 138 kV to CTNWOOD4 (514827) 138 kV line CKT 1. b.2. Trip the ARCADIA4 (514907) 138 kV to RDNBARN4 (515461) 138 kV line CKT 1.
FLT1033-SB	P4	Stuck Breaker on ARCADIA4 (514907) 138 kV Bus a. Apply single phase fault at the ARCADIA4 (514907) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA4 (514907) 138 kV to JNSKAMO4 (514906) 138 kV line CKT 1. b.2. Trip the ARCADIA4 (514907) 138 kV to LGARBER4 (515465) 138 kV line CKT 1.
FLT1034-SB	P4	Stuck Breaker on ARCADIA4 (514907) 138 kV Bus a. Apply single phase fault at the ARCADIA4 (514907) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1. Trip the ARCADIA4 (514907) 138 kV / ARCADIA7 (514908) 345 kV / ARCADI21 (515703) 13.8 kV XFMR CKT 2. b.2. Trip the ARCADIA4 (514907) 138 kV / ARCADIA7 (514908) 345 kV / ARCADI31 (515704) 13.8 kV XFMR CKT 3.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT1035-SB	P4	Stuck Breaker on ARCADI44 (514907) 138 kV Bus a. Apply single phase fault at the ARCADI44 (514907) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the ARCADI44 (514907) 138 kV / ARCADI47 (514908) 345 kV / ARCADI41 (515700) 13.8 kV XFMR CKT 4.
FLT1036-SB	P4	Stuck Breaker on PAOLI- 4 (515100) 138 kV Bus a. Apply single phase fault at the PAOLI- 4 (515100) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip bus PAOLI- 4 (515100) 138 kV.
FLT1037-SB	P4	Stuck Breaker on PALIOGE2 (515099) 69 kV Bus a. Apply single phase fault at the PALIOGE2 (515099) 69 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip bus PALIOGE2 (515099) 69 kV.
FLT1038-SB	P4	Stuck Breaker on PARKLN 4 (515178) 138 kV Bus a. Apply single phase fault at the PARKLN 4 (515178) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip bus PARKLN 4 (515178) 138 kV.
FLT1039-SB	P4	Stuck Breaker on PARKLN 2 (515177) 69 kV Bus a. Apply single phase fault at the PARKLN 2 (515177) 69 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip bus PARKLN 2 (515177) 69 kV.
FLT1040-SB	P4	Stuck Breaker on ARBUCKL4 (515117) 138 kV Bus a. Apply single phase fault at the ARBUCKL4 (515117) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip bus ARBUCKL4 (515117) 138 kV. Trip generator(s) on the Bus G16-126-GEN1 (588183) 0.7 kV
FLT1041-SB	P4	Stuck Breaker on MAUD 4 (515055) 138 kV Bus a. Apply single phase fault at the MAUD 4 (515055) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the MAUD 4 (515055) 138 kV to FRSTHIL4 (515075) 138 kV line CKT 1. b.2.Trip the MAUD 4 (515055) 138 kV to GEN-2022-238 (771721) 138 kV line CKT 1. Trip generator(s) on the Bus G22-238GEN1 (771744) 0.9 kV
FLT1042-SB	P4	Stuck Breaker on MAUD 4 (515055) 138 kV Bus a. Apply single phase fault at the MAUD 4 (515055) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the MAUD 4 (515055) 138 kV to SEMINOL4 (515044) 138 kV line CKT 2.
FLT1043-SB	P4	Stuck Breaker on MAUD 4 (515055) 138 kV Bus a. Apply single phase fault at the MAUD 4 (515055) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the MAUD 4 (515055) 138 kV to SEMINOL4 (515044) 138 kV line CKT 1. b.2.Trip the MAUD 4 (515055) 138 kV to BLANCHD4 (511508) 138 kV line CKT 1.
FLT1044-SB	P4	Stuck Breaker on MAUD 4 (515055) 138 kV Bus a. Apply single phase fault at the MAUD 4 (515055) 138 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the MAUD 4 (515055) 138 kV to EARLSBORO 4 (510948) 138 kV line CKT 1. b.2.Trip the MAUD 4 (515055) 138 kV / MAUD 2 (515054) 69 kV / MAUD 1 (515736) 13.2 kV XFMR CKT 1.
FLT1045-SB	P4	Stuck Breaker on MAUD 2 (515054) 69 kV Bus a. Apply single phase fault at the MAUD 2 (515054) 69 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip bus MAUD 2 (515054) 69 kV.
FLT1046-SB	P4	Stuck Breaker on DRAPER 7 (514934) 345 kV Bus a. Apply single phase fault at the DRAPER 7 (514934) 345 kV Bus b. Clear fault after 16 cycles and trip the following elements: b.1.Trip the DRAPER 7 (514934) 345 kV to SEMINOL7 (515045) 345 kV line CKT 3. b.2.Trip the DRAPER 7 (514934) 345 kV / DRAPER 4 (514933) 138 kV / DRAPER21 (515792) 13.8 kV XFMR CKT 2.
FLT9000-3PH	P1	3 Phase fault on SEMINOL7 (515045) 345 kV to FIREWHL-TAP (588839) 345 kV line CKT 1, near SEMINOL7 (515045) 345 kV. a. Apply fault at the SEMINOL7 (515045) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9001-3PH	P1	3 Phase fault on FIREWHL-TAP (588839) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1, near FIREWHL-TAP (588839) 345 kV. a. Apply fault at the FIREWHL-TAP (588839) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9002-3PH	P1	3 Phase fault on FIREWHL-TAP (588839) 345 kV to MUSKOG7 (515224) 345 kV line CKT 1, near FIREWHL-TAP (588839) 345 kV. a. Apply fault at the FIREWHL-TAP (588839) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9003-3PH	P1	3 Phase fault on MUSKOG7 (515224) 345 kV to FIREWHL-TAP (588839) 345 kV line CKT 1, near MUSKOG7 (515224) 345 kV. a. Apply fault at the MUSKOG7 (515224) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9004-3PH	P1	3 Phase fault on MUSKOG7 (515224) 345 kV to MUSKOG5G (515225) 18 kV XFMR CKT 1, near MUSKOG7 (515224) 345 kV. a. Apply fault at the MUSKOG7 (515224) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer. Trip generator(s) on the Bus MUSKOG5G (515225) 18 kV
FLT9005-3PH	P1	3 Phase fault on MUSKOG7 (515224) 345 kV to MUSKOG6G (515226) 24 kV XFMR CKT 1, near MUSKOG7 (515224) 345 kV. a. Apply fault at the MUSKOG7 (515224) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer. Trip generator(s) on the Bus MUSKOG6G (515226) 24 kV
FLT9006-3PH	P1	3 Phase fault on MUSKOG7 (515224) 345 kV to FTSMITH7 (515302) 345 kV line CKT 1, near MUSKOG7 (515224) 345 kV. a. Apply fault at the MUSKOG7 (515224) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9007-3PH	P1	3 Phase fault on MUSKOG7 (515224) 345 kV to CLARKSV7 (509745) 345 kV line CKT 1, near MUSKOG7 (515224) 345 kV. a. Apply fault at the MUSKOG7 (515224) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9008-3PH	P1	3 Phase fault on MUSKOG7 (515224) 345 kV to PECANCK7 (515235) 345 kV line CKT 2, near MUSKOG7 (515224) 345 kV. a. Apply fault at the MUSKOG7 (515224) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9009-3PH	P1	3 Phase fault on MUSKOG7 (515224) 345 kV to OKTAHA 7 (516091) 345 kV line CKT 1, near MUSKOG7 (515224) 345 kV. a. Apply fault at the MUSKOG7 (515224) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9010-3PH	P1	3 Phase fault on OKTAHA 7 (516091) 345 kV to MUSKOG7 (515224) 345 kV line CKT 1, near OKTAHA 7 (516091) 345 kV. a. Apply fault at the OKTAHA 7 (516091) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9011-3PH	P1	3 Phase fault on OKTAHA 5 (516092) 161 kV / OKTAHA 2 (516093) 69 kV / OKTAHA71 (516095) 13.2 kV XFMR CKT 7, near OKTAHA 5 (516092) 161 kV. a. Apply fault at the OKTAHA 5 (516092) 161 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9012-3PH	P1	3 Phase fault on OKTAHA 5 (516092) 161 kV / OKTAHA 7 (516091) 345 kV / OKTAHA61 (516094) 13.8 kV XFMR CKT 6, near OKTAHA 5 (516092) 161 kV. a. Apply fault at the OKTAHA 5 (516092) 161 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9013-3PH	P1	3 Phase fault on OKTAHA 7 (516091) 345 kV / OKTAHA 5 (516092) 161 kV / OKTAHA61 (516094) 13.8 kV XFMR CKT 6, near OKTAHA 7 (516091) 345 kV. a. Apply fault at the OKTAHA 7 (516091) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9014-3PH	P1	3 Phase fault on OKTAHA 7 (516091) 345 kV to FIREWHL-TAP (588839) 345 kV line CKT 1, near OKTAHA 7 (516091) 345 kV. a. Apply fault at the OKTAHA 7 (516091) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9015-3PH	P1	3 Phase fault on FIREWHL-TAP (588839) 345 kV to OKTAHA 7 (516091) 345 kV line CKT 1, near FIREWHL-TAP (588839) 345 kV. a. Apply fault at the FIREWHL-TAP (588839) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9016-3PH	P1	3 Phase fault on FIREWHL-TAP (588839) 345 kV to G17-092-SWYD (588838) 345 kV line CKT 1, near FIREWHL-TAP (588839) 345 kV. a. Apply fault at the FIREWHL-TAP (588839) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G18-024-GEN1 (762595) 0.7 kV Trip generator(s) on the Bus G17-092-GEN1 (589303) 0.6 kV Trip generator(s) on the Bus G17-092-GEN2 (589307) 0.6 kV Trip generator(s) on the Bus G17-040-GEN1 (588813) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9017-3PH	P1	3 Phase fault on FIREWHL-TAP (588839) 345 kV to C-RIVER7 (515422) 345 kV line CKT 1, near FIREWHL-TAP (588839) 345 kV. a. Apply fault at the FIREWHL-TAP (588839) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9018-3PH	P1	3 Phase fault on C-RIVER7 (515422) 345 kV to FIREWHL-TAP (588839) 345 kV line CKT 1, near C-RIVER7 (515422) 345 kV. a. Apply fault at the C-RIVER7 (515422) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9019-3PH	P1	3 Phase fault on C-RIVER7 (515422) 345 kV to PITTSB-7 (510907) 345 kV line CKT 1, near C-RIVER7 (515422) 345 kV. a. Apply fault at the C-RIVER7 (515422) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9020-3PH	P1	3 Phase fault on PITTSB-7 (510907) 345 kV to C-RIVER7 (515422) 345 kV line CKT 1, near PITTSB-7 (510907) 345 kV. a. Apply fault at the PITTSB-7 (510907) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9021-3PH	P1	3 Phase fault on C-RIVER7 (515422) 345 kV / C-RIVER4 (510946) 138 kV / C-RIVER1 (510947) 13.8 kV XFMR CKT 1, near C-RIVER7 (515422) 345 kV. a. Apply fault at the C-RIVER7 (515422) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9022-3PH	P1	3 Phase fault on C-RIVER4 (510946) 138 kV / C-RIVER7 (515422) 345 kV / C-RIVER1 (510947) 13.8 kV XFMR CKT 1, near C-RIVER4 (510946) 138 kV. a. Apply fault at the C-RIVER4 (510946) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9023-3PH	P1	3 Phase fault on C-RIVER4 (510946) 138 kV to G22-071-TAP (768400) 138 kV line CKT 1, near C-RIVER4 (510946) 138 kV. a. Apply fault at the C-RIVER4 (510946) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9024-3PH	P1	3 Phase fault on PITTSB-7 (510907) 345 kV to JOHNCO 7 (514809) 345 kV line CKT 1, near PITTSB-7 (510907) 345 kV. a. Apply fault at the PITTSB-7 (510907) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9025-3PH	P1	3 Phase fault on JOHNCO 7 (514809) 345 kV to PITTSB-7 (510907) 345 kV line CKT 1, near JOHNCO 7 (514809) 345 kV. a. Apply fault at the JOHNCO 7 (514809) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9026-3PH	P1	3 Phase fault on JOHNCO 7 (514809) 345 kV to G21-016-TAP (765451) 345 kV line CKT 1, near JOHNCO 7 (514809) 345 kV. a. Apply fault at the JOHNCO 7 (514809) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9027-3PH	P1	3 Phase fault on JOHNCO 7 (514809) 345 kV to DMNDSPG7 (516006) 345 kV line CKT 1, near JOHNCO 7 (514809) 345 kV. a. Apply fault at the JOHNCO 7 (514809) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus DMNDSG11 (516000) 0.7 kV Trip generator(s) on the Bus DMNDSG21 (516001) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9028-3PH	P1	3 Phase fault on JOHNCO 7 (514809) 345 kV / JOHNCO 4 (514808) 138 kV / JOHNCO11 (514810) 13.8 kV XFMR CKT 1, near JOHNCO 7 (514809) 345 kV. a. Apply fault at the JOHNCO 7 (514809) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9029-3PH	P1	3 Phase fault on JOHNCO 4 (514808) 138 kV / JOHNCO 7 (514809) 345 kV / JOHNCO11 (514810) 13.8 kV XFMR CKT 1, near JOHNCO 4 (514808) 138 kV. a. Apply fault at the JOHNCO 4 (514808) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9030-3PH	P1	3 Phase fault on JOHNCO 4 (514808) 138 kV to SXMLCKT4 (515122) 138 kV line CKT 1, near JOHNCO 4 (514808) 138 kV. a. Apply fault at the JOHNCO 4 (514808) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9031-3PH	P1	3 Phase fault on JOHNCO 4 (514808) 138 kV to CANEYCK4 (515150) 138 kV line CKT 1, near JOHNCO 4 (514808) 138 kV. a. Apply fault at the JOHNCO 4 (514808) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9032-3PH	P1	3 Phase fault on JOHNCO 4 (514808) 138 kV to RUSSET-4 (515120) 138 kV line CKT 1, near JOHNCO 4 (514808) 138 kV. a. Apply fault at the JOHNCO 4 (514808) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9033-3PH	P1	3 Phase fault on JOHNCO 7 (514809) 345 kV to GEN-2017-149 (760830) 345 kV line CKT 1, near JOHNCO 7 (514809) 345 kV. a. Apply fault at the JOHNCO 7 (514809) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G17-149GEN1 (760833) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9034-3PH	P1	3 Phase fault on SEMINOL7 (515045) 345 kV to SEMINL3G (515042) 20.9 kV XFMR CKT 1, near SEMINOL7 (515045) 345 kV. a. Apply fault at the SEMINOL7 (515045) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer. Trip generator(s) on the Bus SEMINL3G (515042) 20.9 kV
FLT9035-3PH	P1	3 Phase fault on SEMINOL7 (515045) 345 kV to SEMINL2G (515041) 17.1 kV XFMR CKT 1, near SEMINOL7 (515045) 345 kV. a. Apply fault at the SEMINOL7 (515045) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer. Trip generator(s) on the Bus SEMINL2G (515041) 17.1 kV
FLT9036-3PH	P1	3 Phase fault on SEMINOL7 (515045) 345 kV to PITTSB-7 (510907) 345 kV line CKT 1, near SEMINOL7 (515045) 345 kV. a. Apply fault at the SEMINOL7 (515045) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9037-3PH	P1	3 Phase fault on PITTSB-7 (510907) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1, near PITTSB-7 (510907) 345 kV. a. Apply fault at the PITTSB-7 (510907) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9038-3PH	P1	3 Phase fault on PITTSB-7 (510907) 345 kV to KIOWA 7 (510925) 345 kV line CKT 1, near PITTSB-7 (510907) 345 kV. a. Apply fault at the PITTSB-7 (510907) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus KIOWA G1 (511944) 18 kV Trip generator(s) on the Bus KIOWA G2 (511945) 18 kV Trip generator(s) on the Bus KIOWA S1 (511946) 18 kV Trip generator(s) on the Bus KIOWA S2 (511947) 18 kV Trip generator(s) on the Bus KIOWA G3 (511948) 18 kV Trip generator(s) on the Bus KIOWA G4 (511949) 18 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9039-3PH	P1	3 Phase fault on PITTSB-7 (510907) 345 kV to GEN-2018-082 (763131) 345 kV line CKT 1, near PITTSB-7 (510907) 345 kV. a. Apply fault at the PITTSB-7 (510907) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G18-082-GEN1 (763134) 0.7 kV Trip generator(s) on the Bus G18-082-GEN2 (763137) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9040-3PH	P1	3 Phase fault on PITTSB-7 (510907) 345 kV to VALIANT7 (510911) 345 kV line CKT 1, near PITTSB-7 (510907) 345 kV. a. Apply fault at the PITTSB-7 (510907) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9041-3PH	P1	3 Phase fault on VALIANT7 (510911) 345 kV to PITTSB-7 (510907) 345 kV line CKT 1, near VALIANT7 (510911) 345 kV. a. Apply fault at the VALIANT7 (510911) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9042-3PH	P1	3 Phase fault on VALIANT7 (510911) 345 kV to HUGO 7 (521157) 345 kV line CKT 1, near VALIANT7 (510911) 345 kV. a. Apply fault at the VALIANT7 (510911) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9043-3PH	P1	3 Phase fault on VALIANT7 (510911) 345 kV to LYDIA 7 (508298) 345 kV line CKT 1, near VALIANT7 (510911) 345 kV. a. Apply fault at the VALIANT7 (510911) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9044-3PH	P1	3 Phase fault on VALIANT7 (510911) 345 kV to G20-020-TAP (764520) 345 kV line CKT 1, near VALIANT7 (510911) 345 kV. a. Apply fault at the VALIANT7 (510911) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9045-3PH	P1	3 Phase fault on VALIANT7 (510911) 345 kV / VALIANT4 (510918) 138 kV / VALN2-1 (510938) 13.8 kV XFMR CKT 2, near VALIANT7 (510911) 345 kV. a. Apply fault at the VALIANT7 (510911) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9046-3PH	P1	3 Phase fault on VALIANT4 (510918) 138 kV to V-WEYCO4 (510866) 138 kV line CKT 1, near VALIANT4 (510918) 138 kV. a. Apply fault at the VALIANT4 (510918) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9047-3PH	P1	3 Phase fault on VALIANT4 (510918) 138 kV to IDABEL-4 (510886) 138 kV line CKT 1, near VALIANT4 (510918) 138 kV. a. Apply fault at the VALIANT4 (510918) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9048-3PH	P1	3 Phase fault on VALIANT4 (510918) 138 kV to HUGO---4 (510901) 138 kV line CKT 1, near VALIANT4 (510918) 138 kV. a. Apply fault at the VALIANT4 (510918) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9049-3PH	P1	3 Phase fault on VALIANT4 (510918) 138 kV to HUGO PP4 (520948) 138 kV line CKT 1, near VALIANT4 (510918) 138 kV. a. Apply fault at the VALIANT4 (510918) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9050-3PH	P1	3 Phase fault on VALIANT4 (510918) 138 kV / VALIANT2 (510910) 69 kV / VALN1-1 (510937) 13.8 kV XFMR CKT 1, near VALIANT4 (510918) 138 kV. a. Apply fault at the VALIANT4 (510918) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9051-3PH	P1	3 Phase fault on SEMINOL7 (515045) 345 kV to DRAPER 7 (514934) 345 kV line CKT 1, near SEMINOL7 (515045) 345 kV. a. Apply fault at the SEMINOL7 (515045) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9052-3PH	P1	3 Phase fault on DRAPER 7 (514934) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1, near DRAPER 7 (514934) 345 kV. a. Apply fault at the DRAPER 7 (514934) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9053-3PH	P1	3 Phase fault on DRAPER 7 (514934) 345 kV to NORMHLL7 (516096) 345 kV line CKT 1, near DRAPER 7 (514934) 345 kV. a. Apply fault at the DRAPER 7 (514934) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9054-3PH	P1	3 Phase fault on NORMHLL7 (516096) 345 kV to DRAPER 7 (514934) 345 kV line CKT 1, near NORMHLL7 (516096) 345 kV. a. Apply fault at the NORMHLL7 (516096) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9055-3PH	P1	3 Phase fault on NORMHLL7 (516096) 345 kV to CIMARON7 (514901) 345 kV line CKT 1, near NORMHLL7 (516096) 345 kV. a. Apply fault at the NORMHLL7 (516096) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9056-3PH	P1	3 Phase fault on NORMHLL7 (516096) 345 kV to MINCO 7 (514801) 345 kV line CKT 1, near NORMHLL7 (516096) 345 kV. a. Apply fault at the NORMHLL7 (516096) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9057-3PH	P1	3 Phase fault on NORMHLL7 (516096) 345 kV / NORMHLL4 (516097) 138 kV / NORMHLL11 (516098) 13.8 kV XFMR CKT 1, near NORMHLL7 (516096) 345 kV. a. Apply fault at the NORMHLL7 (516096) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9058-3PH	P1	3 Phase fault on NORMHLL4 (516097) 138 kV / NORMHLL7 (516096) 345 kV / NORMHLL11 (516098) 13.8 kV XFMR CKT 1, near NORMHLL4 (516097) 138 kV. a. Apply fault at the NORMHLL4 (516097) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9059-3PH	P1	3 Phase fault on NORMHLL4 (516097) 138 kV to MCCLAIN4 (514902) 138 kV line CKT 1, near NORMHLL4 (516097) 138 kV. a. Apply fault at the NORMHLL4 (516097) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9060-3PH	P1	3 Phase fault on NORMHLL4 (516097) 138 kV to PLVALLY4 (514929) 138 kV line CKT 1, near NORMHLL4 (516097) 138 kV. a. Apply fault at the NORMHLL4 (516097) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9061-3PH	P1	3 Phase fault on NORMHLL4 (516097) 138 kV to CHERYCK4 (514957) 138 kV line CKT 1, near NORMHLL4 (516097) 138 kV. a. Apply fault at the NORMHLL4 (516097) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9062-3PH	P1	3 Phase fault on NORMHLL4 (516097) 138 kV to TURNER 4 (514992) 138 kV line CKT 1, near NORMHLL4 (516097) 138 kV. a. Apply fault at the NORMHLL4 (516097) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9063-3PH	P1	3 Phase fault on DRAPER 7 (514934) 345 kV / DRAPER 4 (514933) 138 kV / DRAPER31 (515720) 13.8 kV XFMR CKT 3, near DRAPER 7 (514934) 345 kV. a. Apply fault at the DRAPER 7 (514934) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9064-3PH	P1	3 Phase fault on DRAPER 4 (514933) 138 kV / DRAPER 7 (514934) 345 kV / DRAPER31 (515720) 13.8 kV XFMR CKT 3, near DRAPER 4 (514933) 138 kV. a. Apply fault at the DRAPER 4 (514933) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9065-3PH	P1	3 Phase fault on DRAPER 4 (514933) 138 kV to GM 4 (514961) 138 kV line CKT 1, near DRAPER 4 (514933) 138 kV. a. Apply fault at the DRAPER 4 (514933) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9066-3PH	P1	3 Phase fault on GM 4 (514961) 138 kV to DRAPER 4 (514933) 138 kV line CKT 1, near GM 4 (514961) 138 kV. a. Apply fault at the GM 4 (514961) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9067-3PH	P1	3 Phase fault on GM 4 (514961) 138 kV to AIRDEPT4 (515457) 138 kV line CKT 1, near GM 4 (514961) 138 kV. a. Apply fault at the GM 4 (514961) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9068-3PH	P1	3 Phase fault on DRAPER 4 (514933) 138 kV to SOONRTP4 (514949) 138 kV line CKT 1, near DRAPER 4 (514933) 138 kV. a. Apply fault at the DRAPER 4 (514933) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9069-3PH	P1	3 Phase fault on SOONRTP4 (514949) 138 kV to DRAPER 4 (514933) 138 kV line CKT 1, near SOONRTP4 (514949) 138 kV. a. Apply fault at the SOONRTP4 (514949) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9070-3PH	P1	3 Phase fault on SOONRTP4 (514949) 138 kV to CEDARLN4 (514948) 138 kV line CKT 1, near SOONRTP4 (514949) 138 kV. a. Apply fault at the SOONRTP4 (514949) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9071-3PH	P1	3 Phase fault on SOONRTP4 (514949) 138 kV to OAKTRET4 (514930) 138 kV line CKT 1, near SOONRTP4 (514949) 138 kV. a. Apply fault at the SOONRTP4 (514949) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9072-3PH	P1	3 Phase fault on DRAPER 4 (514933) 138 kV to MIDWEST4 (514946) 138 kV line CKT 1, near DRAPER 4 (514933) 138 kV. a. Apply fault at the DRAPER 4 (514933) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9073-3PH	P1	3 Phase fault on MIDWEST4 (514946) 138 kV to DRAPER 4 (514933) 138 kV line CKT 1, near MIDWEST4 (514946) 138 kV. a. Apply fault at the MIDWEST4 (514946) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9074-3PH	P1	3 Phase fault on MIDWEST4 (514946) 138 kV to HOLLYWD4 (514953) 138 kV line CKT 1, near MIDWEST4 (514946) 138 kV. a. Apply fault at the MIDWEST4 (514946) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9075-3PH	P1	3 Phase fault on MIDWEST4 (514946) 138 kV to FRNKLNS4 (520917) 138 kV line CKT 1, near MIDWEST4 (514946) 138 kV. a. Apply fault at the MIDWEST4 (514946) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9076-3PH	P1	3 Phase fault on DRAPER 4 (514933) 138 kV to BARNES 4 (515003) 138 kV line CKT 1, near DRAPER 4 (514933) 138 kV. a. Apply fault at the DRAPER 4 (514933) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9077-3PH	P1	3 Phase fault on BARNES 4 (515003) 138 kV to DRAPER 4 (514933) 138 kV line CKT 1, near BARNES 4 (515003) 138 kV. a. Apply fault at the BARNES 4 (515003) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9078-3PH	P1	3 Phase fault on BARNES 4 (515003) 138 kV to TINKER54 (514994) 138 kV line CKT 1, near BARNES 4 (515003) 138 kV. a. Apply fault at the BARNES 4 (515003) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9079-3PH	P1	3 Phase fault on BARNES 4 (515003) 138 kV to SE15TH 4 (514993) 138 kV line CKT 1, near BARNES 4 (515003) 138 kV. a. Apply fault at the BARNES 4 (515003) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9080-3PH	P1	3 Phase fault on SEMINOL7 (515045) 345 kV to ARCADIA7 (514908) 345 kV line CKT 1, near SEMINOL7 (515045) 345 kV. a. Apply fault at the SEMINOL7 (515045) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9081-3PH	P1	3 Phase fault on ARCADIA7 (514908) 345 kV to SEMINOL7 (515045) 345 kV line CKT 1, near ARCADIA7 (514908) 345 kV. a. Apply fault at the ARCADIA7 (514908) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9082-3PH	P1	3 Phase fault on ARCADIA7 (514908) 345 kV to REDBUD 7 (514909) 345 kV line CKT 3, near ARCADIA7 (514908) 345 kV. a. Apply fault at the ARCADIA7 (514908) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9083-3PH	P1	3 Phase fault on REDBUD 7 (514909) 345 kV to ARCADIA7 (514908) 345 kV line CKT 3, near REDBUD 7 (514909) 345 kV. a. Apply fault at the REDBUD 7 (514909) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9084-3PH	P1	3 Phase fault on REDBUD 7 (514909) 345 kV to R.S.S.-7 (509782) 345 kV line CKT 1, near REDBUD 7 (514909) 345 kV. a. Apply fault at the REDBUD 7 (514909) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9085-3PH	P1	3 Phase fault on REDBUD 7 (514909) 345 kV / REDBUD1S (514899) 18 kV / REDBUD1G (514910) 18 kV XFMR CKT 1, near REDBUD 7 (514909) 345 kV. a. Apply fault at the REDBUD 7 (514909) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer. Trip generator(s) on the Bus REDBUD1S (514899) 18 kV Trip generator(s) on the Bus REDBUD1G (514910) 18 kV
FLT9086-3PH	P1	3 Phase fault on ARCADIA7 (514908) 345 kV to GEN-2017-133 (760032) 345 kV line CKT 1, near ARCADIA7 (514908) 345 kV. a. Apply fault at the ARCADIA7 (514908) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9087-3PH	P1	3 Phase fault on ARCADIA7 (514908) 345 kV to NORTHST7 (514880) 345 kV line CKT 1, near ARCADIA7 (514908) 345 kV. a. Apply fault at the ARCADIA7 (514908) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9088-3PH	P1	3 Phase fault on NORTHST7 (514880) 345 kV to ARCADIA7 (514908) 345 kV line CKT 1, near NORTHST7 (514880) 345 kV. a. Apply fault at the NORTHST7 (514880) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9089-3PH	P1	3 Phase fault on NORTHST7 (514880) 345 kV to SPRNGCK7 (514881) 345 kV line CKT 1, near NORTHST7 (514880) 345 kV. a. Apply fault at the NORTHST7 (514880) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9090-3PH	P1	3 Phase fault on NORTHST7 (514880) 345 kV to MATHWSN7 (515497) 345 kV line CKT 1, near NORTHST7 (514880) 345 kV. a. Apply fault at the NORTHST7 (514880) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9091-3PH	P1	3 Phase fault on NORTHST7 (514880) 345 kV / NORTHST4 (514879) 138 kV / NORTHST21 (515742) 13.8 kV XFMR CKT 1, near NORTHST7 (514880) 345 kV. a. Apply fault at the NORTHST7 (514880) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9092-3PH	P1	3 Phase fault on NORTHST4 (514879) 138 kV / NORTHST7 (514880) 345 kV / NORTHST21 (515742) 13.8 kV XFMR CKT 1, near NORTHST4 (514879) 138 kV. a. Apply fault at the NORTHST4 (514879) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9093-3PH	P1	3 Phase fault on NORTHST4 (514879) 138 kV to LNEOAK 4 (514873) 138 kV line CKT 1, near NORTHST4 (514879) 138 kV. a. Apply fault at the NORTHST4 (514879) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9094-3PH	P1	3 Phase fault on NORTHST4 (514879) 138 kV to PIEDMNT4 (514864) 138 kV line CKT 1, near NORTHST4 (514879) 138 kV. a. Apply fault at the NORTHST4 (514879) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9095-3PH	P1	3 Phase fault on NORTHST4 (514879) 138 kV to KETCHTP4 (514828) 138 kV line CKT 1, near NORTHST4 (514879) 138 kV. a. Apply fault at the NORTHST4 (514879) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9096-3PH	P1	3 Phase fault on NORTHST4 (514879) 138 kV to BRADEN 4 (514854) 138 kV line CKT 1, near NORTHST4 (514879) 138 kV. a. Apply fault at the NORTHST4 (514879) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9097-3PH	P1	3 Phase fault on ARCADIA7 (514908) 345 kV / ARCADIA4 (514907) 138 kV / ARCADI41 (515700) 13.8 kV XFMR CKT 4, near ARCADIA7 (514908) 345 kV. a. Apply fault at the ARCADIA7 (514908) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9098-3PH	P1	3 Phase fault on ARCADIA4 (514907) 138 kV / ARCADIA7 (514908) 345 kV / ARCADI41 (515700) 13.8 kV XFMR CKT 4, near ARCADIA4 (514907) 138 kV. a. Apply fault at the ARCADIA4 (514907) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9099-3PH	P1	3 Phase fault on ARCADIA4 (514907) 138 kV to JNSKAMO4 (514906) 138 kV line CKT 1, near ARCADIA4 (514907) 138 kV. a. Apply fault at the ARCADIA4 (514907) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9100-3PH	P1	3 Phase fault on JNSKAMO4 (514906) 138 kV to ARCADIA4 (514907) 138 kV line CKT 1, near JNSKAMO4 (514906) 138 kV. a. Apply fault at the JNSKAMO4 (514906) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9101-3PH	P1	3 Phase fault on JNSKAMO4 (514906) 138 kV to 4MEMORALT (300136) 138 kV line CKT 1, near JNSKAMO4 (514906) 138 kV. a. Apply fault at the JNSKAMO4 (514906) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9102-3PH	P1	3 Phase fault on JNSKAMO4 (514906) 138 kV to HSL 4 (514941) 138 kV line CKT 1, near JNSKAMO4 (514906) 138 kV. a. Apply fault at the JNSKAMO4 (514906) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9103-3PH	P1	3 Phase fault on ARCADIA4 (514907) 138 kV to RNDBARN4 (515461) 138 kV line CKT 1, near ARCADIA4 (514907) 138 kV. a. Apply fault at the ARCADIA4 (514907) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9104-3PH	P1	3 Phase fault on RNDBARN4 (515461) 138 kV to ARCADIA4 (514907) 138 kV line CKT 1, near RNDBARN4 (515461) 138 kV. a. Apply fault at the RNDBARN4 (515461) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9105-3PH	P1	3 Phase fault on RNDBARN4 (515461) 138 kV to BURGETT4 (514510) 138 kV line CKT 1, near RNDBARN4 (515461) 138 kV. a. Apply fault at the RNDBARN4 (515461) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9106-3PH	P1	3 Phase fault on ARCADIA4 (514907) 138 kV to LGARBER4 (515465) 138 kV line CKT 1, near ARCADIA4 (514907) 138 kV. a. Apply fault at the ARCADIA4 (514907) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9107-3PH	P1	3 Phase fault on LGARBER4 (515465) 138 kV to ARCADIA4 (514907) 138 kV line CKT 1, near LGARBER4 (515465) 138 kV. a. Apply fault at the LGARBER4 (515465) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9108-3PH	P1	3 Phase fault on LGARBER4 (515465) 138 kV to CHTWOOD4 (514842) 138 kV line CKT 1, near LGARBER4 (515465) 138 kV. a. Apply fault at the LGARBER4 (515465) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9109-3PH	P1	3 Phase fault on ARCADIA4 (514907) 138 kV to CTNWOOD4 (514827) 138 kV line CKT 1, near ARCADIA4 (514907) 138 kV. a. Apply fault at the ARCADIA4 (514907) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9110-3PH	P1	3 Phase fault on CTNWOOD4 (514827) 138 kV to ARCADIA4 (514907) 138 kV line CKT 1, near CTNWOOD4 (514827) 138 kV. a. Apply fault at the CTNWOOD4 (514827) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9111-3PH	P1	3 Phase fault on CTNWOOD4 (514827) 138 kV to LBRTYLK4 (515373) 138 kV line CKT 1, near CTNWOOD4 (514827) 138 kV. a. Apply fault at the CTNWOOD4 (514827) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9112-3PH	P1	3 Phase fault on CTNWOOD4 (514827) 138 kV to G22-231-TAP (771600) 138 kV line CKT 1, near CTNWOOD4 (514827) 138 kV. a. Apply fault at the CTNWOOD4 (514827) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9113-3PH	P1	3 Phase fault on CTNWOOD4 (514827) 138 kV to MARSHL 4 (514733) 138 kV line CKT 1, near CTNWOOD4 (514827) 138 kV. a. Apply fault at the CTNWOOD4 (514827) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9114-3PH	P1	3 Phase fault on CTNWOOD4 (514827) 138 kV to PINE ST4 (514829) 138 kV line CKT 1, near CTNWOOD4 (514827) 138 kV. a. Apply fault at the CTNWOOD4 (514827) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9115-3PH	P1	3 Phase fault on MUSKOG5G (515225) 18 kV to MUSKOG6G (515224) 345 kV XFMR CKT 1, near MUSKOG5G (515225) 18 kV. a. Apply fault at the MUSKOG5G (515225) 18 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer. Trip generator(s) on the Bus MUSKOG5G (515225) 18 kV
FLT9116-3PH	P1	3 Phase fault on MUSKOG6G (515226) 24 kV to MUSKOG6G (515224) 345 kV XFMR CKT 1, near MUSKOG6G (515226) 24 kV. a. Apply fault at the MUSKOG6G (515226) 24 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer. Trip generator(s) on the Bus MUSKOG6G (515226) 24 kV
FLT9117-3PH	P1	3 Phase fault on FTSMITH7 (515302) 345 kV to MUSKOG6G (515224) 345 kV line CKT 1, near FTSMITH7 (515302) 345 kV. a. Apply fault at the FTSMITH7 (515302) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9118-3PH	P1	3 Phase fault on CLARKSV7 (509745) 345 kV to MUSKOGEE7 (515224) 345 kV line CKT 1, near CLARKSV7 (509745) 345 kV. a. Apply fault at the CLARKSV7 (509745) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9119-3PH	P1	3 Phase fault on PECANCK7 (515235) 345 kV to MUSKOGEE7 (515224) 345 kV line CKT 2, near PECANCK7 (515235) 345 kV. a. Apply fault at the PECANCK7 (515235) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9120-3PH	P1	3 Phase fault on OKTAHA 2 (516093) 69 kV / OKTAHA 5 (516092) 161 kV / OKTAHA71 (516095) 13.2 kV XFMR CKT 7, near OKTAHA 2 (516093) 69 kV. a. Apply fault at the OKTAHA 2 (516093) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9121-3PH	P1	3 Phase fault on G17-092-SWYD (588838) 345 kV to FIREWHL-TAP (588839) 345 kV line CKT 1, near G17-092-SWYD (588838) 345 kV. a. Apply fault at the G17-092-SWYD (588838) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G18-024GEN1 (762595) 0.7 kV Trip generator(s) on the Bus G17-092-GEN1 (589303) 0.6 kV Trip generator(s) on the Bus G17-092-GEN2 (589307) 0.6 kV Trip generator(s) on the Bus G17-040-GEN1 (588813) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9122-3PH	P1	3 Phase fault on G17-092-SWYD (588838) 345 kV to GEN-2018-024 (762592) 345 kV line CKT 1, near G17-092-SWYD (588838) 345 kV. a. Apply fault at the G17-092-SWYD (588838) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G18-024GEN1 (762595) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9123-3PH	P1	3 Phase fault on GEN-2018-024 (762592) 345 kV to G17-092-SWYD (588838) 345 kV line CKT 1, near GEN-2018-024 (762592) 345 kV. a. Apply fault at the GEN-2018-024 (762592) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G18-024GEN1 (762595) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9124-3PH	P1	3 Phase fault on G17-092-SWYD (588838) 345 kV to GEN-2017-092 (589300) 345 kV line CKT 1, near G17-092-SWYD (588838) 345 kV. a. Apply fault at the G17-092-SWYD (588838) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G17-092-GEN1 (589303) 0.6 kV Trip generator(s) on the Bus G17-092-GEN2 (589307) 0.6 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9125-3PH	P1	3 Phase fault on GEN-2017-092 (589300) 345 kV to G17-092-SWYD (588838) 345 kV line CKT 1, near GEN-2017-092 (589300) 345 kV. a. Apply fault at the GEN-2017-092 (589300) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G17-092-GEN1 (589303) 0.6 kV Trip generator(s) on the Bus G17-092-GEN2 (589307) 0.6 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9126-3PH	P1	3 Phase fault on G17-092-SWYD (588838) 345 kV to GEN-2017-040 (588810) 345 kV line CKT 1, near G17-092-SWYD (588838) 345 kV. a. Apply fault at the G17-092-SWYD (588838) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G17-040-GEN1 (588813) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9127-3PH	P1	3 Phase fault on GEN-2017-040 (588810) 345 kV to G17-092-SWYD (588838) 345 kV line CKT 1, near GEN-2017-040 (588810) 345 kV. a. Apply fault at the GEN-2017-040 (588810) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G17-040-GEN1 (588813) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9128-3PH	P1	3 Phase fault on G22-071-TAP (768400) 138 kV to C-RIVER4 (510946) 138 kV line CKT 1, near G22-071-TAP (768400) 138 kV. a. Apply fault at the G22-071-TAP (768400) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9129-3PH	P1	3 Phase fault on G21-016-TAP (765451) 345 kV to JOHNCO 7 (514809) 345 kV line CKT 1, near G21-016-TAP (765451) 345 kV. a. Apply fault at the G21-016-TAP (765451) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9130-3PH	P1	3 Phase fault on DMNDSPG7 (516006) 345 kV to JOHNCO 7 (514809) 345 kV line CKT 1, near DMNDSPG7 (516006) 345 kV. a. Apply fault at the DMNDSPG7 (516006) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus DMNDSG11 (516000) 0.7 kV Trip generator(s) on the Bus DMNDSG21 (516001) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9131-3PH	P1	3 Phase fault on SXMLCKT4 (515122) 138 kV to JOHNCO 4 (514808) 138 kV line CKT 1, near SXMLCKT4 (515122) 138 kV. a. Apply fault at the SXMLCKT4 (515122) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9132-3PH	P1	3 Phase fault on CANEYCK4 (515150) 138 kV to JOHNCO 4 (514808) 138 kV line CKT 1, near CANEYCK4 (515150) 138 kV. a. Apply fault at the CANEYCK4 (515150) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9133-3PH	P1	3 Phase fault on RUSSET-4 (515120) 138 kV to JOHNCO 4 (514808) 138 kV line CKT 1, near RUSSET-4 (515120) 138 kV. a. Apply fault at the RUSSET-4 (515120) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9134-3PH	P1	3 Phase fault on GEN-2017-149 (760830) 345 kV to JOHNCO 7 (514809) 345 kV line CKT 1, near GEN-2017-149 (760830) 345 kV. a. Apply fault at the GEN-2017-149 (760830) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G17-149GEN1 (760833) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9135-3PH	P1	3 Phase fault on SEMINL3G (515042) 20.9 kV to SEMINOL7 (515045) 345 kV XFMR CKT 1, near SEMINL3G (515042) 20.9 kV. a. Apply fault at the SEMINL3G (515042) 20.9 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer. Trip generator(s) on the Bus SEMINL3G (515042) 20.9 kV
FLT9136-3PH	P1	3 Phase fault on SEMINL2G (515041) 17.1 kV to SEMINOL7 (515045) 345 kV XFMR CKT 1, near SEMINL2G (515041) 17.1 kV. a. Apply fault at the SEMINL2G (515041) 17.1 kV Bus. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault. Trip generator(s) on the Bus SEMINL2G (515041) 17.1 kV

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9137-3PH	P1	3 Phase fault on GEN-2018-082 (763131) 345 kV to PITTSB-7 (510907) 345 kV line CKT 1, near GEN-2018-082 (763131) 345 kV. a. Apply fault at the GEN-2018-082 (763131) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. Trip generator(s) on the Bus G18-082-GEN1 (763134) 0.7 kV Trip generator(s) on the Bus G18-082-GEN2 (763137) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9138-3PH	P1	3 Phase fault on HUGO 7 (521157) 345 kV to VALIANT7 (510911) 345 kV line CKT 1, near HUGO 7 (521157) 345 kV. a. Apply fault at the HUGO 7 (521157) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9139-3PH	P1	3 Phase fault on LYDIA 7 (508298) 345 kV to VALIANT7 (510911) 345 kV line CKT 1, near LYDIA 7 (508298) 345 kV. a. Apply fault at the LYDIA 7 (508298) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9140-3PH	P1	3 Phase fault on G20-020-TAP (764520) 345 kV to VALIANT7 (510911) 345 kV line CKT 1, near G20-020-TAP (764520) 345 kV. a. Apply fault at the G20-020-TAP (764520) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9141-3PH	P1	3 Phase fault on VALIANT4 (510918) 138 kV / VALIANT7 (510911) 345 kV / VALN2-1 (510938) 13.8 kV XFMR CKT 2, near VALIANT4 (510918) 138 kV. a. Apply fault at the VALIANT4 (510918) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9142-3PH	P1	3 Phase fault on V-WEYCO4 (510866) 138 kV to VALIANT4 (510918) 138 kV line CKT 1, near V-WEYCO4 (510866) 138 kV. a. Apply fault at the V-WEYCO4 (510866) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9143-3PH	P1	3 Phase fault on IDABEL-4 (510886) 138 kV to VALIANT4 (510918) 138 kV line CKT 1, near IDABEL-4 (510886) 138 kV. a. Apply fault at the IDABEL-4 (510886) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9144-3PH	P1	3 Phase fault on HUGO---4 (510901) 138 kV to VALIANT4 (510918) 138 kV line CKT 1, near HUGO---4 (510901) 138 kV. a. Apply fault at the HUGO---4 (510901) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9145-3PH	P1	3 Phase fault on HUGO PP4 (520948) 138 kV to VALIANT4 (510918) 138 kV line CKT 1, near HUGO PP4 (520948) 138 kV. a. Apply fault at the HUGO PP4 (520948) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9146-3PH	P1	3 Phase fault on VALIANT2 (510910) 69 kV / VALIANT4 (510918) 138 kV / VALN1-1 (510937) 13.8 kV XFMR CKT 1, near VALIANT2 (510910) 69 kV. a. Apply fault at the VALIANT2 (510910) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9147-3PH	P1	3 Phase fault on CIMARON7 (514901) 345 kV to NORMHLL7 (516096) 345 kV line CKT 1, near CIMARON7 (514901) 345 kV. a. Apply fault at the CIMARON7 (514901) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9148-3PH	P1	3 Phase fault on MINCO 7 (514801) 345 kV to NORMHLL7 (516096) 345 kV line CKT 1, near MINCO 7 (514801) 345 kV. a. Apply fault at the MINCO 7 (514801) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9149-3PH	P1	3 Phase fault on MCCLAIN4 (514902) 138 kV to NORMHLL4 (516097) 138 kV line CKT 1, near MCCLAIN4 (514902) 138 kV. a. Apply fault at the MCCLAIN4 (514902) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9150-3PH	P1	3 Phase fault on PLVALLY4 (514929) 138 kV to NORMHLL4 (516097) 138 kV line CKT 1, near PLVALLY4 (514929) 138 kV. a. Apply fault at the PLVALLY4 (514929) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9151-3PH	P1	3 Phase fault on CHERYCK4 (514957) 138 kV to NORMHLL4 (516097) 138 kV line CKT 1, near CHERYCK4 (514957) 138 kV. a. Apply fault at the CHERYCK4 (514957) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9152-3PH	P1	3 Phase fault on TURNER 4 (514992) 138 kV to NORMHLL4 (516097) 138 kV line CKT 1, near TURNER 4 (514992) 138 kV. a. Apply fault at the TURNER 4 (514992) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9153-3PH	P1	3 Phase fault on AIRDEPT4 (515457) 138 kV to GM 4 (514961) 138 kV line CKT 1, near AIRDEPT4 (515457) 138 kV. a. Apply fault at the AIRDEPT4 (515457) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9154-3PH	P1	3 Phase fault on CEDARLN4 (514948) 138 kV to SOONRTP4 (514949) 138 kV line CKT 1, near CEDARLN4 (514948) 138 kV. a. Apply fault at the CEDARLN4 (514948) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9155-3PH	P1	3 Phase fault on OAKTRET4 (514930) 138 kV to SOONRTP4 (514949) 138 kV line CKT 1, near OAKTRET4 (514930) 138 kV. a. Apply fault at the OAKTRET4 (514930) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9156-3PH	P1	3 Phase fault on HOLLYWD4 (514953) 138 kV to MIDWEST4 (514946) 138 kV line CKT 1, near HOLLYWD4 (514953) 138 kV. a. Apply fault at the HOLLYWD4 (514953) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9157-3PH	P1	3 Phase fault on FRNKLNS4 (520917) 138 kV to MIDWEST4 (514946) 138 kV line CKT 1, near FRNKLNS4 (520917) 138 kV. a. Apply fault at the FRNKLNS4 (520917) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9158-3PH	P1	3 Phase fault on TINKER54 (514994) 138 kV to BARNES 4 (515003) 138 kV line CKT 1, near TINKER54 (514994) 138 kV. a. Apply fault at the TINKER54 (514994) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9159-3PH	P1	3 Phase fault on SE15TH 4 (514993) 138 kV to BARNES 4 (515003) 138 kV line CKT 1, near SE15TH 4 (514993) 138 kV. a. Apply fault at the SE15TH 4 (514993) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9160-3PH	P1	3 Phase fault on R.S.S.-7 (509782) 345 kV to REDBUD 7 (514909) 345 kV line CKT 1, near R.S.S.-7 (509782) 345 kV. a. Apply fault at the R.S.S.-7 (509782) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9161-3PH	P1	3 Phase fault on GEN-2017-133 (760032) 345 kV to ARCADIA7 (514908) 345 kV line CKT 1, near GEN-2017-133 (760032) 345 kV. a. Apply fault at the GEN-2017-133 (760032) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9162-3PH	P1	3 Phase fault on SPRNGCK7 (514881) 345 kV to NORTHWEST7 (514880) 345 kV line CKT 1, near SPRNGCK7 (514881) 345 kV. a. Apply fault at the SPRNGCK7 (514881) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9163-3PH	P1	3 Phase fault on MATHWSN7 (515497) 345 kV to NORTHWEST7 (514880) 345 kV line CKT 1, near MATHWSN7 (515497) 345 kV. a. Apply fault at the MATHWSN7 (515497) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 6 cycles, then trip the line in (b) and remove fault.
FLT9164-3PH	P1	3 Phase fault on LNEOAK 4 (514873) 138 kV to NORTHWEST4 (514879) 138 kV line CKT 1, near LNEOAK 4 (514873) 138 kV. a. Apply fault at the LNEOAK 4 (514873) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9165-3PH	P1	3 Phase fault on PIEDMNT4 (514864) 138 kV to NORTHWEST4 (514879) 138 kV line CKT 1, near PIEDMNT4 (514864) 138 kV. a. Apply fault at the PIEDMNT4 (514864) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9166-3PH	P1	3 Phase fault on KETCHTP4 (514828) 138 kV to NORTHWEST4 (514879) 138 kV line CKT 1, near KETCHTP4 (514828) 138 kV. a. Apply fault at the KETCHTP4 (514828) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9167-3PH	P1	3 Phase fault on BRADEN 4 (514854) 138 kV to NORTHWEST4 (514879) 138 kV line CKT 1, near BRADEN 4 (514854) 138 kV. a. Apply fault at the BRADEN 4 (514854) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9168-3PH	P1	3 Phase fault on 4MEMORALT (300136) 138 kV to JNSKAMO4 (514906) 138 kV line CKT 1, near 4MEMORALT (300136) 138 kV. a. Apply fault at the 4MEMORALT (300136) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9169-3PH	P1	3 Phase fault on HSL 4 (514941) 138 kV to JNSKAMO4 (514906) 138 kV line CKT 1, near HSL 4 (514941) 138 kV. a. Apply fault at the HSL 4 (514941) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9170-3PH	P1	3 Phase fault on BURGETT4 (514510) 138 kV to RNDBARN4 (515461) 138 kV line CKT 1, near BURGETT4 (514510) 138 kV. a. Apply fault at the BURGETT4 (514510) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9171-3PH	P1	3 Phase fault on CHTWOOD4 (514842) 138 kV to LGARBER4 (515465) 138 kV line CKT 1, near CHTWOOD4 (514842) 138 kV. a. Apply fault at the CHTWOOD4 (514842) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9172-3PH	P1	3 Phase fault on LBRTYLK4 (515373) 138 kV to CTNWOOD4 (514827) 138 kV line CKT 1, near LBRTYLK4 (515373) 138 kV. a. Apply fault at the LBRTYLK4 (515373) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9173-3PH	P1	3 Phase fault on G22-231-TAP (771600) 138 kV to CTNWOOD4 (514827) 138 kV line CKT 1, near G22-231-TAP (771600) 138 kV. a. Apply fault at the G22-231-TAP (771600) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9174-3PH	P1	3 Phase fault on MARSHL 4 (514733) 138 kV to CTNWOOD4 (514827) 138 kV line CKT 1, near MARSHL 4 (514733) 138 kV. a. Apply fault at the MARSHL 4 (514733) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9175-3PH	P1	3 Phase fault on PINE ST4 (514829) 138 kV to CTNWOOD4 (514827) 138 kV line CKT 1, near PINE ST4 (514829) 138 kV. a. Apply fault at the PINE ST4 (514829) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9176-3PH	P1	3 Phase fault on SEMINOL7 (515045) 345 kV / SEMINOL4 (515044) 138 kV / SEMINO21 (515757) 14.4 kV XFMR CKT 2, near SEMINOL7 (515045) 345 kV. a. Apply fault at the SEMINOL7 (515045) 345 kV Bus. b. Clear fault after 6 cycles by tripping the faulted transformer.
FLT9177-3PH	P1	3 Phase fault on SEMINOL4 (515044) 138 kV / SEMINOL7 (515045) 345 kV / SEMINO21 (515757) 14.4 kV XFMR CKT 2, near SEMINOL4 (515044) 138 kV. a. Apply fault at the SEMINOL4 (515044) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9178-3PH	P1	3 Phase fault on SEMINOL4 (515044) 138 kV to MAUD 4 (515055) 138 kV line CKT 1, near SEMINOL4 (515044) 138 kV. a. Apply fault at the SEMINOL4 (515044) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9179-3PH	P1	3 Phase fault on MAUD 4 (515055) 138 kV to SEMINOL4 (515044) 138 kV line CKT 1, near MAUD 4 (515055) 138 kV. a. Apply fault at the MAUD 4 (515055) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9180-3PH	P1	3 Phase fault on MAUD 4 (515055) 138 kV / MAUD 2 (515054) 69 kV / MAUD 1 (515736) 13.2 kV XFMR CKT 1, near MAUD 4 (515055) 138 kV. a. Apply fault at the MAUD 4 (515055) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9181-3PH	P1	3 Phase fault on MAUD 2 (515054) 69 kV to PEARSNT2 (515053) 69 kV line CKT 1, near MAUD 2 (515054) 69 kV. a. Apply fault at the MAUD 2 (515054) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9182-3PH	P1	3 Phase fault on PEARSNT2 (515053) 69 kV to MAUD 2 (515054) 69 kV line CKT 1, near PEARSNT2 (515053) 69 kV. a. Apply fault at the PEARSNT2 (515053) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9183-3PH	P1	3 Phase fault on PEARSNT2 (515053) 69 kV to PEARSON2 (515067) 69 kV line CKT 1, near PEARSNT2 (515053) 69 kV. a. Apply fault at the PEARSNT2 (515053) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9184-3PH	P1	3 Phase fault on PEARSNT2 (515053) 69 kV to SRVCPLT2 (515637) 69 kV line CKT 1, near PEARSNT2 (515053) 69 kV. a. Apply fault at the PEARSNT2 (515053) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9185-3PH	P1	3 Phase fault on SRVCPLT2 (515637) 69 kV to PEARSNT2 (515053) 69 kV line CKT 1, near SRVCPLT2 (515637) 69 kV. a. Apply fault at the SRVCPLT2 (515637) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9186-3PH	P1	3 Phase fault on MAUD 2 (515054) 69 kV to LTRIVRT2 (515503) 69 kV line CKT 1, near MAUD 2 (515054) 69 kV. a. Apply fault at the MAUD 2 (515054) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9187-3PH	P1	3 Phase fault on LTRIVRT2 (515503) 69 kV to MAUD 2 (515054) 69 kV line CKT 1, near LTRIVRT2 (515503) 69 kV. a. Apply fault at the LTRIVRT2 (515503) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9188-3PH	P1	3 Phase fault on LTRIVRT2 (515503) 69 kV to WEWOKAT2 (515087) 69 kV line CKT 1, near LTRIVRT2 (515503) 69 kV. a. Apply fault at the LTRIVRT2 (515503) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9189-3PH	P1	3 Phase fault on WEWOKAT2 (515087) 69 kV to LTRIVRT2 (515503) 69 kV line CKT 1, near WEWOKAT2 (515087) 69 kV. a. Apply fault at the WEWOKAT2 (515087) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9190-3PH	P1	3 Phase fault on LTRIVRT2 (515503) 69 kV to LTRIVER2 (515088) 69 kV line CKT 1, near LTRIVRT2 (515503) 69 kV. a. Apply fault at the LTRIVRT2 (515503) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9191-3PH	P1	3 Phase fault on MAUD 2 (515054) 69 kV to KNAWATP2 (515496) 69 kV line CKT 1, near MAUD 2 (515054) 69 kV. a. Apply fault at the MAUD 2 (515054) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9192-3PH	P1	3 Phase fault on KNAWATP2 (515496) 69 kV to MAUD 2 (515054) 69 kV line CKT 1, near KNAWATP2 (515496) 69 kV. a. Apply fault at the KNAWATP2 (515496) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9193-3PH	P1	3 Phase fault on KNAWATP2 (515496) 69 kV to KONOWAP2 (515091) 69 kV line CKT 1, near KNAWATP2 (515496) 69 kV. a. Apply fault at the KNAWATP2 (515496) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9194-3PH	P1	3 Phase fault on KNAWATP2 (515496) 69 kV to YOUNGCT2 (515385) 69 kV line CKT 1, near KNAWATP2 (515496) 69 kV. a. Apply fault at the KNAWATP2 (515496) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9195-3PH	P1	3 Phase fault on YOUNGCT2 (515385) 69 kV to KNAWATP2 (515496) 69 kV line CKT 1, near YOUNGCT2 (515385) 69 kV. a. Apply fault at the YOUNGCT2 (515385) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9196-3PH	P1	3 Phase fault on MAUD 2 (515054) 69 kV to ERLSBOR2 (515073) 69 kV line CKT 1, near MAUD 2 (515054) 69 kV. a. Apply fault at the MAUD 2 (515054) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9197-3PH	P1	3 Phase fault on ERLSBOR2 (515073) 69 kV to MAUD 2 (515054) 69 kV line CKT 1, near ERLSBOR2 (515073) 69 kV. a. Apply fault at the ERLSBOR2 (515073) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9198-3PH	P1	3 Phase fault on ERLSBOR2 (515073) 69 kV to FRSTHIL2 (515074) 69 kV line CKT 1, near ERLSBOR2 (515073) 69 kV. a. Apply fault at the ERLSBOR2 (515073) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9199-3PH	P1	3 Phase fault on FRSTHIL2 (515074) 69 kV to ERLSBOR2 (515073) 69 kV line CKT 1, near FRSTHIL2 (515074) 69 kV. a. Apply fault at the FRSTHIL2 (515074) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9200-3PH	P1	3 Phase fault on MAUD 4 (515055) 138 kV to EARLSBORO 4 (510948) 138 kV line CKT 1, near MAUD 4 (515055) 138 kV. a. Apply fault at the MAUD 4 (515055) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9201-3PH	P1	3 Phase fault on EARLSBORO 4 (510948) 138 kV to MAUD 4 (515055) 138 kV line CKT 1, near EARLSBORO 4 (510948) 138 kV. a. Apply fault at the EARLSBORO 4 (510948) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9202-3PH	P1	3 Phase fault on EARLSBORO 4 (510948) 138 kV to FIXCT4 (510877) 138 kV line CKT 1, near EARLSBORO 4 (510948) 138 kV. a. Apply fault at the EARLSBORO 4 (510948) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9203-3PH	P1	3 Phase fault on FIXCT4 (510877) 138 kV to EARLSBORO 4 (510948) 138 kV line CKT 1, near FIXCT4 (510877) 138 kV. a. Apply fault at the FIXCT4 (510877) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9204-3PH	P1	3 Phase fault on MAUD 4 (515055) 138 kV to GEN-2022-238 (771721) 138 kV line CKT 1, near MAUD 4 (515055) 138 kV. a. Apply fault at the MAUD 4 (515055) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. Trip generator(s) on the Bus G22-238GEN1 (771744) 0.9 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9205-3PH	P1	3 Phase fault on GEN-2022-238 (771721) 138 kV to MAUD 4 (515055) 138 kV line CKT 1, near GEN-2022-238 (771721) 138 kV. a. Apply fault at the GEN-2022-238 (771721) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. Trip generator(s) on the Bus G22-238GEN1 (771744) 0.9 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9206-3PH	P1	3 Phase fault on SEMINOL4 (515044) 138 kV to SEMINL1G (515040) 20.9 kV XFMR CKT 1, near SEMINOL4 (515044) 138 kV. a. Apply fault at the SEMINOL4 (515044) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer. Trip generator(s) on the Bus SEMINL1G (515040) 20.9 kV
FLT9207-3PH	P1	3 Phase fault on SEMINL1G (515040) 20.9 kV to SEMINOL4 (515044) 138 kV XFMR CKT 1, near SEMINL1G (515040) 20.9 kV. a. Apply fault at the SEMINL1G (515040) 20.9 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer. Trip generator(s) on the Bus SEMINL1G (515040) 20.9 kV
FLT9208-3PH	P1	3 Phase fault on MAUD 4 (515055) 138 kV to FRSTHIL4 (515075) 138 kV line CKT 1, near MAUD 4 (515055) 138 kV. a. Apply fault at the MAUD 4 (515055) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9209-3PH	P1	3 Phase fault on FRSTHIL4 (515075) 138 kV to MAUD 4 (515055) 138 kV line CKT 1, near FRSTHIL4 (515075) 138 kV. a. Apply fault at the FRSTHIL4 (515075) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9210-3PH	P1	3 Phase fault on FRSTHIL4 (515075) 138 kV to STRLGTP4 (515286) 138 kV line CKT 1, near FRSTHIL4 (515075) 138 kV. a. Apply fault at the FRSTHIL4 (515075) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9211-3PH	P1	3 Phase fault on STRLGTP4 (515286) 138 kV to FRSTHIL4 (515075) 138 kV line CKT 1, near STRLGTP4 (515286) 138 kV. a. Apply fault at the STRLGTP4 (515286) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9212-3PH	P1	3 Phase fault on FRSTHIL4 (515075) 138 kV / FRSTHIL2 (515074) 69 kV / FRSTHIL1 (515725) 13.8 kV XFMR CKT 1, near FRSTHIL4 (515075) 138 kV. a. Apply fault at the FRSTHIL4 (515075) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9213-3PH	P1	3 Phase fault on FRSTHIL2 (515074) 69 kV / FRSTHIL4 (515075) 138 kV / FRSTHIL1 (515725) 13.8 kV XFMR CKT 1, near FRSTHIL2 (515074) 69 kV. a. Apply fault at the FRSTHIL2 (515074) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9214-3PH	P1	3 Phase fault on FRSTHIL2 (515074) 69 kV to TECUMSH2 (515071) 69 kV line CKT 1, near FRSTHIL2 (515074) 69 kV. a. Apply fault at the FRSTHIL2 (515074) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9215-3PH	P1	3 Phase fault on TECUMSH2 (515071) 69 kV to FRSTHIL2 (515074) 69 kV line CKT 1, near TECUMSH2 (515071) 69 kV. a. Apply fault at the TECUMSH2 (515071) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9216-3PH	P1	3 Phase fault on MAUD 4 (515055) 138 kV to BLANCHD4 (511508) 138 kV line CKT 1, near MAUD 4 (515055) 138 kV. a. Apply fault at the MAUD 4 (515055) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9217-3PH	P1	3 Phase fault on BLANCHD4 (511508) 138 kV to MAUD 4 (515055) 138 kV line CKT 1, near BLANCHD4 (511508) 138 kV. a. Apply fault at the BLANCHD4 (511508) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9218-3PH	P1	3 Phase fault on BLANCHD4 (511508) 138 kV to CORNVIL4 (511449) 138 kV line CKT 1, near BLANCHD4 (511508) 138 kV. a. Apply fault at the BLANCHD4 (511508) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9219-3PH	P1	3 Phase fault on CORNVIL4 (511449) 138 kV to BLANCHD4 (511508) 138 kV line CKT 1, near CORNVIL4 (511449) 138 kV. a. Apply fault at the CORNVIL4 (511449) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9220-3PH	P1	3 Phase fault on SEMINOL4 (515044) 138 kV to VANOSTP4 (515531) 138 kV line CKT 1, near SEMINOL4 (515044) 138 kV. a. Apply fault at the SEMINOL4 (515044) 138 kV Bus. b. Clear fault after 7 cycles by tripping two of the 3-terminal faulted lines. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9221-3PH	P1	3 Phase fault on ARBUCKL4 (515117) 138 kV to VANOSTP4 (515531) 138 kV line CKT 1, near ARBUCKL4 (515117) 138 kV. a. Apply fault at the ARBUCKL4 (515117) 138 kV Bus. b. Clear fault after 7 cycles by tripping two of the 3-terminal faulted lines. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9222-3PH	P1	3 Phase fault on ARBUCKL4 (515117) 138 kV / ARBUCKL2 (515116) 69 kV / ARBUCKL1 (515702) 13.2 kV XFMR CKT 1, near ARBUCKL4 (515117) 138 kV. a. Apply fault at the ARBUCKL4 (515117) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9223-3PH	P1	3 Phase fault on ARBUCKL2 (515116) 69 kV / ARBUCKL4 (515117) 138 kV / ARBUCKL1 (515702) 13.2 kV XFMR CKT 1, near ARBUCKL2 (515116) 69 kV. a. Apply fault at the ARBUCKL2 (515116) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9224-3PH	P1	3 Phase fault on ARBUCKL2 (515116) 69 kV to DAVS 2 (515111) 69 kV line CKT 1, near ARBUCKL2 (515116) 69 kV. a. Apply fault at the ARBUCKL2 (515116) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9225-3PH	P1	3 Phase fault on DAVS 2 (515111) 69 kV to ARBUCKL2 (515116) 69 kV line CKT 1, near DAVS 2 (515111) 69 kV. a. Apply fault at the DAVS 2 (515111) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9226-3PH	P1	3 Phase fault on DAVS 2 (515111) 69 kV to WNREF1T2 (515110) 69 kV line CKT 1, near DAVS 2 (515111) 69 kV. a. Apply fault at the DAVS 2 (515111) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9227-3PH	P1	3 Phase fault on WNREF1T2 (515110) 69 kV to DAVS 2 (515111) 69 kV line CKT 1, near WNREF1T2 (515110) 69 kV. a. Apply fault at the WNREF1T2 (515110) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9228-3PH	P1	3 Phase fault on SEMINOL4 (515044) 138 kV to LKKONWA4 (515977) 138 kV line CKT 1, near SEMINOL4 (515044) 138 kV. a. Apply fault at the SEMINOL4 (515044) 138 kV Bus. b. Clear fault after 7 cycles by tripping two of the 3-terminal faulted lines. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9229-3PH	P1	3 Phase fault on PARKLN 4 (515178) 138 kV to LKKONWA4 (515977) 138 kV line CKT 1, near PARKLN 4 (515178) 138 kV. a. Apply fault at the PARKLN 4 (515178) 138 kV Bus. b. Clear fault after 7 cycles by tripping two of the 3-terminal faulted lines. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9230-3PH	P1	3 Phase fault on PARKLN 4 (515178) 138 kV to VANOSS 4 (515174) 138 kV line CKT 1, near PARKLN 4 (515178) 138 kV. a. Apply fault at the PARKLN 4 (515178) 138 kV Bus. b. Clear fault after 7 cycles by tripping two of the 3-terminal faulted lines. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9231-3PH	P1	3 Phase fault on PARKLN 4 (515178) 138 kV to SOTHADA4 (515318) 138 kV line CKT 1, near PARKLN 4 (515178) 138 kV. a. Apply fault at the PARKLN 4 (515178) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9232-3PH	P1	3 Phase fault on SOTHADA4 (515318) 138 kV to PARKLN 4 (515178) 138 kV line CKT 1, near SOTHADA4 (515318) 138 kV. a. Apply fault at the SOTHADA4 (515318) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9233-3PH	P1	3 Phase fault on SOTHADA4 (515318) 138 kV to HARDEN 4 (515362) 138 kV line CKT 1, near SOTHADA4 (515318) 138 kV. a. Apply fault at the SOTHADA4 (515318) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9234-3PH	P1	3 Phase fault on HARDEN 4 (515362) 138 kV to SOTHADA4 (515318) 138 kV line CKT 1, near HARDEN 4 (515362) 138 kV. a. Apply fault at the HARDEN 4 (515362) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9235-3PH	P1	3 Phase fault on PARKLN 4 (515178) 138 kV / PARKLN 2 (515177) 69 kV / PARKLN11 (515747) 13.2 kV XFMR CKT 1, near PARKLN 4 (515178) 138 kV. a. Apply fault at the PARKLN 4 (515178) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9236-3PH	P1	3 Phase fault on PARKLN 2 (515177) 69 kV / PARKLN 4 (515178) 138 kV / PARKLN11 (515747) 13.2 kV XFMR CKT 1, near PARKLN 2 (515177) 69 kV. a. Apply fault at the PARKLN 2 (515177) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9237-3PH	P1	3 Phase fault on PARKLN 2 (515177) 69 kV to ADAINDU2 (515384) 69 kV line CKT 1, near PARKLN 2 (515177) 69 kV. a. Apply fault at the PARKLN 2 (515177) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9238-3PH	P1	3 Phase fault on ADAINDU2 (515384) 69 kV to PARKLN 2 (515177) 69 kV line CKT 1, near ADAINDU2 (515384) 69 kV. a. Apply fault at the ADAINDU2 (515384) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9239-3PH	P1	3 Phase fault on ADAINDU2 (515384) 69 kV to VALLYVU2 (515182) 69 kV line CKT 1, near ADAINDU2 (515384) 69 kV. a. Apply fault at the ADAINDU2 (515384) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9240-3PH	P1	3 Phase fault on VALLYVU2 (515182) 69 kV to ADAINDU2 (515384) 69 kV line CKT 1, near VALLYVU2 (515182) 69 kV. a. Apply fault at the VALLYVU2 (515182) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9241-3PH	P1	3 Phase fault on PARKLN 2 (515177) 69 kV to IDEAL 2 (515175) 69 kV line CKT 1, near PARKLN 2 (515177) 69 kV. a. Apply fault at the PARKLN 2 (515177) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9242-3PH	P1	3 Phase fault on PARKLN 4 (515178) 138 kV to BLUERIV4 (515133) 138 kV line CKT 1, near PARKLN 4 (515178) 138 kV. a. Apply fault at the PARKLN 4 (515178) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9243-3PH	P1	3 Phase fault on BLUERIV4 (515133) 138 kV to PARKLN 4 (515178) 138 kV line CKT 1, near BLUERIV4 (515133) 138 kV. a. Apply fault at the BLUERIV4 (515133) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9244-3PH	P1	3 Phase fault on BLUERIV4 (515133) 138 kV to ARBUCKL4 (515117) 138 kV line CKT 1, near BLUERIV4 (515133) 138 kV. a. Apply fault at the BLUERIV4 (515133) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9245-3PH	P1	3 Phase fault on ARBUCKL4 (515117) 138 kV to BLUERIV4 (515133) 138 kV line CKT 1, near ARBUCKL4 (515117) 138 kV. a. Apply fault at the ARBUCKL4 (515117) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9246-3PH	P1	3 Phase fault on ARBUCKL4 (515117) 138 kV to OAKLAW-4 (515123) 138 kV line CKT 1, near ARBUCKL4 (515117) 138 kV. a. Apply fault at the ARBUCKL4 (515117) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9247-3PH	P1	3 Phase fault on OAKLAW-4 (515123) 138 kV to ARBUCKL4 (515117) 138 kV line CKT 1, near OAKLAW-4 (515123) 138 kV. a. Apply fault at the OAKLAW-4 (515123) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9248-3PH	P1	3 Phase fault on ARBUCKL4 (515117) 138 kV to GEN-2016-126 (588180) 138 kV line CKT 1, near ARBUCKL4 (515117) 138 kV. a. Apply fault at the ARBUCKL4 (515117) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. Trip generator(s) on the Bus G16-126-GEN1 (588183) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9249-3PH	P1	3 Phase fault on GEN-2016-126 (588180) 138 kV to ARBUCKL4 (515117) 138 kV line CKT 1, near GEN-2016-126 (588180) 138 kV. a. Apply fault at the GEN-2016-126 (588180) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. Trip generator(s) on the Bus G16-126-GEN1 (588183) 0.7 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9250-3PH	P1	3 Phase fault on ARBUCKL4 (515117) 138 kV to MILLCKT4 (515121) 138 kV line CKT 1, near ARBUCKL4 (515117) 138 kV. a. Apply fault at the ARBUCKL4 (515117) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9251-3PH	P1	3 Phase fault on MILLCKT4 (515121) 138 kV to ARBUCKL4 (515117) 138 kV line CKT 1, near MILLCKT4 (515121) 138 kV. a. Apply fault at the MILLCKT4 (515121) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9252-3PH	P1	3 Phase fault on MILLCKT4 (515121) 138 kV to MILLCRK4 (515196) 138 kV line CKT 1, near MILLCKT4 (515121) 138 kV. a. Apply fault at the MILLCKT4 (515121) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9253-3PH	P1	3 Phase fault on MILLCKT4 (515121) 138 kV to SXMLCKT4 (515122) 138 kV line CKT 1, near MILLCKT4 (515121) 138 kV. a. Apply fault at the MILLCKT4 (515121) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9254-3PH	P1	3 Phase fault on SXMLCKT4 (515122) 138 kV to MILLCKT4 (515121) 138 kV line CKT 1, near SXMLCKT4 (515122) 138 kV. a. Apply fault at the SXMLCKT4 (515122) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9255-3PH	P1	3 Phase fault on ARBUCKL4 (515117) 138 kV to SULPHR 4 (515559) 138 kV line CKT 1, near ARBUCKL4 (515117) 138 kV. a. Apply fault at the ARBUCKL4 (515117) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9256-3PH	P1	3 Phase fault on SULPHR 4 (515559) 138 kV to ARBUCKL4 (515117) 138 kV line CKT 1, near SULPHR 4 (515559) 138 kV. a. Apply fault at the SULPHR 4 (515559) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9257-3PH	P1	3 Phase fault on SULPHR 4 (515559) 138 kV to JOLLYVL4 (515118) 138 kV line CKT 1, near SULPHR 4 (515559) 138 kV. a. Apply fault at the SULPHR 4 (515559) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9258-3PH	P1	3 Phase fault on JOLLYVL4 (515118) 138 kV to SULPHR 4 (515559) 138 kV line CKT 1, near JOLLYVL4 (515118) 138 kV. a. Apply fault at the JOLLYVL4 (515118) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9259-3PH	P1	3 Phase fault on SEMINOL4 (515044) 138 kV to PAOLI- 4 (515100) 138 kV line CKT 1, near SEMINOL4 (515044) 138 kV. a. Apply fault at the SEMINOL4 (515044) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9260-3PH	P1	3 Phase fault on PAOLI- 4 (515100) 138 kV to SEMINOL4 (515044) 138 kV line CKT 1, near PAOLI- 4 (515100) 138 kV. a. Apply fault at the PAOLI- 4 (515100) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9261-3PH	P1	3 Phase fault on PAOLI- 4 (515100) 138 kV to CHIGLEY4 (515114) 138 kV line CKT 1, near PAOLI- 4 (515100) 138 kV. a. Apply fault at the PAOLI- 4 (515100) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9262-3PH	P1	3 Phase fault on CHIGLEY4 (515114) 138 kV to PAOLI- 4 (515100) 138 kV line CKT 1, near CHIGLEY4 (515114) 138 kV. a. Apply fault at the CHIGLEY4 (515114) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9263-3PH	P1	3 Phase fault on CHIGLEY4 (515114) 138 kV to OAKLAW-4 (515123) 138 kV line CKT 1, near CHIGLEY4 (515114) 138 kV. a. Apply fault at the CHIGLEY4 (515114) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9264-3PH	P1	3 Phase fault on OAKLAW-4 (515123) 138 kV to CHIGLEY4 (515114) 138 kV line CKT 1, near OAKLAW-4 (515123) 138 kV. a. Apply fault at the OAKLAW-4 (515123) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9265-3PH	P1	3 Phase fault on CHIGLEY4 (515114) 138 kV / CHIGLEY2 (515113) 69 kV / CHIGLEY1 (515712) 13.2 kV XFMR CKT 1, near CHIGLEY4 (515114) 138 kV. a. Apply fault at the CHIGLEY4 (515114) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9266-3PH	P1	3 Phase fault on CHIGLEY2 (515113) 69 kV / CHIGLEY4 (515114) 138 kV / CHIGLEY1 (515712) 13.2 kV XFMR CKT 1, near CHIGLEY2 (515113) 69 kV. a. Apply fault at the CHIGLEY2 (515113) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9267-3PH	P1	3 Phase fault on CHIGLEY2 (515113) 69 kV to WYNWOD 2 (515105) 69 kV line CKT 1, near CHIGLEY2 (515113) 69 kV. a. Apply fault at the CHIGLEY2 (515113) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9268-3PH	P1	3 Phase fault on WYNWOD 2 (515105) 69 kV to CHIGLEY2 (515113) 69 kV line CKT 1, near WYNWOD 2 (515105) 69 kV. a. Apply fault at the WYNWOD 2 (515105) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9269-3PH	P1	3 Phase fault on CHIGLEY2 (515113) 69 kV to SUNOILT2 (515515) 69 kV line CKT 1, near CHIGLEY2 (515113) 69 kV. a. Apply fault at the CHIGLEY2 (515113) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9270-3PH	P1	3 Phase fault on SUNOILT2 (515515) 69 kV to CHIGLEY2 (515113) 69 kV line CKT 1, near SUNOILT2 (515515) 69 kV. a. Apply fault at the SUNOILT2 (515515) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9271-3PH	P1	3 Phase fault on CHIGLEY2 (515113) 69 kV to WNREF1T2 (515110) 69 kV line CKT 1, near CHIGLEY2 (515113) 69 kV. a. Apply fault at the CHIGLEY2 (515113) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9272-3PH	P1	3 Phase fault on WNREF1T2 (515110) 69 kV to CHIGLEY2 (515113) 69 kV line CKT 1, near WNREF1T2 (515110) 69 kV. a. Apply fault at the WNREF1T2 (515110) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9273-3PH	P1	3 Phase fault on PAOLI- 4 (515100) 138 kV to MAYSVIL4 (515124) 138 kV line CKT 1, near PAOLI- 4 (515100) 138 kV. a. Apply fault at the PAOLI- 4 (515100) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9274-3PH	P1	3 Phase fault on MAYSVIL4 (515124) 138 kV to PAOLI- 4 (515100) 138 kV line CKT 1, near MAYSVIL4 (515124) 138 kV. a. Apply fault at the MAYSVIL4 (515124) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9275-3PH	P1	3 Phase fault on MAYSVIL4 (515124) 138 kV to MAYSVLT4 (515570) 138 kV line CKT 1, near MAYSVIL4 (515124) 138 kV. a. Apply fault at the MAYSVIL4 (515124) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9276-3PH	P1	3 Phase fault on MAYSVLT4 (515570) 138 kV to MAYSVIL4 (515124) 138 kV line CKT 1, near MAYSVLT4 (515570) 138 kV. a. Apply fault at the MAYSVLT4 (515570) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9277-3PH	P1	3 Phase fault on PAOLI- 4 (515100) 138 kV to WLNUTCK4 (515097) 138 kV line CKT 1, near PAOLI- 4 (515100) 138 kV. a. Apply fault at the PAOLI- 4 (515100) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9278-3PH	P1	3 Phase fault on WLNUTCK4 (515097) 138 kV to PAOLI- 4 (515100) 138 kV line CKT 1, near WLNUTCK4 (515097) 138 kV. a. Apply fault at the WLNUTCK4 (515097) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9279-3PH	P1	3 Phase fault on WLNUTCK4 (515097) 138 kV to PURCELL4 (515475) 138 kV line CKT 1, near WLNUTCK4 (515097) 138 kV. a. Apply fault at the WLNUTCK4 (515097) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9280-3PH	P1	3 Phase fault on PURCELL4 (515475) 138 kV to WLNUTCK4 (515097) 138 kV line CKT 1, near PURCELL4 (515475) 138 kV. a. Apply fault at the PURCELL4 (515475) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9281-3PH	P1	3 Phase fault on PAOLI- 4 (515100) 138 kV / PALIOGE2 (515099) 69 kV / PAOLI 1 (515746) 13.2 kV XFMR CKT 1, near PAOLI- 4 (515100) 138 kV. a. Apply fault at the PAOLI- 4 (515100) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9282-3PH	P1	3 Phase fault on PALIOGE2 (515099) 69 kV / PAOLI- 4 (515100) 138 kV / PAOLI 1 (515746) 13.2 kV XFMR CKT 1, near PALIOGE2 (515099) 69 kV. a. Apply fault at the PALIOGE2 (515099) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted transformer.
FLT9283-3PH	P1	3 Phase fault on PALIOGE2 (515099) 69 kV to PAULSVL2 (515101) 69 kV line CKT 1, near PALIOGE2 (515099) 69 kV. a. Apply fault at the PALIOGE2 (515099) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9284-3PH	P1	3 Phase fault on PAULSVL2 (515101) 69 kV to PALIOGE2 (515099) 69 kV line CKT 1, near PAULSVL2 (515101) 69 kV. a. Apply fault at the PAULSVL2 (515101) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9285-3PH	P1	3 Phase fault on PAULSVL2 (515101) 69 kV to AMOCOT 2 (515098) 69 kV line CKT 1, near PAULSVL2 (515101) 69 kV. a. Apply fault at the PAULSVL2 (515101) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9286-3PH	P1	3 Phase fault on AMOCOT 2 (515098) 69 kV to PAULSVL2 (515101) 69 kV line CKT 1, near AMOCOT 2 (515098) 69 kV. a. Apply fault at the AMOCOT 2 (515098) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9287-3PH	P1	3 Phase fault on PALIOGE2 (515099) 69 kV to ROSEDAL2 (515004) 69 kV line CKT 1, near PALIOGE2 (515099) 69 kV. a. Apply fault at the PALIOGE2 (515099) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9288-3PH	P1	3 Phase fault on ROSEDAL2 (515004) 69 kV to PALIOGE2 (515099) 69 kV line CKT 1, near ROSEDAL2 (515004) 69 kV. a. Apply fault at the ROSEDAL2 (515004) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9289-3PH	P1	3 Phase fault on ROSEDAL2 (515004) 69 kV to SPRHILT2 (515005) 69 kV line CKT 1, near ROSEDAL2 (515004) 69 kV. a. Apply fault at the ROSEDAL2 (515004) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9290-3PH	P1	3 Phase fault on SPRHILT2 (515005) 69 kV to ROSEDAL2 (515004) 69 kV line CKT 1, near SPRHILT2 (515005) 69 kV. a. Apply fault at the SPRHILT2 (515005) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9291-3PH	P1	3 Phase fault on SEMINOL4 (515044) 138 kV to G25-SR13GSU1 (925133) 345 kV line CKT 1, near SEMINOL4 (515044) 138 kV. a. Apply fault at the SEMINOL4 (515044) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. Trip generator(s) on the Bus G25-SR13GEN1 (925131) and G25-SR13GEN2 (925132) 18 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9292-3PH	P1	3 Phase fault on G25-SR10GSU1 (925133) 138 kV to SEMINOL4 (515044) 138 line CKT 1, near G25-SR13GSU1 (925133) 345 kV. a. Apply fault at the G25-SR13GSU1 (925133) 138 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. Trip generator(s) on the Bus G25-SR13GEN1 (925131) and G25-SR13GEN2 (925132) 18 kV c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9293-3PH	P1	3 Phase fault on VALIANT2 (510910) 69 kV to WCITYTP2 (510870) 69 kV line CKT 1, near VALIANT2 (510910) 69 kV. a. Apply fault at the VALIANT2 (510910) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9294-3PH	P1	3 Phase fault on VALIANT2 (510910) 69 kV to KIPUMPT2 (510876) 69 kV line CKT 1, near VALIANT2 (510910) 69 kV. a. Apply fault at the VALIANT2 (510910) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

Table 5-2 Continued

Fault ID	Planning Event	Fault Descriptions
FLT9295-3PH	P1	3 Phase fault on PARKLN 2 (515177) 69 kV to BYNGSPA2 (515179) 69 kV line CKT 1, near PARKLN 2 (515177) 69 kV. a. Apply fault at the PARKLN 2 (515177) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9296-3PH	P1	3 Phase fault on BYNGSPA2 (515179) 69 kV to PARKLN 2 (515177) 69 kV line CKT 1, near BYNGSPA2 (515179) 69 kV. a. Apply fault at the BYNGSPA2 (515179) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.
FLT9297-3PH	P1	3 Phase fault on BYNGSPA2 (515179) 69 kV to SASAKWT2 (515094) 69 kV line CKT 1, near BYNGSPA2 (515179) 69 kV. a. Apply fault at the BYNGSPA2 (515179) 69 kV Bus. b. Clear fault after 7 cycles by tripping the faulted line. c. Wait 20 cycles, and then re-close the line in (b) back into the fault. d. Leave Fault on for 7 cycles, then trip the line in (b) and remove fault.

5.3 Scenario 1 Results

Table 5-3 shows the relevant results of the fault events simulated for each of the modified models in Scenario 1. Existing DISIS base case issues are documented separately in Appendix C. The associated stability plots are also provided in Appendix C.

Table 5-3: Scenario 1 Dynamic Stability Results (EGF = 0 MW, SGF = 130.5204 MW)

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT1000-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1001-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1002-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1003-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1004-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1005-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1006-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1007-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1008-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1009-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1010-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1011-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1012-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1013-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1014-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1015-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1016-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1017-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1018-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1019-SB	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT1020-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1021-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1022-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1023-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1024-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1025-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1026-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1027-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1028-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1029-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1030-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1031-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1032-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1033-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1034-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1035-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1036-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1037-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1038-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1039-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1040-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1041-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1042-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1043-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1044-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1045-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1046-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT9000-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9001-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9002-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9003-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9004-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9005-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9006-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9007-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9008-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9009-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9010-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9011-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9012-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9013-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9014-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9015-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9016-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9017-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9018-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9019-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9020-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9021-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9022-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9023-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9024-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9025-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9026-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9027-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9028-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9029-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9030-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9031-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9032-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9033-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9034-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9035-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9036-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9037-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9038-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9039-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9040-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9041-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9042-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9043-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9044-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9045-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9046-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9047-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9048-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9049-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9050-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9051-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9052-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9053-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9054-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9055-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9056-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9057-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9058-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9059-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9060-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9061-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9062-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9063-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9064-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9065-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9066-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9067-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9068-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9069-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9070-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9071-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9072-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9073-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9074-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9075-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9076-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9077-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9078-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9079-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9080-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9081-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9082-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9083-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9084-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9085-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9086-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9087-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9088-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9089-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9090-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9091-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9092-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9093-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9094-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9095-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9096-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9097-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9098-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9099-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9100-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9101-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9102-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9103-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9104-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9105-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9106-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9107-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9108-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9109-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9110-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9111-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9112-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9113-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9114-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9115-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9116-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9117-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9118-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9119-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9120-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9121-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9122-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9123-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9124-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9125-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9126-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9127-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9128-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9129-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9130-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9131-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9132-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9133-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9134-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9135-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9136-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9137-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9138-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9139-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9140-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9141-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9142-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9143-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9144-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9145-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9146-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9147-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9148-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9149-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9150-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9151-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9152-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9153-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9154-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9155-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9156-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9157-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9158-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9159-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9160-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9161-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9162-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9163-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9164-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9165-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9166-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9167-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9168-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9169-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9170-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9171-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9172-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9173-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9174-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9175-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9176-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9177-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9178-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9179-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9180-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9181-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9182-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9183-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9184-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9185-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9186-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9187-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9188-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9189-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9190-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9191-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9192-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9193-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9194-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9195-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9196-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9197-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9198-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9199-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9200-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9201-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9202-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9203-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9204-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9205-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9206-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9207-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9208-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9209-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9210-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9211-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9212-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9213-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9214-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9215-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9216-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9217-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9218-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9219-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9220-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9221-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9222-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9223-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9224-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9225-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9226-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9227-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9228-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9229-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9230-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9231-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9232-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9233-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9234-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9235-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9236-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9237-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9238-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9239-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9240-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9241-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9242-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9243-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9244-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9245-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9246-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9247-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9248-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9249-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9250-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9251-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9252-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9253-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9254-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9255-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9256-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9257-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9258-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9259-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9260-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9261-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9262-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9263-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9264-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9265-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9266-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9267-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9268-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-3 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9269-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9270-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9271-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9272-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9273-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9274-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9275-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9276-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9277-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9278-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9279-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9280-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9281-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9282-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9283-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9284-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9285-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9286-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9287-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9288-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9289-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9290-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9291-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9292-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9293-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9294-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9295-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9296-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9297-3PH	Pass	Pass	Stable	Pass	Pass	Stable

The results of the Scenario 1 dynamic stability showed several existing base case issues that were found in both the original DISIS-2022-001-1 model and the model with GEN-2025-SR13 included. These issues were not attributed to the GEN-2025-SR13 surplus request and detailed in Appendix C.

There were no damping or voltage recovery violations attributed to the GEN-2025-SR13 surplus request observed during the simulated faults.

5.4 Scenario 2 Results

Table 5-4 shows the relevant results of the fault events simulated for each of the modified models in Scenario 2. Existing DISIS base case issues are documented separately in Appendix C. The associated stability plots are also provided in Appendix C.

Table 5-4: Scenario 2 Dynamic Stability Results (EGF = 500 MW, SGF = 130.5204 MW)

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT1000-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1001-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1002-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1003-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1004-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1005-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1006-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1007-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1008-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1009-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1010-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1011-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1012-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1013-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1014-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1015-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1016-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1017-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1018-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1019-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1020-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1021-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1022-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1023-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1024-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1025-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1026-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1027-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1028-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1029-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1030-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1031-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1032-SB	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT1033-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1034-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1035-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1036-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1037-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1038-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1039-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1040-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1041-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1042-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1043-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1044-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1045-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT1046-SB	Pass	Pass	Stable	Pass	Pass	Stable
FLT9000-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9001-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9002-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9003-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9004-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9005-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9006-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9007-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9008-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9009-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9010-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9011-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9012-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9013-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9014-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9015-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9016-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9017-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9018-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9019-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9020-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9021-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9022-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9023-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9024-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9025-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9026-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9027-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9028-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9029-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9030-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9031-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9032-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9033-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9034-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9035-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9036-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9037-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9038-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9039-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9040-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9041-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9042-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9043-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9044-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9045-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9046-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9047-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9048-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9049-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9050-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9051-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9052-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9053-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9054-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9055-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9056-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9057-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9058-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9059-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9060-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9061-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9062-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9063-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9064-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9065-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9066-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9067-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9068-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9069-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9070-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9071-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9072-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9073-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9074-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9075-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9076-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9077-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9078-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9079-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9080-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9081-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9082-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9083-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9084-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9085-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9086-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9087-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9088-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9089-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9090-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9091-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9092-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9093-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9094-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9095-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9096-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9097-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9098-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9099-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9100-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9101-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9102-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9103-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9104-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9105-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9106-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9107-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9108-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9109-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9110-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9111-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9112-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9113-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9114-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9115-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9116-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9117-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9118-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9119-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9120-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9121-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9122-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9123-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9124-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9125-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9126-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9127-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9128-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9129-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9130-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9131-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9132-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9133-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9134-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9135-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9136-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9137-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9138-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9139-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9140-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9141-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9142-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9143-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9144-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9145-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9146-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9147-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9148-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9149-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9150-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9151-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9152-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9153-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9154-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9155-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9156-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9157-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9158-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9159-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9160-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9161-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9162-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9163-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9164-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9165-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9166-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9167-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9168-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9169-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9170-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9171-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9172-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9173-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9174-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9175-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9176-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9177-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9178-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9179-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9180-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9181-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9182-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9183-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9184-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9185-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9186-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9187-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9188-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9189-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9190-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9191-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9192-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9193-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9194-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9195-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9196-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9197-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9198-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9199-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9200-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9201-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9202-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9203-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9204-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9205-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9206-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9207-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9208-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9209-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9210-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9211-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9212-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9213-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9214-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9215-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9216-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9217-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9218-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9219-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9220-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9221-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9222-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9223-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9224-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9225-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9226-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9227-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9228-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9229-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9230-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9231-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9232-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9233-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9234-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9235-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9236-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9237-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9238-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9239-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9240-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9241-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9242-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9243-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9244-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9245-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9246-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9247-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9248-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9249-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9250-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9251-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9252-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9253-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9254-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9255-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9256-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9257-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9258-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9259-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9260-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9261-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9262-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9263-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9264-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9265-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9266-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9267-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9268-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9269-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9270-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9271-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9272-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9273-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9274-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9275-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9276-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9277-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9278-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9279-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9280-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9281-3PH	Pass	Pass	Stable	Pass	Pass	Stable

Table 5-4 continued

Fault ID	25SP			25WP		
	Voltage Violation	Voltage Recovery	Stable	Voltage Violation	Voltage Recovery	Stable
FLT9282-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9283-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9284-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9285-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9286-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9287-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9288-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9289-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9290-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9291-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9292-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9293-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9294-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9295-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9296-3PH	Pass	Pass	Stable	Pass	Pass	Stable
FLT9297-3PH	Pass	Pass	Stable	Pass	Pass	Stable

The results of the Scenario 2 dynamic stability showed several existing base case issues that were found in both the original DISIS-2022-001-1 model and the model with GEN-2025-SR13 included. These issues were not attributed to the GEN-2025-SR13 surplus request and detailed in Appendix C.

There were no damping or voltage recovery violations attributed to the GEN-2025-SR13 surplus request observed during the simulated faults.

6.0 Necessary Interconnection Facilities and Network Upgrades

This study identified the impact of the Surplus Interconnection Service on the transmission system reliability and any additional Interconnection Facilities or Network Upgrades necessary. The Surplus Interconnection Service is only available up to the amount that can be accommodated without requiring additional Network Upgrades unless (a) those additional Network Upgrades are either (1) located at the Point of Interconnection substation and at the same voltage level as the Generating Facility with an effective GIA, or (2) are System Protection Facilities; and (b) there are no material adverse impacts on the cost or timing of any Interconnection Requests pending at the time the Surplus Interconnection Service request is submitted.

6.1 Interconnection Facilities

This study did not identify any additional Interconnection Facilities required by the addition of the SGF.

6.2 Network Upgrades

This study did not identify any Network Upgrades required by the addition of the SGF. SPP will reach out to the TO and/or TOP to determine if there are any additional Network Upgrades that are either (1) located at the Point of Interconnection substation and at the same voltage level as the Generating Facility with an effective GIA, or (2) are System Protection Facilities.

7.0 Surplus Interconnection Service Determination and Requirements

In accordance with Attachment V of the SPP Tariff, SPP shall evaluate the request for Surplus Interconnection Service and inform the Interconnection Customer in writing of whether the Surplus Interconnection Service can be utilized without negatively impacting the reliability of the Transmission System and without any additional Network Upgrades necessary except those specified in the SPP Tariff.

7.1 Surplus Service Determination

SPP determined the request for Surplus Interconnection Service does not negatively impact the reliability of the Transmission System and no required Network Upgrades or Interconnection Facilities were identified by this Surplus Interconnection Service Impact Study performed by Aneden. Aneden evaluated the impact of the requested Surplus Interconnection Service on the prior study results and determined that the requested Surplus Interconnection Service resulted in similar dynamic stability and short circuit analyses and that the prior study steady-state results are not negatively impacted.

SPP has determined that GEN-2025-SR13 may utilize the requested 125 MW of Surplus Interconnection Service being made available by Seminole 138 kV Unit.

7.2 Surplus Service Requirements

The amount of Surplus Interconnection Service available to be used is limited by the amount of Interconnection Service granted to the existing interconnection customer at the same POI. The combined generation from both the SGF and the EGF may not exceed 630 MW at the POI, which is the total Interconnection Service amount currently granted to the EGF.

The customer must install monitoring and control equipment as needed to ensure that the SGF does not exceed the granted surplus amount and to ensure that combination of the SGF and EGF power injected at the POI does not exceed the Interconnection Service amount determined by the legacy EGF's nameplate POI capacity. The monitoring and control scheme may be reviewed by the TO and documented in Appendix C of the SGF GIA.

SPP will reach out to the TO and/or TOP to determine if there are any additional Network Upgrades that are either (1) located at the Point of Interconnection substation and at the same voltage level as the Generating Facility with an effective GIA, or (2) are System Protection Facilities.