Engineering Connection Assessment

P2467 Peace Butte Wind Power Project Connection

Pteragen Canada Inc.

Date: March 26, 2025

Version: **V1**

Classification: Public

Role	Name	Date	Signature
Prepared	Nima Safari, P.Eng.		Nima Safari -- P. Eng. - APEGA Digitally signed by Nima Safari -- P. Eng. - APEGA Date: 2025.03.26 09:42:50 -06'00'
Reviewed	Myron Jin-Li, P.Eng.		Myron Jin-Li -- P. Eng. - APEGA Digitally signed by Myron Jin-Li -- P. Eng. - APEGA Date: 2025.03.26 10:07:16 -06'00'
Approved	Peyman Ahmadi, P.Eng.		Peyman Ahmadi -- P. Eng. - APEGA Digitally signed by Peyman Ahmadi -- P. Eng. - APEGA Date: 2025.03.26 11:34:40 -06'00'

PROFESSIONAL ENGINEER ALBERTA
NIMA SAFARI
ID 289389
2025-03-26

PERMIT TO PRACTICE
INDEPENDENT SYSTEM OPERATOR
RM SIGNATURE:
RM APEGA ID #: 196963
DATE: 2025-02-26
PERMIT NUMBER: P008200
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

NOTE:

The conclusions and recommendations in this report are based on the results presented in *Attachment B: Engineering Connection Assessment: Study Results*, which was prepared by a third party consultant in accordance with the AESO Connection Process.

The AESO has reviewed the *Engineering Connection Assessment: Study Results*, and finds it acceptable for the purpose of assessing the potential impacts of the proposed connection on the performance of the Alberta interconnected electric system.

Contents

1 Introduction 1
1.1 Project Overview 1
2 Assessment Scope 2
2.1 Objectives 2
2.2 Existing System 2
2.3 Study Area 2
3 Connection Alternatives 3
3.1 Overview 3
3.2 Connection Alternatives Examined 3
3.3 Connection Alternatives Selected for Further Study 17
3.4 Connection Alternatives Not Selected for Further Study 17
4 Assessment Approach 18
4.1 Standards, Criteria and Assumptions 18
4.2 Studies Performed 18
4.2.1 Power Flow Studies 19
4.2.2 Transient Stability Studies 19
4.2.3 Short-Circuit Current Level Studies 19
4.3 Mitigation Measure Development and Evaluation 19
4.3.1 Post-Mitigation Studies 19
4.3.2 Constraint Effective Factor Studies 19
5 Interpretation of Results 20
5.1 Results Overview 20
5.2 Pre-Project Study Results 22
5.2.1 Category A Conditions 22
5.2.2 Category B Conditions 22
5.3 Post-Project Study Results 22
5.3.1 Category A Conditions 22
5.3.2 Category B Conditions 23
5.4 Mitigation Measures 23
5.4.1 Pre-Project 23
5.4.2 Post-Project 24
5.4.3 Post-Project Mitigation Study Results 24
6 Project Dependencies 25
7 Conclusions and Recommendations 26

Tables

Table 4-1: Connection Study Scenarios 18
Table 5-1: Summary of Reliability Criteria Violations Under Category A, Project Impact and Mitigation Measures- All Scenarios 21
As shown in 22
Table 5-2: Thermal Criteria Violations under the N-0 Condition in the Post-Project Scenario 23

Figures

Figure 3-1: Connection Alternative 1 4
Figure 3-2: Connection Alternative 2 6
Figure 3-3: Connection Alternative 3 8
Figure 3-4: Connection Alternative 4 10
Figure 3-5: Connection Alternative 5 12
Figure 3-6: Connection Alternative 6 14
Figure 3-7: Connection Alternative 7 16

Attachments

Attachment A: Table A-1: Summary of Category B Reliability Criteria Violations, Project Impact, and Mitigation Measures-All Scenarios
Attachment B: Engineering Connection Assessment Results

1 Introduction

This AESO Engineering Connection Assessment describes the engineering studies that were completed to assess the impact of the Project (as defined below) on the performance of the Alberta interconnected electric system (AIES). This report also provides the AESO's conclusions and recommendations based on the results of the engineering studies.

Attached to this Engineering Connection Assessment are the results of the engineering studies (see Attachment B) and the scope and methodology used to perform the studies (see Attachment B1 to Attachment B). These attachments provide details regarding the technical criteria, assumptions, and methods for performing these engineering studies, and the results of the engineering studies.

1.1 Project Overview

Pteragen Canada Inc. (Market Participant) has submitted a request for system access service to the Alberta Electric System Operator (AESO) to connect its approved Peace Butte Wind Power Plant (Facility) [1] to the AIES. The Facility includes an approved collector substation, designated as the Tothill 219S substation.

The Market Participant's request includes a Rate STS, *Supply Transmission Service*, contract capacity of 120 MW and a Rate DTS, *Demand Transmission Service*, contract capacity of 2 MW; and a request for transmission development (collectively, the Project).

The scheduled in-service date (ISD) for the Project is November 2, 2026.

[1] Power Plant Approval 26787-D02-2021, Pteragen Canada Inc. Peace Butte Wind Power Plant, Substation Permit and Licence 26787-D03-2021, Pteragen Canada Inc. New Tothill 219S Substation.

2 Assessment Scope

2.1 Objectives

The objectives of the AESO Engineering Connection Assessment are as follows:

- Assess the impact of the Project on the performance of the AIES.
- Evaluate Project connection alternatives and identify the AESO's preferred alternative.
- Recommend mitigation measures, if required, to reliably connect the Project to the AIES.
- Identify Project dependencies, including any TFO projects or AESO plans to expand or enhance the transmission system that must be completed prior to connection.

2.2 Existing System

Geographically, the Project is located in the AESO planning area Medicine Hat (Area 4), which is part of the AESO South planning region. Medicine Hat (Area 4) is surrounded by the planning areas of Vauxhall (Area 52), and Empress (Area 48).

From a transmission system perspective, Medicine Hat (Area 4) consists primarily of a 240 kV and 138 kV transmission system. Medicine Hat (Area 4) is connected to the City of Medicine Hat's 69 kV transmission system through Medicine Hat 41S substation, connected to Brooks (Area 47) through the 240 kV transmission lines 1034L and 1035L, connected to Empress (Area 48) through the 138 kV transmission line 658L, and connected to Vauxhall (Area 52) mainly through the 138 kV transmission line 879L.

Existing constraints in the Medicine Hat (Area 4) planning region are managed in accordance with the procedures set out in Section 302.1 of the ISO rules, Real Time Transmission Constraint Management (TCM Rule).

2.3 Study Area

The Study Area consists of the AESO Planning areas of Medicine Hat (Area 4), Vauxhall (Area 52), and Empress (Area 48), including the tie lines connecting these planning areas to the rest of the AIES as well as 1087L, 1088L, and EATL. All transmission facilities within the Study Area will be studied and monitored for violations of the Reliability Criteria (defined in Section 3.1 of Attachment B1).

3 Connection Alternatives

3.1 Overview

The AESO, in consultation with the TFO in the Study Area and the Market Participant, examined seven transmission alternatives to meet the Market Participant's request for system access service, as detailed in Section 3.2.[2]

3.2 Connection Alternatives Examined

Below is a description of the developments associated with the transmission alternatives that were examined for the Project.

Alternative 1 – Radial 138 kV connection to the Peace Butte 404S substation

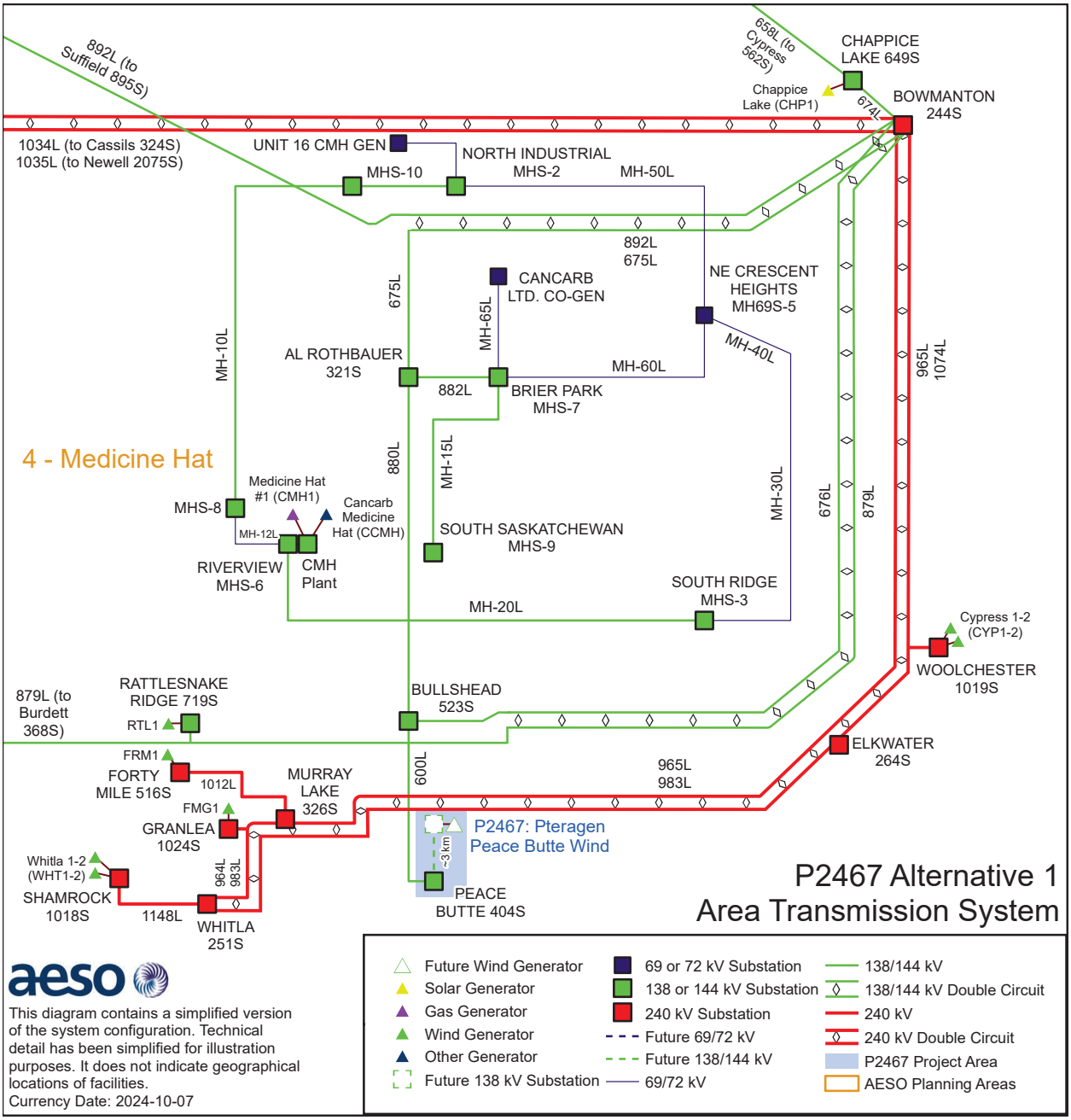
This alternative includes the following developments:

- Add one 138 kV circuit, approximately 3 kilometers in length, [3] to connect the Facility to the existing Peace Butte 404S substation using a radial configuration;
- Modify the Peace Butte 404S substation, including adding one 138 kV circuit breaker; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 3-1.

[3] Exact line length will be determined by the TFO

Figure 3-1: Connection Alternative 1



Alternative 2 – T-tap connection to the 138 kV transmission line 600L

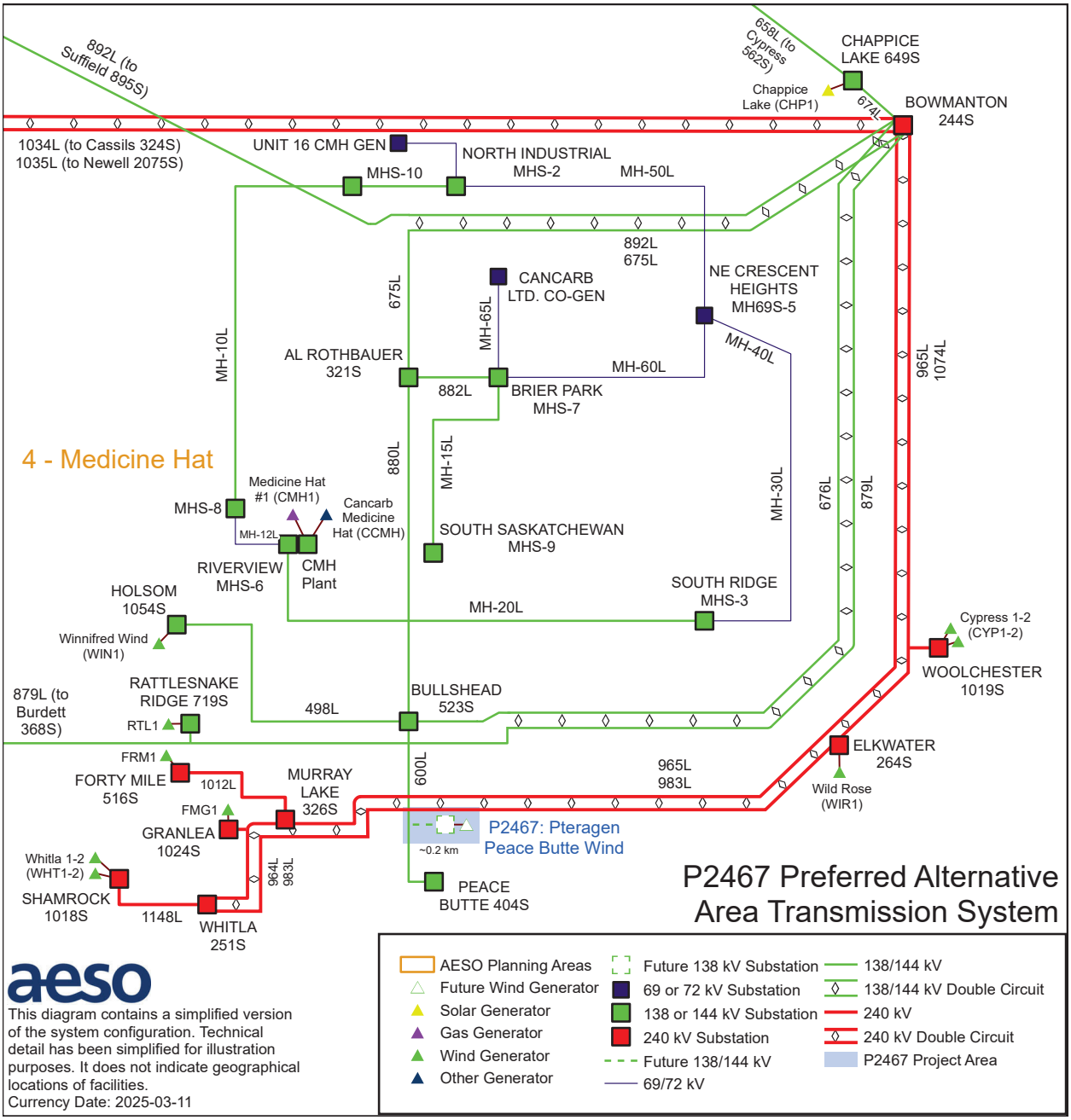
This alternative includes the following developments:

- Add one 138 kV circuit, approximately 0.2 kilometers in length, [4] to connect the Facility to the existing 138 kV transmission line 600L (between Peace Butte 404S and Bullshead 523S substations) using a T-tap connection configuration; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 3-2.

[4] Exact line length will be determined by the TFO.

Figure 3-2: Connection Alternative 2



Alternative 3 – Radial 138 kV connection to the Bullshead 523S substation

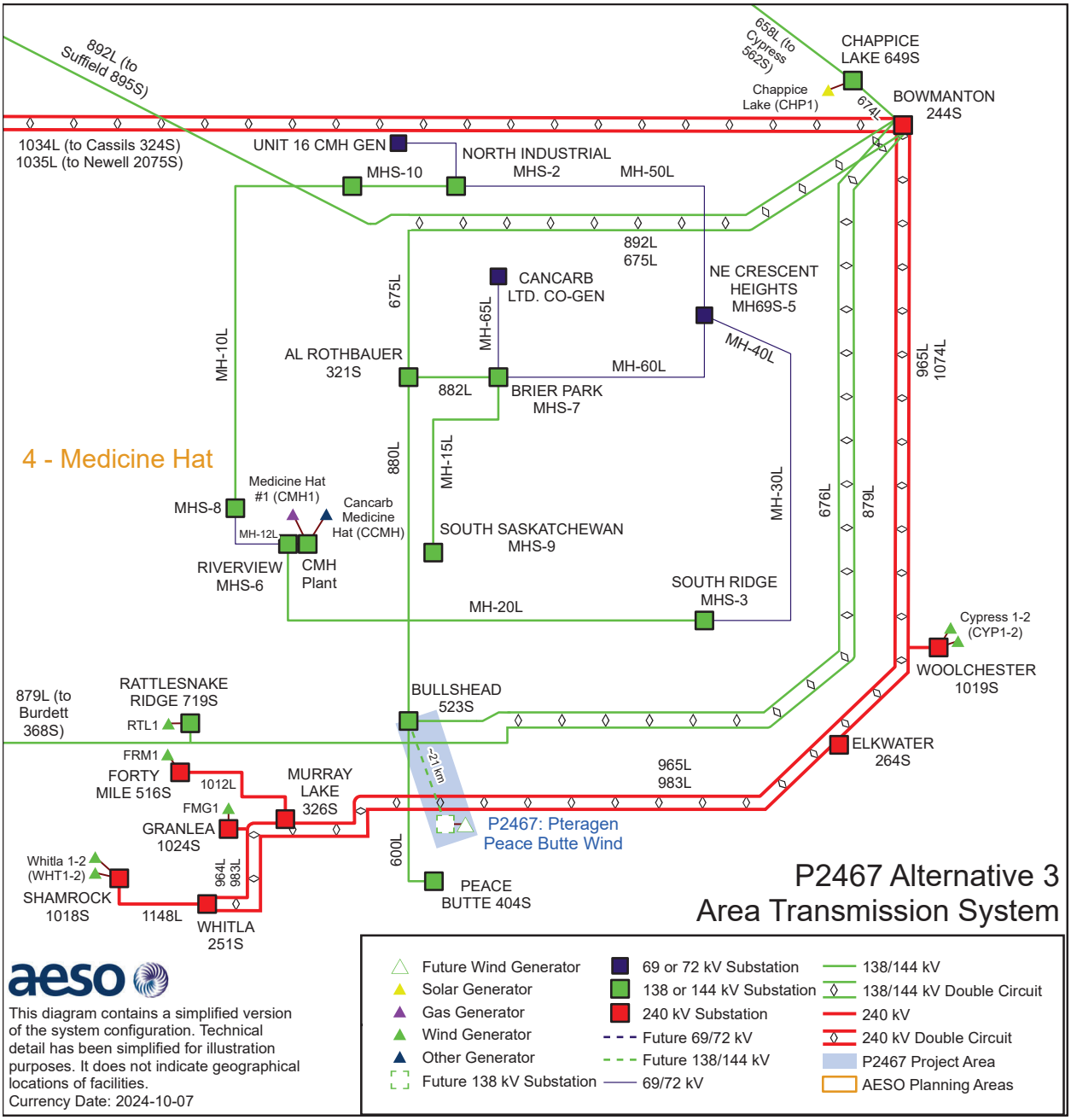
This alternative includes the following developments:

- Add one 138 kV circuit, approximately 21 kilometers in length,[5] to connect the Facility to the existing Bullshead 523S substation using a radial configuration, which would require crossing the 240 kV transmission line 983L and 964L;
- Modify the Bullshead 523S substation, including adding one 138 kV circuit breaker; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 3-3.

[5] Exact line length will be determined by the TFO.

Figure 3-3: Connection Alternative 3



Alternative 4 – T-tap connection to the 240 kV transmission line 983L

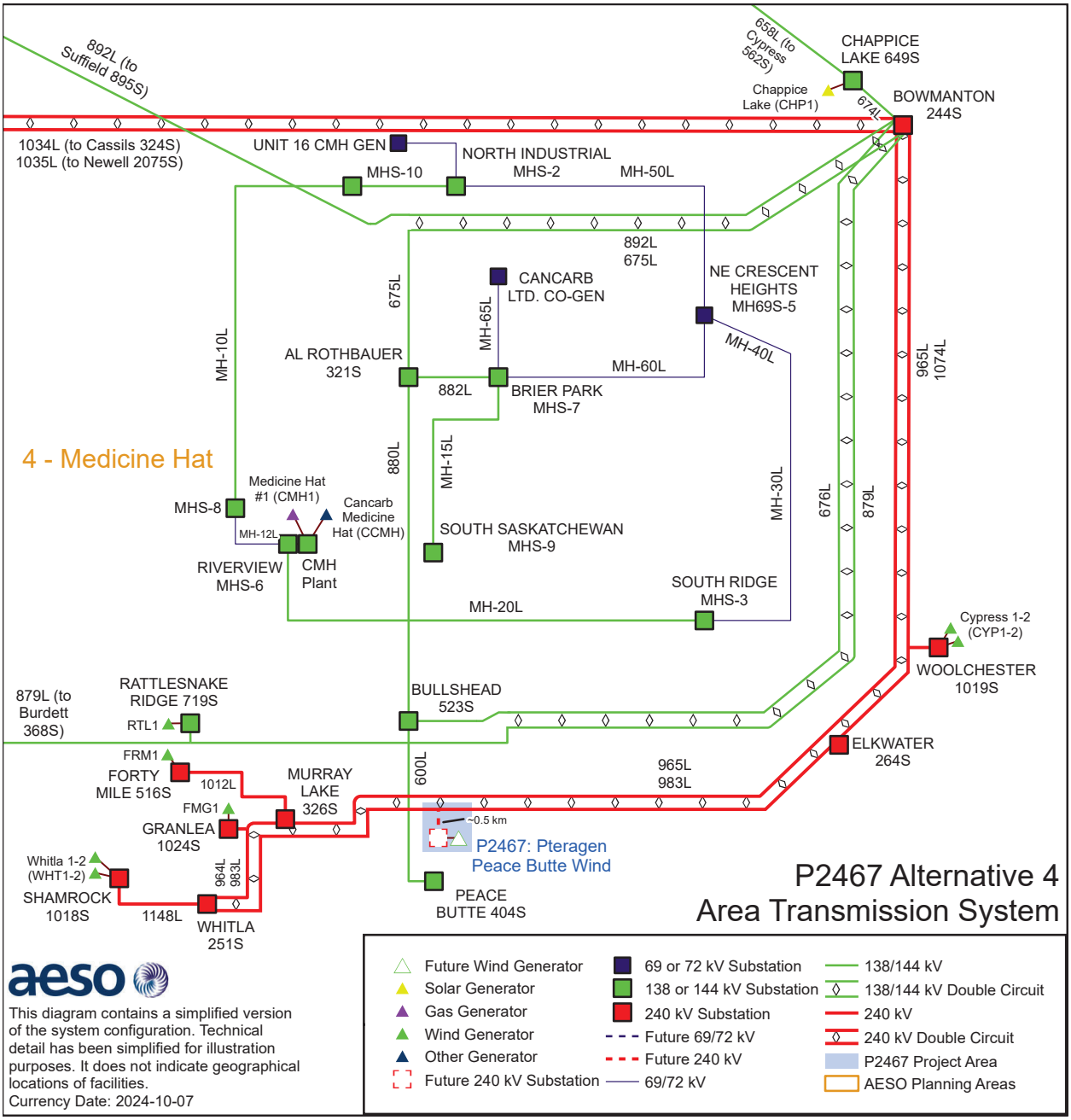
This alternative includes the following developments:

- Add one 240 kV circuit, approximately 0.5 kilometers in length, [6] to connect the Facility to the existing 138 kV transmission line 983L (between Whitla 251S and Elkwater 264S substations) using a T-tap connection configuration; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 3-4.

[6] Exact line length will be determined by the TFO.

Figure 3-4: Connection Alternative 4



Alternative 5 – In-and-out connection to the 240 kV transmission line 983L

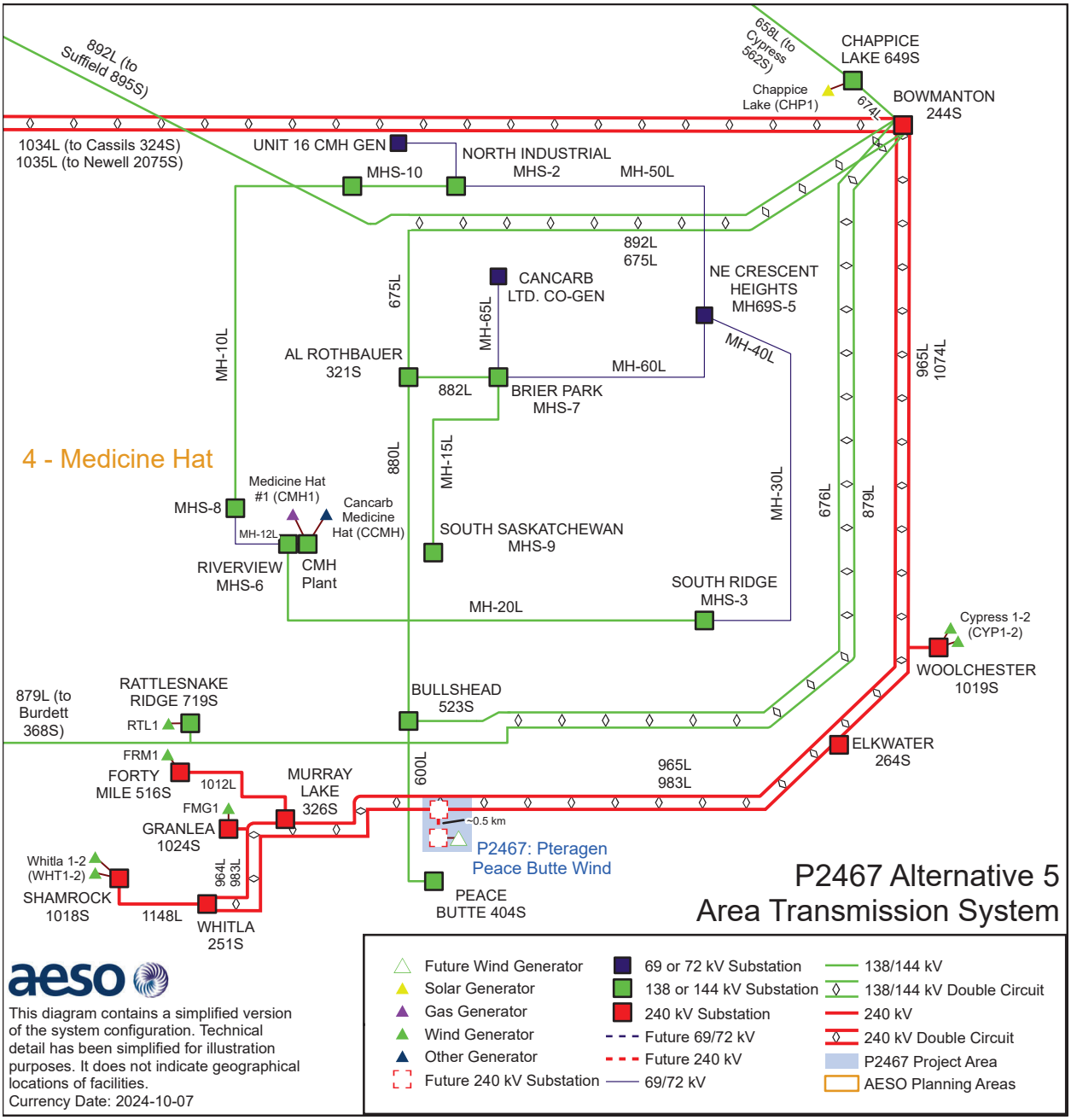
This alternative includes the following developments:

- Add a 240 kV switching substation, including three 240 kV circuit breakers, connected to the existing 240 kV transmission line 983L (between Whitla 251S and Elkwater 264S substations) using an in-and-out configuration[7];
- Add one 240 kV circuit, approximately 0.5 kilometers in length, to connect the Facility to the new switching substation; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 3-5.

[7] Exact location of the new substation and new circuit length will be determined by the TFO

Figure 3-5: Connection Alternative 5



Alternative 6 – T-tap connection to the 240 kV transmission line 965L

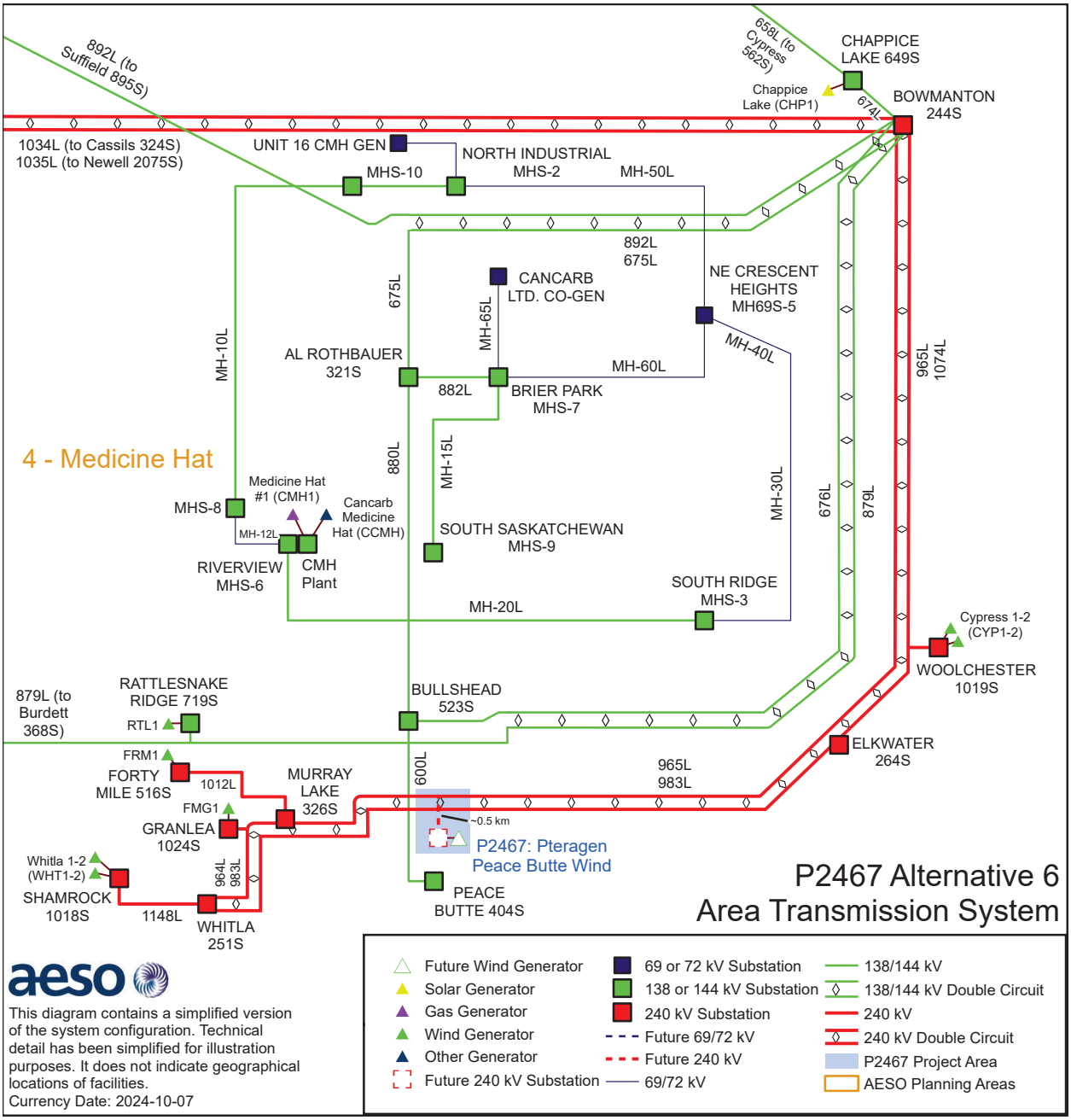
This alternative includes the following developments:

- Add one 240 kV circuit, approximately 0.5 kilometer[8] in length, to connect the Facility to the existing 240 kV transmission line 964L (between Murray Lake 326S and Bowmanton 244S substations) using a T-tap connection configuration, which would require crossing the 240 kV transmission line 983L; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 3-6.

[8] Exact line length will be determined by the TFO

Figure 3-6: Connection Alternative 6



Alternative 7 – In-and-out connection to the 240 kV transmission line 965L

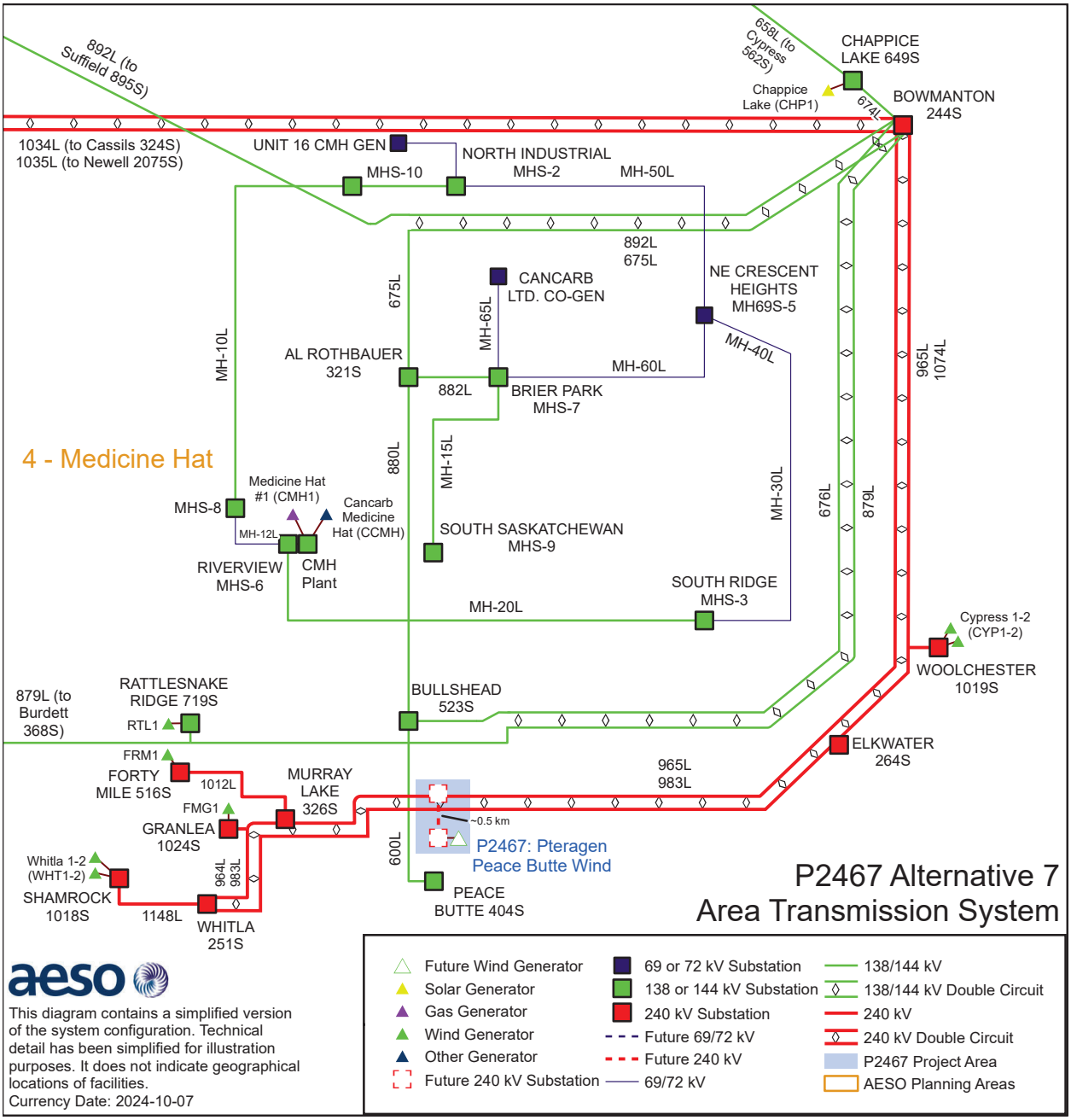
This alternative includes the following developments:

- Add a 240 kV switching substation, including three 240 kV circuit breakers, connected to the existing 240 kV transmission like 965L (between Murray Lake 326S and Bowmanton 244S substations) using an in-and-out configuration[9];
- Add one 240 kV circuit, approximately 0.5 kilometers in length, to connect the Facility to the new switching substation, which would require crossing the 240 kV transmission like 983L; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 3-7.

[9] Exact location of the new substation and new circuit length will be determined by the TFO

Figure 3-7: Connection Alternative 7



3.3 Connection Alternatives Selected for Further Study

Alternative 2 is considered technically feasible and was selected for further study.

3.4 Connection Alternatives Not Selected for Further Study

Alternatives 1, 3, 4, 5, 6 and 7 would involve increased transmission development and hence, increased cost, compared to Alternative 2. Therefore, Alternatives 1, 3, 4, 5, 6 and 7 were ruled out.

4 Assessment Approach

4.1 Standards, Criteria and Assumptions

A detailed description of the standards, criteria, and assumptions that were used for the connection assessment is provided in Attachment B (see Attachment B1).

4.2 Studies Performed

At the time of the study, the scheduled ISD for the Project was August 29, 2025. Therefore, studies were performed using scenarios for 2025 Summer Light (SL) and 2025 Summer Peak (SP). After completion of the studies, the ISD of the Project was changed from August 29, 2025 to November 2, 2026. The AESO determined that the ISD change would not have material impact on the connection alternative, the mitigation measures and the conclusions for the scenario studies conducted.

Short-circuit studies were performed using the 2025 SP pre-Project scenario, 2025 SP and 2031 Winter Peak (WP) post-Project scenarios.

Table 4-1 lists the study scenarios. Post-Project scenarios reflect the requested Rate STS contract capacity of 120 MW at the Tothill 219S substation.

Table 4-1: Connection Study Scenarios

Scenario No.	Year/Season	System Generation Dispatch Conditions	Scenario Name	Project Load (MW)	Project Generation (MW)
Pre-Project					
1	2025 Summer Light (SL)	High Wind (HW)	2025 SL HW pre-Project	0	0
2	2025 Summer Peak (SP)	High Wind (HW)	2025 SP HW pre-Project	0	0
Post-Project					
3	2025 Summer Light (SL)	High Wind (HW)	2025 SL HW post-Project	0	120
4	2025 Summer Peak (SP)	High Wind (HW)	2025 SP HW post-Project	0	120
5	2031 Winter Peak (WP)	All Study Area Generators In-Service	2031 WP post-Project	0	120

The AESO Planning Region load forecasts used for the connection studies were based on the *AESO's 2021 Long-term Outlook* (2021 LTO).

While the AESO has updated its regional forecasts since the connection studies were performed, the use of the current AESO forecast, the *2024 Long-term Outlook* (2024 LTO) would not materially alter the connection study results or affect the conclusions and recommendations in this report.

4.2.1 Power Flow Studies

The purpose of the power flow studies is to identify and quantify any thermal and voltage criteria violations in the Study Area.

In addition, power flow studies are also used to identify point of delivery (POD) low voltage bus voltage deviations beyond the limits listed in Table 3-1 of Attachment B1.[10]

Power flow studies were performed for 2025 SL and 2025 SP pre-Project scenarios, and for 2025 SL and 2025 SP post-Project scenarios.

4.2.2 Transient Stability Studies

The purpose of the transient stability studies is to assess the post-Project stability of the transmission system after three-phase to ground faults are applied on select transmission lines in the Study Area.

Transient stability studies were performed for 2025 SL and 2025 SP pre- and post-Project scenarios.

4.2.3 Short-Circuit Current Level Studies

The purpose of short-circuit current level studies is to determine the expected system short-circuit current levels in the vicinity of the Project.

Short circuit studies were performed for the 2025 SP pre-Project scenario and for 2025 SP and 2031 WP post-Project scenarios.

4.3 Mitigation Measure Development and Evaluation

As explained in Section 5 of Attachment B1, mitigation measures were developed to address system performance issues that were identified in the post-Project scenarios. Studies performed to assess the effectiveness of mitigation measures are briefly outlined below.

4.3.1 Post-Mitigation Studies

Power flow and transient stability studies were performed to assess the impact of the Project on the performance of the AIES following implementation of the AESO's proposed mitigation measures.

4.3.2 Constraint Effective Factor Studies

Constraint effective factor studies were used to determine the generator and load constraint effective factors and to identify the most effective generators or loads to manage thermal criteria violations that were observed under Category B conditions.

[10] The AESO's desired post-contingency voltage deviations for low voltage busses represent guidelines rather than criteria. A POD bus voltage deviation that exceeds the desired limits shown in Table 3-1 of Attachment B1 does not represent a Reliability Criteria violation. Mitigation measures would not be developed to specifically address POD bus voltage deviations that exceed the desired values in Table 3-1 of Attachment B1.

5 Interpretation of Results

5.1 Results Overview

This section provides an assessment of the impact of the Project on the performance of the AIES. The Reliability Criteria violations observed during the connection assessment studies for Category A and the proposed mitigation measures are summarized in

Table 5-1. Reliability Criteria violations observed during the connection assessment studies for Category B and the proposed mitigation measures are summarized in Attachment A.

- Section 5.2 includes an overview of the pre-Project studies results.
- Section 5.3 includes an overview of the post-Project studies results.
- Section 5.4 includes a description of the proposed mitigation measures to address observed Reliability Criteria violations.

Detailed study results are provided in Attachment B.

Table 5-1: Summary of Reliability Criteria Violations Under Category A, Project Impact and Mitigation Measures- All Scenarios

Scenario	Type of Reliability Criteria Violation		Details of Violation	Project Impact	Pre-Project Mitigation Measures	Post-Project Mitigation Measures
	Pre-Project	Post-Project				
2025 SL	Voltage Collapse	Voltage Collapse	Voltage Collapse at Bowmanton 244S	Materially increased	Real-Time Operation Practices (RTOP)	RTOP
	None	Thermal - above emergency rating	880L (Bullshead 523S to AL Rothbauer 321S)	New violation	RTOP	RTOP
	None	Thermal - above normal rating	Bowmanton 240/138 kV transformer T1	New violation	RTOP	RTOP
	None	Thermal - above normal rating	Bowmanton 240/138 kV transformer T2	New violation	RTOP	RTOP
2025 SP	Voltage Collapse	Voltage Collapse	Voltage Collapse at Bowmanton 244S	Materially increased	RTOP	RTOP
	None	Thermal - above emergency rating	880L (Bullshead 523S to AL Rothbauer 321S)	New violation	None	RTOP
	None	Thermal - above normal rating	Bowmanton 240/138 kV transformer T1	New violation	None	None
	None	Thermal - above normal rating	Bowmanton 240/138 kV transformer T2	New violation	None	None
	Thermal - above normal rating	Thermal - above normal rating	924L (Milo 356S to Langdon 102S)	Materially increased	RTOP	RTOP
	None	Thermal - above normal rating	927L (Milo 356S to Langdon 102S)	New violation	None	RTOP

Notes:

- Materially increased (or materially decreased) refers to a percent loading difference (post-Project percent loading minus pre-Project percent loading) above or equal to 3% (or below or equal to -3%).

5.2 Pre-Project Study Results

5.2.1 Category A Conditions

As shown in

Table 5-1, with the inclusion of the additional projects planning to connect in South region, pre-Project power flow identified a thermal reliability criteria violation under the Category A condition (i.e., all elements in service) on the 240 kV transmission line 924L.

A voltage collapse issue was found at the 240 kV Bowmanton 244S substation under the Category A condition (i.e., all elements in service) for the pre-Project scenarios (both 2025 SL and 2025 SP). To mitigate the observed criteria violation, the total renewable generation connecting to the Cassils-Bowmanton-Whitla (CBW) transmission path were reduced to 946 MW for the pre-Project scenarios.

The short-circuit fault levels were found to be within the typical capabilities of the nearby facilities.

5.2.2 Category B Conditions

The pre-Project power flow studies and transient studies identified a number of thermal and transient stability criteria violations under Category B conditions (i.e., loss of a single system element); see Attachment A for details.

No reliability criteria violations or voltage deviations were observed that were beyond the limits listed in Table 3-1 of Attachment B1 (hereafter referred to as POD bus voltage deviations) under Category B conditions.

5.3 Post-Project Study Results

5.3.1 Category A Conditions

Following the connection of the Project, power flow studies identified a number of thermal criteria violations under the Category A condition. The Category A thermal violation on the 240 kV transmission line 924L observed in the pre-Project scenarios was exacerbated, and new thermal criteria violations were observed on the 240 kV transmission line 927L, 138 kV transmission line 880L, and 240/138 kV Bowmanton 244S T1 and T2 transformers.

A summary of thermal criteria violations observed under N-0 system conditions is shown in Table 5-2.

A voltage collapse issue was found at the 240 kV Bowmanton 244S substation under the Category A conditions (i.e., all elements in service) for the post-Project scenarios. To mitigate the observed criteria violation, the total renewable generation connecting to the CBW transmission path were reduced to 1066 MW for the post-Project scenarios.

Post-Project short-circuit fault levels were not significantly higher than pre-Project levels. The long-term short circuit levels were found to be within the designed capabilities of the nearby facilities.

Table 5-2: Thermal Criteria Violations under the N-0 Condition in the Post-Project Scenario

Scenario	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results		Post-Project Results		% Loading Difference (Post-Pre)
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading	
2025 SL	880L (Bullshead 523S to Al Rothbauer 321S)	121	133	111.9	92.5%	171.3	141.6%	49.1%
	Bowmanton 240/138 kV transformer T1	200	200	171.6	85.8%	232.4	116.2%	30.4%
	Bowmanton 240/138 kV transformer T2	200	200	171.6	85.8%	232.4	116.2%	30.4%
2025 SP	880L (Bullshead 523S to Al Rothbauer 321S)	121	133	103.2	85.3%	164.8	136.1%	50.8%
	Bowmanton 240/138 kV transformer T1	200	200	165.6	82.8%	223.8	111.9%	29.1%
	Bowmanton 240/138 kV transformer T2	200	200	165.6	82.8%	223.8	111.9%	29.1%
	924L (Milo 356S - Langdon 102S)	547	656	557.4	101.9%	587.5	107.4%	5.5%
	927L (Milo 356S - Langdon 102S)	576	691	559.3	97.1%	589.8	102.4%	5.5%

5.3.2 Category B Conditions

Post-Project power flow studies and transient stability studies identified a number of system performance issues under Category B conditions, namely: thermal criteria violations, voltage criteria violations (voltage collapse), and transient stability criteria violations.

Following the connection of the Project, most thermal criteria violations observed in the pre-Project scenarios were exacerbated, and new thermal, transient stability, and voltage criteria violations were observed. Additionally, pre-Project transient stability criteria violations persisted in post-project studies.

Voltage collapse issues were identified at the Bowmanton 244S substation under some Category B conditions (i.e., all elements in service) for the post-Project scenarios (both 2025 SL and 2025 SP).

No voltage deviations were observed that were beyond the limits listed in Table 3-1 of Attachment B1 (hereafter referred to as POD bus voltage deviations) under Category B conditions.

5.4 Mitigation Measures

This section discusses the AESO's proposed mitigation measures to address the system performance issues that were identified in the pre-Project and post-Project scenarios. No POD bus voltage deviations were observed under Category B conditions.

5.4.1 Pre-Project

The Category A thermal and voltage criteria violations observed in pre-Project scenarios can be managed by applying Section 302.1 of the ISO rules, *Real-Time Transmission Constraint Management* (TCM Rule)

to curtail generation until such a time that system developments are in place to alleviate congestion. If necessary, the AESO will file an application for an “exception” under Section 15(2) of the *Transmission Regulation*.

Prior to the connection of the Project, some of the observed thermal criteria and transient stability violations under Category B conditions can be managed by using RTOPs alone. The remaining thermal criteria violations can be mitigated by RASs 197, 180, 175, 176, 164, and RTOPs, alone or in combination, as appropriate.

5.4.2 Post-Project

The Category A thermal and voltage criteria violations observed in post-Project scenarios can be managed by applying the TCM Rule to curtail generation until such a time that system developments are in place to alleviate congestion. If necessary, the AESO will file an application for an “exception” under Section 15(2) of the *Transmission Regulation*.

The recently energized Bowmanton 244S Substation Voltage Support Project is expected to enhance the system reliability in the CBW area and reduce the risk of voltage collapse and transient stability concerns under Category A and B system conditions. In the longer term, the AESO is developing system plans to alleviate existing and future voltage and thermal criteria violations in the Southeast planning region.[11]

After connection of the Project, some of the Reliability Criteria violations observed under Category B conditions can be mitigated using RTOPs and existing RASs 180 and 175, planned RAS 197 alone or in combination, as appropriate. The remaining thermal criteria violations can be mitigated by modifying existing RAS 173, 176, and 164 by including the Project in the RAS logic.

The total amount of generation tied to RAS 164 exceeds the Most Severe Single Contingency (MSSC) limit of 466 MW. Pre-contingency generation curtailment under normal conditions may be required using RTOPs to prevent generation curtailment by RAS action above the MSSC limit. The probability of pre-curtailment being required would be dependent on generation profiles and operating conditions.

5.4.3 Post-Project Mitigation Study Results

Under Category B conditions, all of the observed Reliability Criteria violations requiring RAS were mitigated.

[11] *AESO 2025 Long-Term Transmission Plan*, January 2025.

6 Project Dependencies

The Project does not require the completion of any other AESO plans to expand or enhance the transmission system prior to connection.

7 Conclusions and Recommendations

Based on the study results, Alternative 2 is technically viable. The connection assessment identified several pre-Project and post-Project system performance issues.

The connection assessment uses credible worst-case conditions to assess the impact of the Facility connecting on the AIES. Category A thermal and voltage reliability criteria violations were observed under these credible worst-case load and generation forecast conditions. The probability of Category A thermal and voltage reliability criteria violations materializing is highly dependent upon the production profile of the Facility and other generation facilities in the area. The AESO will continue to monitor the pace of generation development and will notify Market Participants if it determines that it is necessary to obtain approval for a Section 15(2) exception.

The identified system performance issues can be mitigated through the use of existing RASs 180 and 175, planned RAS 197, modifications to existing RASs 173, 176, and 164, and RTOPs, alone or in combination, as appropriate. The use of these mitigation measures may result in generation curtailment during the Category A condition. In the short term, the recently energized Bowmanton 244S Substation Voltage Support Project[12] is expected to enhance the system reliability in the CBW area and reduce the risk of voltage collapse and transient stability concerns under Category A and B system conditions. In the longer term, the AESO is developing system plans to alleviate existing and future voltage and thermal criteria violations in the Southeast planning region. With implementation of these mitigation measures, connecting the project with the preferred alternative does not adversely affect the performance of the AIES.

The total amount of generation tied to modified RAS 164 exceeds the Most Severe Single Contingency (MSSC) limit of 466 MW. Pre-contingency generation curtailment under normal conditions may be required using real-time operational practices to prevent generation curtailment by RAS action above the MSSC limit. The probability of pre-curtailment being required would be dependent on generation profiles and operating conditions.

The AESO recommends proceeding with the Project using Alternative 2 as the preferred alternative to respond to the Market Participant's request for system access service. Alternative 2 involves adding a 138 kV circuit, approximately 0.5 km in length, to connect the Facility to the existing 138 kV transmission line 600L in a T-tap configuration.

The conductor used for the 138 kV circuit shall have a minimum capacity of 134 MVA to meet the Market Participant's requested STS contract capacity.

[12] More information about the recently energized Bowmanton 244S Substation Voltage Support Project is available on the AESO website.

Attachment A:
Table A-1: Summary of Category B Reliability Criteria Violations, Project Impact, and Mitigation Measures-All Scenarios

Scenario	Type of Reliability Criteria Violation		Contingency (System Element Lost)	Details of Violation	Project Impact	Pre-Project Mitigation Measures	Post-Project Mitigation Measures
	Pre-Project	Post-Project					
2025 SL	Thermal - above emergency rating	Thermal - above emergency rating	Fincastle 336S T1	879L (Bowmanton 244S - 879AL Tap)	Marginally reduced violation	Existing RAS 180	Existing RAS 180
	None	Thermal - above emergency rating	676L (Bullshead 523S to Bowmanton 244S)	880L (Al Rothbauer 321S - Bullshead 523S)	Materially increased	None	Modified Existing RAS 173
	Thermal - above emergency rating	Thermal - above emergency rating	EATL	924L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175 and Real-Time Operation Practices (RTOP)	Existing RAS 175 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	EATL	927L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175 and RTOP	Existing RAS 175 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	612L (Fincastle 336s - Burdett 368S)	879L (Bowmanton 244S - 879AL Tap)	Marginally reduced violation	Existing RAS 180	Existing RAS 180
	Thermal - above normal rating	None	610L (Fincastle 336S - Taber 83S)	892L (Bowmanton 244S to Suffield 895S)	Marginally reduced violation	Existing RAS 180	None
	Thermal - above emergency rating	Thermal - above emergency rating	610L (Fincastle 336S - Taber 83S)	879L (Bowmanton 244S - 879AL Tap)	No impact on violation	Existing RAS 180	Existing RAS 180
	Thermal - above emergency rating	Thermal - above emergency rating	610L (Fincastle 336S - Taber 83S)	658L (Cypress 562S - 662S Tap)	Marginally increased	Existing RAS 180	Existing RAS 180
	Thermal - above emergency rating	Thermal - above emergency rating	924L (Milo 356S - Langdon 102S)	927L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175	Existing RAS 175
	Thermal - above emergency rating	Thermal - above emergency rating	927L (Milo 356S - Langdon 102S)	924L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175	Existing RAS 175 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	Materially increased	Existing RAS 176	Modified Existing RAS 176
	Thermal - above emergency rating	Thermal - above emergency rating	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	Materially increased	Existing RAS 176	Modified Existing RAS 176
	Thermal - above normal rating	Thermal - above normal rating	1088L (Cassils 324S - Newell 2075)	1087L (Cassils 324S - Newell 2075S)	Marginally reduced violation	RTOP	RTOP
	None	Thermal - above normal rating	MH-65L (Cancarb Limited Co-gen Station - MHS-7 S)	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	Cancarb Limited Co-gen Station Transformer T1	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 12	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer T5	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer T1	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 3B	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 14	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 15	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	Transient stability and Thermal - above normal rating	Transient stability and Voltage Collapse	1034L (Cassils 324S - Bowmanton 244S)	1035L (Bowmanton 244S - Newell 2075S) overloading in pre-project, voltage collapse in post-project, and transient stability in both pre-and post-project	New Voltage Collapse	RTOP and Existing RAS 164	Modified Existing RAS 164
	Transient stability and Thermal - above emergency rating	Transient stability and Voltage Collapse	1035L (Bowmanton 244S - Newell 2075)	1034L (Cassils 324S - Bowmanton 244S) overloading in pre-project, voltage collapse in post-project, and transient stability in both pre-and post-project	New Voltage Collapse	RTOP and Existing RAS 164	Modified Existing RAS 164
	Transient stability and Thermal - above normal rating	Transient stability and Voltage Collapse	1035L (Bowmanton 244S - Newell 2075)	1087L (Cassils 324S - Newell 2075S) overloading in pre-project, voltage collapse in post-project, and transient stability in both pre-and post-project	New Voltage Collapse	RTOP and Existing RAS 164	Modified Existing RAS 164

Scenario	Type of Reliability Criteria Violation		Contingency (System Element Lost)	Details of Violation	Project Impact	Pre-Project Mitigation Measures	Post-Project Mitigation Measures
	Pre-Project	Post-Project					
	Thermal - above normal rating	Thermal - above normal rating	1088L (Cassils 324S to Newell A2075S)	1087L (Cassils 324S - Newell 2075S)	Marginally reduced violation	Planned RAS 197 and RTOP	Planned RAS 197 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	Fincastle 336S T1	879L (Bowmanton 244S - 879AL Tap)	Marginally reduced violation	Existing RAS 180	Existing RAS 180
	None	Thermal - above emergency rating	676L (Bullshead 523S to Bowmanton 244S)	880L (Al Rothbauer 321S - Bullshead 523S)	Materially increased	None	Modified Existing RAS 173
	Thermal - above emergency rating	Thermal - above emergency rating	EATL	924L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175 and RTOP	Existing RAS 175 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	EATL	927L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175 and RTOP	Existing RAS 175 and RTOP
	None	Thermal - above normal rating	EATL	923L (Newell 2075S - Milo 356S)	Materially increased	None	Existing RAS 175 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	612L (Fincastle 336s - Burdett 368S)	879L (Bowmanton 244S - 879AL Tap)	Marginally reduced violation	Existing RAS 180	Existing RAS 180
	Thermal - above normal rating	Thermal - above normal rating	610L (Fincastle 336S - Taber 83S)	100L (Tilley 498S - Suffield 895S)	No impact on violation	Existing RAS 180	Existing RAS 180
	Thermal - above emergency rating	Thermal - above emergency rating	610L (Fincastle 336S - Taber 83S)	879L (Bowmanton 244S - 879AL Tap)	No impact on violation	Existing RAS 180	Existing RAS 180
	Thermal - above emergency rating	Thermal - above emergency rating	610L (Fincastle 336S - Taber 83S)	658L (Cypress 562S - 662S Tap)	Marginally increased	Existing RAS 180	Existing RAS 180
	Thermal - above emergency rating	Thermal - above emergency rating	924L (Milo 356S - Langdon 102S)	927L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175 and RTOP	Existing RAS 175 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	927L (Milo 356S - Langdon 102S)	924L (Milo 356S - Langdon 102S)	Materially increased	Existing RAS 175 and RTOP	Existing RAS 175 and RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	Materially increased	Existing RAS 176	Existing RAS 176
	Thermal - above emergency rating	Thermal - above emergency rating	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	Materially increased	Existing RAS 176	Existing RAS 176
	Thermal - above emergency rating	Thermal - above emergency rating	1088L (Cassils 324S to Newell A2075S)	1087L (Cassils 324S - Newell 2075S)	Marginally reduced violation	Planned RAS 197 and RTOP	Planned RAS 197 and RTOP
2025 SP	None	Thermal - above normal rating	Bullshead 523s Transformer T1	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH-65L (Cancarb Limited Co-gen Station - MHS-7 S)	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	Cancarb Limited Co-gen Station Transformer T1	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 12	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer T5	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer T1	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 3B	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 14	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	None	Thermal - above normal rating	MH69S-1 Power Plant Transformer 15	880L (Al Rothbauer 321S - Bullshead 523S)	New violation	None	RTOP
	Transient stability and Thermal - above normal rating	Transient stability and Voltage Collapse	1034L (Cassils 324S - Bowmanton 244S)	1035L (Bowmanton 244S - Newell 2075S) overloading in pre-project, voltage collapse in post-project, and transient stability in both pre-and post-project	New Voltage Collapse	Existing RAS 164	Modified Existing RAS 164
	Transient stability and Thermal - above normal rating	Transient stability and Voltage Collapse	1035L (Bowmanton 244S - Newell 2075)	1034L (Cassils 324S - Bowmanton 244S) overloading in pre-project, voltage collapse in post-project, and transient stability in both pre-and post-project	New Voltage Collapse	Existing RAS 164	Modified Existing RAS 164

Scenario	Type of Reliability Criteria Violation		Contingency (System Element Lost)	Details of Violation	Project Impact	Pre-Project Mitigation Measures	Post-Project Mitigation Measures
	Pre-Project	Post-Project					
	Transient stability and Thermal - above normal rating	Transient stability and Voltage Collapse	1035L (Bowmanton 244S - Newell 2075)	1087L (Cassils 324S - Newell 2075S) overloading in pre-project, voltage collapse in post-project, and transient stability in both pre-and post-project	New Voltage Collapse	Existing RAS 164	Modified Existing RAS 164
	None	Transient stability	983L (Whitla 251S - Elkwater 264S)	Transient stability	New violation	None	Modified Existing RAS 164

Notes:

- Marginally increased (or marginally decreased) refers to a percent loading difference (post-Project percent loading minus pre-Project percent loading) between 0% and 3% (or -3%).
- Materially increased (or materially decreased) refers to a percent loading difference (post-Project percent loading minus pre-Project percent loading) above or equal to 3% (or below or equal to -3%).
- RAS 180 is an existing RAS.
- RAS 173 is an existing RAS.
- RAS 175 is an existing RAS.
- RAS 176 is an existing RAS.
- RAS 197 was proposed for the approved P1927 – Brooks Solar Farm Connection. This RAS is referred to herein as “Planned RAS 197”.
- RAS 164 is an existing RAS.
- In this table, “Modify” refers to adding the Project to the logic of the respective RAS.
- The project is added to RASs 164, 173 and 176.

Attachment B:
Engineering Connection Assessment Results

Engineering Connection Assessment: Study Results

P2467 Pteragen Peace Butte Wind

Pteragen Canada Inc.

Date: November 7, 2024

Version: V1 Final

Classification: Public

Role	Name	Date	Signature
Prepared	Shawn Huang, P.Eng.	November 7, 2024	S.Huang
Reviewed	Joby Varghese, P.Eng.	November 7, 2024	Joby Varghese
Approved	Farhan Masud, P.Eng.	November 7, 2024	F.Masud

PROFESSIONAL ENGINEER ALBERTA
JOBY VARGHESE
Nov. 08 2024 ID: 74876

PERMIT TO PRACTICE
ALTALINK MANAGEMENT LTD
RM SIGNATURE: F.Masud
RM APEGA ID #: 92318
DATE: 8 November 2024
PERMIT NUMBER: P007862
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Public
Template Version: V4.2-2019-08-27

Contents

1 Introduction 5

2 Pre-Project Study Results 6

2.1 Power Flow Studies 6

2.1.1 Scenario 1: 2025 Summer Light High Wind Pre-Project 8

2.1.2 Scenario 2: 2025 Summer Peak High Wind Pre-Project 9

3 Post-Project Study Results 12

3.1 Power Flow Studies 12

3.1.1 Scenario 3: 2025 Summer Light High Wind Post-Project 12

3.1.2 Scenario 4: 2025 Summer Peak High Wind Post-Project 16

3.2 Transient Stability Studies 22

3.2.1 Scenario 3: 2025 Summer Light High Wind Post-Project 22

3.2.2 Scenario 4: 2025 Summer Peak High Wind Post-Project 22

3.2.3 Scenario 1: 2025 Summer Light High Wind Pre-Project 23

3.2.4 Scenario 2: 2025 Summer Peak High Wind Pre-Project 23

4 Short Circuit Studies 25

4.1 Pre-Project Results 25

4.1.1 Scenario 2: 2025 SP HW Pre-Project 25

4.2 Post-Project Results 25

4.2.1 Scenario 4: 2025 SP HW Post-Project 25

4.2.2 Scenario 5: 2031 WP HW Post-Project 26

5 Mitigation Measure Development and Evaluation 27

5.1 Pre-Project 27

5.2 Post-Project 28

5.3 Evaluation of Mitigation Measures 30

5.3.1 Scenario 3: 2025 SL HW Post-Project 30

5.3.2 Scenario 4: 2025 SP HW Post-Project 32

5.4 Constraint Effective Factor Studies 35

Tables

Table 2-1: Renewable generation re-dispatch under Bowmanton 244s 6
Table 2-2: Thermal Criteria Violations under Category B Conditions for Scenario 1 8
Table 2-3: Scenario 2 N-0 thermal violations 9
Table 2-4: Generators re-dispatch for Scenario 2 10
Table 2-5: Scenario 2 N-0 loading conditions after curtailment 10
Table 2-6: Thermal Criteria Violations under Category B Conditions for Scenario 2 10
Table 3-1: Scenario 3 N-0 thermal violations 12
Table 3-2: Generators re-dispatch for Scenario 3 (for 880L and Bowmanton 240/138 kV transformers) 12
Table 3-3: 880L and Bowmanton 240/138 kV transformers loading condition after P2137 and P2465 re-dispatch for Scenario 3 13
Table 3-4: Thermal Criteria Violations under Category B Conditions for Scenario 3 13
Table 3-5: Voltage Criteria Violations under Category B Conditions for Scenario 3 15
Table 3-6: Scenario 4 N-0 thermal violations 16
Table 3-7: Generators re-dispatch for Scenario 4 (for 880L/Bowmanton 240/138 kV transformers) . 16
Table 3-8: 880L and Bowmanton 240/138 kV transformers loading condition after P2137 and P2465 re-dispatch for Scenario 4 17
Table 3-9: Generators re-dispatch for Scenario 4 (924L and 927L) 17
Table 3-10: Scenario 4 N-0 loading conditions after curtailment for 924L/927L 18
Table 3-11: Thermal Criteria Violations under Category B Conditions for Scenario 4 18
Table 3-12: Voltage Criteria Violations under Category B Conditions for Scenario 4 20
Table 3-13: Transient Stability Study Results under Category B Conditions for Scenario 3 22
Table 3-14: Transient Stability Study Results under Category B Conditions for Scenario 4 23
Table 3-15: Transient Stability Study Results under Category B Conditions for Scenario 1 23
Table 3-16: Transient Stability Study Results under Category B Conditions for Scenario 2 24
Table 4-1: Pre-Project Short-Circuit Current Levels for Scenario 2 25
Table 4-2: Post-Project Short-Circuit Current Levels for Scenario 4 25
Table 4-3: Post-Project Short-Circuit Current Levels for Scenario 5 26
Table 5-1: Pre-Project Mitigation Measures 27
Table 5-2: Post-Project Mitigation Measures 28
Table 5-3: Post-RAS Power Flow Study Results for Scenario 3 30
Table 5-4: Post-RAS Voltage Results for Scenario 3 31
Table 5-5: Post-RAS Transient Stability Study Results for Scenario 3 32
Table 5-6: Post-RAS Power Flow Study Results for Scenario 4 32
Table 5-7: Post-RAS Voltage Results for Scenario 4 33
Table 5-8: Post-RAS Transient Stability Study Results for Scenario 4 34

Attachments

Attachment A1 Engineering Connection Assessment: Study Scope
Attachment A2 Pre-Project Power Flow Diagrams
Attachment A3 Post-Project Power Flow Diagrams
Attachment A4 Post-Project Transient Stability Diagrams
Attachment A5 Dynamic Data and Assumptions
Attachment A6 Post-Mitigation Power Flow Diagrams
Attachment A7 Constraint Effective Factor
Attachment A8 Post-RAS Post-Project Transient Stability Diagrams

1 Introduction

This report presents the results of the engineering studies that were completed by AltaLink Management Ltd. (the Studies Consultant) to assess the impact of the Project (as defined in Attachment A1: AESO Engineering Connection Assessment Scope) on the performance of the Alberta interconnected electric system (AIES). The studies were performed in accordance with Attachment A1: AESO Engineering Connection Assessment: Study Scope, which was prepared by the AESO.

The power system network analysis tool that was used for the studies in this connection assessment was PSS/E version 34.

Public
Template Version: V4.2-2019-08-27

2 Pre-Project Study Results

This section describes the results of the pre-Project power flow studies.

2.1 Power Flow Studies

Power flow diagrams illustrating the pre-Project power flow studies results for Category A and Category B conditions are provided in Attachment A2.

As per the AESO's requirements, the total renewable generations downstream of Bowmanton 244s 240 kV should be 1066 MW to avoid voltage collapse issue at Bowmanton 244s 240 kV. The pre-project generation dispatches were set to be identical to post-project generation dispatches to create same study environment. The curtailment details can be found in the table below:

Table 2-1: Renewable generation re-dispatch under Bowmanton 244s

Generator name	Generator buses	Generator capacity (MW)	Scenario 1		Scenario 2	
			Dispatch at CSS (MW)	Current dispatch (MW)	Dispatch at CSS (MW)	Current dispatch (MW)
Cypress 1 and 2 (CYP1, 2)[2]	560003, 561003	241.7	241.7	138.3	241.7	135.2
Forty Mile Granlea (FMG1)[2]	61994, 62994	200	200	114.4	200	111.9
Capital Power Whitla Wind Power Facility (WHT1)[2]	60990	201.6	201.6	115.3	201.6	112.8
Capital Power Whitla Wind Power Facility Phase 2/3[2]	61990, 64990	151	151	86.4	151	84.5
P693 - Wild Rose 2 Wind Farm[2]	3462, 3463	192	192	109.8	192	107.4
P2137 - Enerfin Winnifred Wind and P2465 – Enerfin Winnifred Wind Modification[1]	567034	150	150	40	150	55
P2337 - Dunmore Solar[1]	560044	216	216	216	216	216
P2347 - Forty Mile Granlea Solar Phase 2[2]	65994	220	220	125.8	220	123.1
Total renewable generations		1572.3	1572.3	946	1572.3	946

Note:

[1]To capture the thermal violations on 880L (Al Rothbauer 321s to Bullshead 523s) with addition of P2467 in post-project scenarios, P2337, P2137 were P2465 were fully dispatched. 880L and Bowmanton 240/138 kV transformers will be overloaded. Thus, according to the generation effective factor, P2137 and P2465 were re-dispatched (dispatched down to 40 MW in Scenario 1, 3 and 55 MW in Scenario 2, 4) to eliminate the N-0 thermal violations in the post-project scenarios. Pre-project scenarios dispatch conditions were set to be identical to the post-project dispatch conditions. This is the first step of generation re-dispatch in CBW area. These projects were not included in the generation scaling down for voltage violation on Bowmanton 240 kV.

[2]These projects were connected to Bowmanton 240 kV which were proportionally scaled down to mitigate the voltage violations on Bowmanton 240 kV. The total outflow for 1034L and 1035L will be 1066 MW.

2.1.1 Scenario 1: 2025 Summer Light High Wind Pre-Project

Category A Conditions

No reliability Criteria (as defined in Section 3.1 of Attachment A1) violations were observed under Category A conditions after re-dispatch.

Category B Conditions

Thermal Criteria Violations

Thermal criteria violations were observed under certain Category B conditions as shown in Table 2-2.

Table 2-2: Thermal Criteria Violations under Category B Conditions for Scenario 1

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[a] (MVA)	% Loading[b]
Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	85	94	101.7	119.6%
EATL HVDC	924L (Milo 356s to Langdon 102s)	547	656	706.2	129.1%
	927L (Milo 356s to Langdon 102s)	576	691	708.5	123.0%
612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	85	94	101.7	119.6%
610L (Fincastle 336s to Taber 83s)	892L (Bowmanton 244s to Suffield 895s)	80	88	80.0	100.0%
	879L (Bowmanton 244s to 879AL Tap)	85	94	158.2	186.1%
	658L (Cypress 562s to 662s Tap)	121	133	150.8	124.6%
924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	576	691	715.4	124.2%
927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	547	656	713.8	130.5%
Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	200	220	241.0	120.5%
Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	200	220	241.0	120.5%
1034L (Cassils 324s to Bowmanton 244s)	1035L (Bowmanton 244s to Newell A2075s)	952	1047	1027.2	107.9%
1035L (Bowmanton 244s to Newell A2075s)	1034L (Cassils 324s to Bowmanton 244s)	931	1024	1036.2	111.3%
	1087L (Cassils 324s to Newell A2075s)	547	656	564.5	103.2%

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[a] (MVA)	% Loading[b]
1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	547	656	643.3	117.6%

Notes:

[a] Power flow (MVA) is current expressed as MVA (i.e., $S = \sqrt{3} \times V_{base} \times I_{actual}$)

[b] Reported as a percentage of the power flow (in MVA, i.e., $S = \sqrt{3} \times V_{base} \times I_{actual}$) relative to the transmission line's Normal Rating (also in MVA), as shown in Attachment A1.

Voltage Criteria Violations

No voltage criteria violations were observed under Category B conditions.

POD Bus Voltage Deviations

No voltage deviations beyond the limits listed in Table 3-1 of Attachment A1 (hereafter referred to as point of delivery (POD) bus voltage deviations) were observed.

2.1.2 Scenario 2: 2025 Summer Peak High Wind Pre-Project

Category A Conditions

Thermal criteria violations were observed under Category A condition as shown in the table below:

Table 2-3: Scenario 2 N-0 thermal violations

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results	
				Observed Power Flow (MVA)	% Loading
Category A	924L (Milo 356s to Langdon 102s)	547	656	557.4	101.9%

Additional thermal violations were found on 927L (Milo 356s to Langdon 102s) in the SP post-project scenario. Most effective generators were re-dispatched to mitigate the thermal violations. To maintain same study environment, SP pre-project generation dispatch was tuned to be identical to the post-project generation dispatch[1]. All Category B studies were performed with the new generation dispatch. The new dispatch for the effective generators can be found in the table below:

[1] Refer to Table 3-9.

Table 2-4: Generators re-dispatch for Scenario 2

Project Name	Capacity	Bus Number	Scenario 2	
			Before curtailment (MW)	After curtailment (MW)
P2247 – Buffalo Plains MPC Wind	466	560041, 560042	396.1	176.1
Curtailment (MW)	**-**	**-**	**220**	

Some slight voltage violations on Cypress 562s 240 kV and MHS-3 B63 South Ridge Substation were observed. No other reliability Criteria (as defined in Section 3.1 of Attachment A1) violations were observed under Category A conditions after generation re-dispatch. The loading conditions for 924L can be found in the table below:

Table 2-5: Scenario 2 N-0 loading conditions after curtailment

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Curtailment Results	
				Observed Power Flow (MVA)	% Loading
Category A	924L (Milo 356s to Langdon 102s)	547	656	500.0	91.4%

Category B Conditions

Thermal Criteria Violations

Thermal criteria violations were observed under certain Category B conditions as shown in Table 2-6.

Table 2-6: Thermal Criteria Violations under Category B Conditions for Scenario 2

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[a] (MVA)	% Loading[b]
Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	85	94	95.5	112.4%
EATL HVDC	924L (Milo 356s to Langdon 102s)	547	656	718.8	131.4%
	927L (Milo 356s to Langdon 102s)	576	691	721.2	125.2%
612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	85	94	95.5	112.4%
610L (Fincastle 336s to Taber 83s)	100L (Tilley 498S to Suffield 895S)	78	86	79.2	101.5%
	879L (Bowmanton 244s to 879AL Tap)	85	94	153.7	180.8%

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[a] (MVA)	% Loading[b]
	658L (Cypress 562s to 662s Tap)	121	133	148.7	122.9%
924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	576	691	735.0	127.6%
927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	547	656	733.5	134.1%
Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	200	220	240.8	120.4%
Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	200	220	240.8	120.4%
1034L (Cassils 324s to Bowmanton 244s)	1035L (Bowmanton 244s to Newell A2075s)	952	1047	984.4	103.4%
1035L (Bowmanton 244s to Newell A2075s)	1034L (Cassils 324s to Bowmanton 244s)	931	1024	988.7	106.2%
	1087L (Cassils 324s to Newell A2075s)	547	656	610.5	111.6%
1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	547	656	742.8	135.8%

Notes:

[a] Power flow (MVA) is current expressed as MVA (i.e., $S = \sqrt{3} \times V_{base} \times I_{actual}$)

[b] Reported as a percentage of the power flow (in MVA, i.e., $S = \sqrt{3} \times V_{base} \times I_{actual}$) relative to the transmission line's Normal Rating (also in MVA), as shown in Attachment A1.

Voltage Criteria Violations

No voltage criteria violations were observed under Category B conditions.

POD Bus Voltage Deviations

No voltage deviations beyond the limits listed in Table 3-1 of Attachment A1 (hereafter referred to as point of delivery (POD) bus voltage deviations) were observed.

3 Post-Project Study Results

This section describes the results of the post-Project power flow studies.

3.1 Power Flow Studies

Power flow diagrams illustrating the post-Project power flow studies results for Category A and Category B conditions are included in Attachment A3.

3.1.1 Scenario 3: 2025 Summer Light High Wind Post-Project

Category A Conditions

Thermal criteria violations on 880L and Bowmanton 240/138 kV transformers were observed under Category A condition as shown in the table below:

Table 3-1: Scenario 3 N-0 thermal violations

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results	
				Observed Power Flow (MVA)	% Loading
Category A	880L (Al Rothbauer 321s to Bullhead 523s)	121	133	171.3	141.6%
	Bowmanton 240/138 kV transformer T1	200	200	232.4	116.2%
	Bowmanton 240/138 kV transformer T2	200	200	232.4	116.2%

Most effective generators[2] were re-dispatched to mitigate the thermal violations. To maintain same study environment, SL pre-project generation dispatch was tuned to be identical to the post-project generation dispatch. All Category B studies were performed with the new generation dispatch. The new dispatch for the effective generator and loading condition for 880L and Bowmanton 240/138 kV transformers can be found in the tables below:

Table 3-2: Generators re-dispatch for Scenario 3 (for 880L and Bowmanton 240/138 kV transformers)

Project Name	Capacity	Bus Number	Scenario 3	
			Before curtailment (MW)	After curtailment (MW)
P2137 - Enerfin Winnifred MPC Wind and P2465 -	150	567034	150	40

[2] Refer to Table F-2 in Attachment A7.

Project Name	Capacity	Bus Number	Scenario 3	
			Before curtailment (MW)	After curtailment (MW)
Enerfin Winnifred Wind Modification				
Curtailment (MW)	-	-	110	

Table 3-3: 880L and Bowmanton 240/138 kV transformers loading condition after P2137 and P2465 re-dispatch for Scenario 3

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results	
				Observed Power Flow (MVA)	% Loading
Category A	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	117.1	96.8%
	Bowmanton 240/138 kV transformer T1	200	200	176.2	88.1%
	Bowmanton 240/138 kV transformer T2	200	200	176.2	88.1%

No Reliability Criteria (as defined in Section 3.1 of Attachment A1) violations were observed under Category A conditions after generation re-dispatch[3].

Category B Conditions

Thermal Criteria Violations

Thermal criteria violations were observed under certain Category B conditions as shown in Table 3-4.

Table 3-4: Thermal Criteria Violations under Category B Conditions for Scenario 3

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results		Post-Project Results		% Loading Difference (Post-Pre)
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading	
Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	85	94	101.7	119.6%	101.6	119.5%	-0.1%
676L (Bullshead 523s to Bowmanton 244s)	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	29.5	24.4%	143.0	118.2%	93.8%

[3] Refer to Table 2-1 for other 240 kV generation re-dispatches to maintain 1066 MW Bowmanton outflow.

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results		Post-Project Results		% Loading Difference (Post-Pre)
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading	
EATL	924L (Milo 356s to Langdon 102s)	547	656	706.2	129.1%	733.5	134.1%	5.0%
	927L (Milo 356s to Langdon 102s)	576	691	708.5	123.0%	736.1	127.8%	4.8%
612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	85	94	101.7	119.6%	101.6	119.5%	-0.1%
610L (Fincastle 336s to Taber 83s)	892L (Bowmanton 244s to Suffield 895s)	80	88	80.0	100.0%	79.4	99.2%	-0.8%
	879L (Bowmanton 244s to 879AL Tap)	85	94	158.2	186.1%	158.2	186.1%	0.0%
	658L (Cypress 562s to 662s Tap)	121	133	150.8	124.6%	151.1	124.9%	0.3%
924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	576	691	715.4	124.2%	750.5	130.3%	6.1%
927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	547	656	713.8	130.5%	748.8	136.9%	6.4%
Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	200	220	241.0	120.5%	354.4	177.2%	56.7%
Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	200	220	241.0	120.5%	354.4	177.2%	56.7%
1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	547	656	643.3	117.6%	630.1	115.2%	-2.4%
MH-65L (Cancarb Limited Co-gen Station to MHS-7 Substation)	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	62.4	51.6%	122.0	100.8%	49.2%
Cancarb Limited Co-gen Station Transformer T1	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	62.4	51.6%	122.0	100.8%	49.2%
MH69s-1 Power Plant Transformer 12	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	62.3	51.5%	121.8	100.7%	49.2%
MH69s-1 Power Plant Transformer T5	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	61.7	51.0%	121.2	100.2%	49.2%

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results		Post-Project Results		% Loading Difference (Post-Pre)
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading	
MH69s-1 Power Plant Transformer T1	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	62.8	51.9%	122.3	101.1%	49.2%
MH69s-1 Power Plant Transformer 3B	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	62.0	51.2%	121.4	100.3%	49.1%
MH69s-1 Power Plant Transformer 14	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	63.5	52.5%	122.9	101.6%	49.1%
MH69s-1 Power Plant Transformer 15	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	63.2	52.2%	122.7	101.4%	49.2%

Voltage Criteria Violations

Voltage criteria violations were observed under certain Category B conditions as shown in Table 3-5.

Table 3-5: Voltage Criteria Violations under Category B Conditions for Scenario 3

Contingency (System Element Lost)	Violation Location Details		Voltage Ratings (kV)			Pre-Project Results		Post-Project Results		Voltage Difference (kV)
	Substation Name and No.	Bus No.	Nominal Voltage	Emergency Minimum Voltage	Emergency Maximum Voltage	Initial Voltage (kV)	Post-contingency Steady State (kV)	Initial Voltage (kV)	Post-contingency Steady State (kV)	
1034L (Cassils 324s to Bowmanton 244s)	Voltage Collapse									
1035L (Bowmanton 244s to Newell A2075s)										

POD Bus Voltage Deviations

No POD bus voltage deviations were observed.

3.1.2 Scenario 4: 2025 Summer Peak High Wind Post-Project

Category A Conditions

Thermal criteria violations on 880L, 924L, 927L and Bowmanton 240/138 kV transformers were observed under Category A condition as shown in the table below:

Table 3-6: Scenario 4 N-0 thermal violations

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results	
				Observed Power Flow (MVA)	% Loading
Category A	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	164.8	136.1%
	Bowmanton 240/138 kV transformer T1	200	200	223.8	111.9%
	Bowmanton 240/138 kV transformer T2	200	200	223.8	111.9%
	924L (Milo 356s to Langdon 102s)	547	656	587.5	107.4%
	927L (Milo 356s to Langdon 102s)	576	691	589.8	102.4%

Most effective generators[4] were re-dispatched to mitigate the thermal violations. To maintain same study environment, SP pre-project generation dispatch was tuned to be identical to the post-project generation dispatch. All Category B studies were performed with the new generation dispatch. The new dispatch for the effective generator and loading condition for 924L, 927L, 880L and Bowmanton 240/138 kV transformers can be found in the tables below:

Table 3-7: Generators re-dispatch for Scenario 4 (for 880L/Bowmanton 240/138 kV transformers)

Project Name	Capacity	Bus Number	Scenario 4	
			Before curtailment (MW)	After curtailment (MW)
P2137 - Enerfin Winnifred MPC Wind and P2465 - Enerfin Winnifred Wind Modification	150	567034	150	55
Curtailment (MW)	**-**	**-**	**95**	

[4] Refer to Table F-2 in Attachment A7.

Table 3-8: 880L and Bowmanton 240/138 kV transformers loading condition after P2137 and P2465 re-dispatch for Scenario 4

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results	
				Observed Power Flow (MVA)	% Loading
Category A	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	116.3	96.1%
	Bowmanton 240/138 kV transformer T1	200	200	177.0	88.5%
	Bowmanton 240/138 kV transformer T2	200	200	177.0	88.5%
	924L (Milo 356s to Langdon 102s)	547	656	589.1	107.7%
	927L (Milo 356s to Langdon 102s)	576	691	591.0	102.6%

Thermal criteria violations on 924L and 927L were still observed under Category A condition after re-dispatch generations[5] in Bowmanton Area.

Most effective generators[6] were re-dispatched to mitigate the thermal violations on 924L/927L. To maintain same study environment, SP pre-project generation dispatch was tuned to be identical to the post-project generation dispatch. All Category B studies were performed with the new generation dispatch. The new dispatch for the effective generators and loading conditions for 924L and 927L can be found in the table below:

Table 3-9: Generators re-dispatch for Scenario 4 (924L and 927L)

Project Name	Capacity	Bus Number	Scenario 4	
			Before curtailment (MW)	After curtailment (MW)
P2247 – Buffalo Plains MPC Wind	466	560041, 560042	396.1	176.1
Curtailment (MW)	**-**	**-**	**220**	

[5] Refer to Table 2-1 for other 240 kV generation re-dispatches to maintain 1066 MW Bowmanton outflow.

[6] Refer to Table F-2 in Attachment A7.

Table 3-10: Scenario 4 N-0 loading conditions after curtailment for 924L/927L

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Curtailment Results	
				Observed Power Flow (MVA)	% Loading
Category A	924L (Milo 356s to Langdon 102s)	547	656	522.4	95.5%
	927L (Milo 356s to Langdon 102s)	576	691	524.2	91.0%

No Reliability Criteria (as defined in Section 3.1 of Attachment A1) violations were observed under Category A conditions after generation re-dispatch.

Category B Conditions

Thermal criteria violations:

Thermal criteria violations were observed under certain Category B conditions as shown in Table 3-11.

Table 3-11: Thermal Criteria Violations under Category B Conditions for Scenario 4

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results		Post-Project Results		% Loading Difference (Post-Pre)
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading	
Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	85	94	95.5	112.4%	95.5	112.3%	-0.1%
676L (Bullshead 523s to Bowmanton 244s)	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	28.1	23.2%	140.2	115.9%	92.7%
EATL	924L (Milo 356s to Langdon 102s)	547	656	718.8	131.4%	741.2	135.5%	4.1%
	927L (Milo 356s to Langdon 102s)	576	691	721.2	125.2%	744.2	129.2%	4.0%
	923L (Newell A2075s to Milo 356s)	547	656	544.3	99.5%	578.7	105.8%	6.3%
	935L (Milo 356s to Cassils 324s)	547	656	514.7	94.1%	545.9	99.8%	5.7%

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results		Post-Project Results		% Loading Difference (Post-Pre)
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading	
612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	85	94	95.5	112.4%	95.4	112.2%	-0.2%
610L (Fincastle 336s to Taber 83s)	100L (Tilley 498S to Suffield 895S)	78	86	79.2	101.5%	79.2	101.5%	0.0%
	879L (Bowmanton 244s to 879AL Tap)	85	94	153.7	180.8%	153.7	180.8%	0.0%
	658L (Cypress 562s to 662s Tap)	121	133	148.7	122.9%	149.3	123.4%	0.5%
924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	576	691	735.0	127.6%	767.2	133.2%	5.6%
927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	547	656	733.5	134.1%	765.3	139.9%	5.8%
Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	200	220	240.8	120.4%	356.8	178.4%	58.0%
Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	200	220	240.8	120.4%	356.8	178.4%	58.0%
1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	547	656	742.8	135.8%	732.4	133.9%	-1.9%
Bullshead 523s Transformer T1	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	63.6	52.60%	122.9	101.6%	49.0%
MH-65L (Cancarb Limited Co-gen Station to MHS-7 Substation)	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	66.9	55.3%	126.8	104.8%	49.5%
Cancarb Limited Co-gen Station Transformer T1	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	66.9	55.3%	126.8	104.8%	49.5%
MH69s-1 Power Plant	880L (Al Rothbauer 321s to	121	133	65.1	53.8%	124.9	103.2%	49.4%

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Pre-Project Results		Post-Project Results		% Loading Difference (Post-Pre)
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading	
Transformer 12	Bullshead 523s)							
MH69s-1 Power Plant Transformer T5	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	64.0	52.9%	123.8	102.3%	49.4%
MH69s-1 Power Plant Transformer T1	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	66.1	54.6%	126.0	104.1%	49.5%
MH69s-1 Power Plant Transformer 3B	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	64.9	53.6%	124.6	103.0%	49.4%
MH69s-1 Power Plant Transformer 14	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	67.3	55.6%	127.1	105.0%	49.4%
MH69s-1 Power Plant Transformer 15	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	66.8	55.2%	126.6	104.6%	49.4%

Voltage Criteria Violations

Voltage criteria violations were observed under certain Category B conditions as shown in Table 3-12.

Table 3-12: Voltage Criteria Violations under Category B Conditions for Scenario 4

Contingency (System Element Lost)	Violation Location Details		Voltage Ratings (kV)			Pre-Project Results		Post-Project Results		Voltage Difference (kV)
	Substation Name and No.	Bus No.	Nominal Voltage	Emergency Minimum Voltage	Emergency Maximum Voltage	Initial Voltage (kV)	Post-contingency Steady State (kV)	Initial Voltage (kV)	Post-contingency Steady State (kV)	
1034L (Cassils 324s to Bowmanton 244s)	Voltage Collapse									
1035L (Bowmanton 244s to Newell A2075s)										

POD Bus Voltage Deviations

No POD bus voltage deviations were observed.

3.2 Transient Stability Studies

Transient stability studies were completed for Scenario 3 and 4.

The results indicated a few transient stability concerns as shown in Table 3-13 and Table 3-14. As required in the Connection Study Scope, Pre-project dynamic studies for Scenarios 1 and 2 were then performed. The system also showed a few transient stability concerns for Scenarios 1 and 2 as shown in Table 3-15 and Table 3-16. The post-Project transient stability plots are provided in Attachment A4. The dynamic data and assumptions of all equipment proposed for the Facility are provided in Attachment A5.

3.2.1 Scenario 3: 2025 Summer Light High Wind Post-Project

Table 3-13: Transient Stability Study Results under Category B Conditions for Scenario 3

Studied Contingency	Fault Description and Location	Results
964L (Whitla 251s to 964AL Tap/ Murray Lake 326s)	3-phase fault at Whitla 251s	Stable
	3-phase fault at Murray Lake 326s	Stable
965L (Murray Lake 326s to Bowmanton 244s)	3-phase fault at Murray Lake 326s	Stable
	3-phase fault at Bowmanton 244s	Stable
983L (Whitla 251s to Elkwater 264s)	3-phase fault at Whitla 251s	Stable
	3-phase fault at Elkwater 264s	Stable
1074L (Elkwater 264s to P2122 Tap/Bowmanton 244s)	3-phase fault at Elkwater 264s	Stable
	3-phase fault at Bowmanton 244s	Stable
1034L (Cassils 324s to Bowmanton 244s)	3-phase fault at Cassils 324s	Unstable
	3-phase fault at Bowmanton 244s	Unstable
1035L (Newell 2075s to Bowmanton 244s)	3-phase fault at Newell 2075s	Unstable
	3-phase fault at Bowmanton 244s	Unstable
676L (Bullshead 523s to Bowmanton 244s)	3-phase fault at Bullshead 523s	Stable
	3-phase fault at Bowmanton 244s	Stable
600L (Peace Butte 404s to Bullshead 523s)	3-phase fault at Peace Butte 404s	Stable
	3-phase fault at Bullshead 523s	Stable
880L (Al Rothbauer 321s to Bullshead 523s)	3-phase fault at Al Rothbauer 321s	Stable
	3-phase fault at Bullshead 523s	Stable
675L (Al Rothbauer 321s to Bowmanton 244s)	3-phase fault at Al Rothbauer 321s	Stable
	3-phase fault at Bowmanton 244s	Stable

3.2.2 Scenario 4: 2025 Summer Peak High Wind Post-Project

Table 3-14: Transient Stability Study Results under Category B Conditions for Scenario 4

Studied Contingency	Fault Description and Location	Results
964L (Whitla 251s to 964AL Tap/ Murray Lake 326s)	3-phase fault at Whitla 251s	Stable
	3-phase fault at Murray Lake 326s	Stable
965L (Murray Lake 326s to Bowmanton 244s)	3-phase fault at Murray Lake 326s	Stable
	3-phase fault at Bowmanton 244s	Stable
983L (Whitla 251s to Elkwater 264s)	3-phase fault at Whitla 251s	Unstable
	3-phase fault at Elkwater 264s	Unstable
1074L (Elkwater 264s to P2122 Tap/Bowmanton 244s)	3-phase fault at Elkwater 264s	Stable
	3-phase fault at Bowmanton 244s	Stable
1034L (Cassils 324s to Bowmanton 244s)	3-phase fault at Cassils 324s	Unstable
	3-phase fault at Bowmanton 244s	Unstable
1035L (Newell 2075s to Bowmanton 244s)	3-phase fault at Newell 2075s	Unstable
	3-phase fault at Bowmanton 244s	Unstable
676L (Bullshead 523s to Bowmanton 244s)	3-phase fault at Bullshead 523s	Stable
	3-phase fault at Bowmanton 244s	Stable
600L (Peace Butte 404s to Bullshead 523s)	3-phase fault at Peace Butte 404s	Stable
	3-phase fault at Bullshead 523s	Stable
880L (Al Rothbauer 321s to Bullshead 523s)	3-phase fault at Al Rothbauer 321s	Stable
	3-phase fault at Bullshead 523s	Stable
675L (Al Rothbauer 321s to Bowmanton 244s)	3-phase fault at Al Rothbauer 321s	Stable
	3-phase fault at Bowmanton 244s	Stable

3.2.3 Scenario 1: 2025 Summer Light High Wind Pre-Project

Table 3-15: Transient Stability Study Results under Category B Conditions for Scenario 1

Studied Contingency	Fault Description and Location	Results
1034L (Cassils 324s to Bowmanton 244s)	3-phase fault at Cassils 324s	Unstable
	3-phase fault at Bowmanton 244s	Unstable
1035L (Newell 2075s to Bowmanton 244s)	3-phase fault at Newell 2075s	Unstable
	3-phase fault at Bowmanton 244s	Unstable

3.2.4 Scenario 2: 2025 Summer Peak High Wind Pre-Project

Table 3-16: Transient Stability Study Results under Category B Conditions for Scenario 2

Studied Contingency	Fault Description and Location	Results
983L (Whitla 251s to Elkwater 264s)	3-phase fault at Whitla 251s	Stable
	3-phase fault at Elkwater 264s	Stable
1034L (Cassils 324s to Bowmanton 244s)	3-phase fault at Cassils 324s	Unstable
	3-phase fault at Bowmanton 244s	Unstable
1035L (Newell 2075s to Bowmanton 244s)	3-phase fault at Newell 2075s	Unstable
	3-phase fault at Bowmanton 244s	Unstable

4 Short Circuit Studies

4.1 Pre-Project Results

4.1.1 Scenario 2: 2025 SP HW Pre-Project

Pre-Project short-circuit current levels are provided in Table 4-1[7].

Table 4-1: Pre-Project Short-Circuit Current Levels for Scenario 2

Substation Name and Number	Base Voltage (kV)	Pre-Fault Voltage (kV)	3-Φ Fault (kA)	Positive Sequence Thevenin Source Impedance (R1+jX1) (pu)	1-Φ Fault (kA)	Zero Sequence Thevenin Source Impedance (R0+jX0) (pu)
Bowmanton 244s	240	244.1	6.994	0.00437+0.0372792j	7.087	0.0076243+0.0363344j
	138	141.3	8.614	0.0054423+0.0514591j	8.23	0.0087191+0.0560727j
Al Rothbauer 321s	138	140.8	7.333	0.0080803+0.0581752j	7.024	0.0078877+0.060364j
Bullshead 523s	138	142.2	6.161	0.0125996+0.0690369j	5.354	0.0186167+0.0884755j
Peace Butte 404s	138	141.8	3.124	0.0414908+0.1316112j	2.206	0.0733709+0.2900774j

4.2 Post-Project Results

4.2.1 Scenario 4: 2025 SP HW Post-Project

Post-Project short-circuit current levels for Scenario 4 are provided in Table 4-2.

Table 4-2: Post-Project Short-Circuit Current Levels for Scenario 4

Substation Name and Number	Base Voltage (kV)	Pre-Fault Voltage (kV)	3-Φ Fault (kA)	Positive Sequence Thevenin Source Impedance (R1+jX1) (pu)	1-Φ Fault (kA)	Zero Sequence Thevenin Source Impedance (R0+jX0) (pu)
Bowmanton 244s	240	241.2	6.928	0.0041988+0.0366724j	7.03	0.0075681+0.0357376j
	138	139.1	8.622	0.0050798+0.0497349j	8.248	0.0087321+0.054383j
Al Rothbauer 321s	138	138.9	7.452	0.0076276+0.0553234j	7.219	0.0082477+0.055965j
Bullshead 523s	138	141.0	6.452	0.0109713+0.0638192j	6.081	0.0137682+0.065521j
Peace Butte 404s	138	143.7	3.476	0.0326438+0.1164367j	3.742	0.0145123+0.0858212j
Tothills 219s	138	143.8	3.834	0.027765+0.1061411j	4.609	0.0036055+0.046375j

[7] Short-circuit current studies were based on modeling information provided to the AESO by third parties. The authenticity of the modeling information has not been validated. Fault levels could change as a result of system developments, new customer connections, or additional generation in the area. It is recommended that these changes be monitored and fault levels reviewed to ensure that the fault levels are within equipment operating limits. The information provided in this study should not be used as the sole source of information for electrical equipment specifications or for the design of safety-grounding systems.

4.2.2 Scenario 5: 2031 WP HW Post-Project

Post-Project short-circuit current levels for Scenario 5 are provided in Table 4-3.

Table 4-3: Post-Project Short-Circuit Current Levels for Scenario 5

Substation Name and Number	Base Voltage (kV)	Pre-Fault Voltage (kV)	3-Φ Fault (kA)	Positive Sequence Thevenin Source Impedance (R1+jX1) (pu)	1-Φ Fault (kA)	Zero Sequence Thevenin Source Impedance (R0+jX0) (pu)
Bowmanton 244s	240	251.3	7.466	0.0045028+0.0359492j	7.973	0.0053455+0.0282737j
	138	139.9	11.835	0.0063782+0.0366658j	11.154	0.0062629+0.041961j
Al Rothbauer 321s	138	138.2	8.872	0.0071619+0.0472688j	8.268	0.0084585+0.0541267j
Bullshead 523s	138	140.1	7.417	0.0109107+0.0565726j	6.839	0.0136263+0.0631933j
Peace Butte 404s	138	141.8	3.738	0.032746+0.1099762j	4.003	0.0144135+0.0846101j
Tothills 219s	138	141.9	4.148	0.0278664+0.0996583j	4.988	0.0035068+0.04514j

5 Mitigation Measure Development and Evaluation

The Studies Consultant, in consultation with the AESO, developed mitigation measures to address the system performance issues that were identified in the post-Project scenarios. Existing remedial action schemes (RASs) are described in Section 1.2.2 of Attachment A1.

5.1 Pre-Project

Pre-Project mitigation measures are summarized in Table 5-1.

Table 5-1: Pre-Project Mitigation Measures

Mitigation Measure	Location of Observed Violation	Contingency
Existing RAS 180[a]	879L (Bowmanton 244s to 879AL Tap)	612L (Fincastle 336s to Burdett 368s)
	879L (Bowmanton 244s to 879AL Tap)	Fincastle 336sT1
	892L (Bowmanton 244s to Suffield 895s)	610L (Fincastle 336s to Taber 83s)
	100L (Tilley 498S to Suffield 895S)	
	879L (Bowmanton 244s to 879AL Tap)	
	658L (Cypress 562s to 662s Tap)	
Existing RAS 175[b]	927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)
	924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)
Existing RAS 175 and RTOP	924L (Milo 356s to Langdon 102s)	EATL HVDC
	927L (Milo 356s to Langdon 102s)	
Planned RAS 176[c]	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2
	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1
Planned RAS 197[d] and RTOP	1087L (Cassils 324s to Newell A2075s)	1088L (Cassils 324s to Newell A2075s)
Existing RAS 164 - 1034L/1035L logic[e]	1034L (Cassils 324s to Bowmanton 244s)	1035L (Bowmanton 244s to Newell A2075s)
	1087L (Cassils 324s to Newell A2075s)	
Real time operational practices (RTOP)	1035L (Bowmanton 244s to Newell A2075s)	1034L (Cassils 324s to Bowmanton 244s)
Existing RAS 164 - 1034L/1035L logic	Transient Instability	1035L (Bowmanton 244s to Newell A2075s)

Mitigation Measure	Location of Observed Violation	Contingency
		1034L (Cassils 324s to Bowmanton 244s)

Notes:

[a] Existing RAS 180 is a RAS when 879L O/L (direction of current flow from 368s to 244s), trip Rattle Snake, P1918 and P1959.

[b] Existing RAS 175 is a RAS proposed for P2378, P2396, P2447, P2503, P2506, P2247, P1927, P1987 and (Little Bow 991s including P2341*)*. They are sequentially shut down until the overloads on 924L and 927L disappear.

[c] Planned RAS 176 is a RAS when Bowmanton T1/T2 overloaded, trip P2337.

[d] Planned RAS 197 is a RAS when 1088L open and 1087L flow (direction out of 324s) greater than line rating, trip P1927.

[e] Existing RAS 164 Logic 2 – Logic 1034L/1035L is a RAS which when 1034L or 1035L open, direct transfer trip P0693, P2237, P2347, P1800 (Phase 2 and 3), P1812, P2122 and P2413.

5.2 Post-Project

Post-Project mitigation measures are summarized in Table 5-2.

Table 5-2: Post-Project Mitigation Measures

Mitigation Measure	Location of Observed Violation	Contingency
Existing RAS 180[a]	879L (Bowmanton 244s to 879AL Tap)	Fincastle 336sT1
	879L (Bowmanton 244s to 879AL Tap)	612L (Fincastle 336s to Burdett 368s)
	892L (Bowmanton 244s to Suffield 895s)	610L (Fincastle 336s to Taber 83s)
	879L (Bowmanton 244s to 879AL Tap)	
	658L (Cypress 562s to 662s Tap)	
	100L (Tilley 498S to Suffield 895S)	
Existing RAS 175[b] and RTOP	924L (Milo 356s to Langdon 102s)	EATL HVDC
	927L (Milo 356s to Langdon 102s)	
	923L (Newell A2075s to Milo 356s)	
	924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)
	927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)
Modified Planned RAS 176[c]	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2
	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1

Mitigation Measure	Location of Observed Violation	Contingency
Planned RAS 197[d] and RTOP	1087L (Cassils 324s to Newell A2075s)	1088L (Cassils 324s to Newell A2075s)
Modified Existing RAS 164 - 1034L/1035L logic[e]	Voltage Collapse	1035L (Bowmanton 244s to Newell A2075s)
		1034L (Cassils 324s to Bowmanton 244s)
Modified Existing RAS 173[f]	880L (Al Rothbauer 321s to Bullshead 523s)	676L (Bullshead 523s to Bowmanton 244s)
Real time operational practices	880L (Al Rothbauer 321s to Bullshead 523s)	Bullshead 523s Transformer T1
	880L (Al Rothbauer 321s to Bullshead 523s)	MH-65L (Cancarb Limited Co-gen Station to MHS-7 Substation)
	880L (Al Rothbauer 321s to Bullshead 523s)	Cancarb Limited Co-gen Station Transformer T1
	880L (Al Rothbauer 321s to Bullshead 523s)	MH69s-1 Power Plant Transformer 12
	880L (Al Rothbauer 321s to Bullshead 523s)	MH69s-1 Power Plant Transformer T5
	880L (Al Rothbauer 321s to Bullshead 523s)	MH69s-1 Power Plant Transformer T1
	880L (Al Rothbauer 321s to Bullshead 523s)	MH69s-1 Power Plant Transformer 3B
	880L (Al Rothbauer 321s to Bullshead 523s)	MH69s-1 Power Plant Transformer 14
	880L (Al Rothbauer 321s to Bullshead 523s)	MH69s-1 Power Plant Transformer 15
Modified Existing RAS 164 - 983L/1074L logic[g]	Transient Instability	983L (Whitla 251S - Elkwater 264S)
Existing RAS 164 - 1034L/1035L logic	Transient Instability	1035L (Bowmanton 244s to Newell A2075s)
		1034L (Cassils 324s to Bowmanton 244s)

Notes:

[a] Existing RAS 180 is a RAS when 879L O/L (direction of current flow from 368s to 244s), trip Rattle Snake, P1918 and P1959.

[b] Existing RAS 175 is a RAS proposed for P2378, P2396, P2447, P2503, P2506, P2247, P1927, P1987 and (Little Bow 991s including P2341). They are sequentially shut down until the overloads on 924L and 927L disappear.

[c] Modified Planned RAS 176 refers adding P2467, the project, to the logic of the Planned RAS 176 which when Bowmanton T1/T2 overloaded, trip P2337.

[d] Planned RAS 197 is a RAS when 1088L open and 1087L flow (direction out of 324s) greater than line rating, trip P1927.

[e] Modified Existing RAS 164 Logic 2 – Logic 1034L/1035L refers adding P2467, the project, to the logic of the planned RAS 164 - Logic 1034L/1035L which when 1034L or 1035L open, direct transfer trip P0693, P2237, P2347, P1800 (Phase 2 and 3), P1812, P2122 and P2413.

[f] Modified Existing RAS 173 means adding P2467's logic to the planned RAS 173.

[g] Modified Existing RAS 164 Logic 3 – Logic 983L/1074L refers to adding P2467, the project, to the logic of the planned RAS 164 – Logic 983L/1074L which when 983L or 1074L open, direct transfer trip P0693, P2347, P2122 and P2413.

5.3 Evaluation of Mitigation Measures

This section describes the results of the power flow studies that were performed to assess the impact of the Project on the performance of the AIES following the implementation of proposed mitigation measures.

The post-mitigation measures studies were performed under Category B conditions for Scenario 3 and 4 using the RASs described in the previous section.

The post-mitigation power flow diagrams for selected Category B conditions are provided in Attachment A6. Post-mitigation power flow diagrams present only those post-Project contingencies that result in thermal criteria violations that require RAS mitigation. Post-Project contingencies that result in thermal criteria violations that can be mitigated by real-time operational practices or TFO capital maintenance projects were not studied.

5.3.1 Scenario 3: 2025 SL HW Post-Project

Category B Conditions

Thermal, voltage and transient stability criteria violations observed under certain Category B conditions in the post-Project studies were mitigated by RASs as shown in Table 5-3, Table 5-4 and Table 5-5.

Table 5-3: Post-RAS Power Flow Study Results for Scenario 3

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading
Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	85	94	101.6	119.5%	13.9	16.4%
676L (Bullshead 523s to Bowmanton 244s)	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	143.0	118.2%	29.5	24.4%

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading
EATL	924L (Milo 356s to Langdon 102s)	547	656	733.5	134.1%	603.3	110.3% [a]
	927L (Milo 356s to Langdon 102s)	576	691	736.1	127.8%	605.4	105.1% [a]
612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	85	94	101.6	119.5%	14.1	16.6%
610L (Fincastle 336s to Taber 83s)	892L (Bowmanton 244s to Suffield 895s)	80	88	79.4	99.2%	40.5	50.6%
	879L (Bowmanton 244s to 879AL Tap)	85	94	158.2	186.1%	47.1	55.4%
	658L (Cypress 562s to 662s Tap)	121	133	151.1	124.9%	85.5	70.7%
924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	576	691	750.5	130.3%	565.1	98.1%
927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	547	656	748.8	136.9%	564.0	103.1% [a]
Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	200	220	354.4	177.2%	30.2	15.1%
Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	200	220	354.4	177.2%	30.2	15.1%

Notes:

[a] The remaining thermal overloads will be mitigated by Real Time Operation Practice (RTOP).

Table 5-4: Post-RAS Voltage Results for Scenario 3

Contingency (System Element Lost)	Violation Location Details			Emergency Minimum Voltage (kV)	Emergency Maximum Voltage (kV)	Initial Voltage (kV)	Steady State Voltage (kV)	Post-Mitigation Steady State (kV)
	Substation Name and No.	Bus No.	Nominal kV					
1034L (Cassils 324s to Bowmanton 244s)	Voltage Recovers and no other violations were observed							
1035L (Bowmanton 244s to Newell A2075s)								

Table 5-5: Post-RAS Transient Stability Study Results for Scenario 3

Studied Contingency	Fault Description and Location	Results	Mitigation	After RAS results
1034L (Cassils 324s - Bowmanton 244s)	3-phase fault at Cassils 324s	Unstable	Modified Existing RAS 164 – Logic 2 [a]	Stable
	3-phase fault at Bowmanton 244s	Unstable		Stable
1035L (Newell 2075s - Bowmanton 244s)	3-phase fault at Newell 2075s	Unstable	Modified Existing RAS 164 – Logic 2 [a]	Stable
	3-phase fault at Bowmanton 244s	Unstable		Stable

Notes:

[a] Modified Existing RAS 164 Logic 2 – Logic 1034L/1035L trips P2467, P0693, P2237, P2347, P1800 Phase 2 and 3, P1812, P2122 and P2413.

5.3.2 Scenario 4: 2025 SP HW Post-Project

Category B Conditions

Thermal, voltage and transient criteria violations observed under certain Category B conditions in the post-Project studies were mitigated by RASs as shown in Table 5-6, Table 5-7 and Table 5-8.

Table 5-6: Post-RAS Power Flow Study Results for Scenario 4

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading
Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	85	94	95.5	112.3%	24.5	28.8%
676L (Bullshead 523s to Bowmanton 244s)	880L (Al Rothbauer 321s to Bullshead 523s)	121	133	140.2	115.9%	28.0	23.1%
EATL	924L (Milo 356s to Langdon 102s)	547	656	741.2	135.5%	633.4	115.8% [a]
	927L (Milo 356s to Langdon 102s)	576	691	744.2	129.2%	635.9	110.4% [a]
	923L (Newell A2075s to Milo 356s)	547	656	578.7	105.8%	537.2	98.2%
	935L (Milo 356s to Cassils 324s)	547	656	545.9	99.8%	504.3	92.2%
612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	85	94	95.4	112.2%	24.5	28.8%
	100L (Tilley 498S to Suffield 895S)	78	86	79.2	101.5%	43.4	55.7%

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Normal Rating (MVA)	Emergency Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Observed Power Flow (MVA)	% Loading	Observed Power Flow (MVA)	% Loading
610L (Fincastle 336s to Taber 83s)	879L (Bowmanton 244s to 879AL Tap)	85	94	153.7	180.8%	53.8	63.3%
	658L (Cypress 562s to 662s Tap)	121	133	149.3	123.4%	88.7	73.3%
924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	576	691	767.2	133.2%	612.9	106.4% [a]
927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	547	656	765.3	139.9%	611.5	111.8% [a]
Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	200	220	356.8	178.4%	31.6	15.8%
Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	200	220	356.8	178.4%	31.6	15.8%
1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	547	656	732.4	133.9%	674.5	123.3% [a]

Notes:

[a] The remaining thermal overloads will be mitigated by Real Time Operation Practice (RTOP).

Table 5-7: Post-RAS Voltage Results for Scenario 4

Contingency (System Element Lost)	Violation Location Details			Emergency Minimum Voltage (kV)	Emergency Maximum Voltage (kV)	Initial Voltage (kV)	Steady State Voltage (kV)	Post-Mitigation Steady State (kV)
	Substation Name and No.	Bus No.	Nominal kV					
1034L (Cassils 324s to Bowmanton 244s)	Voltage Recovers and no other violations were observed							
1035L (Bowmanton 244s to Newell A2075s)								

Table 5-8: Post-RAS Transient Stability Study Results for Scenario 4

Studied Contingency	Fault Description and Location	Results	Mitigation	After RAS results
983L (Whitla 251s - Elkwater 264s)	3-phase fault at Whitla 251s	Unstable	Modified Existing RAS 164 – Logic 3 [a]	Stable
	3-phase fault at Elkwater 264s	Unstable		Stable
1034L (Cassils 324s - Bowmanton 244s)	3-phase fault at Cassils 324s	Unstable	Modified Existing RAS 164 – Logic 2 [b]	Stable
	3-phase fault at Bowmanton 244s	Unstable		Stable
1035L (Newell 2075s - Bowmanton 244s)	3-phase fault at Newell 2075s	Unstable	Modified Existing RAS 164 – Logic 2 [b]	Stable
	3-phase fault at Bowmanton 244s	Unstable		Stable

Notes:

[a] Modified Existing RAS 164 Logic 3 – Logic 983L/1074L trips P2467, P0693, P2347, P2122 and P2413.

[b] Modified Existing RAS 164 Logic 2 – Logic 1034L/1035L trips P2467, P0693, P2237, P2347, P1800 Phase 2 and 3, P1812, P2122 and P2413.

5.4 Constraint Effective Factor Studies

Constraint effective factor studies were conducted for all post-Project scenarios. The constraint effective factors were calculated for all Category B conditions when the loadings of the monitored transmission elements in the Study Area exceeded 100% (i.e., for all of the contingencies that resulted in thermal criteria violations). The results of the constraint effective factor studies are provided in Attachment A.

Attachment A1
Engineering Connection Assessment: Study Scope

Engineering Connection Assessment: Study Scope

P2467 Peace Butte Wind

Pteragen Canada Inc.

Date: August 19, 2022

Version: V1

Classification: Public

Company Name	Name and Credentials	Date	Signature
AltaLink Management Ltd.(Study Consultant)	Shawn Huang	2022-09-21	S. Huang
AESO	Mariane Delvo, E.I.T. Myron Jin-Li, P. Eng	2022-09-26 2022-10-13	Mariane Delvo M. Jin
Transmission Facility Owner	Maggie Pan	2022-09-21	
Pteragen Canada Inc. (Market Participant)	Rod Carter	2022-09-23	Rod Carter

Contents

1 Introduction 1
1.1 Project Overview 1
1.2 Existing System Overview 1
1.2.1 Study Area 1
1.2.2 Existing Constraints 2
2 Connection Alternatives 4
2.1 Alternative 1 – T-Tap connection to the existing 138 kV transmission line 600L 4
3 Criteria, Standards and Requirements 6
3.1 AESO Reliability Criteria 6
3.2 ISO Rules and Information Documents 7
4 Scenarios and Assumptions 8
4.1 Scenarios 8
4.2 Assumptions 9
4.2.1 System Project Assumptions 9
4.2.2 Connection Project Assumptions 9
4.2.3 Load Assumption 12
4.2.4 Generation Assumptions 12
4.2.5 Intertie Flow Assumptions 18
4.2.6 HVDC Power Order Assumptions 18
4.2.7 Transmission Facility Ratings 19
4.2.8 Protection Fault Clearing Times 21
4.2.9 Project Dynamic Data 22
4.2.10 Voltage Profile Assumption 22
5 Study Methodology 23
5.1 Study Case Validation 24
5.2 Power Flow Studies 24
5.2.1 Contingencies to be Studied 25
5.3 Transient Stability Studies 25
5.3.1 Contingencies to be Studied 25
5.4 Short-Circuit Current Level Studies 25
6 Mitigation Measures 26
6.1 Development 26
6.2 Evaluation 26
6.2.1 Post-Mitigation Studies 26
6.2.2 Constraint Effective Factor Studies 26
7 Changes to Study Assumptions 27

Tables

Table 1-1: Project Load and Generation Details 1
Table 3-1: Post-Contingency Voltage Deviation Guidelines for Low Voltage Busses 7
Table 4-1: Connection Study Scenarios 8
Table 4-2: Planned Connection Projects Included in the Study Area 9
Table 4-3: Forecast Load (at AESO South Planning Region Peak) 12
Table 4-4: Existing Generation (excluding Wind and Solar) Dispatch Conditions 13
Table 4-5: Dispatch Conditions for Existing and Under Construction Wind Generation Facilities 13
Table 4-6: Dispatch Conditions for Existing Solar Generation Projects 15
Table 4-7: Dispatch Conditions for Planned Wind Generation Projects 16
Table 4-8: Dispatch Conditions for Planned Solar Generation Projects 17
Table 4-9: Intertie Flows for by Scenario 18
Table 4-10: HVDC to Adjacent AC System MVAr Exchange Limits 19
Table 4-11: Thermal Rating Assumptions for Key Transmission Lines in the Study Area 19
Table 4-12: Summary of Key Transformer Ratings in the Study Area 20
Table 4-13: Summary of Key Shunt Elements in the Study Area 20
Table 4-14: Protection Fault Clearing Times 21
Table 5-1: Summary of the Studies to be Performed 23

Figures

Figure 1-1: Transmission System in the Study Area 3
Figure 2-1: Connection Alternative 1 5

Attachments

Attachment A: Transmission Planning Criteria – Basis and Assumptions

1 Introduction

This Study Scope provides an overview of the engineering studies to be completed by AltaLink Management Ltd. (the Studies Consultant) to assess the impact of the Project (as defined in section 1.1) on the performance of the Alberta interconnected electric system (AIES). Technical criteria, assumptions and methods for performing these engineering studies are provided in this document.

1.1 Project Overview

Pteragen Canada Inc. (Market Participant) has submitted a request for system access service to the Alberta Electric System Operator (AESO) to connect its proposed Peace Butte Wind Farm (Facility) to the AIES.

The Market Participant's request includes: a request for a new system access service in the area, with a Rate STS, *Supply Transmission Service*, contract capacity of 120 MW and a Rate DTS, *Demand Transmission Service*, contract capacity of 0.1 MW; and a request for transmission development (collectively, the Project).

The Project in-service date (ISD) used for the purpose of the studies is August 2025.

Load and generation components of the Project are listed in Table 1-1.

1.2 Existing System Overview

1.2.1 Study Area

Geographically, the Project is located in the AESO planning area of Medicine Hat (Area 4).

The Study Area consists of the AESO planning areas of Medicine Hat (Area 4), Vauxhall (Area 52), and Empress (Area 48) including the tie lines connecting these planning areas to the rest of the AIES.

The existing transmission system in the Study Area is shown in Figure 1-1.

Table 1-1: Project Load and Generation Details

Project Component		Description
Load	Existing Rate DTS, *Demand Transmission Service,* contract capacity	No existing contract
	Requested Rate DTS	0.1 MW
	Type	Station Service
	Motors (number and size)	Not Applicable
	Power factor	Not Applicable
	Future load expansion plans	No
Generation	Generation type	Wind
	Existing Rate STS, *Supply Transmission Service,* contract capacity	No existing contract

Project Component		Description
	Requested Rate STS	120 MW
	Number and size of generating units	5.45 x 22
	Maximum authorized real power (MARP)	120 MW
	Maximum capability (MC)	120 MW
	Reactive power capability	0.95 pf absorbing
		0.9 pf producing
	Future generation expansion plans	No

Note:

MARP and MC are defined in the AESO's Consolidated Authoritative Document Glossary, which can be found on the AESO's website.

1.2.2 Existing Constraints

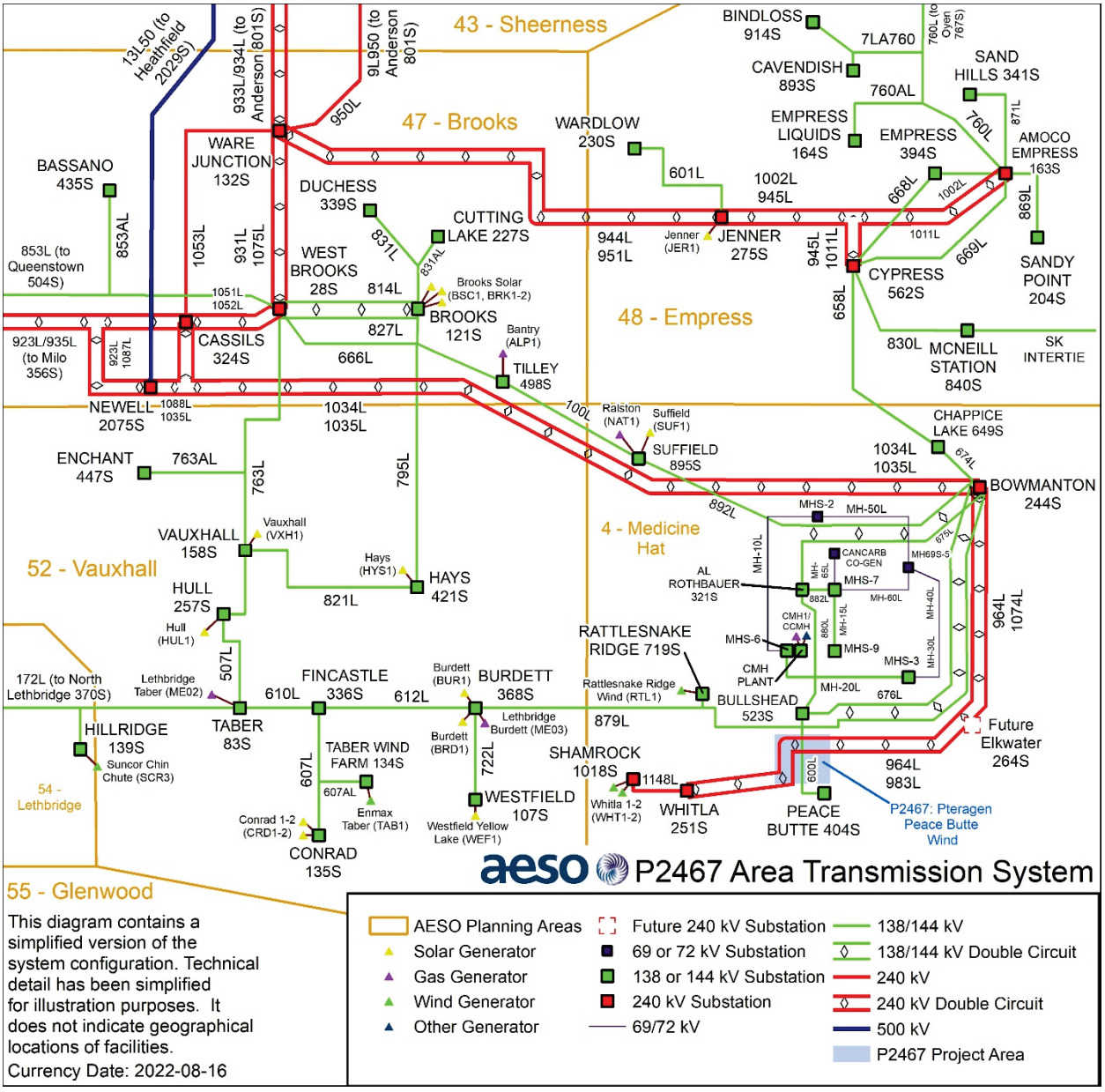
Existing constraints in the Study Area are managed in accordance with the procedures set out in Section 302.1 of the ISO rules, *Real Time Transmission Constraint Management* (TCM Rule).

There are a number of constraints in the Study Area that are mitigated by existing remedial action schemes (RASs) and/or other protection schemes.

The following existing RASs and/or other protection schemes are used to manage constraints in the area:

- RAS 27: 562S Cypress McNeil Power and Undervoltage Scheme
- RAS 28: 163S Amoco Empress Reverse Power and Undervoltage Scheme
- RAS 29: McNeil 840S Under Voltage Runback Scheme
- RAS 33: Cypress T562S Reverse Power and Undervoltage Scheme
- RAS 112: Cypress 562S - Power/Under & Over Frequency Scheme
- RAS 141: Tilley 498S voltage instability mitigation
- RAS 164: 1034L and 1035L Contingency Mitigation
- RAS 168: 172L-83S Overload Mitigation
- RAS 170: 1005L-356S Overload Mitigation (P2009) (Future)
- RAS 173: 880L-321S Overload Mitigation Scheme
- RAS 2607: 28S - 1075L Overvoltage Line Trip
- RAS 2608: 163S - 1002L Overvoltage Line Trip

Figure 1-1: Transmission System in the Study Area



2 Connection Alternatives

The following alternatives will be studied:

2.1 Alternative 1 – T-Tap connection to the existing 138 kV transmission line 600L

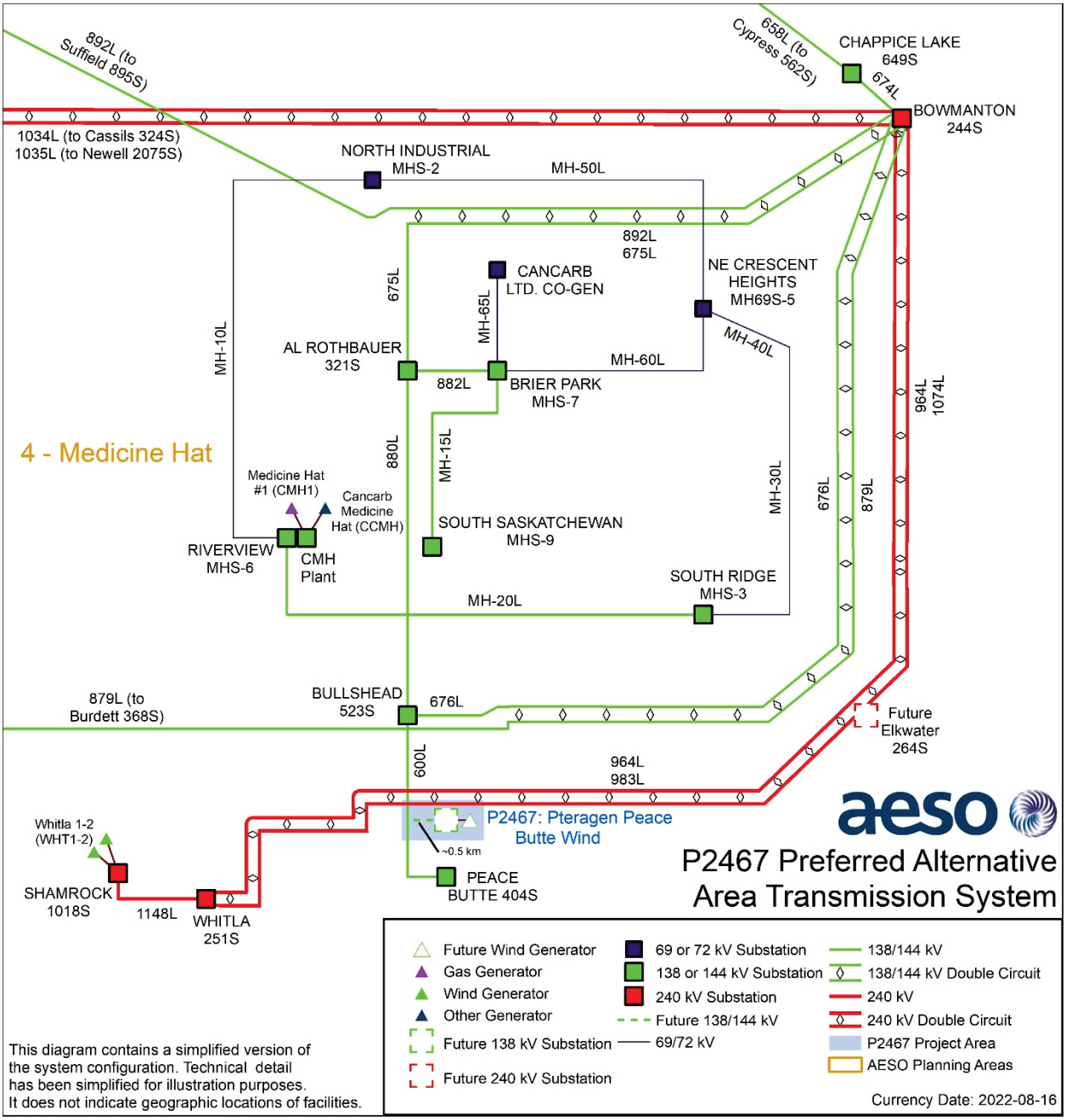
This alternative includes the following developments:

- Add a new 138 kV collector substation;
- Add one 138 kV circuit, approximately 0.5 kilometer[1] in length, to connect the collector substation to the existing 138 kV transmission line 600L (between Peace Butte 404S – Bullshead 523S) using a T-tap connection configuration; and
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 2-1.

[1] Exact line length to be determined by the TFO.

Figure 2-1: Connection Alternative 1



3 Criteria, Standards and Requirements

3.1 AESO Reliability Criteria

The Transmission Planning (TPL) Standards, which are included in the Alberta Reliability Standards, and *Transmission Planning Criteria – Basis and Assumptions (see Attachment A),* (collectively, the Reliability Criteria) will be applied to evaluate system performance under Category A system conditions (i.e., all elements in-service) and following Category B contingencies (i.e., single element outage), prior to and following the studied alternatives. Below is a summary of Category A and Category B system conditions.

Category A, often referred to as the N-0 condition, represents a normal system with no contingencies and all facilities in service. Under this condition, the system must be able to supply all firm load and firm transfers to other areas. All equipment must operate within its applicable rating, voltages must be within their applicable range, and the system must be stable with no cascading outages.

Category B events, often referred to as an N-1 or N-G-1 with the most critical generator out of service, result in the loss of any single specified system element under specified fault conditions with normal clearing. These elements are a generator, a transmission circuit, a transformer, or a single pole of a DC transmission line. The acceptable impact on the system is the same as Category A. Planned or controlled interruptions of electric supply to radial customers or some local network customers, connected to or supplied by the faulted element or by the affected area, may occur in certain areas without impacting the overall reliability of the interconnected transmission systems. To prepare for the next contingency, system adjustments are permitted, including curtailments of contracted firm (non-recallable reserved) transmission service electric power transfers.

The TPL standards, TPL-001-AB-0, and TPL-002-AB1-0, have referenced Applicable Ratings when specifying the required system performance under Category A and Category B events. For the purpose of applying the TPL standards to the studies documented in this report, Applicable Ratings are defined as follows:

- Normal thermal rating of the line's loading limits for each season;
- The highest specified loading limits for transformers;
- For Category A conditions: Voltage range under normal operating condition per AESO Information Document #2010-007RS, *General Operating Practices – Voltage Control* (ID #2010-007RS). For the busses not listed in ID #2010-007RS, Table 2-1 in the *Transmission Planning Criteria – Basis and Assumptions* applies;
- For Category B: The extreme voltage range values per Table 2-1 in the *Transmission Planning Criteria – Basis and Assumptions;* and
- Desired post-contingency voltage deviation limits for three defined post-event timeframes as provided in Table 3-1.

Table 3-1: Post-Contingency Voltage Deviation Guidelines for Low Voltage Busses

Parameter and reference point	Time Period		
	Post Transient (up to 30 sec)	Post Auto Control (30 sec to 5 min)	Post Manual Control (Steady State)
Voltage deviation from steady state at point of delivery (POD) low voltage bus.	±10%	±7%	±5%

3.2 ISO Rules and Information Documents

ID #2010-007RS will be used to establish system normal (i.e., pre-contingency) voltage profiles for the Study Area.

The TCM Rule will be followed to set up the study scenarios and assess the impact of the Project. In addition, due regard will be given to the following:

- The AESO's *Connection Study Requirements*;
- Section 502.1 of the ISO rules, *Aggregated Generating Facilities Technical Requirements*;
- Section 502.16 of the ISO rules, *Aggregated Generating Facilities Operating Requirements*;

4 Scenarios and Assumptions

4.1 Scenarios

The following section describes the scenarios to be studied and the assumptions to be used in the studies.

Connection scenarios must be studied as outlined in Table 4-1.

Table 4-1: Connection Study Scenarios

Scenario No.	Year/Season	System Generation Dispatch Conditions	Scenario Name	Project Load (MW)	Project Generation (MW)
Pre-Project					
1	2025 Summer Light (SL)	High Wind (HW)	2025 SL HW Pre-Project	0	0
2	2025 Summer Peak (SP)	High Wind (HW)	2025 SP HW Pre-Project	0	0
Post-Project					
3	2025 Summer Light (SL)	High Wind (HW)	2025 SL HW Post-Project	0	120
4	2025 Summer Peak (SP)	High Wind (HW)	2025 SP HW Post-Project	0	120
5	2031 Winter Peak (WP)	All Study Area Generators In-Service	2031 WP Post-Project	0	120
Pre-Project Sensitivity with P2137 and P2465					
6	2025 Summer Light (SL) Sensitivity	High Wind (HW)	2025 SL HW Pre Sensitivity	0	0
7	2025 Summer Peak (SP) Sensitivity	High Wind (HW)	2025 SP HW Pre Sensitivity	0	0
Post-Project Sensitivity with P2137 and P2465					
8	2025 Summer Light (SL) Sensitivity	High Wind (HW)	2025 SL HW Post-Project Sensitivity	0	120
9	2025 Summer Peak (SP) Sensitivity	High Wind (HW)	2025 SP HW Post-Project Sensitivity	0	120

Note:

The 138 kV bus-tie breaker and switch at the Bowmanton 244S substation are assumed to be open for all of the above scenarios.

The City of Medicine Hat thermal and voltage violations should be included in the study results.

4.2 Assumptions

4.2.1 System Project Assumptions

The pre-Project and post-Project connection assessment will not include any system transmission projects because there are no planned system transmission developments in the Study Area that are expected to be in service before the scheduled Project ISD.

4.2.2 Connection Project Assumptions

Table 4-2 summarizes the connection projects in the Study Area. The planned projects included in the study are shown in Table 4-7 and Table 4-8. The project with "*" will be included in the Sensitivity studies.

Table 4-2: Planned Connection Projects in the Study Area[2]

AESO Project No.	AESO Project Name	AESO Planning Area No.	Generation (MW)	Load (MW)	Scheduled ISD	AUC Proceeding No.
P1533	Joss MPC WAGF	48-Empress	122.4	1	6-Oct-2022	
P1698	Joss Jenner WAGF - Phase 2	48-Empress	71.4	1	6-Oct-2022	
P1734	Suncor Forty Mile Maleb WAGF	04-Medicine Hat	200	0.25	1-Sep-2022	
P1812	Suncor Forty Mile Granlea WAGF	04-Medicine Hat	0	0.25	9-May-2022	
P1828	hep Energy Alderson Solar	04-Medicine Hat	100	1	1-Dec-2022	
P1853	Fortis Buffalo Atlee Cluster 1 WAGF	48-Empress	12.3	0	14-Apr-2023	
P1892	Fortis Buffalo Atlee Cluster 3 WAGF DER	48-Empress	4.6	0	14-Apr-2023	
P1926	Solar Krafte Vauxhall	52-Vauxhall	150	0.375	1-Aug-2023	
P1927	Solar Krafte Brooks	47-Brooks	360	0.99	1-Feb-2023	
P1987	Solar Krafte Rainier	47-Brooks	450	1.12	4-Jun-2024	
P2008	Greengate Lathom MPC Solar	47-Brooks	120	0.5	1-Jun-2023	
P2091	EDP Renewables Blue Bridge Solar	48-Empress	150	5	1-Aug-2025	
P2122	Cypress Wind Project Connection	04-Medicine Hat	195.9	2.2	31-Aug-2022	
P2137*	Enerfin Winnifred MPC Wind	04-Medicine Hat	90	1	15-Feb-2023	

[2]This table may change based on the updated connection project list.

AESO Project No.	AESO Project Name	AESO Planning Area No.	Generation (MW)	Load (MW)	Scheduled ISD	AUC Proceeding No.
P2195	FortisAlberta Bassano 435S DER Solar	47-Brooks	9.25	0	1-Feb-2023	
P2199	FortisAlberta Buffalo Atlee Cluster 2	48-Empress	13.8	0	14-Apr-2023	
P2216	FortisAlberta Chappice Lake 649S DER Solar	04-Medicine Hat	10.5	0	31-Oct-2022	
P2218	ENGIE Duchess Solar	47-Brooks	90	0.11	1-Sep-2023	
P2232	ENGIE Buffalo Trail North Wind	04-Medicine Hat	200	6	1-Aug-2024	
P2234	Jenner Wind Phase 3	48-Empress	109.2	1	6-Oct-2022	
P2237	RESC Forty Mile MPC Wind	04-Medicine Hat	266	10	1-Sep-2023	
P2247	Buffalo Plains MPC Wind	47-Brooks	466	2	17-Apr-2023	
P2249	FortisAlberta Empress 394S DER Solar 1	48-Empress	22	0	1-May-2023	
P2250	FortisAlberta Empress 394S DER Solar 2	48-Empress	15.5	0	1-May-2023	
P2254	RESC Hilda MPC Wind	48-Empress	100	3	7-Oct-2022	
P2318	EDF North Slope Solar	04-Medicine Hat	200	3	1-Sep-2023	
P2323	Fortis Taber 83S DER Solar 1	52-Vauxhall	16.4	0	1-Nov-2022	
P2324	Fortis Taber 83S DER Solar 2	52-Vauxhall	15	0	1-Nov-2022	
P2325	Fortis Taber 83S DER Solar 3	52-Vauxhall	13.3	0	1-Nov-2022	
P2326	Fortis Taber 83S DER Solar 4	52-Vauxhall	9.2	0	1-Nov-2022	
P2337	Dunmore Solar	04-Medicine Hat	216	0.5	1-Apr-2023	
P2342	EDF Bull Trail Wind	04-Medicine Hat	300	4	1-Sep-2023	
P2347	Forty Mile Granlea Solar Phase 2	04-Medicine Hat	220	0.5	17-Nov-2023	
P2348	BluEarth Wheatcrest MPC Solar	52-Vauxhall	50	0.15	15-Mar-2023	

AESO Project No.	AESO Project Name	AESO Planning Area No.	Generation (MW)	Load (MW)	Scheduled ISD	AUC Proceeding No.
P2362	Fortis Enchant 447S DER Solar	52-Vauxhall	22	0	5-Oct-2022	
P2363	Fortis Enchant 447S DER Solar	52-Vauxhall	17.9	0	5-Oct-2022	
P2364	Fortis Enchant 447S DER Solar	52-Vauxhall	9.3	0	5-Oct-2022	
P2365	Fortis Enchant 447S DER Solar	52-Vauxhall	22.7	0	5-Oct-2022	
P2398	Invenergy Schuler Wind	48-Empress	150	2	1-Mar-2023	
P2411	Greengate Jurassic MPC Solar Battery	48-Empress	300	1.5	31-Dec-2023	
P2412	Fortis Buffalo Atlee Cluster 4 DER Wind	48-Empress	4.6	0	14-Apr-2023	
P2413	EDF Cypress 2 Wind	04-Medicine Hat	45.78	0.62	31-Aug-2022	
P2421	RESC Big Sky Solar	48-Empress	140	1	1-Jan-2024	
P2430	Greengate Midnight MPC Solar Battery	04-Medicine Hat	465	1.5	31-Dec-2023	
P2442	Saamis Solar Park	04-Medicine Hat	325	1	12-Sep-2023	
P2446	Fortis Tilley 498S DER Solar	47-Brooks	19.6	0	30-Sep-2023	
P2447	Greengate Luna MPC Solar Battery	47-Brooks	530	1.5	31-Dec-2023	
P2458	Capital Power Whitla MPC Solar	04-Medicine Hat	88	1	1-Jul-2023	
P2461	Aira MPC Solar	04-Medicine Hat	450	1	1-Jun-2024	
P2463	BluEarth Bindloss MPC Solar Battery	48-Empress	120	21	2-Aug-2024	
P2465*	Enerfin Winnifred Wind Modification	04-Medicine Hat	60	0	31-Jul-2023	
P2467	Pteragen Peace Butte Wind	04-Medicine Hat	120	0.1	25-Aug-2025	
P2506	Greengate Luna 2 MPC Solar Battery	47-Brooks	465	1.5	2-Jul-2024	
P1918	FortisAlberta Conrad DER Solar 1	52-Vauxhall	18.4	0	8-Jul-2022	

AESO Project No.	AESO Project Name	AESO Planning Area No.	Generation (MW)	Load (MW)	Scheduled ISD	AUC Proceeding No.
P1959	FortisAlberta Conrad DER Solar 2	52-Vauxhall	16.9	0	8-Jul-2022	

Note:

*P2137, and P2465 will be included in the sensitivity study and will be dispatched to full output. Deviation from the dispatch conditions shall be recorded in the engineering study results.

4.2.3 Load Assumption

The load forecast to be used for the studies is shown in Table 4-3 and is a forecast for the AESO South Planning Region peak based on the AESO 2021 Long-term Outlook (2021 LTO)[3] with modifications to incorporate the latest forecast intelligence. For the post-Project studies, when the Study Area loads are modified to align with the regional load forecast, the active power to reactive power ratio in the base case scenarios shall be maintained.

Table 4-3: Forecast Load (at AESO South Planning Region Peak)

AESO Planning Region Name	Forecast Peak Load by Year/Season (MW)	
	2025 SL	2025 SP
South Planning Region[1]	891	1614

Note:
[1] The South Region comprises the following AESO planning areas: 4, 43 ,44 ,45 ,46 ,47, 48, 49, 52,53 ,54, and 55

IDEV files contain non-motor loads in zones 34, 36, and 351. These loads are not accounted for in the forecasted peak loads shown above and should not be considered when scaling load. The AESO engineer will provide guidance to load scaling procedures as required.

4.2.4 Generation Assumptions

The generation forecast to be used for the studies is based on the 2021 LTO with modifications to incorporate the latest forecast intelligence. The generation assumptions for the studies will assume high wind dispatch condition. Additional studies may be required in the event of changes to the AESO's corporate forecast.

The existing generation (excluding wind and solar) dispatch conditions for the study scenarios are described in Table 4-4.

[3] The 2021 LTO is available on the AESO website.

Table 4-4: Existing Generation (excluding Wind and Solar) Dispatch Conditions

Facility Name	Unit No.	Bus No.	MC (MW)	AESO Planning Area No.	Unit Net Generation[a] (MW) by Scenario	
					2025 SL	2025 SP
Lethbridge Taber (ME02)	2	3272	8	52	0	7
Lethbridge Burdett (ME03)	3	4269	7	52	0	7
Altagas Bantry (ALP1)	1	4275	7	47	0	5
Ralston (NAT1)	G1,G2,G3, G4,G5,G6, G7,G8,G9, GX	3270	25	4	0	17
Medicine Hat #1 (CMH1)[b]	-	667, 683, 686, 687, 689, 712, 713, 1715	297	4	195	272
Sheerness #1 (SH1)	G1	1482	400	43	192	200
Sheerness #2 (SH2)	G2	1487	390	43	200	150

Notes:

[a] "Unit Net Generation" refers to gross generating unit output (MW) less unit service load.

[b] With the CMH1 dispatch level in the table, the City of Medicine Hat export will be approximately 54 MW in SL and 5 MW in SP. Deviation from the dispatch conditions shall be recorded in the engineering study results.

The wind and solar generation facilities will be dispatched to yield the credible worst-case power flow conditions for the Study Area. Pre-Project dispatch levels for the existing, under-construction and contracted wind and solar generation facilities, as well as planned projects are shown in Table 4-5, Table 4-6,

Table ***4-7*** and Table 4-8.

Table 4-5: Dispatch Conditions for Existing and Under Construction Wind Generation Facilities

Facility Name and Code	Bus No.	AESO Planning Area No.	MC (MW)	Unit Net Generation[a] Dispatch (MW)	
				SL HW	SP HW

Ardenville Wind (ARD1)	4735, 4740	53	68	62.6	57.8
Fortis Bull Creek Phases 1 and 2 (BUL1 & BUL2)	550003, 550004	37	29	26.7	24.7
Blackspring Ridge (BSR1)	61736, 61737	49	300	276.0	255.0
Blue Trail Wind (BTR1)	66328, 67328	53	66	60.7	56.1
Castle River #1 (CR1)	2234, 3234	53	39	35.9	33.2
Castle Rock Ridge 2 (CRR2)	567221	53	30.6	28.2	26.0
Castle Rock Wind Farm (CRR1)	67221	53	77	70.8	65.5
Cowley Ridge (CRE3)	4264	53	20	18.4	17.0
Enmax Taber (TAB1)	15343, 16343	52	81	74.5	68.9
Ghost Pine (NEP1)	2621, 2622, 2623, 2624, 2625	42	82	75.4	69.7
Halkirk (HAL1)	66435, 67435	42	150	138.0	127.5
Kettles Hill (KHW1)	2402, 3402	53	63	58.0	53.6
McBride Lake Windfarm (AKE1)	2901, 3901, 4901	53	73	67.2	62.1
Old Man River Wind (OWF1)	61543	53	46	42.3	39.1
Rattlesnake Ridge Wind (RTL1)	60873	4	130	119.6	110.5
Riverview Wind (RIV1)	69221	53	115	105.8	97.8
Soderglen Wind (GWW1)	12358, 13358	53	71	65.3	60.4
Summerview 1 (IEW1)	2338, 3338	53	66	60.7	56.1
Summerview 2 (IEW2)	4339, 5337	53	66	60.7	56.1
Suncor Chin Chute (SCR3)	2389	54	30	27.6	25.5
Suncor Magrath (SCR2)	11002	53	30	27.6	25.5
Wheatland Wind (WHE1)	61632, 60632	43	120	110.4	102.0
Capital Power Whitla Wind Power Facility Phase 1 (WHT1) [b]	60990	4	201.6	201.6	201.6
Capital Power Whitla Wind Power Facility Phase 2 & 3 (WHT2) [b]	61990	4	151	151	151
TransAlta Windrise (WRW1)	567031	53	207	190.4	176.0
Suncor Wintering Hills (SCR4)	60789, 60791, 60793, 60846, 60848, 60850	43	88	81.0	74.8

Note:

[a] "Unit Net Generation" refers to gross generating unit output (MW) less unit service load.

[b] Deviation from the dispatch conditions shall be recorded in the engineering study results.

Table 4-6: Dispatch Conditions for Existing Solar Generation Projects

Facility Name and Code	Bus No.	AESO Planning Area No.	MC (MW)	Unit Net Generation[a] Dispatch (MW)	
				SL HW	SP HW
Burdett (BRD1)	2269	52	10.5	0	5.25
Burdett (BUR1)	557269	52	20	0	10
Brooks Solar (BSC1)	553257	47	15	0	7.5
Brooks Solar 1 (BRK1)	553256	47	13	0	6.5
Brooks Solar 2 (BRK2)	554257	47	14	0	7
Coaldale Solar (COL1)	554691	54	22	0	11
Claresholm 1 (CLR1)	60894	49	58	0	29
Claresholm 2 (CLR2)	61894	49	75	0	37.5
Conrad 1 (CRD1)	554291	52	23	0	11.5
Conrad 2 (CRD2)	553291	52	18	0	9
East Strathmore Namaka (NMK1)	553340	45	20	0	10
Hays (HYS1)	554401	52	24	0	12
Hull (HUL1)	2401	52	24.5	0	12.25
Innisfail Solar (INF1)	557120	39	22	0	11
Jenner (JER1)	554986	48	21	0	10.5
Monarch (MON1)	554400	54	24	0	12
Strathmore 1 (STR1)	557259	45	18	0	9
Strathmore 2 (STR2)	558259	45	23	0	11.5
Suffield (SUF1)	3270	52	23	0	11.5
Travers (TVS1)	560026, 561026, 562026	49	400	0	200
Vauxhall Solar (VXH1)	4274	52	22	0	11
Westfield Yellow Lake (WEF1)	557277	52	19	0	9.5
Kisikaw-pisim 1&2 (KKP1& KKP2)	995214, 995220	60	14	0	7

Note:
[a] "Unit Net Generation" refers to gross generating unit output (MW) less unit service load.

Table 4-7: Dispatch Conditions for Planned Wind Generation Projects

Project Number	Project Name	Planned ISD	Bus No.	AESO Planning Area No.	MC (MW)	Unit Net Generation Dispatch (MW)	
						SL HW	SP HW
P0693[b]	Wild Rose 2 Wind Farm	15-Aug-2022	3462, 3463	4	192	192	192
P1250	Wild Run Grizzly Bear Wind	1-Oct-2022	67308	13	120	110.4	102.0
P1533	Joss MPC WAGF	30-Jun-2022	60798, 60799	47	122.4	112.6	104.0
P1698	Joss Jenner WAGF - Phase 2	30-Jun-2022	61798	47	71.4	65.7	60.7
P1704	Paintearth Wind Power	1-Jul-2023	61418	42	150	138.0	127.5
P1719	Stirling WAGF Project	30-Jun-2023	61630	54	113	104.0	96.1
P1812[b]	Suncor Forty Mile Granlea WAGF	2-May-2022	61994, 62994	4	200	200	200
P1853	Fortis Buffalo Atlee Cluster 1 WAGF	1-Sep-2022	553260	47	17.25	15.9	14.7
P1892	Fortis Buffalo Atlee Cluster 3 WAGF	1-Sep-2022	552260	47	17.25	15.9	14.7
P1898	Pattern Lanfine North Wind	30-Sep-2022	60996	42	145	133.4	123.3
P1909	TransAlta Garden Plain Wind	30-Jun-2022	565002	42	130	119.6	110.5
P2065	Wild Run Grizzly Bear Wind Phase 2	1-Oct-2022	67308	13	24	22.1	20.4
P2122[b]	EDF Cypress Wind	1-Nov-2022	560003, 561003	4	195.9	195.9	195.9
P2199	Buffalo Atlee Wind Farm 2	1-Sep-2022	557261	47	13.8	12.7	11.7
P2234	Joss Jenner WAGF - Phase 3	30-Jun-2022	61799	47	111.2	102.3	94.5
P2247	Buffalo Plains MPC Wind	17-Apr-2023	560041, 560042	47	466	428.7	396.1
P2263	BER Hand Hills MPC Wind	1-Sep-2022	560045	42	145	133.4	123.3
P2413[b]	EDF Cypress Wind 2	Aug 31 2022	560003, 561003	4	45.8	45.8	45.8

Note:

[a] "Unit Net Generation" refers to gross generating unit output (MW) less unit service load.

[b] Deviation from the dispatch conditions shall be recorded in the engineering study results.

Table 4-8: Dispatch Conditions for Planned Solar Generation Projects

Project Number	Project Name	Planned ISD	Bus No.	AESO Planning Area No.	MC (MW)	Unit Net Generation[a] Dispatch (MW)	
						SL HW	SP HW
P1831	Fortis 255S Vulcan Faribault Farms DG PV	1-Sep-2022	4244	49	22	0.0	11.0
P1862	Fortis Spring Coulee 385S Solar DG	15-Oct-2021	553246, 554246	55	29.5	0.0	14.8
P1870	Fortis Stavely 349S DER Solar	24-May-2021	2004	49	16.5	0.0	8.3
P1927	Solar Krafte Brooks	1-Feb-2023	60434, 61434	47	360	0.0	180.0
P1978	ATCO Michichi DER Solar	1-Nov-2022	552448, 553448, 552450	42	75	0.0	37.5
P2059	ATCO Three Hills 770S DER Solar	1-May-2022	552433	42	25	0.0	12.5
P2061	ATCO Michichi Creek 802S DER Solar	1-May-2022	554448	42	25	0.0	12.5
P2194	FortisAlberta East Crossifield 64S DER Solar	1-Apr-2022	994312	57	5.65	0.0	2.8
P2195	FortisAlberta Bassano 435S DER Solar	1-Feb-2023	557399	47	9.25	0.0	4.6
P2249	FortisAlberta Empress 394S DER Solar 1	1-May-2022	557316	48	22.5	0.0	11.3
P2250	FortisAlberta Empress 394S DER Solar 2	1-May-2022	557016	48	16	0.0	8.0
P2254	RESC Hilda MPC Wind	7-Oct-2023	567004	48	100	0.0	50.0
P2300	RESC Enterprise MPC Solar	1-Apr-2022	563070	49	65	0.0	32.5
P2335	FortisAlberta Vulcan 255S DER Solar	1-May-2022	990003	52	15	0.0	7.5
P2337[b]	Dunmore Solar	1-Apr-2023	560044	4	216	216	216
P2341	Greengate Travers Solar Phase 2	24-Mar-2022	560026, 561026, 562026	49	65	0.0	32.5
P2347[b]	Forty Mile Granlea Solar Phase 2	17-Nov-2023	65994	4	220	220	220
P2362	FortisAlberta Enchant 447S DER Solar	8-Jul-2022	993286	52	23	0.0	11.5
P2363	FortisAlberta Enchant 447S DER Solar	17-Jun-2022	993288	52	17.9	0.0	9.0
P2364	FortisAlberta Enchant 447S DER Solar	17-Jun-2022	994286	52	10	0.0	5.0
P2365	FortisAlberta Enchant 447S DER Solar	17-Jun-2022	994288	52	24	0.0	12.0

P2424	ATCO Oyen 767S DER Solar	1-Dec-2022	88888	42	15	0.0	7.5
P2459	ENMAX Barlow Park DER Solar	8-Dec-2022	4590	6	27	0.0	13.5
P2475	EPC SS-24 DER Solar	22-Dec-2022	4590, 3590	6	37	0.0	18.5

Note:
[a] "Unit Net Generation" refers to gross generating unit output (MW) less unit service load.
[b] Deviation from the dispatch conditions shall be recorded in the engineering study results.

The post-Project scenario wind and solar generation dispatch levels are identical to the pre-Project scenario dispatch levels. The Facility will be dispatched to 120 MW in all post-Project scenarios. Reduce Area 40 (Wabamun) 120 MW to compensate the Facility.

4.2.5 Intertie Flow Assumptions

The intertie flow assumptions for the Alberta-British Columbia (AB-BC), Alberta-Saskatchewan (AB-SK), and Alberta-Montana (MATL) interties are shown in Table 4-9.

For the 2031 Winter Peak scenario, the intertie flow values should be set to the AESO planning base cases.

Table 4-9: Intertie Flows for by Scenario

Scenario Number	Scenario Name	Import (-) / Export (+) (MW) by Intertie		
		AB-BC	AB-SK	MATL
1	2025 SL HW Pre-Project	377	0	0
2	2025 SP HW Pre-Project	377	0	0
3	2025 SL HW Post-Project	377	0	0
4	2025 SP HW Post-Project	377	0	0
6	2025 SL HW Pre-Project Sensitivity	377	0	0
7	2025 SP HW Pre-Project Sensitivity	377	0	0
8	2025 SL HW Post-Project Sensitivity	377	0	0
9	2025 SP HW Post-Project Sensitivity	377	0	0

4.2.6 HVDC Power Order Assumptions

The Western Alberta Transmission Line (WATL) and the Eastern Alberta Transmission Line (EATL) are high-voltage direct current (HVDC) transmission lines. The HVDC power order assumptions for the studies will be set to minimize losses for the pre-Project and post-Project study scenarios.

For the 2031 Winter Peak scenario, the HVDC power order should be as per the AESO base cases and will not be adjusted.

The reactive power limits of the MVAr exchanges between the HVDC terminals (WATL and EATL) and the connected alternating current (AC) transmission systems are shown in Table 4-10. These limits must be maintained when performing the studies.

Table 4-10: HVDC to Adjacent AC System MVAr Exchange Limits

HVDC Facility	North Terminal Reactive Power Limit (MVAr)	South Terminal Reactive Power Limit (MVAr)
EATL	-85 to 75	-35 to 35
WATL	-75 to 75	-35 to 35

4.2.7 Transmission Facility Ratings

The legal owner of transmission facilities (TFO) provided the thermal ratings assumptions for the existing transmission lines in the Study Area. Table 4-11 shows the normal ratings and emergency ratings for the key transmission lines in the Study Area, which will be used to perform the engineering studies.

Table 4-11: Thermal Rating Assumptions for Key Transmission Lines in the Study Area

Line ID	Line Description	Voltage Class (kV)	Normal Rating (MVA)	Emergency Rating (MVA)
			Summer	Summer
964L	Bowmanton 244S - Whitla 251S	240	952M	1047M
1074L	Bowmanton 244S - Elkwater 264S	240	952	1074L
983L	Bowmanton 244S - Whitla 251S	240	952M	1047M
1034L	Bowmanton 244S - Cassils 324S	240	931M	1024M
1035L	Bowmanton 244S - Newell 2075S	240	952M	1047M
1087L	Cassils 324S - Newell 2075S	240	547	656
676L	Bowmanton 244S – Bullshead 523S	138	369	406
675L	Bowmanton 244S – AL Rothbauer 321S	138	287CT	405
880L	Bullshead 523S - AL Rothbauer 321S	138	121	133
892L	Bowmanton 244S - Suffield 895S	138	80	88
666L	West Brooks 28S - Tilley 498S	138	120CT	133
100L	Tilley 498S - Suffield 895S	138	78	86
612L	Fincastle 336S - Suffield 895S	138	85	94
610L	Taber 83S - Fincastle 336S	138	85 (118)*	94 (130)*
879L	Bowmanton 244S - Burdett 368S	138	85	94
658L	Chappice Lake 649S - Cypress 562S	138	121	133
668L	Cypress 562S - Empress 394S	138	121	133
669L	Cypress 562S - Amoco Empress 163S	138	177	195
674L	Bowmanton 244S - Chappice Lake 649S	138	121	133
1088L	Cassils 324S - Newell 2075S	240	931M	1024M

Note:
"CT" indicates that the transmission line is limited by current transformer.

"M" indicates that the transmission line rating is limited for reasons other than protection equipment, transformer, current transformer, line, ganged switch, circuit breaker, or regulator.

"*" The higher rating should be used as it is considered as part of P2212. The 610L's underbuild will be removed and higher rating will be restored.

The TFO provided the details of the substation transformers in the Study Area. The key transformers in the Study Area are shown in Table 4-12.

Table 4-12: Summary of Key Transformer Ratings in the Study Area

Substation Name and Number	Transformer ID	Transformer Voltages (kV)	Transformer Rating (MVA)
Westbrooks 28S	T1	240/138 kV	400
	T2	240/138 kV	400
Bowmanton 244S	T1	240/138 kV	200
	T2	240/138 kV	200
Amoco Empress 163S	T5	240/138 kV	191.2
Cypress 562S	T1	240/138 kV	200
	T2	240/138 kV	200

The TFO provided the details of the shunt elements in the Study Area. The key shunt elements in the Study Area are shown in Table 4-13.

Table 4-13: Summary of Key Shunt Elements in the Study Area

Substation Name and Number	Voltage Class (kV)	Capacitors		Reactors	
		Number of Switched Shunt Blocks	Total at Nominal Voltage (MVAr)	Number of Switched Shunt Blocks	Total at Nominal Voltage (MVAr)
Taber 83S	138	1	24.46	-	-
		1	27.2		
Hays 421S	138	1	22.96	-	-
Burdett 368S	138	1	24.46	-	-
		1	22.96		
Tilley 498S	138	1	27.17	-	-
West Brooks 28S	240	-	-	1	50
Whitla 251S	240	-	-	2	150
McNeil 840S	138	2	49.6	-	-
Bullshead 523S	138	1	18.3	-	-

Substation Name and Number	Voltage Class (kV)	Capacitors		Reactors	
		Number of Switched Shunt Blocks	Total at Nominal Voltage (MVAr)	Number of Switched Shunt Blocks	Total at Nominal Voltage (MVAr)
Amoco Empress 163S	138	2	48.7		

4.2.8 Protection Fault Clearing Times

The transient stability studies will be performed using the actual fault clearing times for the selected contingencies, as provided by the TFO and as shown in Table 4-14. Only those contingencies shown in Table 4-14 will be studied for transient stability studies. If the TFO did not specify the fault clearing times (e.g. for new transmission lines) for a selected contingency, then the studies for that contingency will be performed using the standard fault clearing times that are specified in Table 2-3 of the AESO's *Transmission Planning Criteria – Basis and Assumptions*.

Table 4-14: Protection Fault Clearing Times

Contingency (System Element Lost)	Fault Location	Clearing Times (Cycles)	
		Near End	Far End
964L (Whitla 251S – Bowmanton 244S)	Whitla 251S	4	5
	Bowmanton 244S	4	5
983L (Whitla 251S – Elkwater 264S)	Whitla 251S	5	6
	Elkwater 264S	5	6
1074L (Bowmanton 244S – Elkwater 264S)	Elkwater 264S	5	6
	Bowmanton 244S	5	6
1034L (Cassils 324S – Bowmanton 244S)	Cassils 324S	4	5
	Bowmanton 244S	4	5
1035L (Newell 2075S – Bowmanton 244S)	Newell 2075S	4	5
	Bowmanton 244S	4	5
676L (Bullshead 523S – Bowmanton 244S)	Bullshead 523S	6	27
	Bowmanton 244S	6	27
600L (Peace Butte 404S – Bullshead 523S)	Peace Butte 404S	9	30
	Bullshead 523S	9	30
880L (Al Rothbauer 321S – Bullshead 523S)	Al Rothbauer 321S	9	30
	Bullshead 523S	9	30
675L (Al Rothbauer 321S – Bowmanton 244S)	Al Rothbauer 321S	6	8
	Bowmanton 244S	6	8

4.2.9 Project Dynamic Data

Dynamic data for the Project can be found in Attachment A7.

4.2.10 Voltage Profile Assumption

ID #2010-007RS will be used to establish system normal (i.e., pre-contingency) voltage profiles for key area busses prior to commencing any studies. Table 2-1 of the *Transmission Planning Criteria – Basis and Assumptions* applies for the busses not included in ID #2010-007RS. These voltages will be used to set the voltage profile for the study base cases prior to the power flow studies.

5 Study Methodology

The studies to be performed for this connection assessment are identified in Table 5-1.

Table 5-1: Summary of the Studies to be Performed

Scenario No. and Name		Power Flow		Voltage Stability		Transient Stability		Motor Starting		Short Circuit
		Category		Category		Category		Category		Category A
		A	B	A	B	A	B	A	B	
Pre-Project										
1	2025 SL HW Pre	X	x			X*	X*			
2	2025 SP HW Pre	X	X			X*	X*			X
Post-Project										
3	2025 SL HW Post	X	X			X	X			
4	2025 SP HW Post	X	X			X	X			X
5	2031 WP Post									X
Pre-Project Sensitivity										
6	2025 SL HW Pre Sensitivity	X								
7	2025 SP HW Pre Sensitivity	X								
Post-Project Sensitivity										
8	2025 SL HW Post Sensitivity	X								
9	2025 SP HW Post Sensitivity	X								

Notes:

*Only required if post-Project studies show potential transient stability issues.

For the engineering studies, all transmission facilities 69 kV and above, within the Study Area and the transmission lines connecting these planning areas to neighbouring planning areas will be studied and

monitored to assess the impact of the Project on the performance of the AIES, including any violations of the Reliability Criteria (as defined in Section 3.1).

5.1 Study Case Validation

The study will be conducted on the AIES system model using the AESO's planning base cases. The seasonal light/peak scenarios will be studied as required. The base cases will be modified by the AESO to include the corresponding load and generation forecast information. The resulting cases, or seed cases, along with the project IDEVs, will be provided by the AESO to the Studies Consultant. These cases are provided in PSS/E v34 and/or v33 format. Upon request, the AESO can provide RAW and SEQ files. Software used by the Studies Consultant must be able to read and write these file types. Manual adjustments may be required to ensure full alignment with the details outlined in this Study Scope, as described in the process outlined below. The AESO will provide guidance to the Studies Consultant with regard to the setup of the study cases should any questions arise.

The expected process for the creation of acceptable study cases is as follows:

1. The AESO provides seed cases and the appropriate incremental IDEVs to use and any other applicable information required to the Studies Consultant.
2. The Studies Consultant applies the identified IDEVs to the seed cases to create the study cases. The Studies Consultant verifies and makes adjustments as required to ensure the study cases represent the assumptions outlined within the Study Scope.
3. Upon creating the study cases, all the study cases are forwarded to the AESO for approval.
4. The Studies Consultant proceeds with the required engineering studies only after the study cases are approved by the AESO.

5.2 Power Flow Studies

Power flow studies will be performed to identify thermal and voltage criteria violations as per the Reliability Criteria, and any deviations from the limits listed in Table 3-1.

For information purposes, the Studies Consultant must also provide, as a separate file, a list of any transmission elements where the thermal loading exceeds 95% of the element's normal rating under Category A and Category B conditions.

For the Category B power flow studies, the transformer taps and switched shunt reactive compensating devices such as shunt capacitors and reactors will be locked and continuous shunt devices will be enabled.

Voltage deviations at point-of-delivery (POD) low voltage busses will also be assessed for both the pre-Project and post-Project networks by first locking all tap changers and area shunt reactive compensating devices to identify any post-transient voltage deviations above 10%. Second, tap changers will be allowed to move while shunt reactive compensating devices remained locked to determine if any voltage deviations above 7% would occur in the area. Third, all the taps and shunt reactive compensating devices will be allowed to adjust, and voltage deviations above 5% will be reported.

The scenarios to be studied are shown in Table 5-1.

5.2.1 Contingencies to be Studied

Power flow studies will be performed for the Category A and all Category B contingencies listed in Table 4-14.

5.3 Transient Stability Studies

The Genesee generating unit 3 in Wabamun (Area 40) will be used as the reference for the studies.

The report presenting the results of the transient stability studies must provide response plots for several variables, including rotor angle, and active and reactive power output for the study area generation units. The results report must also provide the 500 kV, 240 kV and 138 kV bus voltage levels for substations near the point of connection. Other busses will be monitored and will be reported as determined by the results. The results report must also provide the key branch active and reactive power flow surrounding the Facility.

Transient stability studies will be performed for the post-Project scenarios as shown in Table 5-1. If any transient stability issues are observed, transient stability analysis will be performed for the corresponding pre-Project scenarios.

5.3.1 Contingencies to be Studied

Transient stability studies will be performed for the contingencies shown in Table 4-14.

5.4 Short-Circuit Current Level Studies

A maximum fault level must be provided for the substations in the vicinity of the Project assuming normal system operation with all transmission elements in service and generation dispatched. Three-phase faults and single line-to-ground faults will be simulated. Polar coordinates and per-unit values will be used for reporting the results.

Winter peak scenarios will be used for the short-circuit studies because winter peak scenarios generally produce higher short-circuit current levels than summer peak scenarios.

Estimated maximum three-phase faults and single line-to-ground short-circuit current levels will be reported for the following substations:

- Bowmanton 244S
- AL Rothbauer 321S
- Bullshead 523S
- Peace Butte 404S
- P2467 collector substation (including in post-Project studies only)

Further sensitivity studies, in consultation with the TFO, may be required if the primary short-circuit analysis indicates a potential to exceed or approach the existing fault rating of the transmission facilities.

The scenarios to be studied are as shown in Table 5-1.

6 Mitigation Measures

6.1 Development

Mitigation measures may be required if the post-Project study results identify system performance issues. Mitigation measures for the Project may involve modifying or adding real-time operational practices and/or remedial action schemes (RASs).

The Studies Consultant must notify the AESO of any system performance issues in a timely manner, following which the AESO Studies Engineer may instruct the Studies Consultant as follows:

- Develop tables showing the constraint effective factors[4] for generation or load based on thermal criteria violations that are observed.
- Collaborate with the AESO to propose changes, if any, to the connection alternatives that could remove the requirement for a RAS.
- Collaborate with the AESO to study modifications to existing and/or planned RASs, proposed by the AESO, to ensure the coordination of existing protection schemes with the addition of any proposed protection schemes.
- Collaborate with the AESO to identify and study new RASs, if any, that may be required to ensure system reliability is maintained after connecting the Project to the AIES.

The AESO Studies Engineer will work closely with the Studies Consultant and guide the development and/or modifications of the proposed mitigation measures to ensure system reliability, security and compliance with AESO ID #2018-018T, *Provision of System Access Service and the Connection Process*.

6.2 Evaluation

6.2.1 Post-Mitigation Studies

Studies to evaluate the effectiveness of mitigation measures, if required, will be performed in accordance with the technical criteria, assumptions, and methods provided in this Study Scope and in accordance with further instructions from the AESO.

6.2.2 Constraint Effective Factor Studies

Constraint effective factor analysis are used to determine the generator- and load- constraint effective factors and to identify the most effective generators or loads to manage the thermal criteria violations, if any, that are observed under Category B conditions.

[4] Constraint effective factor studies are performed to determine the generator- and load- constraint effective factors. Constraint effective factors are used to estimate the ability of generators and loads to manage transmission constraints. A generator's or load's constraint effective factor is defined as the change in power flow over a specific transmission line following a change in the generator's energy production or in the load's energy consumption. The greater the constraint effective factor, the more effective a generator or load can be in managing a thermal criteria violation on the specific transmission line.

7 Changes to Study Assumptions

This study will utilize the AESO's planning base cases, which are based on the AESO's current corporate forecast (2021 LTO) with modifications to incorporate the latest forecast intelligence. Sensitivity studies or restudy may be required in the event of revisions to the AESO's corporate forecast, forecast intelligence, or other study assumptions. Additional engineering studies may also be required to assess new connection alternatives, changes to project ISD, or delays in proposed system developments. Any additional or revised study requirements shall be captured in a signed Study Scope Amendment document.

Attachment A: Transmission Planning Criteria – Basis and Assumptions

Transmission Planning Criteria – Basis and Assumptions

Date: July 9, 2019

Version: V1.2

Alberta Electric System Operator

Calgary Place, 2500, 330-5th Avenue SW Calgary, AB T2P 0L4

Phone: 403-539-2450 | Fax: 403-539-2949

www.aeso.ca

@theaeso

1. Introduction

This document presents the reliability standards, criteria, and assumptions to be used as the basis for planning the Alberta Transmission System. The criteria, standards and assumptions identified in this document supersede those previously established.

2. Transmission Reliability Standards and Criteria[1]

The AESO applies the following Alberta Reliability Standards to ensure that the transmission system is planned to meet applicable performance requirements under a defined set of system conditions and contingencies. A brief description of each of these standards is given below:

1. **TPL-001-AB-0: System Performance Under Normal Conditions**

   Category A represents a normal system condition with all elements in service (N-0). All equipment must be within its applicable rating, voltages must be within their applicable ratings and the system must be stable with no cascading outages. Under Category A, electric supply to load cannot be interrupted and generating units cannot be removed from service.

2. **TPL-002-AB1-0: System Performance Following Loss of a Single BES Element**

   Category B events result in the loss of any single element (N-1) under specified fault conditions with normal clearing. The specified elements are a generating unit, a transmission circuit, a transformer or a single pole of a direct current transmission line. The acceptable impact on the system is the same as Category A with the exception that radial customers or some local network customers, including loads or generating units, are allowed to be disconnected from the system if they are connected through the faulted element. The loss of opportunity load or opportunity interchanges is allowed. No cascading can occur.

3. **TPL-003-AB-0: System Performance Following Loss of Two or More BES Elements**

   Category C events result in the loss of two or more bulk electric system elements (sequential, N-1-1 or concurrent, N-2) under specified fault conditions and include both normal and delayed fault clearing. All of the system limits for Category A and B events apply with the exception that planned and controlled loss of firm load, firm transfers and/or generation is acceptable provided there is no cascading.

4. **TPL-004-AB-0: System Performance Following Extreme BES Events**

   Category D represents a wide variety of extreme, rare and unpredictable events, which may result in the loss of load and generation in widespread areas. The system may not be able to reach a new stable steady state, which means a blackout is a possible outcome. The AESO needs to evaluate these events, at its discretion, for risks and consequences prior to creating mitigation plans.

5. **FAC-014-AB1-2: Establishing and Communicating System Operating Limits**

   The AESO is required to establish system operating limits where a contingency is not mitigated through construction of transmission facilities

[1] A complete description of the *Alberta Reliability Standards* can be found on the AESO's website: https://www.aeso.ca/rules-standards-and-tariff/alberta-reliability-standards/

2.1 Thermal Loading Criteria

The AESO Thermal Loading Criteria require that the continuous thermal rating of any transmission element is not exceeded under normal and post-contingency operating conditions. Thermal limits are assumed to be 100% of the respective normal summer and winter ratings. Emergency limits are not considered in the planning evaluations.

2.2 Voltage Range and Voltage Stability Criteria

The normal minimum and maximum voltage limits as specified in the following table are used to identify Category A system voltage violations, while the extreme minimum and maximum limits are used to identify Category B and C system violations. Table 2-1 presents the acceptable steady state and contingency state voltage ranges for the AIES. Table 2-2 provides voltage stability criteria used to test the system performance.

Table 2-1: Acceptable Range of Steady State Voltage (kV)

Nominal Voltage	Extreme Minimum	Normal Minimum	Normal Maximum	Extreme Maximum
500	475	500	525	550
240	216	234	252	264
260 (Northeast & Northwest)*	234	247	266	275
144	130	137	151	155
138	124	135	145	150
72	65	68.5	75.5	79
69	62	65.5	72.5	76

Table 2-2: Voltage Stability Criteria

Performance Level	Disturbance (1)(2)(3)(4) Initiated by: Fault of No Fault DC Disturbance	MW Margin (P-V method) (5)(6)(7)	MVAr Margin (V-Q method) (6)(7)
A	Any element such as: One Generator One Circuit One Transformer One Reactive Power Source One DC Monopole	≥5%	Worst Case Scenario(8)
B	Bus Section	≥5%	50% of Margin Requirement in Level A
C	Any combination of two elements such as: A Line and a Generator A Line and a Reactive Power Source Two Generators Two Circuits Two Transformers Two Reactive Power Sources DC Bipole	≥2.5%	50% of Margin Requirement in Level A
D	Any combination of three or more elements such as: Three or More Circuits on ROW Entire Substation Entire Plant Including Switchyard	> 0	> 0

2.3 Transient Stability Analysis Assumptions

Standard fault clearing times as shown in Table 2-3 are used for the new facilities or when the actual clearing times are not available for the existing facilities. Double line-to-ground faults are applied for the Category C5 events with normal clearing times. Single line-to-ground faults are applied for Category C6 to C9 events with delayed clearing times as depicted in Table 2-4 and Table 2-5.

Table 2-3: Fault Clearing Times

Nominal (kV)	Near End (Cycles)	Far End (Cycles)
500	4	5
240	5	6
144/138 with telecommunications	6	8
144/138 without telecommunications	6	30

Table 2-4: Stuck Breaker Clearing Times for Lines

Voltage (kV)	Fault Clearing Times (Cycles)		
	Near End	Far End	2nd Ckt (C5 and C7 only)
138/144	15	24	24
240	12	6	14
500	9	5	11

Table 2-5: Stuck Breaker Clearing Times for Transformers

Voltage (kV)	Fault Location	Fault Clearing Times (Cycles)		
		High Side	Low Side	2nd Ckt (breaker fail)
240/138	240 kV side	12	6	14
	138 kV side	5	15	24
500/240	500 kV side	9	5	11
	240 kV side	4	12	14

Study Scope Amendment

P2467 Pteragen Peace Butte Wind

Pteragen Canada Inc.

Date: January 8, 2024

Version: V1Final

Classification: Public

Company Name	Name and Credentials	Date	Signature
AltaLink Management Ltd.(Study Consultant)	Shawn Huang	3/26/2024	S.Huang
AESO	Nima Safari	3/21/2024	Nima Safari
Transmission Facility Owner	Damian Anderson	3/21/2024	Anderson, Damian Digitally signed by: Anderson, Damian DN: CN = Anderson, Damian email = Damian.Anderson@AltaLink.ca OU = AUM, Corporate, Users, HO Date: 2024.03.21 11:35:23 -07'00'
Pteragen Canada Inc. (Market Participant)	Dylan Grove	4/4/2024	

Contents

1 Introduction 2
2 Scope of Change 3
2.1 Scenarios 3
2.2 Assumptions 4
2.2.1 Connection Project Assumptions 4
2.2.2 Renewable Generation Assumptions 7
2.3 Study Methodology 8

Tables

Table 2-1: Connection Study Scenarios 3
Table 2-2: Planned Connection Projects Included in the Studies 4
Table 2-3: Dispatch Conditions for Existing and Under Construction Wind and Solar Generation Facilities 7
Table 2-4: Summary of the Studies to be Performed 8

Figures

No table of figures entries found.

1 Introduction

The original Study Scope for P2467 Peace Butte Wind[1] was signed on August 19, 2022. This study scope amendment is triggered due to the following:

- Change in the study assumptions due to projects moving forward in the AESO Connection Process and hence, meeting the project inclusion criteria.
- Change in the studies to be performed.

[1] Please note that the project name is changed to P2467 Pteragen Peace Butte Wind.

2 Scope of Change

The following amendments apply to the Study Scope for the Project. All other study assumptions will be the same as the original signed Study Scope.

2.1 Scenarios

As P2137 and P2465 have met the inclusion criteria, these two projects needs to be studied in the pre- and post- project scenarios. Table 2-1 is replacing Table 4-1 in the original signed Study Scope.

Table 2-1: Connection Study Scenarios

Scenario No.	Year/Season	System Generation Dispatch Conditions	Scenario Name	Project Load (MW)	Project Generation (MW)
Pre-Project					
1	2025 Summer Light (SL)	High Wind (HW)	2025 SL HW Pre-Project	0	0
2	2025 Summer Peak (SP)	High Wind (HW)	2025 SP HW Pre-Project	0	0
Post-Project					
3	2025 Summer Light (SL)	High Wind (HW)	2025 SL HW Post-Project	0	120
4	2025 Summer Peak (SP)	High Wind (HW)	2025 SP HW Post-Project	0	120
5	2031 Winter Peak (WP)	All Study Area Generators In-Service	2031 WP Post-Project	0	120

2.2 Assumptions

2.2.1 Connection Project Assumptions

Table 2-2 summarizes the connection projects in the Study Area that should be included in the studies. Table 2-2 is replacing Table 4-2 in the original signed Study Scope.

Table 2-2: Planned Connection Projects Included in the Studies

AESO Project No.	AESO Project Name	AESO Planning Area No.	Generation (MW)	Load (MW)	Scheduled ISD	AUC Proceeding No.
P1533	Joss MPC WAGF	48-Empress	122.4	1	6-Oct-2022	
P1698	Joss Jenner WAGF - Phase 2	48-Empress	71.4	1	6-Oct-2022	
P1734	Suncor Forty Mile Maleb WAGF	04-Medicine Hat	200	0.25	1-Sep-2022	
P1812	Suncor Forty Mile Granlea WAGF	04-Medicine Hat	0	0.25	9-May-2022	
P1828	hep Energy Alderson Solar	04-Medicine Hat	100	1	1-Dec-2022	
P1853	Fortis Buffalo Atlee Cluster 1 WAGF	48-Empress	12.3	0	14-Apr-2023	
P1892	Fortis Buffalo Atlee Cluster 3 WAGF DER	48-Empress	4.6	0	14-Apr-2023	
P1926	Solar Krafte Vauxhall	52-Vauxhall	150	0.375	1-Aug-2023	
P1927	Solar Krafte Brooks	47-Brooks	360	0.99	1-Feb-2023	
P1987	Solar Krafte Rainier	47-Brooks	450	1.12	4-Jun-2024	
P2008	Greengate Lathom MPC Solar	47-Brooks	120	0.5	1-Jun-2023	
P2091	EDP Renewables Blue Bridge Solar	48-Empress	150	5	1-Aug-2025	
P2122	Cypress Wind Project Connection	04-Medicine Hat	195.9	2.2	31-Aug-2022	
P2137	Enerfin Winnifred MPC Wind	04-Medicine Hat	90	1	15-Feb-2023	
P2195	FortisAlberta Bassano 435S DER Solar	47-Brooks	9.25	0	1-Feb-2023	
P2199	FortisAlberta Buffalo Atlee Cluster 2	48-Empress	13.8	0	14-Apr-2023	
P2216	FortisAlberta Chappice Lake 649S DER Solar	04-Medicine Hat	10.5	0	31-Oct-2022	

AESO Project No.	AESO Project Name	AESO Planning Area No.	Generation (MW)	Load (MW)	Scheduled ISD	AUC Proceeding No.
P2218	ENGIE Duchess Solar	47-Brooks	90	0.11	1-Sep-2023	
P2232	ENGIE Buffalo Trail North Wind	04-Medicine Hat	200	6	1-Aug-2024	
P2234	Jenner Wind Phase 3	48-Empress	109.2	1	6-Oct-2022	
P2237	RESC Forty Mile MPC Wind	04-Medicine Hat	266	10	1-Sep-2023	
P2247	Buffalo Plains MPC Wind	47-Brooks	466	2	17-Apr-2023	
P2249	FortisAlberta Empress 394S DER Solar 1	48-Empress	22	0	1-May-2023	
P2250	FortisAlberta Empress 394S DER Solar 2	48-Empress	15.5	0	1-May-2023	
P2254	RESC Hilda MPC Wind	48-Empress	100	3	7-Oct-2022	
P2318	EDF North Slope Solar	04-Medicine Hat	200	3	1-Sep-2023	
P2323	Fortis Taber 83S DER Solar 1	52-Vauxhall	16.4	0	1-Nov-2022	
P2324	Fortis Taber 83S DER Solar 2	52-Vauxhall	15	0	1-Nov-2022	
P2325	Fortis Taber 83S DER Solar 3	52-Vauxhall	13.3	0	1-Nov-2022	
P2326	Fortis Taber 83S DER Solar 4	52-Vauxhall	9.2	0	1-Nov-2022	
P2337	Dunmore Solar	04-Medicine Hat	216	0.5	1-Apr-2023	
P2342	EDF Bull Trail Wind	04-Medicine Hat	300	4	1-Sep-2023	
P2347	Forty Mile Granlea Solar Phase 2	04-Medicine Hat	220	0.5	17-Nov-2023	
P2348	BluEarth Wheatcrest MPC Solar	52-Vauxhall	50	0.15	15-Mar-2023	
P2362	Fortis Enchant 447S DER Solar	52-Vauxhall	22	0	5-Oct-2022	
P2363	Fortis Enchant 447S DER Solar	52-Vauxhall	17.9	0	5-Oct-2022	
P2364	Fortis Enchant 447S DER Solar	52-Vauxhall	9.3	0	5-Oct-2022	

AESO Project No.	AESO Project Name	AESO Planning Area No.	Generation (MW)	Load (MW)	Scheduled ISD	AUC Proceeding No.
P2365	Fortis Enchant 447S DER Solar	52-Vauxhall	22.7	0	5-Oct-2022	
P2398	Invenergy Schuler Wind	48-Empress	150	2	1-Mar-2023	
P2411	Greengate Jurassic MPC Solar Battery	48-Empress	300	1.5	31-Dec-2023	
P2412	Fortis Buffalo Atlee Cluster 4 DER Wind	48-Empress	4.6	0	14-Apr-2023	
P2413	EDF Cypress 2 Wind	04-Medicine Hat	45.78	0.62	31-Aug-2022	
P2421	RESC Big Sky Solar	48-Empress	140	1	1-Jan-2024	
P2430	Greengate Midnight MPC Solar Battery	04-Medicine Hat	465	1.5	31-Dec-2023	
P2442	Saamis Solar Park	04-Medicine Hat	325	1	12-Sep-2023	
P2446	Fortis Tilley 498S DER Solar	47-Brooks	19.6	0	30-Sep-2023	
P2447	Greengate Luna MPC Solar Battery	47-Brooks	530	1.5	31-Dec-2023	
P2458	Capital Power Whitla MPC Solar	04-Medicine Hat	88	1	1-Jul-2023	
P2461	Aira MPC Solar	04-Medicine Hat	450	1	1-Jun-2024	
P2463	BluEarth Bindloss MPC Solar Battery	48-Empress	120	21	2-Aug-2024	
P2465	Enerfin Winnifred Wind Modification	04-Medicine Hat	60	0	31-Jul-2023	
P2467	Pteragen Peace Butte Wind	04-Medicine Hat	120	0.1	25-Aug-2025	
P2506	Greengate Luna 2 MPC Solar Battery	47-Brooks	465	1.5	2-Jul-2024	
P1918	FortisAlberta Conrad DER Solar 1	52-Vauxhall	18.4	0	8-Jul-2022	
P1959	FortisAlberta Conrad DER Solar 2	52-Vauxhall	16.9	0	8-Jul-2022	

2.2.2 Renewable Generation Assumptions

The wind facilities will be dispatched to the renewable dispatch scenarios presented in Table 2-3. Table 2-3 is replacing Table 4-7 in the original signed Study Scope.

Table 2-3: Dispatch Conditions for Existing and Under Construction Wind and Solar Generation Facilities

Project Number	Project Name	Planned ISD	Bus No.	AESO Planning Area No.	MC (MW)	Unit Net Generation Dispatch (MW)	
						SL HW	SP HW
P0693[b]	Wild Rose 2 Wind Farm	15-Aug-2022	3462, 3463	4	192	192	192
P1250	Wild Run Grizzly Bear Wind	1-Oct-2022	67308	13	120	110.4	102.0
P1533	Joss MPC WAGF	30-Jun-2022	60798, 60799	47	122.4	112.6	104.0
P1698	Joss Jenner WAGF - Phase 2	30-Jun-2022	61798	47	71.4	65.7	60.7
P1704	Paintearth Wind Power	1-Jul-2023	61418	42	150	138.0	127.5
P1719	Stirling WAGF Project	30-Jun-2023	61630	54	113	104.0	96.1
P1812[b]	Suncor Forty Mile Granlea WAGF	2-May-2022	61994, 62994	4	200	200	200
P1853	Fortis Buffalo Atlee Cluster 1 WAGF	1-Sep-2022	553260	47	17.25	15.9	14.7
P1892	Fortis Buffalo Atlee Cluster 3 WAGF	1-Sep-2022	552260	47	17.25	15.9	14.7
P1898	Pattern Lanfine North Wind	30-Sep-2022	60996	42	145	133.4	123.3
P1909	TransAlta Garden Plain Wind	30-Jun-2022	565002	42	130	119.6	110.5
P2065	Wild Run Grizzly Bear Wind Phase 2	1-Oct-2022	67308	13	24	22.1	20.4
P2122[b]	EDF Cypress Wind	1-Nov-2022	560003, 561003	4	195.9	195.9	195.9
P2199	Buffalo Atlee Wind Farm 2	1-Sep-2022	557261	47	13.8	12.7	11.7
P2234	Joss Jenner WAGF - Phase 3	30-Jun-2022	61799	47	111.2	102.3	94.5
P2247	Buffalo Plains MPC Wind	17-Apr-2023	560041, 560042	47	466	428.7	396.1
P2137[b]	Enerfin Winnifred MPC Wind	1-Oct-2024	567034	4	90	90	90

P2465 [b]	Enerfin Winnifred Wind Modification	1-Oct-2024	567034	4	60	60	60
P2263	BER Hand Hills MPC Wind	1-Sep-2022	560045	42	145	133.4	123.3
P2413[b]	EDF Cypress Wind 2	Aug 31 2022	560003, 561003	4	45.8	45.8	45.8

Note:

[a] "Unit Net Generation" refers to gross generating unit output (MW) less unit service load.

[b] Deviation from the dispatch conditions shall be recorded in the engineering study results.

2.3 Study Methodology

As P2137 and P2465, previously defined as part of the Sensitivity studies in the original signed Study Scope, are now part of the main study scenarios, the studies to be performed for this connection assessment are revised in Table 2-4. Table 2-4 is replacing Table 5-1 in the original signed Study Scope.

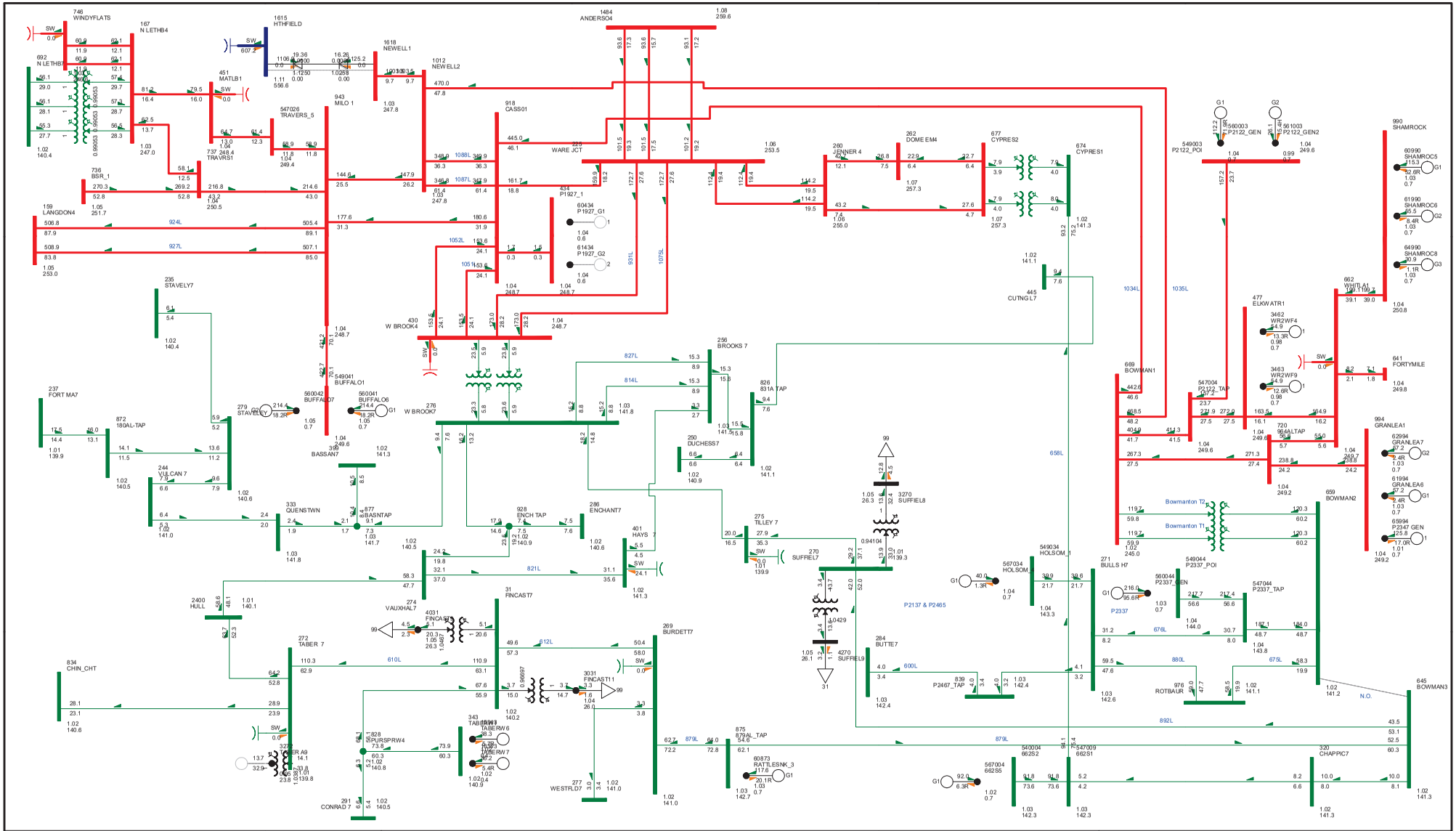
Table 2-4: Summary of the Studies to be Performed

Scenario No. and Name		s		Voltage Stability		Transient Stability		Motor Starting		Short Circuit
		Category		Category		Category		Category		Category A
		A	B	A	B	A	B	A	B	
Pre-Project										
1	2025 SL HW Pre	X	x			X*	X*			
2	2025 SP HW Pre	X	X			X*	X*			X
Post-Project										
3	2025 SL HW Post	X	X			X	X			
4	2025 SP HW Post	X	X			X	X			X
5	2031 WP Post									X

Notes:

*Only required if post-project studies show potential transient stability issues.

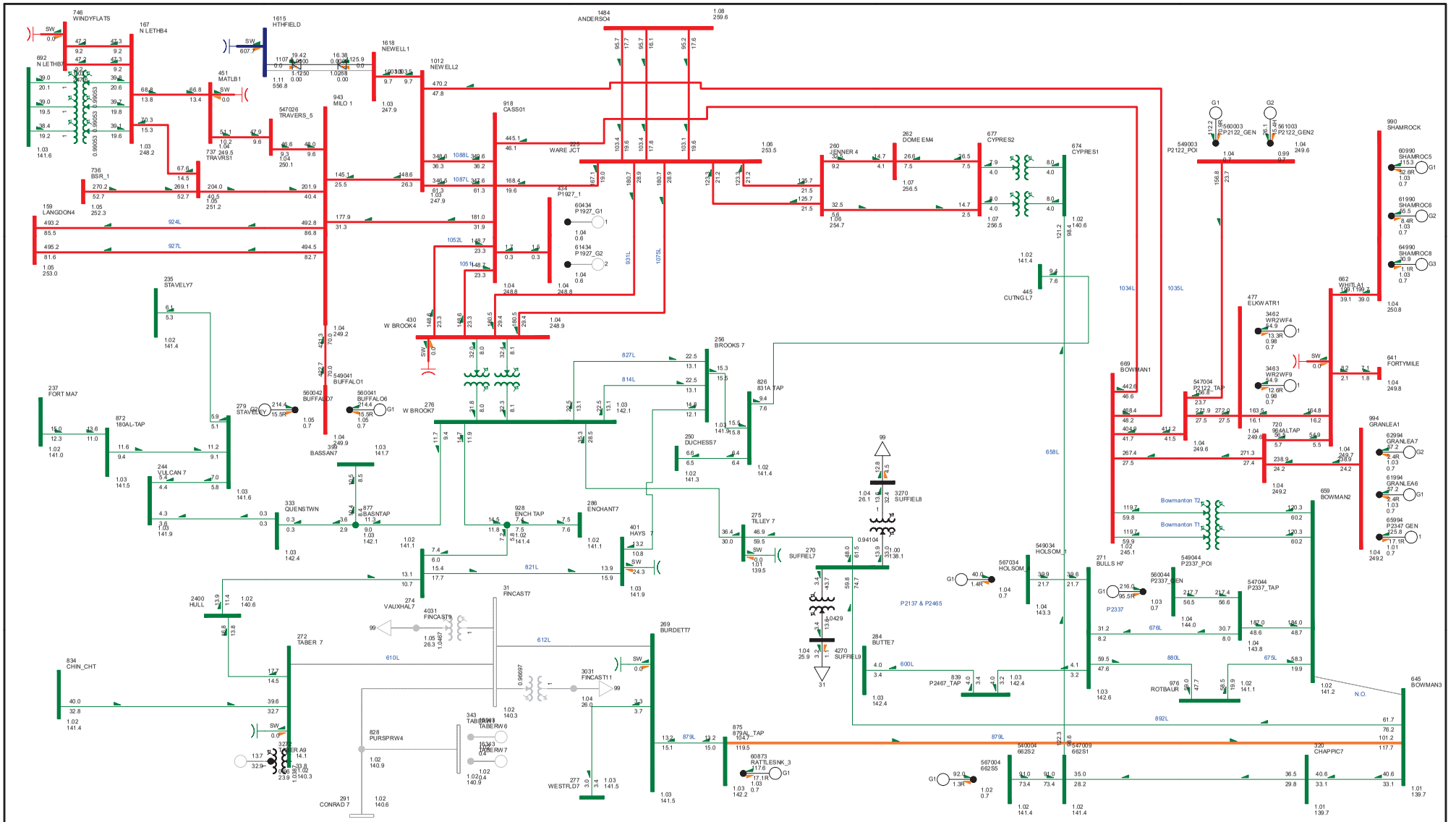
Attachment A2
Pre-Project Power Flow Diagrams



P2467 - Pteragen Peace Butte Wind

FIGURE A-1-1: 2025-SCN1-SL-PRE.SAV
CATEGORY A - NO CONTINGENCY
SUN, NOV 03 2024 13:39

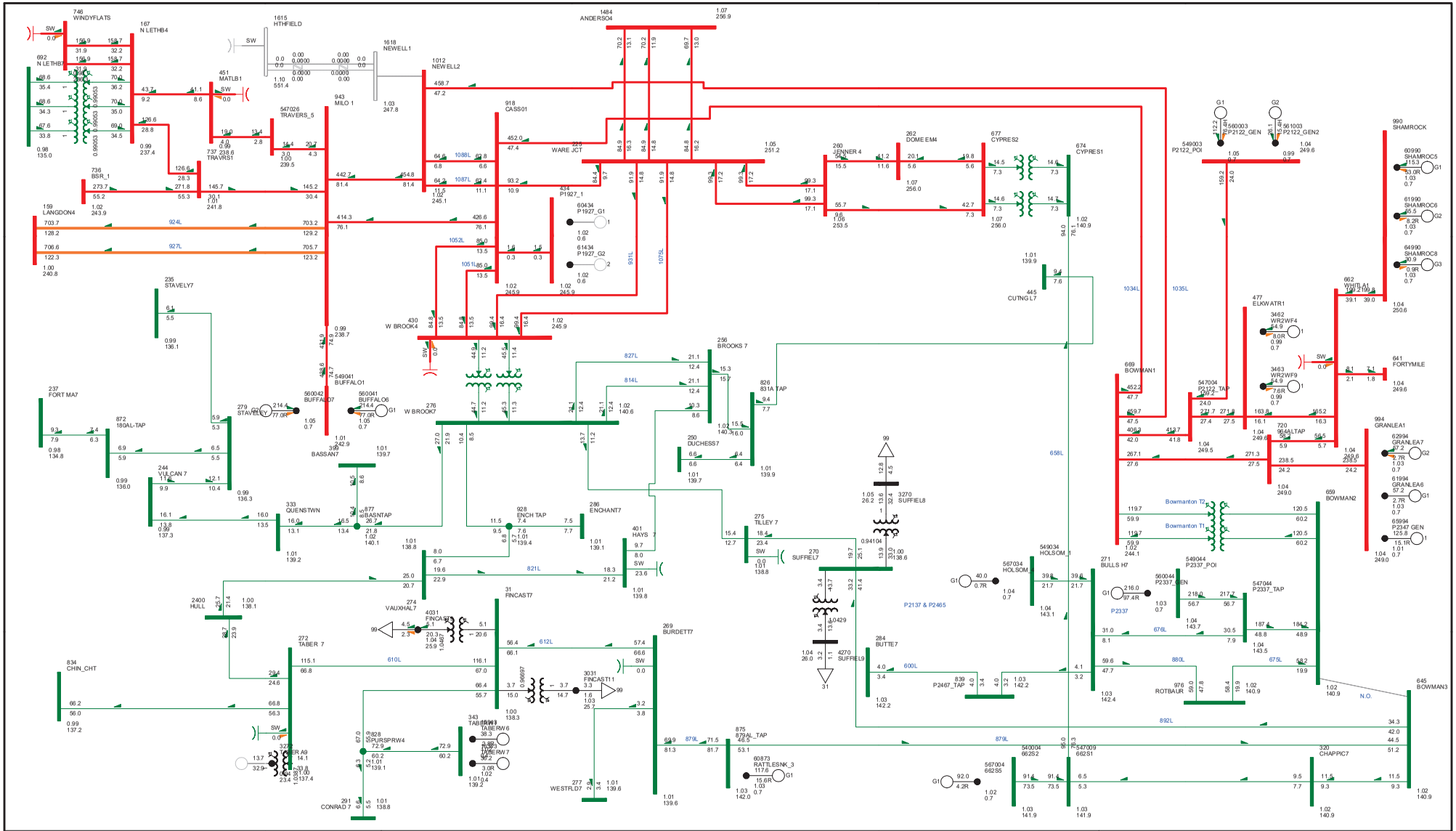
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-1: 2025-SCN1-SL-PRE.SAV
CATEGORY B - FINCASTLE 336ST1
SUN, NOV 03 2024 13:43

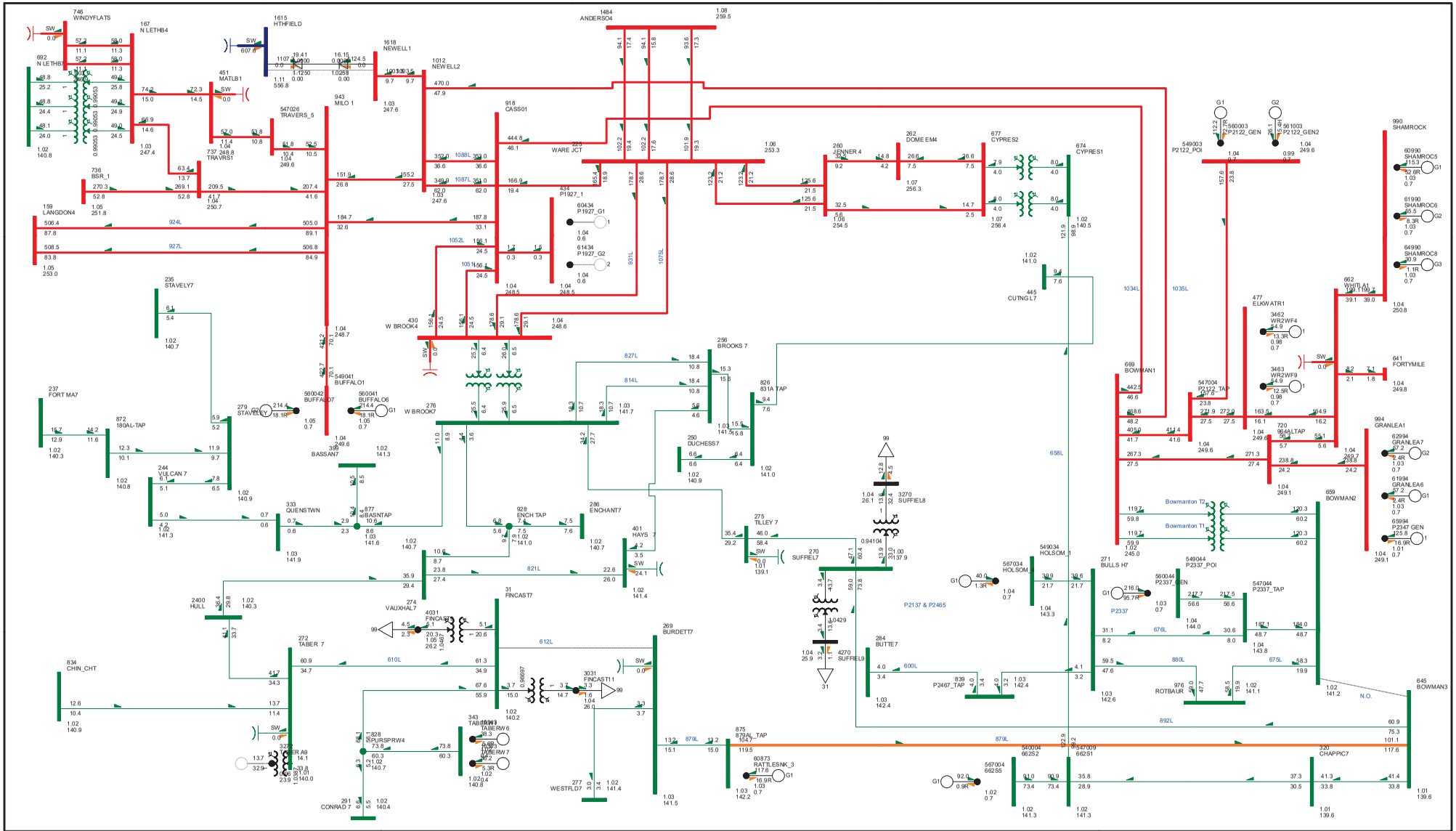
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-2: 2025-SCN1-SL-PRE.SAV
CATEGORY B - EATL HVDC
SUN, NOV 03 2024 13:44

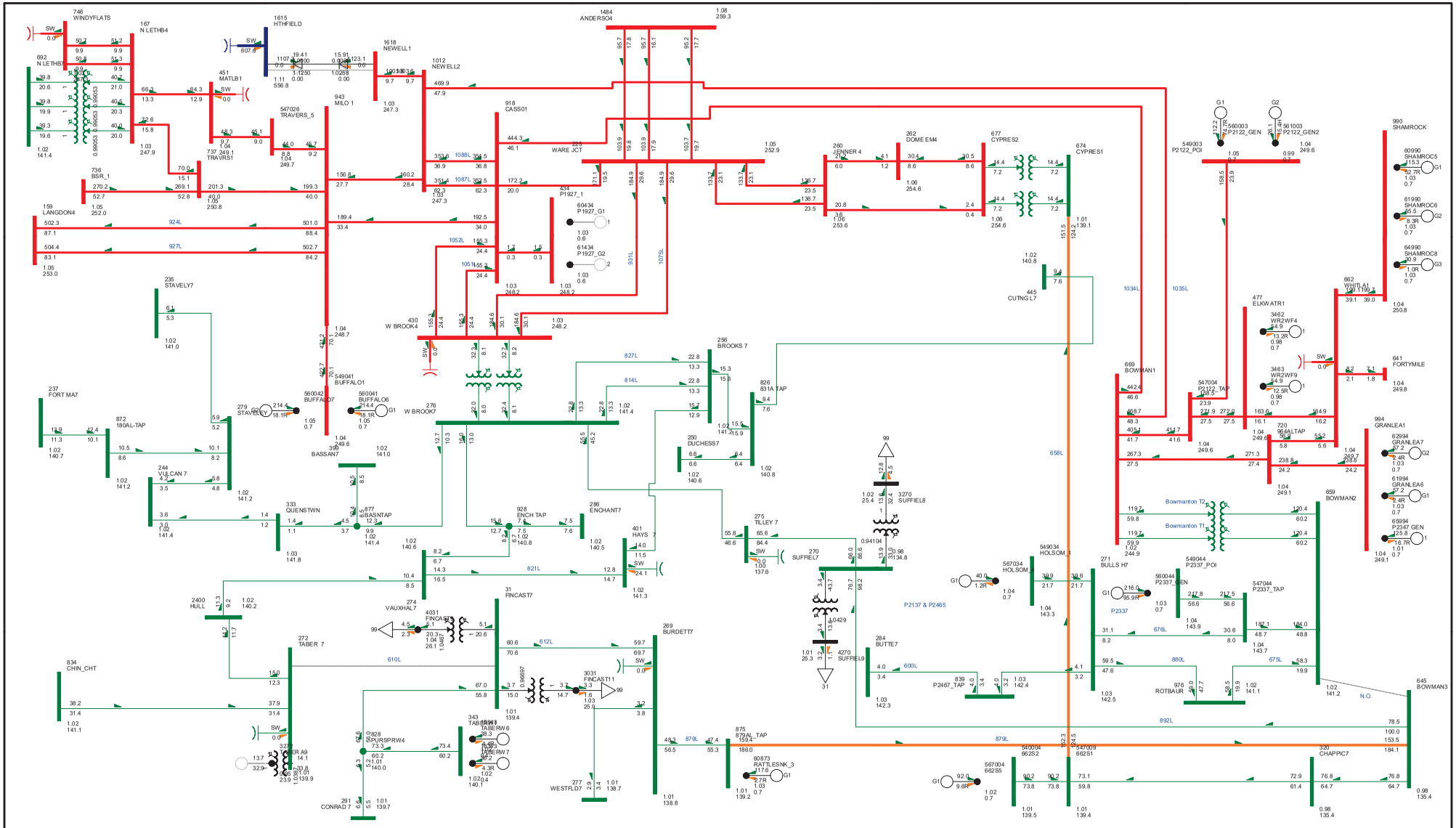
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-3: 2025-SCN1-SL-PRE.SAV
CATEGORY B - 612L (FINCASTLE 336S TO BURDETT 368S)
SUN, NOV 03 2024 13:45

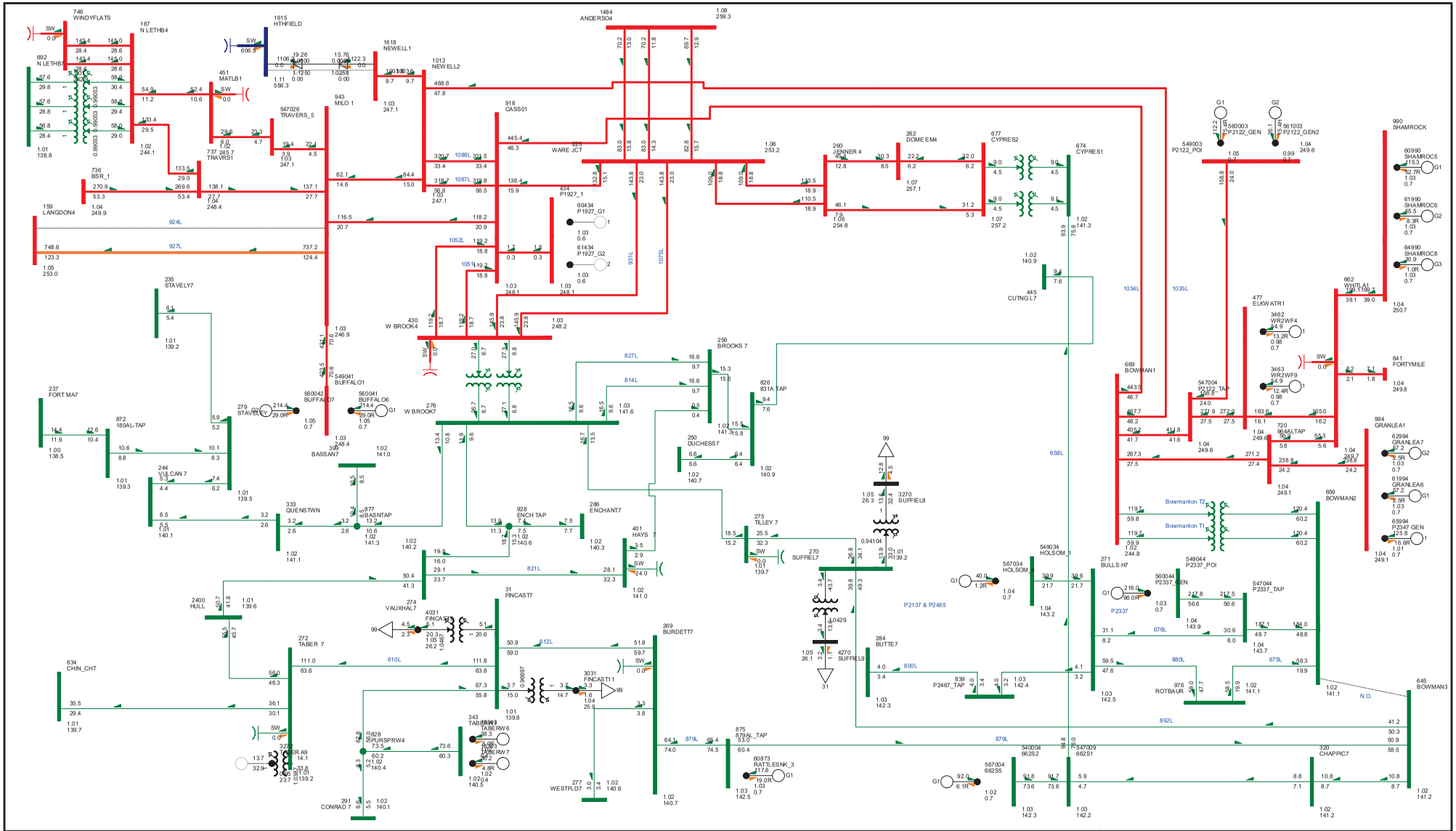
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-4: 2025-SCN1-SL-PRE.SAV
CATEGORY B - 610L (FINCASTLE 336S TO TABER 83S)
SUN, NOV 03 2024 13:45

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-5: 2025-SCN1-SL-PRE.SAV
CATEGORY B - 924L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:46

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

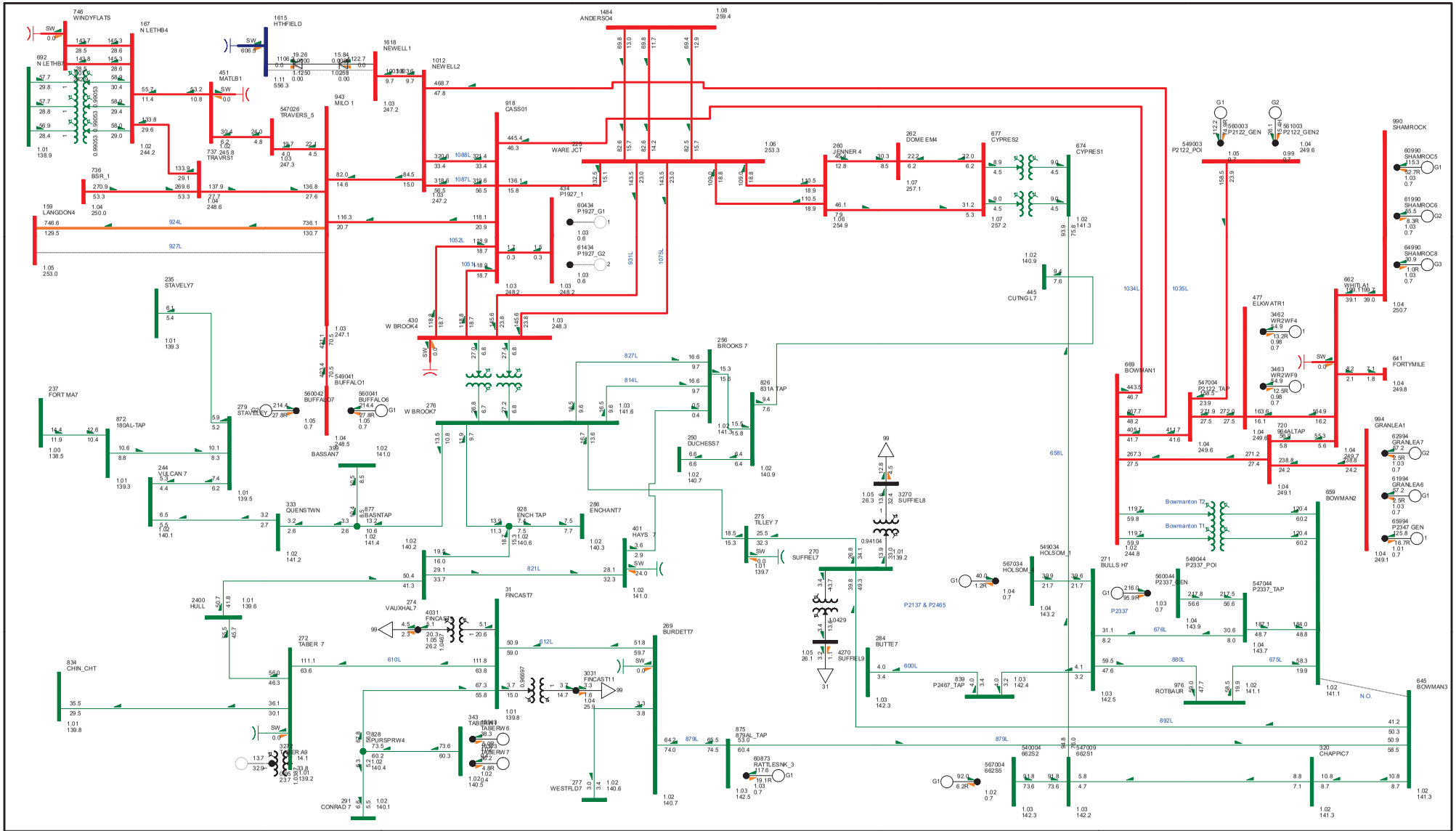
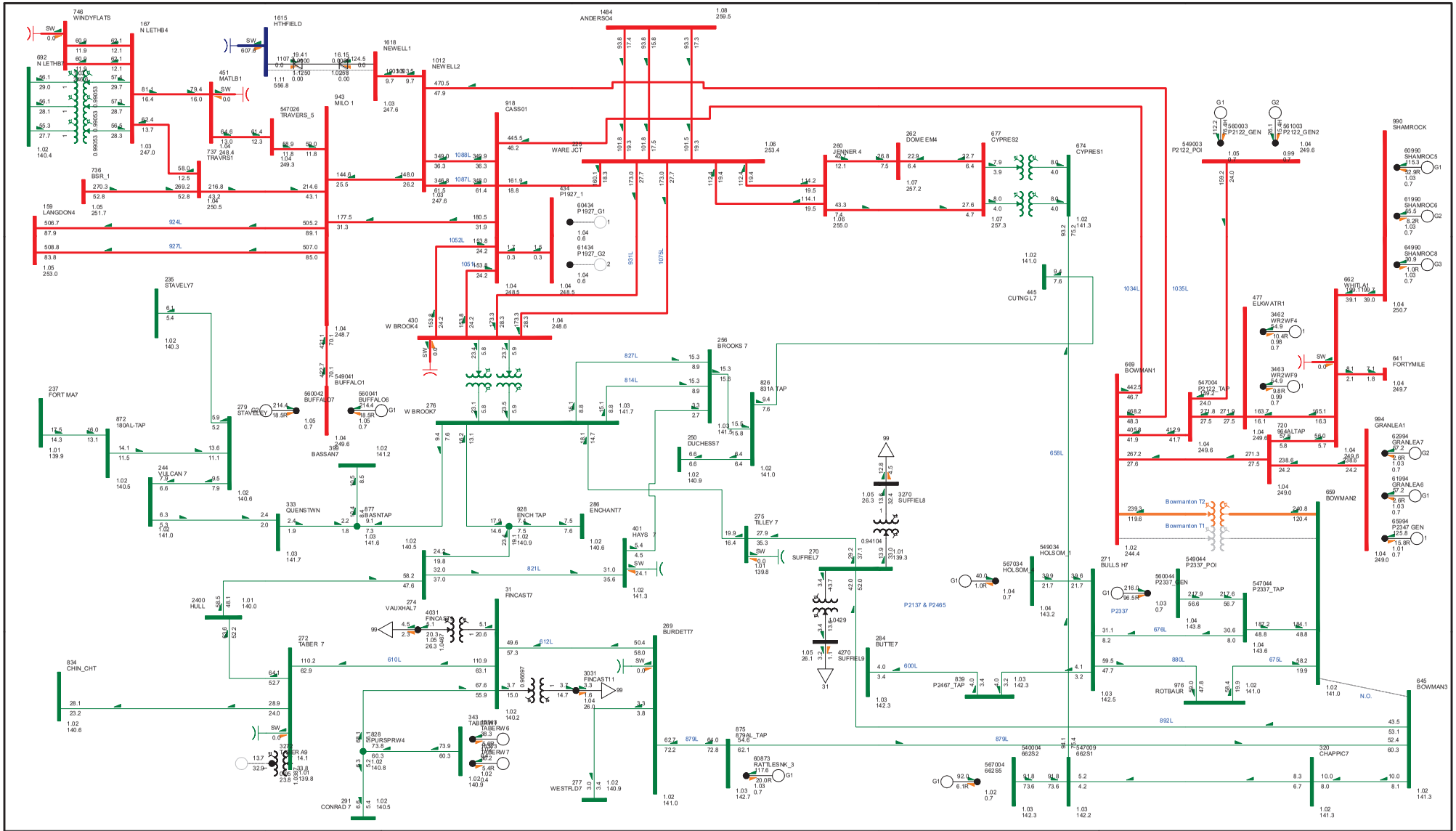


FIGURE B-1-6: 2025-SCN1-SL-PRE.SAV
CATEGORY B - 927L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:47

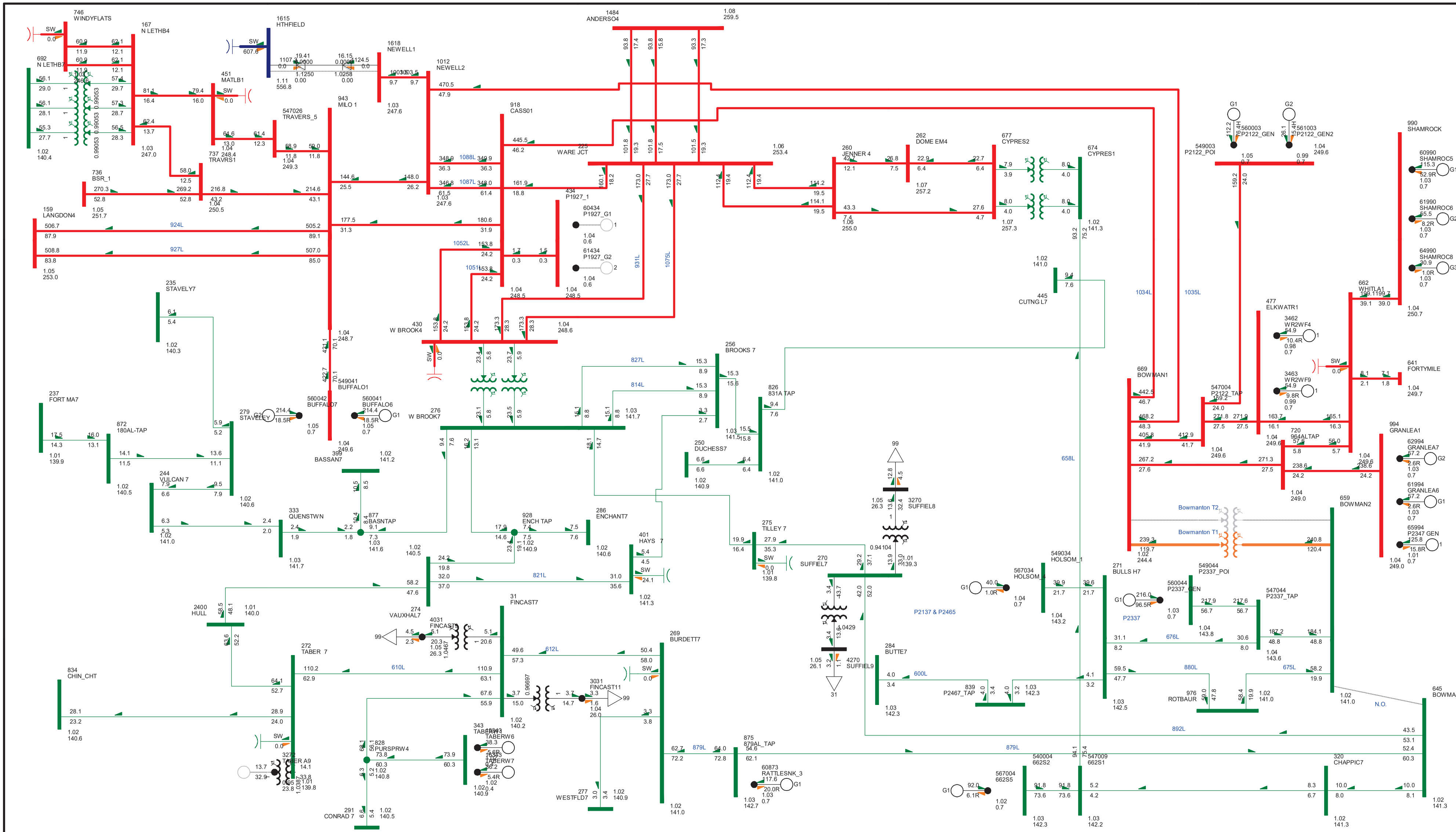
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-7: 2025-SCN1-SL-PRE.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T1
SUN, NOV 03 2024 13:47

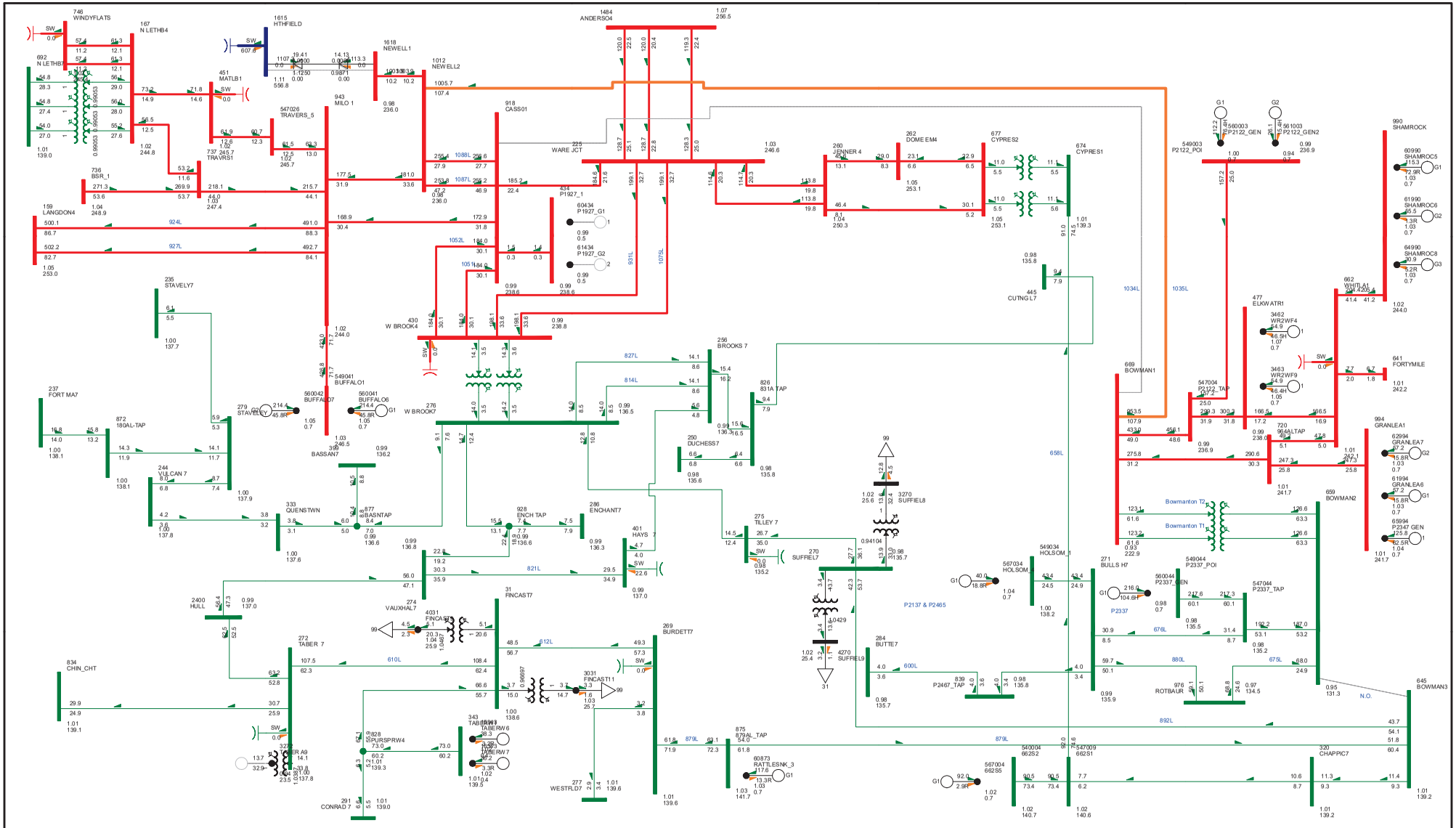
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-8: 2025-SCN1-SL-PRE.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T2
SUN, NOV 03 2024 13:48

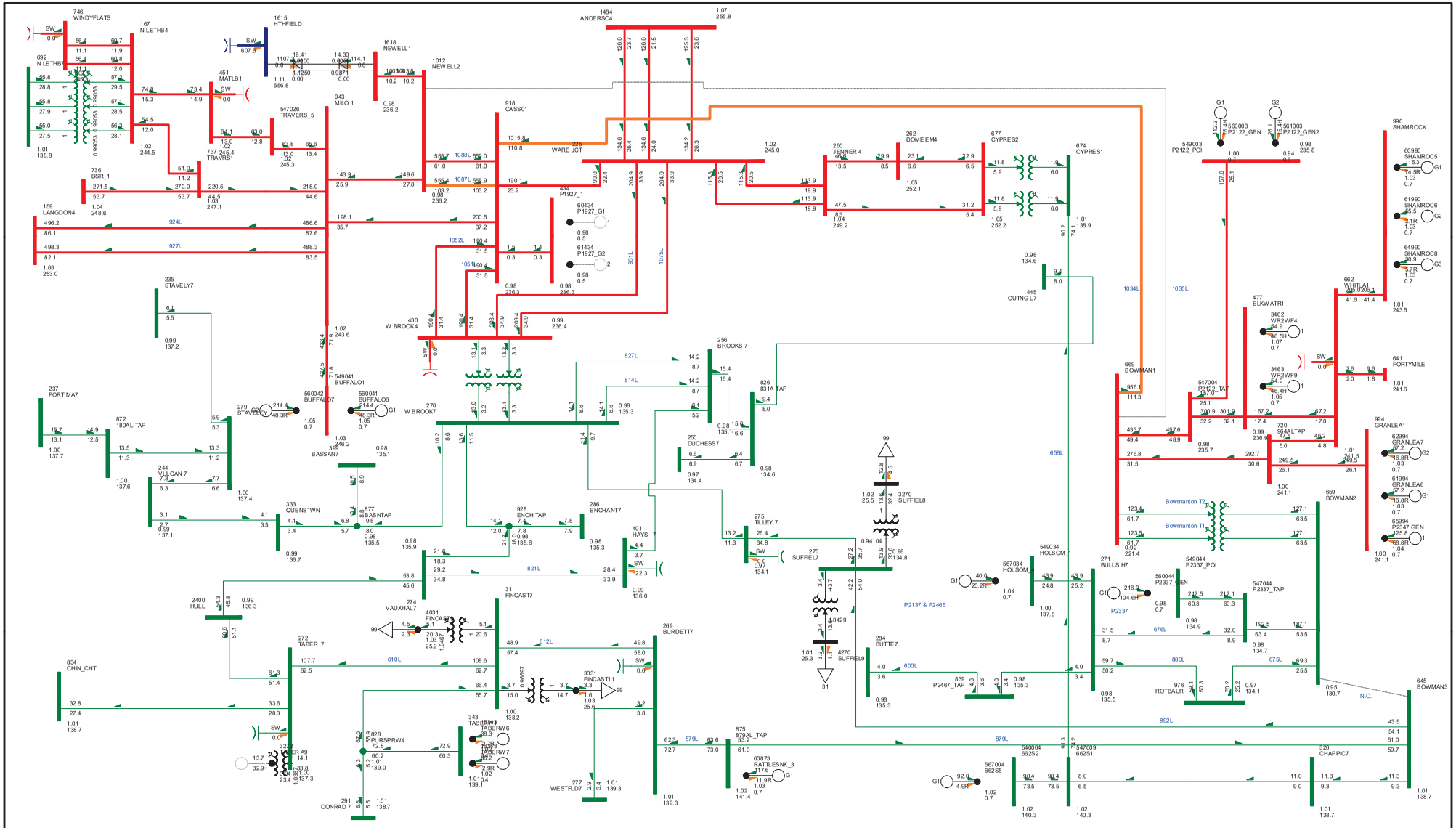
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-9: 2025-SCN1-SL-PRE.SAV
CATEGORY B - 1034L (CASSILS 324S TO BOWMANTON 244S)
SUN, NOV 03 2024 13:48

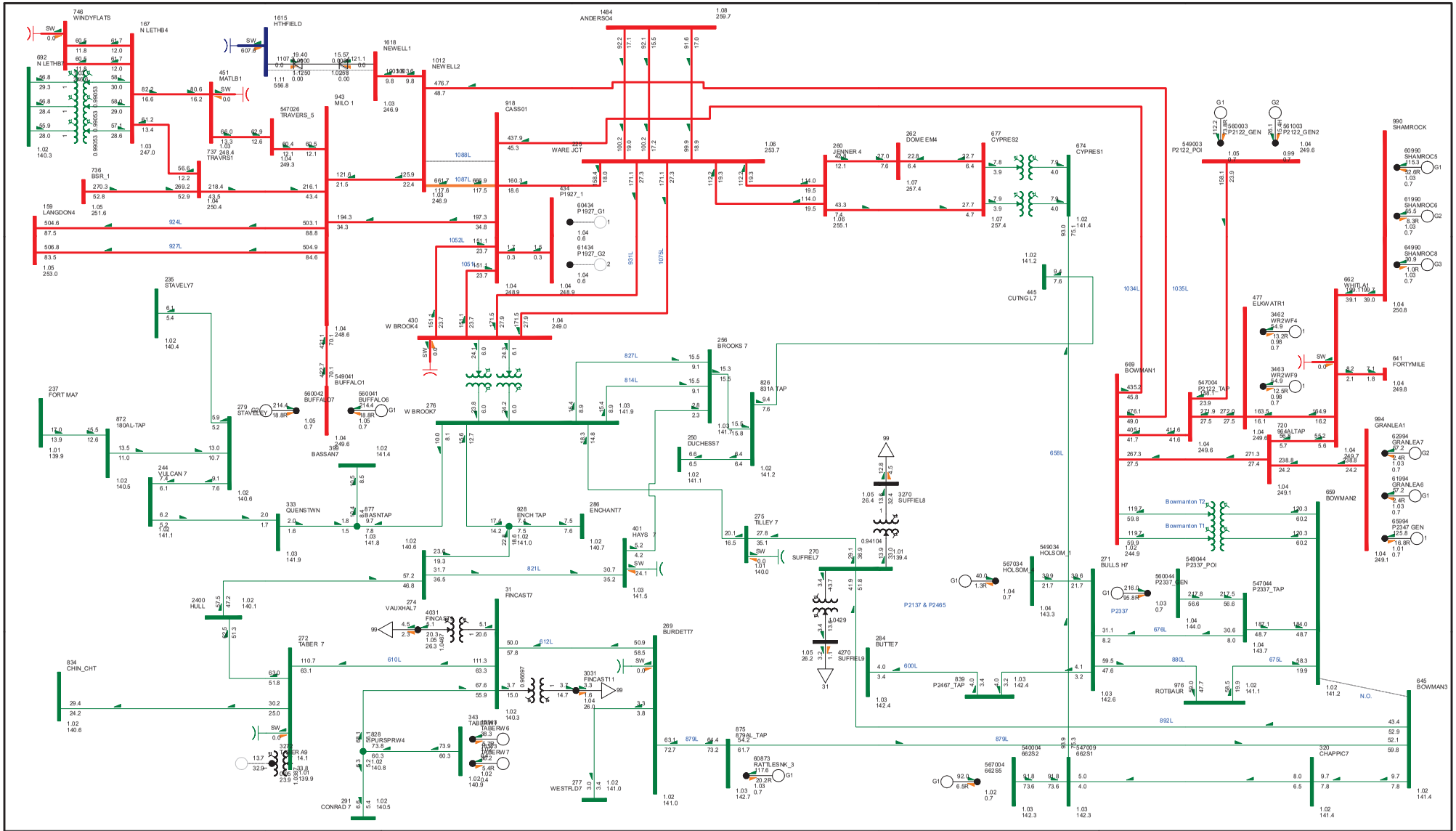
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-10: 2025-SCN1-SL-PRE.SAV
CATEGORY B - 1035L (BOWMANTON 244S TO NEWELL A2075S)
SUN, NOV 03 2024 13:49

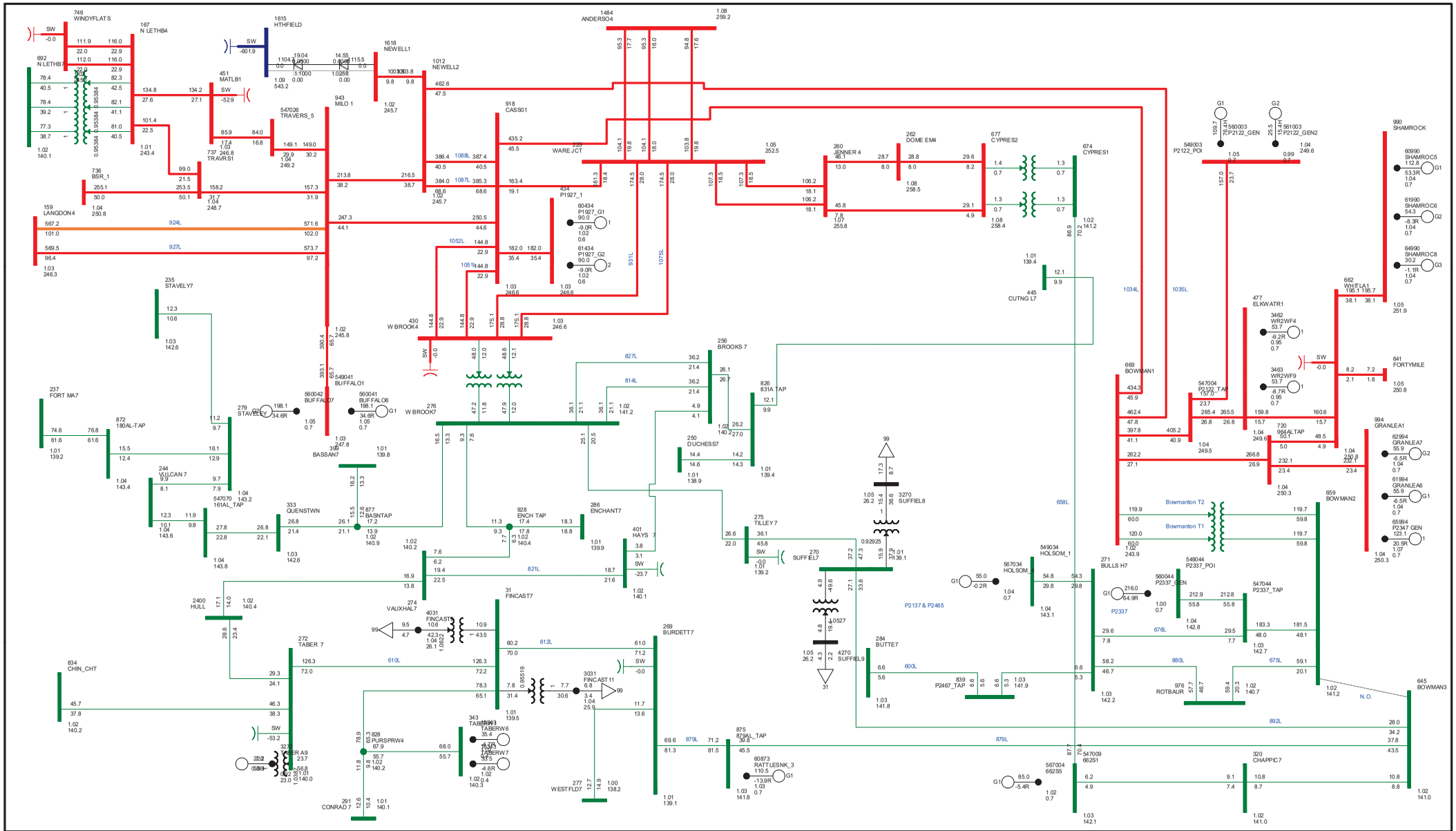
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-1-11: 2025-SCN1-SL-PRE.SAV
CATEGORY B - 1088L (CASSILS 324S TO NEWELL 2075S)
SUN, NOV 03 2024 13:49

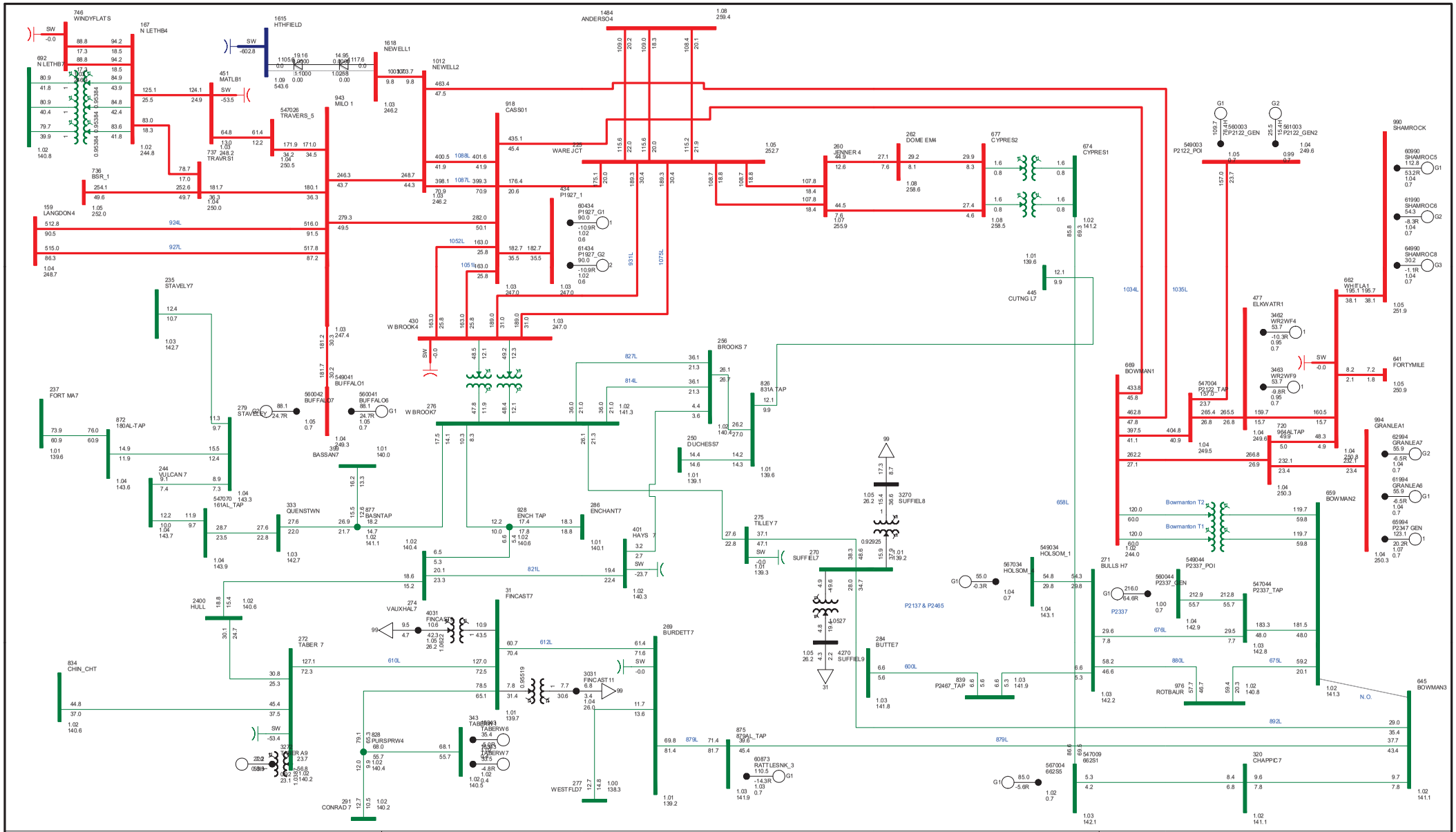
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE A-2-0: 2025-SCN2-SP-PRE.SAV
CATEGORY A - NO CONTINGENCY
SUN, NOV 03 2024 13:51

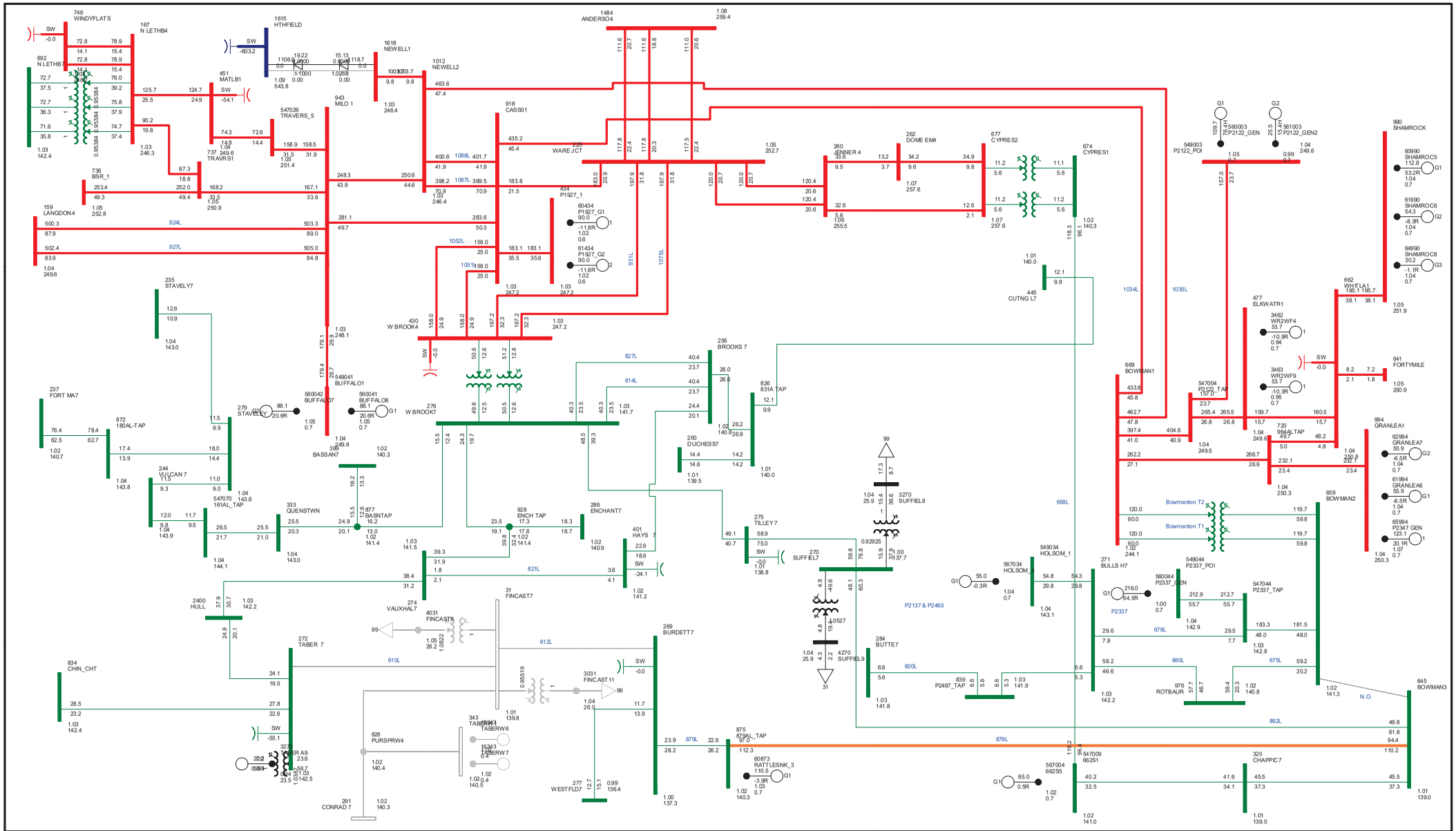
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE A-2-1: 2025-SCN2-SP-PRE.SAV
CATEGORY A - NO CONTINGENCY
SUN, NOV 03 2024 13:50

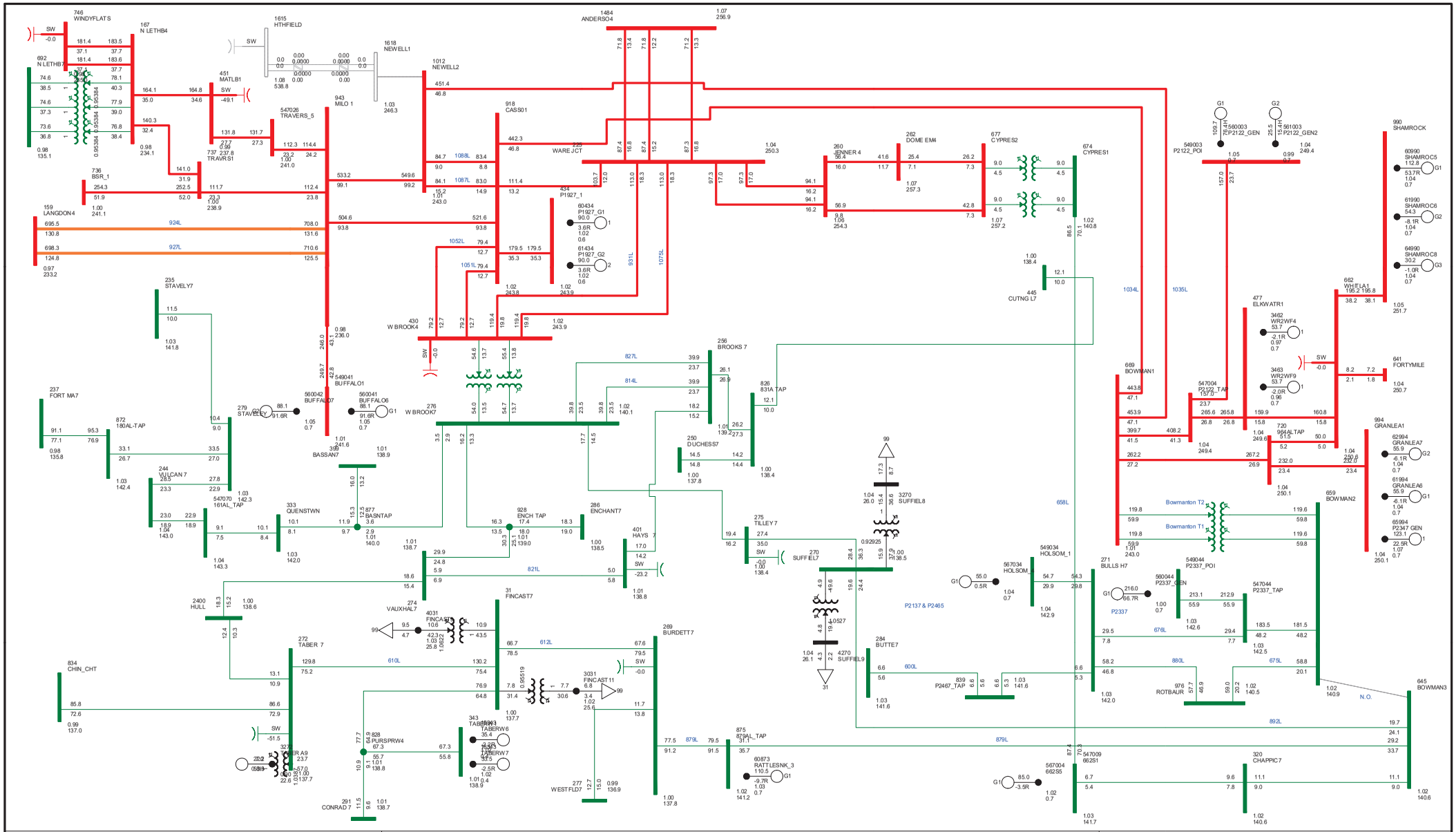
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-1: 2025-SCN2-SP-PRE.SAV
CATEGORY B - FINCASTLE 336ST1
SUN, NOV 03 2024 13:51

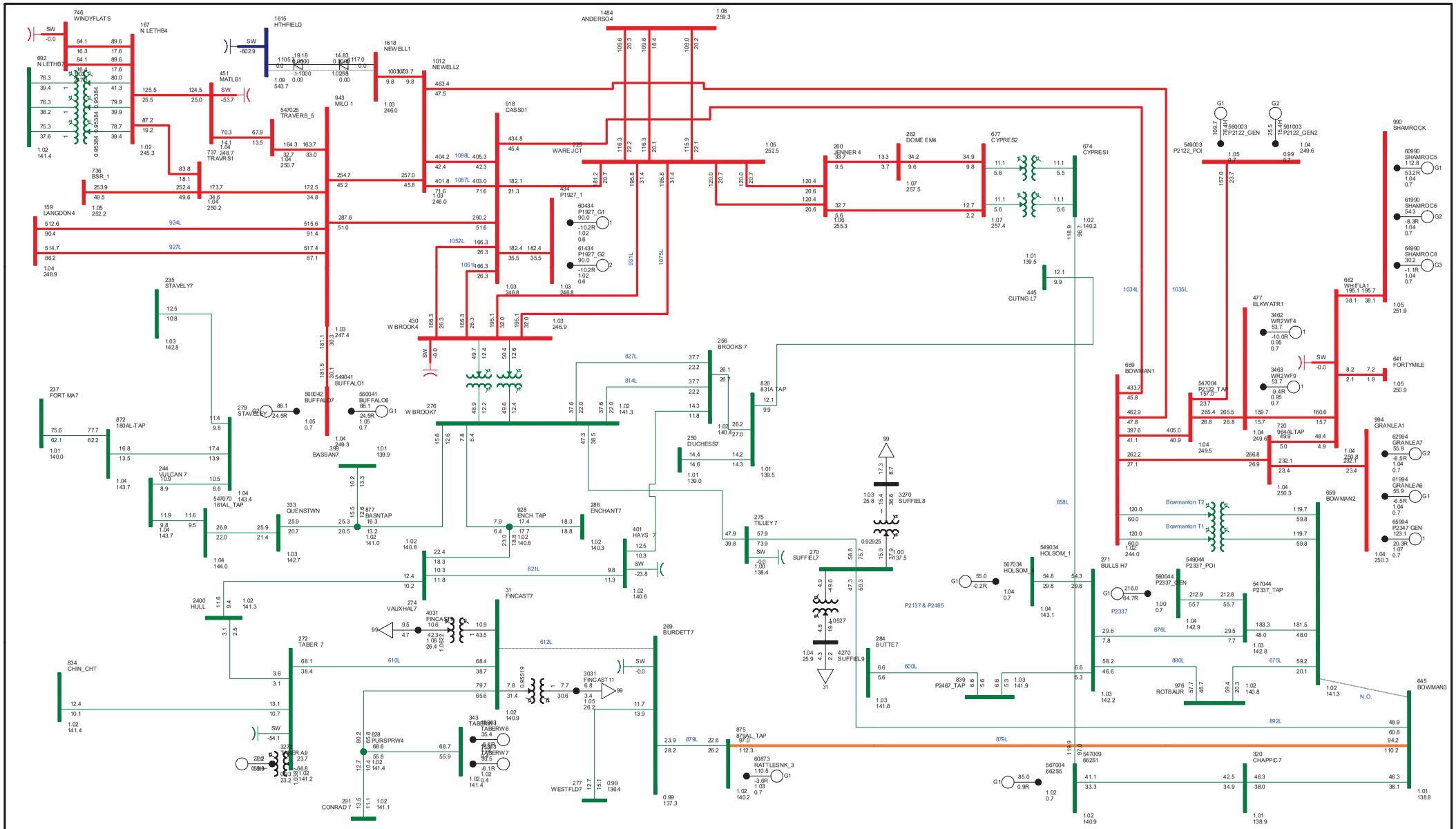
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-2: 2025-SCN2-SP-PRE.SAV
CATEGORY B - EATL HVDC
SUN, NOV 03 2024 13:52

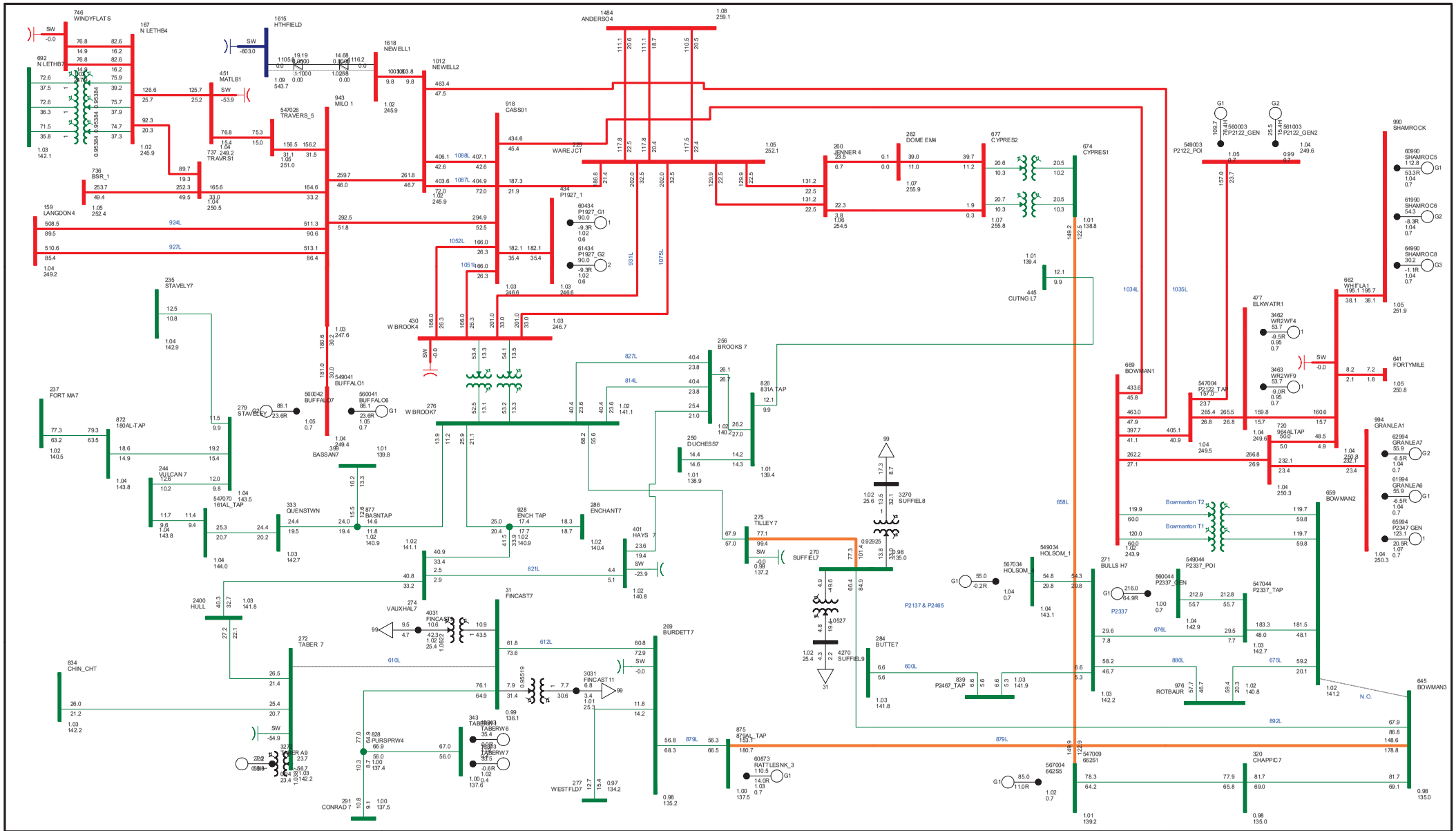
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-3: 2025-SCN2-SP-PRE.SAV
CATEGORY B - 612L (FINCASTLE 336S TO BURDETT 368S)
SUN, NOV 03 2024 13:53

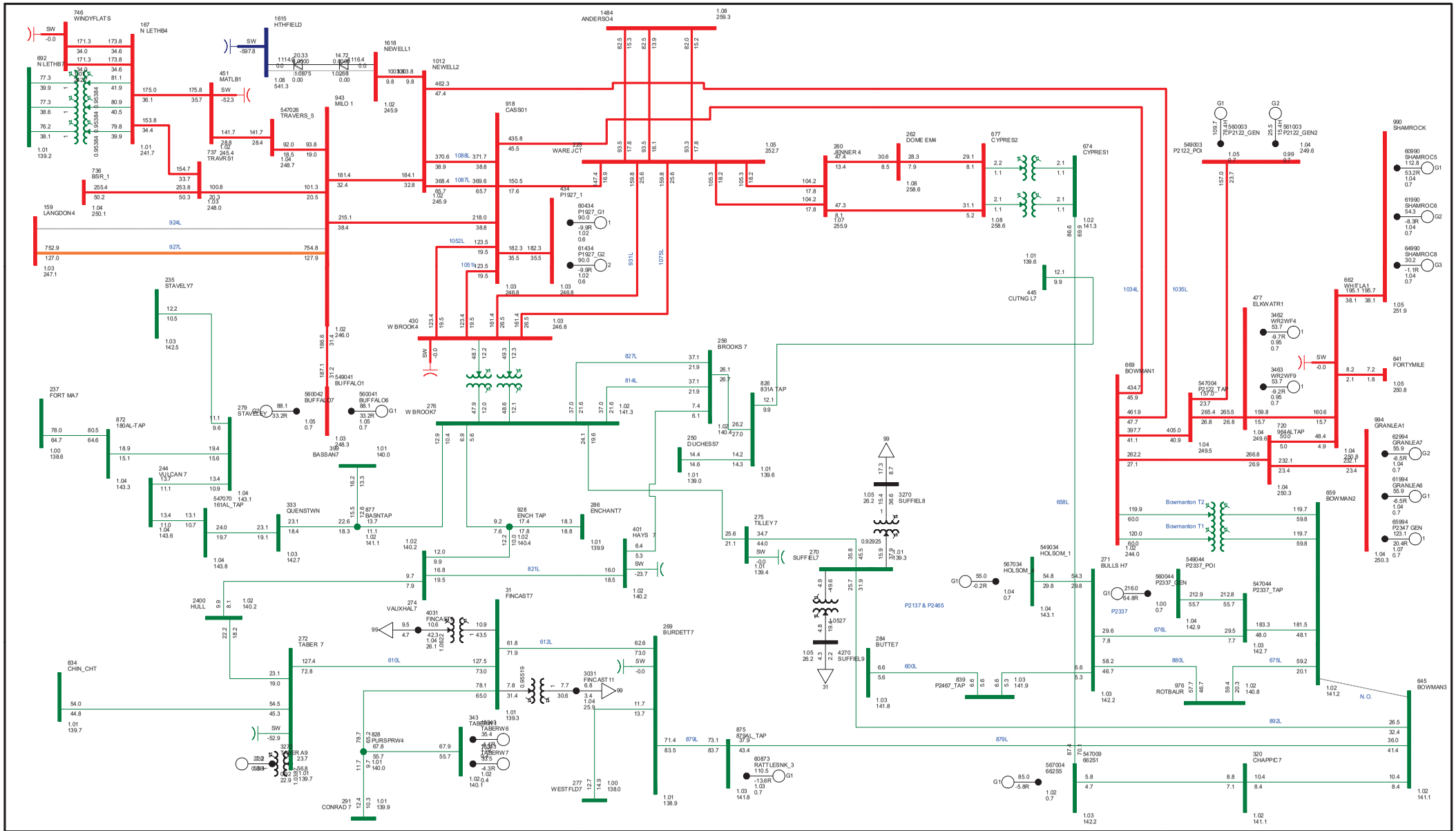
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-4: 2025-SCN2-SP-PRE.SAV
CATEGORY B - 610L (FINCASTLE 336S TO TABER 83S)
SUN, NOV 03 2024 13:53

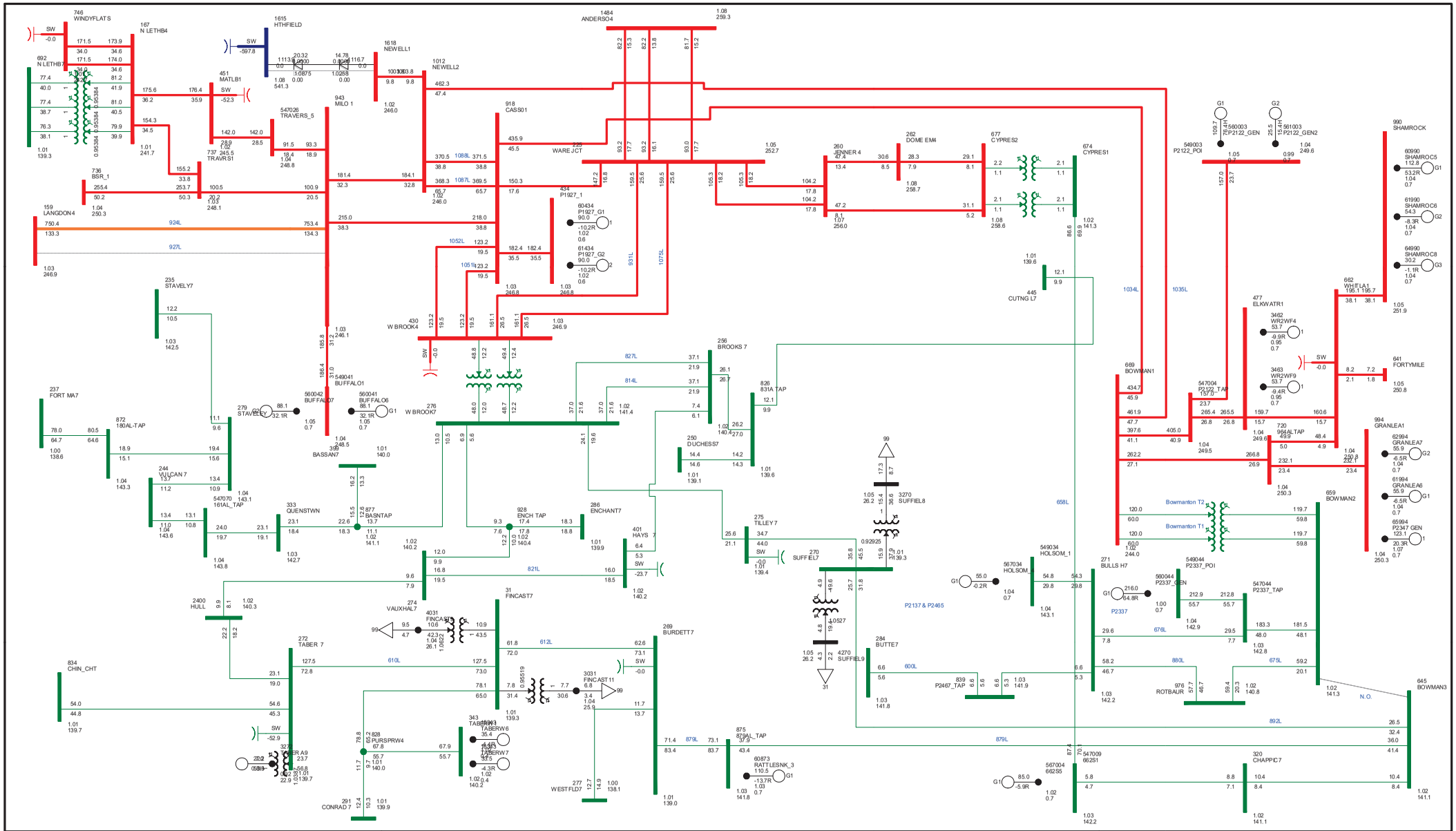
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-5: 2025-SCN2-SP-PRE.SAV
CATEGORY B - 924L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:54

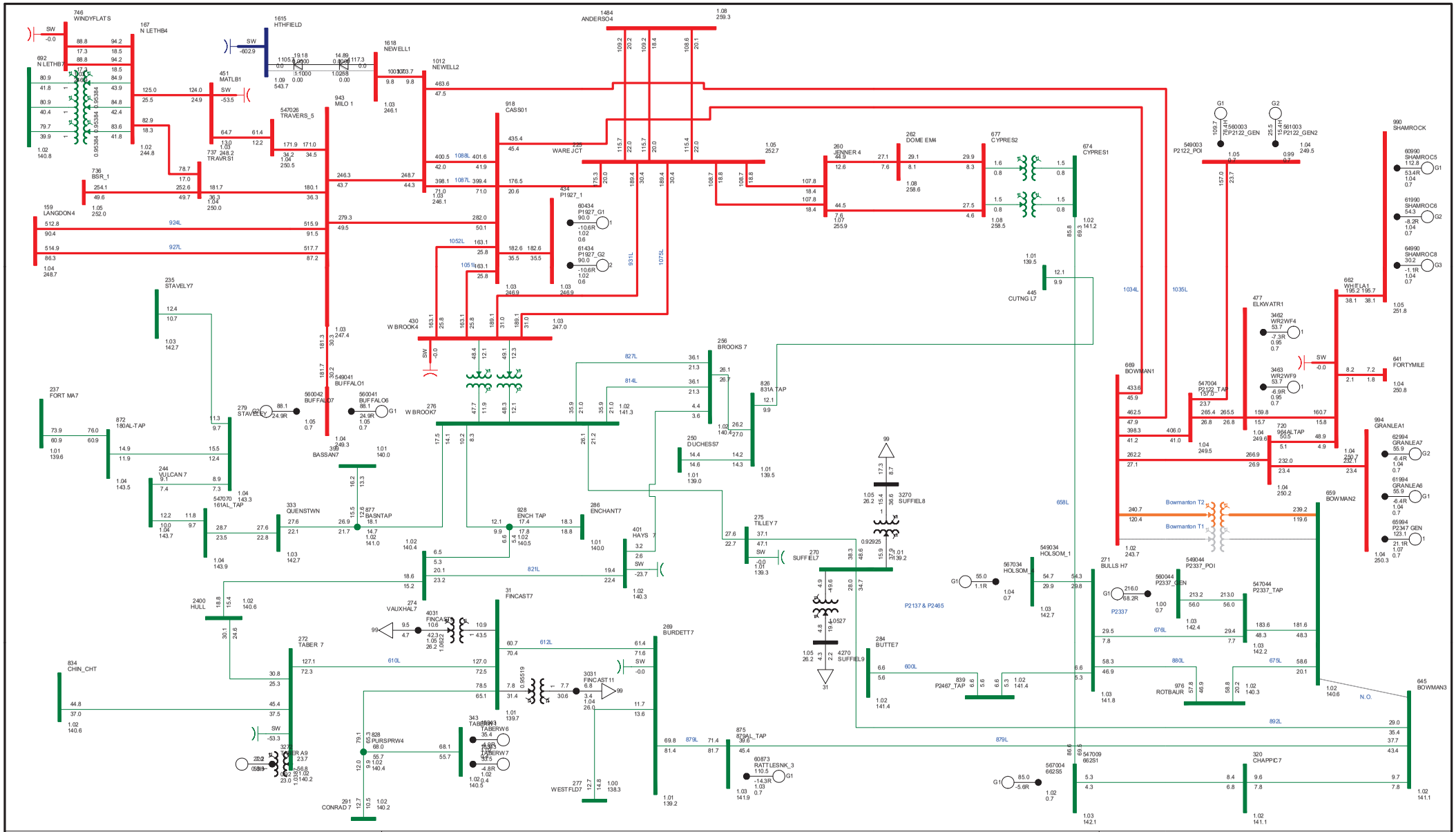
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-6: 2025-SCN2-SP-PRE.SAV
CATEGORY B - 927L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:54

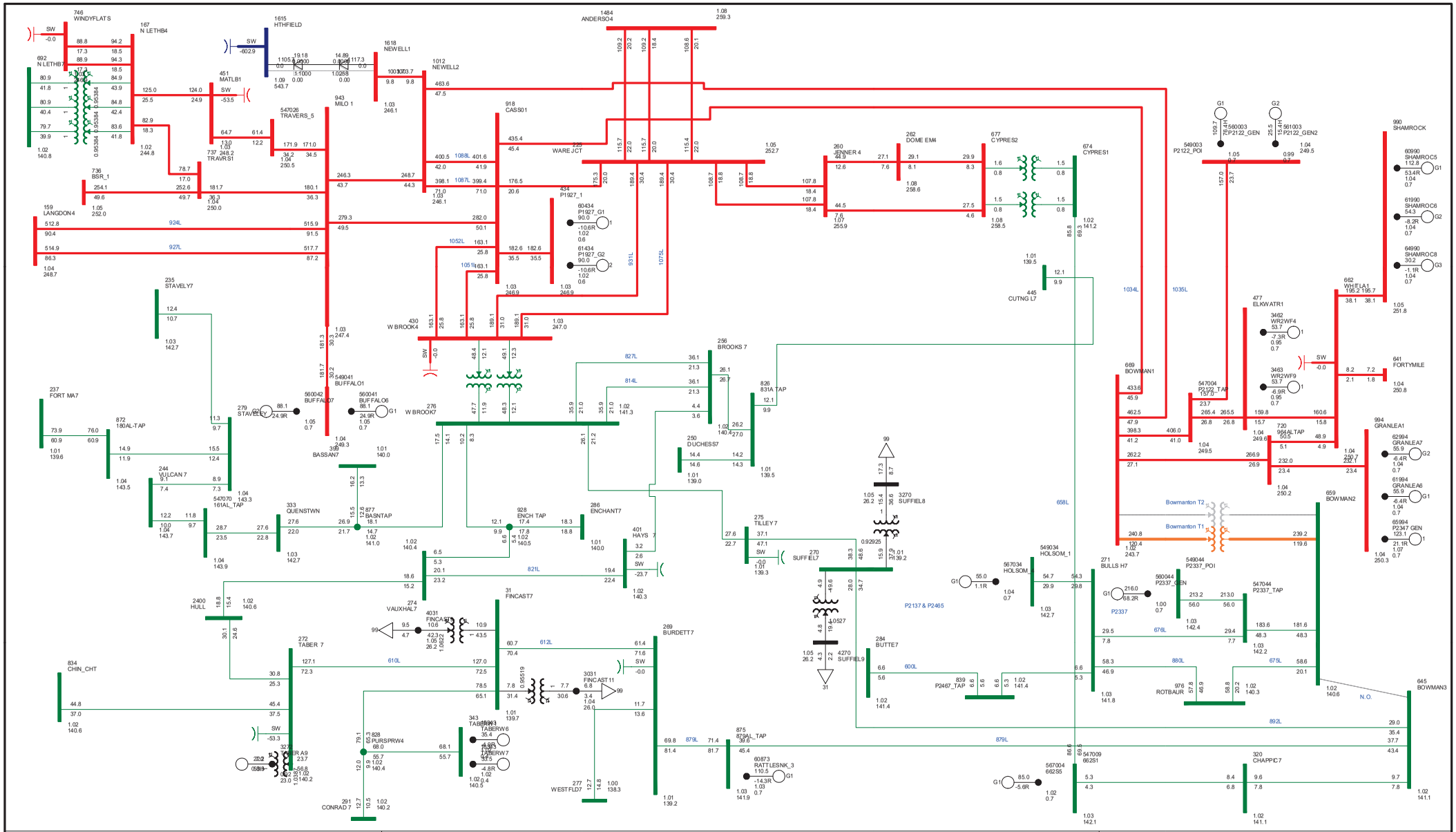
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

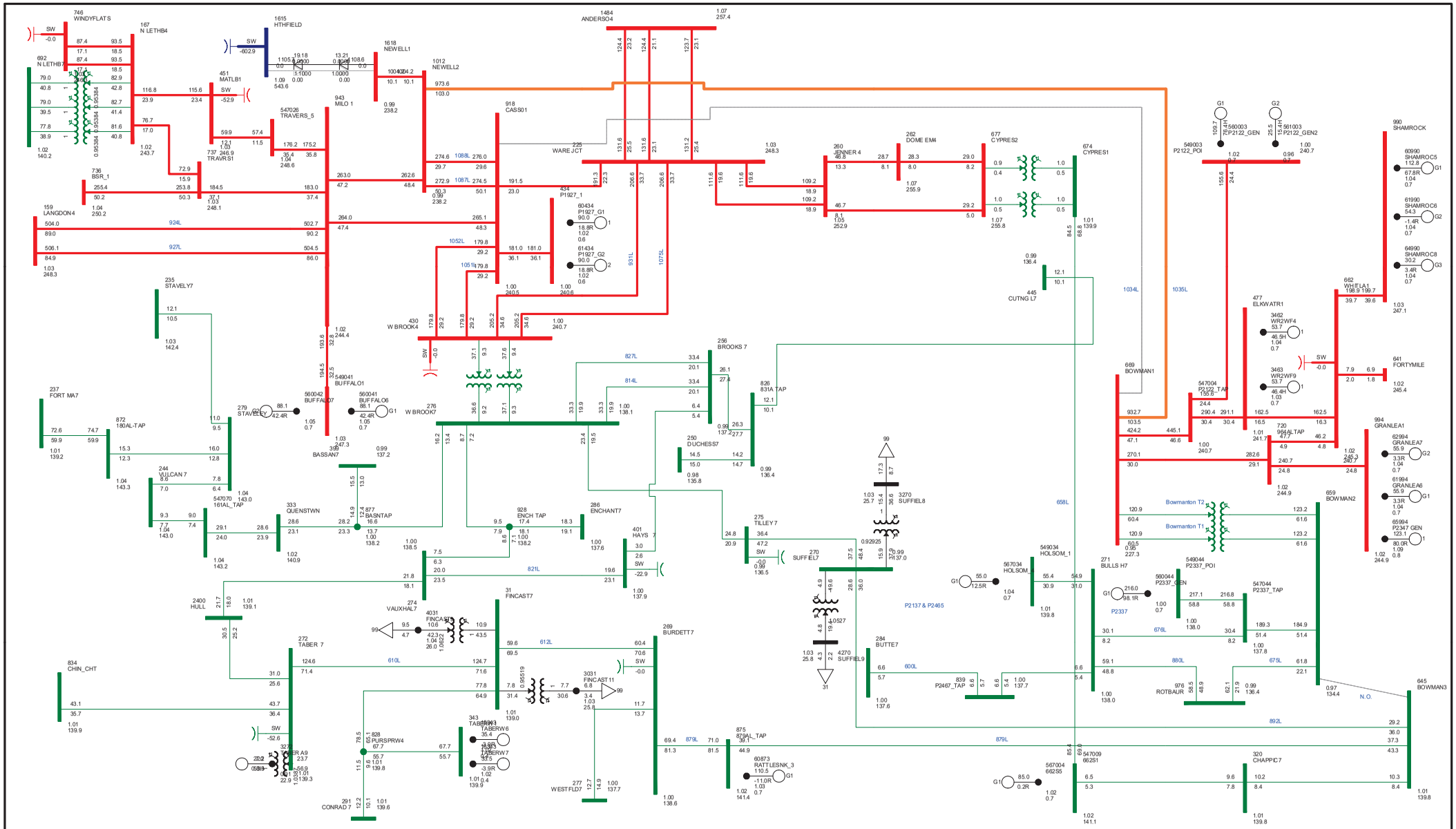


P2467 - Pteragen Peace Butte Wind

FIGURE B-2-7: 2025-SCN2-SP-PRE.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T1
SUN, NOV 03 2024 13:55

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

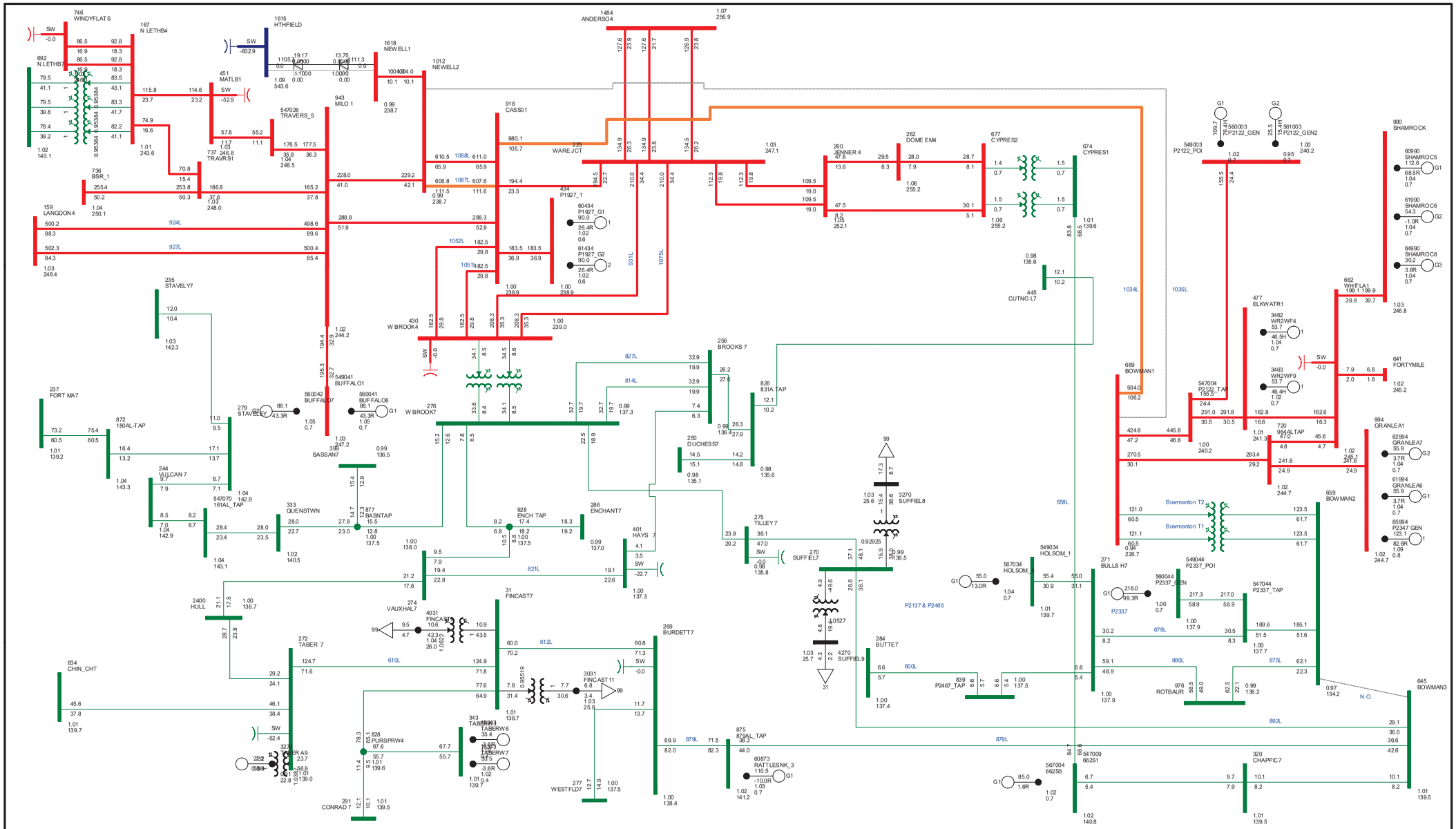

P2467 - Pteragen Peace Butte Wind
FIGURE B-2-8: 2025-SCN2-SP-PRE.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T2
SUN, NOV 03 2024 13:56
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-9: 2025-SCN2-SP-PRE.SAV
CATEGORY B - 1034L (CASSILS 324S TO BOWMANTON 244S)
SUN, NOV 03 2024 13:56

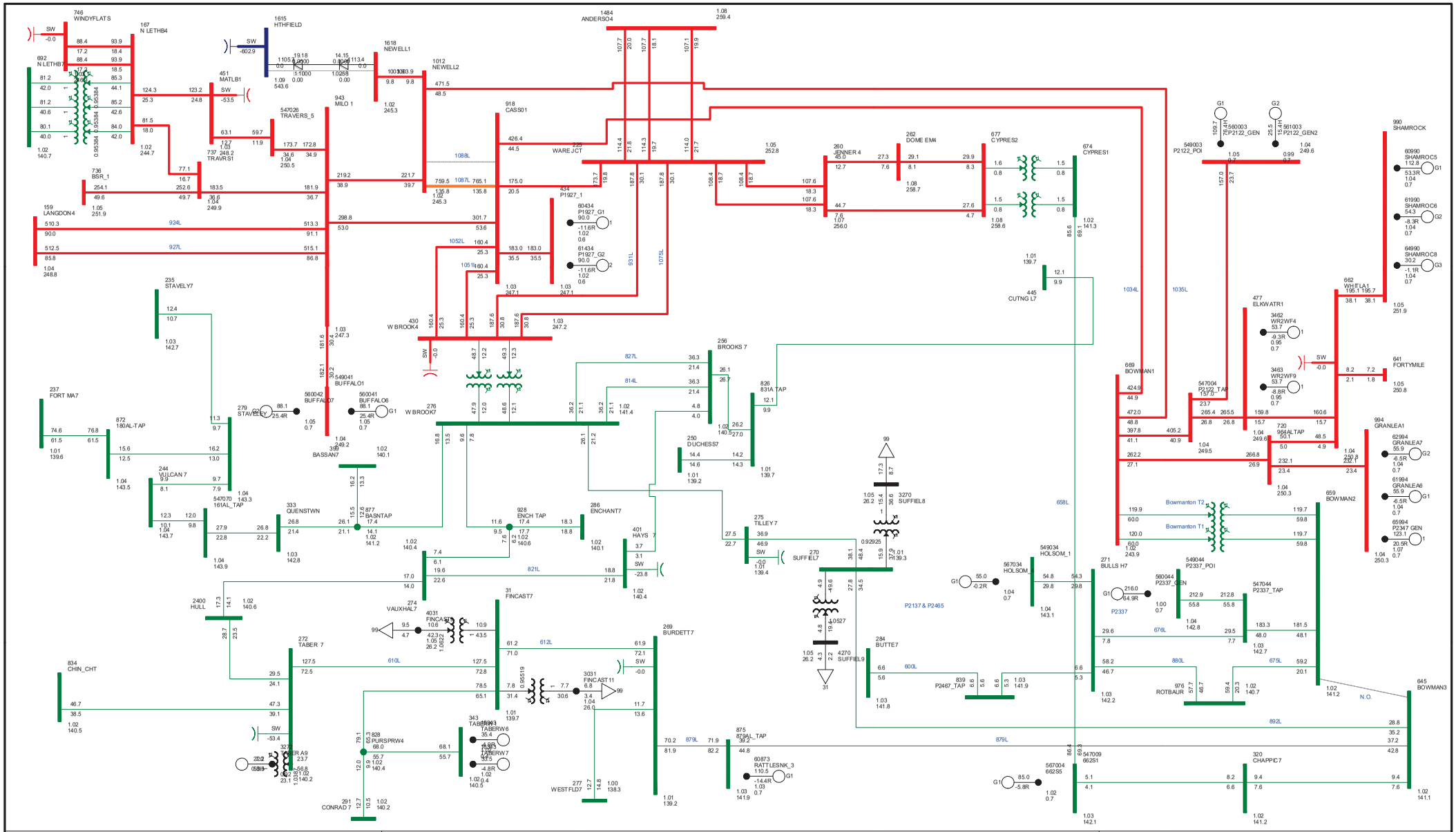
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-2-10: 2025-SCN2-SP-PRE.SAV
CATEGORY B - 1035L (BOWMANTON 244S TO NEWELL A2075S)
SUN, NOV 03 2024 13:57

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

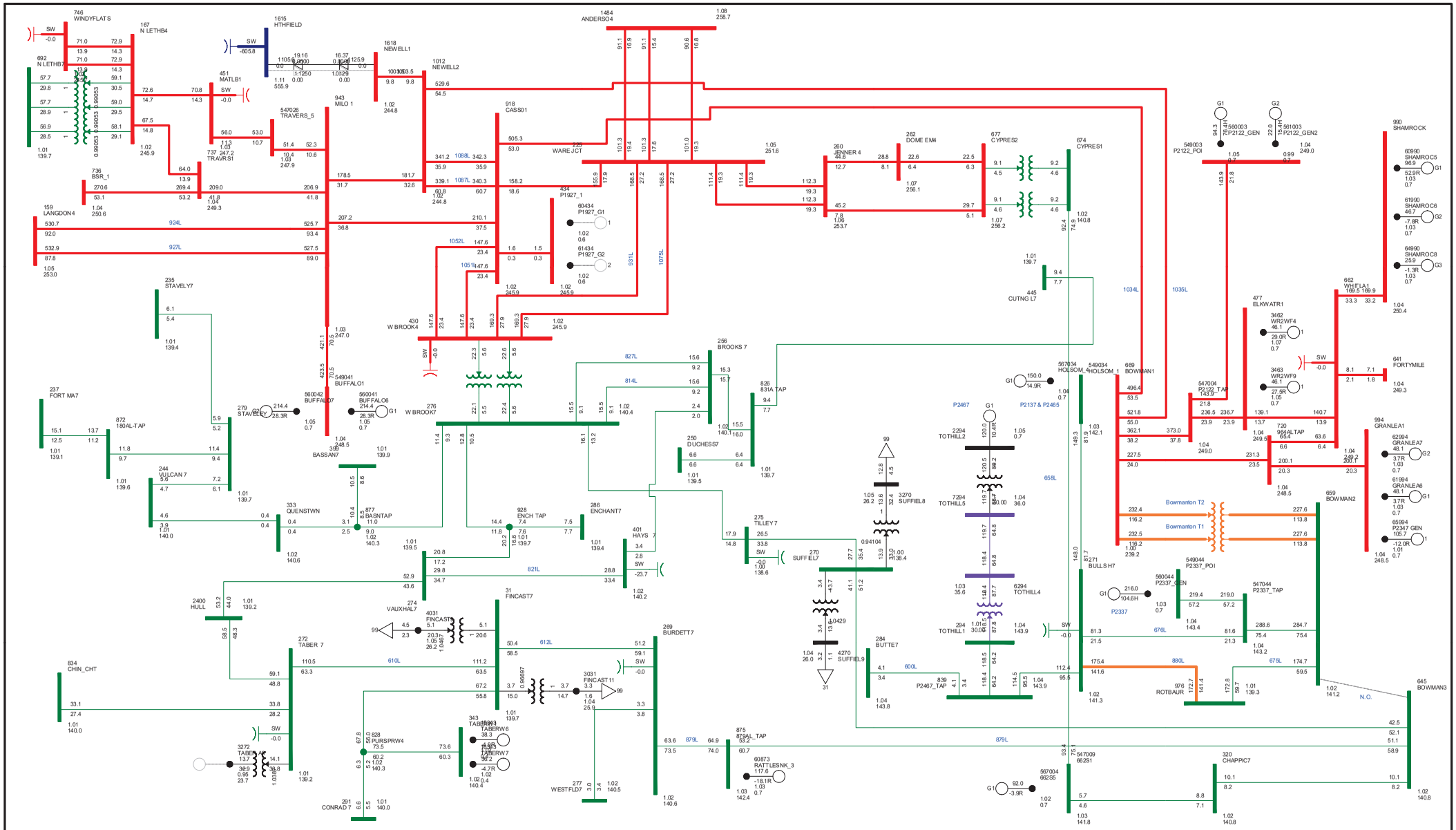


P2467 - Pteragen Peace Butte Wind

FIGURE B-2-11: 2025-SCN2-SP-PRE.SAV
CATEGORY B - 1088L (CASSILS 324S TO NEWELL 2075S)
SUN, NOV 03 2024 13:57

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

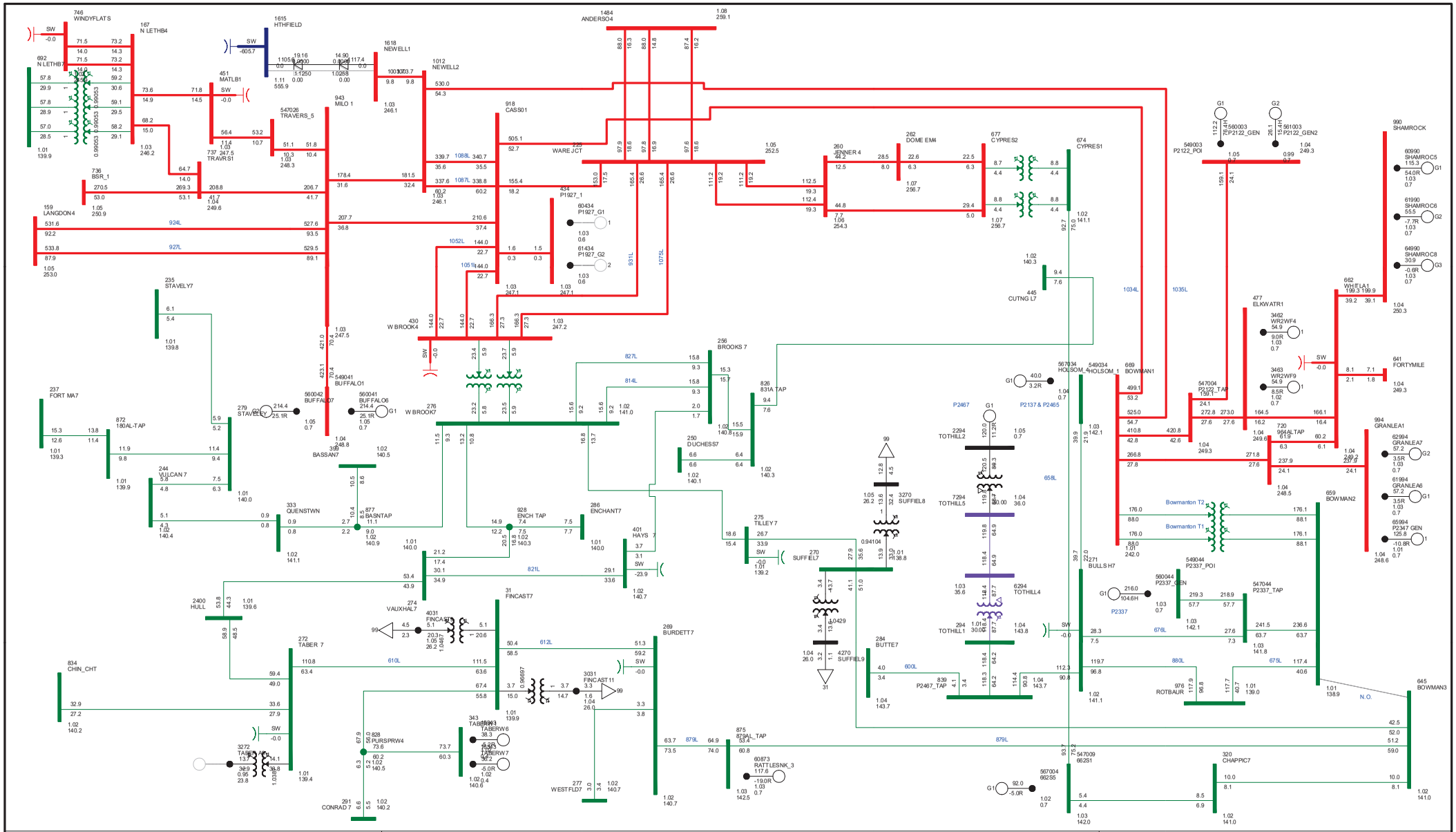
Attachment A3
Post-Project Power Flow Diagrams

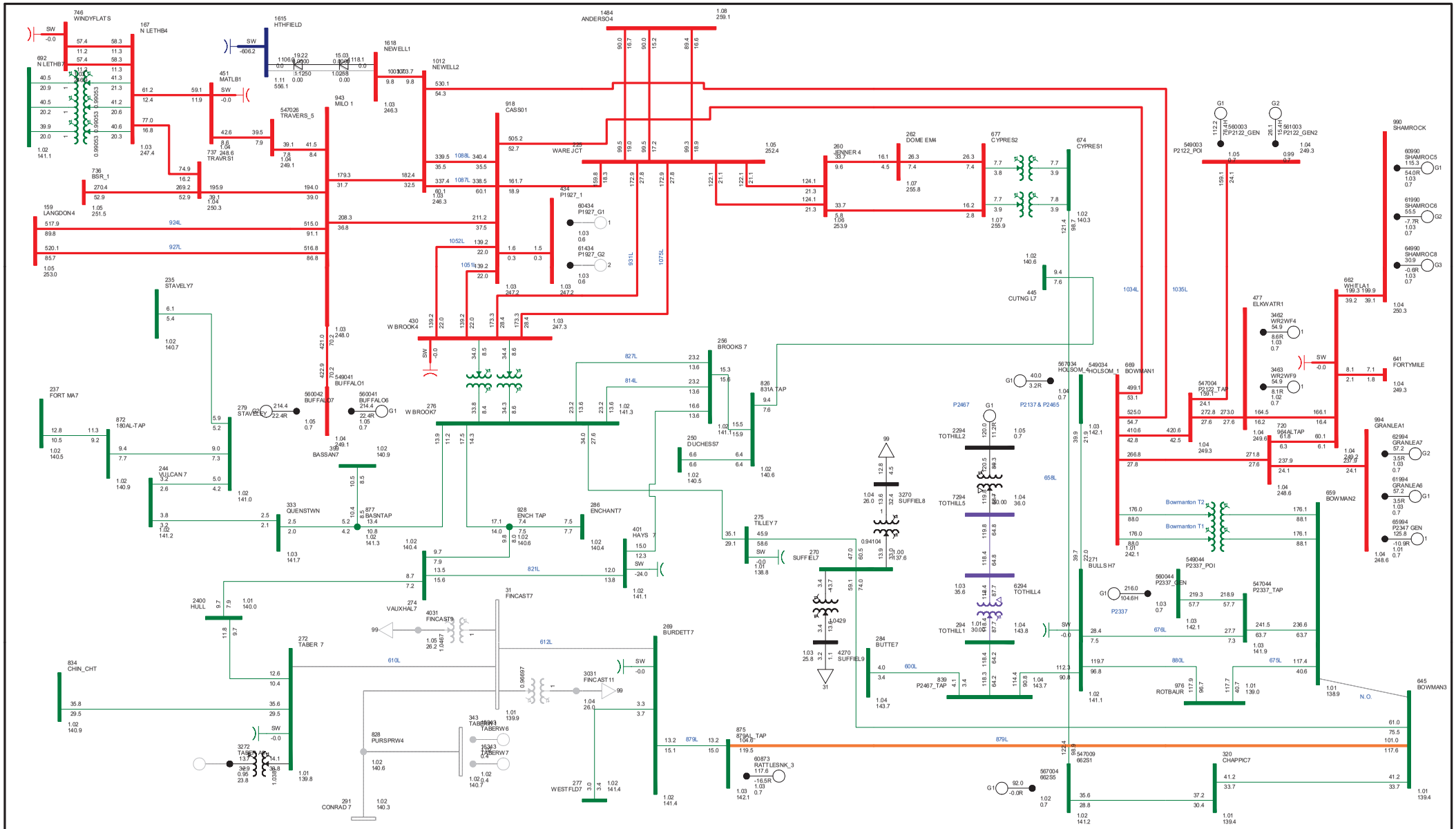


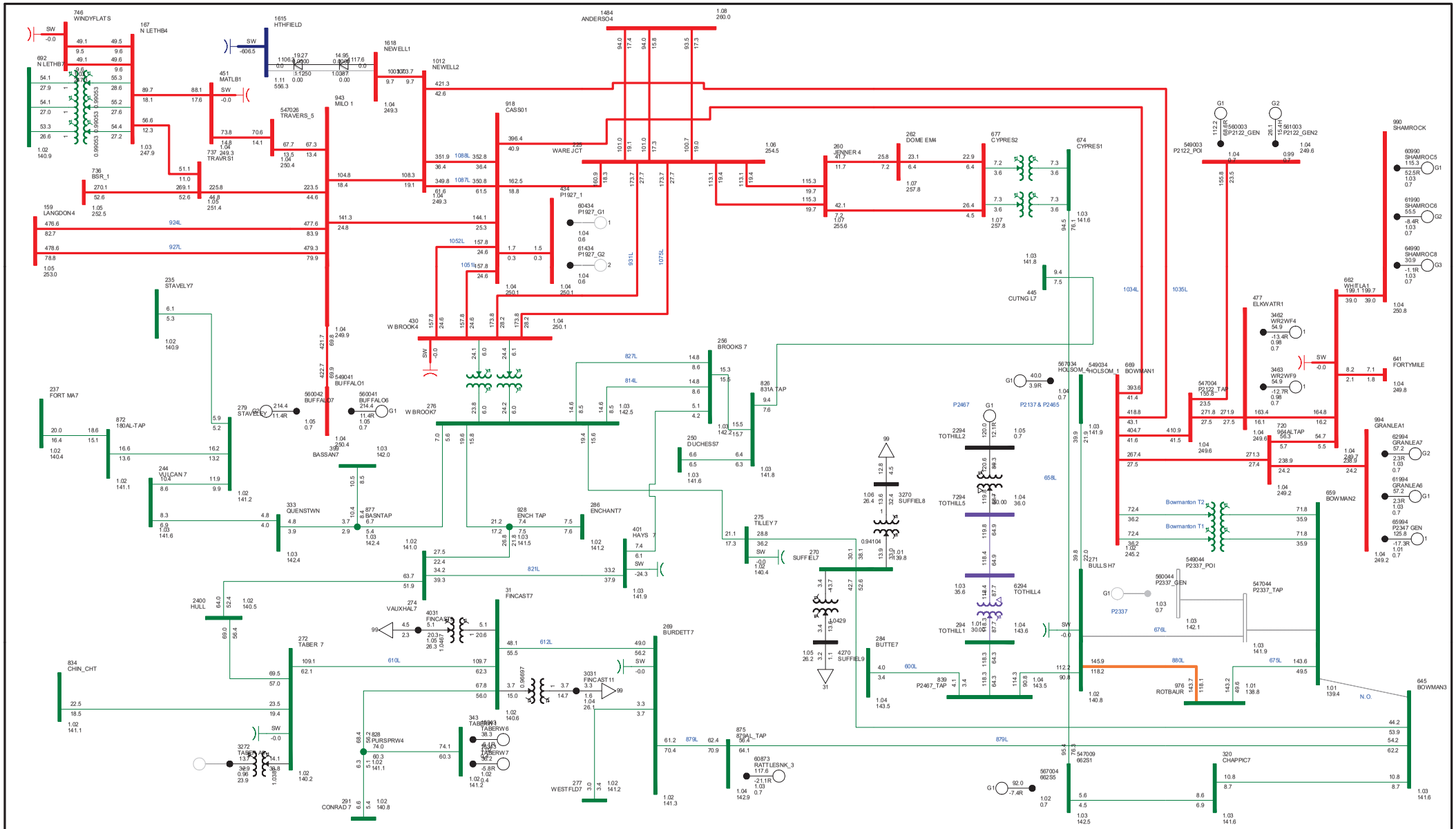
P2467 - Pteragen Peace Butte Wind

FIGURE A-3-0: 2025-SCN3-SL-POST-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
SUN, NOV 03 2024 14:00

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


P2467 - Pteragen Peace Butte Wind
FIGURE A-3-1: 2025-SCN3-SL-POST.SAV
CATEGORY A - NO CONTINGENCY
SUN, NOV 03 2024 13:59
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

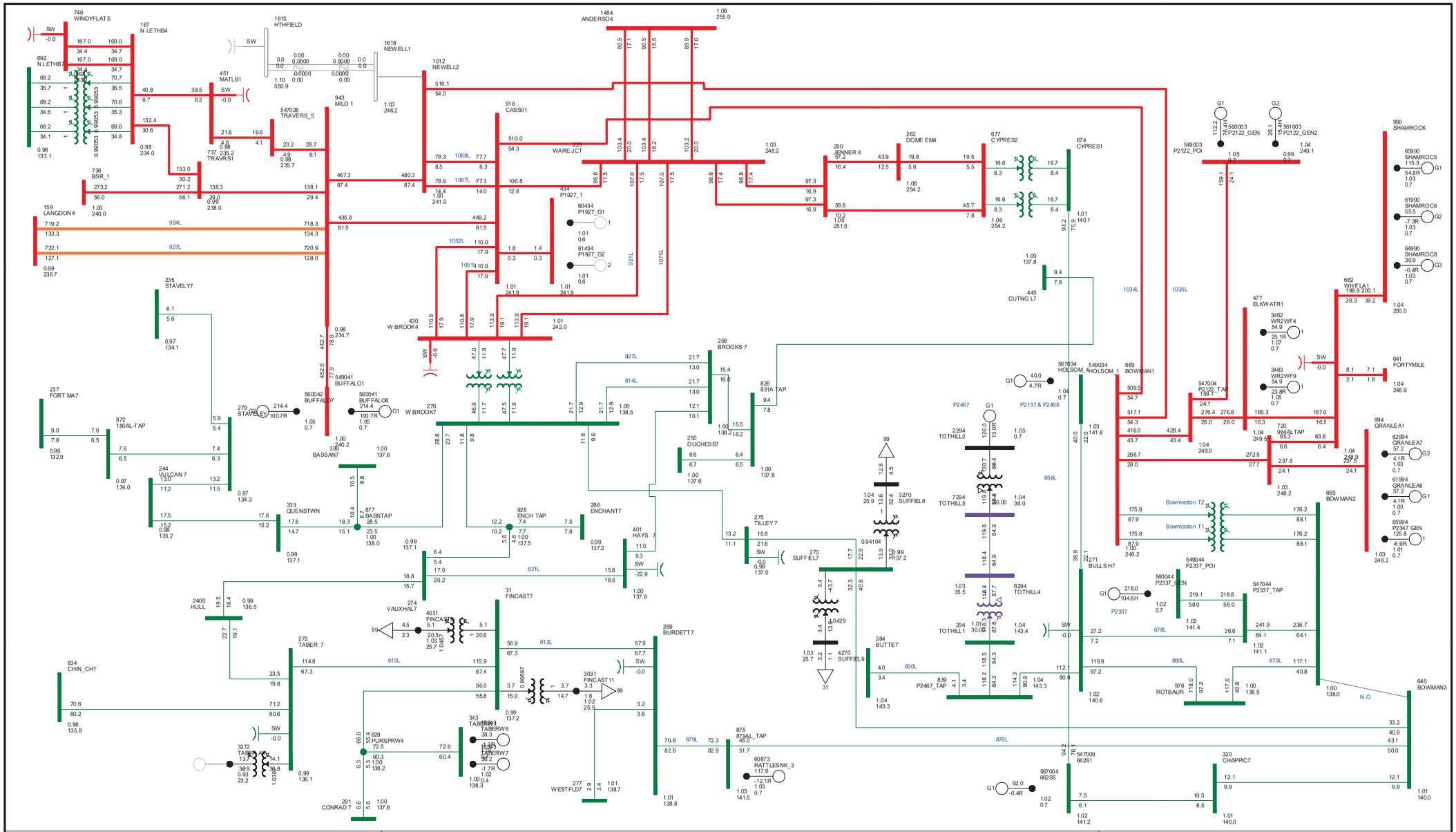

P2467 - Pteragen Peace Butte Wind
FIGURE B-3-1: 2025-SCN3-SL-POST.SAV
CATEGORY B - FINCASTLE 336ST1
SUN, NOV 03 2024 14:01
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-2: 2025-SCN3-SL-POST.SAV
CATEGORY B - 676L (BULLSHEAD 523S TO BOWMANTON 244S)
SUN, NOV 03 2024 14:01

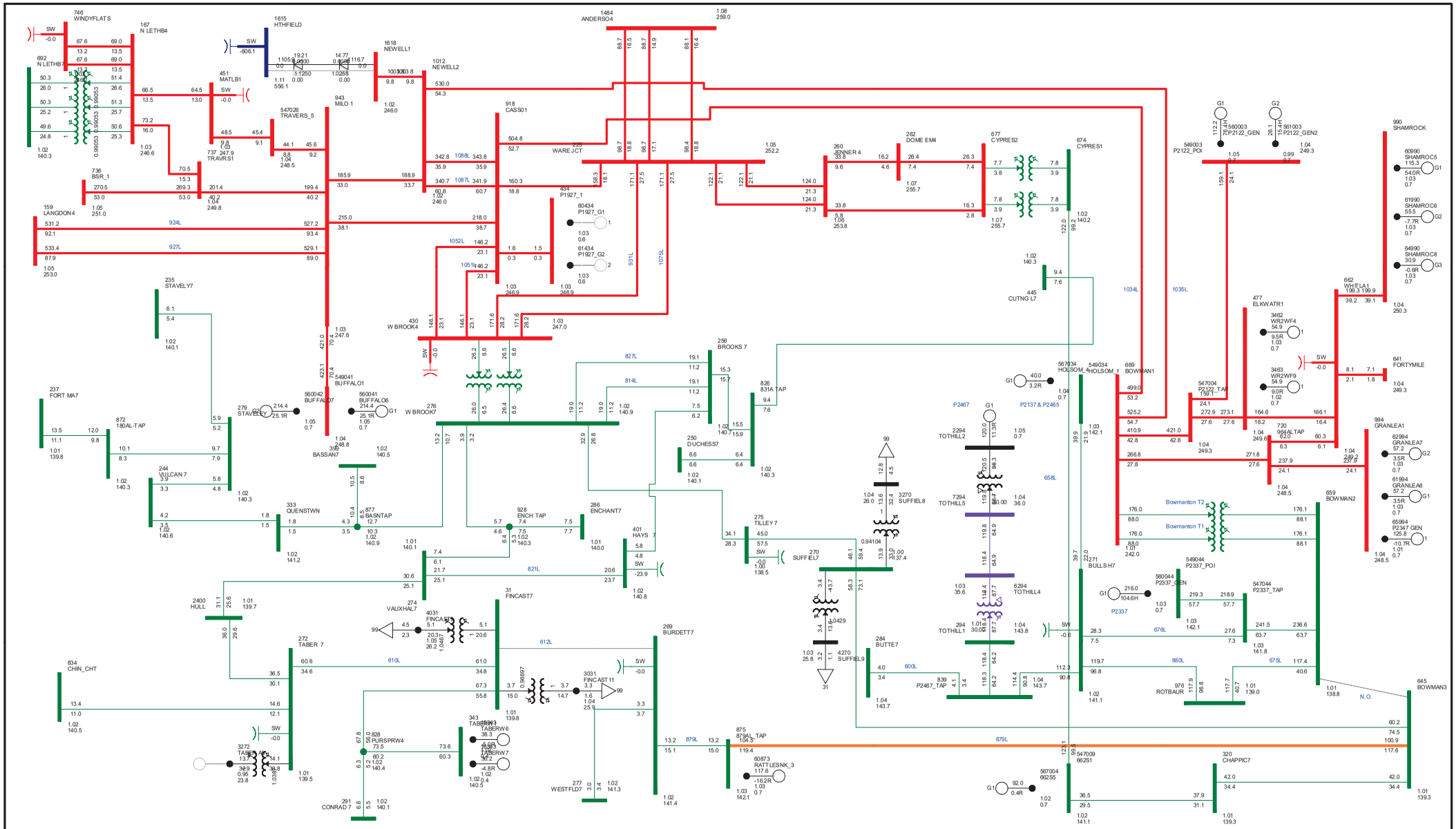
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-3: 2025-SCN3-SL-POST.SAV
CATEGORY B - EATL HVDC
SUN, NOV 03 2024 14:02

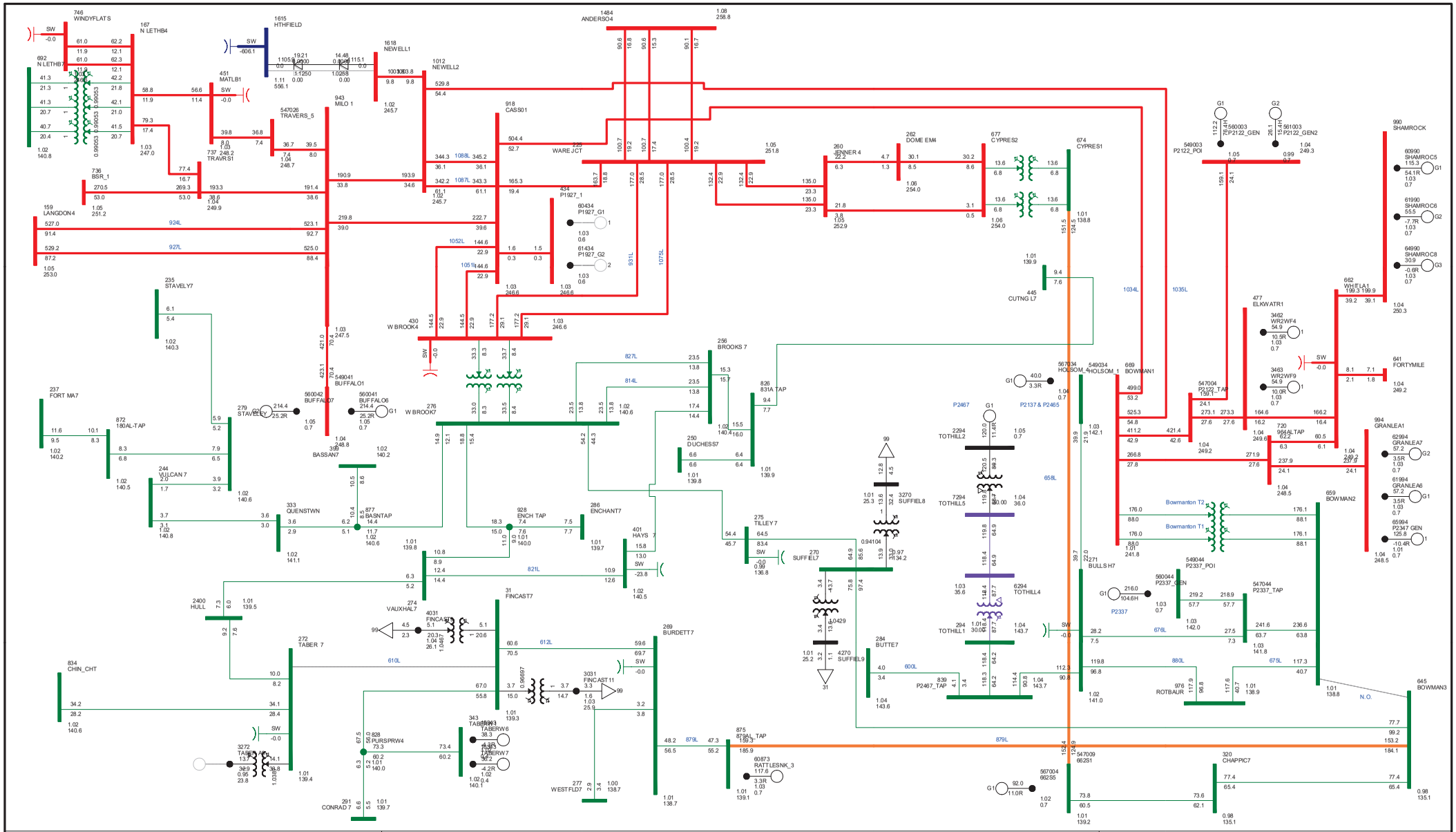
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

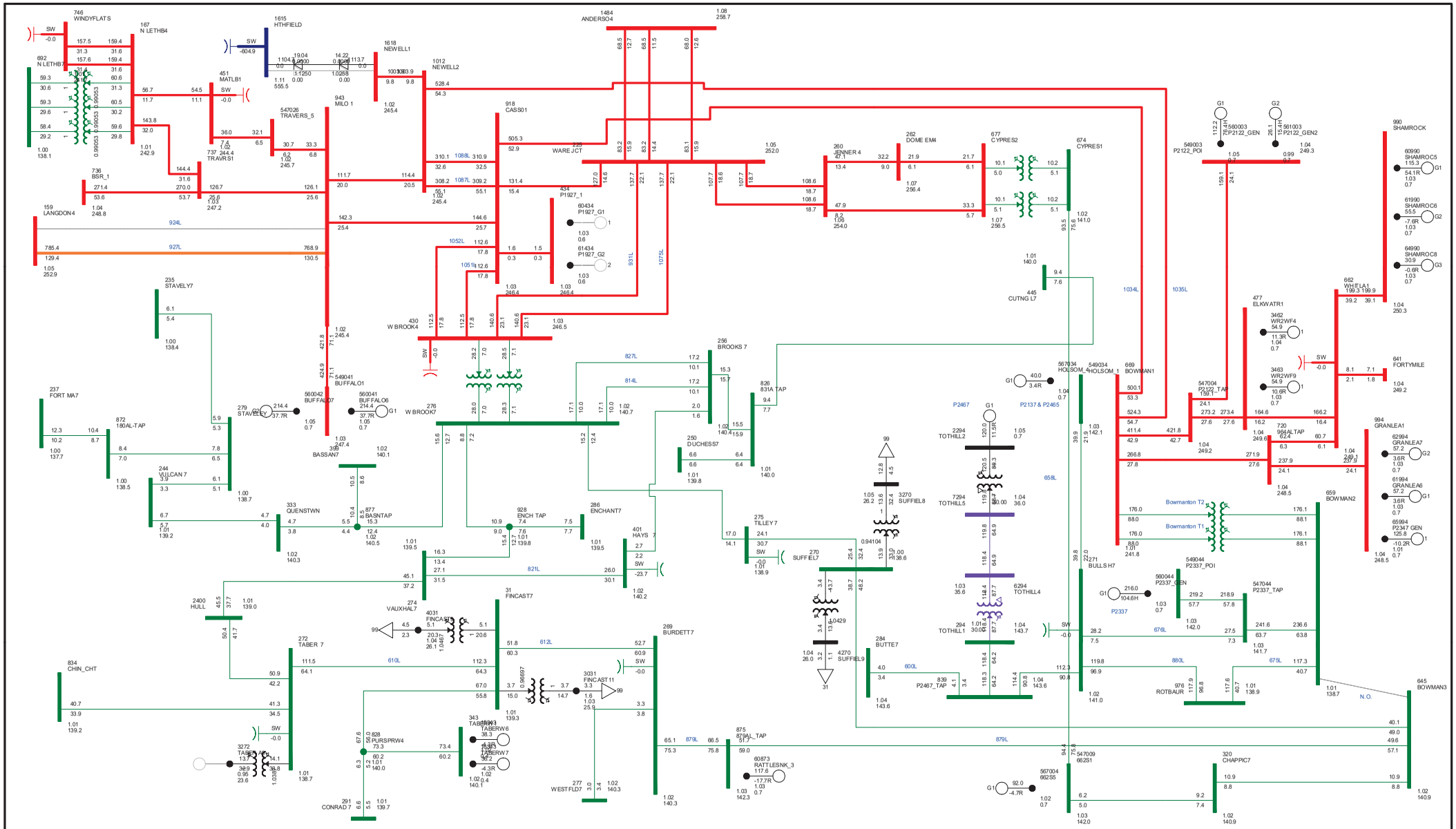


P2467 - Pteragen Peace Butte Wind

FIGURE B-3-4: 2025-SCN3-SL-POST.SAV
CATEGORY B - 612L (FINCASTLE 336S TO BURDETT 368S)
SUN, NOV 03 2024 14:02

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

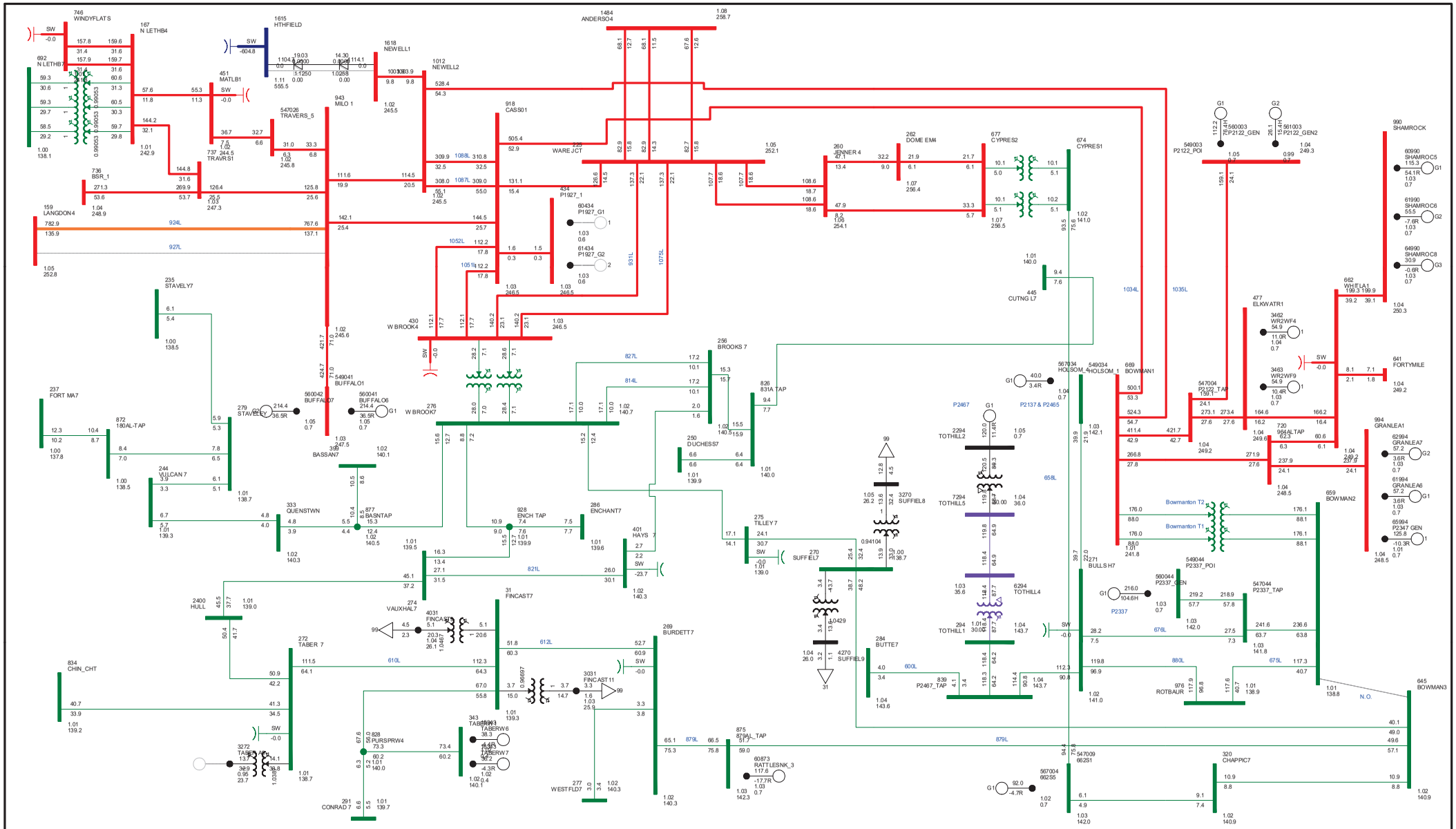

P2467 - Pteragen Peace Butte Wind
FIGURE B-3-5: 2025-SCN3-SL-POST.SAV
CATEGORY B - 610L (FINCASTLE 336S TO TABER 83S)
SUN, NOV 03 2024 14:03
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-6: 2025-SCN3-SL-POST.SAV
CATEGORY B - 924L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 14:04

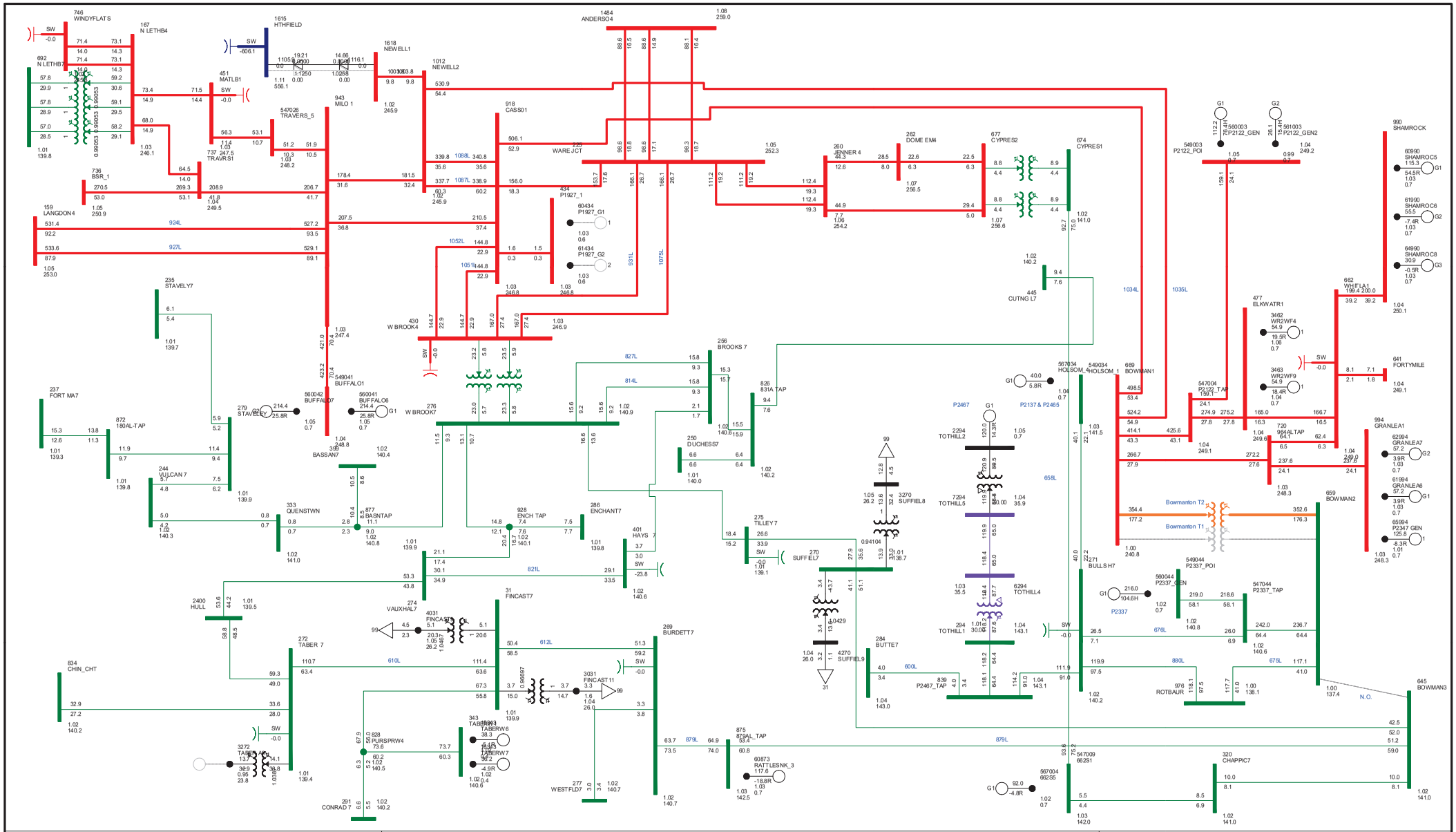
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

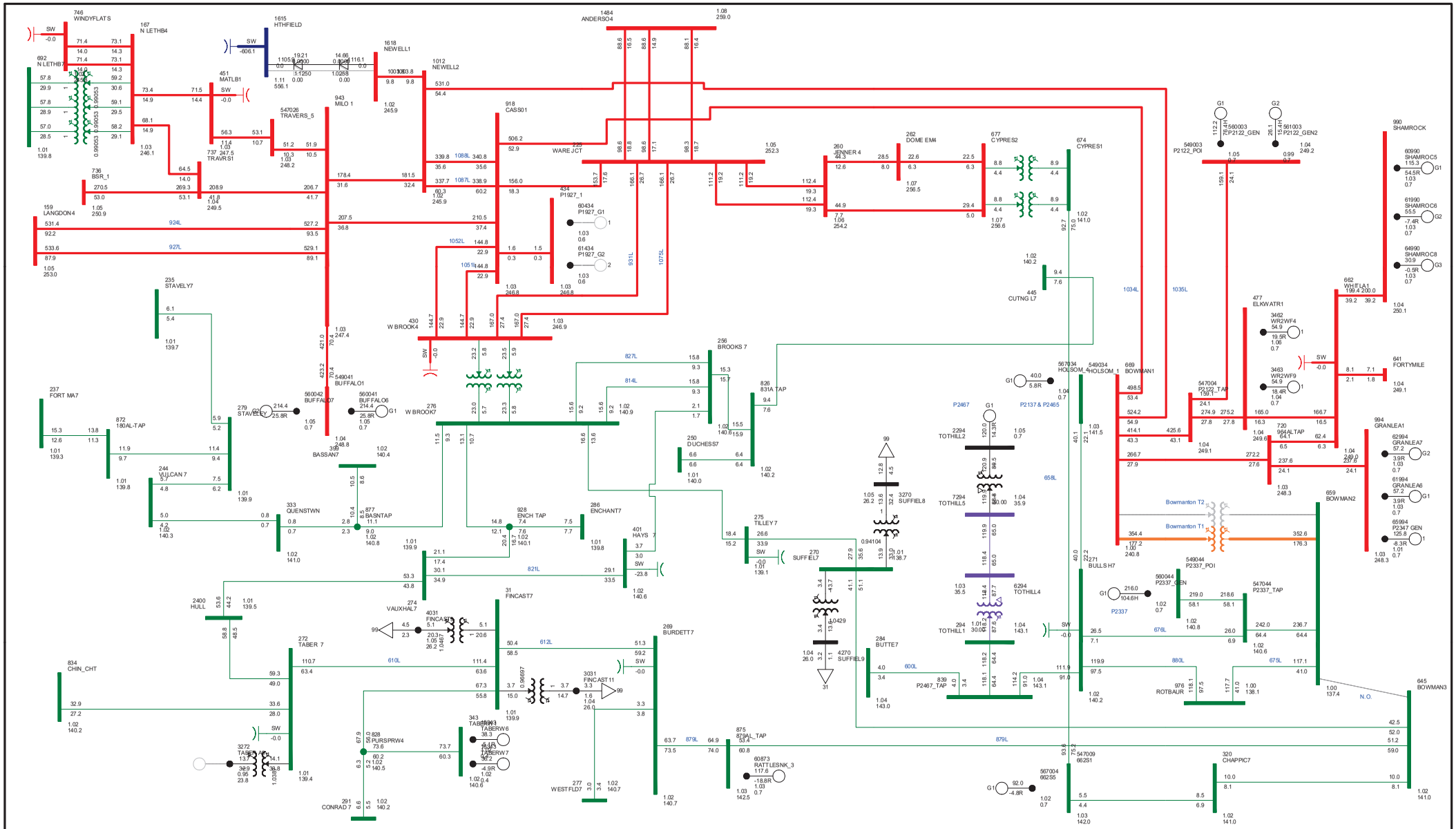


P2467 - Pteragen Peace Butte Wind

FIGURE B-3-7: 2025-SCN3-SL-POST.SAV
CATEGORY B - 927L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 14:04

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

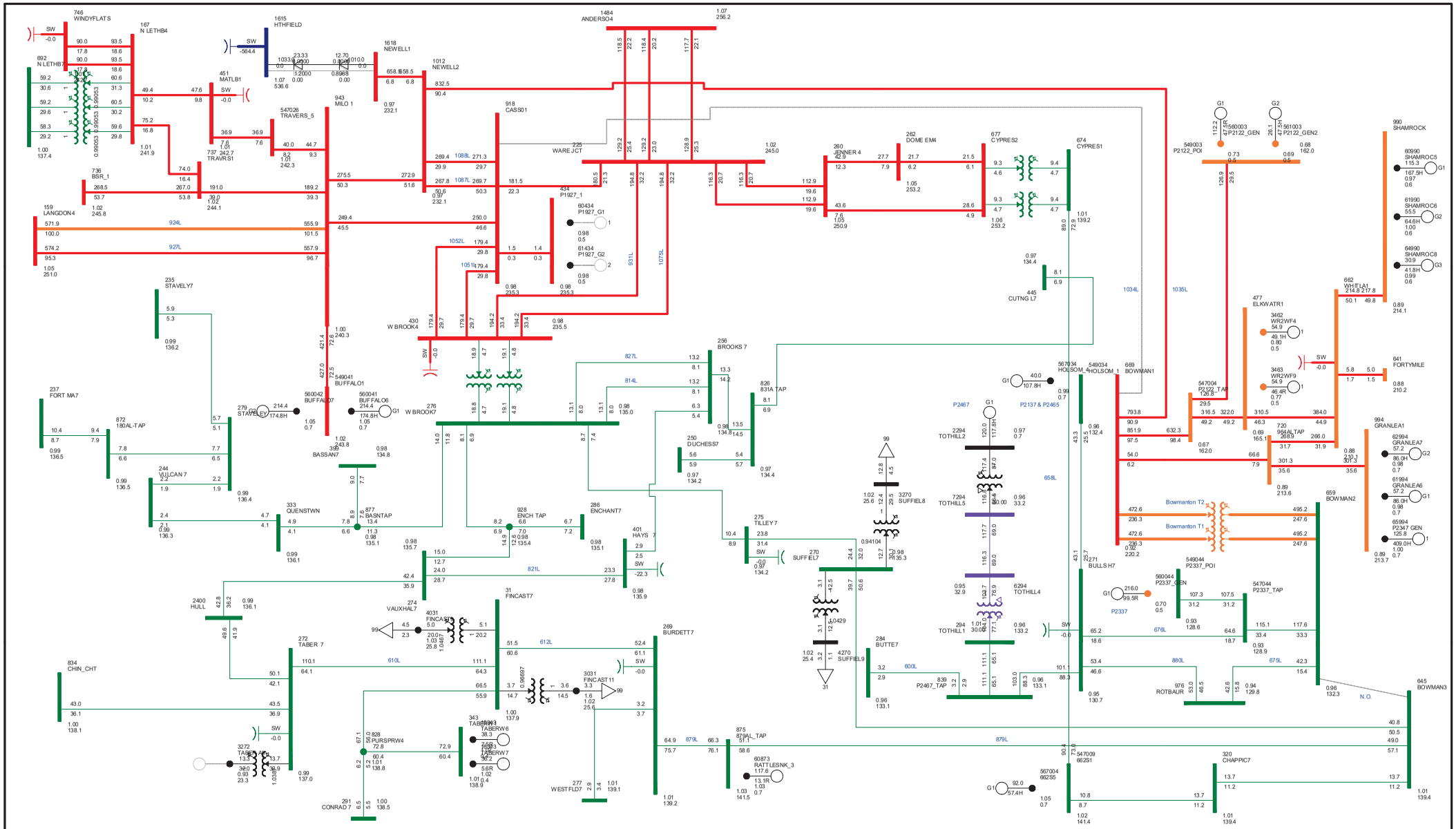

P2467 - Pteragen Peace Butte Wind
FIGURE B-3-8: 2025-SCN3-SL-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T1
SUN, NOV 03 2024 14:05
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

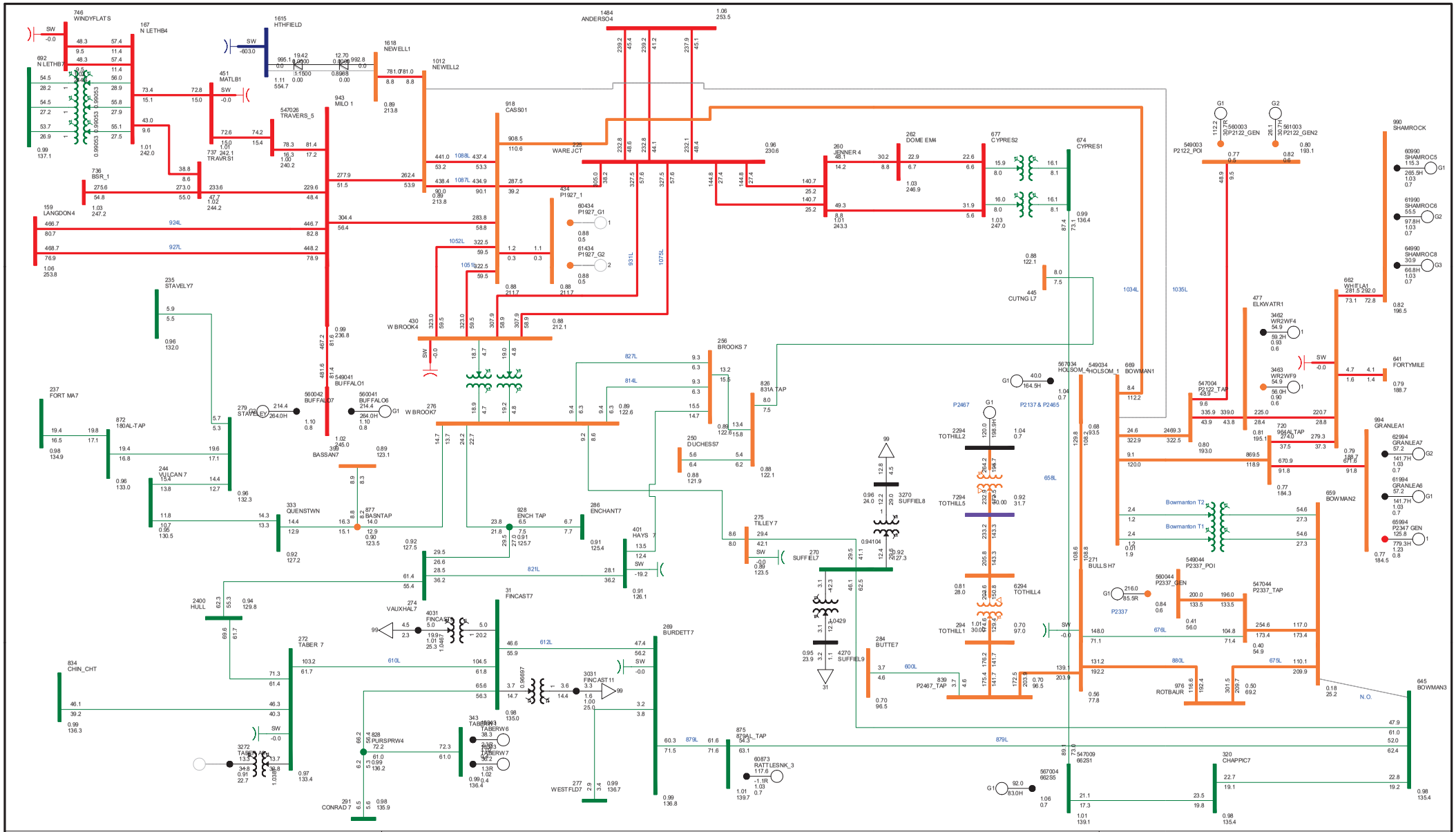


P2467 - Pteragen Peace Butte Wind

FIGURE B-3-9: 2025-SCN3-SL-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T2
SUN, NOV 03 2024 14:05

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

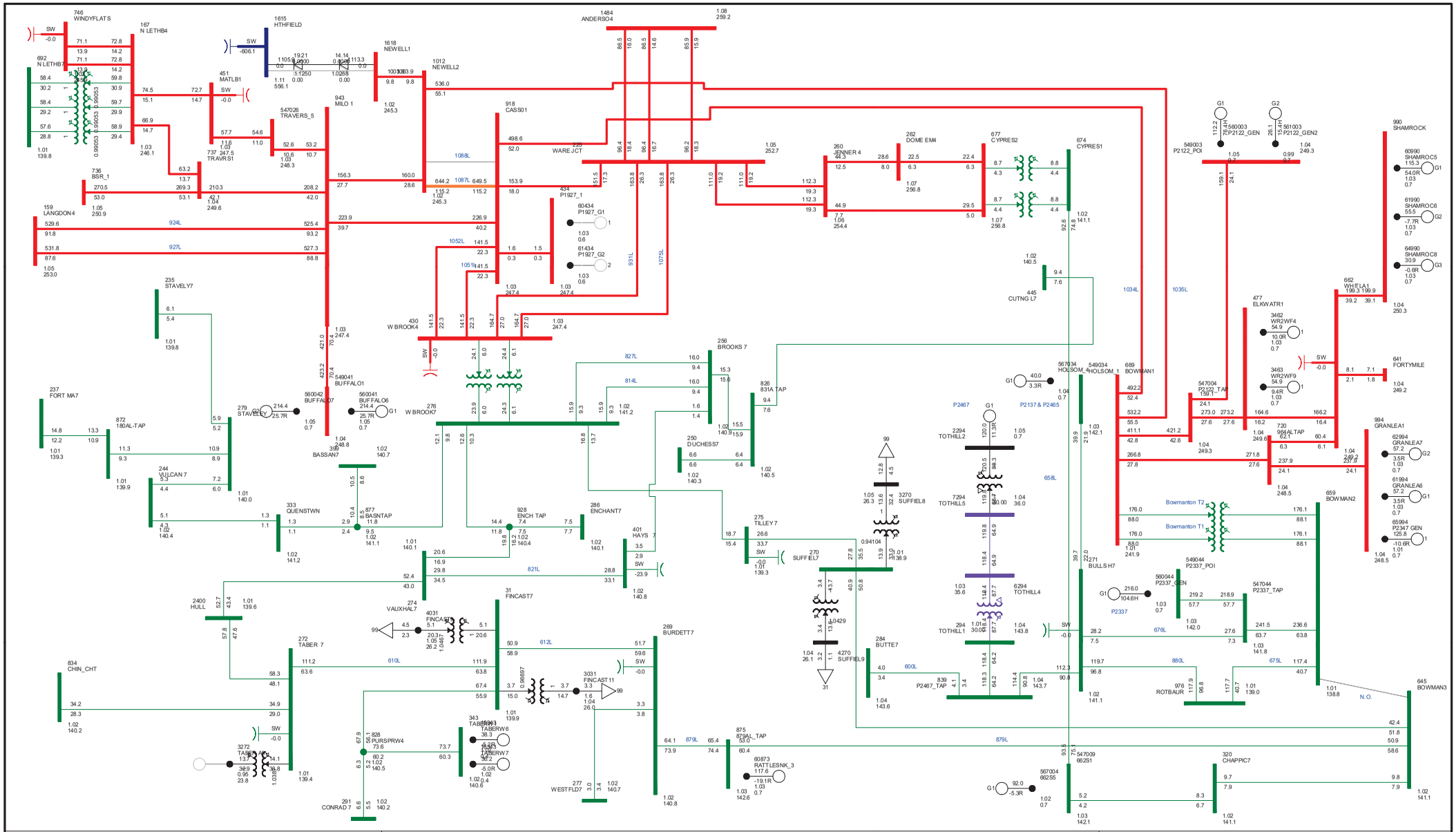

P2467 - Pteragen Peace Butte Wind
FIGURE B-3-10: 2025-SCN3-SL-POST.SAV
CATEGORY B - 1034L (CASSILS 324S TO BOWMANTON 244S)
SUN, NOV 03 2024 14:06
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

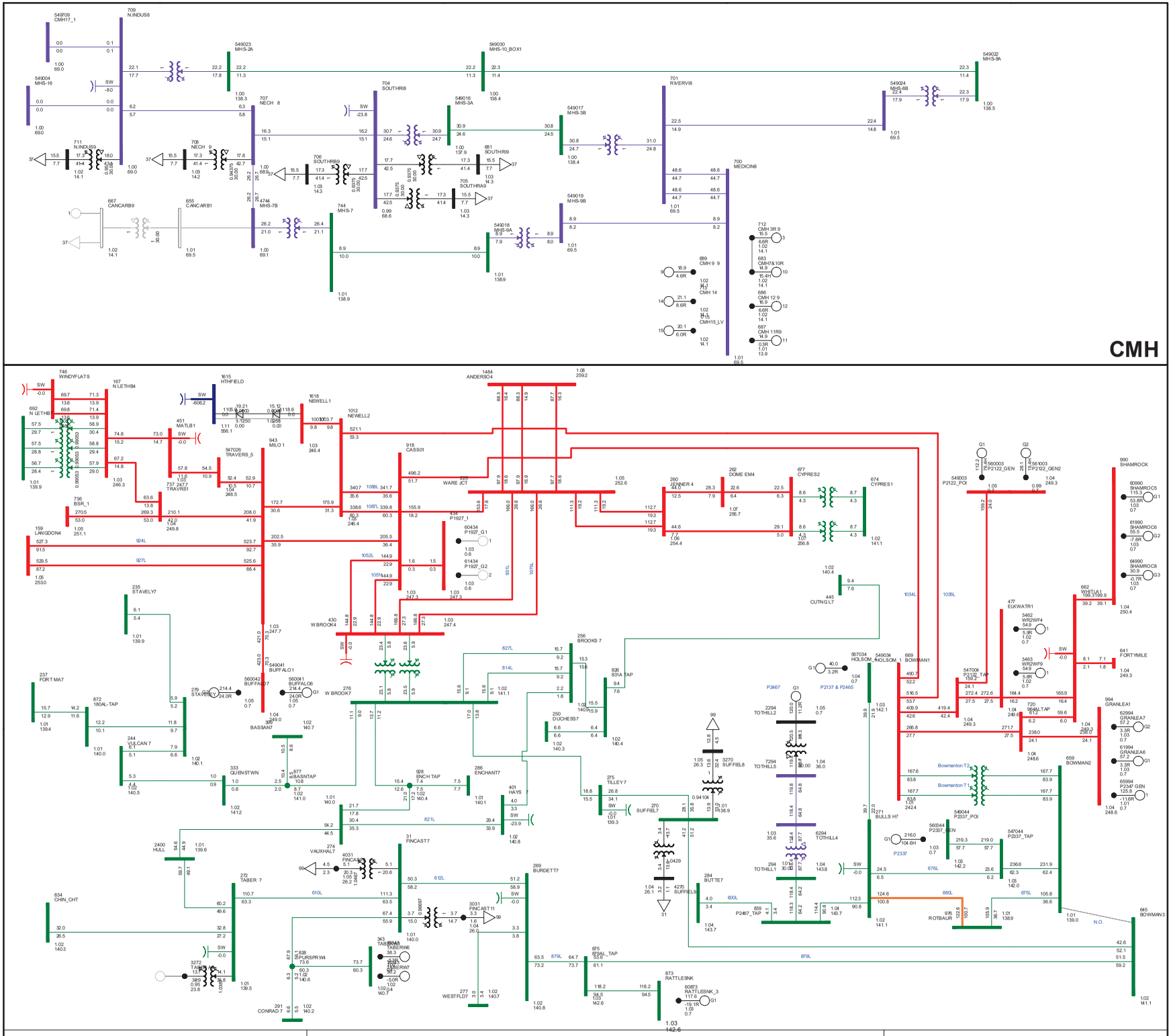


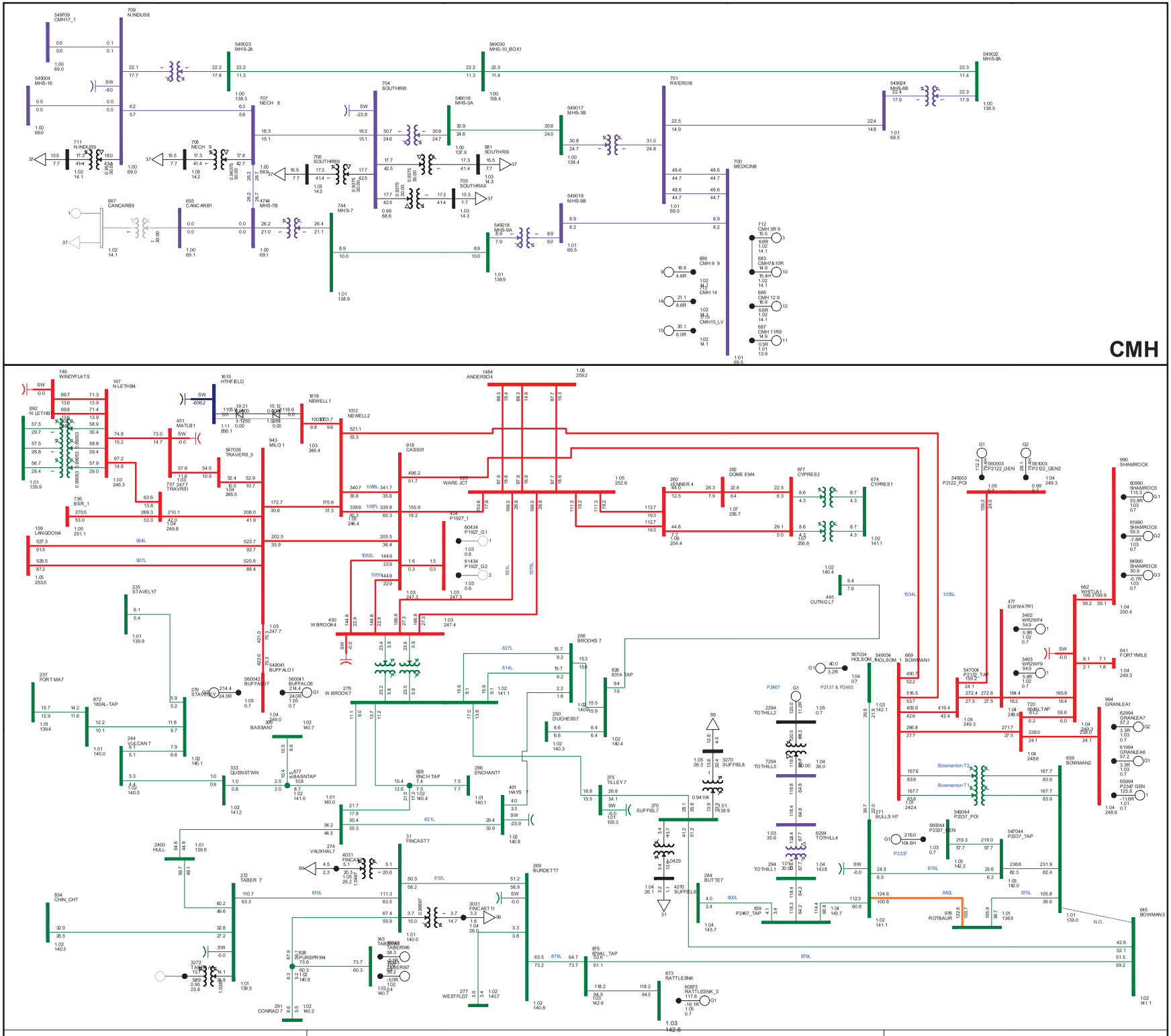
P2467 - Pteragen Peace Butte Wind

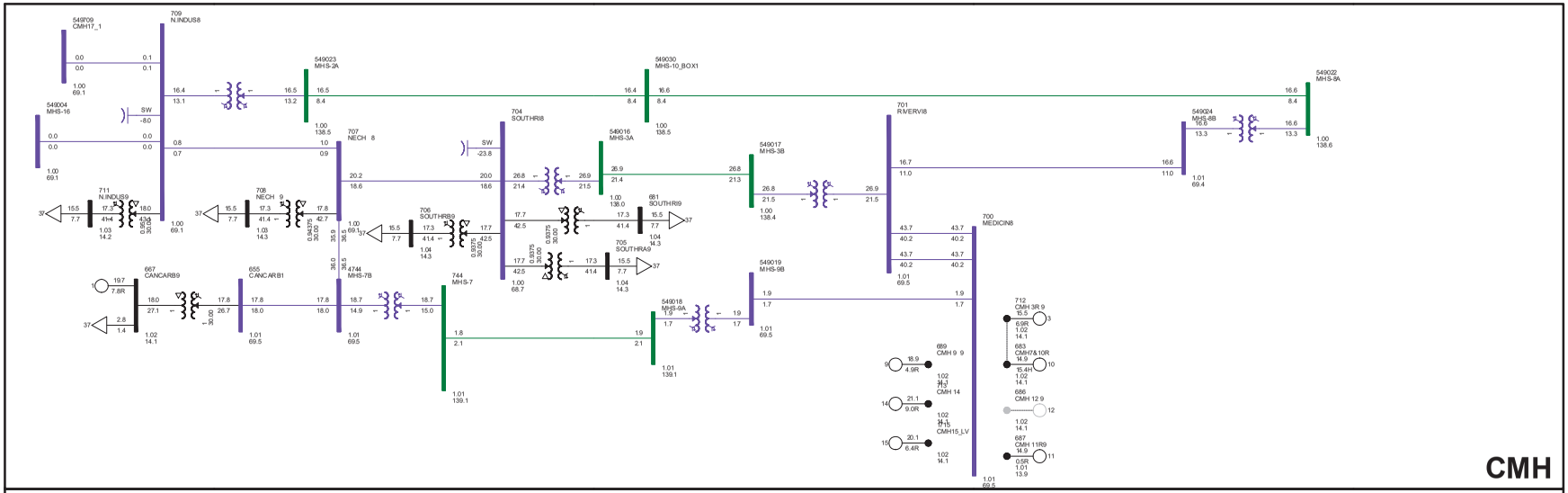
FIGURE B-3-11: 2025-SCN3-SL-POST.SAV
CATEGORY B - 1035L (BOWMANTON 244S TO NEWELL A2075S)
SUN, NOV 03 2024 14:06

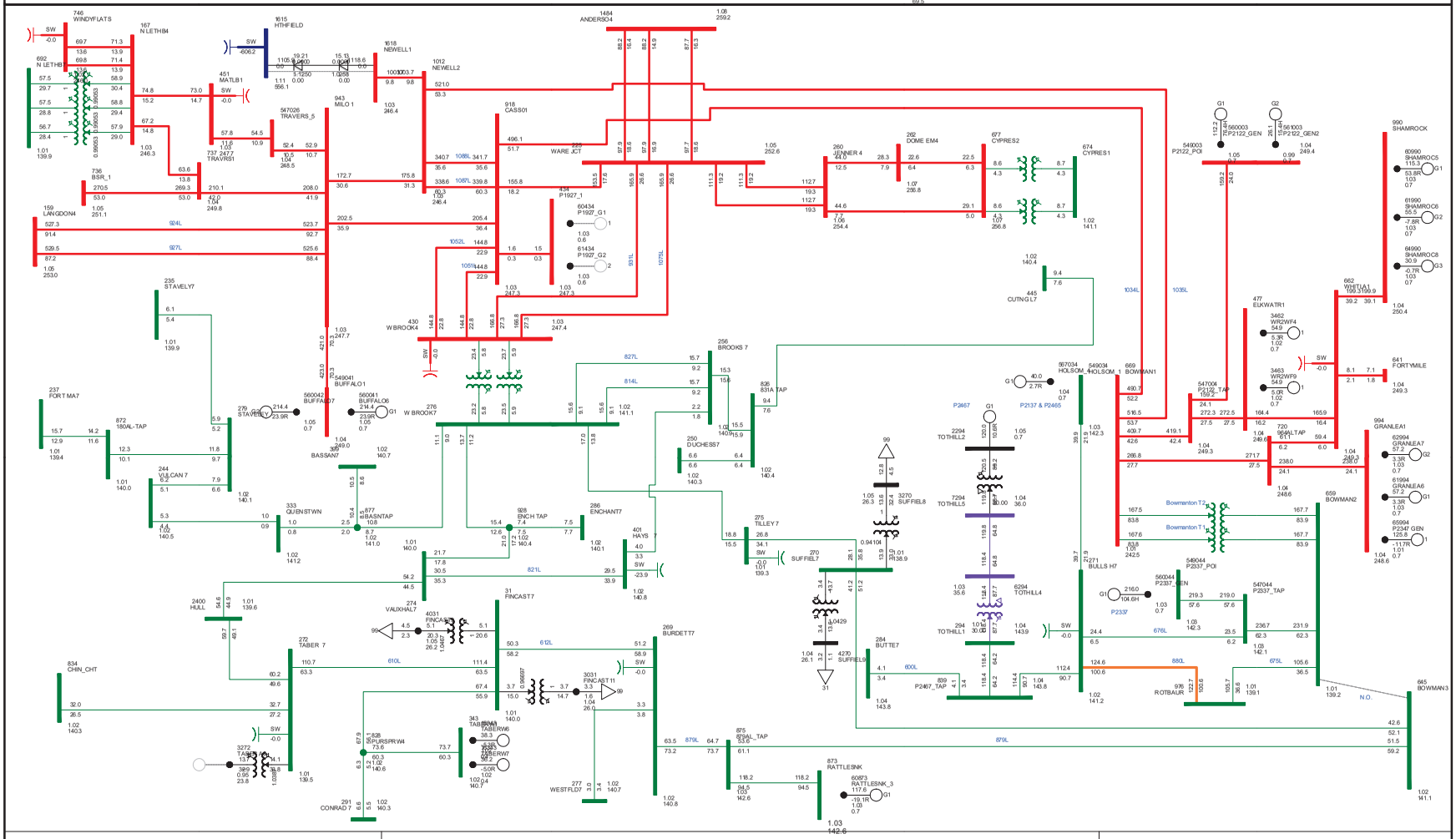
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


P2467 - Pteragen Peace Butte Wind
FIGURE B-3-12: 2025-SCN3-SL-POST.SAV
CATEGORY B - 1088L (CASSILS 324S TO NEWELL 2075S)
SUN, NOV 03 2024 14:07
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


CMH
549709 CMH17_1
709 NJINDUS8
549004 MHS-16
711 NJINDUS9
549023 MHS-2A
707 NECH 8
708 NECH 9
706 SOUTHRB8
704 SOUTHRI8
705 SOUTHRA9
681 SOUTHRI9
549016 MHS-3A
549030 MHS-10_BOX1
549017 MHS-3B
549018 MHS-9A
549019 MHS-9B
701 RIVERVI8
549022 MHS-8A
549024 MHS-8B
700 MEDICIN8
667 CANCARB9
655 CANCARB1
4744 MHS-7B
744 MHS-7
712 CMH 3R 9
683 CMH7&10R
686 CMH 12 9
687 CMH 11R9
689 CMH 9 9
CMH 14
CMH15_LV
P2467 - Pteragen Peace Butte Wind
FIGURE B-3-13: 2025-SCN3-SL-POST.SAV
CATEGORY B - MH-65L (CANCARB LIMITED CO-GEN STATION TO MHS-7
SAT, NOV 02 2024 17:11
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000
1


CMH
549709 CMH17_1
709 N.INDUS8
549004 MHS-16
711 N.INDUS9
549023 MHS-2A
707 NECH 8
708 NECH 9
706 SOUTHRB9
704 SOUTHRI8
705 SOUTHRA9
681 SOUTHRI9
549016 MHS-3A
549030 MHS-10_BOX1
549017 MHS-3B
549018 MHS-9A
549019 MHS-9B
701 RIVERVI8
549022 MHS-8A
549024 MHS-8B
700 MEDICIN8
667 CANCARB9
655 CANCARB1
4744 MHS-7B
744 MHS-7
712 CMH 3R 9
683 CMH7&10R
686 CMH 12 9
687 CMH 11R9
689 CMH 9 9
CMH 14
CMH15_LV
P2467 - Pteragen Peace Butte Wind
FIGURE B-3-14: 2025-SCN3-SL-POST.SAV
CATEGORY B - CANCARB LIMITED CO-GEN STATION TRANSFORMER T1
SAT, NOV 02 2024 17:12
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

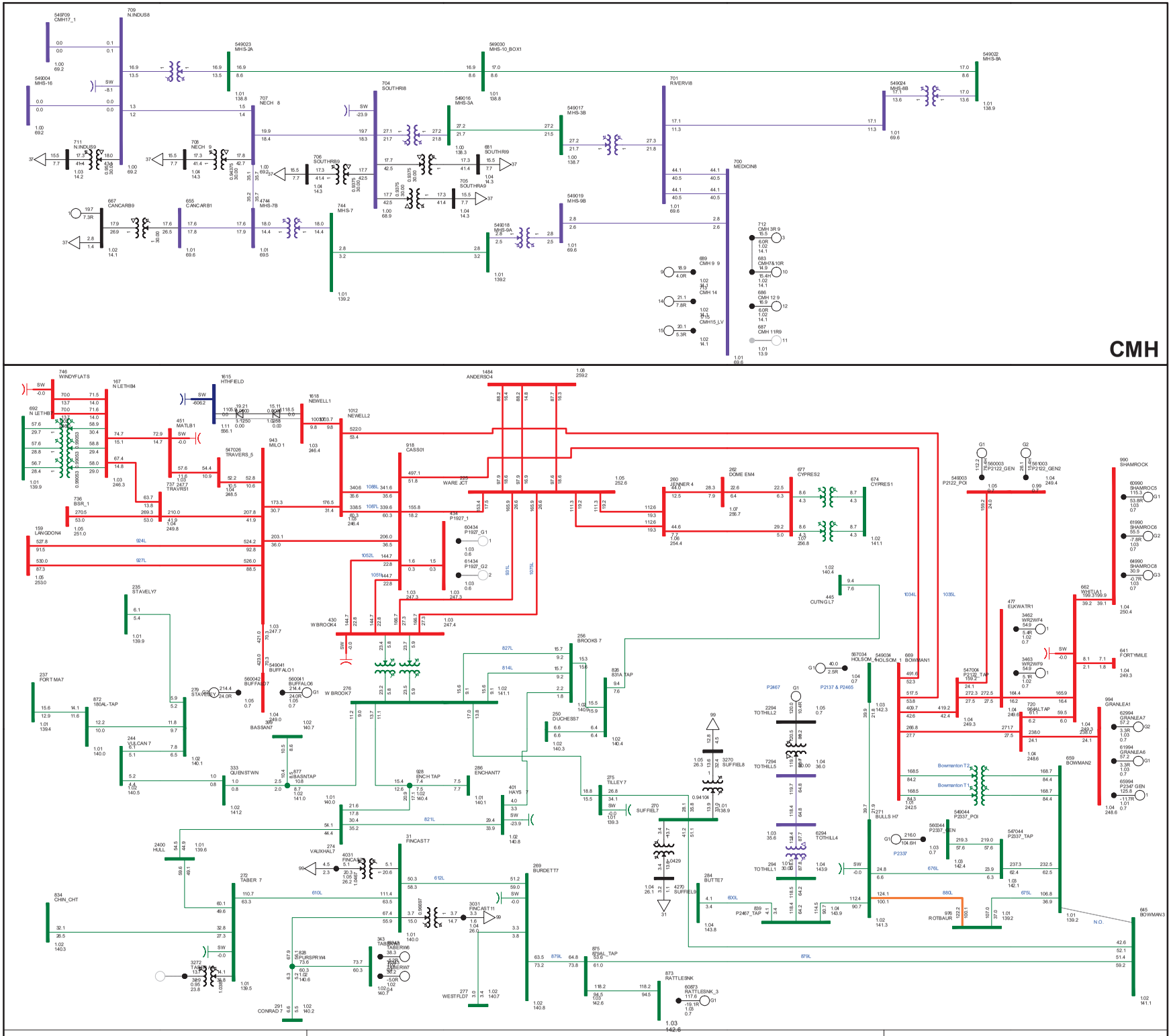


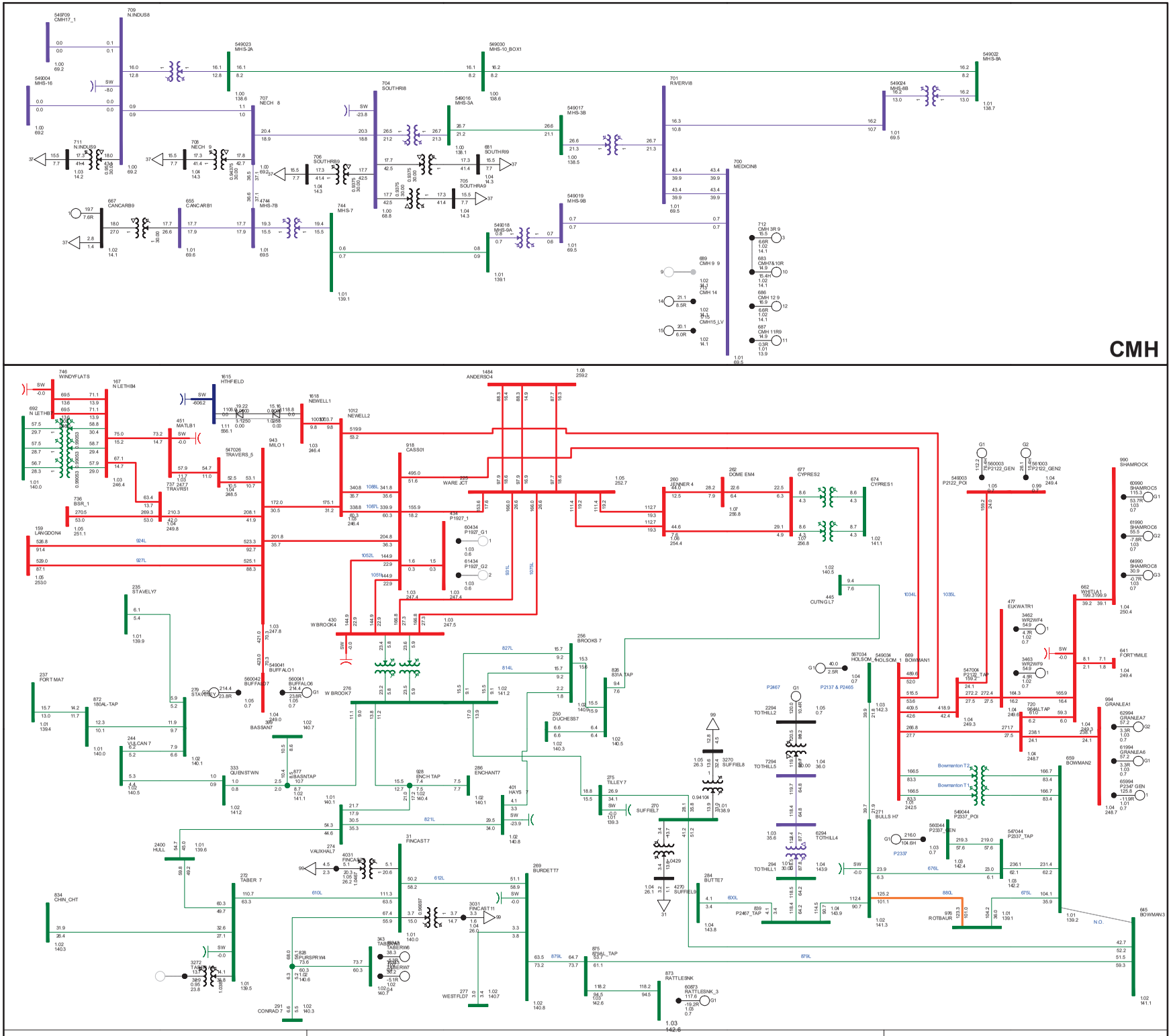


P2467 - Pteragen Peace Butte Wind

FIGURE B-3-15: 2025-SCN3-SL-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 12
SAT, NOV 02 2024 17:13

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

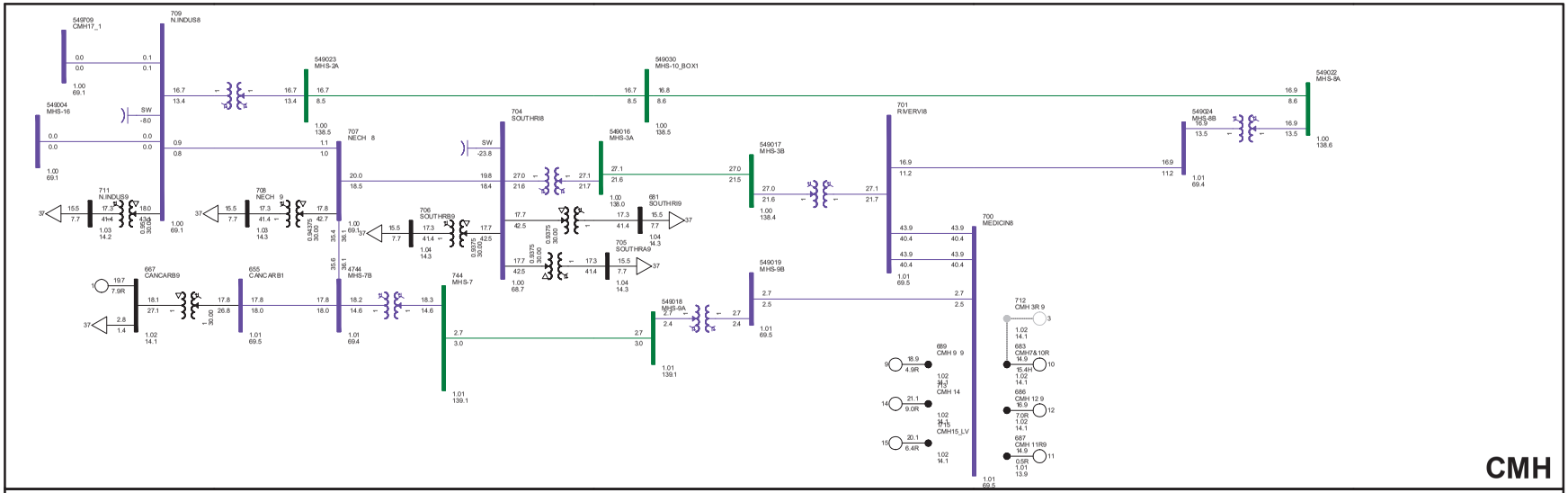

CMH
P2467 - Pteragen Peace Butte Wind
FIGURE B-3-16: 2025-SCN3-SL-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER T5
SAT, NOV 02 2024 17:20
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

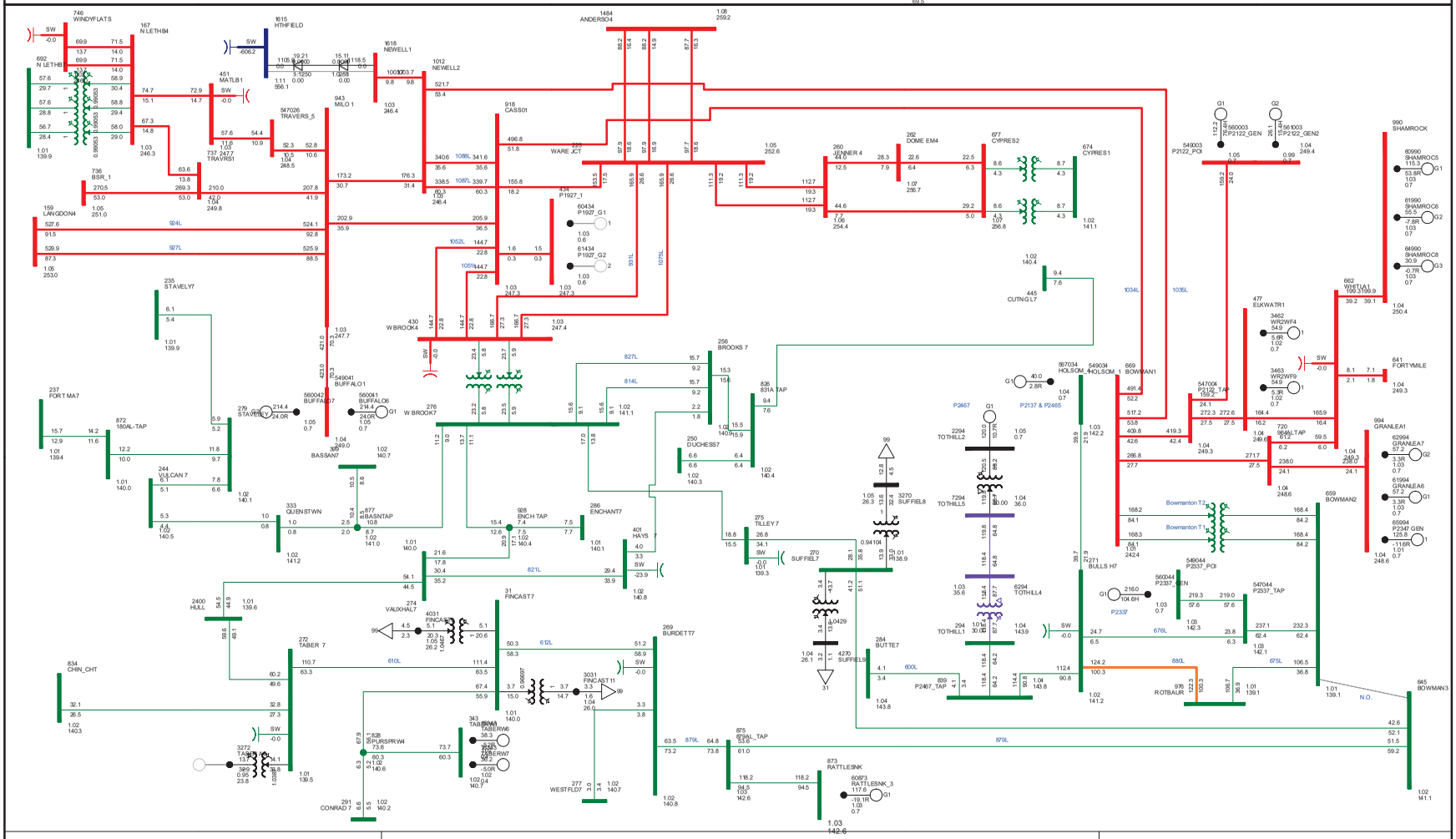


P2467 - Pteragen Peace Butte Wind

FIGURE B-3-17: 2025-SCN3-SL-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER T1
SAT, NOV 02 2024 17:14

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

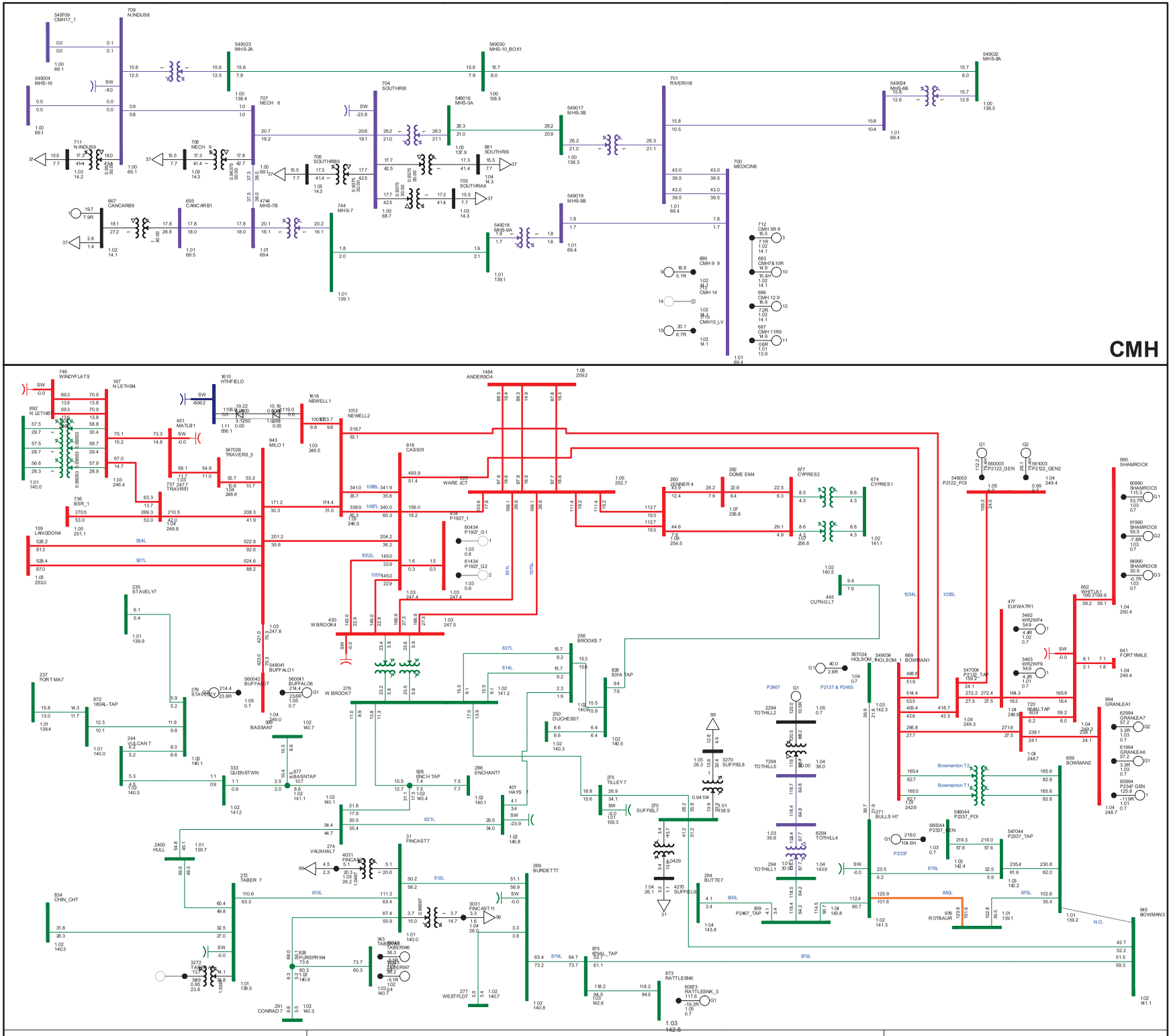




P2467 - Pteragen Peace Butte Wind

FIGURE B-3-18: 2025-SCN3-SL-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 3B
SAT, NOV 02 2024 17:15

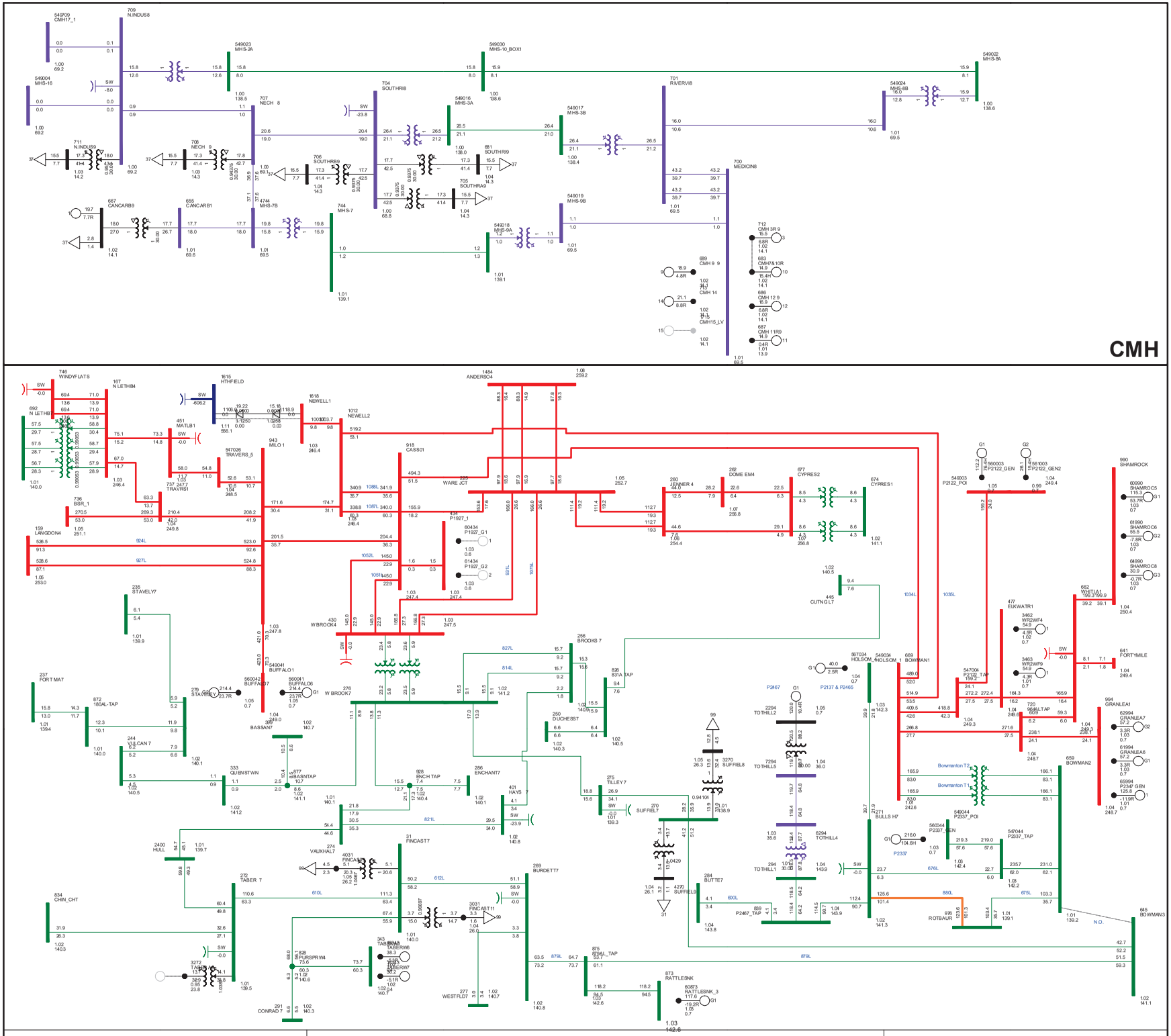
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



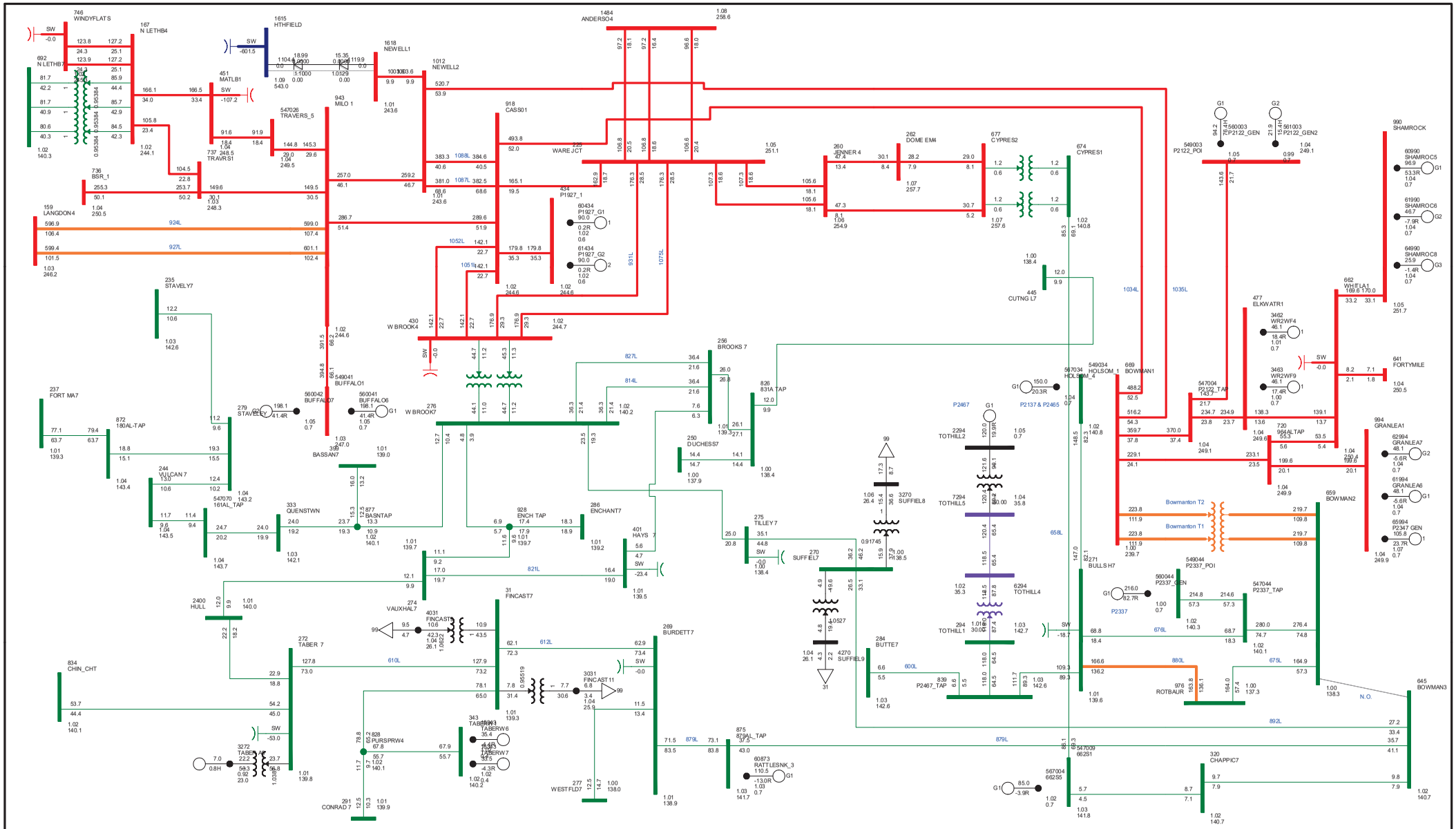
P2467 - Pteragen Peace Butte Wind

FIGURE B-3-19: 2025-SCN3-SL-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 14
SAT, NOV 02 2024 17:16

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


CMH
549709 CMH17_1
709 NUNDUS8
549004 MHS-16
549023 MHS-2A
549030 MHS-10_BOX1
549022 MHS-8A
549024 MHS-8B
711 NUNDUS9
707 NECH 8
708 NECH 9
704 SOUTHRI8
706 SOUTHRB8
705 SOUTHRA9
681 SOUTHRI9
549016 MHS-3A
549017 MHS-3B
701 RIVERVI8
667 CANCARB9
655 CANCARB1
4744 MHS-7B
744 MHS-7
549018 MHS-9A
549019 MHS-9B
700 MEDICIN8
712 CMH 3R 9
683 CMH7&10R
686 CMH 12 9
687 CMH 11R9
689 CMH 9 9
CMH 14
CMH15_LV

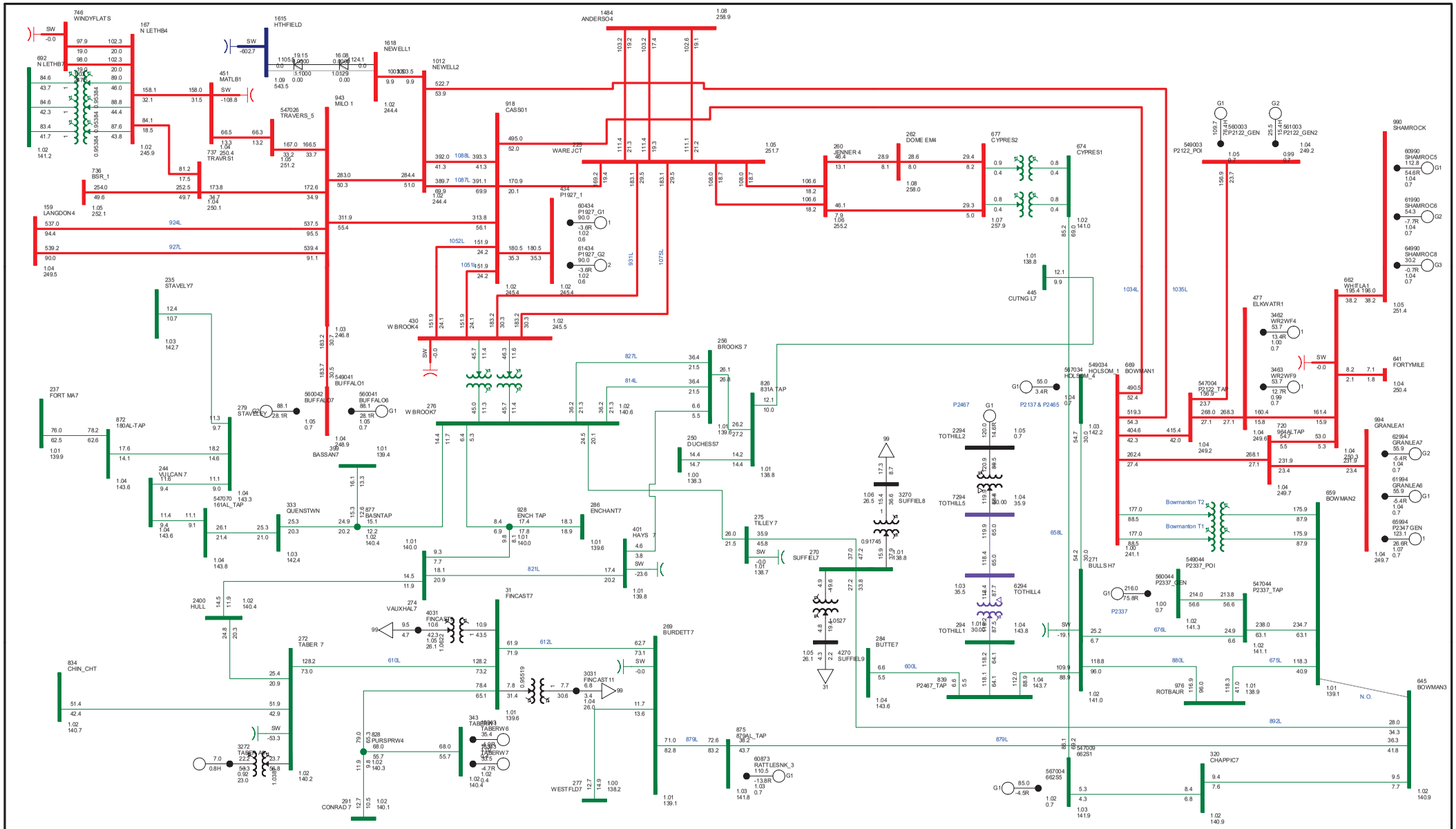
P2467 - Pteragen Peace Butte Wind
FIGURE B-3-20: 2025-SCN3-SL-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 15
SAT, NOV 02 2024 17:17
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE A-4-0: 2025-SCN4-SP-POST-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
SUN, NOV 03 2024 14:09

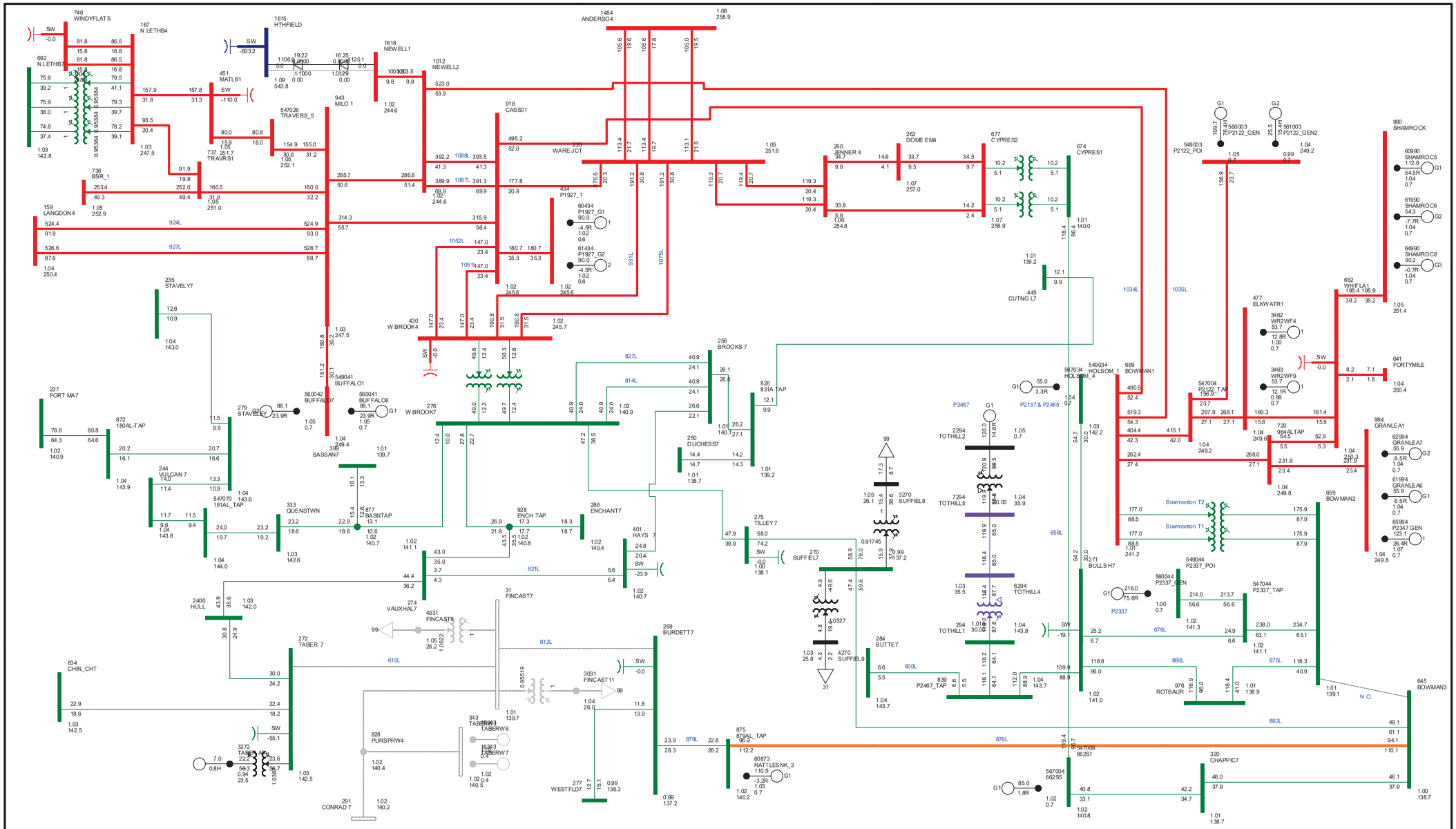
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE A-4-1: 2025-SCN4-SP-POST.SAV
CATEGORY A - NO CONTINGENCY
SUN, NOV 03 2024 14:09

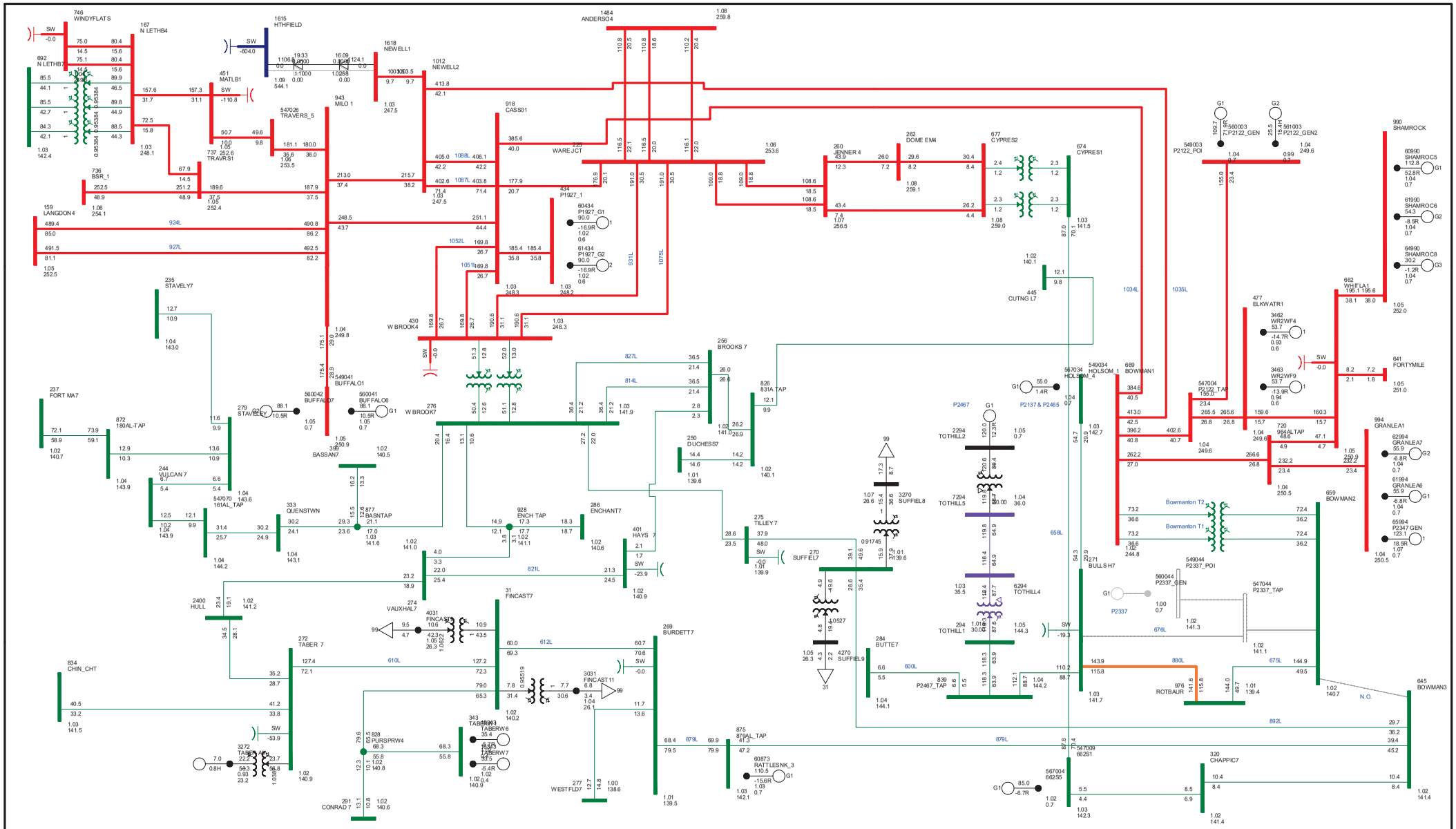
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-1: 2025-SCN4-SP-POST.SAV
CATEGORY B - FINCASTLE 336ST1
SUN, NOV 03 2024 14:10

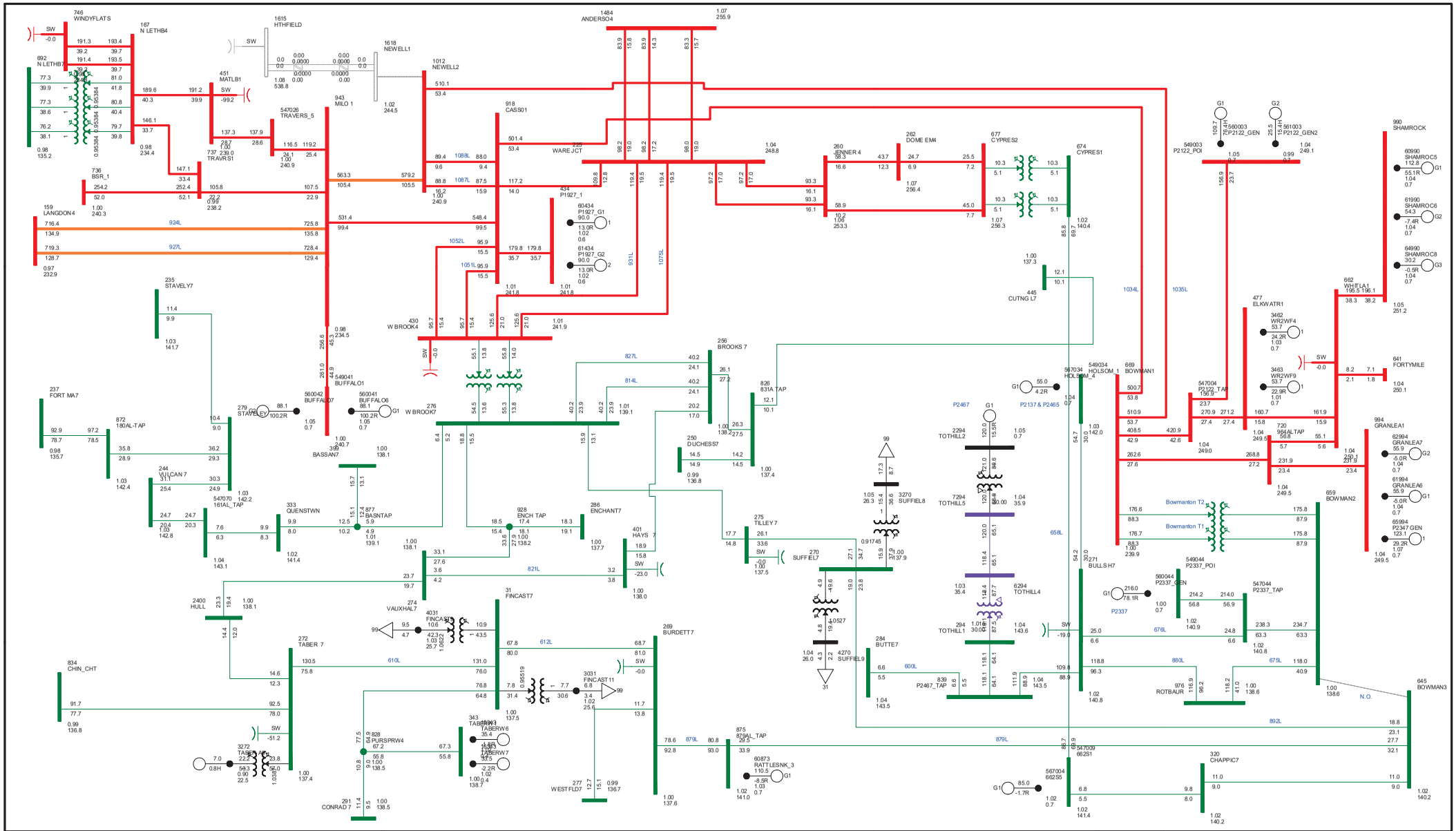
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

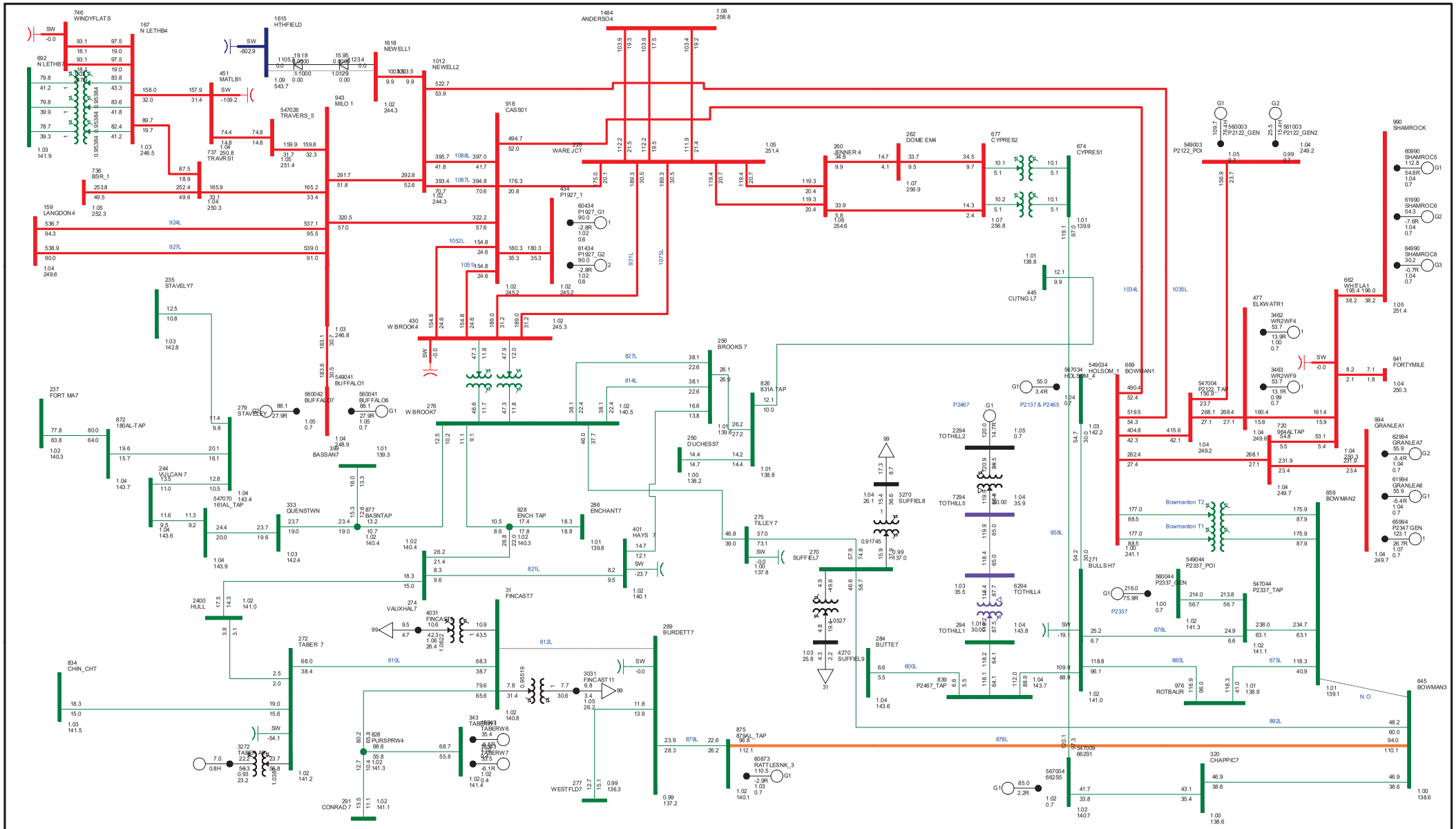


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-2: 2025-SCN4-SP-POST.SAV
CATEGORY B - 676L (BULLSHEAD 523S TO BOWMANTON 244S)
SUN, NOV 03 2024 14:11

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

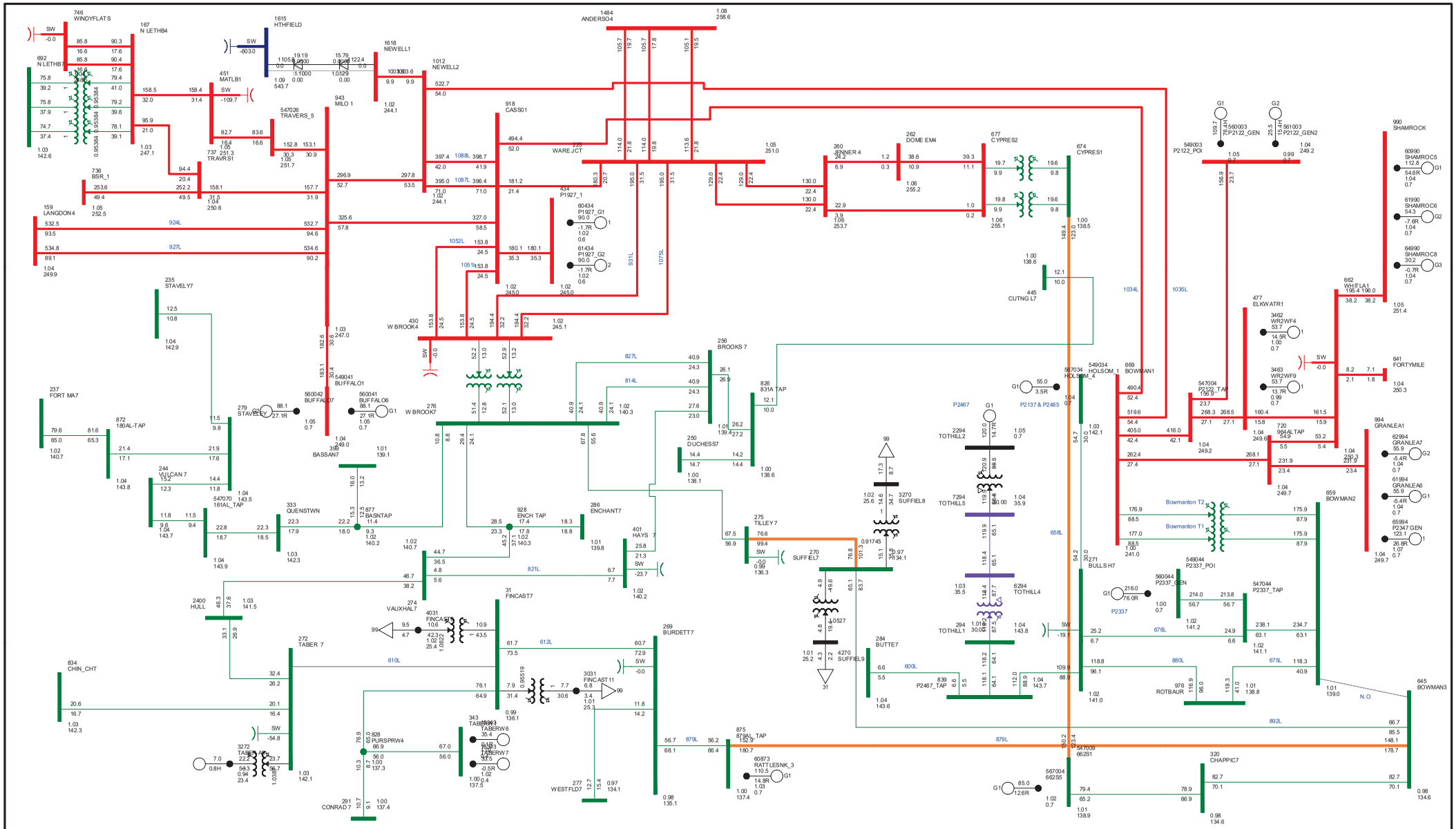

P2467 - Pteragen Peace Butte Wind
FIGURE B-4-3: 2025-SCN4-SP-POST.SAV
CATEGORY B - EATL HVDC
SUN, NOV 03 2024 14:11
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-4: 2025-SCN4-SP-POST.SAV
CATEGORY B - 612L (FINCASTLE 336S TO BURDETT 368S)
SUN, NOV 03 2024 14:12

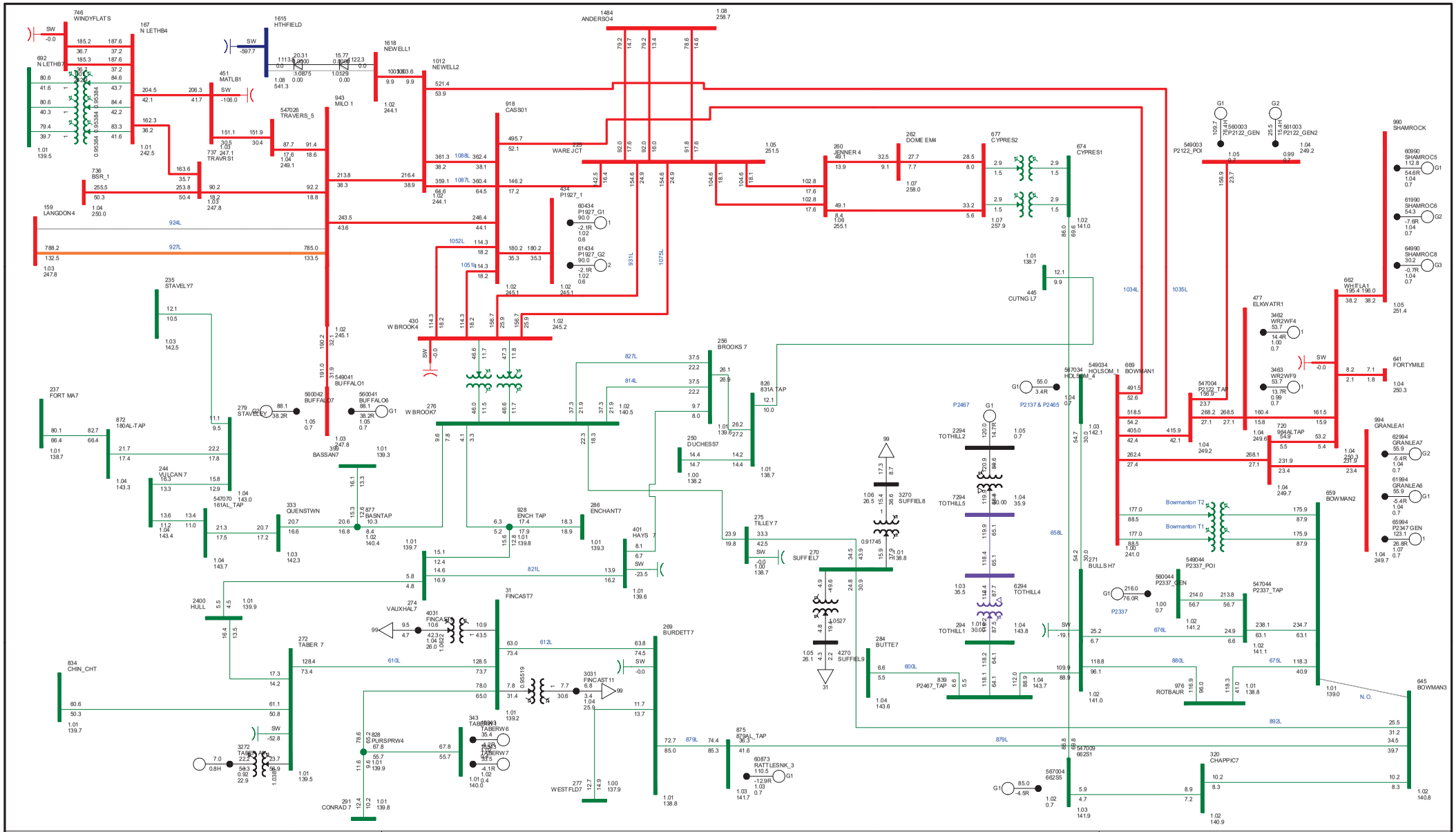
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

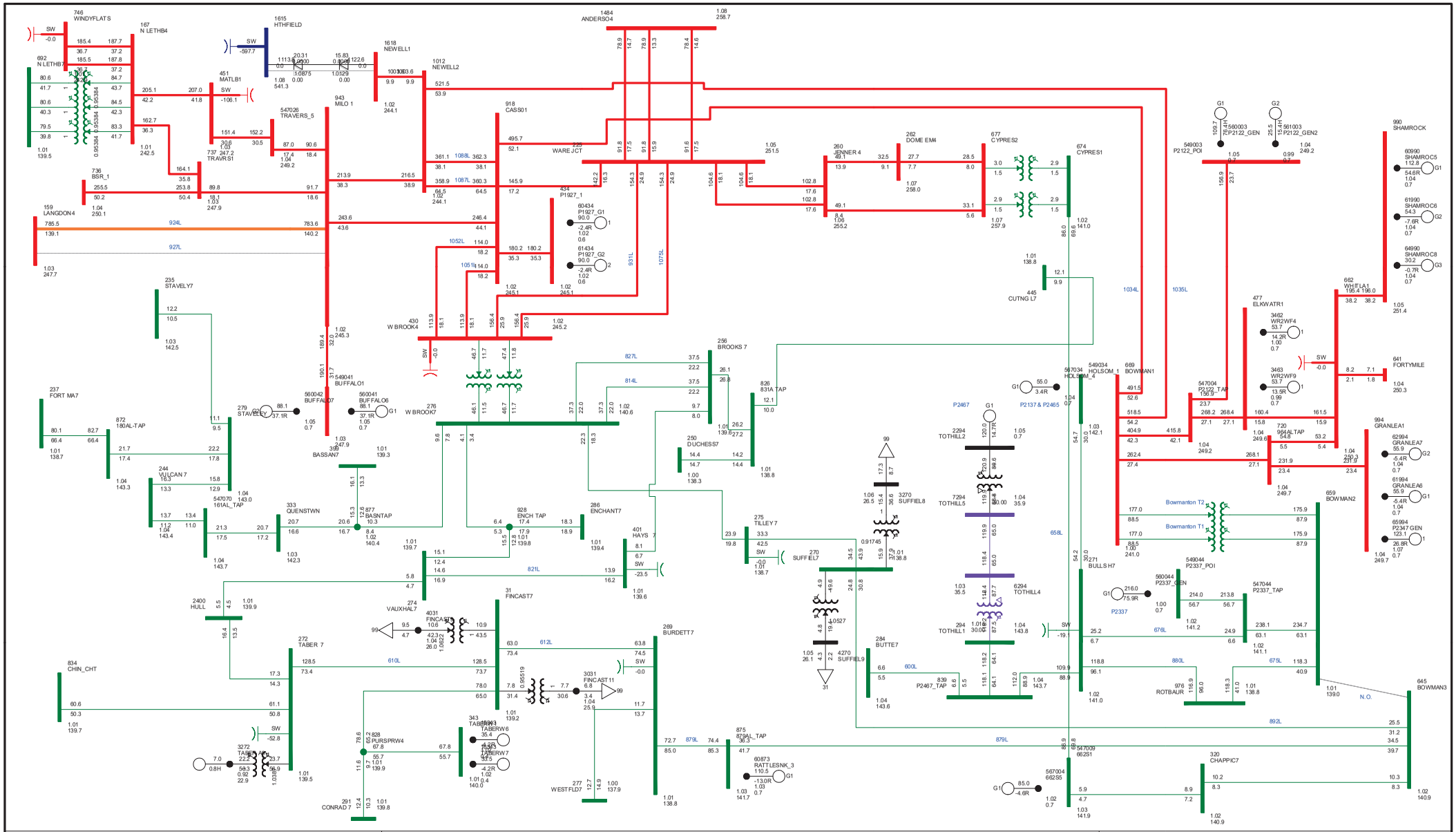


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-5: 2025-SCN4-SP-POST.SAV
CATEGORY B - 610L (FINCASTLE 336S TO TABER 83S)
SUN, NOV 03 2024 14:13

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

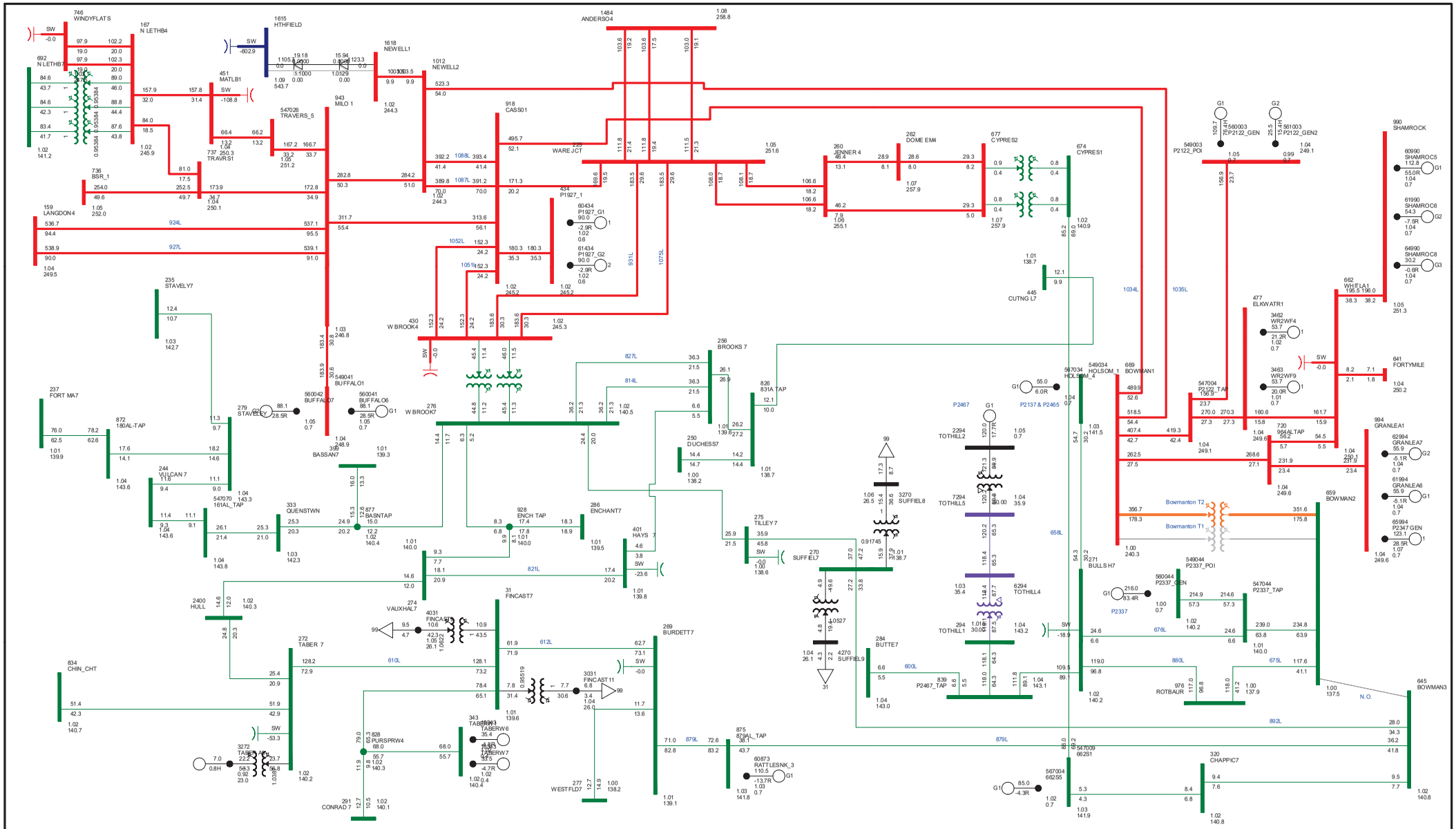

P2467 - Pteragen Peace Butte Wind
FIGURE B-4-6: 2025-SCN4-SP-POST.SAV
CATEGORY B - 924L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 14:13
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-7: 2025-SCN4-SP-POST.SAV
CATEGORY B - 927L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 14:14

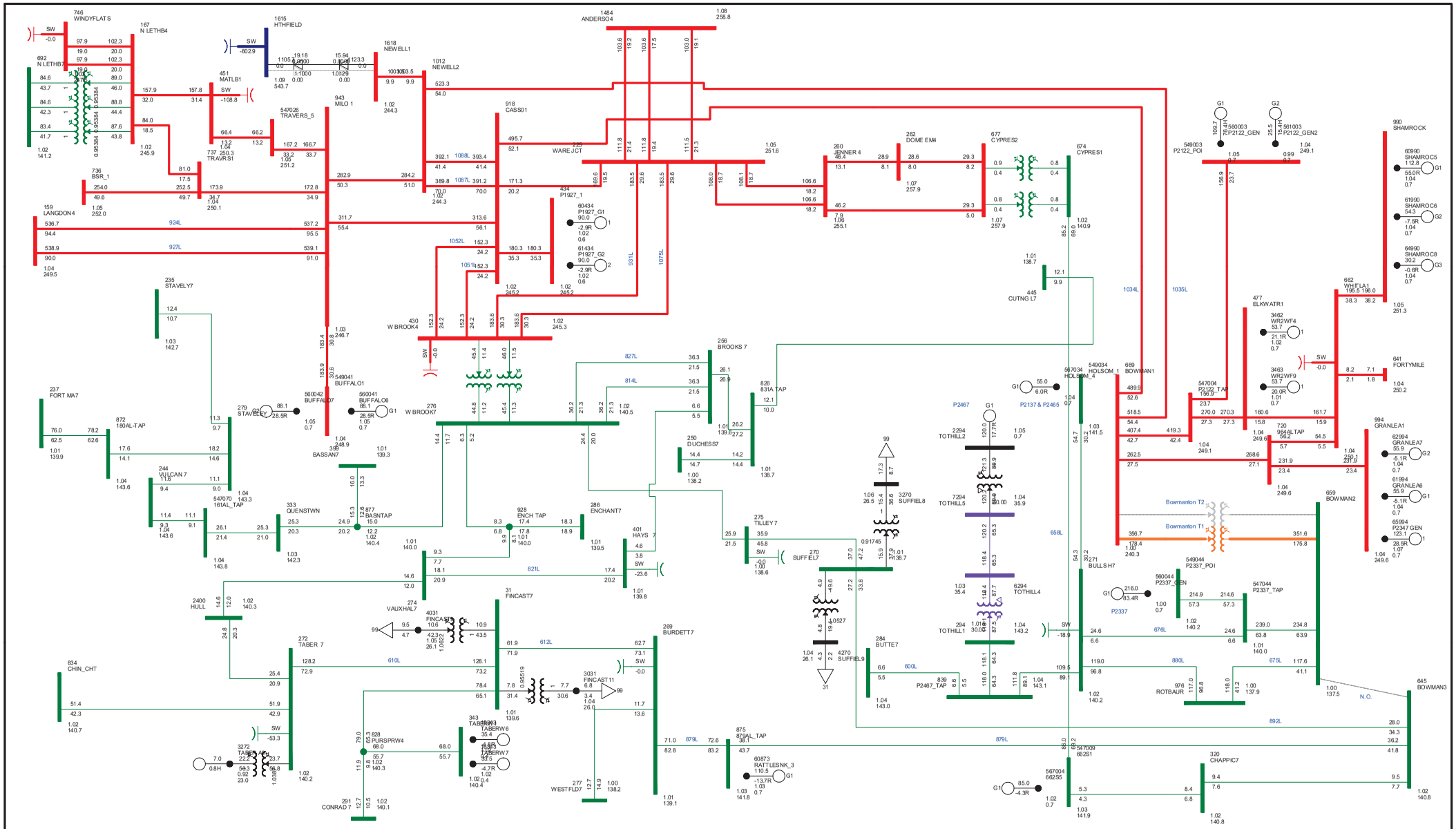
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-8: 2025-SCN4-SP-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T1
SUN, NOV 03 2024 14:14

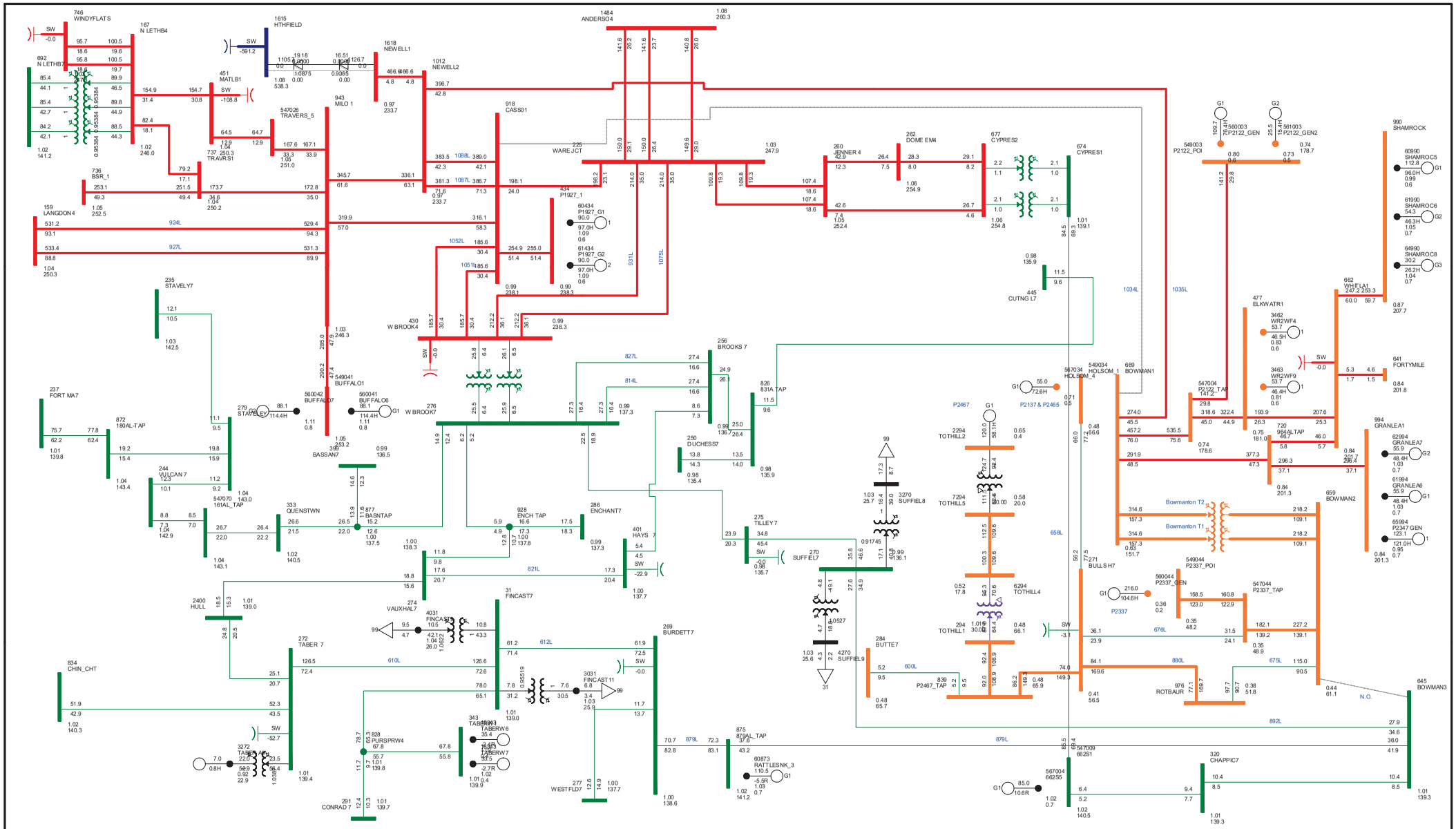
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

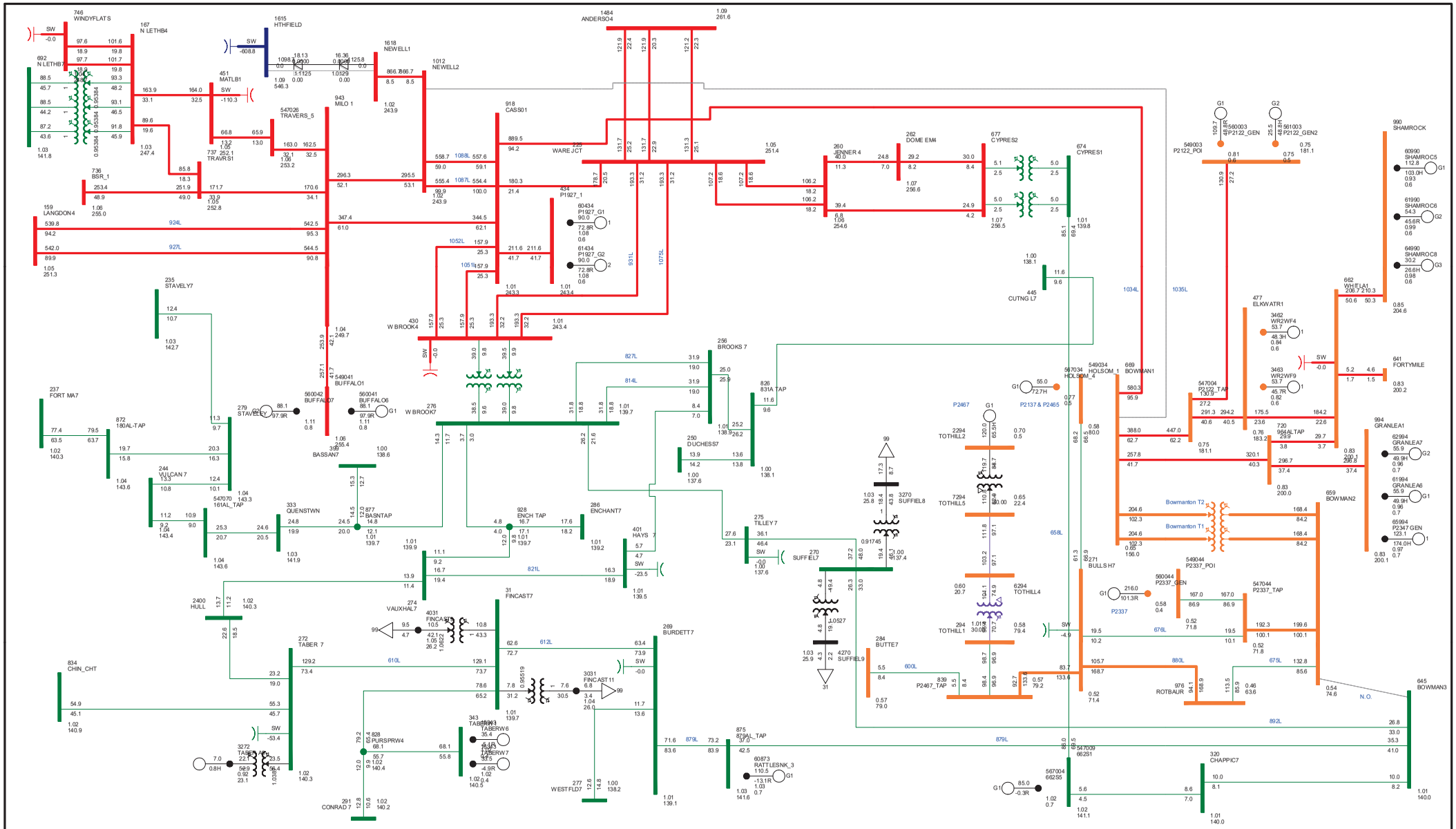


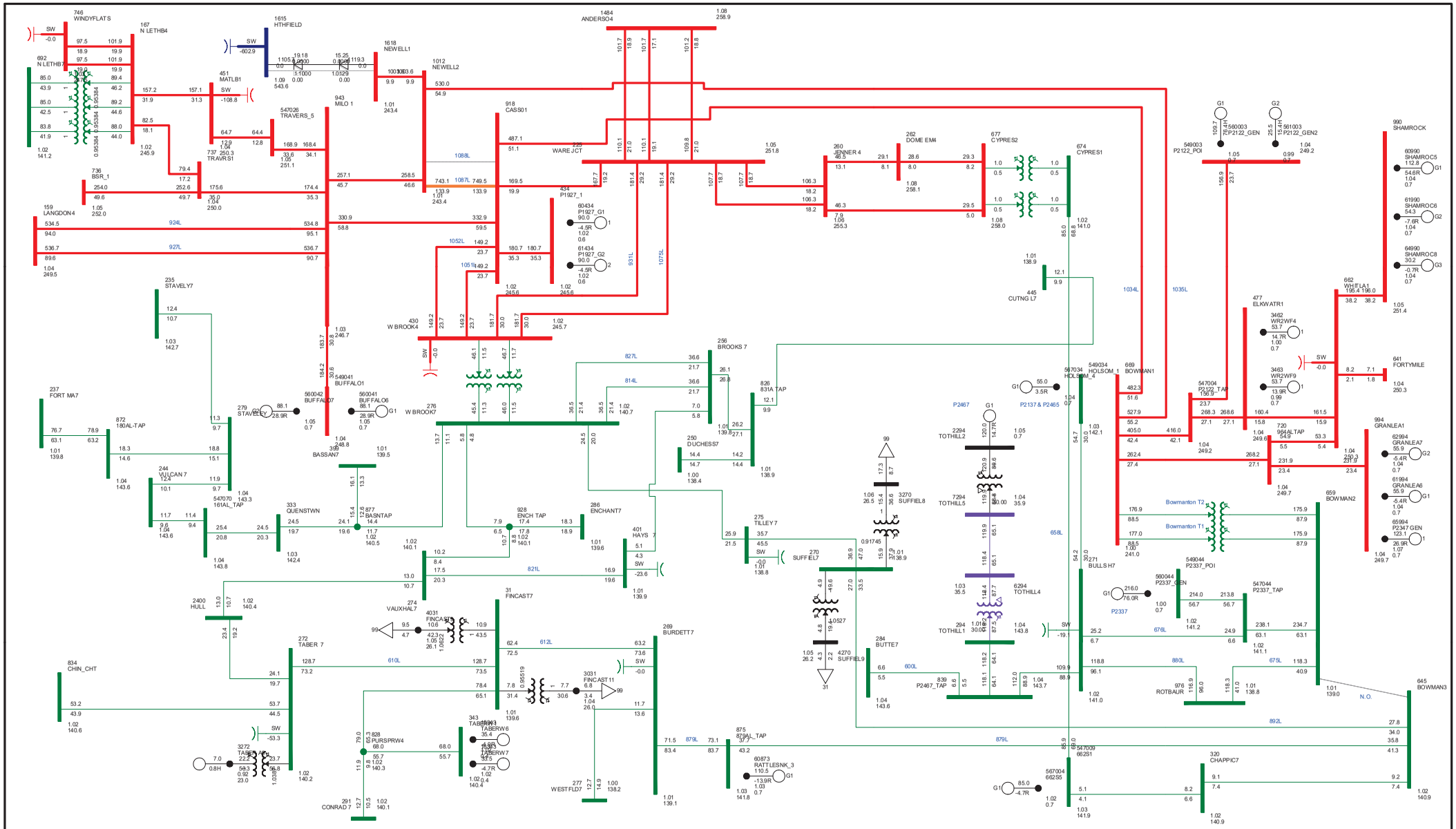
P2467 - Pteragen Peace Butte Wind

FIGURE B-4-9: 2025-SCN4-SP-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T2
SUN, NOV 03 2024 14:15

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


P2467 - Pteragen Peace Butte Wind
FIGURE B-4-10: 2025-SCN4-SP-POST.SAV
CATEGORY B - 1034L (CASSILS 324S TO BOWMANTON 244S)
SUN, NOV 03 2024 14:16
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

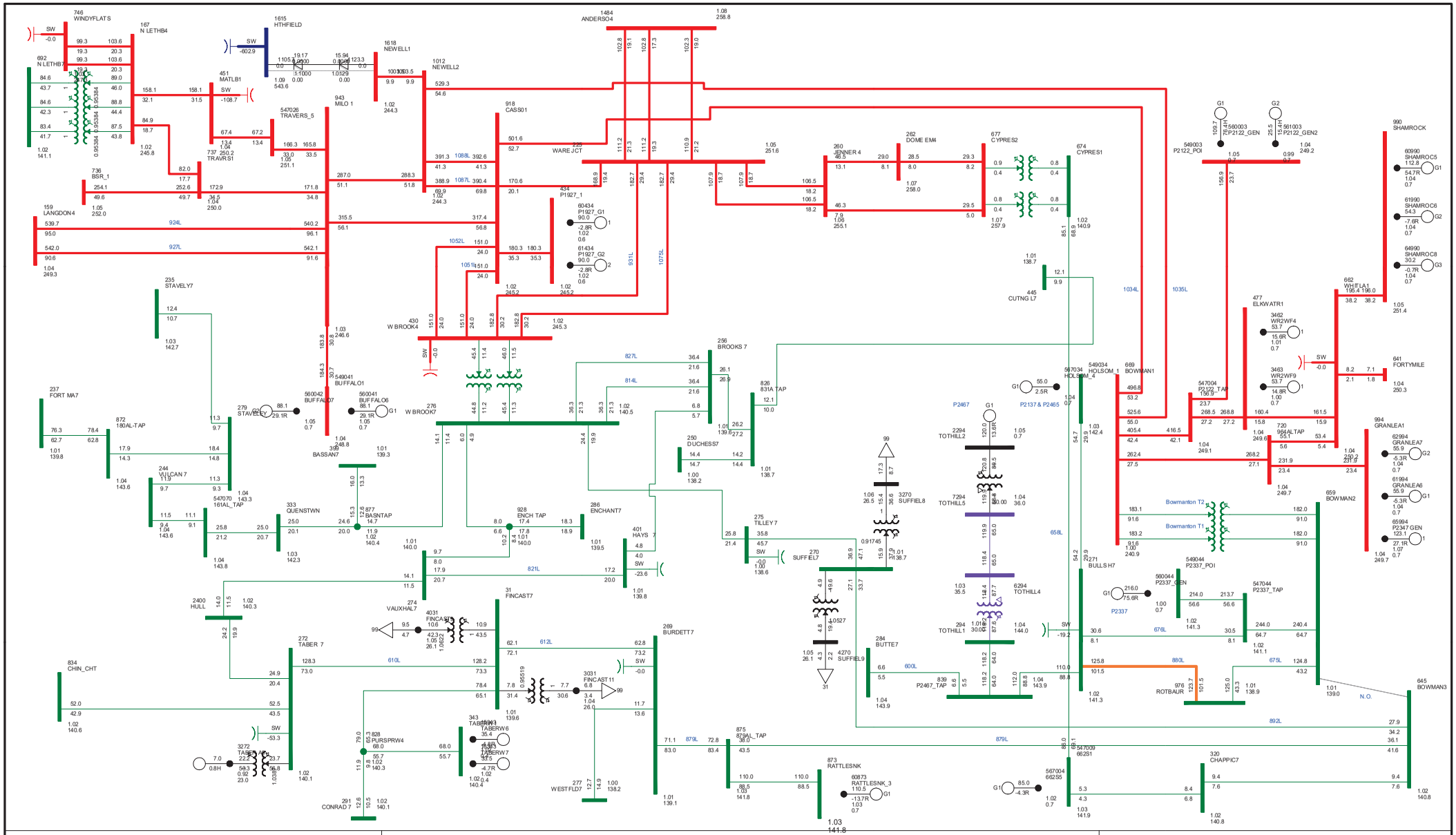

P2467 - Pteragen Peace Butte Wind
FIGURE B-4-11: 2025-SCN4-SP-POST.SAV
CATEGORY B - 1035L (BOWMANTON 244S TO NEWELL A2075S)
SUN, NOV 03 2024 14:16
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

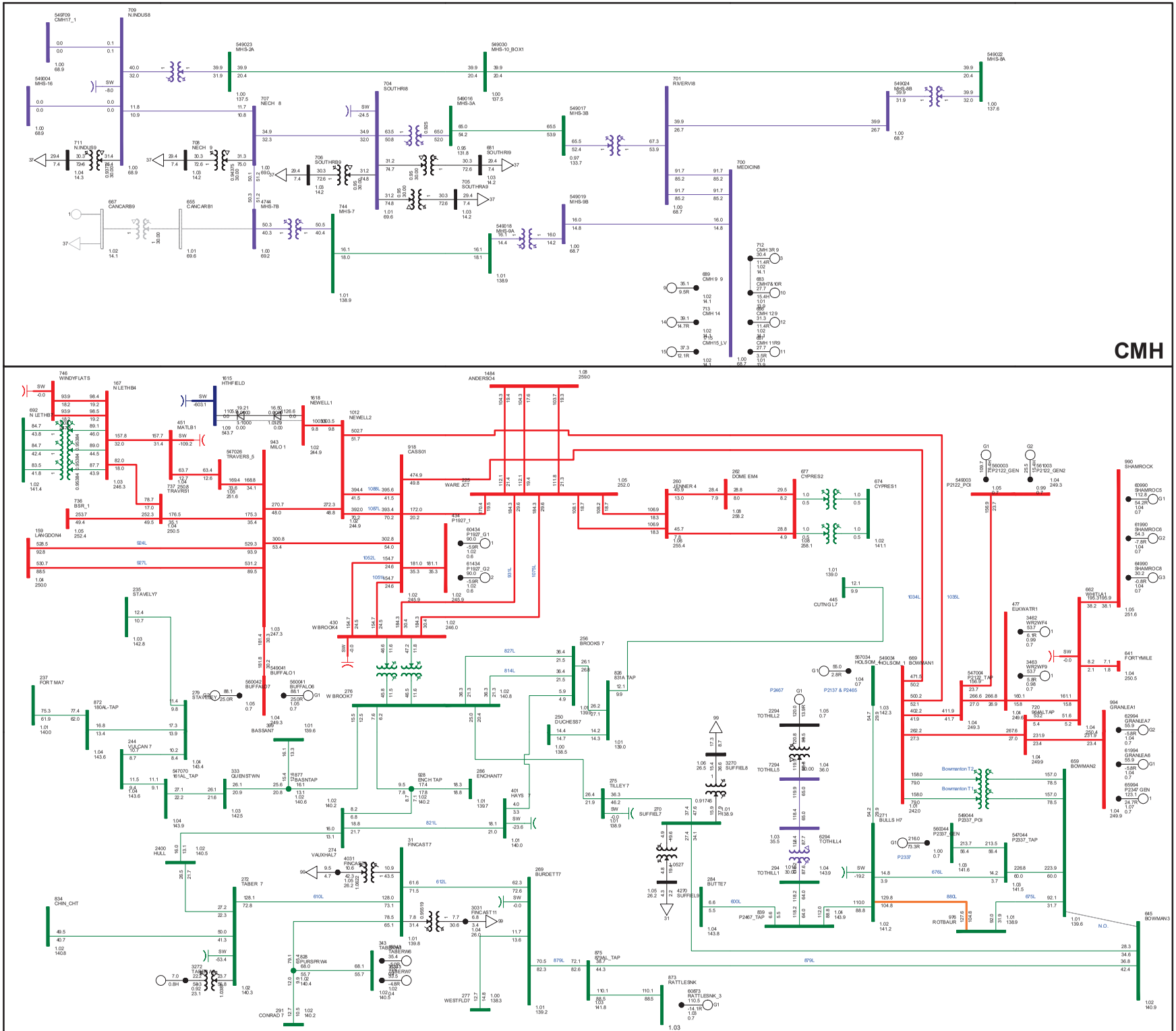


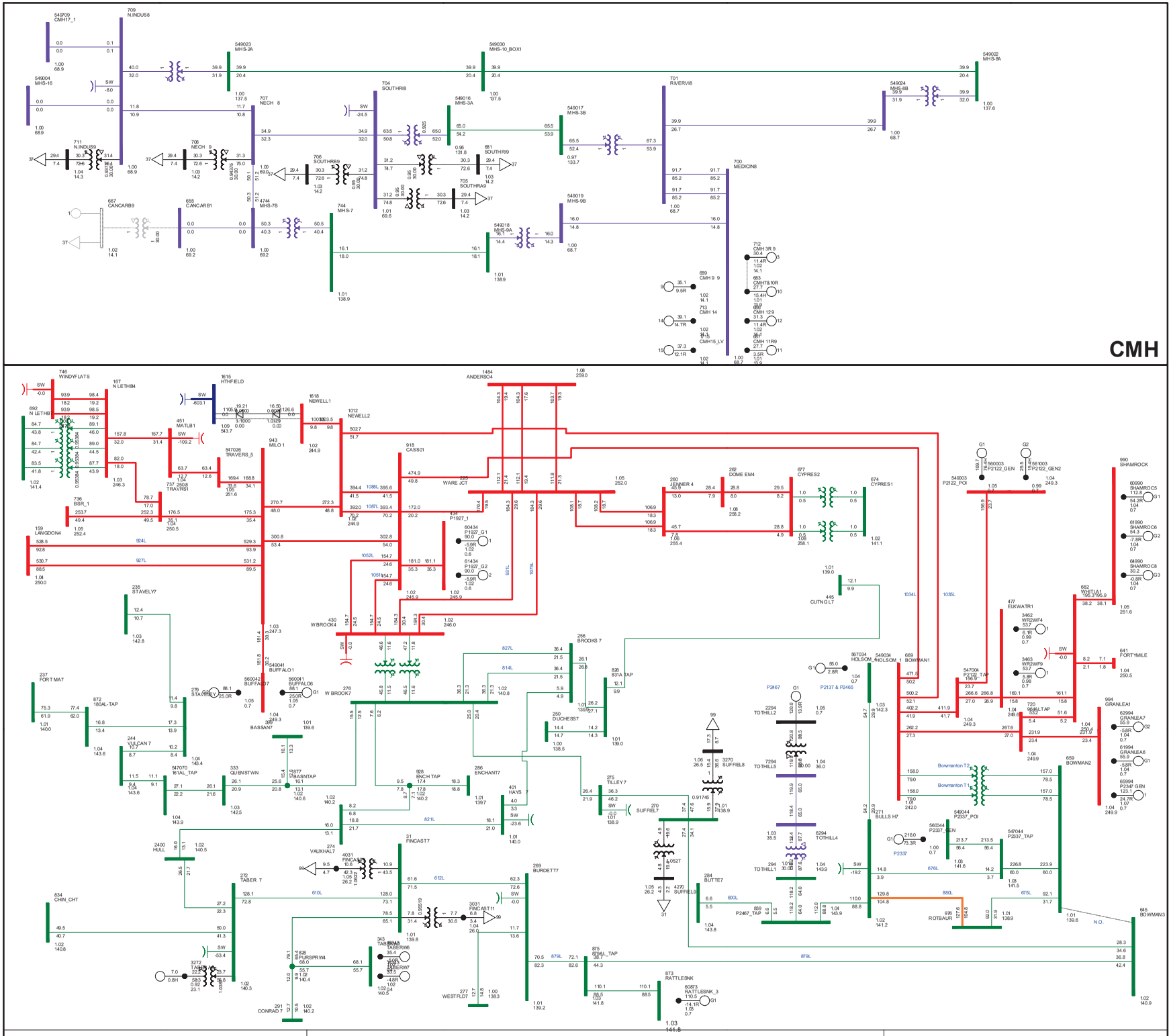
P2467 - Pteragen Peace Butte Wind

FIGURE B-4-12: 2025-SCN4-SP-POST.SAV
CATEGORY B - 1088L (CASSILS 324S TO NEWELL 2075S)
SUN, NOV 03 2024 14:17

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


P2467 - Pteragen Peace Butte Wind
FIGURE B-4-13: 2025-SCN4-SP-POST.SAV
CATEGORY B - BULLSHEAD 523S TRANSFORMER T1
SAT, NOV 02 2024 17:01
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

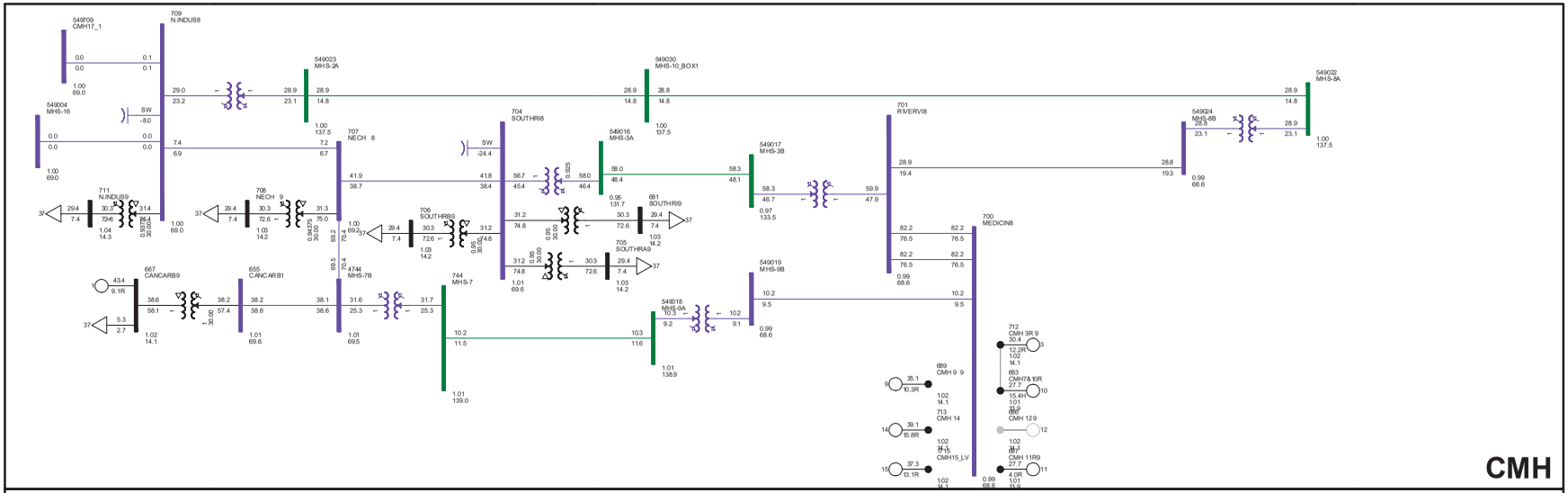

CMH
549709 CMH17_1
709 N.INDUS8
549023 MHS-2A
549030 MHS-10_BOX1
549022 MHS-8A
549004 MHS-16
711 N.INDUS9
707 NECH 8
708 NECH 9
704 SOUTHRI8
706 SOUTHRB8
705 SOUTHRA9
681 SOUTHRI9
549016 MHS-3A
549017 MHS-3B
549024 MHS-8B
701 RIVERVI8
700 MEDICIN8
549019 MHS-9B
549018 MHS-9A
667 CANCARB9
655 CANCARB1
4744 MHS-7B
744 MHS-7
712 CMH 3R 9
683 CMH7&10R
689 CMH 9 9
713 CMH 14
715 CMH15_LV
CMH 12 9
CMH 11R9
1484 ANDERSO4
746 WINDYFLATS
167 N LETHB4
692 N LETHB1
1615 HTHFIELD
1616 NEWELL1
1012 NEWELL2
451 MATLB1
547026 TRAVERS_5
943 MILO 1
918 CASS01
WARE JCT
260 JENNER 4
262 DOME EM4
677 CYPRES2
674 CYPRES1
549003 P2122_POI
549002 P2122_GEN
561003 P2122_GEN2
990 SHAMROCK
60990 SHAMROC5
61990 SHAMROC6
64990 SHAMROC8
736 BSR_1
159 LANGDON4
924L
927L
1088L
1087L
1052L
1051L
1034L
1035L
1075L
434 P1927_1
60434 P1927_G1
61434 P1927_G2
445 CUTNG L7
662 WHITLA1
641 FORTYMILE
477 EIKWATR1
3462 WR2WF4
3463 WR2WF9
720 9844TAP
994 GRANLEA1
62994 GRANLEA7
61994 GRANLEA6
65994 P2347 GEN
659 BOWMAN2
645 BOWMAN3
235 STAVELY7
237 FORT MA7
872 180AL-TAP
244 VULCAN 7
5470?0 161AL_TAP
333 QUENSTWN
9877 DSASNTAP
279 STAVELY2
560042 BUFFALO7
560041 BUFFALO6
549041 BUFFALO1
BASSAN7
430 W BROOK4
276 W BROOK7
928 ENCH TAP
286 ENCHANT7
401 HAYS 7
256 BROOKS 7
831A TAP
250 DUCHESS7
275 TILLEY7
270 SUFFIEL7
99
3270 SUFFIEL8
P2467
P2137 & P2465
567034 HOLSOM_1
549034 HOLSOM_1
669 BOWMAN1
547004 P2122_TAP
2294 TOTHILL2
7294 TOTHILL5
6294 TOTHILL4
284 TOTHILL1
839 P2467_TAP
284 BUTTE7
271 BULLS H7
560044 P2337_GEN
547044 P2337_TAP
549044 P2337_POI
P2337
676L
880L
675L
926 ROTBAUR
269 BURDETT7
31 FINCAST7
4031 FINCAST3
3031 FINCAST11
274 VAUXHAL7
612L
610L
821L
879L
875 RIDAL_TAP
873 RATTLESNK
60873 RATTLESNK_3
343 TABERW6
3272 TABERW7
828 SPLBSPRW4
291 CONRAD 7
277 WESTFLD7
2400 HULL
834 CHIN_CHT
272 TABER 7
N.O.

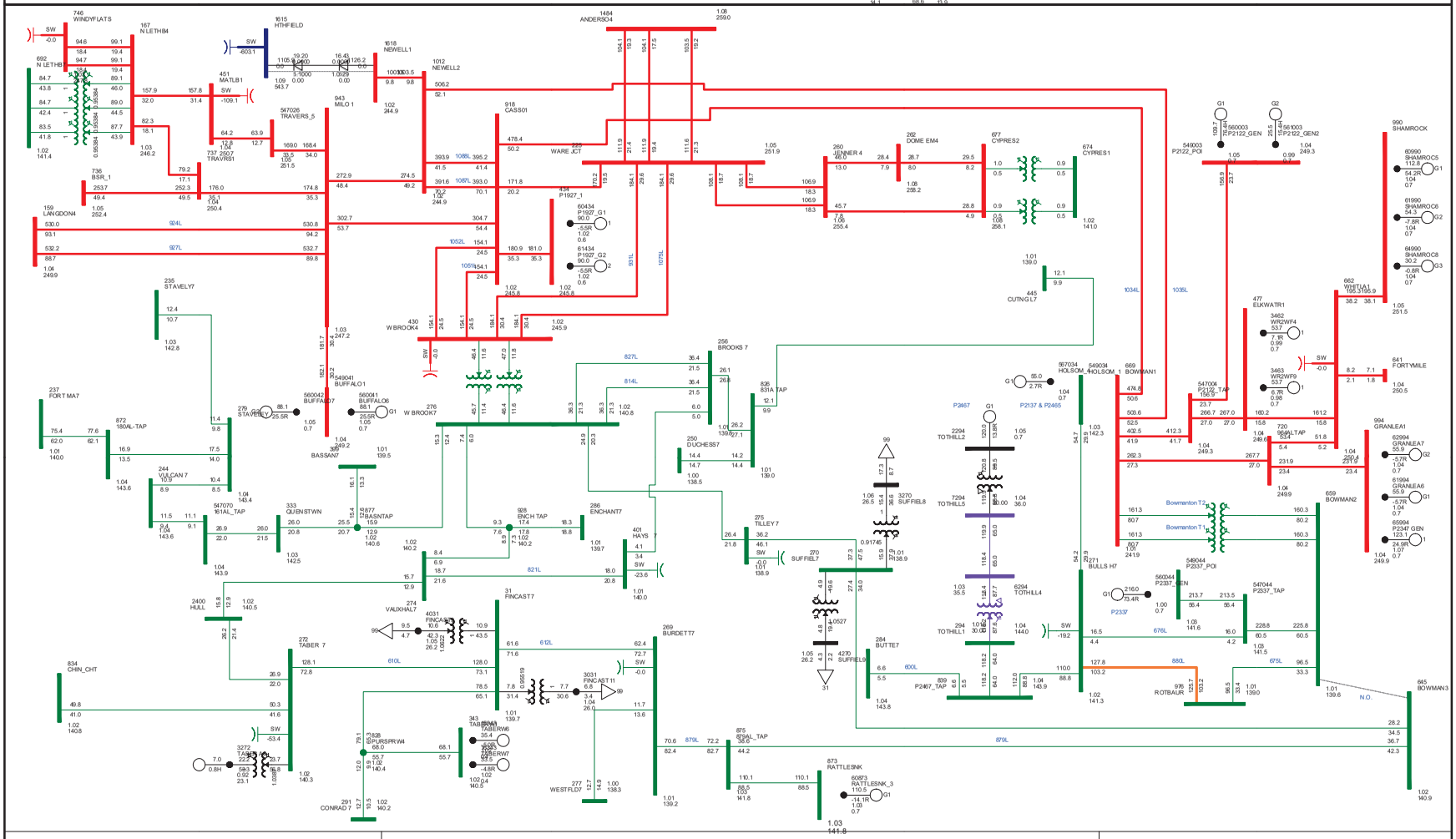


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-15: 2025-SCN4-SP-POST.SAV
CATEGORY B - CANCARB LIMITED CO-GEN STATION TRANSFORMER T1
SAT, NOV 02 2024 17:26

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

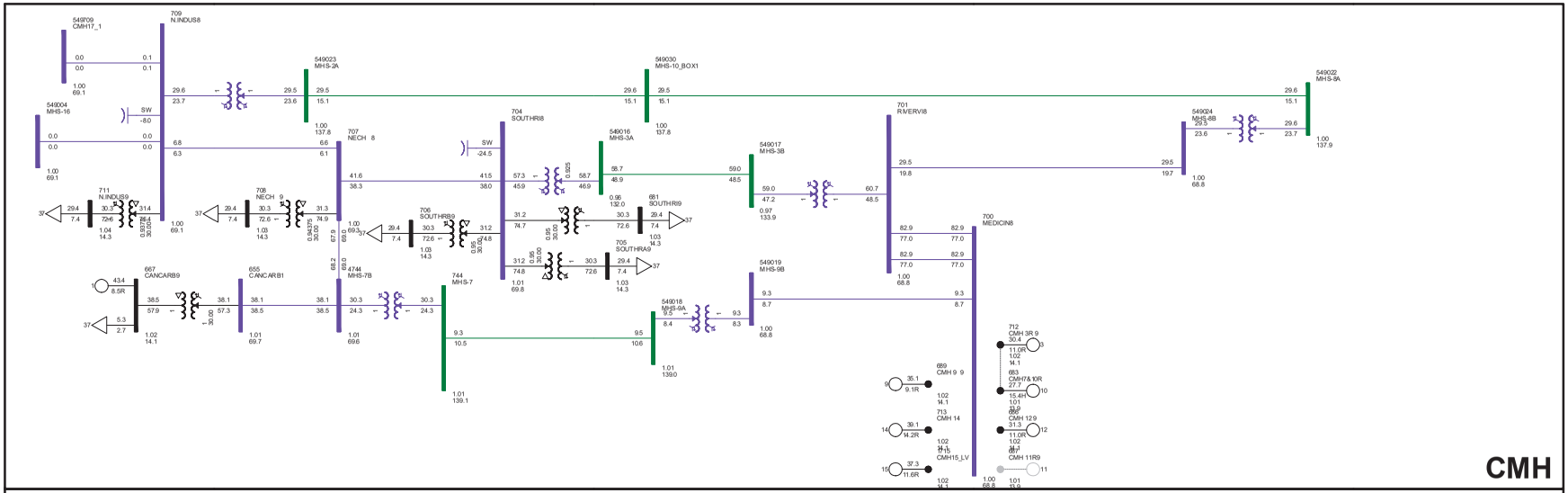


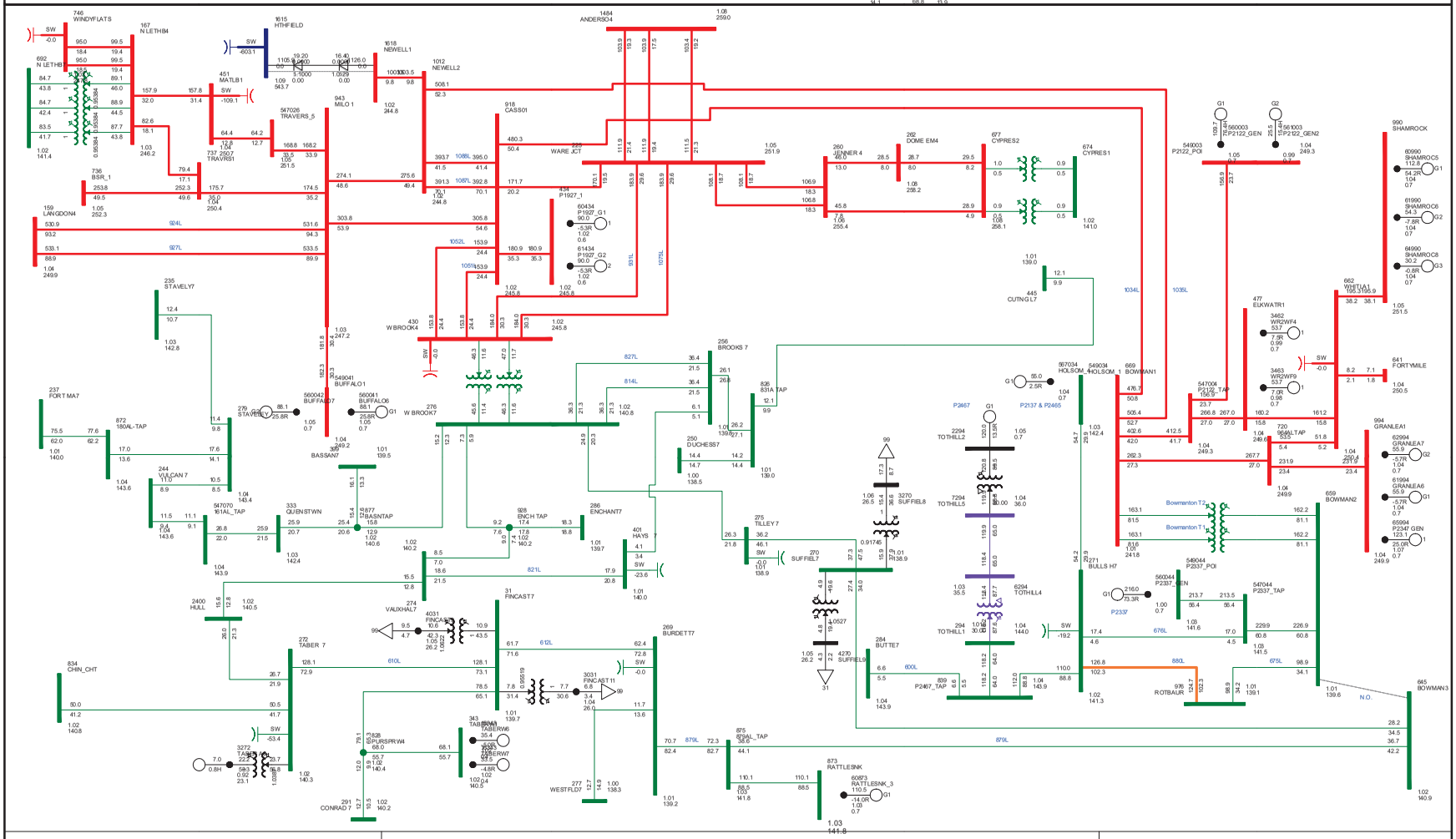


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-16: 2025-SCN4-SP-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 12
SAT, NOV 02 2024 17:32

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

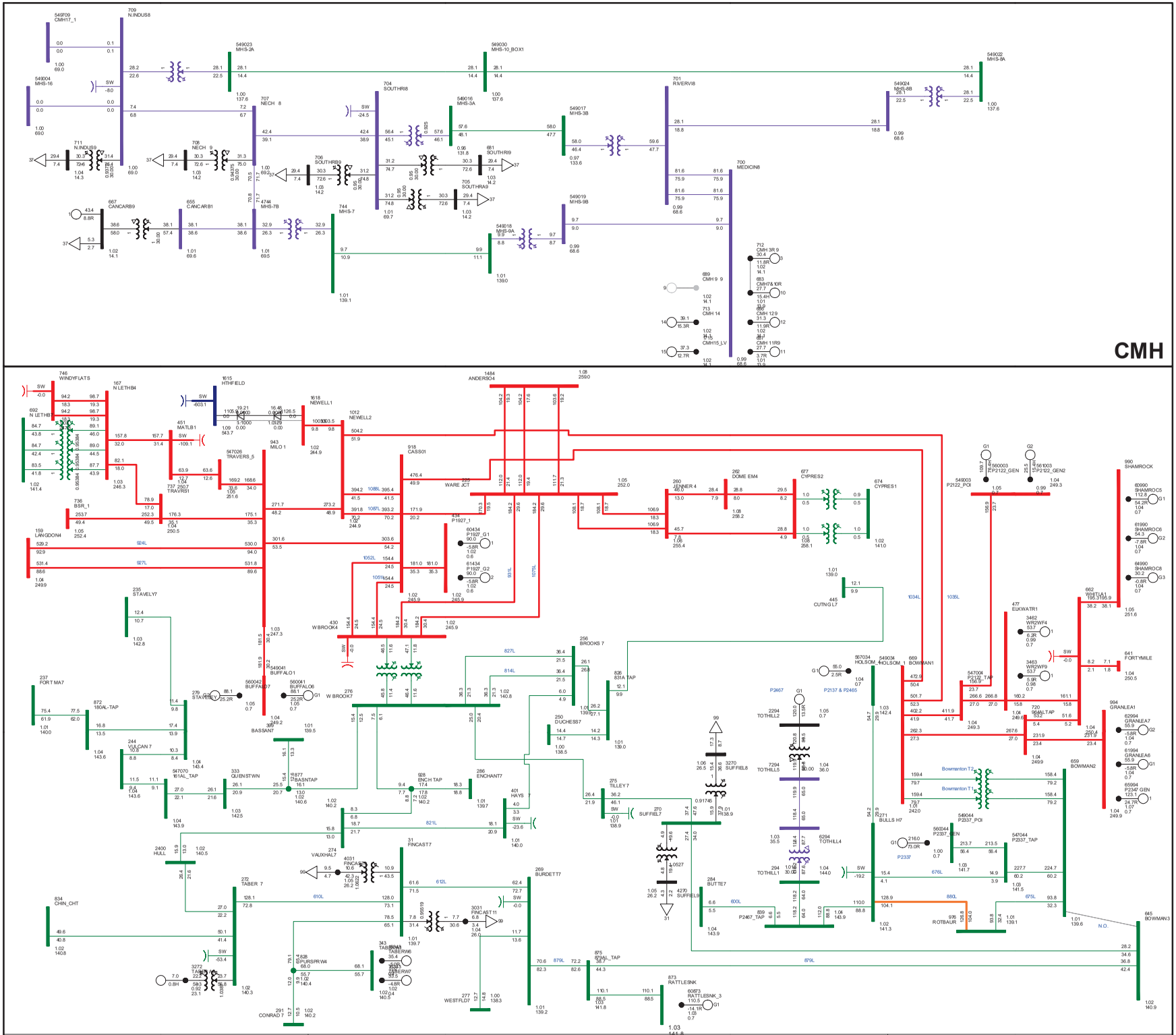


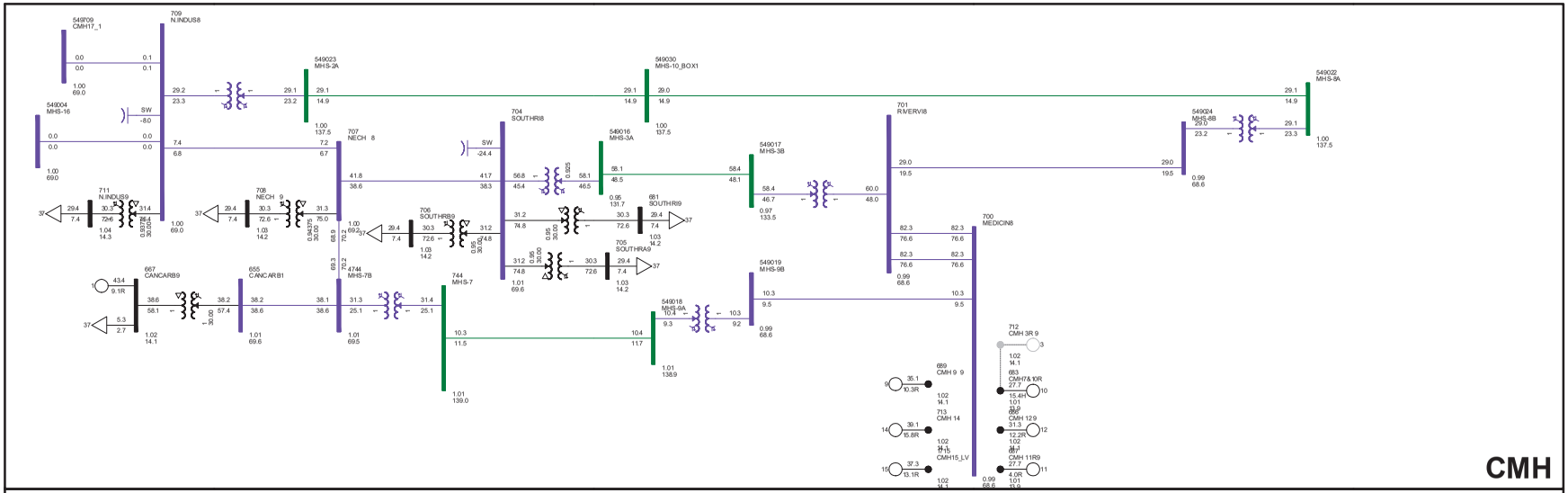


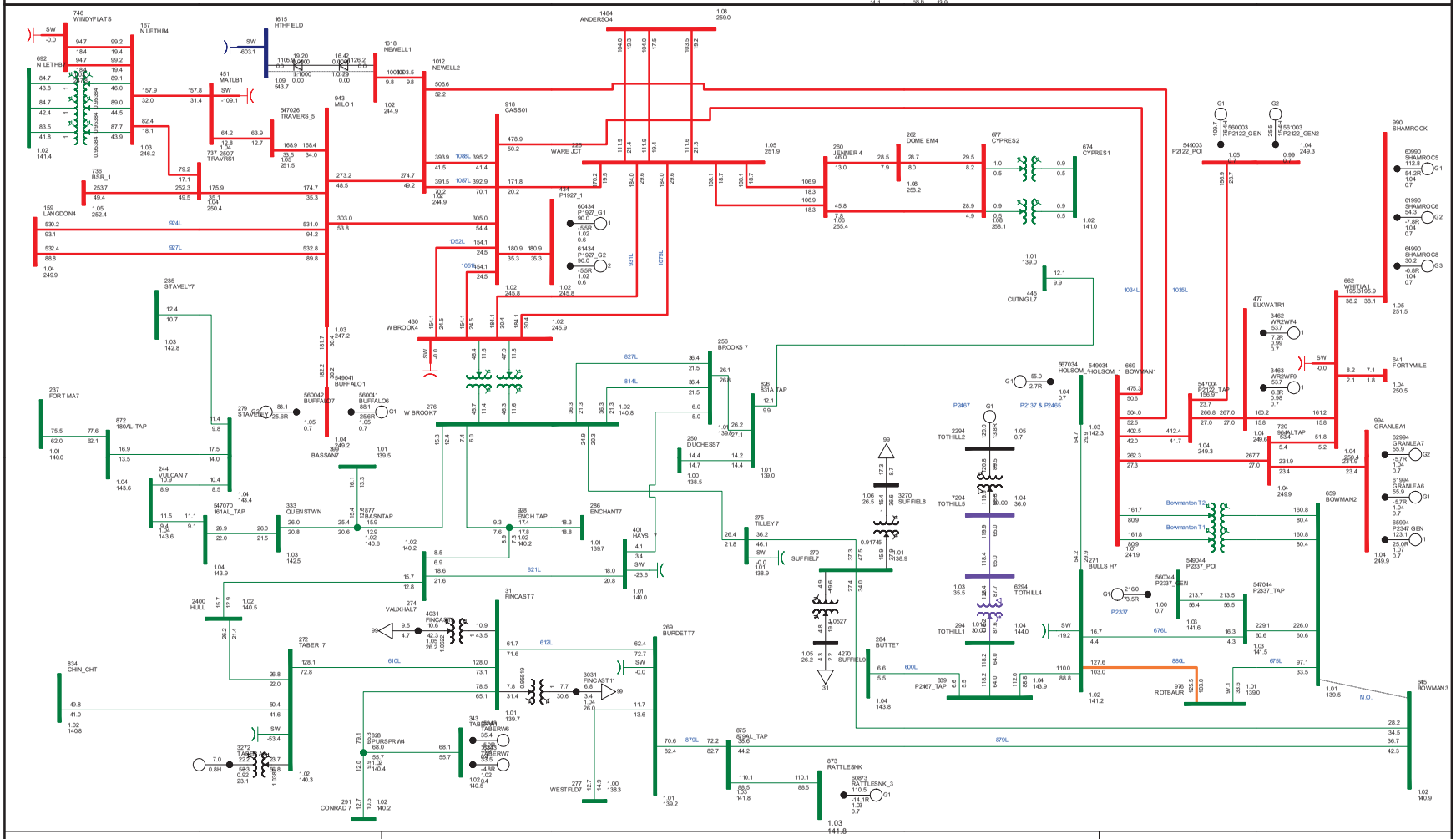
P2467 - Pteragen Peace Butte Wind

FIGURE B-4-17: 2025-SCN4-SP-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER T5
SAT, NOV 02 2024 17:27

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


CMH
P2467 - Pteragen Peace Butte Wind
FIGURE B-4-18: 2025-SCN4-SP-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER T1
SAT, NOV 02 2024 17:28
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

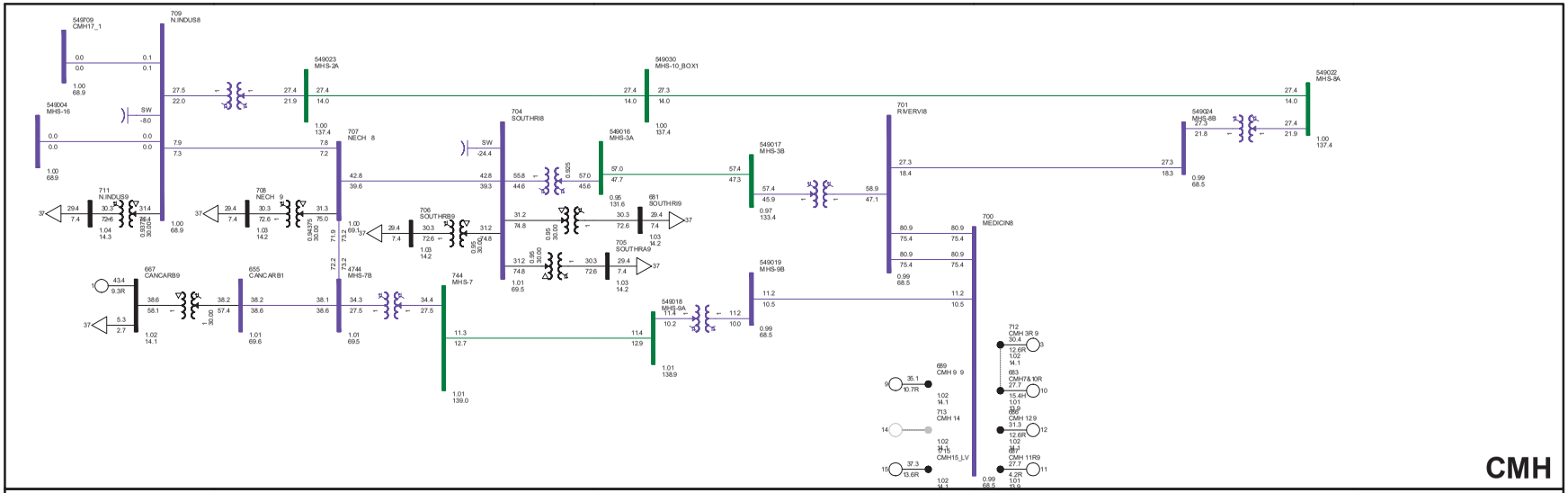


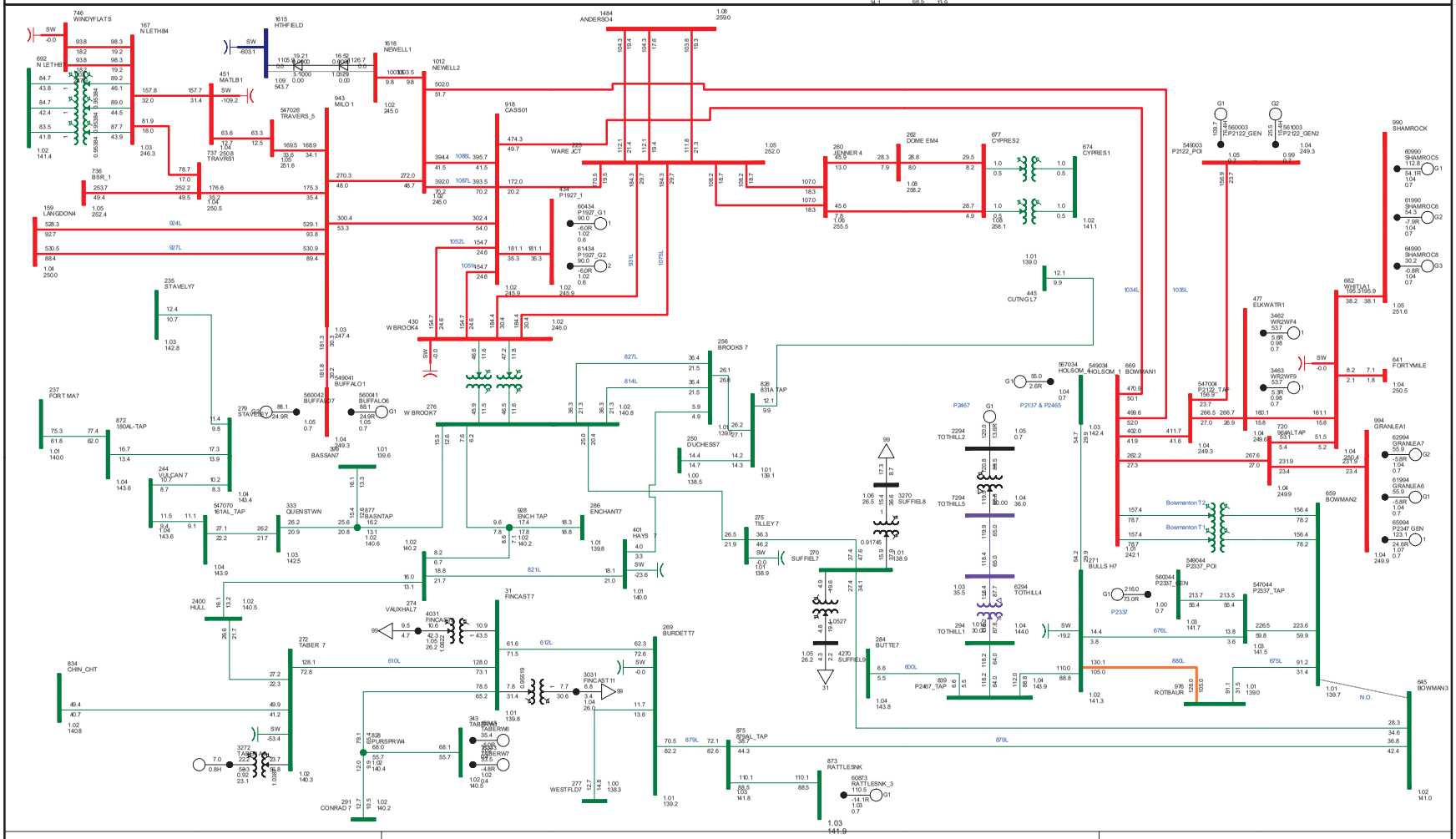


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-19: 2025-SCN4-SP-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 3B
SAT, NOV 02 2024 17:33

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

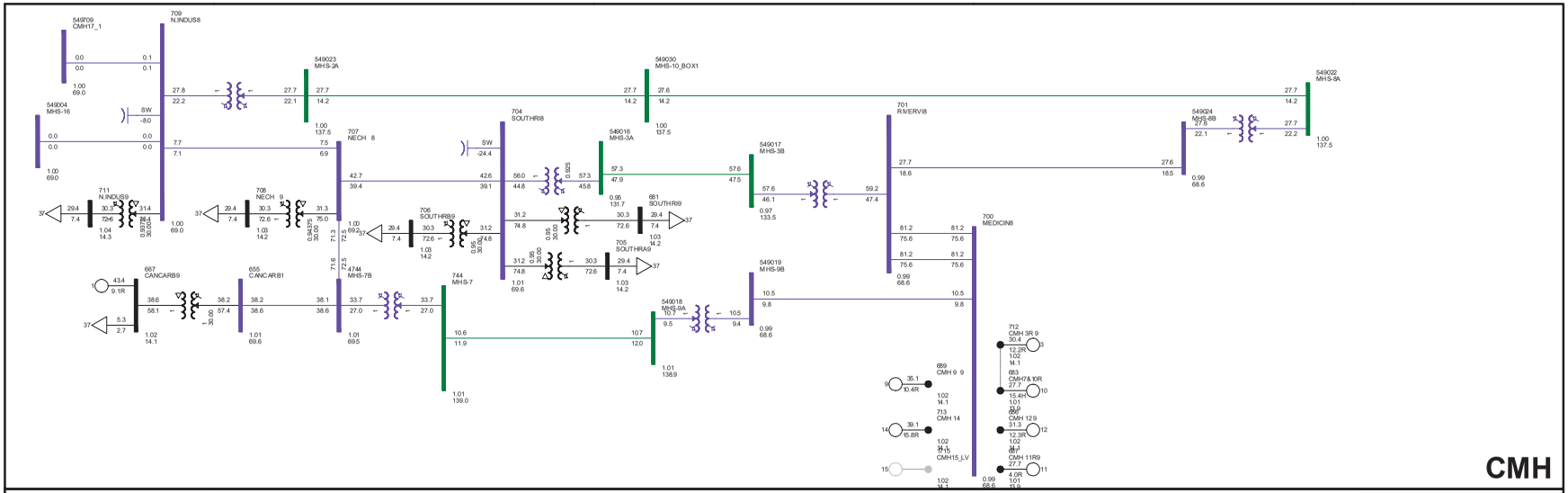


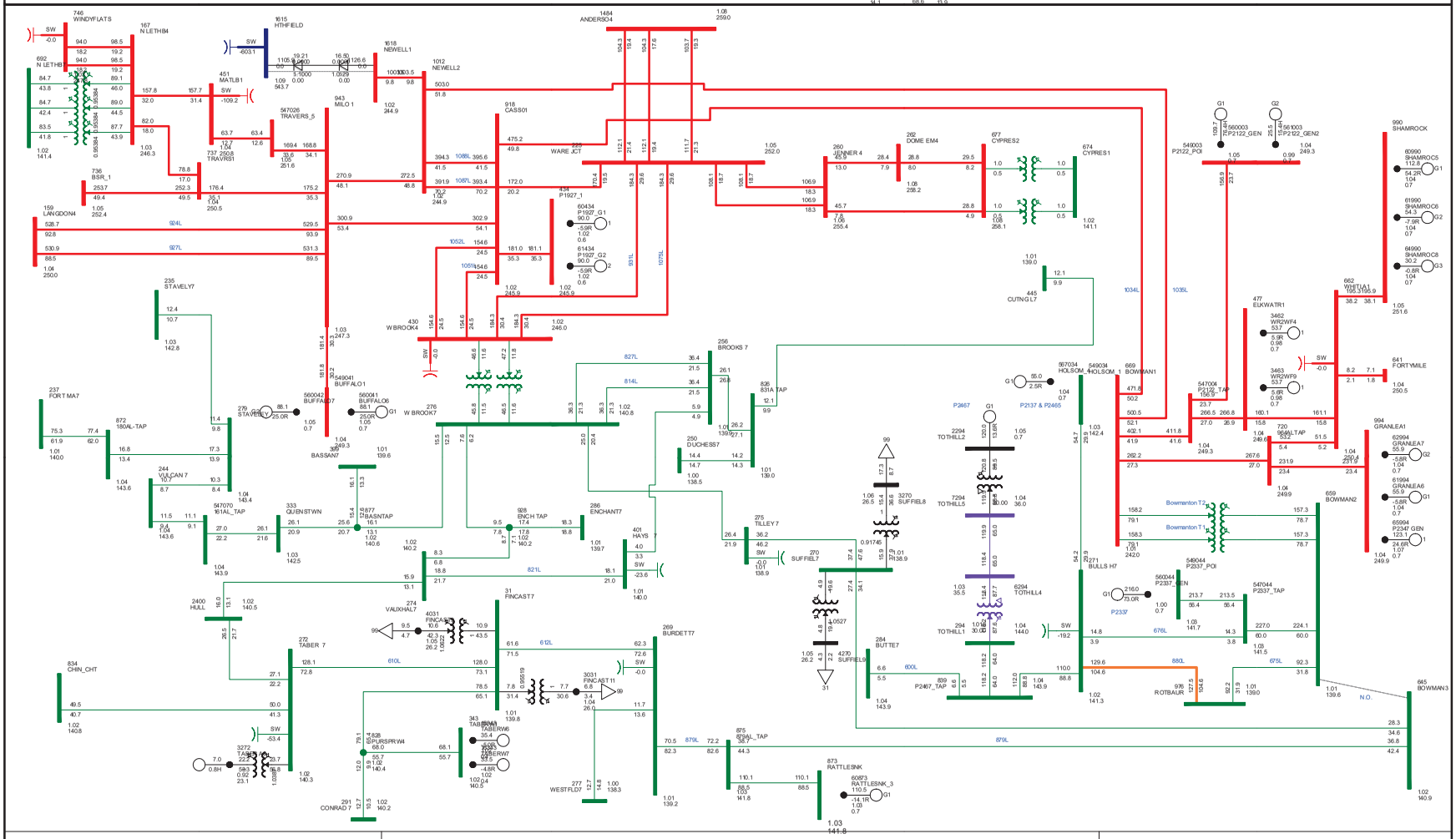


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-20: 2025-SCN4-SP-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 14
SAT, NOV 02 2024 17:29

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



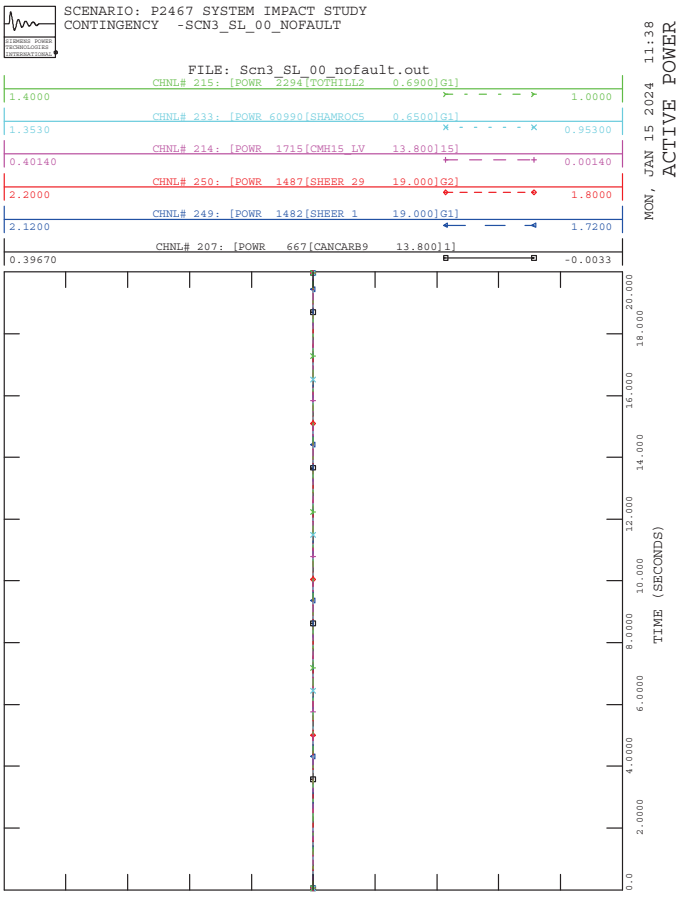


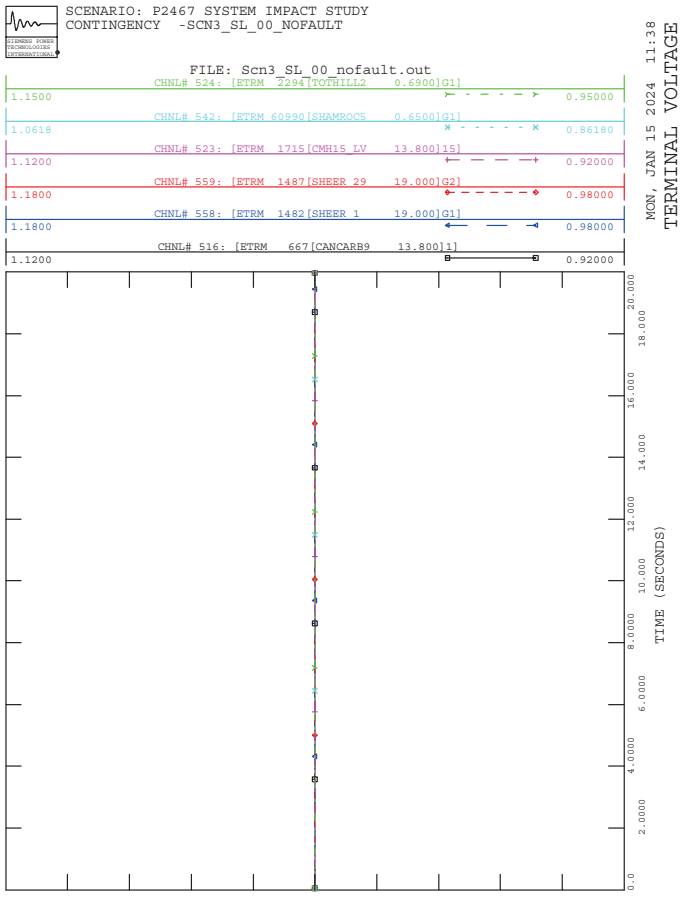
P2467 - Pteragen Peace Butte Wind

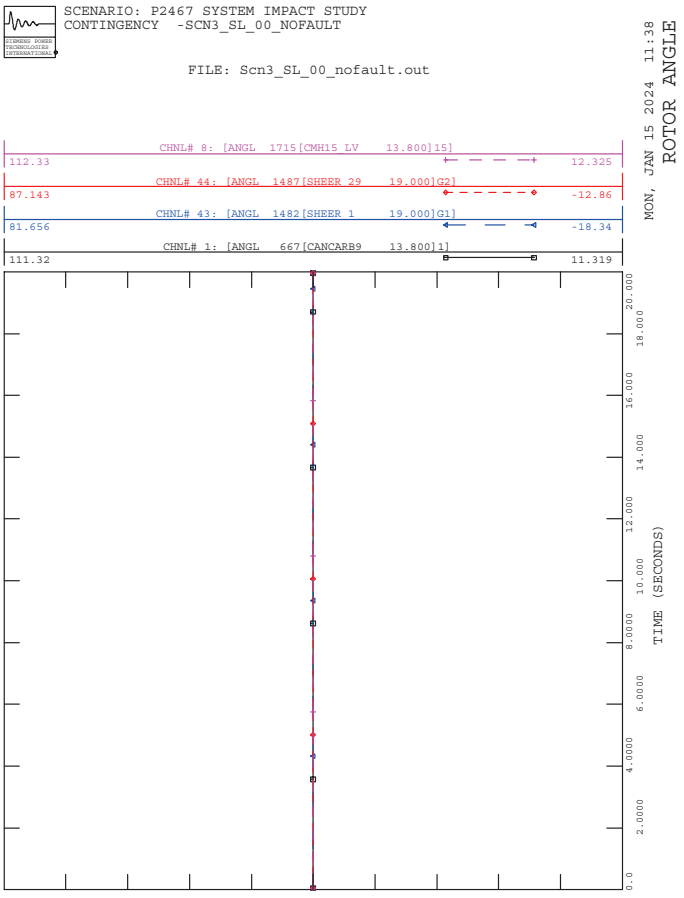
FIGURE B-4-21: 2025-SCN4-SP-POST.SAV
CATEGORY B - MH69S-1 POWER PLANT TRANSFORMER 15
SAT, NOV 02 2024 17:35

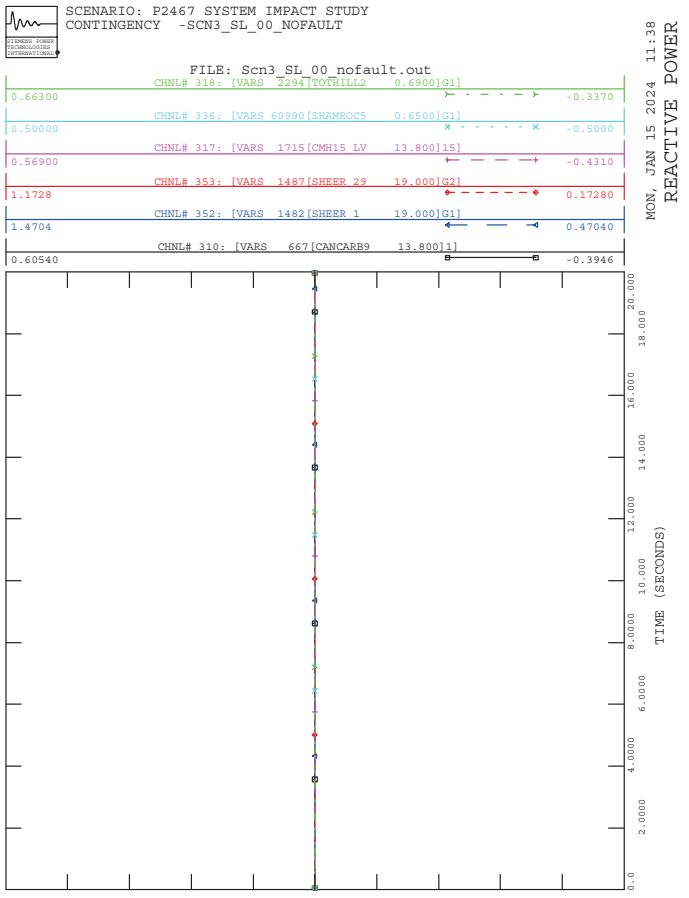
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

Attachment A4
Post-Project Transient Stability Diagrams


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT
FILE: Scn3_SL_00_nofault.out
CHNL# 215: [POWR Z294[TOTHILL2 0.6900]G1]
1.4000
1.0000
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.3530
0.95300
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.40140
0.00140
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
2.2000
1.8000
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
2.1200
1.7200
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.39670
-0.0033
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT
FILE: Scn3_SL_00_nofault.out
CHNL# 524: [ETRM Z294[TOTHILL2 0.6900]G1]
1.1500
0.95000
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.0618
0.86180
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1200
0.92000
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.1800
0.98000
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.1800
0.98000
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1200
0.92000
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT
FILE: Scn3_SL_00_nofault.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
112.33
12.325
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
87.143
-12.86
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
81.656
-18.34
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
111.32
11.319
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

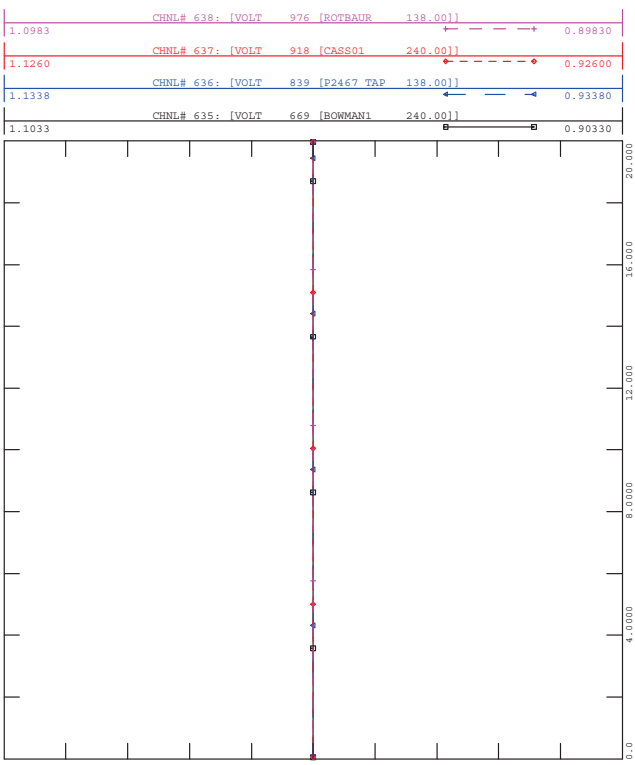

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT
FILE: Scn3_SL_00_nofault.out
CHNL# 318: [VARS Z294[TOTHILL2 0.6900]G1]
0.66300
-0.3370
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.50000
-0.5000
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
0.56900
-0.4310
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
1.1728
0.17280
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
1.4704
0.47040
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
0.60540
-0.3946
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT

FILE: Scn3_SL_00_nofault.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

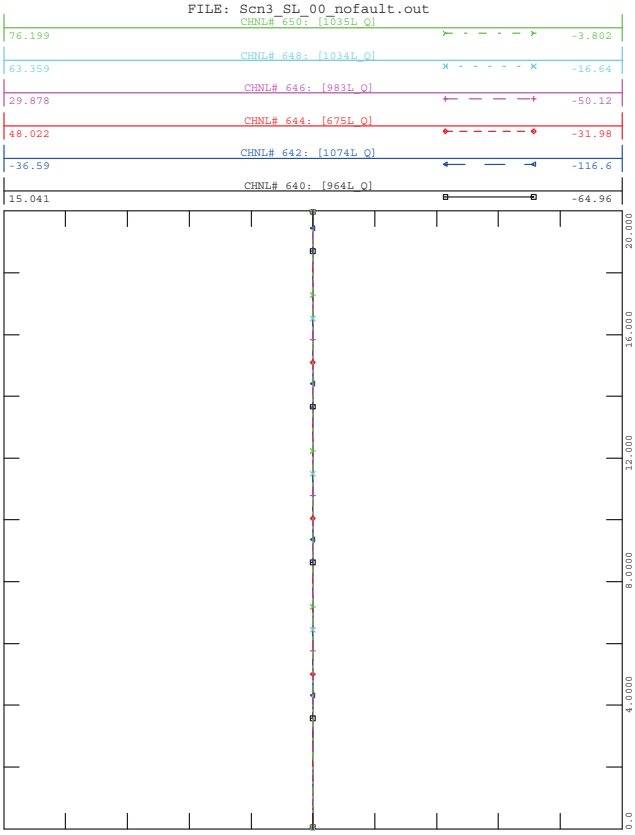


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT

FILE: Scn3_SL_00_nofault.out

MON, JAN 15 2024 11:38

BRANCH Q

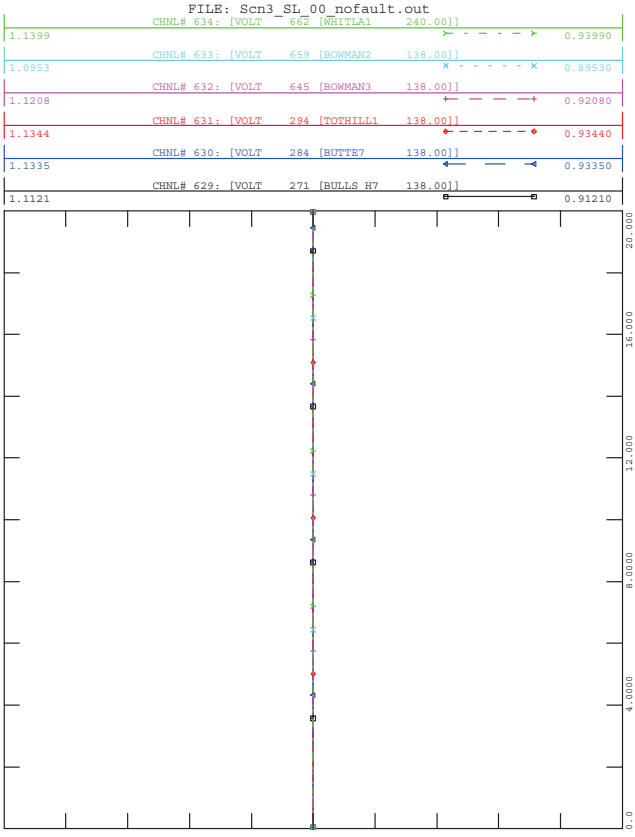


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT

FILE: Scn3_SL_00_nofault.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

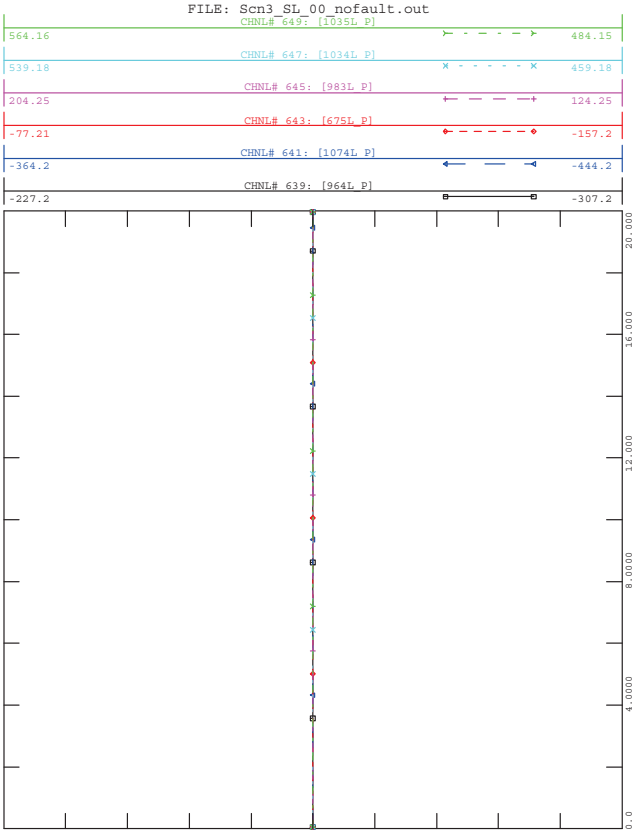


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT

FILE: Scn3_SL_00_nofault.out

MON, JAN 15 2024 11:38

BRANCH P



SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT

FILE: Scn3_SL_00_nofault.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 656: [600L Q] 51.040 -28.96
CHNL# 654: [880L Q] 32.867 -47.13
CHNL# 652: [676L Q] 34.913 -45.09

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA

FILE: Scn3_SL_01a_964L_Whitla.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.6977 0.46380
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.3606 -0.1749
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.58050 -0.0427
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 3.0081 1.4458
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 2.7438 1.3890
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.63900 -0.1608

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_00_NOFAULT

FILE: Scn3_SL_00_nofault.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 655: [600L P] -71.20 -151.2
CHNL# 653: [880L P] 160.16 80.160
CHNL# 651: [676L P] -195.4 -275.4

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA

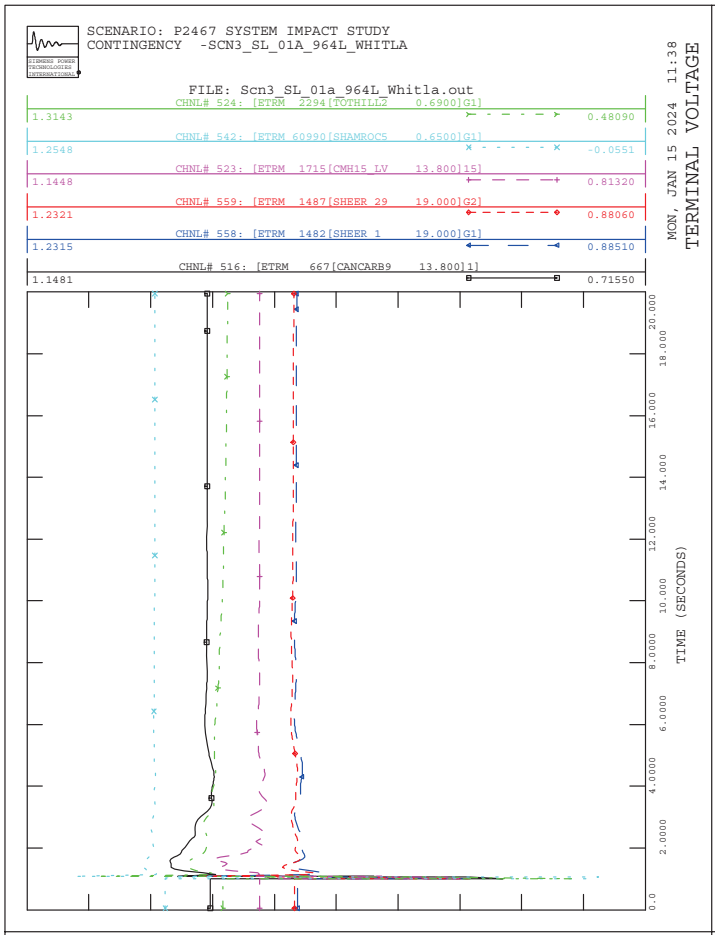
FILE: Scn3_SL_01a_964L_Whitla.out

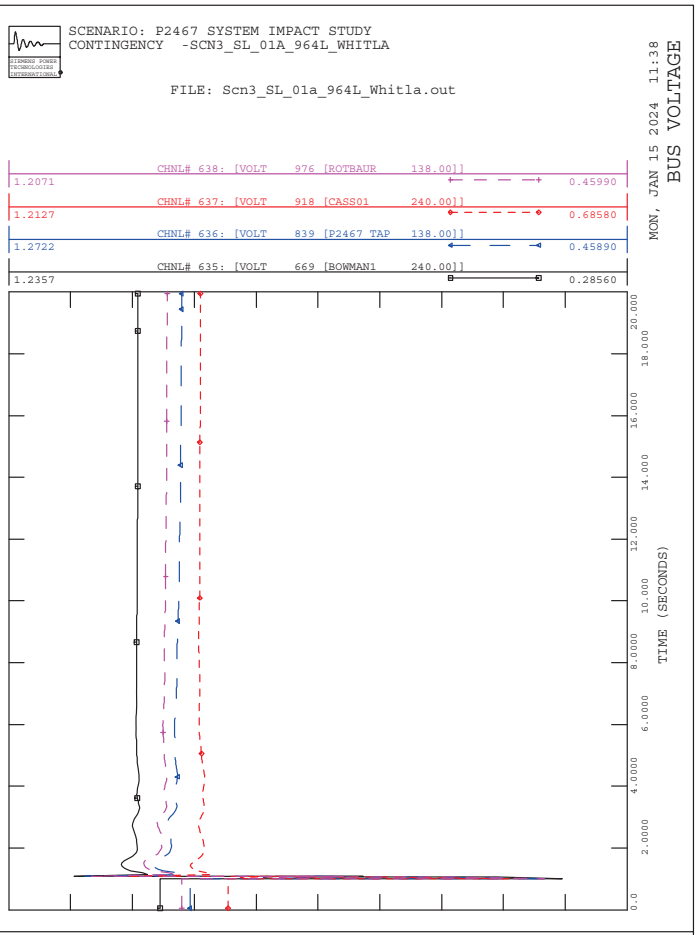
MON, JAN 15 2024 11:38

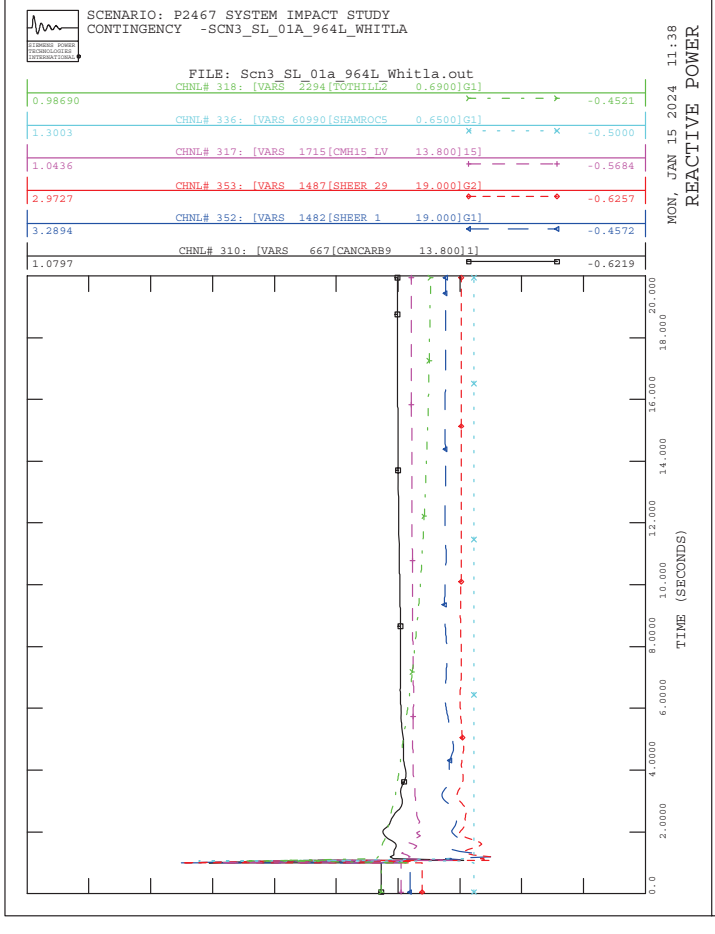
ROTOR ANGLE

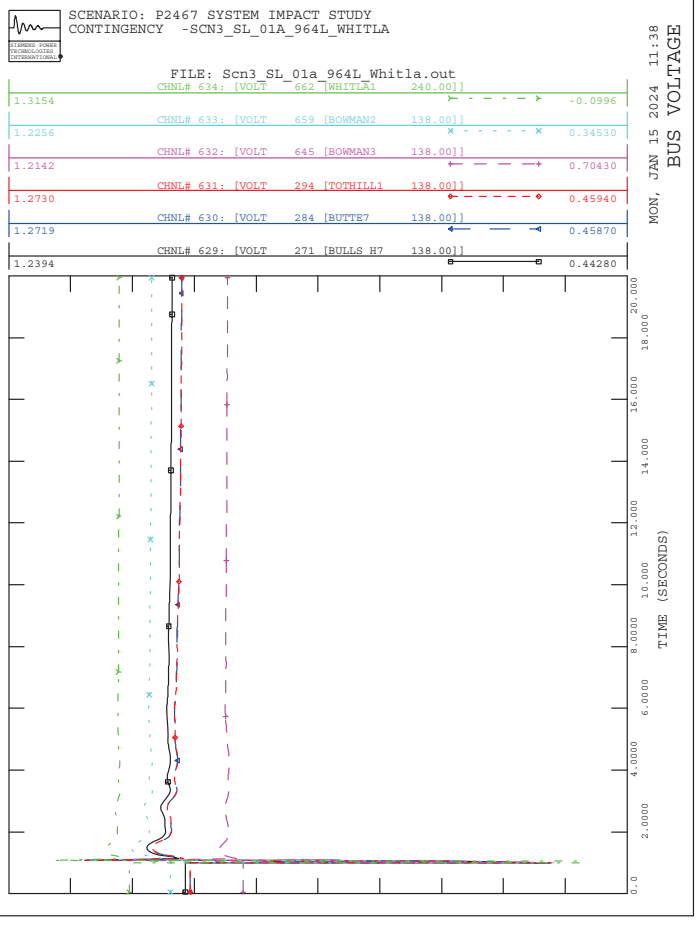
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 112.47 -9.338
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 87.143 -20.42
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 81.656 -25.80
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 111.70 -14.37

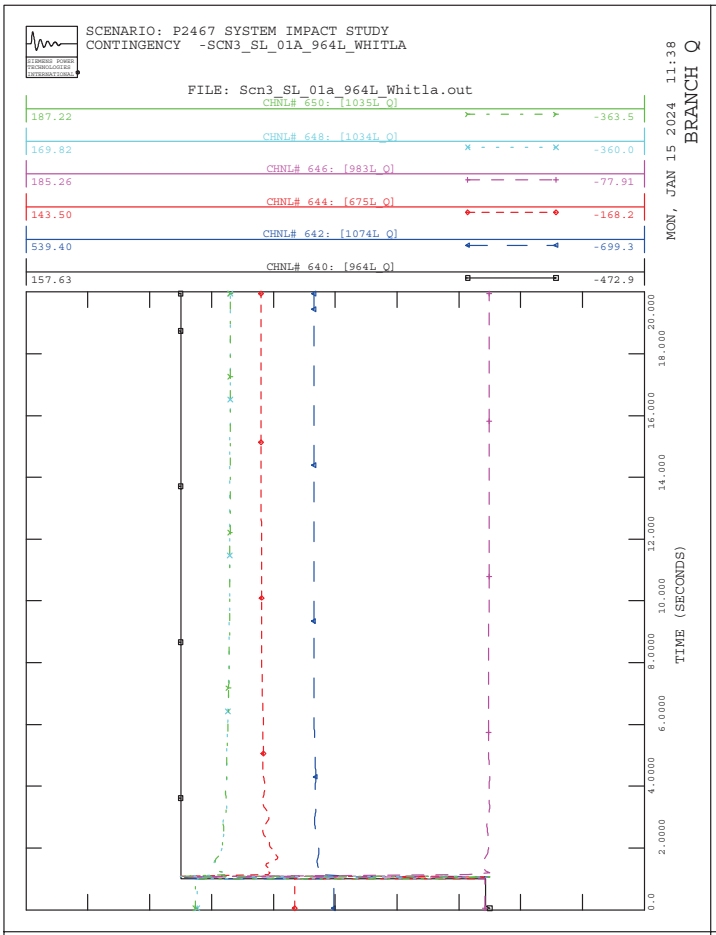
TIME (SECONDS)

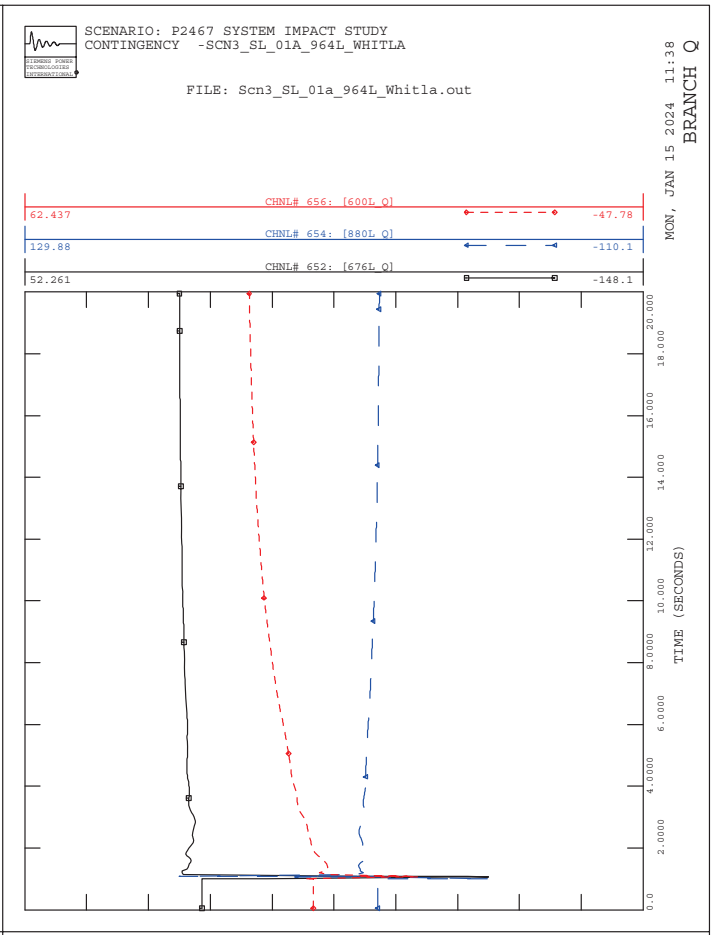

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3143
0.48090
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2548
-0.0551
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.1448
0.81320
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2321
0.88060
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2315
0.88510
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1481
0.71550
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

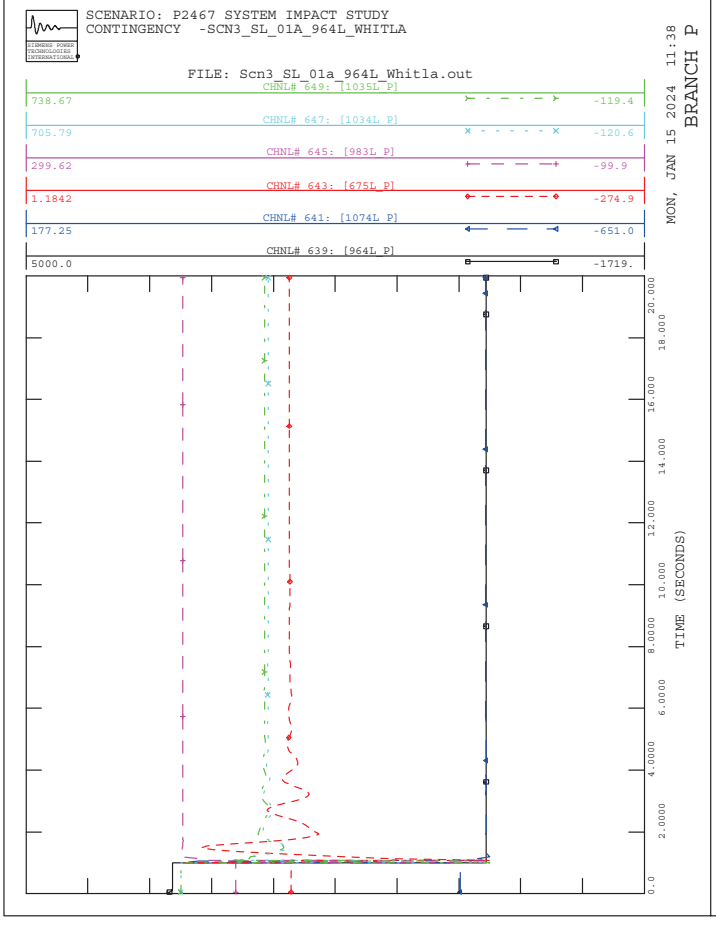

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.2071
0.45990
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.2127
0.68580
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.2722
0.45890
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2357
0.28560
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

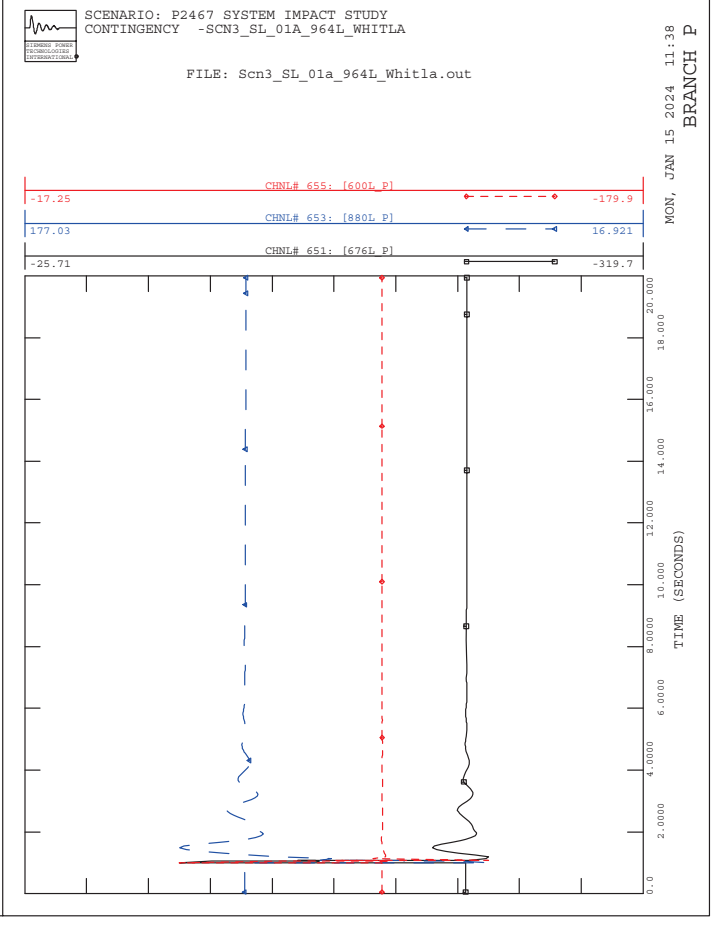

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
0.98690
-0.4521
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.3003
-0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.0436
-0.5684
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.9727
-0.6257
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.2894
-0.4572
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0797
-0.6219
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

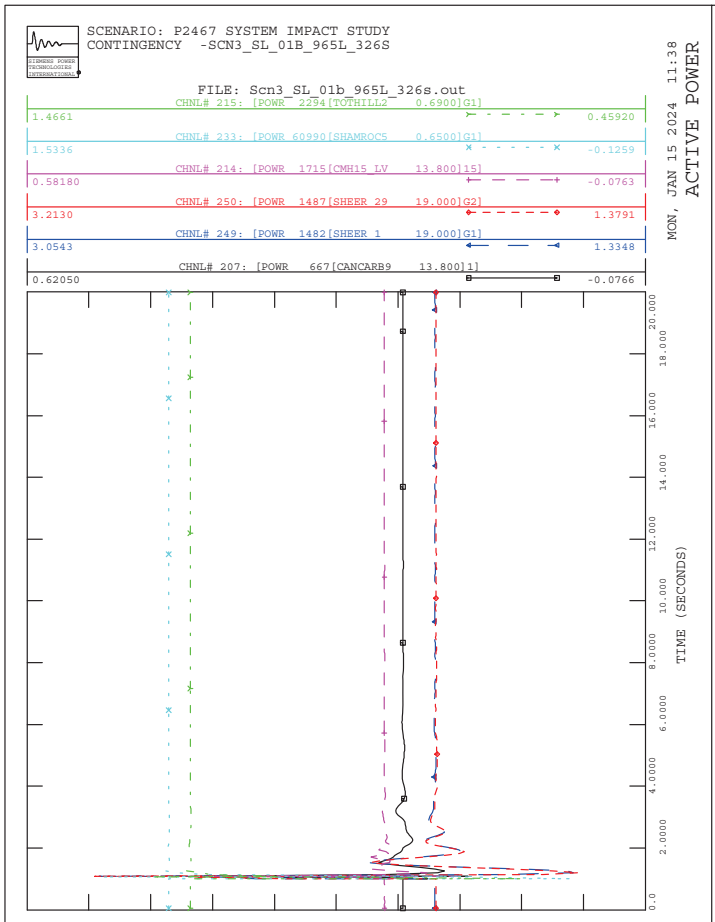

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.3154
-0.0996
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.2256
0.34530
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.2142
0.70430
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.2730
0.45940
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.2719
0.45870
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.2394
0.44280
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

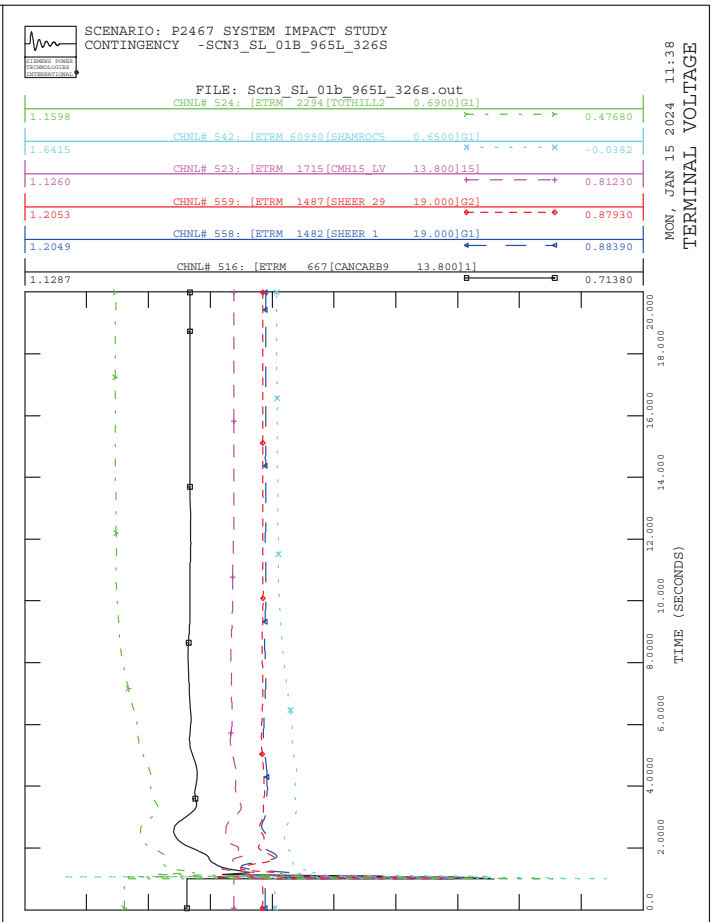

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 650: [1035L Q]
187.22
-363.5
CHNL# 648: [1034L Q]
169.82
-360.0
CHNL# 646: [983L Q]
185.26
-77.91
CHNL# 644: [675L Q]
143.50
-168.2
CHNL# 642: [1074L Q]
539.40
-699.3
CHNL# 640: [964L Q]
157.63
-472.9
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

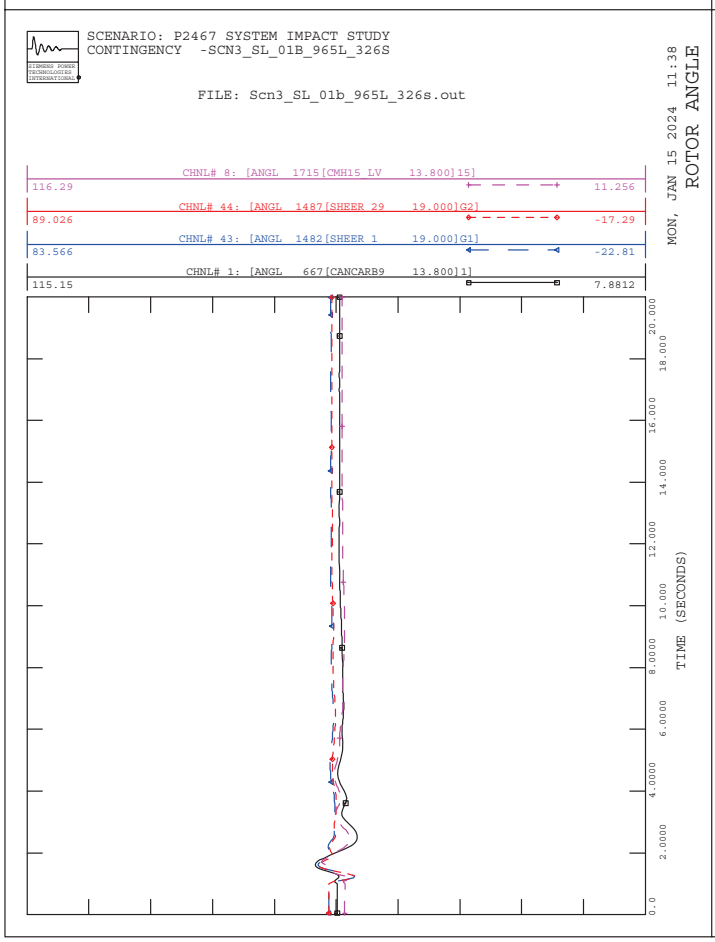

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 656: [600L Q]
62.437
-47.78
CHNL# 654: [880L Q]
129.88
-110.1
CHNL# 652: [676L Q]
52.261
-148.1
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

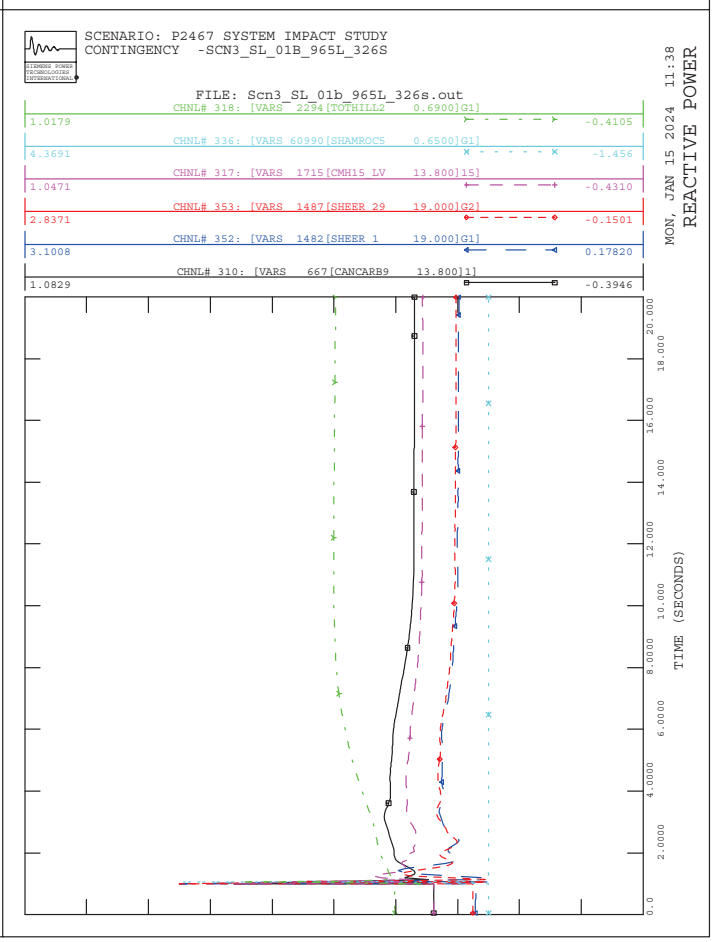

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 649: [1035L P]
738.67
-119.4
CHNL# 647: [1034L P]
705.79
-120.6
CHNL# 645: [983L P]
299.62
-99.9
CHNL# 643: [675L P]
1.1842
-274.9
CHNL# 641: [1074L P]
177.25
-651.0
CHNL# 639: [964L P]
5000.0
-1719.
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

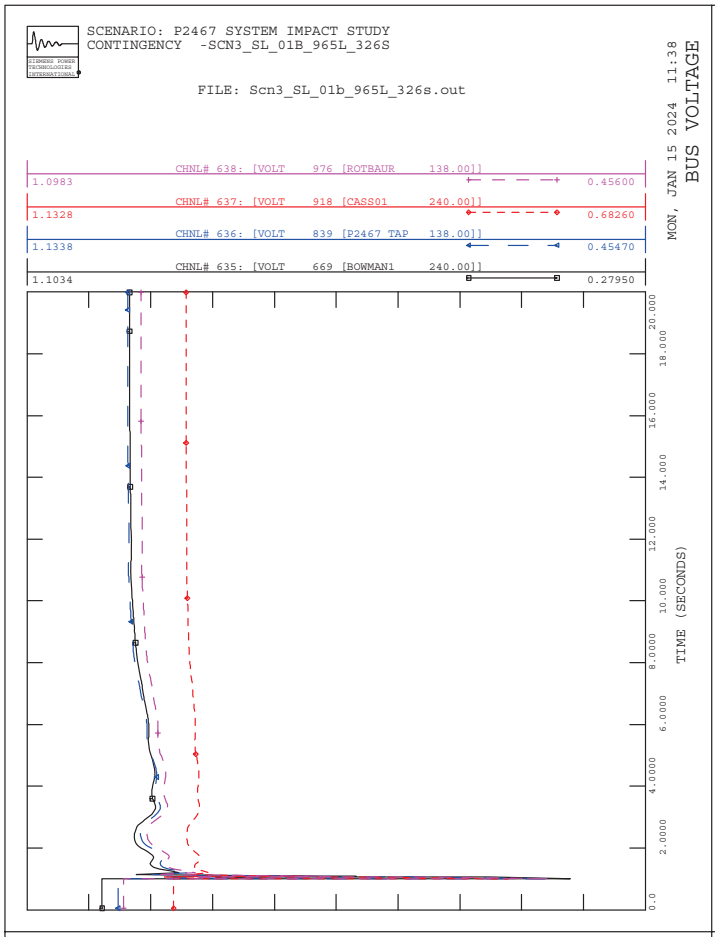

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01A_964L_WHITLA
FILE: Scn3_SL_01a_964L_Whitla.out
CHNL# 655: [600L P]
-17.25
-179.9
CHNL# 653: [880L P]
177.03
16.921
CHNL# 651: [676L P]
-25.71
-319.7
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

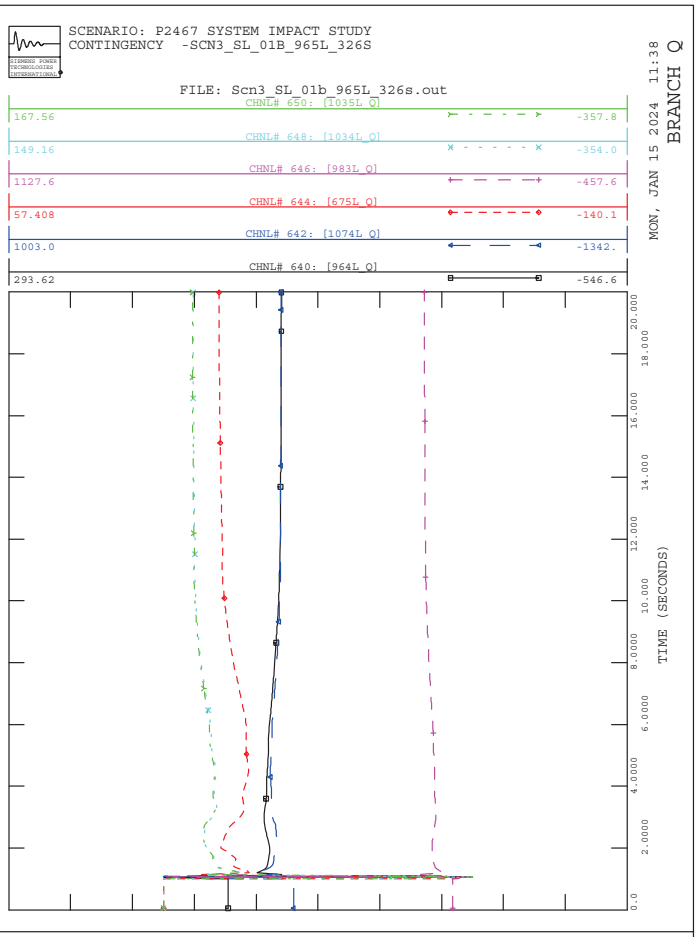

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4661
0.45920
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.5336
-0.1259
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.58180
-0.0763
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.2130
1.3791
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.0543
1.3348
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.62050
-0.0766
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

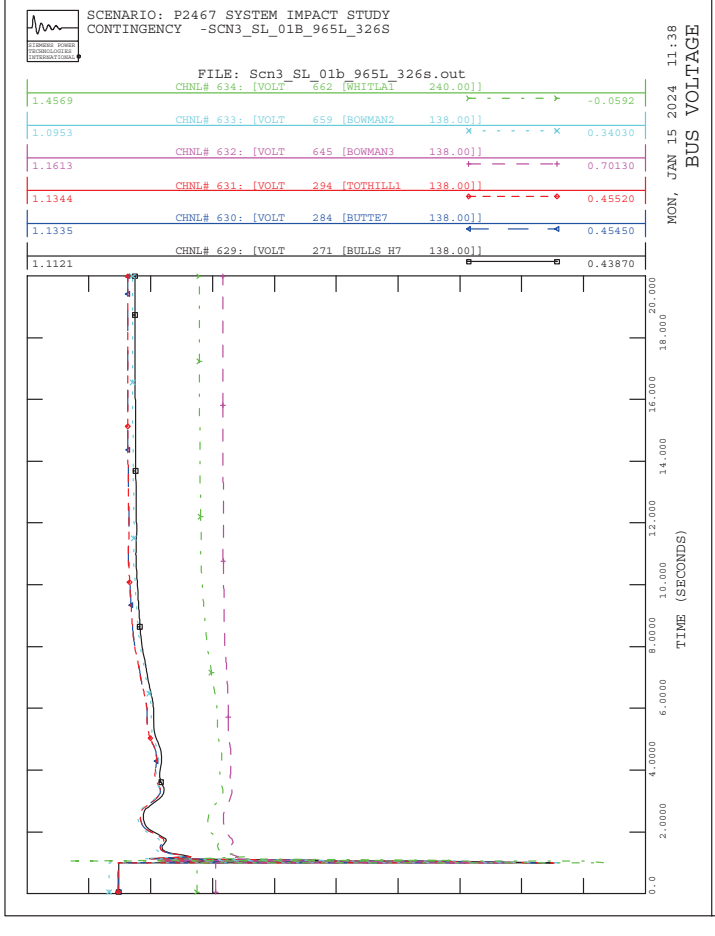

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.1598
0.47680
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.6415
-0.0382
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1260
0.81230
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2053
0.87930
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2049
0.88390
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1287
0.71380
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

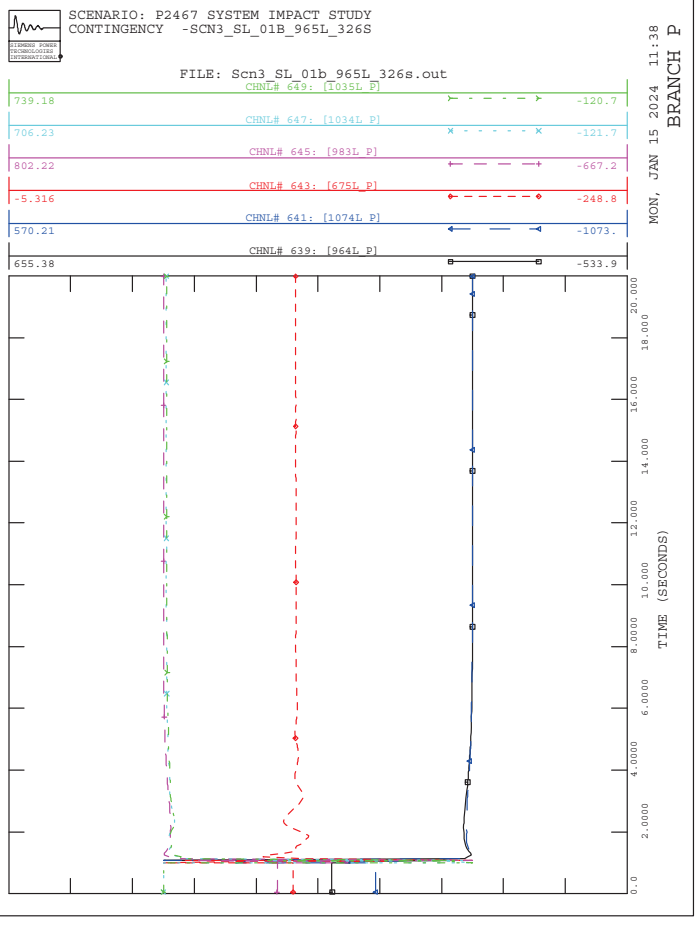

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
116.29
11.256
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
89.026
-17.29
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
83.566
-22.81
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
115.15
7.8812
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.0179
-0.4105
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
4.3691
-1.456
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.0471
-0.4310
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.8371
-0.1501
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.1008
0.17820
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0829
-0.3946
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.0983
0.45600
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1328
0.68260
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.1338
0.45470
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.1034
0.27950
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
MON, JAN 15 2024 11:38
BRANCH Q
CHNL# 650: [1035L Q]
167.56
-357.8
CHNL# 648: [1034L Q]
149.16
-354.0
CHNL# 646: [983L Q]
1127.6
-457.6
CHNL# 644: [675L Q]
57.408
-140.1
CHNL# 642: [1074L Q]
1003.0
-1342.
CHNL# 640: [964L Q]
293.62
-546.6
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 634: [VOLT 662 [WHITLAT 240.00]]
1.4569
-0.0592
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.0953
0.34030
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1613
0.70130
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.1344
0.45520
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.1335
0.45450
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.1121
0.43870
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

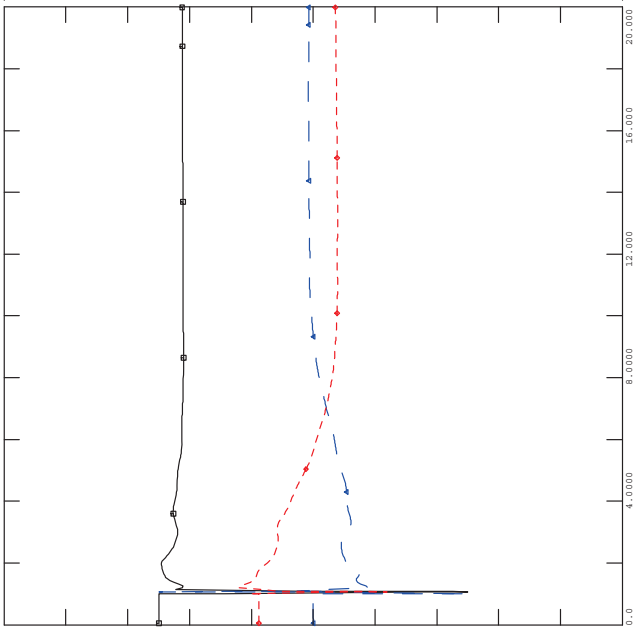

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S
FILE: Scn3_SL_01b_965L_326s.out
MON, JAN 15 2024 11:38
BRANCH P
CHNL# 649: [1035L P]
739.18
-120.7
CHNL# 647: [1034L P]
706.23
-121.7
CHNL# 645: [983L P]
802.22
-667.2
CHNL# 643: [675L P]
-5.316
-248.8
CHNL# 641: [1074L P]
570.21
-1073.
CHNL# 639: [964L P]
655.38
-533.9
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S

FILE: Scn3_SL_01b_965L_326s.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 656: [600L Q] 54.402 -50.83
CHNL# 654: [880L Q] 79.115 -93.33
CHNL# 652: [676L Q] 44.509 -153.8

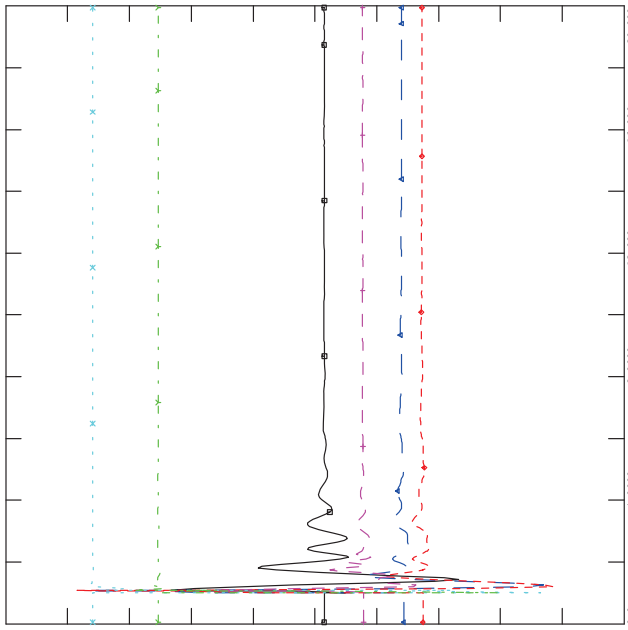


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S

FILE: Scn3_SL_02a_964L_326s.out

MON, JAN 15 2024 11:38 ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.4415 0.46060
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.3615 -0.1226
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.54530 -0.0489
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 3.1745 1.4331
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 2.9088 1.3717
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.58190 -0.1663

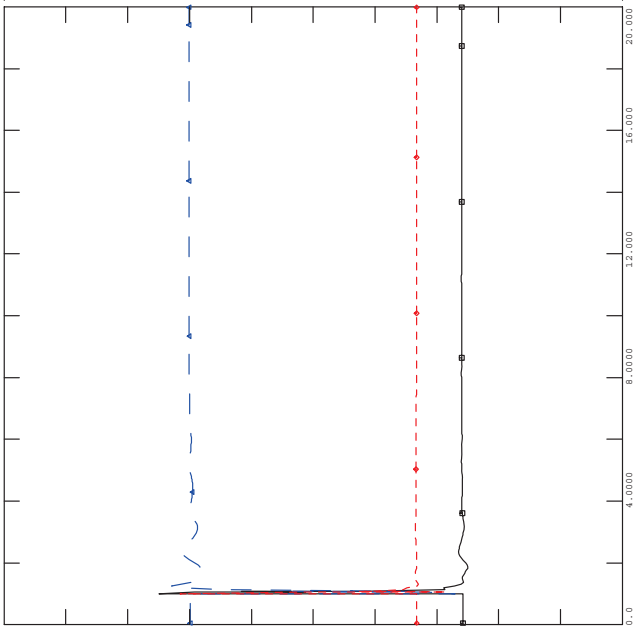


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_01B_965L_326S

FILE: Scn3_SL_01b_965L_326s.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 655: [600L P] -17.52 -157.9
CHNL# 653: [880L P] 164.67 16.967
CHNL# 651: [676L P] -27.23 -307.7

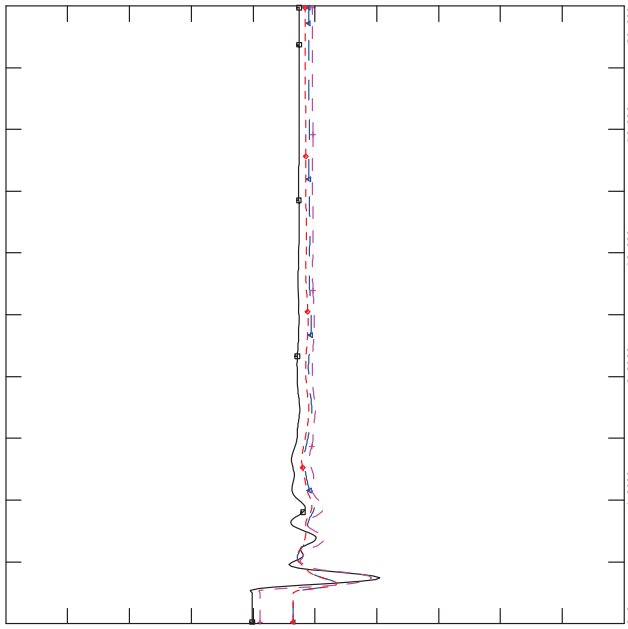


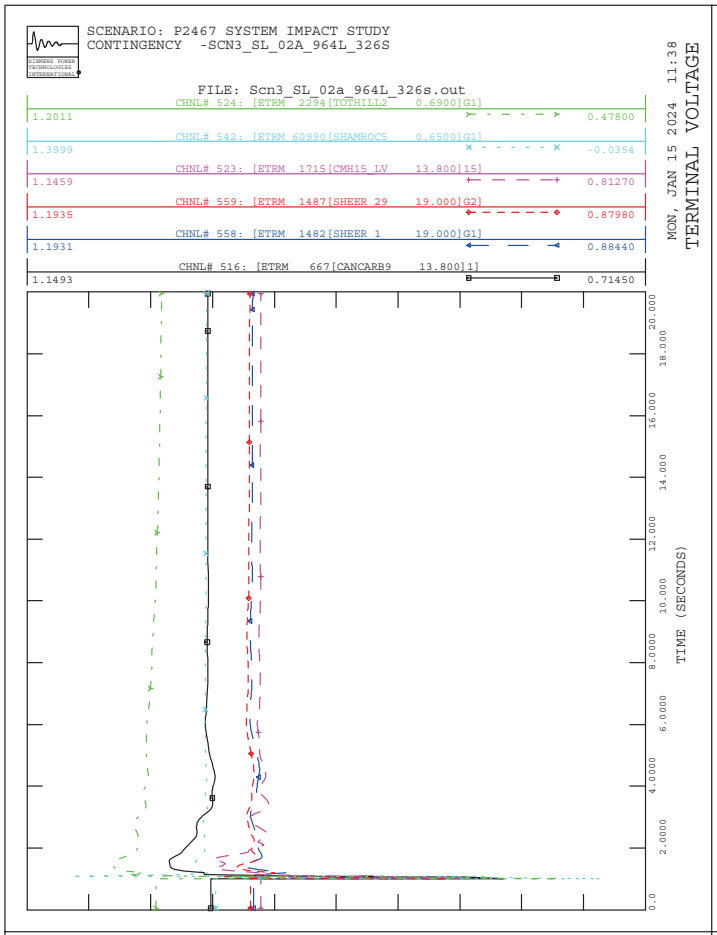
SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S

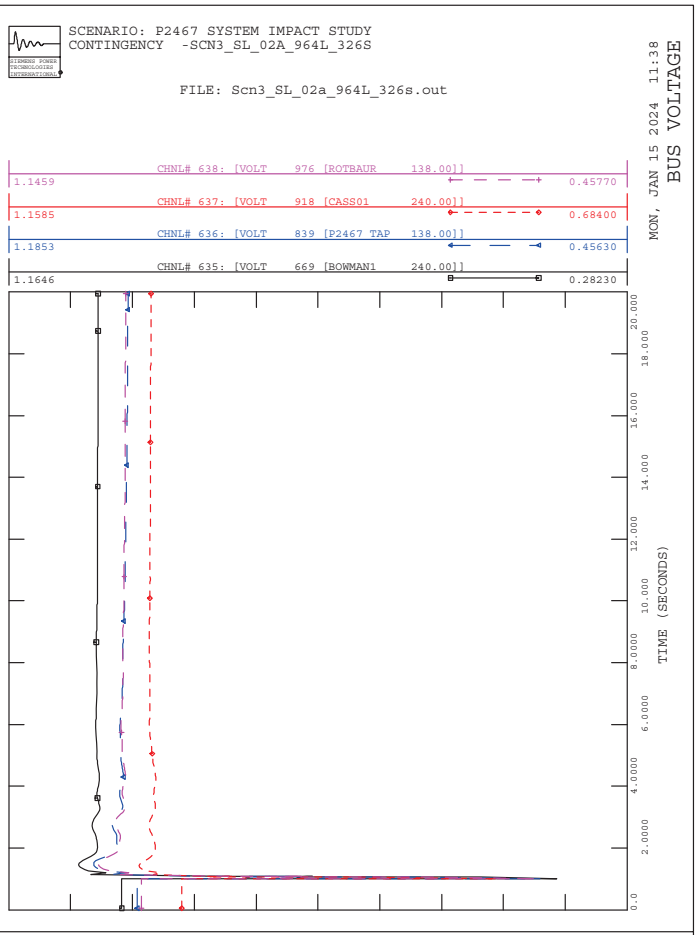
FILE: Scn3_SL_02a_964L_326s.out

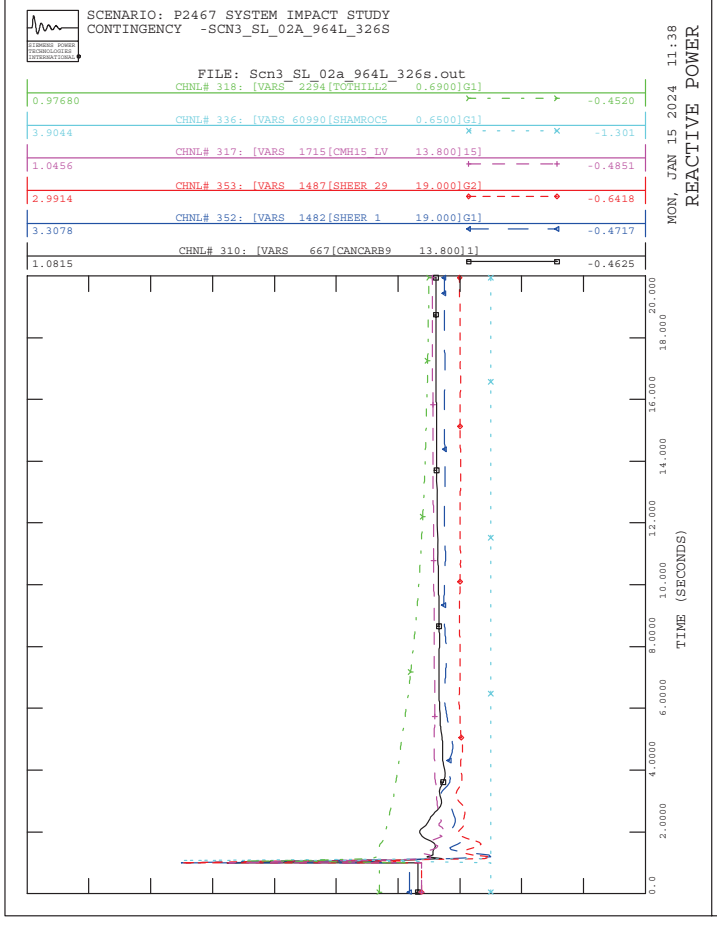
MON, JAN 15 2024 11:38 ROTOR ANGLE

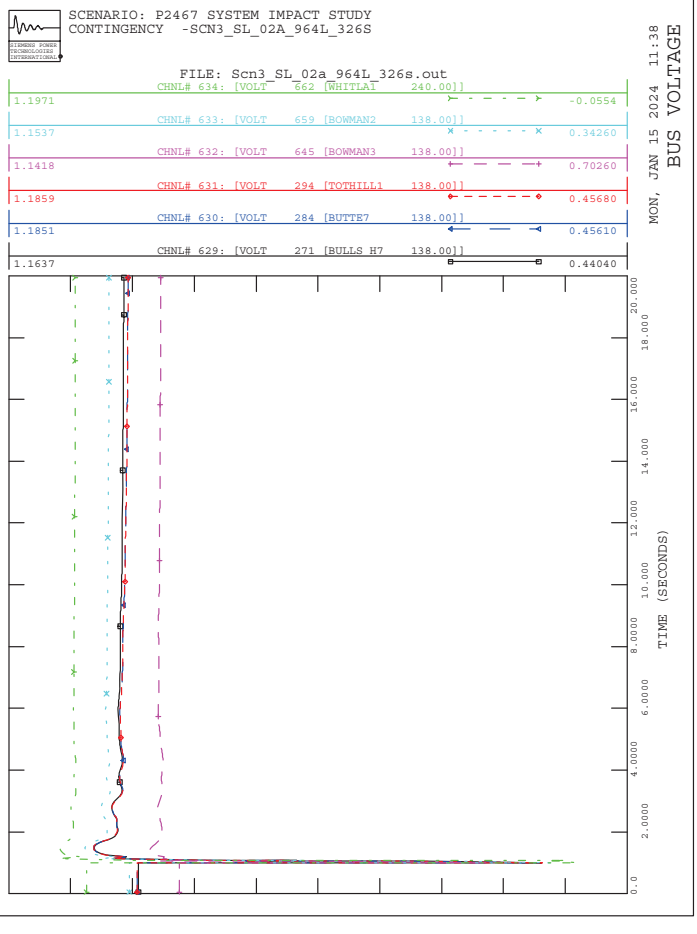
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 112.56 -9.688
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 87.143 -20.57
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 81.656 -25.96
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 111.75 -14.72

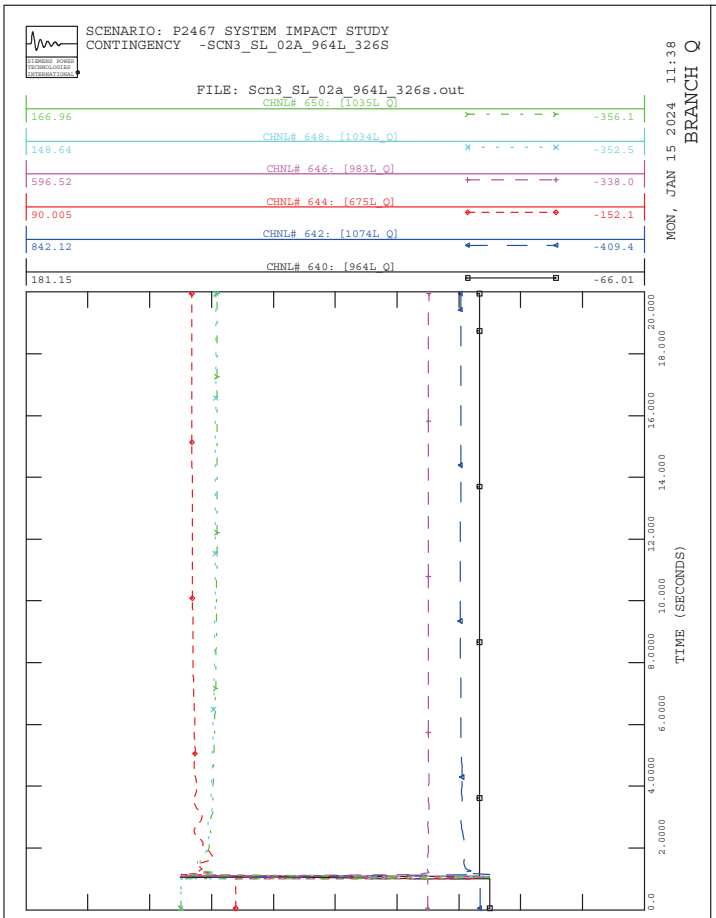


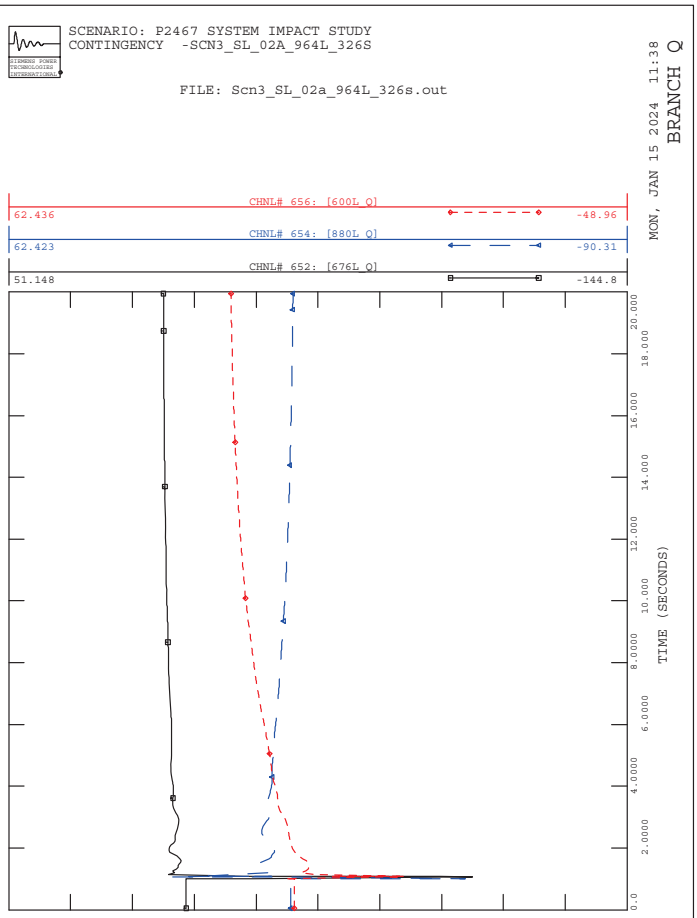

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.2011
0.47800
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3999
-0.0354
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.1459
0.81270
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.1935
0.87980
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.1931
0.88440
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1493
0.71450
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

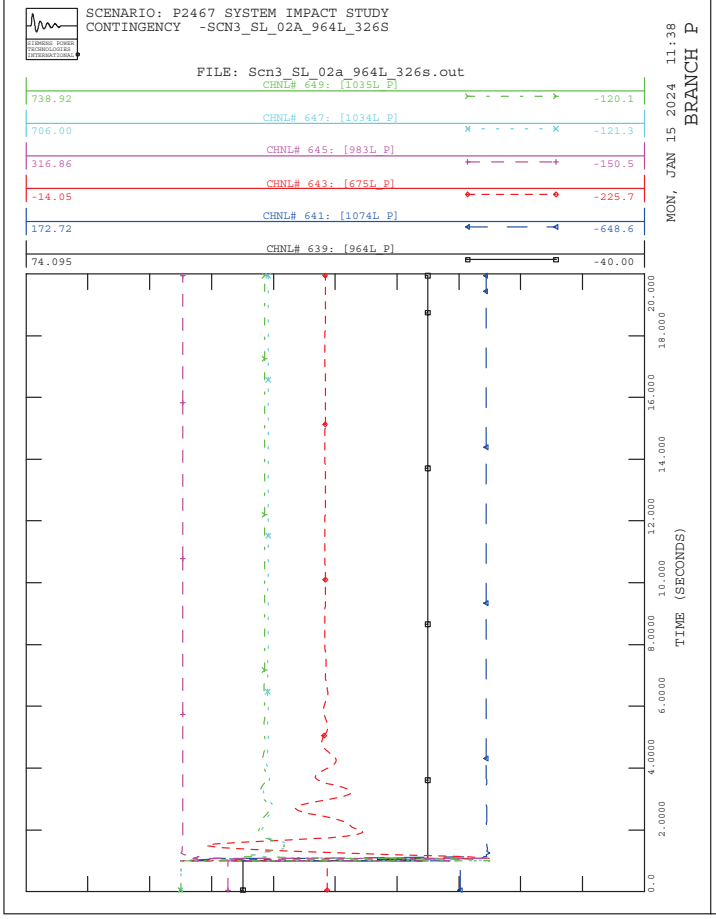

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1459
0.45770
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1585
0.68400
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.1853
0.45630
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.1646
0.28230
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

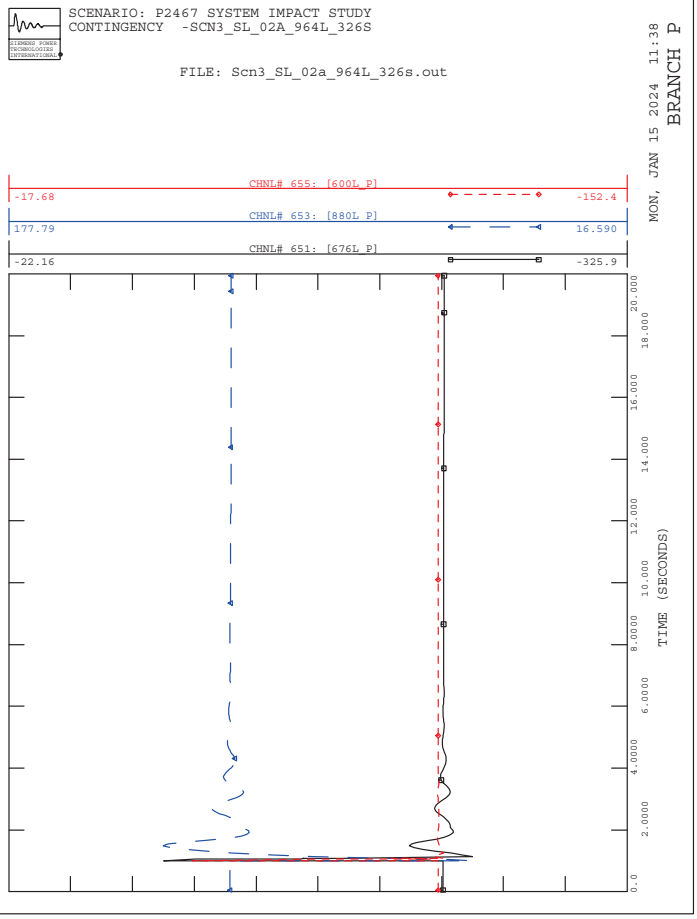

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
0.97680
-0.4520
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
3.9044
-1.301
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.0456
-0.4851
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.9914
-0.6418
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.3078
-0.4717
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0815
-0.4625
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

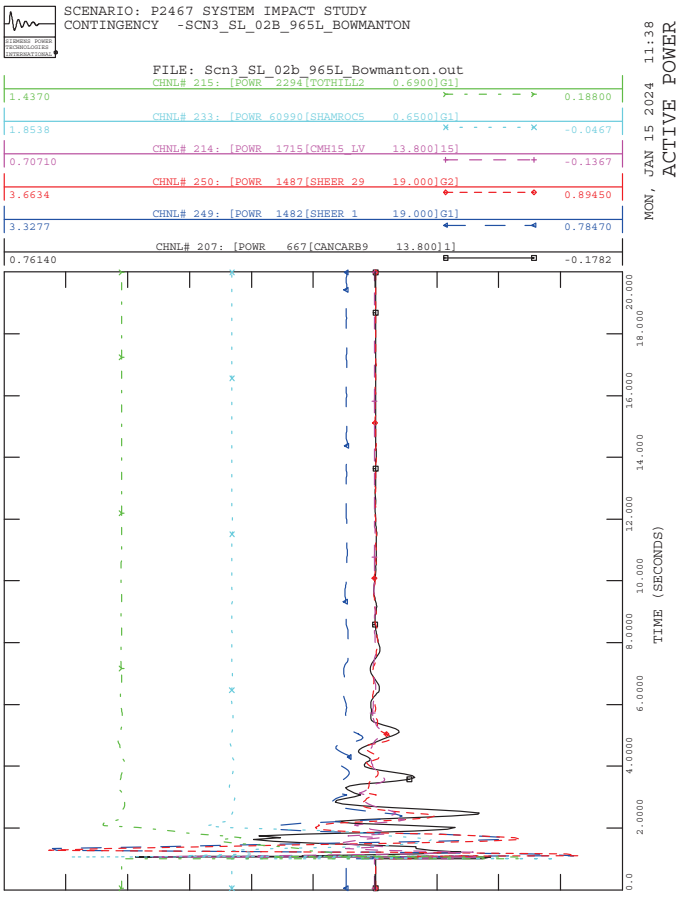

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 634: [VOLT 662 [WHITLAI 240.00]]
1.1971
-0.0554
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.1537
0.34260
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1418
0.70260
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.1859
0.45680
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.1851
0.45610
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.1637
0.44040
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

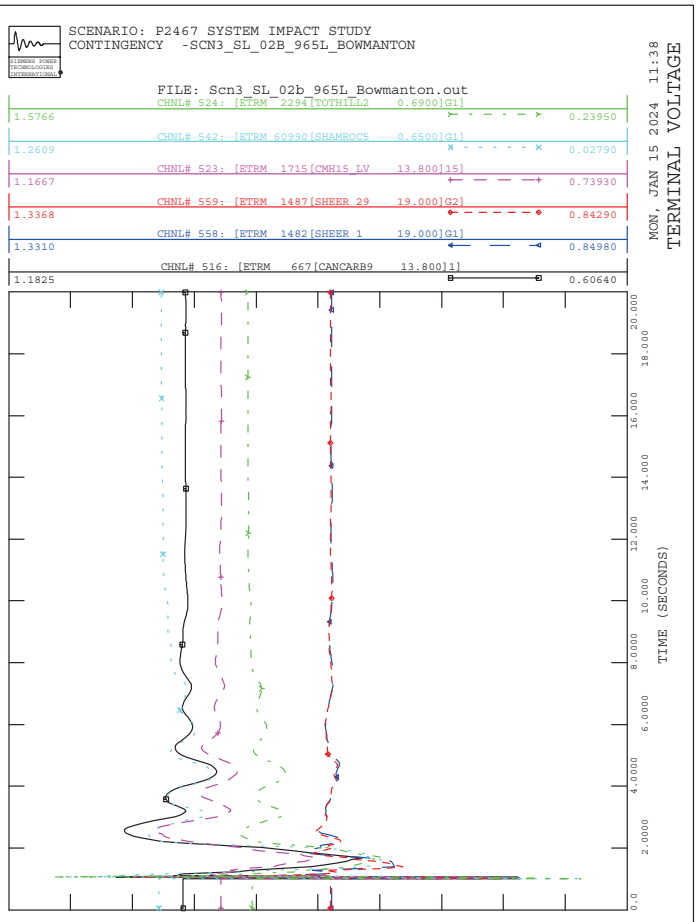

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 650: [1035L Q]
166.96
-356.1
CHNL# 648: [1034L Q]
148.64
-352.5
CHNL# 646: [983L Q]
596.52
-338.0
CHNL# 644: [675L Q]
90.005
-152.1
CHNL# 642: [1074L Q]
842.12
-409.4
CHNL# 640: [964L Q]
181.15
-66.01
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

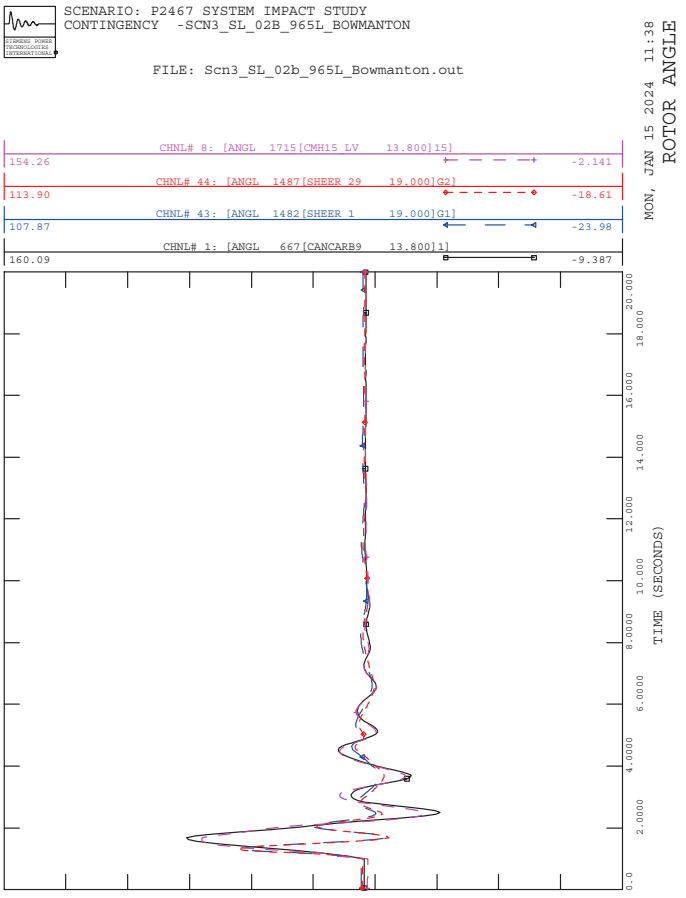

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 656: [600L Q]
62.436
-48.96
CHNL# 654: [880L Q]
62.423
-90.31
CHNL# 652: [676L Q]
51.148
-144.8
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

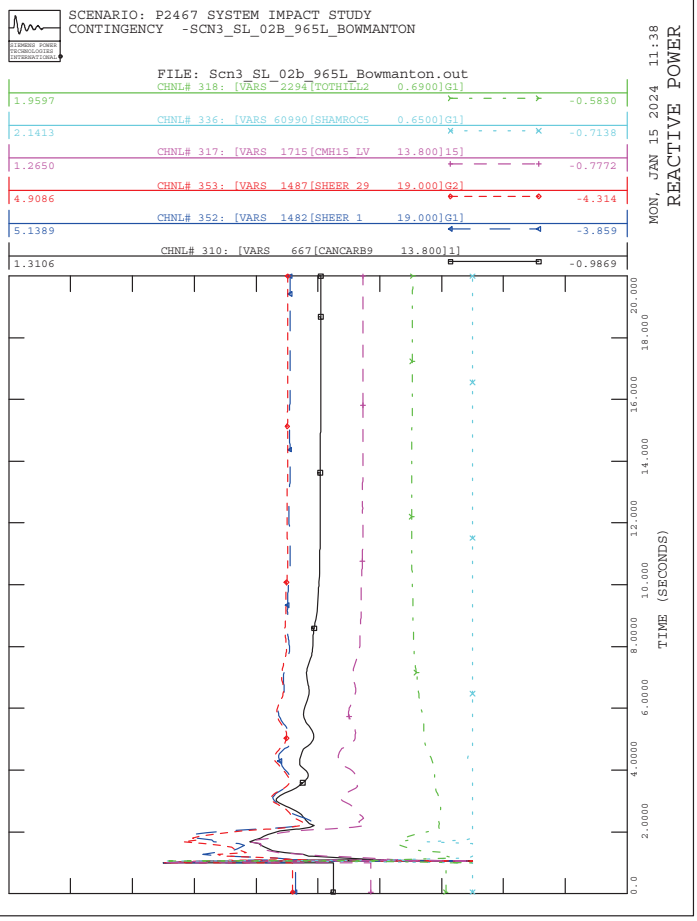

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 649: [1035L P]
738.92
-120.1
CHNL# 647: [1034L P]
706.00
-121.3
CHNL# 645: [983L P]
316.86
-150.5
CHNL# 643: [675L P]
-14.05
-225.7
CHNL# 641: [1074L P]
172.72
-648.6
CHNL# 639: [964L P]
74.095
-40.00
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

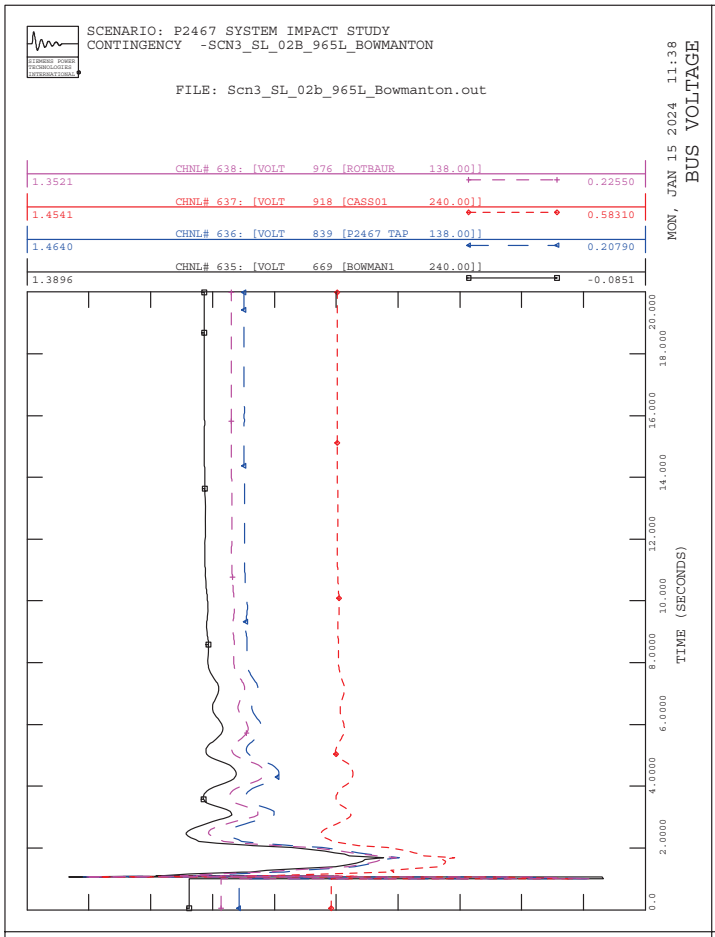

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02A_964L_326S
FILE: Scn3_SL_02a_964L_326s.out
CHNL# 655: [600L P]
-17.68
-152.4
CHNL# 653: [880L P]
177.79
16.590
CHNL# 651: [676L P]
-22.16
-325.9
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

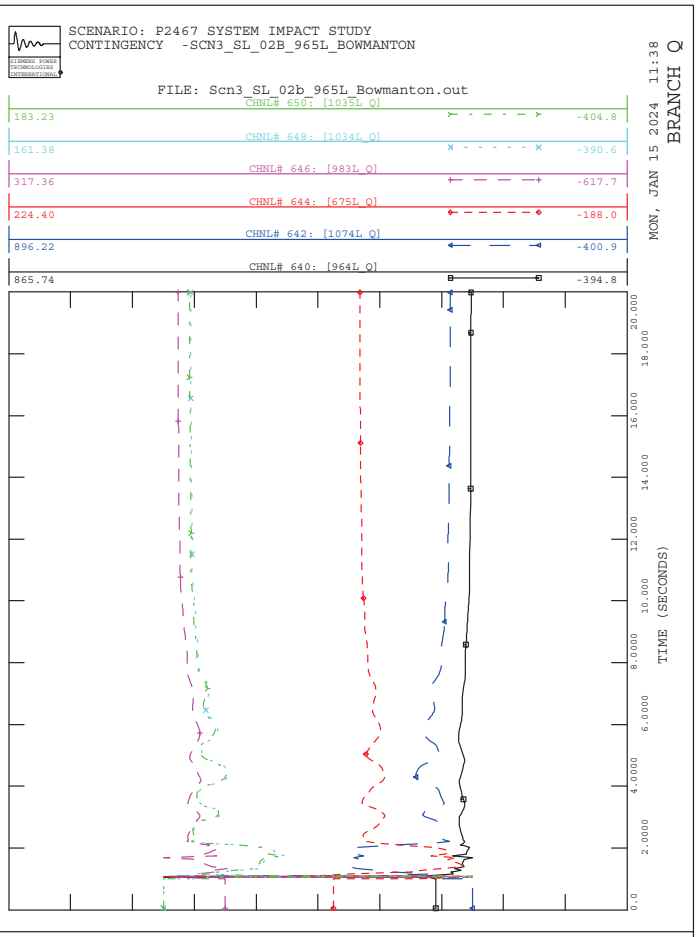

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4370
0.18800
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.8538
-0.0467
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.70710
-0.1367
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.6634
0.89450
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.3277
0.78470
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.76140
-0.1782
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

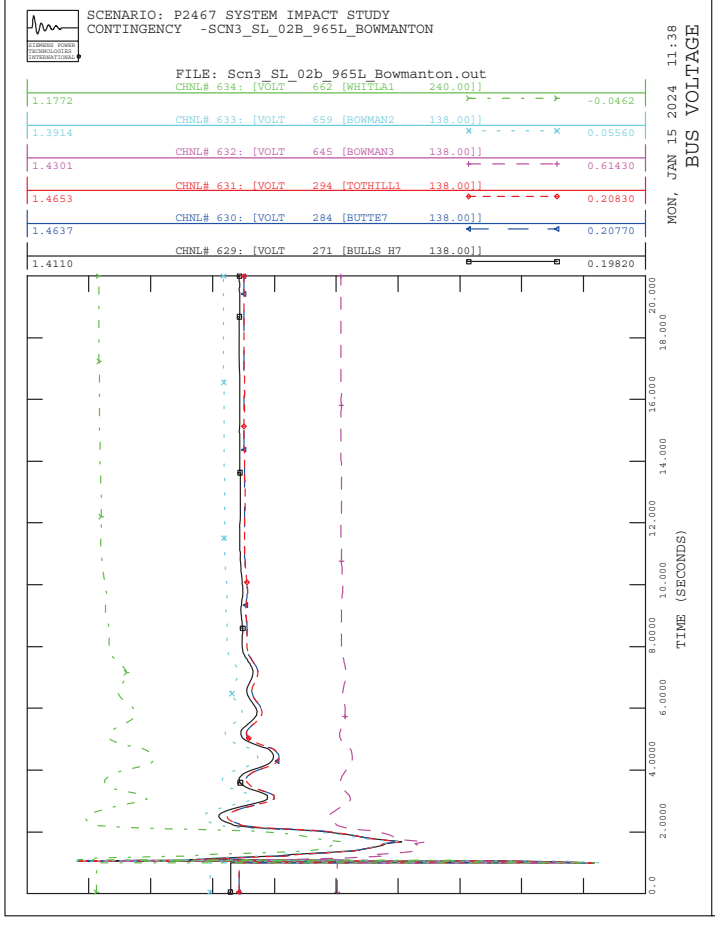

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.5766
0.23950
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2609
0.02790
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1667
0.73930
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.3368
0.84290
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.3310
0.84980
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1825
0.60640
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

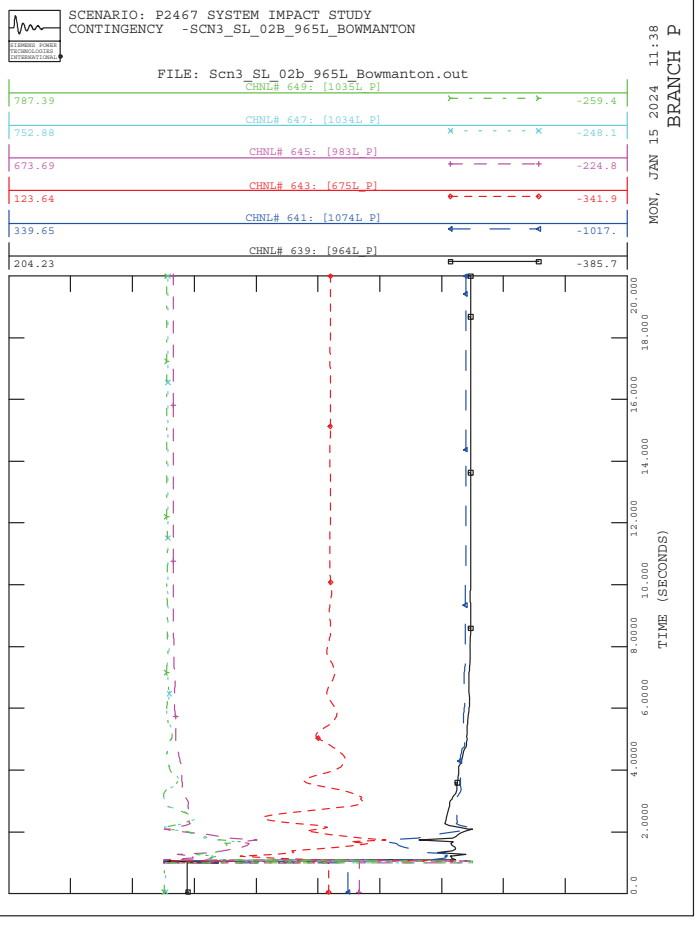

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
154.26
-2.141
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
113.90
-18.61
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
107.87
-23.98
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
160.09
-9.387
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.9597
-0.5830
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
2.1413
-0.7138
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.2650
-0.7772
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
4.9086
-4.314
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
5.1389
-3.859
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.3106
-0.9869
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.3521
0.22550
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.4541
0.58310
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.4640
0.20790
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.3896
-0.0851
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 650: [1035L Q]
183.23
-404.8
CHNL# 648: [1034L Q]
161.38
-390.6
CHNL# 646: [983L Q]
317.36
-617.7
CHNL# 644: [675L Q]
224.40
-188.0
CHNL# 642: [1074L Q]
896.22
-400.9
CHNL# 640: [964L Q]
865.74
-394.8
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.1772
-0.0462
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.3914
0.05560
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.4301
0.61430
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.4653
0.20830
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.4637
0.20770
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.4110
0.19820
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

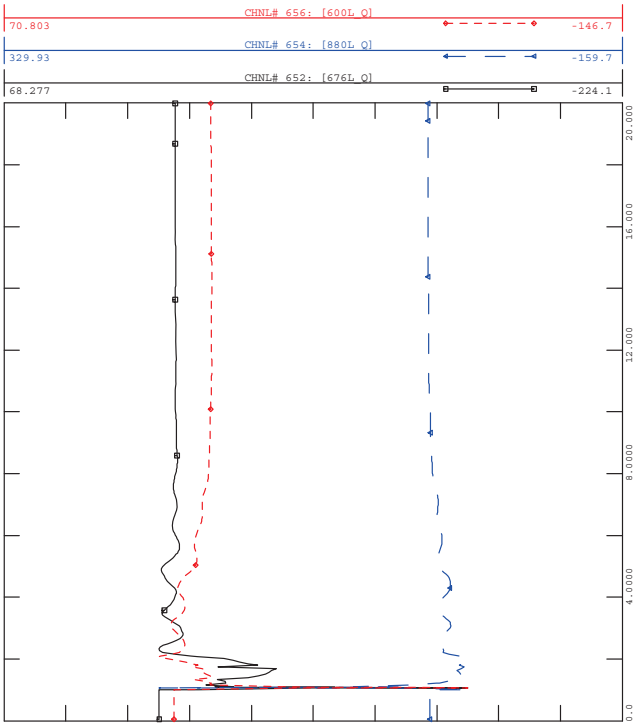

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON
FILE: Scn3_SL_02b_965L_Bowmanton.out
CHNL# 649: [1035L P]
787.39
-259.4
CHNL# 647: [1034L P]
752.88
-248.1
CHNL# 645: [983L P]
673.69
-224.8
CHNL# 643: [675L P]
123.64
-341.9
CHNL# 641: [1074L P]
339.65
-1017.
CHNL# 639: [964L P]
204.23
-385.7
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON

FILE: Scn3_SL_02b_965L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH Q

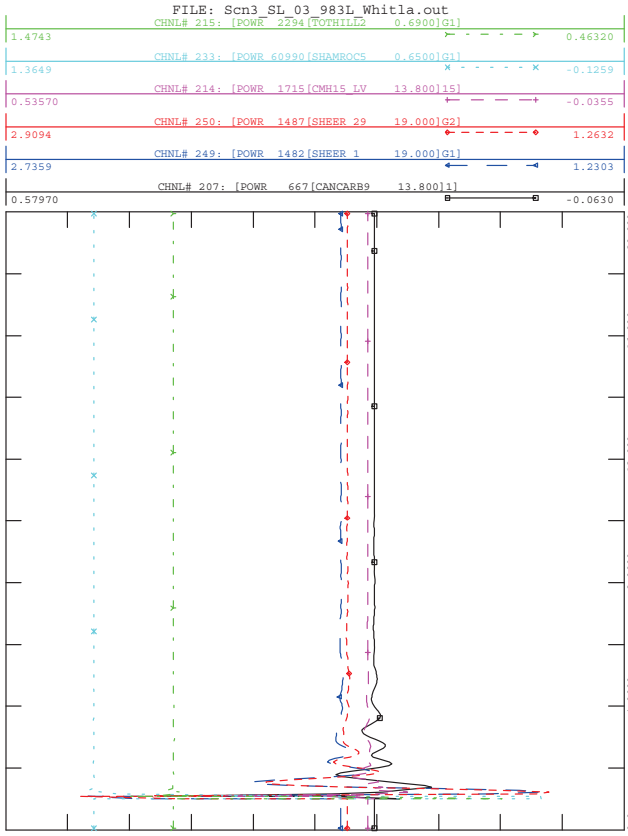


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA

FILE: Scn3_SL_03_983L_Whitla.out

MON, JAN 15 2024 11:38

ACTIVE POWER

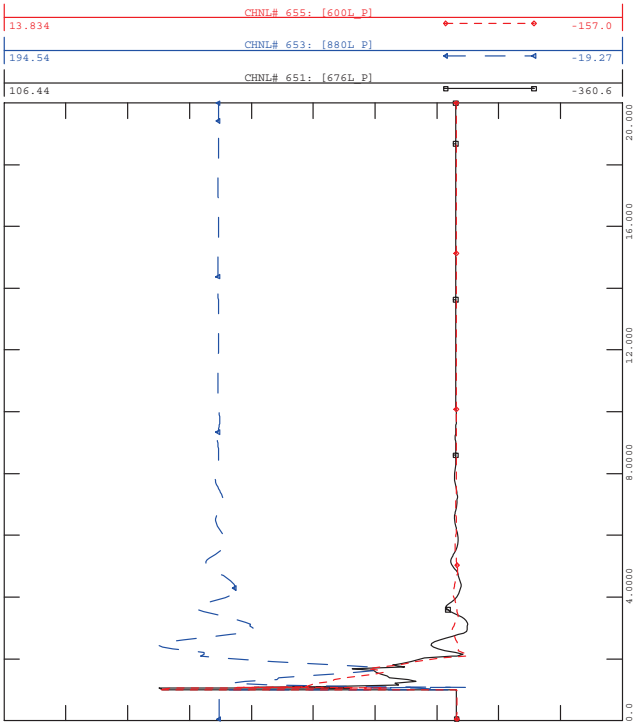


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_02B_965L_BOWMANTON

FILE: Scn3_SL_02b_965L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH P

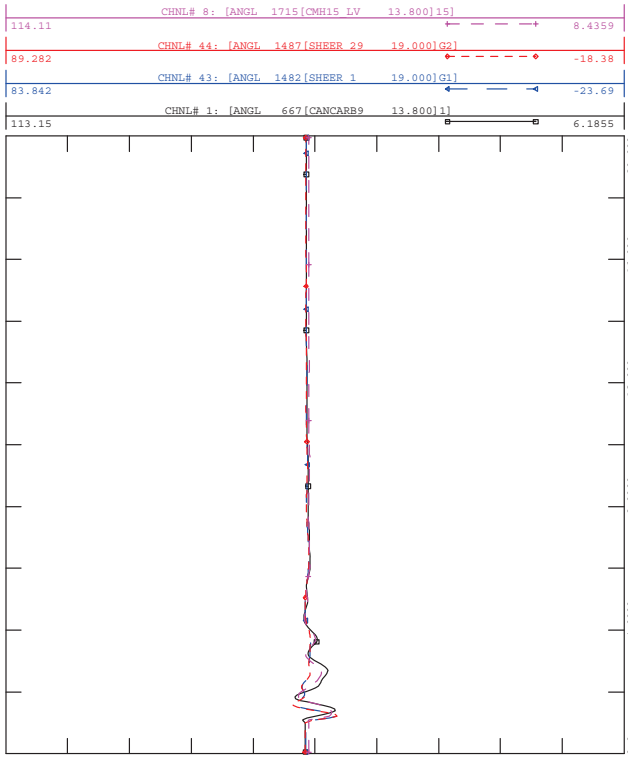


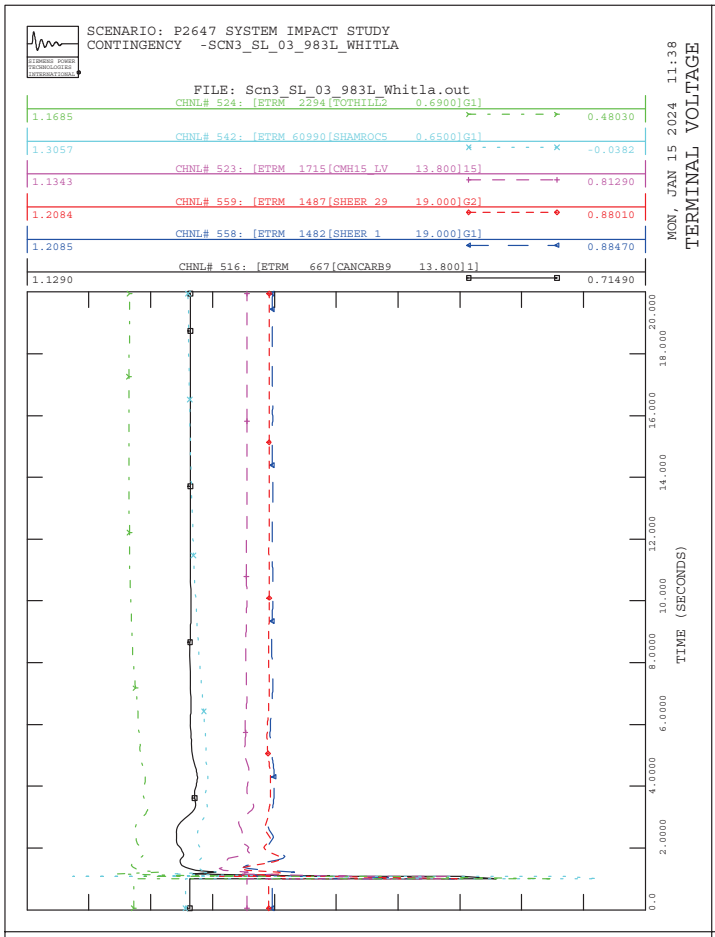
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA

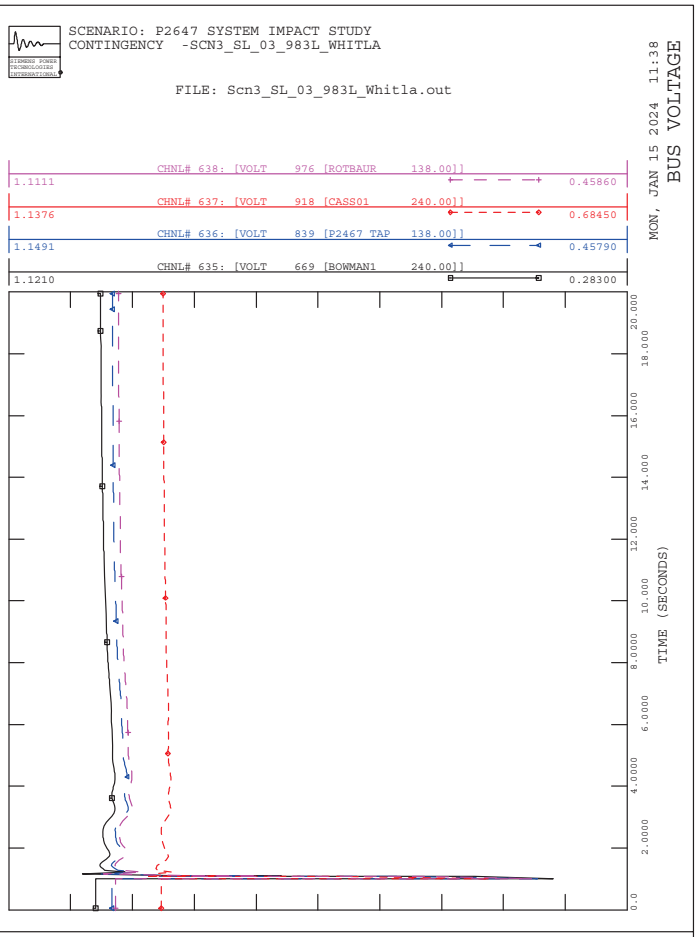
FILE: Scn3_SL_03_983L_Whitla.out

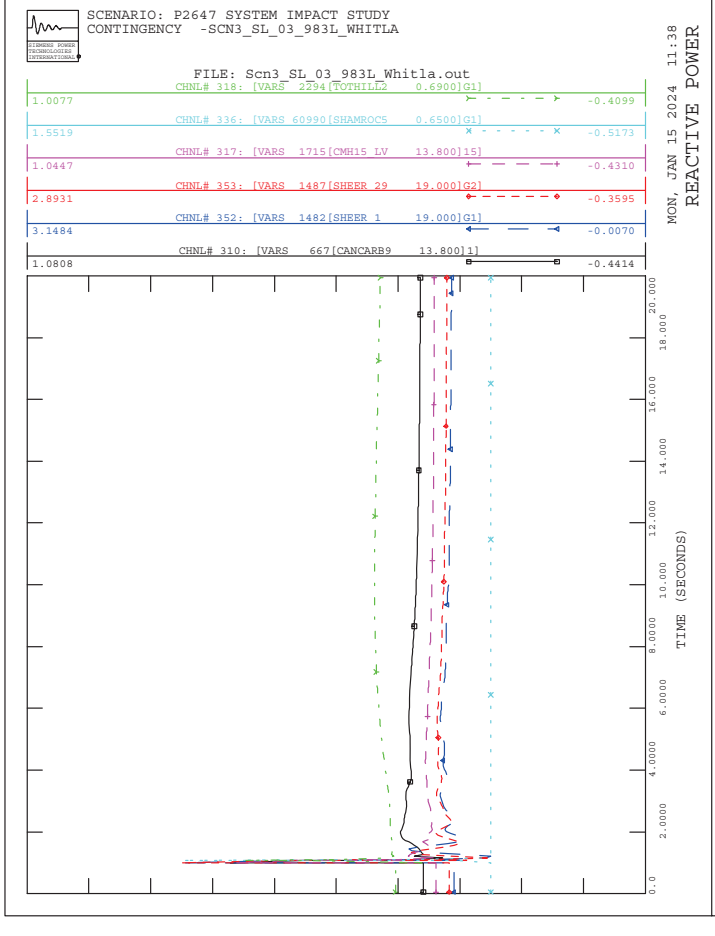
MON, JAN 15 2024 11:38

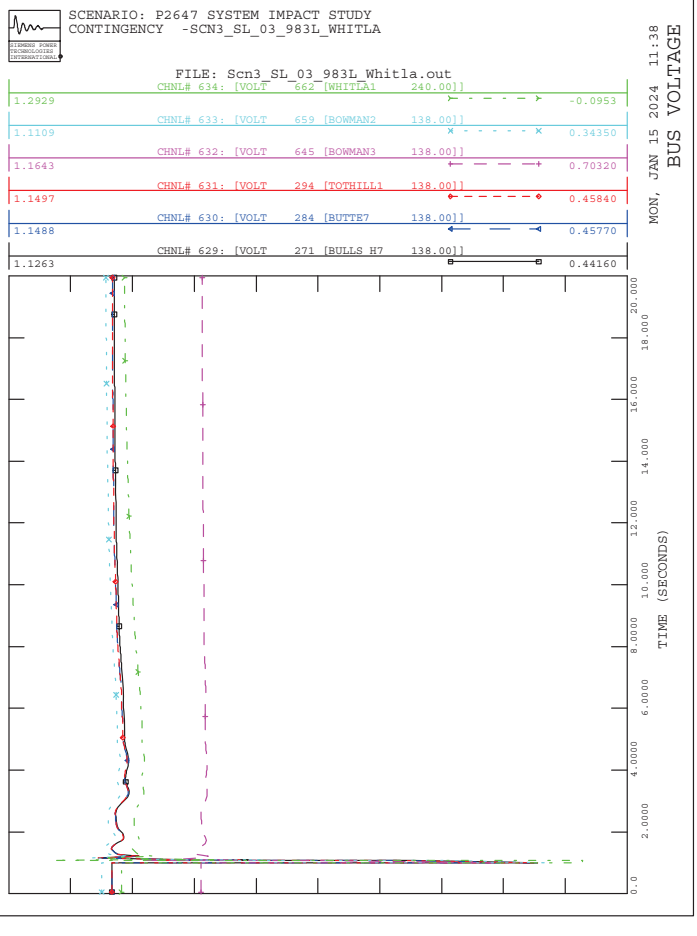
ROTOR ANGLE

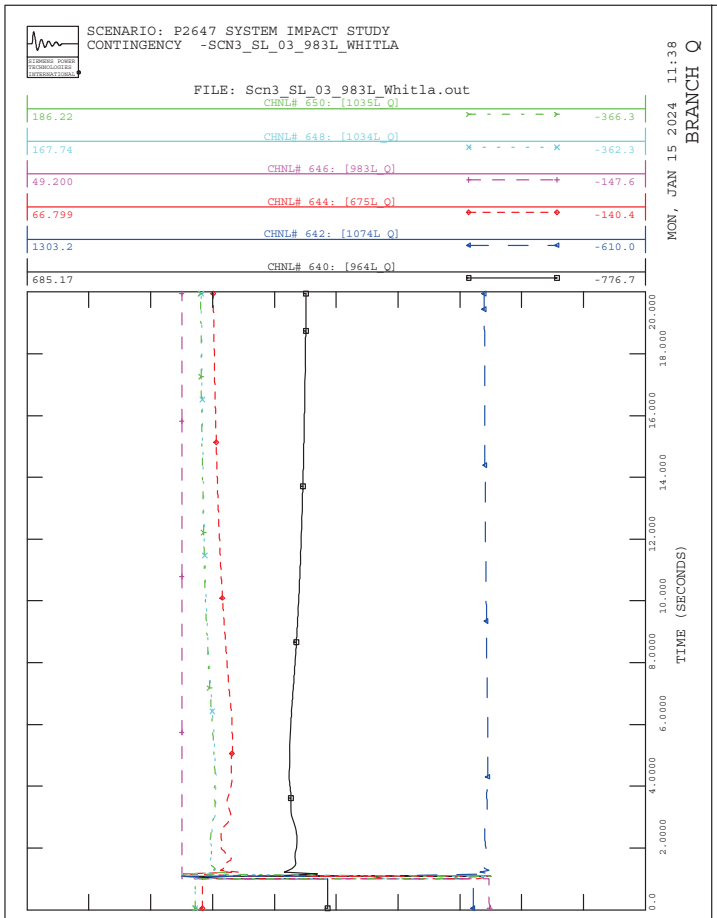


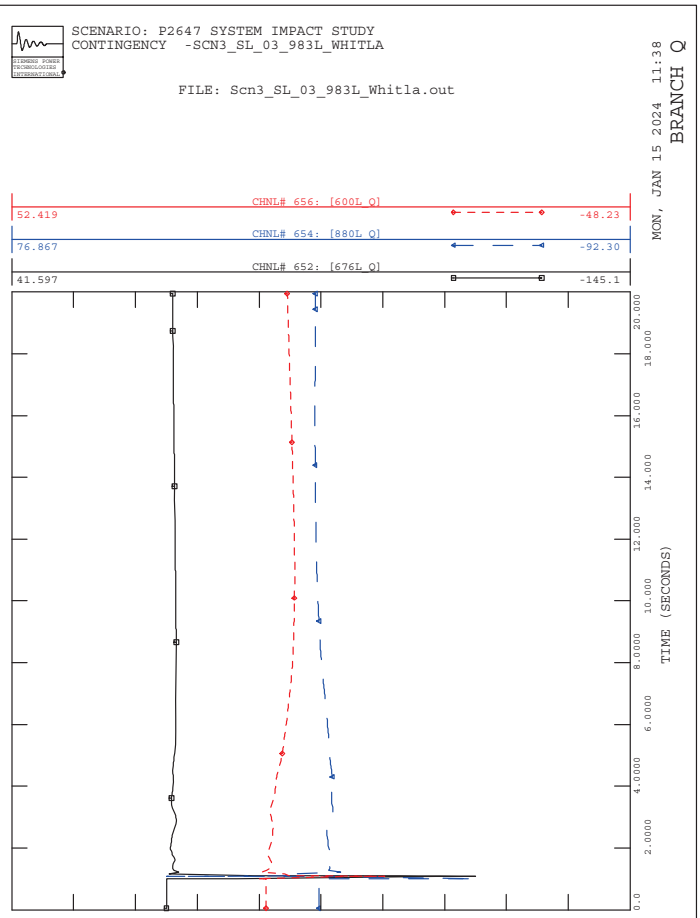

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.1685
0.48030
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3057
-0.0382
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.1343
0.81290
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2084
0.88010
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2085
0.88470
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1290
0.71490
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

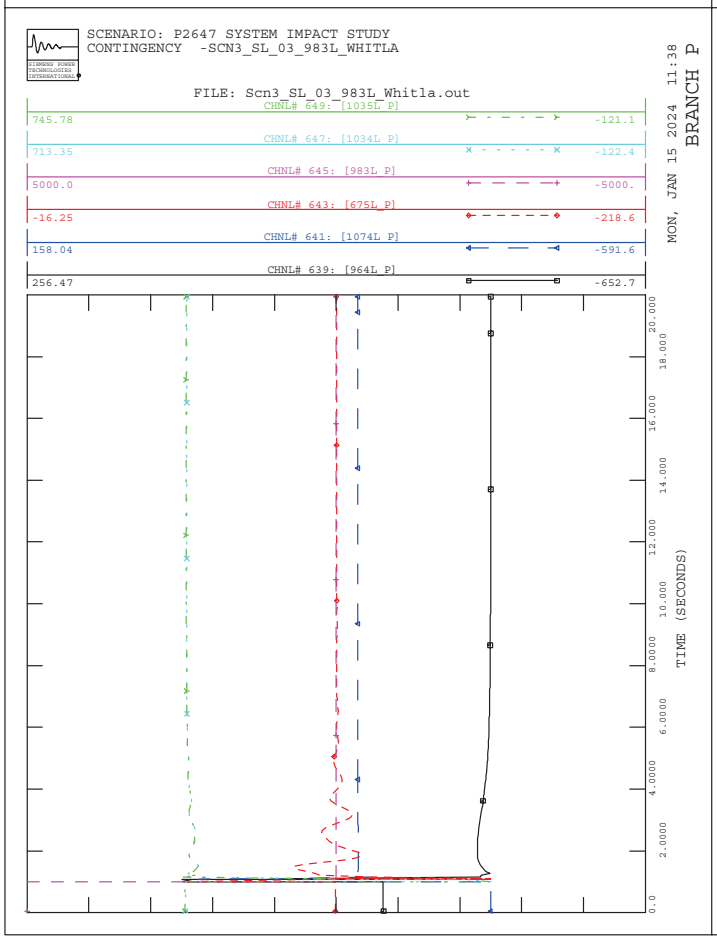

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1111
0.45860
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1376
0.68450
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.1491
0.45790
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.1210
0.28300
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

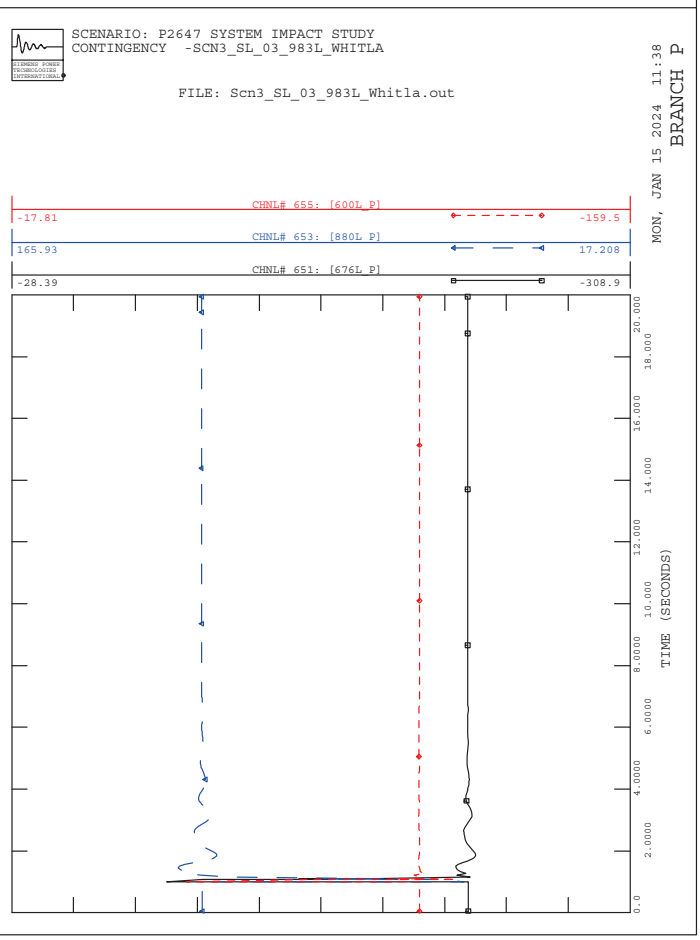

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.0077
-0.4099
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.5519
-0.5173
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.0447
-0.4310
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.8931
-0.3595
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.1484
-0.0070
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0808
-0.4414
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

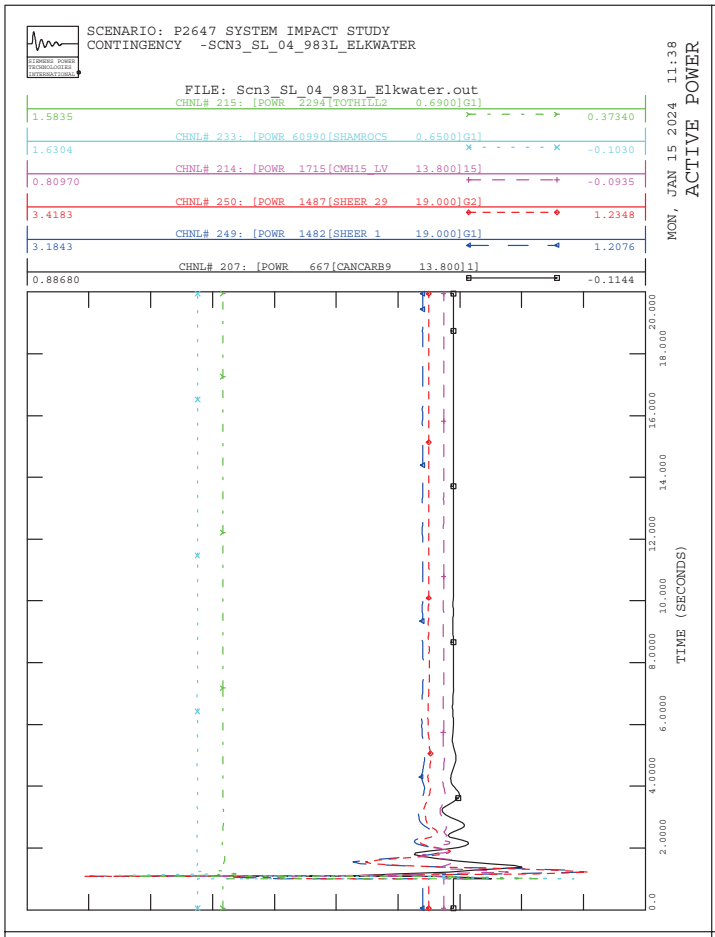

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2929
-0.0953
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.1109
0.34350
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1643
0.70320
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.1497
0.45840
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.1488
0.45770
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.1263
0.44160
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

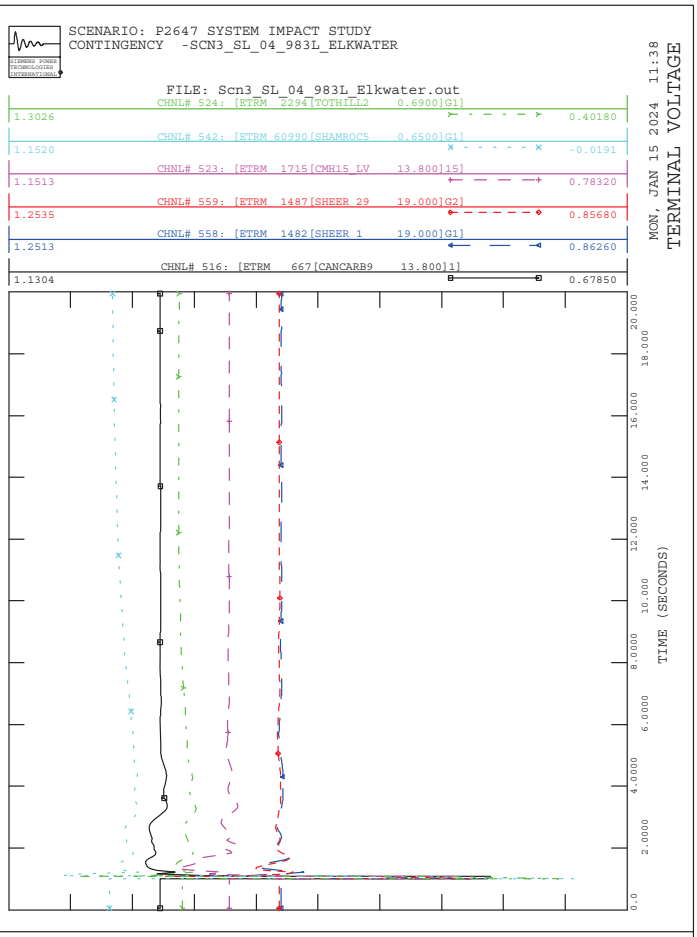

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 650: [1035L Q]
186.22
-366.3
CHNL# 648: [1034L Q]
167.74
-362.3
CHNL# 646: [983L Q]
49.200
-147.6
CHNL# 644: [675L Q]
66.799
-140.4
CHNL# 642: [1074L Q]
1303.2
-610.0
CHNL# 640: [964L Q]
685.17
-776.7
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

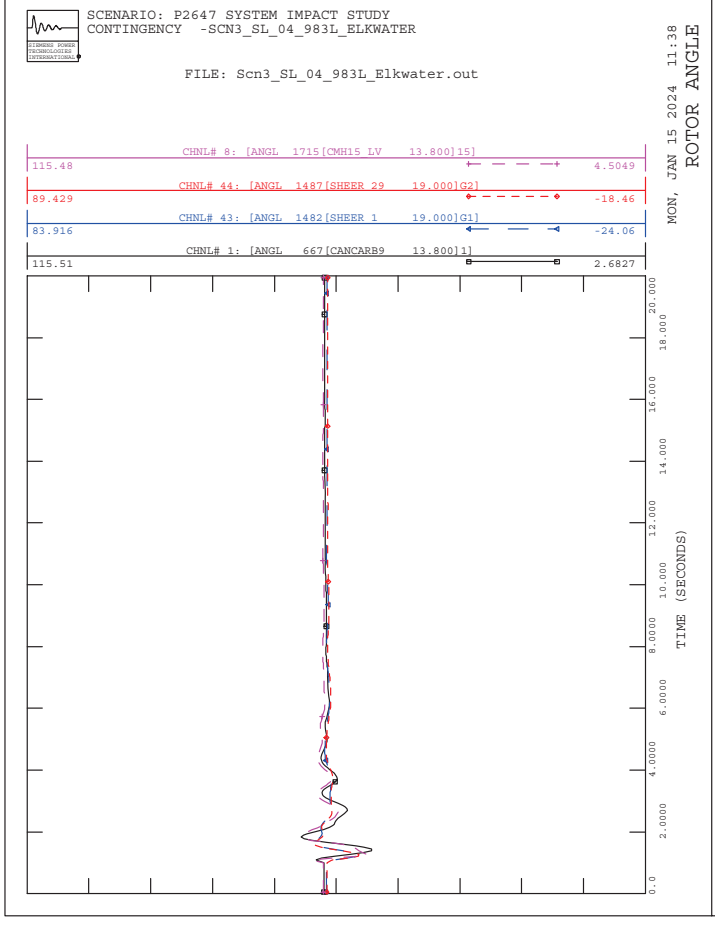

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 656: [600L Q]
52.419
-48.23
CHNL# 654: [880L Q]
76.867
-92.30
CHNL# 652: [676L Q]
41.597
-145.1
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

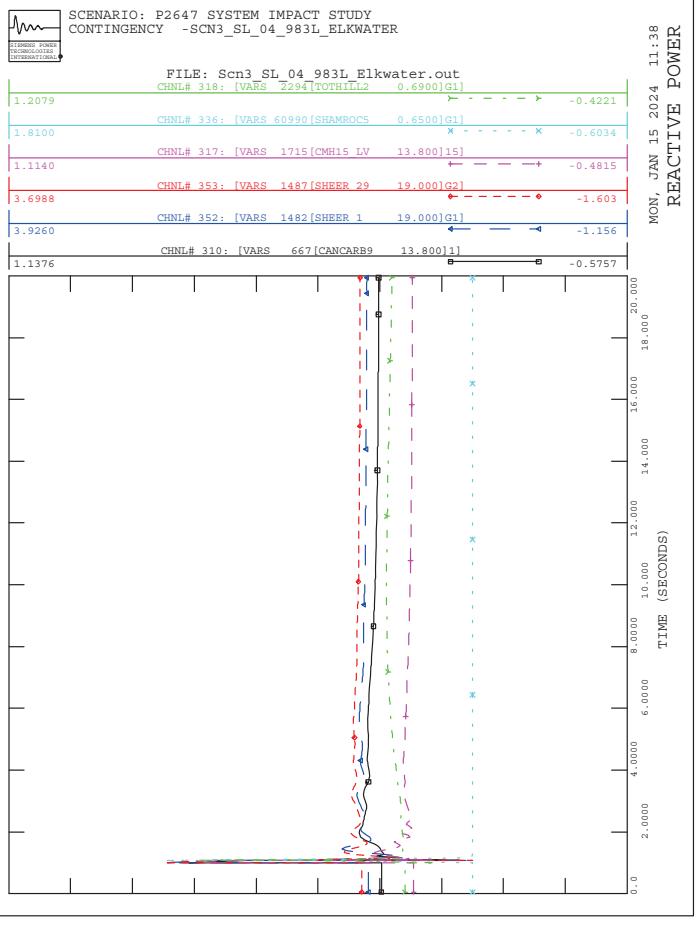

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 649: [1035L P]
745.78
-121.1
CHNL# 647: [1034L P]
713.35
-122.4
CHNL# 645: [983L P]
5000.0
-5000.
CHNL# 643: [675L P]
-16.25
-218.6
CHNL# 641: [1074L P]
158.04
-591.6
CHNL# 639: [964L P]
256.47
-652.7
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

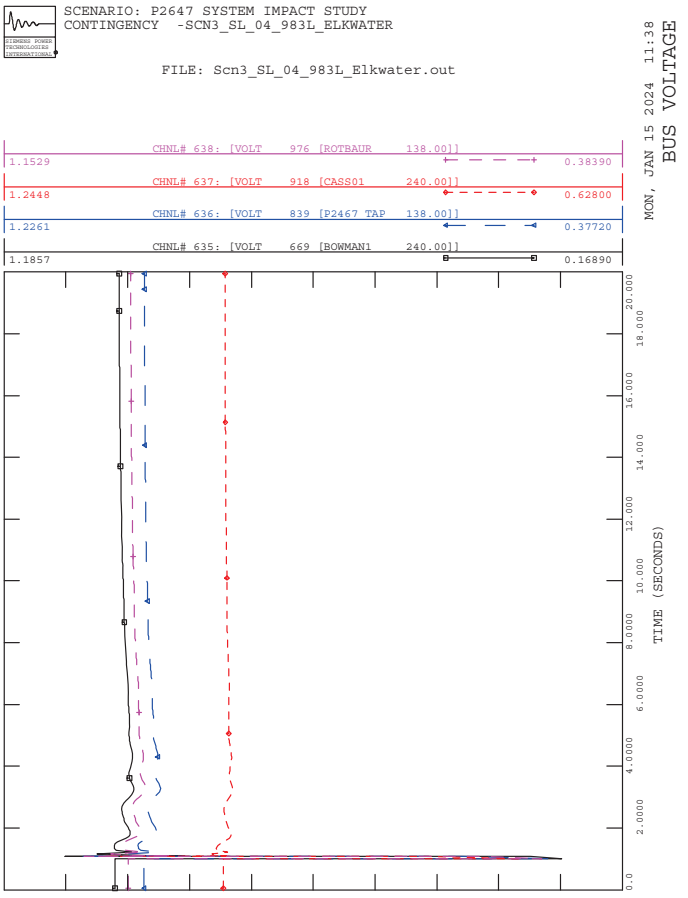

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_03_983L_WHITLA
FILE: Scn3_SL_03_983L_Whitla.out
CHNL# 655: [600L P]
-17.81
-159.5
CHNL# 653: [880L P]
165.93
17.208
CHNL# 651: [676L P]
-28.39
-308.9
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

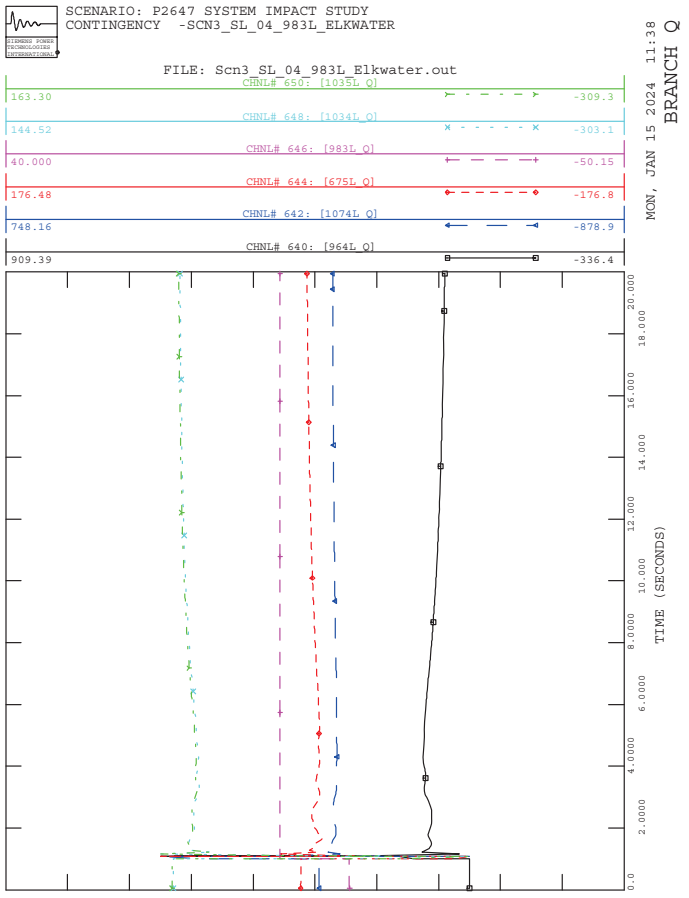

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.5835
0.37340
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.6304
-0.1030
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.80970
-0.0935
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.4183
1.2348
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.1843
1.2076
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.88680
-0.1144
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

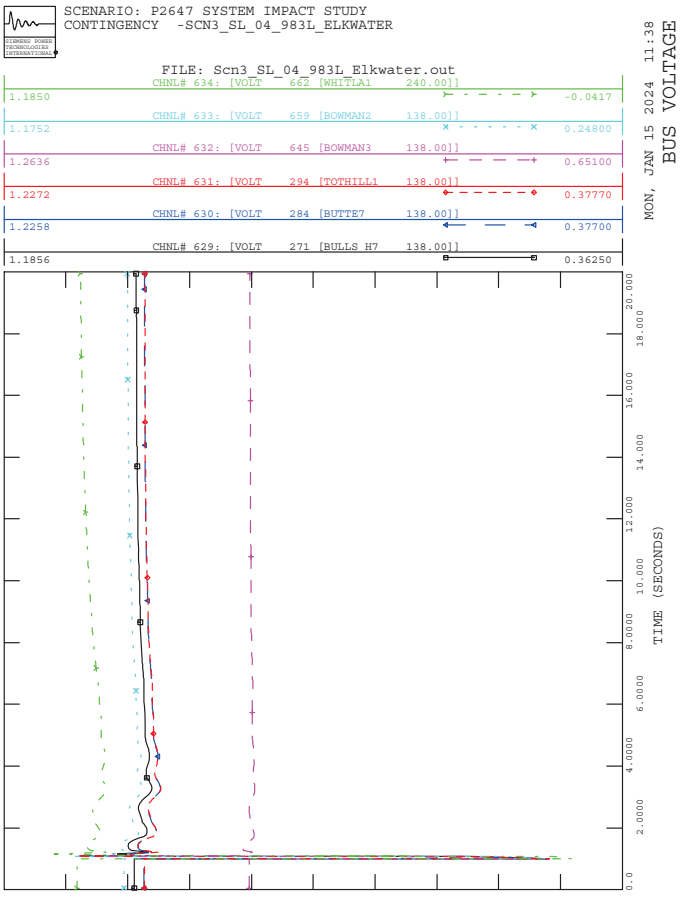

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3026
0.40180
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1520
-0.0191
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1513
0.78320
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2535
0.85680
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2513
0.86260
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1304
0.67850
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

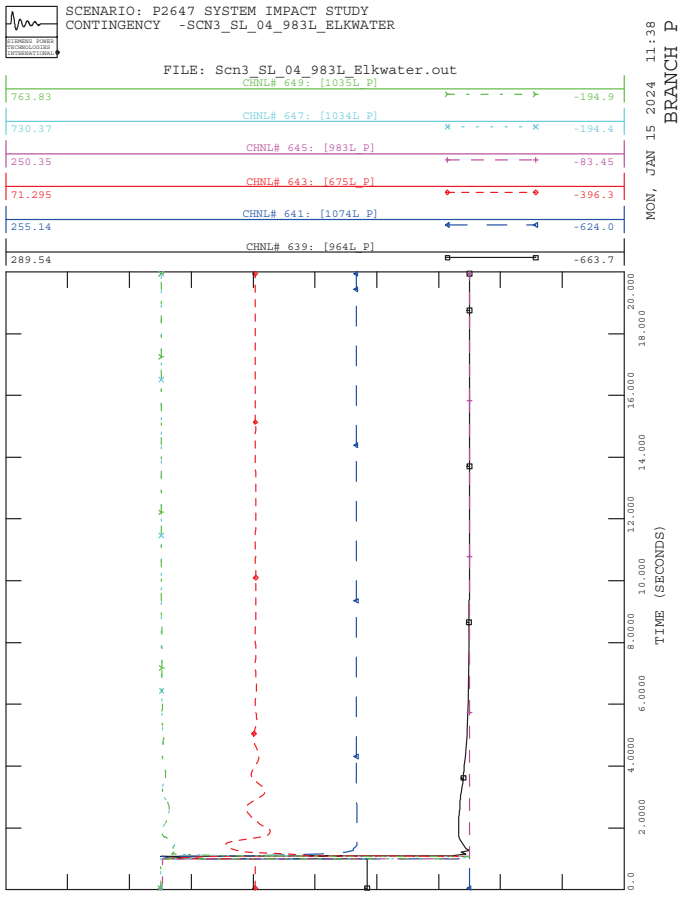

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
115.48
4.5049
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
89.429
-18.46
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
83.916
-24.06
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
115.51
2.6827
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.2079
-0.4221
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.8100
-0.6034
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.1140
-0.4815
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
3.6988
-1.603
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.9260
-1.156
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.1376
-0.5757
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1529
0.38390
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.2448
0.62800
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.2261
0.37720
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.1857
0.16890
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 650: [1035L Q]
163.30
-309.3
CHNL# 648: [1034L Q]
144.52
-303.1
CHNL# 646: [983L Q]
40.000
-50.15
CHNL# 644: [675L Q]
176.48
-176.8
CHNL# 642: [1074L Q]
748.16
-878.9
CHNL# 640: [964L Q]
909.39
-336.4
BRANCH Q
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.1850
-0.0417
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.1752
0.24800
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.2636
0.65100
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.2272
0.37770
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.2258
0.37700
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.1856
0.36250
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

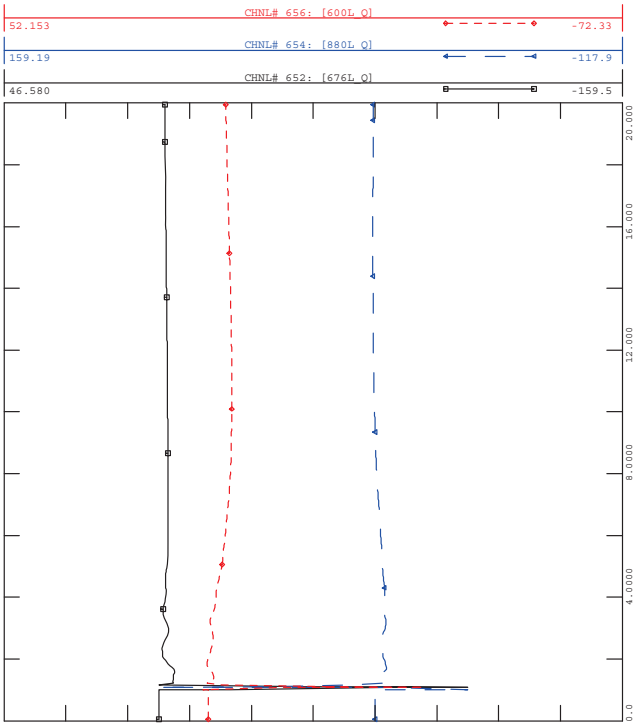

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER
FILE: Scn3_SL_04_983L_Elkwater.out
CHNL# 649: [1035L P]
763.83
-194.9
CHNL# 647: [1034L P]
730.37
-194.4
CHNL# 645: [983L P]
250.35
-83.45
CHNL# 643: [675L P]
71.295
-396.3
CHNL# 641: [1074L P]
255.14
-624.0
CHNL# 639: [964L P]
289.54
-663.7
BRANCH P
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER

FILE: Scn3_SL_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

BRANCH Q

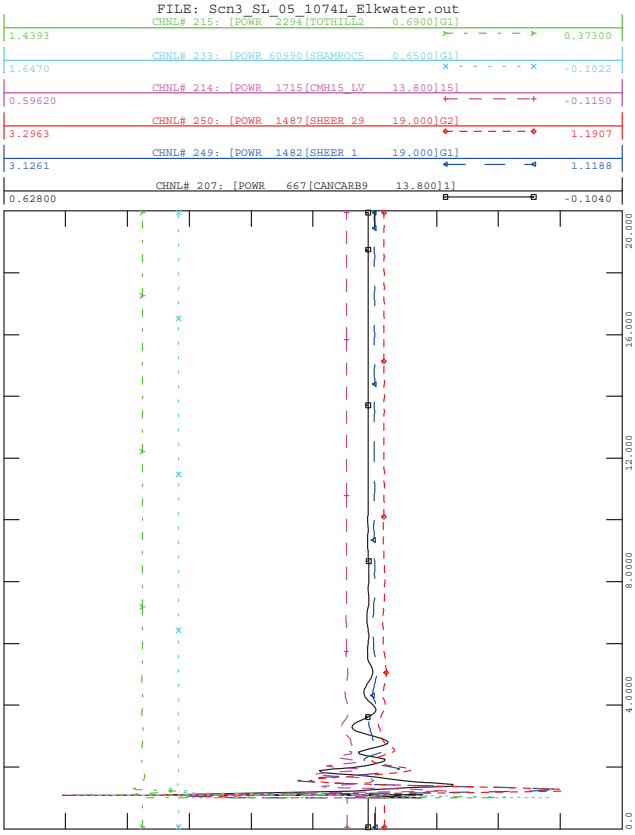


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER

FILE: Scn3_SL_05_1074L_Elkwater.out

MON, JAN 15 2024 11:38

ACTIVE POWER

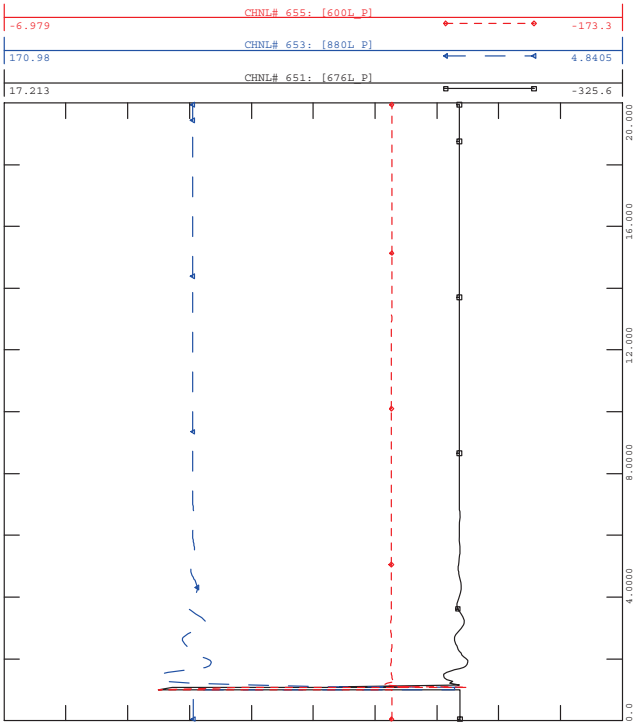


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_04_983L_ELKWATER

FILE: Scn3_SL_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

BRANCH P

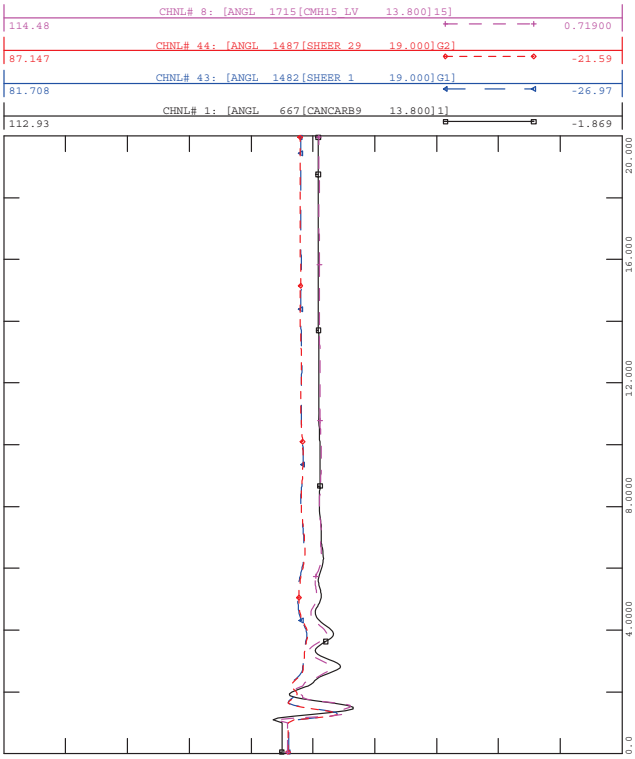


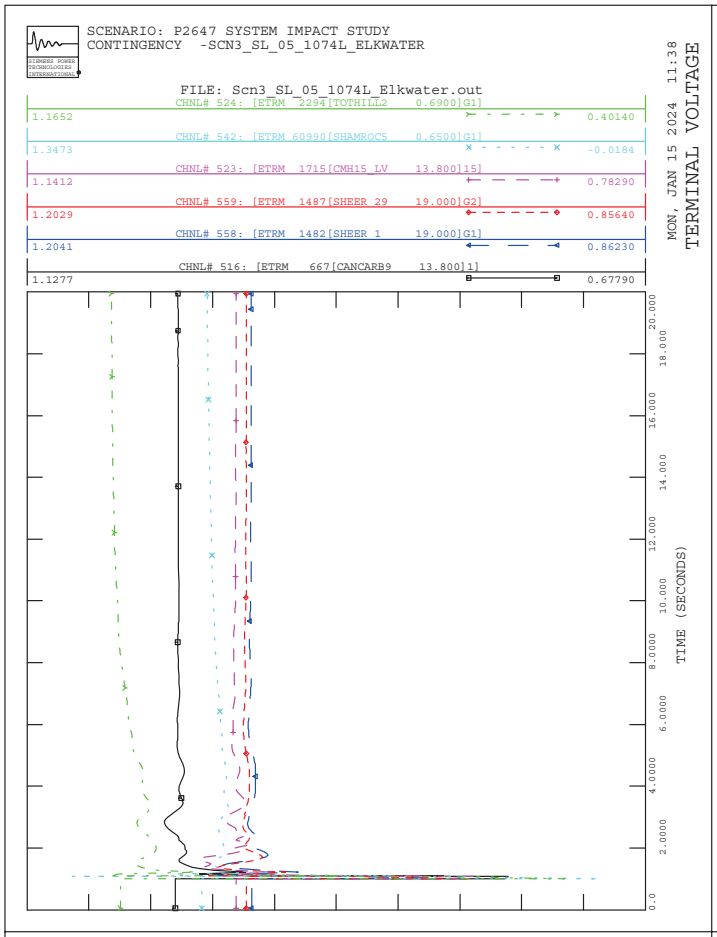
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER

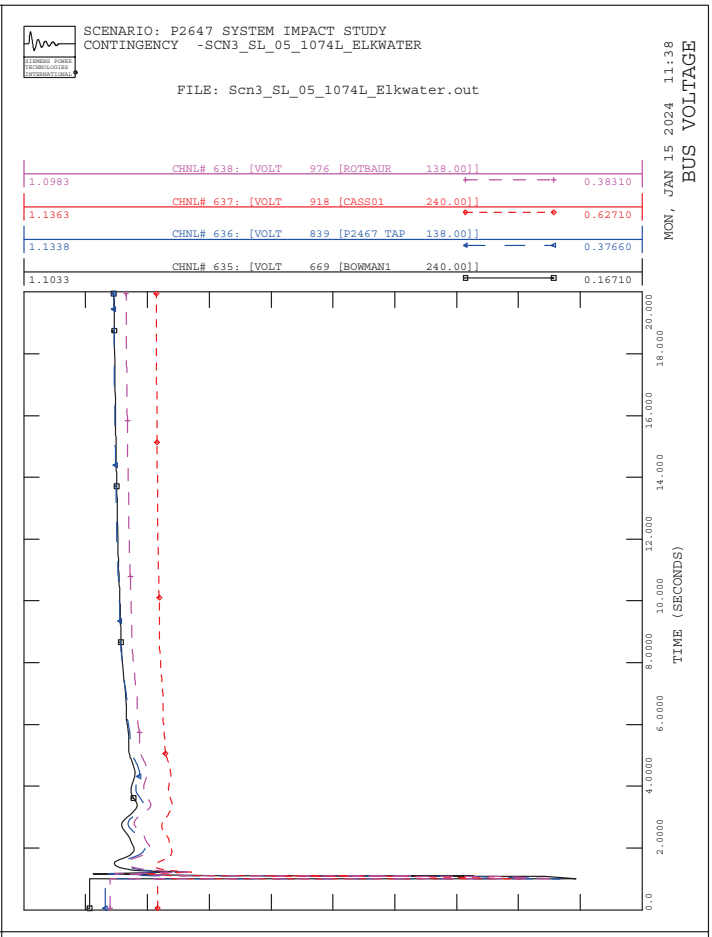
FILE: Scn3_SL_05_1074L_Elkwater.out

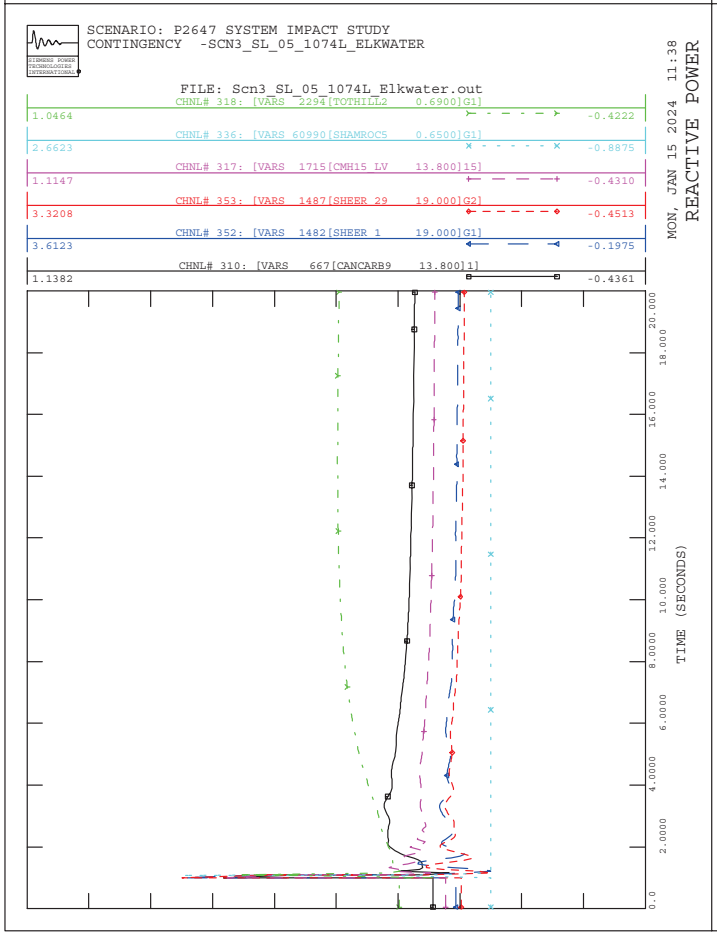
MON, JAN 15 2024 11:38

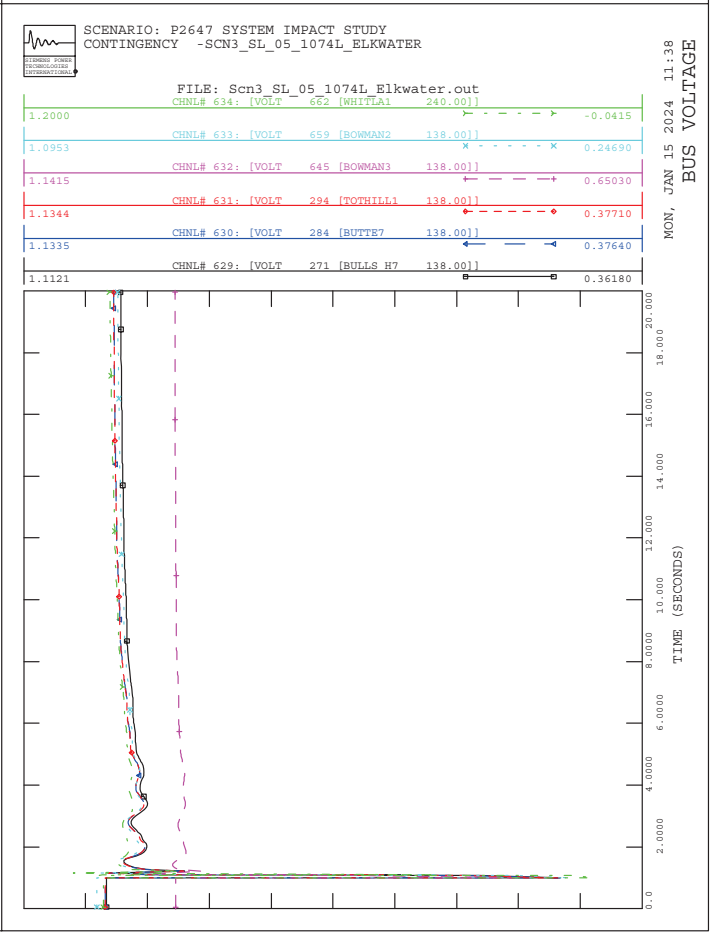
ROTOR ANGLE




SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER
FILE: Scn3_SL_05_1074L_Elkwater.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.1652
0.40140
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3473
-0.0184
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.1412
0.78290
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2029
0.85640
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2041
0.86230
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1277
0.67790
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

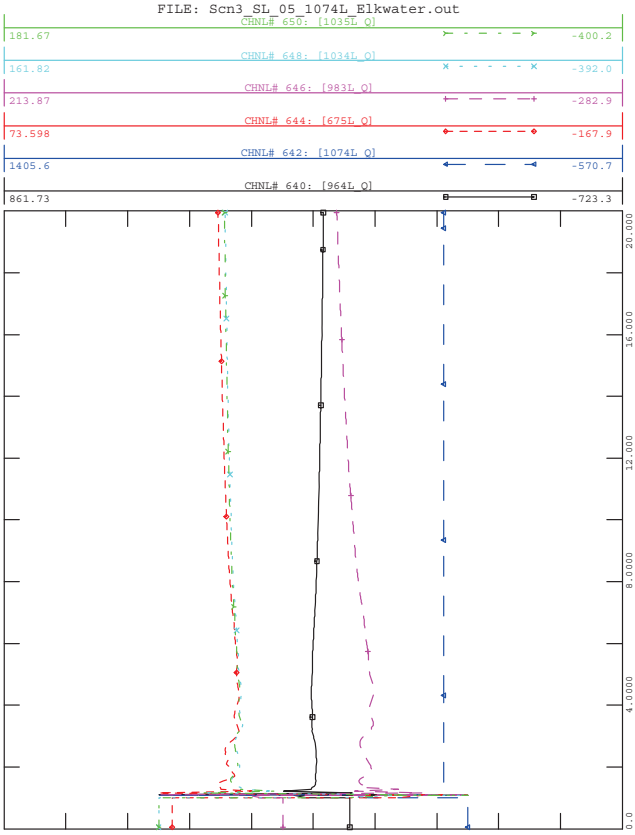

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER
FILE: Scn3_SL_05_1074L_Elkwater.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.0983
0.38310
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1363
0.62710
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.1338
0.37660
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.1033
0.16710
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER
FILE: Scn3_SL_05_1074L_Elkwater.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.0464
-0.4222
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
2.6623
-0.8875
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.1147
-0.4310
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
3.3208
-0.4513
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.6123
-0.1975
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.1382
-0.4361
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER
FILE: Scn3_SL_05_1074L_Elkwater.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2000
-0.0415
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.0953
0.24690
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1415
0.65030
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.1344
0.37710
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.1335
0.37640
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.1121
0.36180
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER

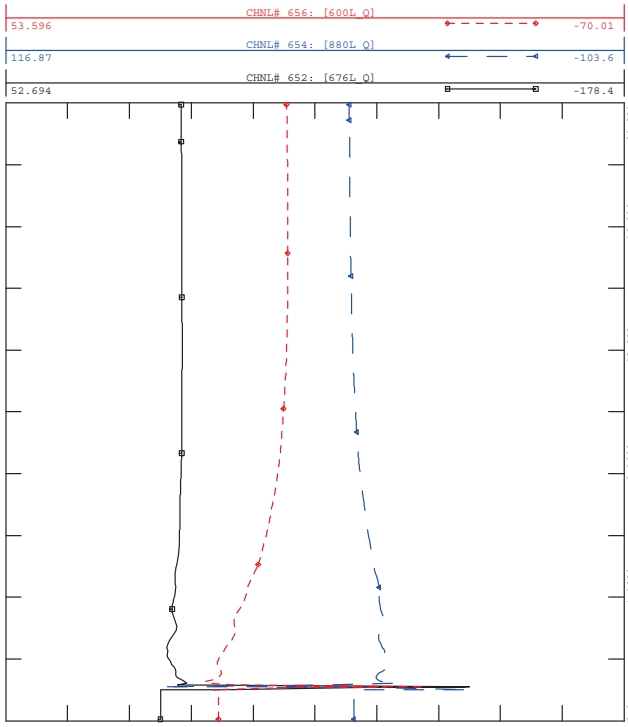
FILE: Scn3_SL_05_1074L_Elkwater.out



MON, JAN 15 2024 11:38 BRANCH Q

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER

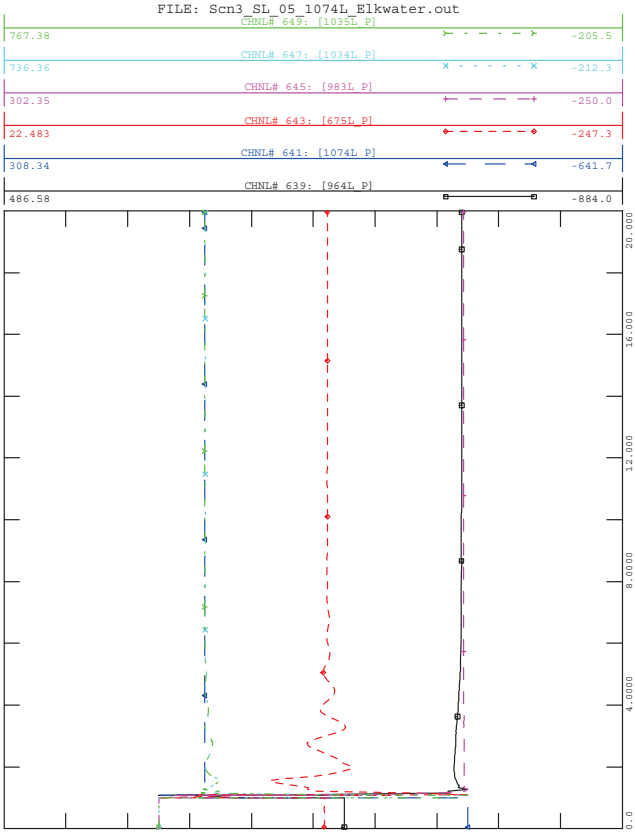
FILE: Scn3_SL_05_1074L_Elkwater.out



MON, JAN 15 2024 11:38 BRANCH Q

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER

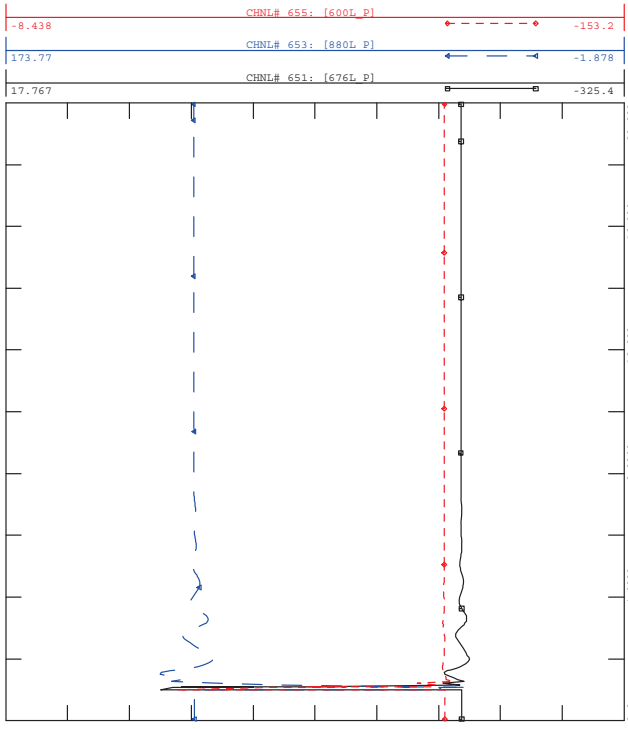
FILE: Scn3_SL_05_1074L_Elkwater.out



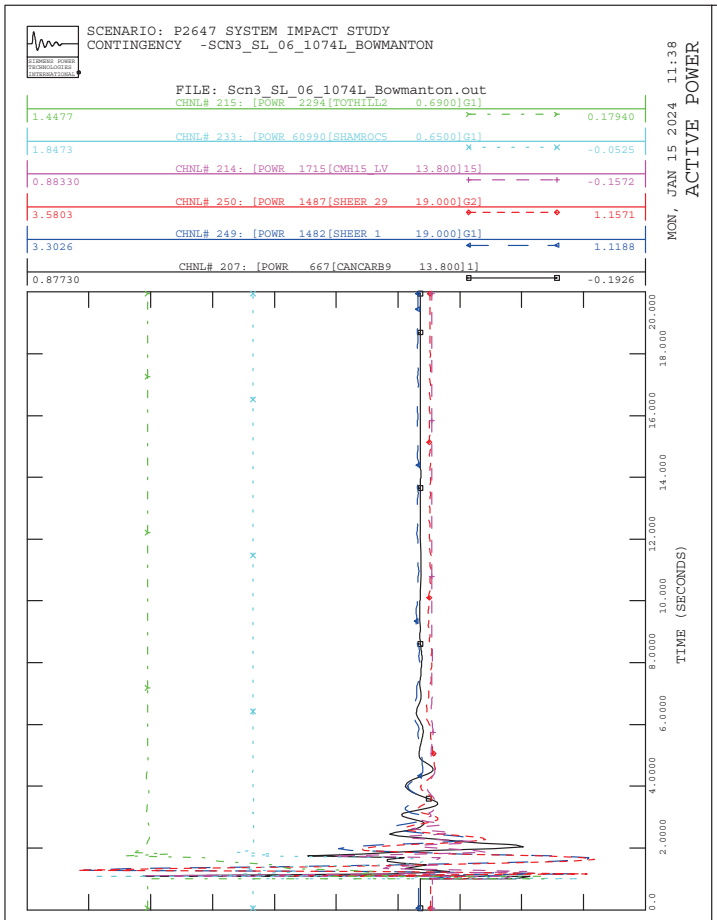
MON, JAN 15 2024 11:38 BRANCH P

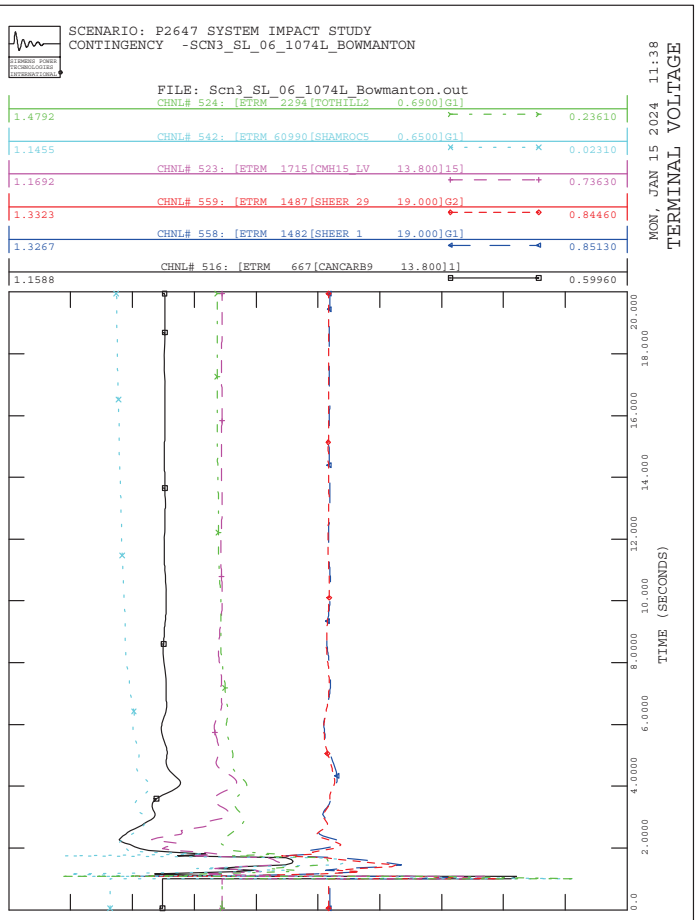
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_05_1074L_ELKWATER

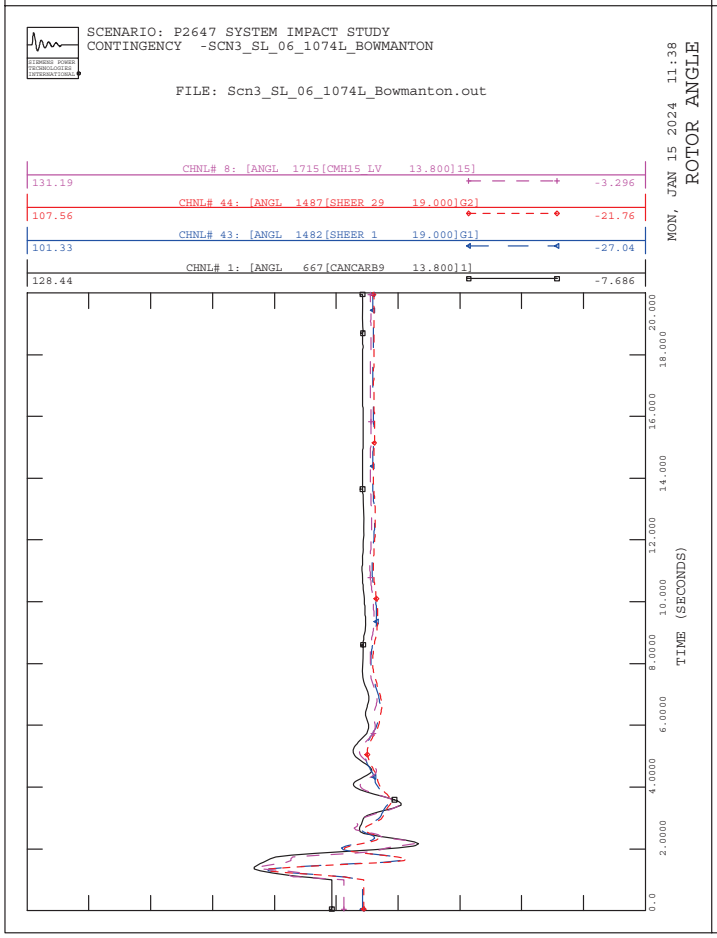
FILE: Scn3_SL_05_1074L_Elkwater.out

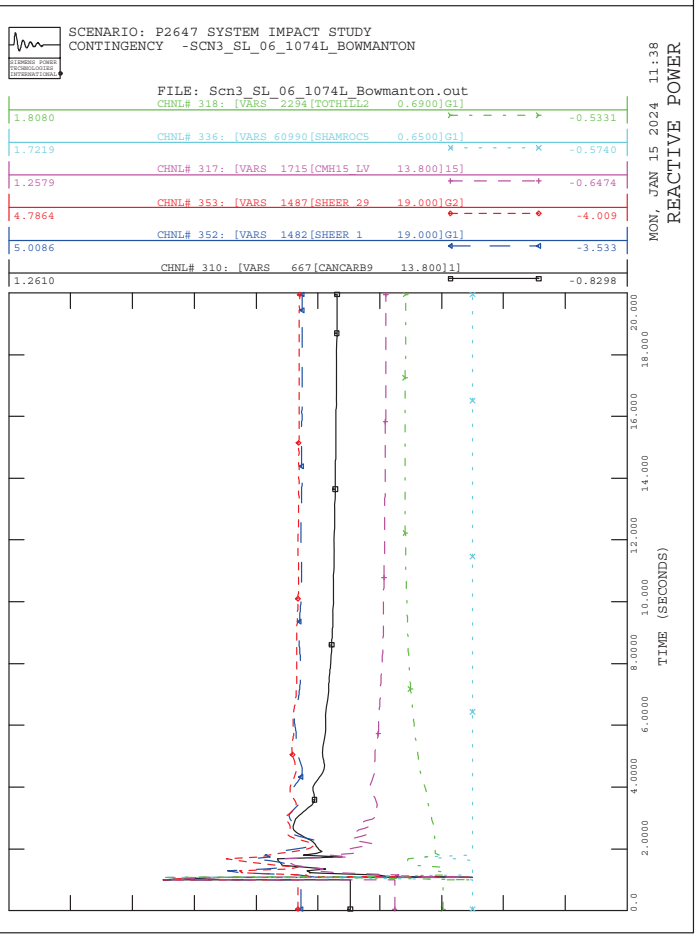


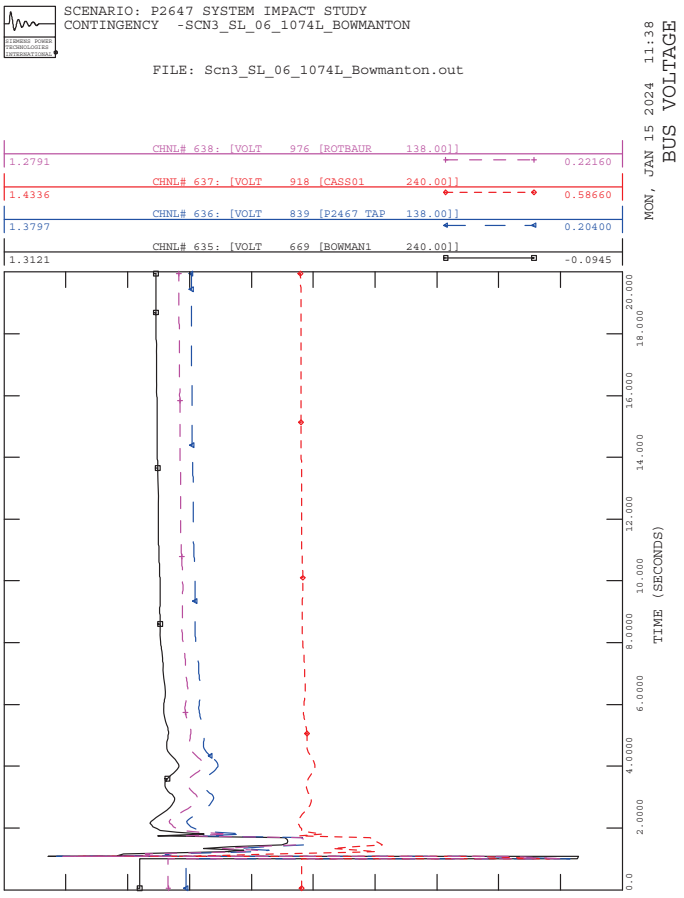
MON, JAN 15 2024 11:38 BRANCH P

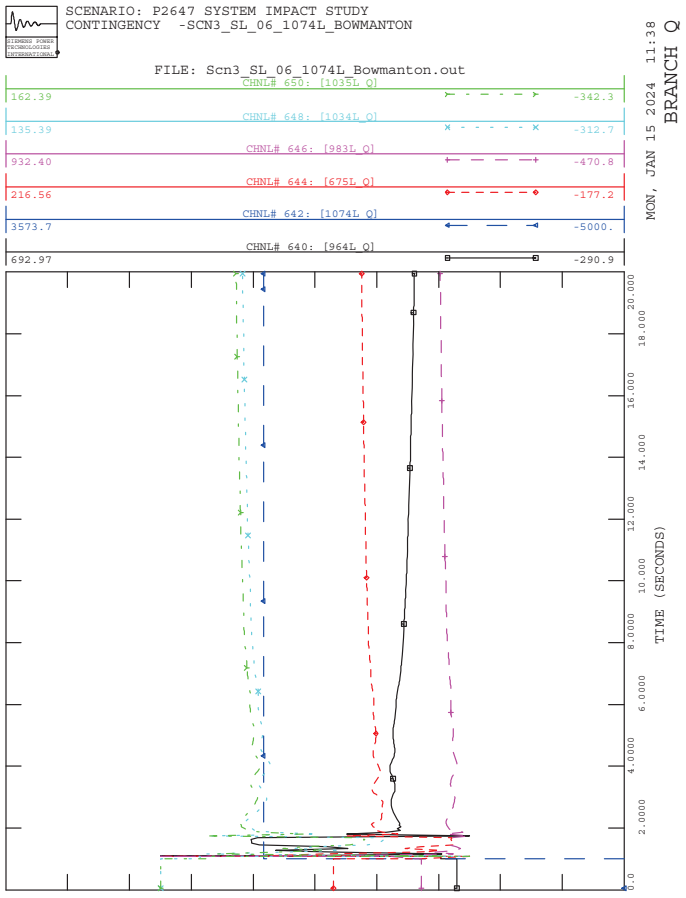

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4477
0.17940
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.8473
-0.0525
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.88330
-0.1572
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.5803
1.1571
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.3026
1.1188
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.87730
-0.1926
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

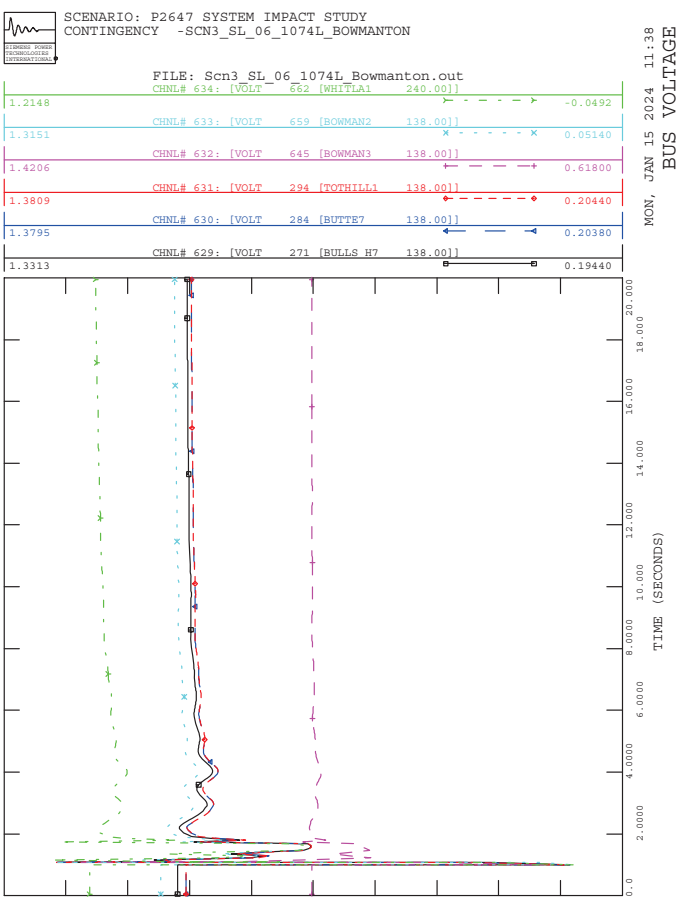

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.4792
0.23610
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1455
0.02310
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1692
0.73630
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.3323
0.84460
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.3267
0.85130
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1588
0.59960
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

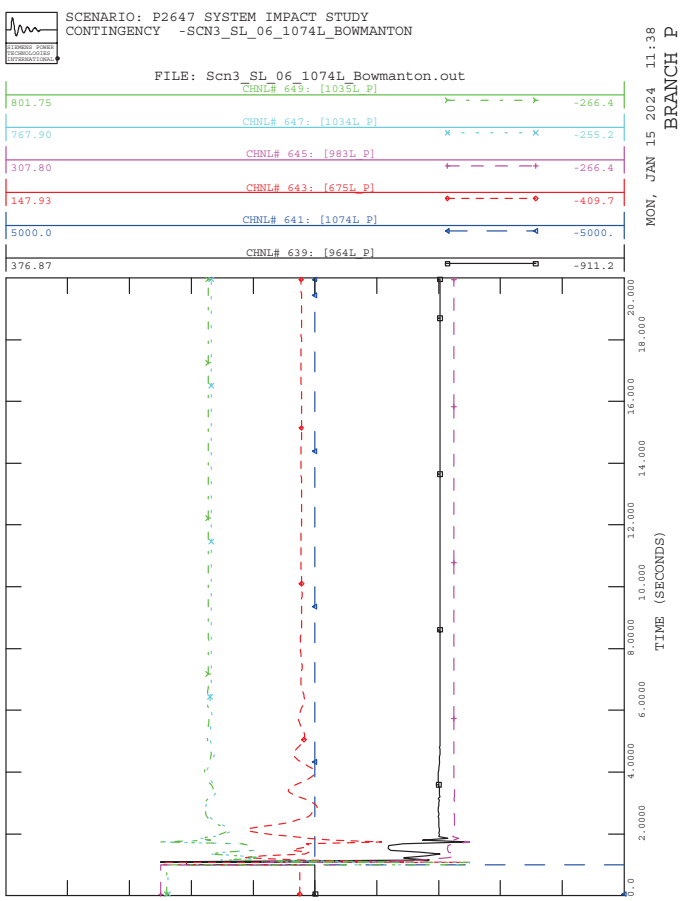

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
131.19
-3.296
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
107.56
-21.76
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
101.33
-27.04
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
128.44
-7.686
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.8080
-0.5331
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.7219
-0.5740
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.2579
-0.6474
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
4.7864
-4.009
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
5.0086
-3.533
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.2610
-0.8298
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.2791
0.22160
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.4336
0.58660
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.3797
0.20400
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.3121
-0.0945
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 650: [1035L Q]
162.39
-342.3
CHNL# 648: [1034L Q]
135.39
-312.7
CHNL# 646: [983L Q]
932.40
-470.8
CHNL# 644: [675L Q]
216.56
-177.2
CHNL# 642: [1074L Q]
3573.7
-5000.
CHNL# 640: [964L Q]
692.97
-290.9
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2148
-0.0492
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.3151
0.05140
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.4206
0.61800
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.3809
0.20440
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.3795
0.20380
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.3313
0.19440
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON
FILE: Scn3_SL_06_1074L_Bowmanton.out
CHNL# 649: [1035L P]
801.75
-266.4
CHNL# 647: [1034L P]
767.90
-255.2
CHNL# 645: [983L P]
307.80
-266.4
CHNL# 643: [675L P]
147.93
-409.7
CHNL# 641: [1074L P]
5000.0
-5000.
CHNL# 639: [964L P]
376.87
-911.2
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON

FILE: Scn3_SL_06_1074L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 656: [600L Q] 59.395 -122.3
CHNL# 654: [880L Q] 282.85 -143.3
CHNL# 652: [676L Q] 126.45 -251.8

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.4005 0.40980
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.6110 0.23340
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.70720 -0.3493
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 3.8261 0.19580
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 3.8137 0.03610
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.80270 -0.4746

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_06_1074L_BOWMANTON

FILE: Scn3_SL_06_1074L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 655: [600L P] 15.069 -158.9
CHNL# 653: [880L P] 214.84 -83.78
CHNL# 651: [676L P] 121.41 -397.9

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 267.55 -6.131
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 111.11 -40.31
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 105.27 -47.48
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 297.84 -17.59

TIME (SECONDS)

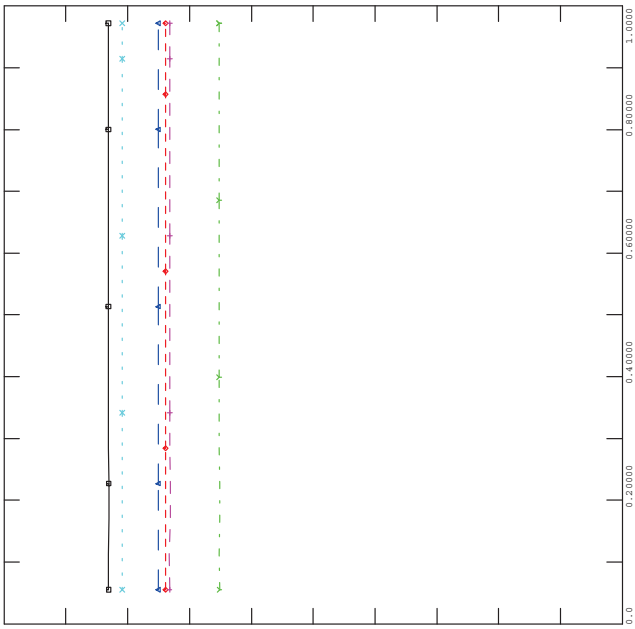
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1] 1.3144 0.55490
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1090 0.33840
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15] 1.1212 0.74390
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2] 1.2642 0.55890
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1] 1.2455 0.58270
CHNL# 516: [ETRM 667[CANCARB9 13.800]1] 1.1224 0.51660



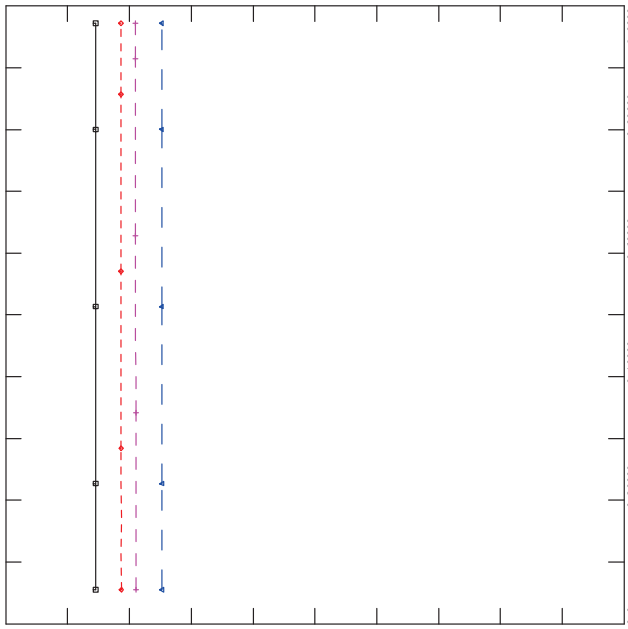
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]] 1.1756 0.33170
CHNL# 637: [VOLT 918 [CASS01 240.00]] 1.2766 -0.0659
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]] 1.2477 0.39950
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]] 1.1548 0.11350



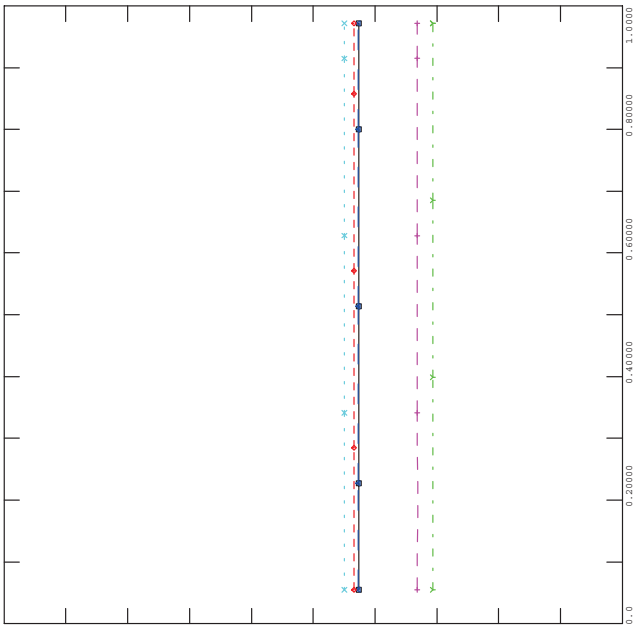
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1] 1.4086 -0.3887
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1] 0.61100 -0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15] 1.2785 -0.5311
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2] 7.4254 -4.511
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1] 7.9326 -4.223
CHNL# 310: [VARS 667[CANCARB9 13.800]1] 1.0627 -0.6064



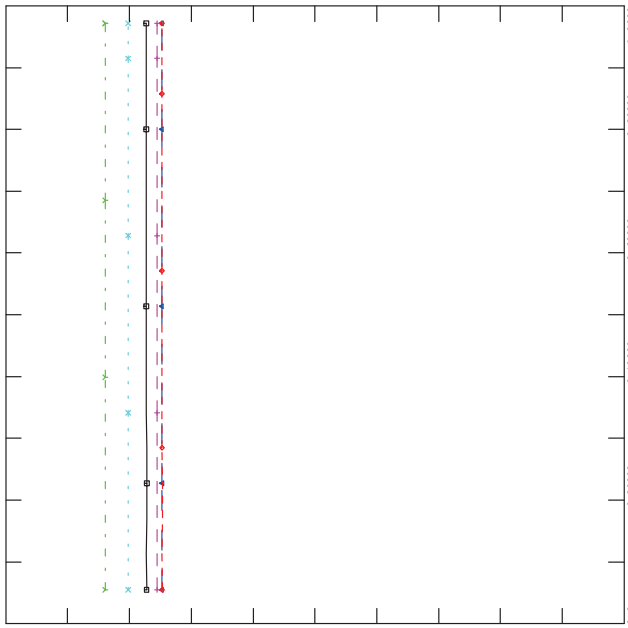
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]] 1.1826 0.29570
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]] 1.1797 0.24840
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]] 1.3206 0.09510
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]] 1.2486 0.40100
CHNL# 630: [VOLT 284 [BUTTE7 138.00]] 1.2474 0.39910
CHNL# 629: [VOLT 271 [BULLS H7 138.00]] 1.2106 0.33810



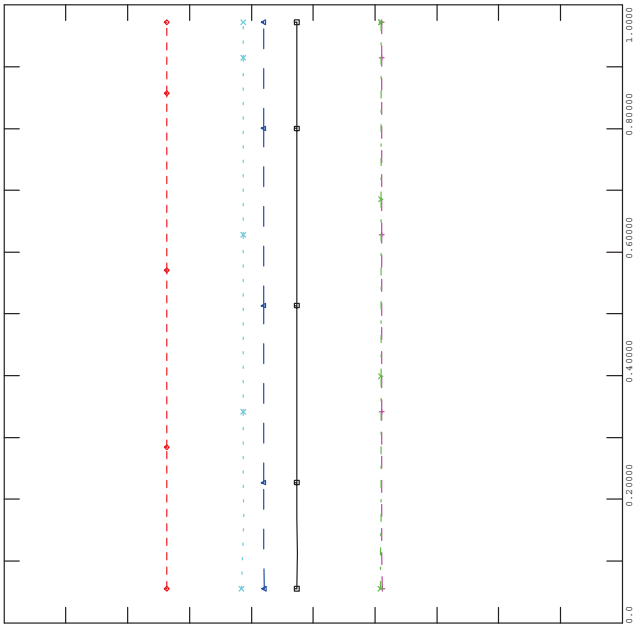
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 650: [1035L Q] 772.44 -436.0
CHNL# 648: [1034L Q] 64.233 -40.00
CHNL# 646: [983L Q] 96.761 -78.26
CHNL# 644: [675L Q] 70.576 -167.5
CHNL# 642: [1074L Q] 130.46 -362.6
CHNL# 640: [964L Q] 120.49 -186.5



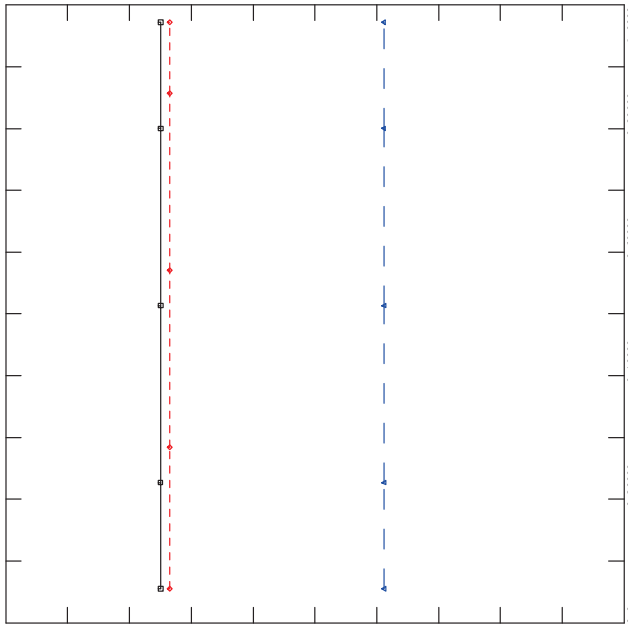
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 656: [600L Q] 51.072 -99.74
CHNL# 654: [880L Q] 122.63 -89.55
CHNL# 652: [676L Q] 63.167 -209.7



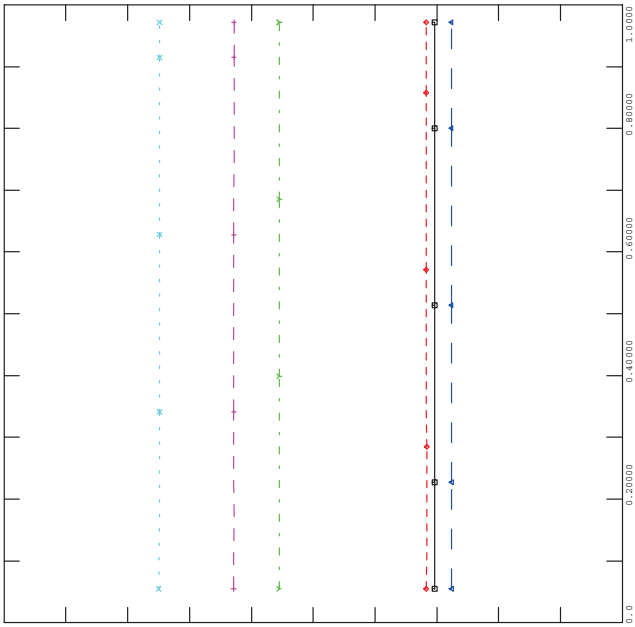
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 649: [1035L P] 1362.1 -519.0
CHNL# 647: [1034L P] 758.36 -252.8
CHNL# 645: [983L P] 306.58 -76.35
CHNL# 643: [675L P] 221.45 -274.5
CHNL# 641: [1074L P] 225.24 -644.8
CHNL# 639: [964L P] 147.45 -448.0



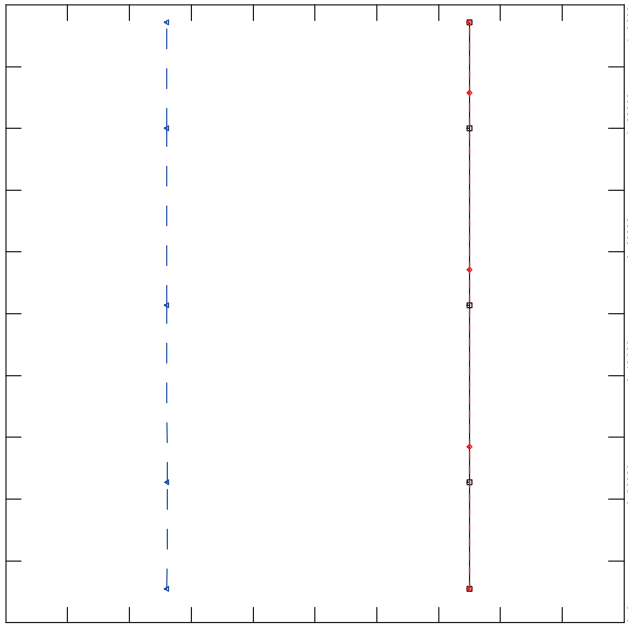
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_07_1034L_CASSILS

FILE: Scn3_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 655: [600L P] 16.603 -153.9
CHNL# 653: [880L P] 209.92 -134.6
CHNL# 651: [676L P] 136.87 -359.7



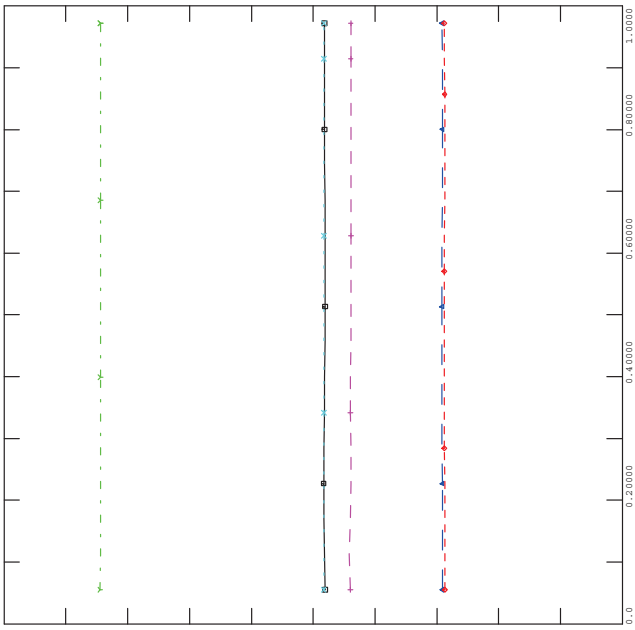
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4006 0.11450
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
2.4360 -0.0455
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.87400 -0.3258
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
4.4184 1.0231
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
4.2151 0.97540
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.85540 -0.4149



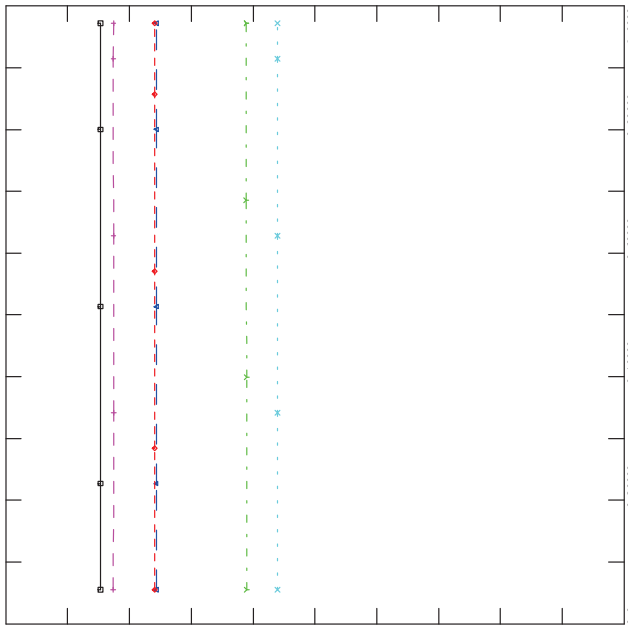
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.5670 0.23880
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.6919 0.02890
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1529 0.38980
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2409 0.57190
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2355 0.59720
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.2093 -0.0279



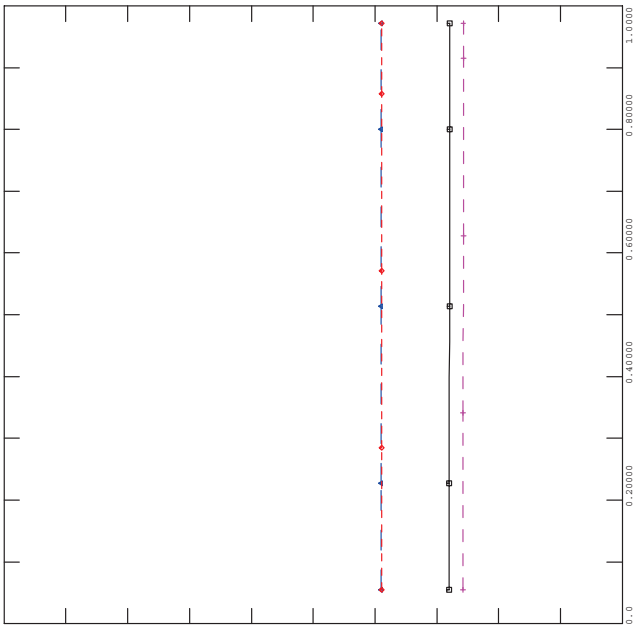
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
206.67 12.271
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
115.50 -12.87
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
109.68 -18.36
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
190.21 11.245



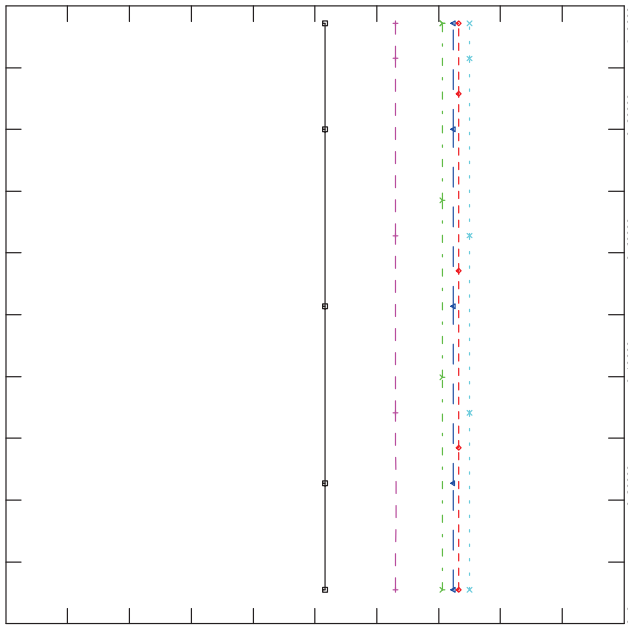
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.9350 -0.5748
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
2.9269 -0.9757
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
2.0891 -1.115
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
8.2043 -2.078
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
8.2102 -1.794
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.3304 -1.042

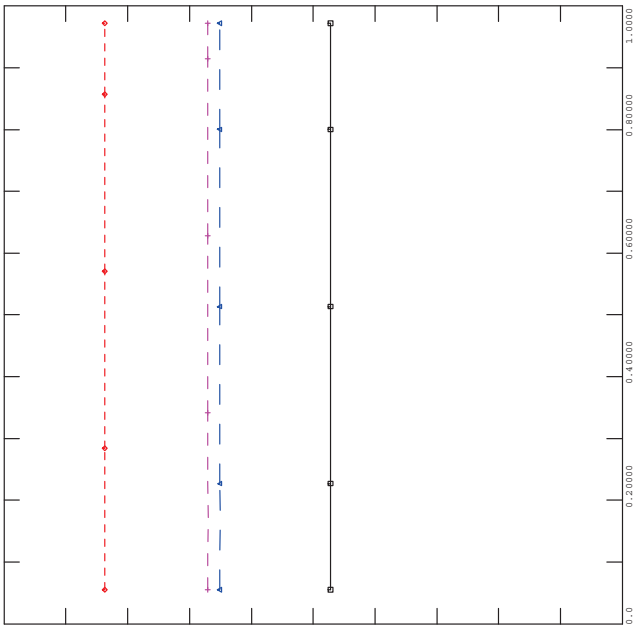


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.3790 0.22380
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.2045 0.10690
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.4772 0.20660
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
2.2310 -0.0940

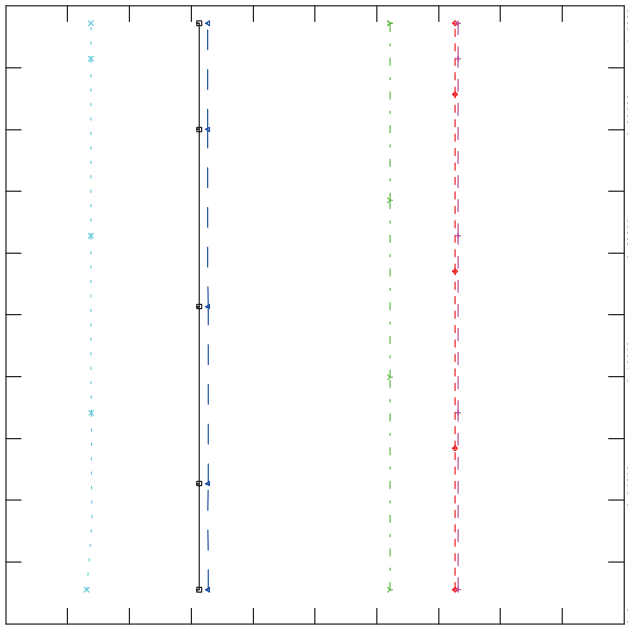


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 650: [1035L Q]
5000.0 -2988.
CHNL# 648: [1034L Q]
5000.0 -2041.
CHNL# 646: [983L Q]
4469.6 -1654.
CHNL# 644: [675L Q]
3448.9 -1288.
CHNL# 642: [1074L Q]
2314.5 -5000.
CHNL# 640: [964L Q]
2184.9 -4885.

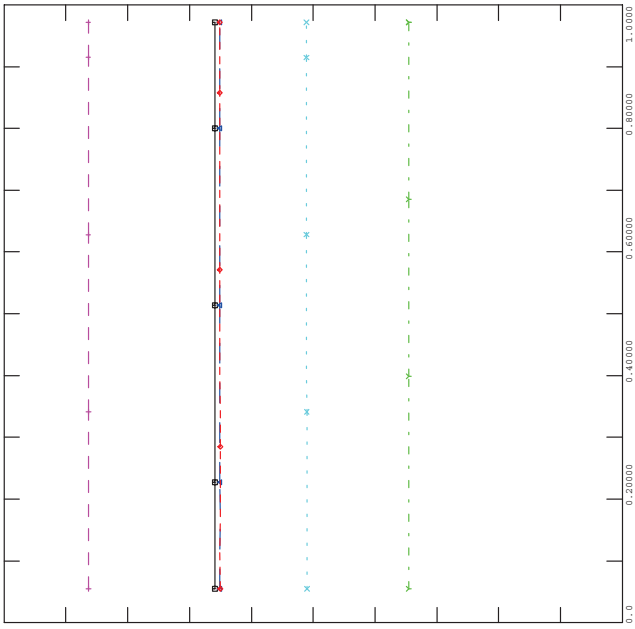


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
3.1882 -0.0951
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.8975 0.05400
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1861 -0.0278
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.4783 0.20700
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.4769 0.20640
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.4336 0.19670

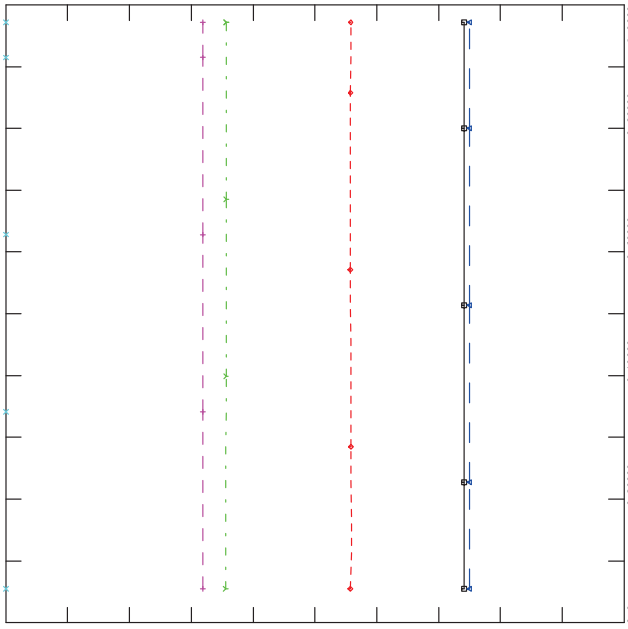


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 649: [1035L P]
1409.2 -1076.
CHNL# 647: [1034L P]
5000.0 -5000.
CHNL# 645: [983L P]
2581.4 -5000.
CHNL# 643: [675L P]
174.09 -348.2
CHNL# 641: [1074L P]
855.77 -824.7
CHNL# 639: [964L P]
3634.9 -1628.



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 656: [600L Q]
672.61 -373.2
CHNL# 654: [880L Q]
488.52 -212.1
CHNL# 652: [676L Q]
466.87 -1337.

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38 ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4005 0.36180
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.4688 0.19990
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.82030 -0.3784
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.5202 0.54950
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.3723 0.66160
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.72410 -0.4924

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_08_1034L_BOWMANTON

FILE: Scn3_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 655: [600L P]
50.065 -165.0
CHNL# 653: [880L P]
749.91 -359.1
CHNL# 651: [676L P]
1404.5 -3187.

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38 ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
210.55 12.288
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
112.06 -12.87
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
106.01 -18.35
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
200.25 11.269

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1] 1.3068 0.41100
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1124 0.24220
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15] 1.1251 0.74020
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2] 1.2808 0.58780
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1] 1.2714 0.60940
CHNL# 516: [ETRM 667[CANCARB9 13.800]1] 1.1213 0.60290

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]] 1.1581 0.33680
CHNL# 637: [VOLT 918 [CASS01 240.00]] 1.3628 -0.0158
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]] 1.2356 0.36050
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]] 1.1365 0.12930

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1] 1.3175 -0.4207
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1] 0.67570 -0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15] 1.1840 -0.5064
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2] 8.1479 -6.427
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1] 8.6578 -6.054
CHNL# 310: [VARS 667[CANCARB9 13.800]1] 1.1820 -0.5696

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]] 1.1832 0.20800
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]] 1.1518 0.22320
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]] 1.4344 0.05880
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]] 1.2366 0.36120
CHNL# 630: [VOLT 284 [BUTTE7 138.00]] 1.2353 0.36030
CHNL# 629: [VOLT 271 [BULLS H7 138.00]] 1.1958 0.33600

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 650: [1035L Q]
5000.0 -2658.

CHNL# 648: [1034L Q]
888.66 -810.0

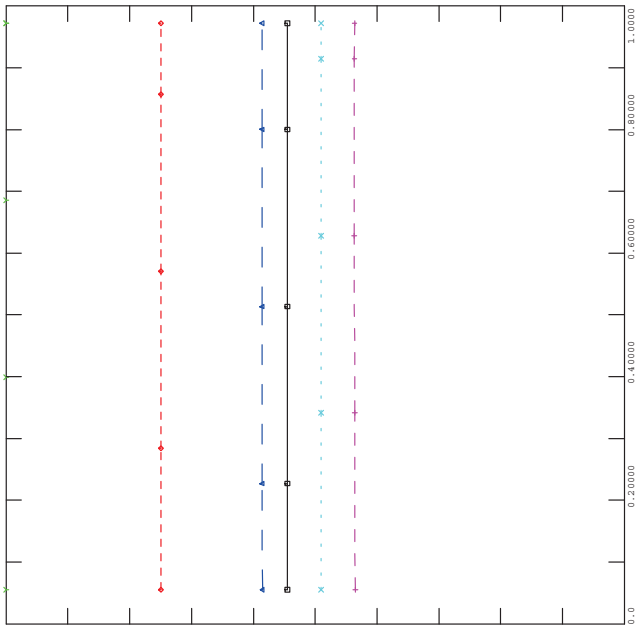
CHNL# 646: [983L Q]
91.399 -88.76

CHNL# 644: [675L Q]
60.465 -149.2

CHNL# 642: [1074L Q]
185.01 -446.8

CHNL# 640: [964L Q]
129.06 -209.3

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

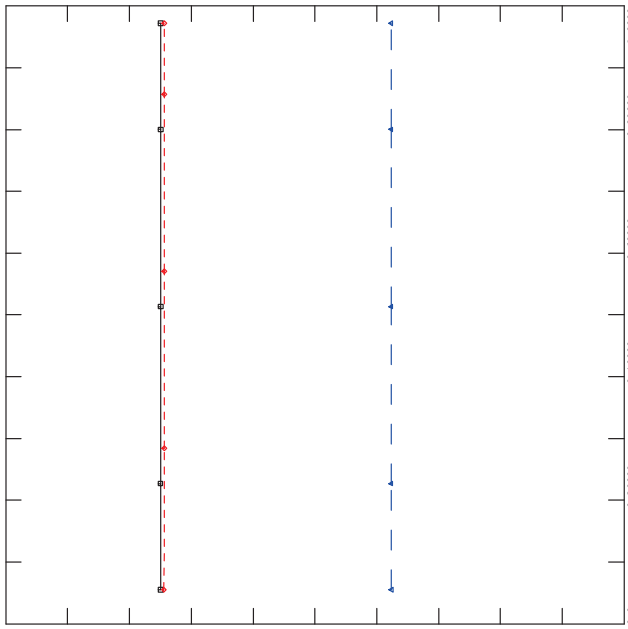
BRANCH Q

CHNL# 656: [600L Q]
51.072 -105.3

CHNL# 654: [880L Q]
141.19 -96.92

CHNL# 652: [676L Q]
72.060 -236.4

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 649: [1035L P]
5000.0 -5000.

CHNL# 647: [1034L P]
1373.5 -421.8

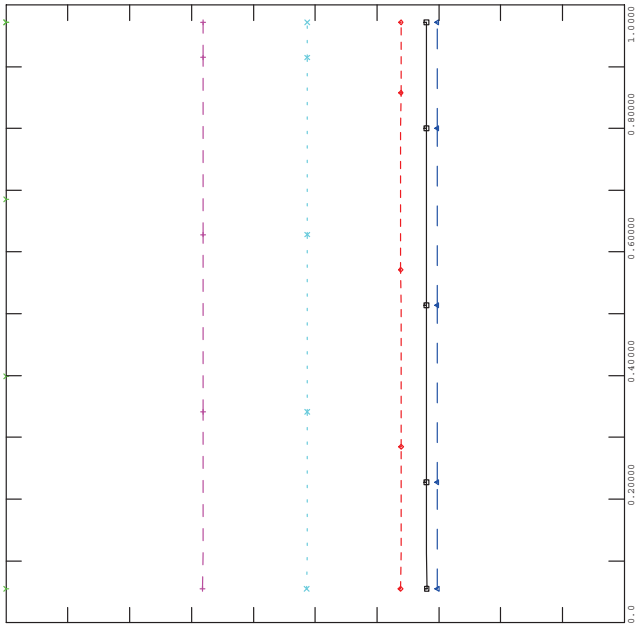
CHNL# 645: [983L P]
285.04 -94.48

CHNL# 643: [675L P]
237.53 -318.0

CHNL# 641: [1074L P]
161.31 -650.2

CHNL# 639: [964L P]
101.52 -440.8

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_09_1035L_NEWELL

FILE: Scn3_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:38

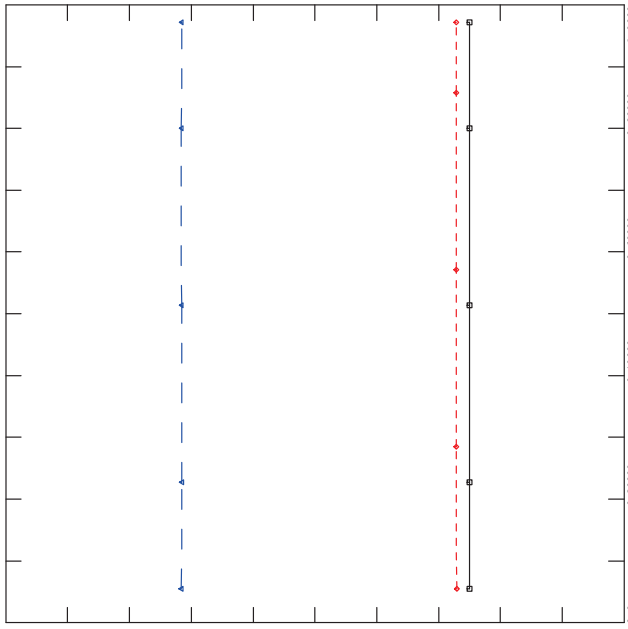
BRANCH P

CHNL# 655: [600L P]
-3.642 -151.3

CHNL# 653: [880L P]
179.47 -29.19

CHNL# 651: [676L P]
159.72 -367.3

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4006 0.18280

CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
2.4403 -0.0454

CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.62470 -0.1992

CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.8032 0.68290

CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.4619 0.34730

CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.74860 -0.3964

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.5647 0.23880

CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.6925 0.02900

CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1524 0.63910

CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2536 0.84370

CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2486 0.85050

CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.2084 0.32410

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
271.68 -7.534

CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
109.08 -40.18

CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
102.57 -47.01

CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
304.93 -19.99

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.9358 -0.5751

CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
2.9390 -1.013

CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.6352 -0.9609

CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
3.6011 -0.4112

CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.9285 -0.2486

CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.3295 -1.039

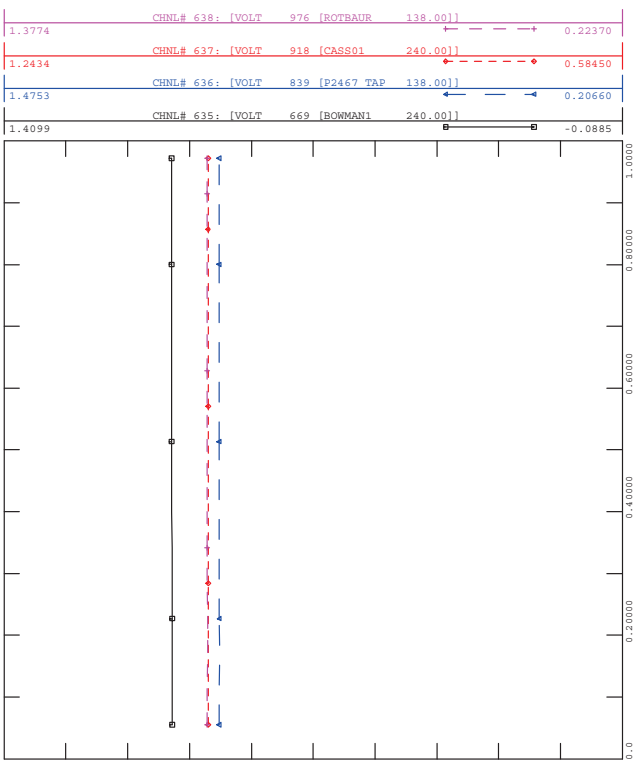
TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

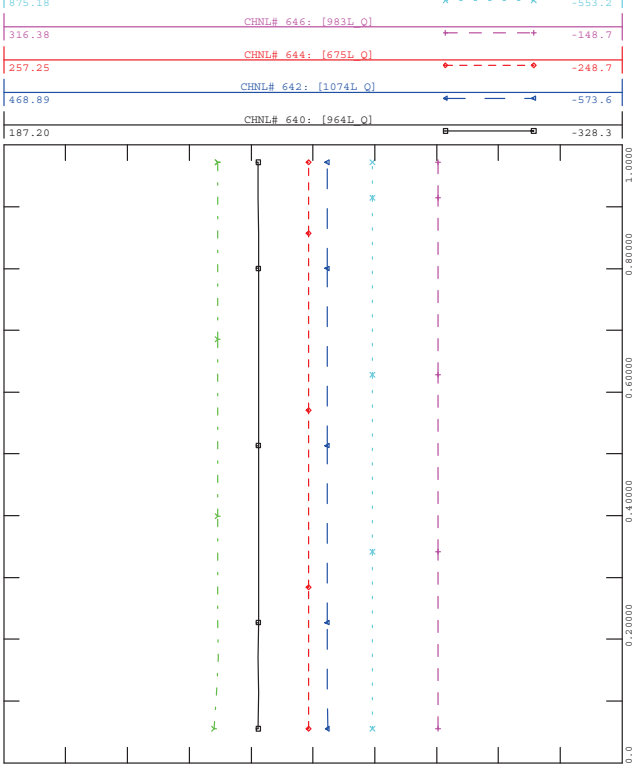


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH Q

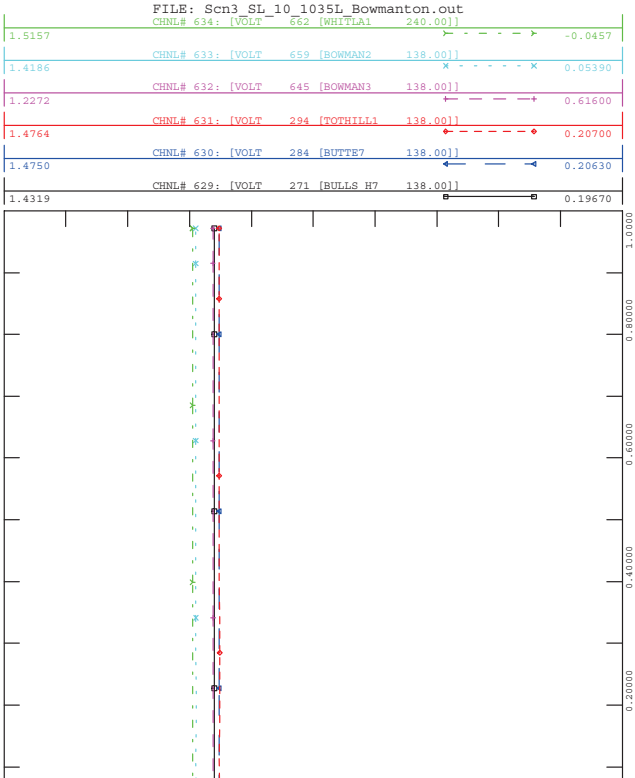


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

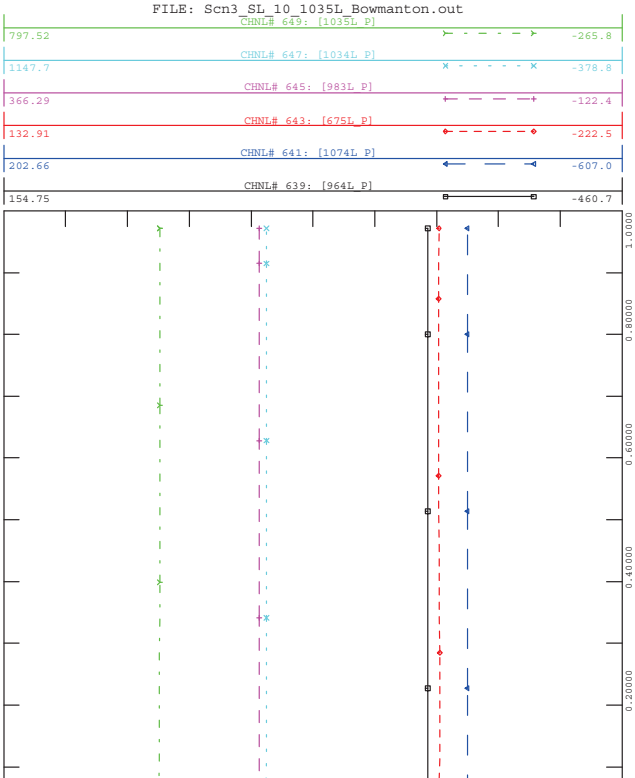


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH P



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 656: [600L Q] 72.457 -173.1
CHNL# 654: [880L Q] 308.32 -152.0
CHNL# 652: [676L Q] 116.77 -250.1

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD

FILE: Scn3_SL_11_676L_Bullshead.out

MON, JAN 15 2024 11:38 ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.4006 -0.1971
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.8934 0.48750
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.50960 -0.1009
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 2.6707 1.5213
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 2.6127 1.4186
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.50190 -0.1564

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_10_1035L_BOWMANTON

FILE: Scn3_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 655: [600L P] 24.702 -156.6
CHNL# 653: [880L P] 219.93 -152.2
CHNL# 651: [676L P] 111.72 -351.4

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD

FILE: Scn3_SL_11_676L_Bullshead.out

MON, JAN 15 2024 11:38 ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 112.33 -19.74
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 87.896 -18.07
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 82.494 -23.40
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 111.32 -22.11

TIME (SECONDS)

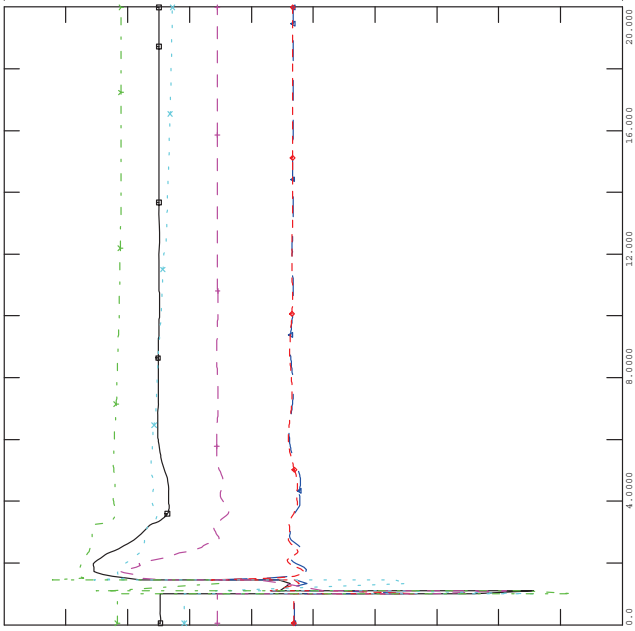
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD

FILE: Scn3_SL_11_676L_Bullshead.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1] 1.2839 0.00870
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1627 0.47350
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15] 1.2035 0.67160
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2] 1.2207 0.92050
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1] 1.2187 0.92310
CHNL# 516: [ETRM 667[CANCARB9 13.800]1] 1.1953 0.50220



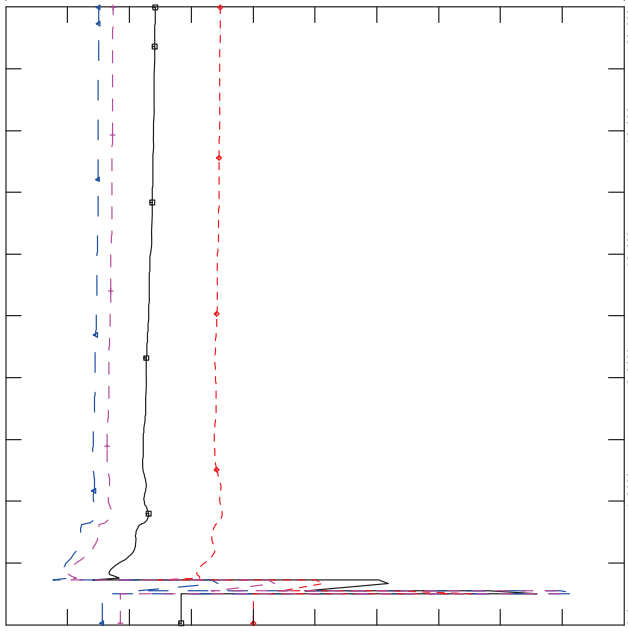
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD

FILE: Scn3_SL_11_676L_Bullshead.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]] 1.1884 0.16410
CHNL# 637: [VOLT 918 [CASS01 240.00]] 1.1881 0.78300
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]] 1.2379 -0.0732
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]] 1.2050 0.49480



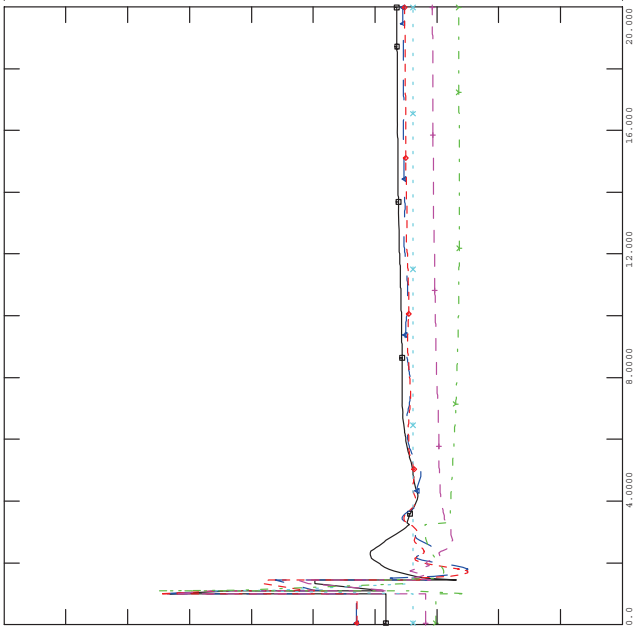
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD

FILE: Scn3_SL_11_676L_Bullshead.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1] 2.1528 -0.6951
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1] 0.97680 -0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15] 1.3124 -0.5105
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2] 2.2037 -0.4807
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1] 2.4729 -0.1640
CHNL# 310: [VARS 667[CANCARB9 13.800]1] 1.2562 -0.6067



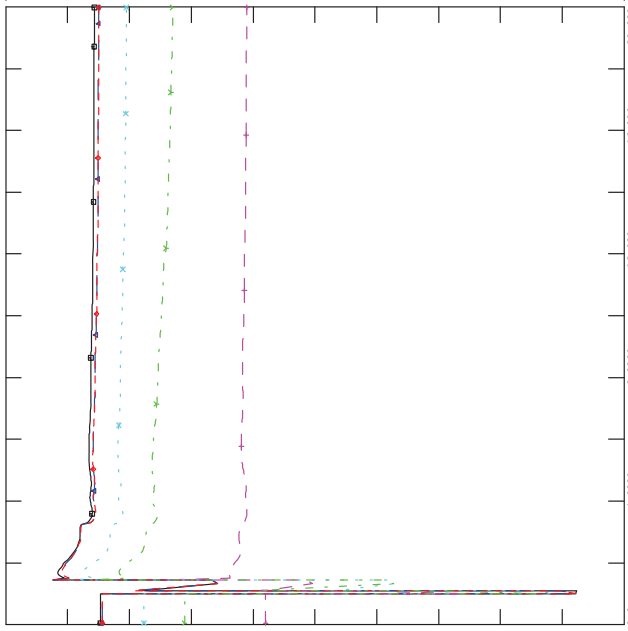
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD

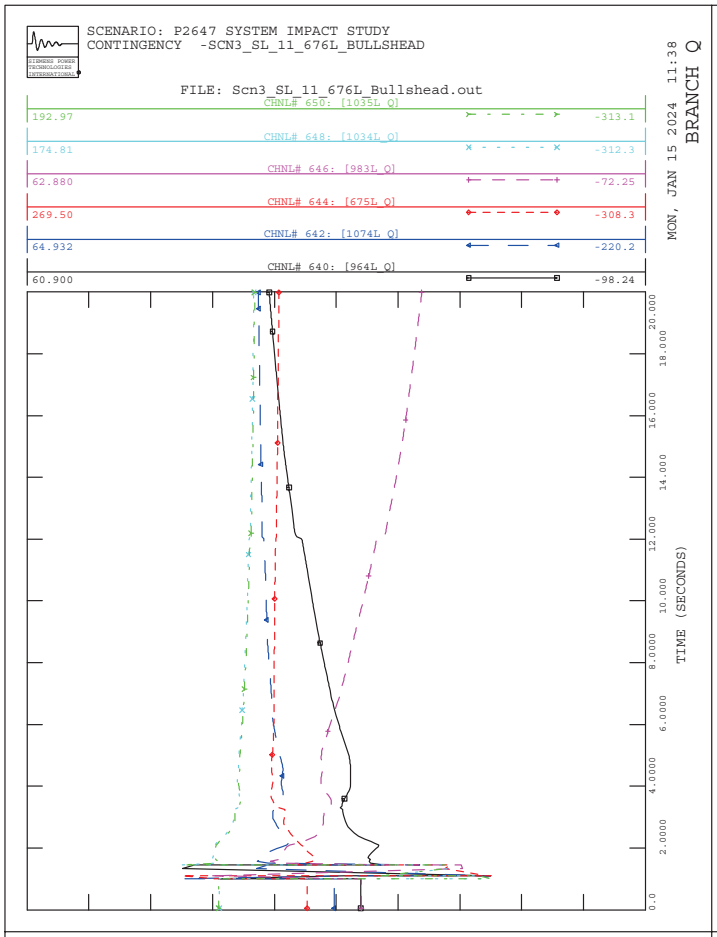
FILE: Scn3_SL_11_676L_Bullshead.out

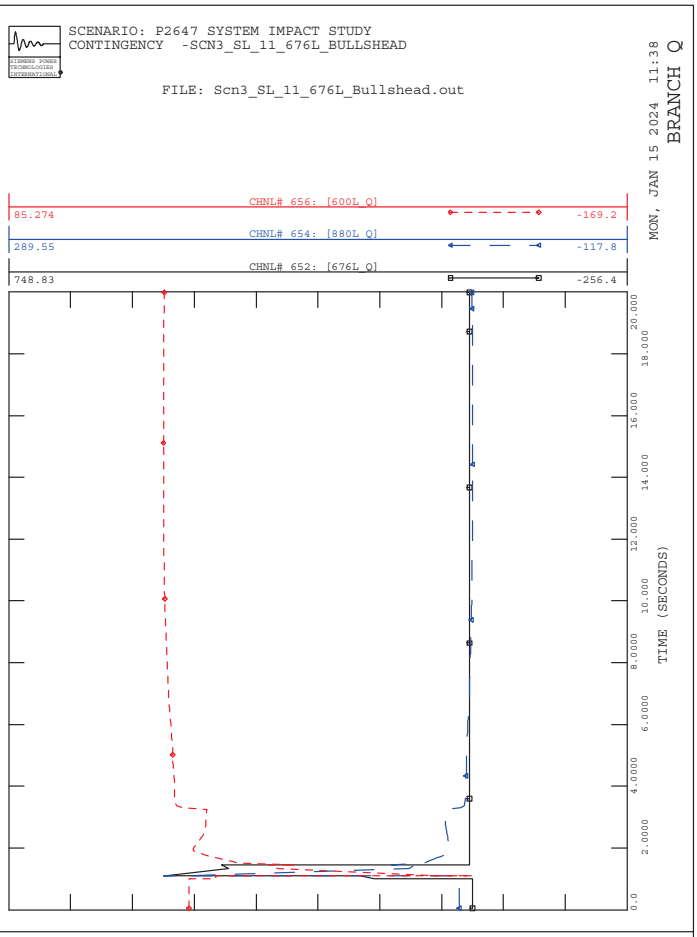
MON, JAN 15 2024 11:38

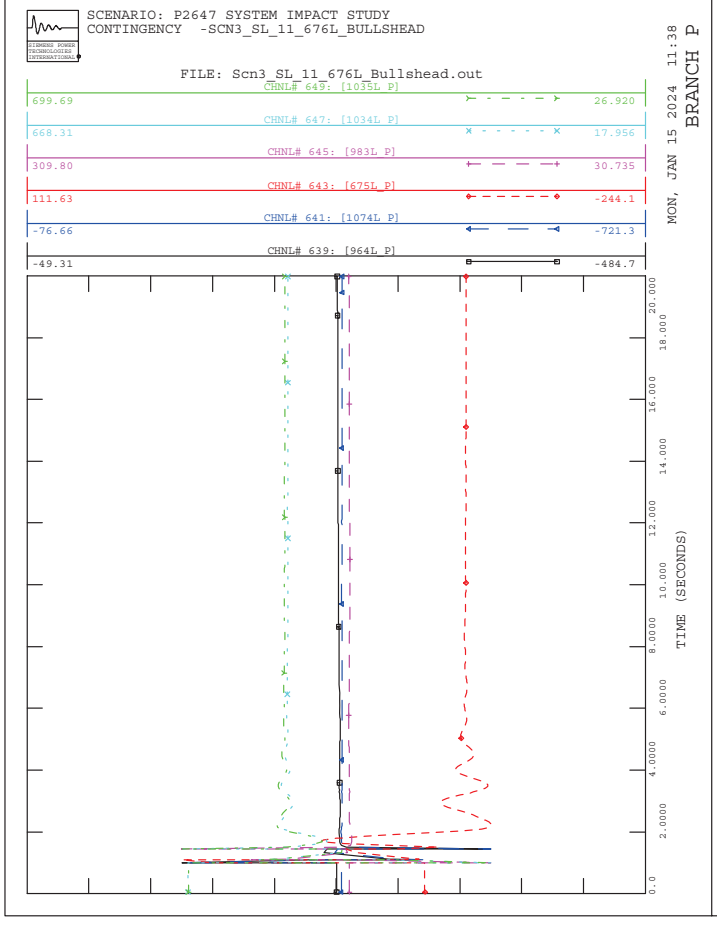
BUS VOLTAGE

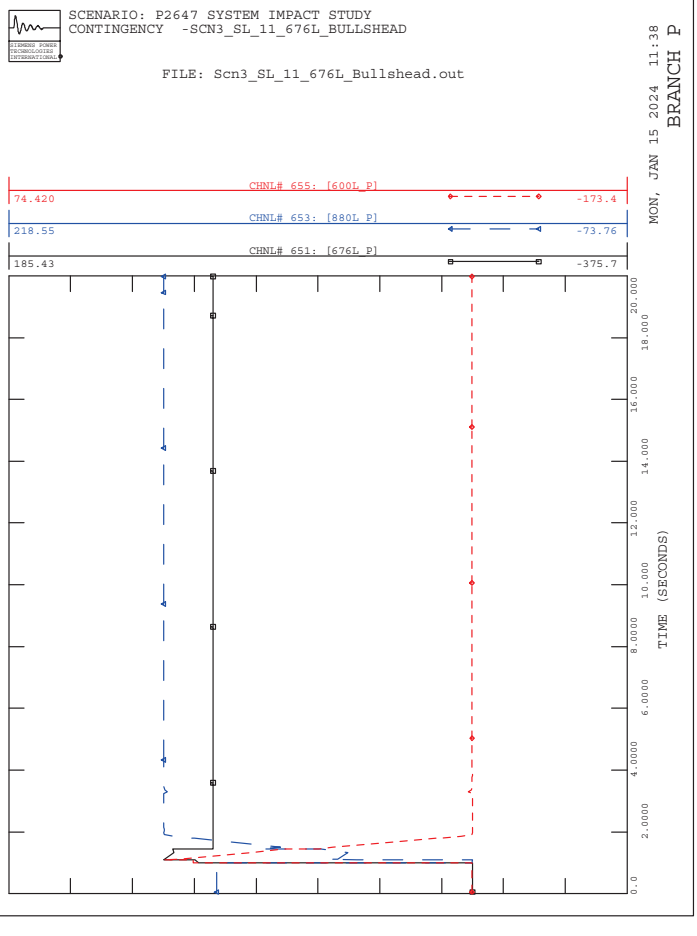
CHNL# 634: [VOLT 662 [WHITLA1 240.00]] 1.2529 0.51580
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]] 1.1952 0.29820
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]] 1.1863 0.79260
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]] 1.2386 -0.0725
CHNL# 630: [VOLT 284 [BUTTE7 138.00]] 1.2377 -0.0732
CHNL# 629: [VOLT 271 [BULLS H7 138.00]] 1.2120 -0.0949

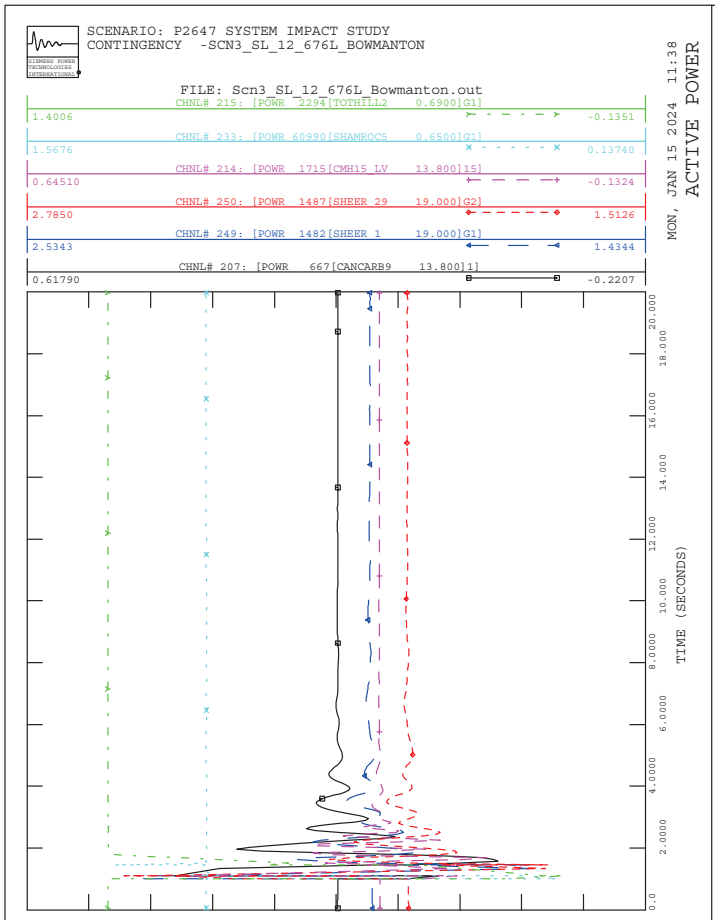


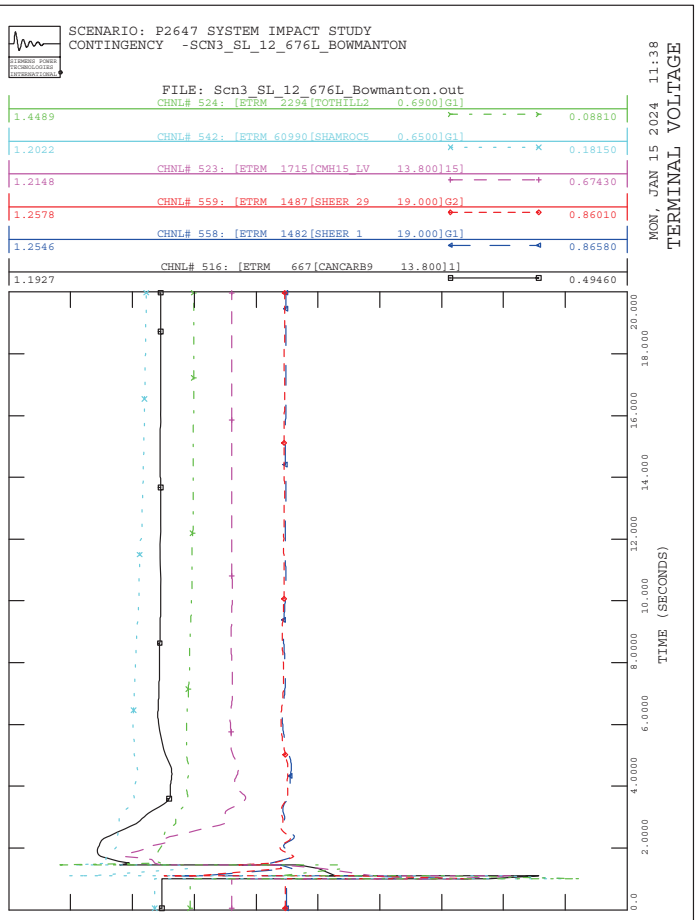

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD
FILE: Scn3_SL_11_676L_Bullshead.out
MON, JAN 15 2024 11:38
BRANCH Q
CHNL# 650: [1035L Q]
192.97
-313.1
CHNL# 648: [1034L Q]
174.81
-312.3
CHNL# 646: [983L Q]
62.880
-72.25
CHNL# 644: [675L Q]
269.50
-308.3
CHNL# 642: [1074L Q]
64.932
-220.2
CHNL# 640: [964L Q]
60.900
-98.24
TIME (SECONDS)

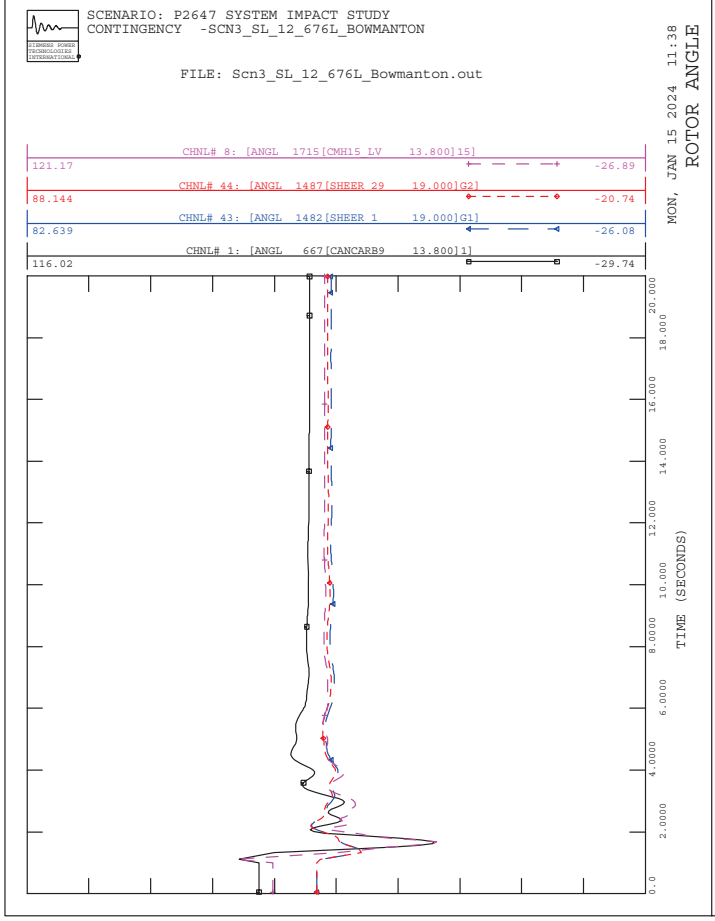

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD
FILE: Scn3_SL_11_676L_Bullshead.out
MON, JAN 15 2024 11:38
BRANCH Q
CHNL# 656: [600L Q]
85.274
-169.2
CHNL# 654: [880L Q]
289.55
-117.8
CHNL# 652: [676L Q]
748.83
-256.4
TIME (SECONDS)

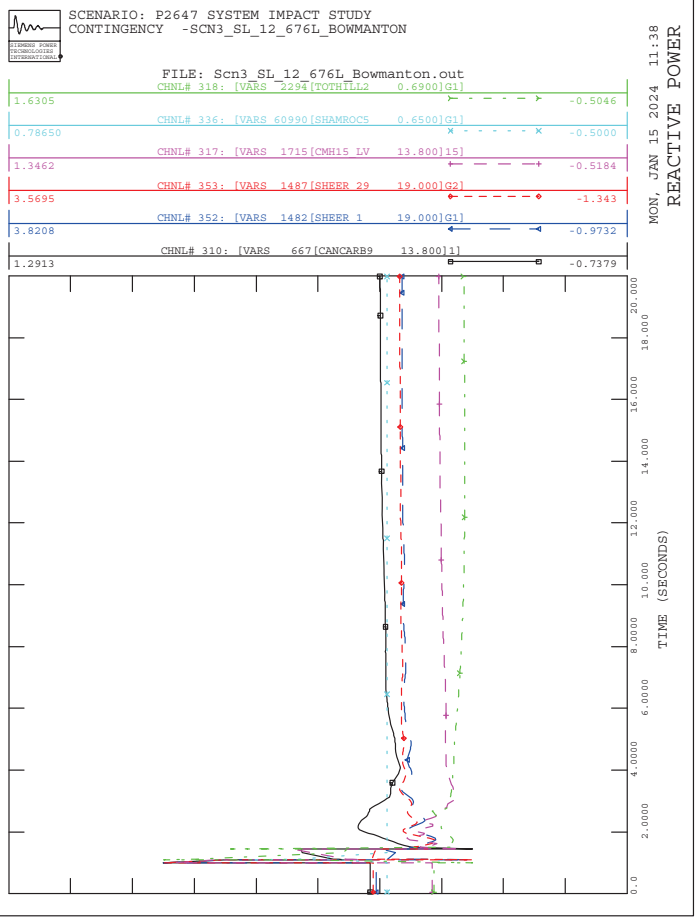

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD
FILE: Scn3_SL_11_676L_Bullshead.out
MON, JAN 15 2024 11:38
BRANCH P
CHNL# 649: [1035L P]
699.69
26.920
CHNL# 647: [1034L P]
668.31
17.956
CHNL# 645: [983L P]
309.80
30.735
CHNL# 643: [675L P]
111.63
-244.1
CHNL# 641: [1074L P]
-76.66
-721.3
CHNL# 639: [964L P]
-49.31
-484.7
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_11_676L_BULLSHEAD
FILE: Scn3_SL_11_676L_Bullshead.out
MON, JAN 15 2024 11:38
BRANCH P
CHNL# 655: [600L P]
74.420
-173.4
CHNL# 653: [880L P]
218.55
-73.76
CHNL# 651: [676L P]
185.43
-375.7
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON
FILE: Scn3_SL_12_676L_Bowmanton.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4006
-0.1351
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.5676
0.13740
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.64510
-0.1324
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
2.7850
1.5126
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
2.5343
1.4344
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.61790
-0.2207
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON
FILE: Scn3_SL_12_676L_Bowmanton.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.4489
0.08810
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2022
0.18150
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.2148
0.67430
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2578
0.86010
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2546
0.86580
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1927
0.49460
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON
FILE: Scn3_SL_12_676L_Bowmanton.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
121.17
-26.89
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
88.144
-20.74
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
82.639
-26.08
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
116.02
-29.74
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON
FILE: Scn3_SL_12_676L_Bowmanton.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.6305
-0.5046
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.78650
-0.5000
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.3462
-0.5184
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
3.5695
-1.343
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.8208
-0.9732
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.2913
-0.7379
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

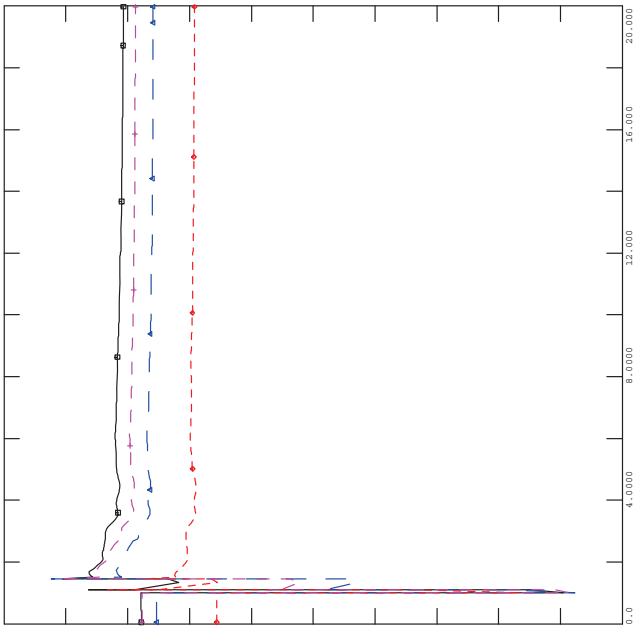
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON

FILE: Scn3_SL_12_676L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]] 1.2555 0.10510
CHNL# 637: [VOLT 918 [CASS01 240.00]] 1.2314 0.63430
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]] 1.3562 0.04940
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]] 1.2371 0.18300



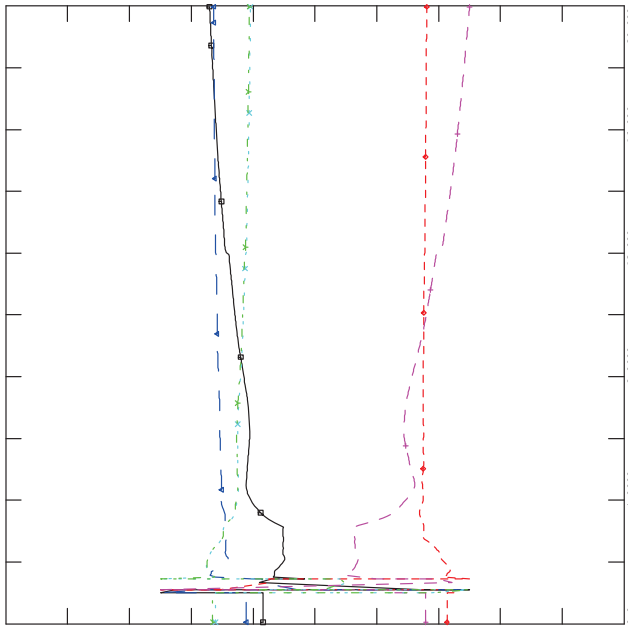
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON

FILE: Scn3_SL_12_676L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 650: [1035L Q] 201.62 -292.7
CHNL# 648: [1034L Q] 184.56 -290.9
CHNL# 646: [983L Q] 113.33 -68.44
CHNL# 644: [675L Q] 577.38 -220.6
CHNL# 642: [1074L Q] 179.04 -478.4
CHNL# 640: [964L Q] 86.620 -181.7



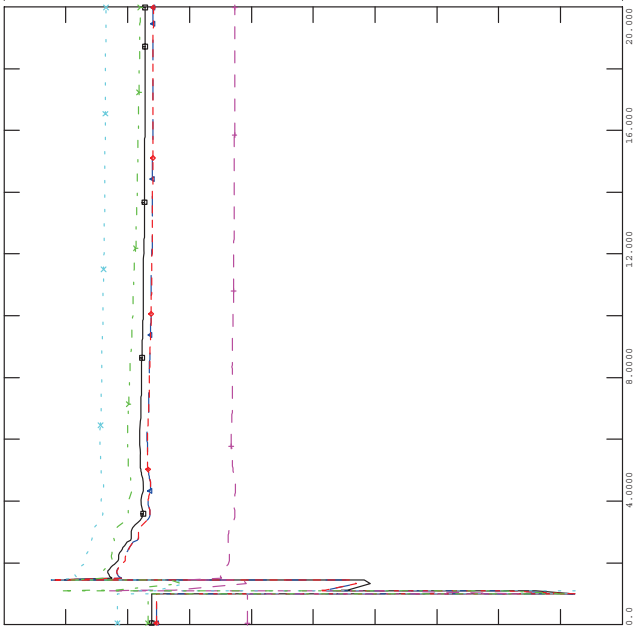
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON

FILE: Scn3_SL_12_676L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]] 1.2986 0.18750
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]] 1.2398 -0.0945
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]] 1.2563 0.65780
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]] 1.3573 0.04950
CHNL# 630: [VOLT 284 [BUTTE7 138.00]] 1.3560 0.04920
CHNL# 629: [VOLT 271 [BULLS H7 138.00]] 1.3120 0.05530



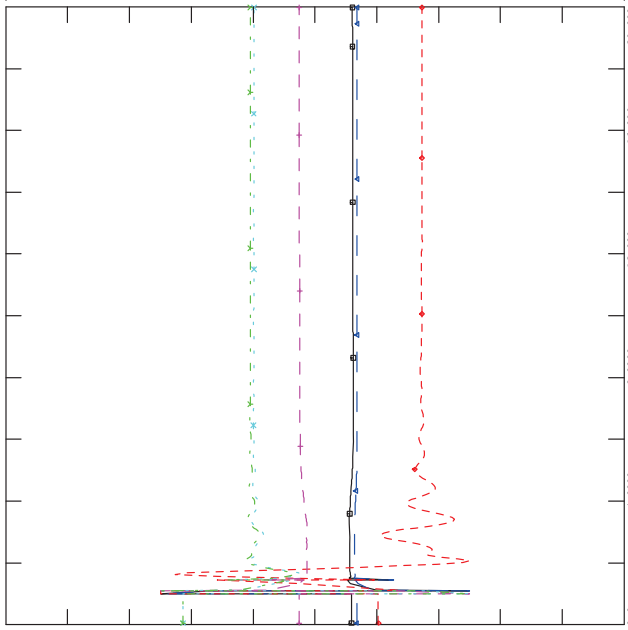
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON

FILE: Scn3_SL_12_676L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 649: [1035L P] 799.56 -160.6
CHNL# 647: [1034L P] 763.34 -157.2
CHNL# 645: [983L P] 368.43 -61.65
CHNL# 643: [675L P] 81.578 -248.8
CHNL# 641: [1074L P] 154.22 -830.0
CHNL# 639: [964L P] 101.88 -557.9



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON

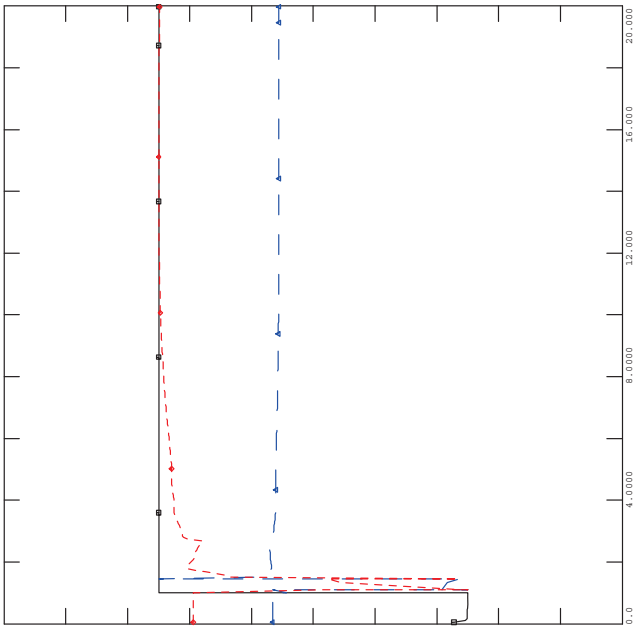
FILE: Scn3_SL_12_676L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 656: [600L Q] 69.165 -120.9
CHNL# 654: [880L Q] 365.19 -492.2
CHNL# 652: [676L Q] 222.95 -668.9

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE

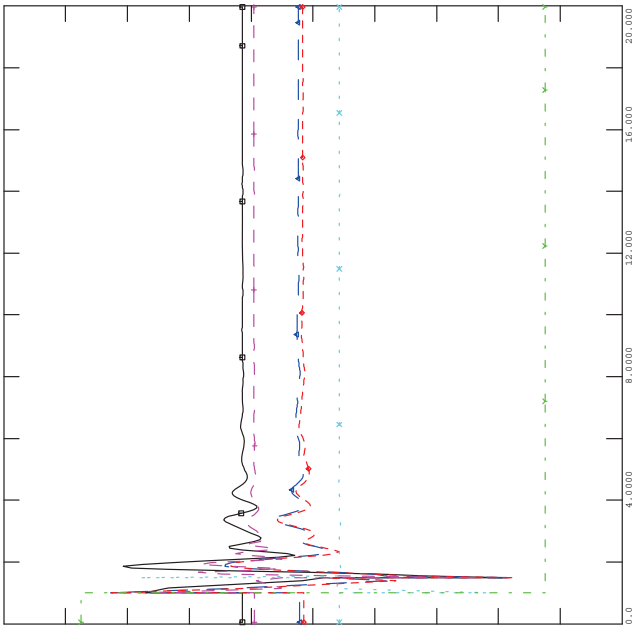
FILE: Scn3_SL_13_600L_PeaceButte.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.4000 -0.2000
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.6507 0.73320
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.55190 -0.3129
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 2.5574 1.4074
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 2.4813 1.3078
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.59610 -0.4383

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_12_676L_BOWMANTON

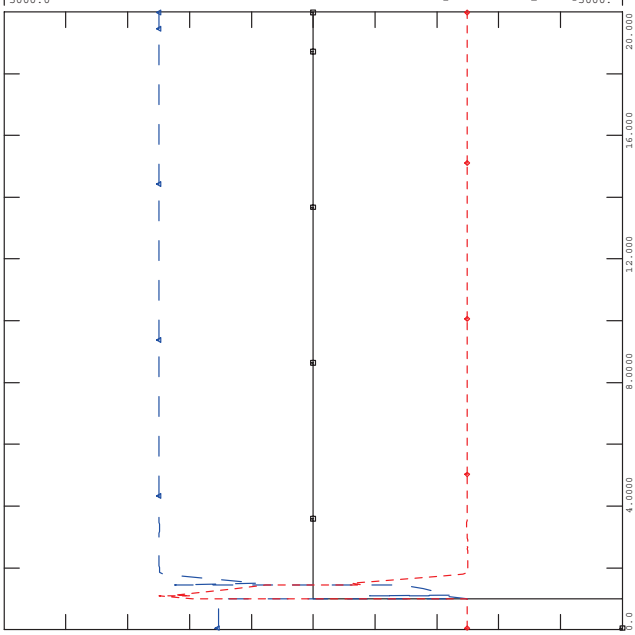
FILE: Scn3_SL_12_676L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 655: [600L P] 57.025 -167.7
CHNL# 653: [880L P] 210.85 -50.68
CHNL# 651: [676L P] 5000.0 -5000.

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE

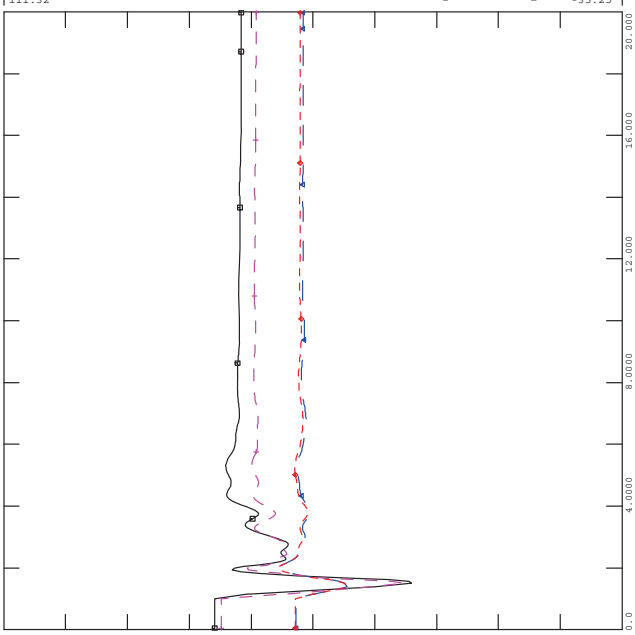
FILE: Scn3_SL_13_600L_PeaceButte.out

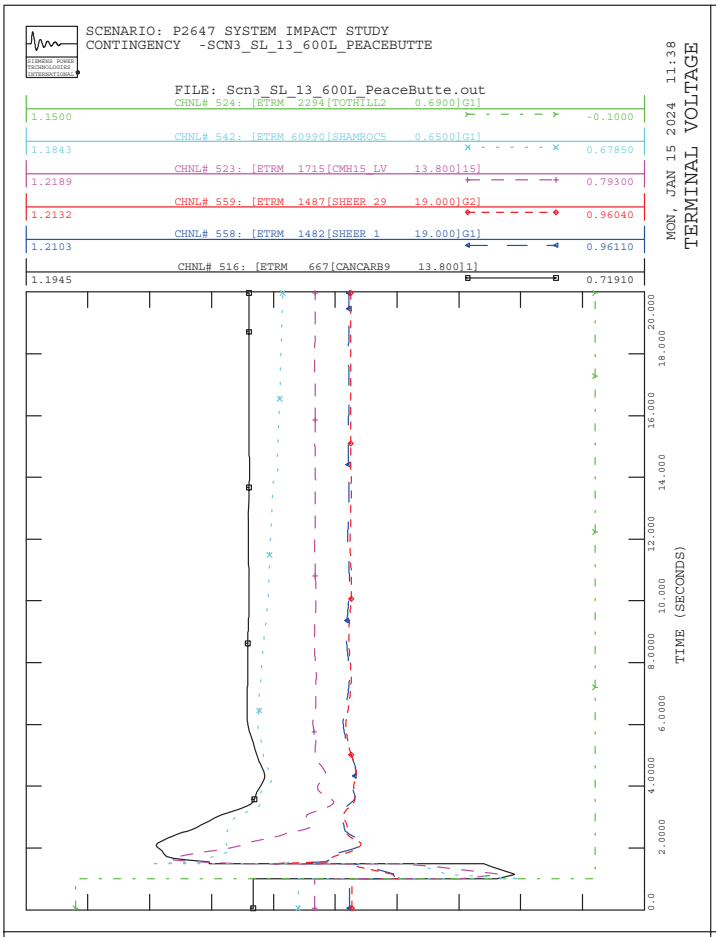
MON, JAN 15 2024 11:38

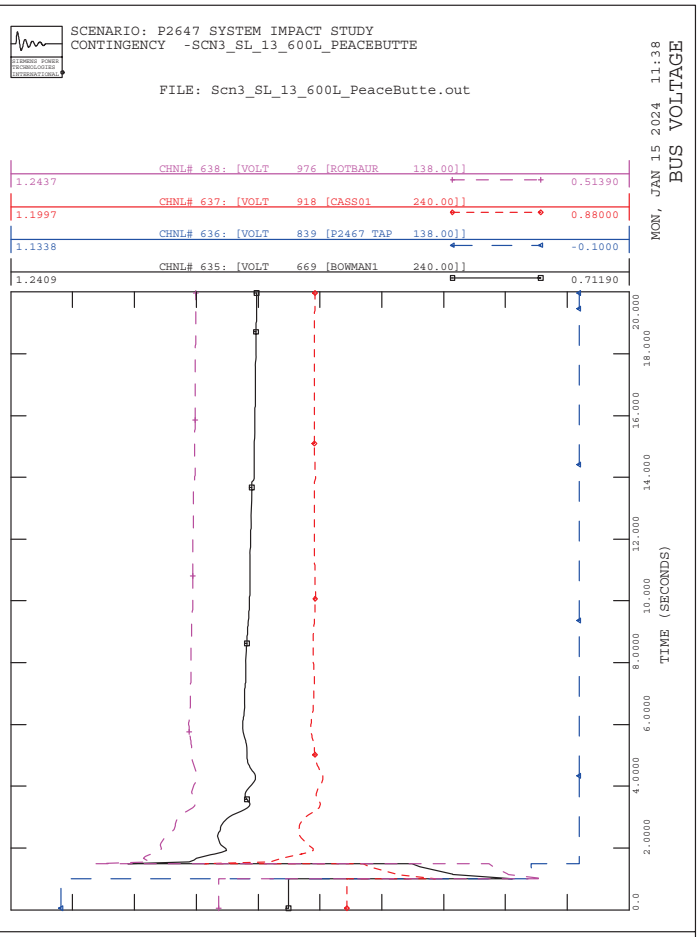
ROTOR ANGLE

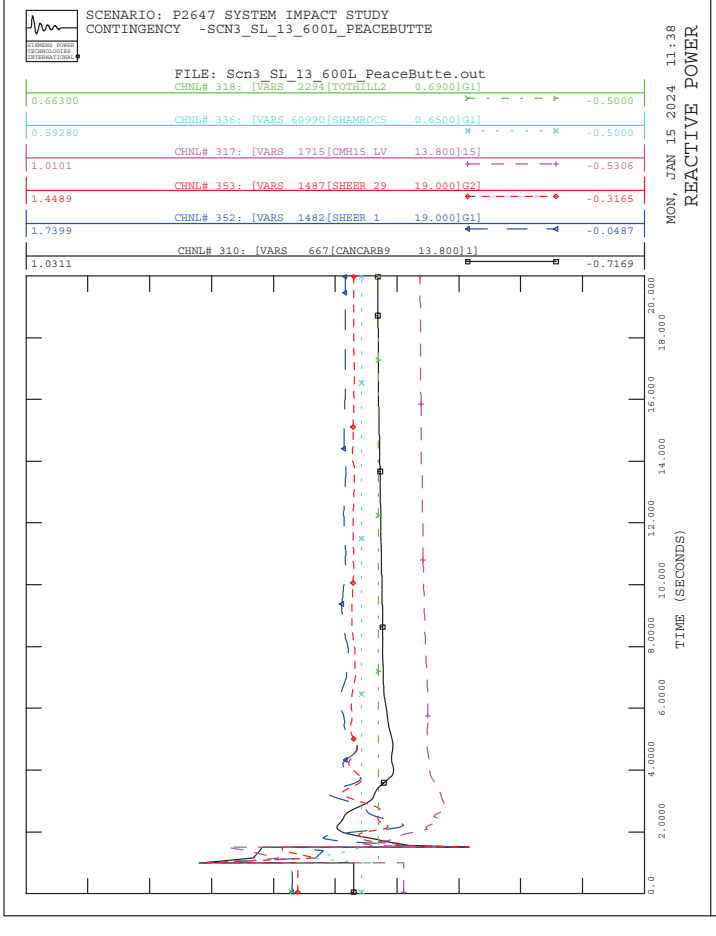
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 112.33 -29.67
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 90.220 -22.41
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 84.833 -27.64
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 111.32 -35.25

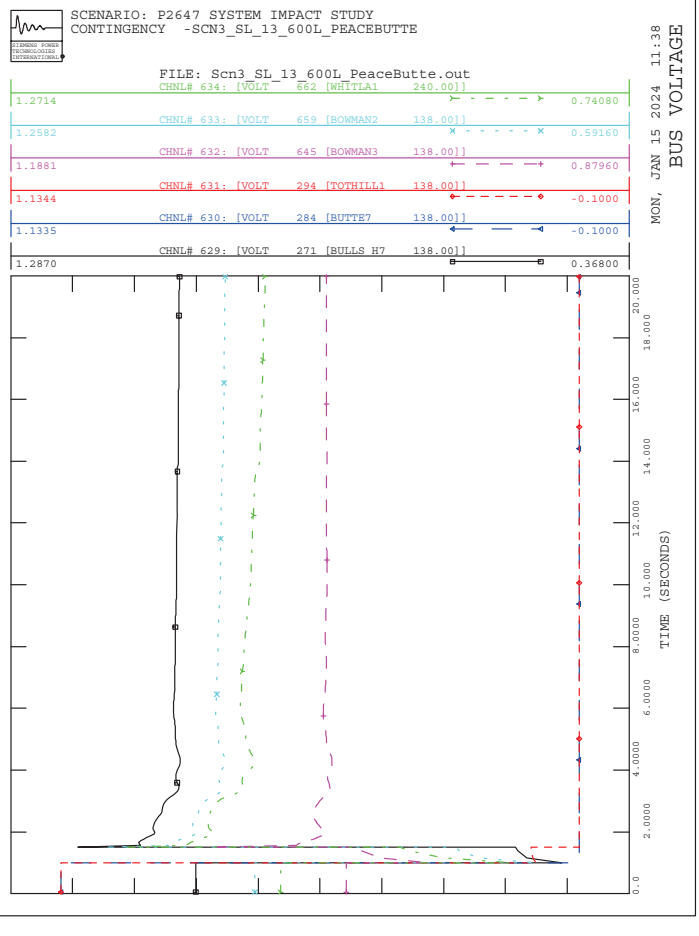
TIME (SECONDS)

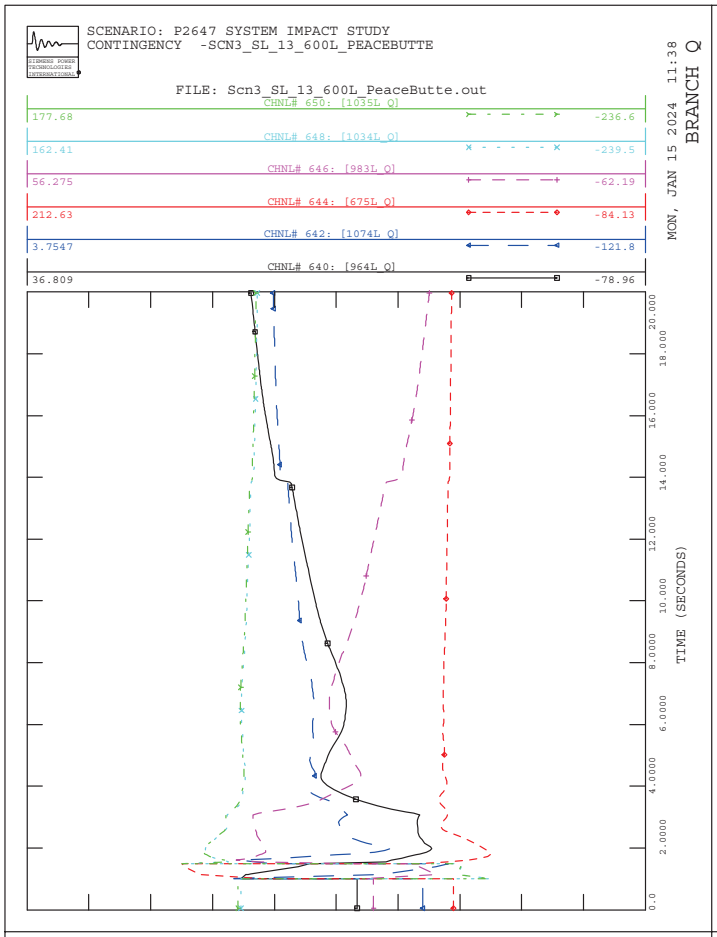


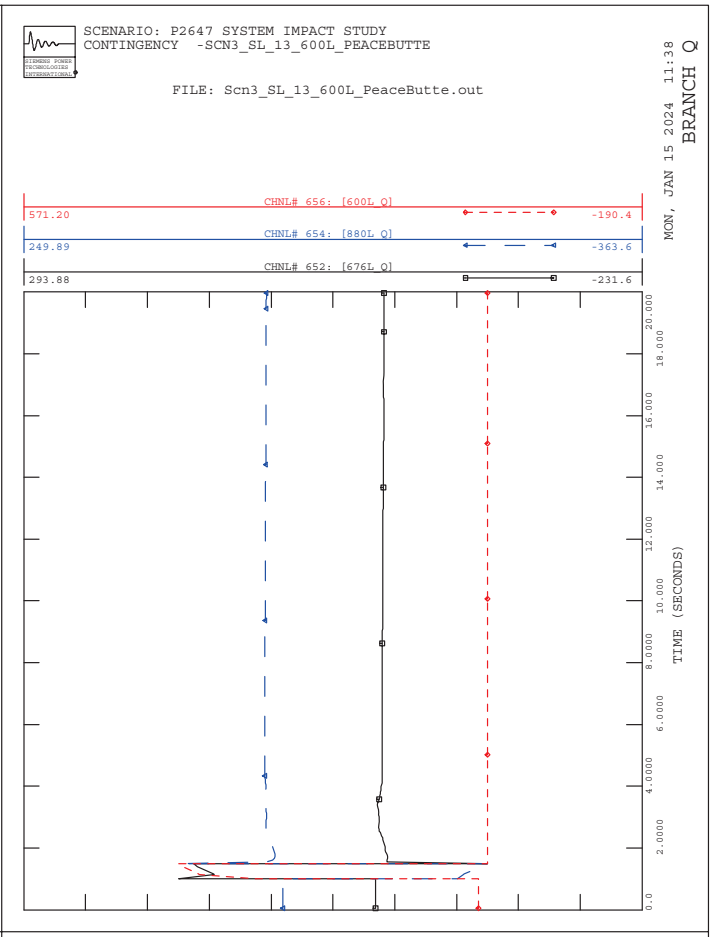

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.1500
-0.1000
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1843
0.67850
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.2189
0.79300
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2132
0.96040
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2103
0.96110
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1945
0.71910
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE

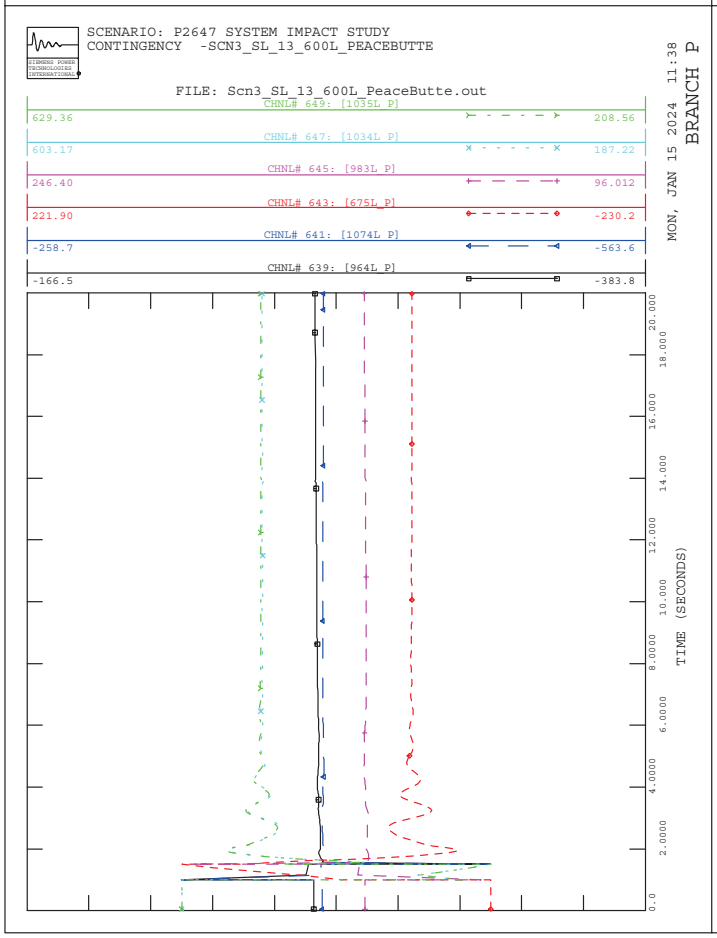

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.2437
0.51390
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1997
0.88000
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.1338
-0.1000
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2409
0.71190
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
BUS VOLTAGE

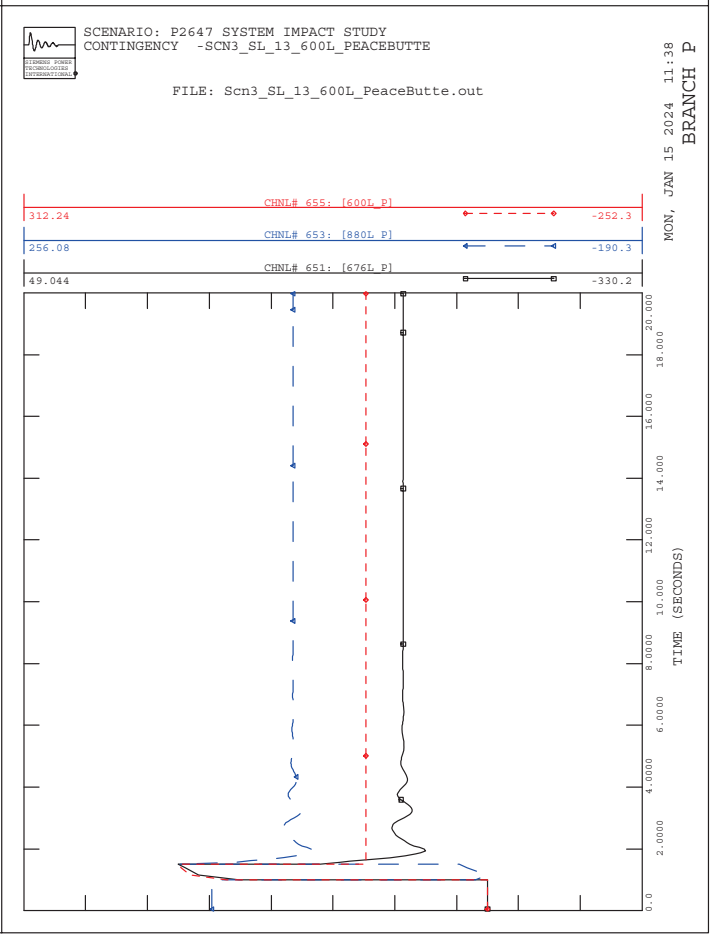

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
0.66300
-0.5000
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.59280
-0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.0101
-0.5306
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
1.4489
-0.3165
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
1.7399
-0.0487
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0311
-0.7169
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
REACTIVE POWER

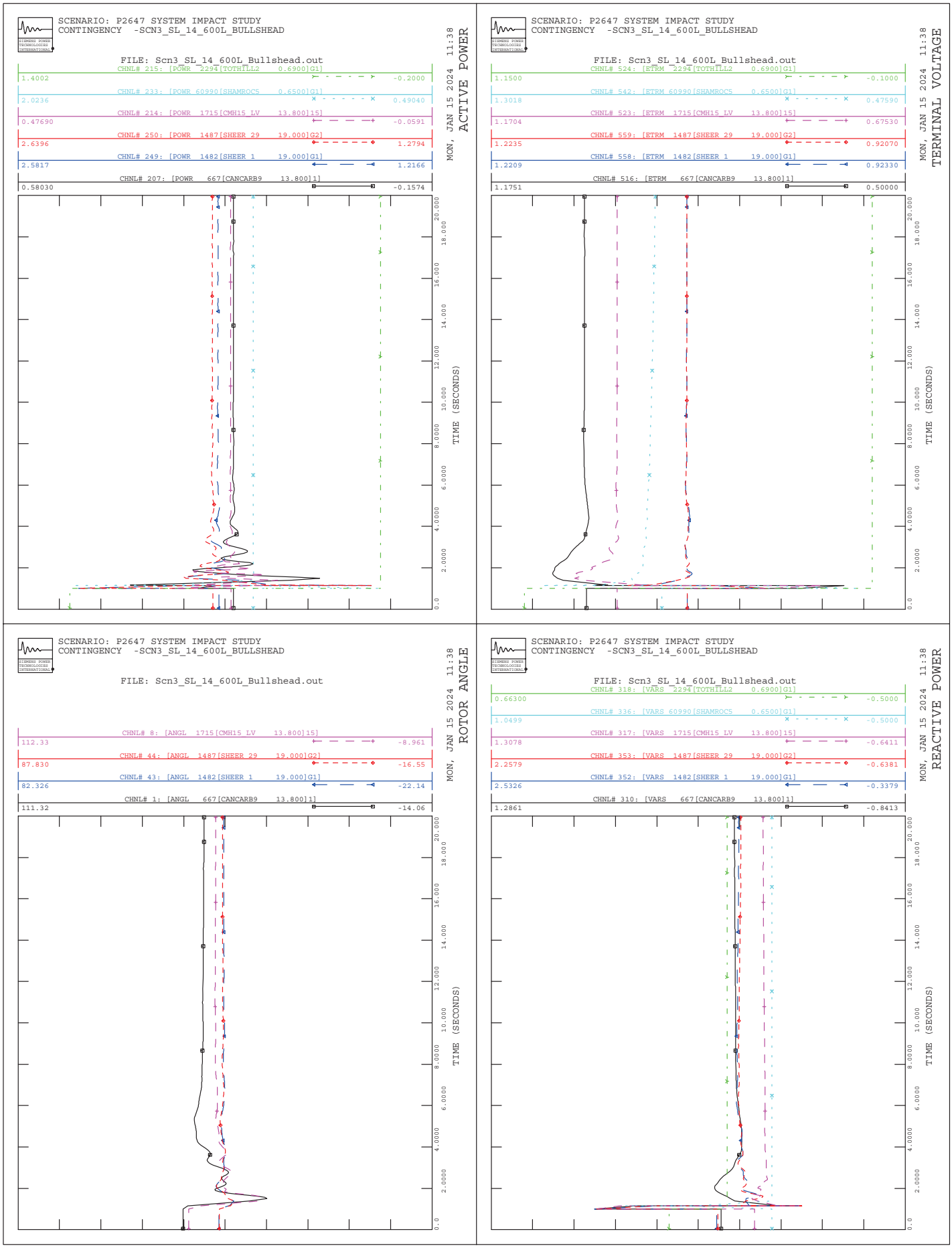

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2714
0.74080
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.2582
0.59160
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1881
0.87960
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.1344
-0.1000
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.1335
-0.1000
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.2870
0.36800
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
BUS VOLTAGE

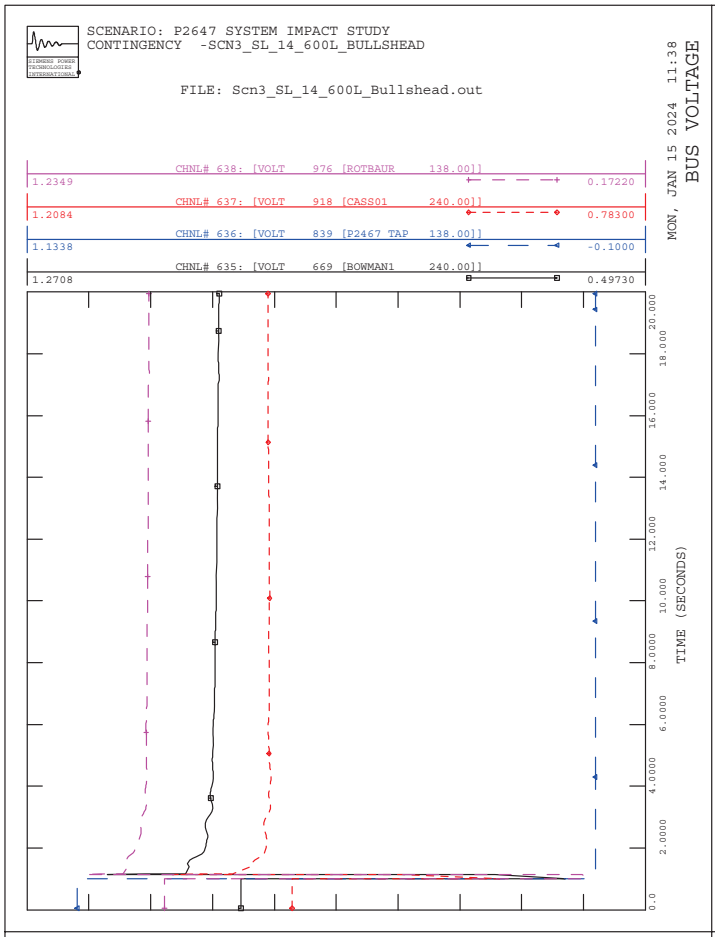

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 650: [1035L Q]
177.68
-236.6
CHNL# 648: [1034L Q]
162.41
-239.5
CHNL# 646: [983L Q]
56.275
-62.19
CHNL# 644: [675L Q]
212.63
-84.13
CHNL# 642: [1074L Q]
3.7547
-121.8
CHNL# 640: [964L Q]
36.809
-78.96
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

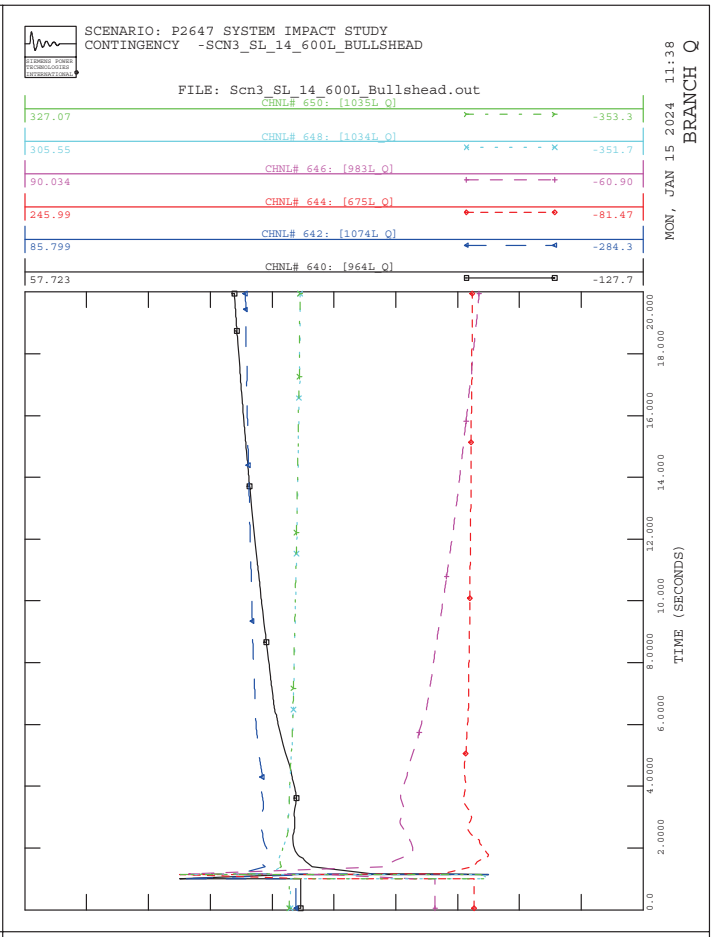

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 656: [600L Q]
571.20
-190.4
CHNL# 654: [880L Q]
249.89
-363.6
CHNL# 652: [676L Q]
293.88
-231.6
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

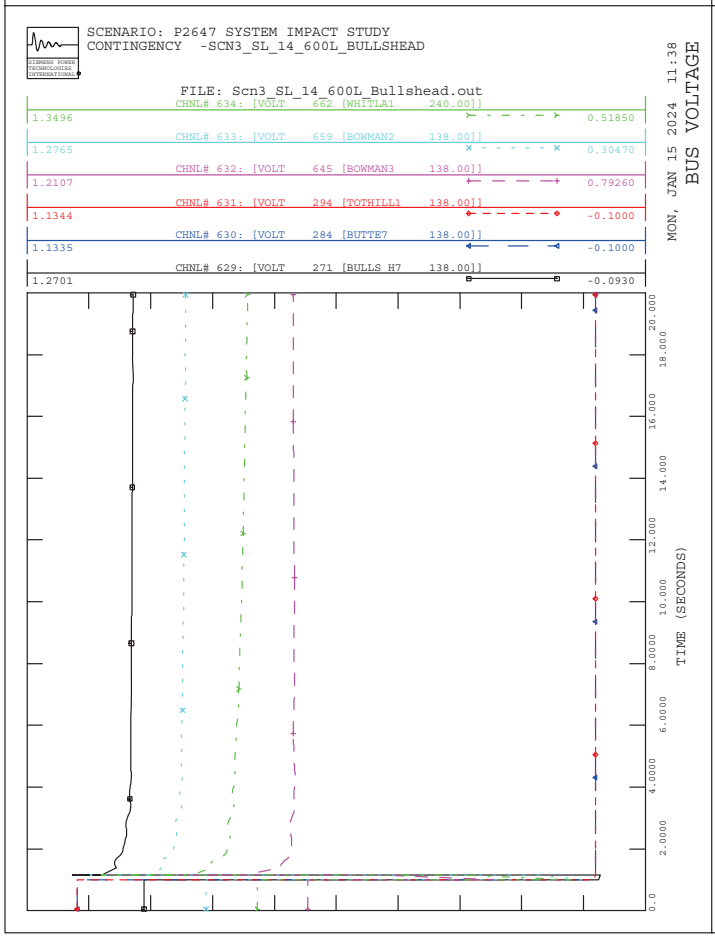

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 649: [1035L P]
629.36
208.56
CHNL# 647: [1034L P]
603.17
187.22
CHNL# 645: [983L P]
246.40
96.012
CHNL# 643: [675L P]
221.90
-230.2
CHNL# 641: [1074L P]
-258.7
-563.6
CHNL# 639: [964L P]
-166.5
-383.8
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

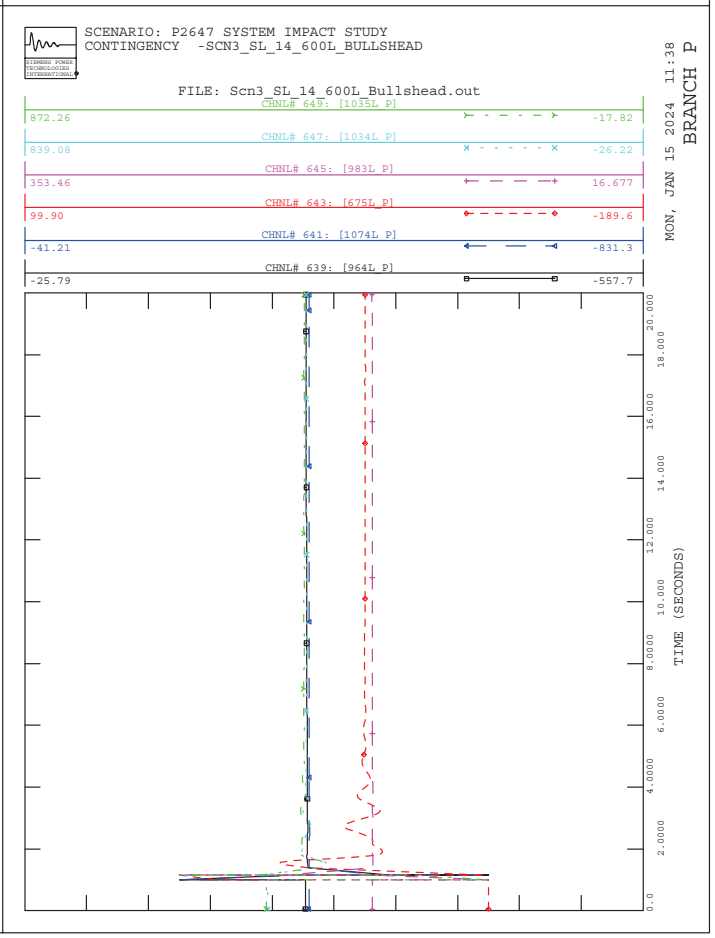

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_13_600L_PEACEBUTTE
FILE: Scn3_SL_13_600L_PeaceButte.out
CHNL# 655: [600L P]
312.24
-252.3
CHNL# 653: [880L P]
256.08
-190.3
CHNL# 651: [676L P]
49.044
-330.2
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4002
-0.2000
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
2.0236
0.49040
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.47690
-0.0591
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
2.6396
1.2794
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
2.5817
1.2166
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.58030
-0.1574
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.1500
-0.1000
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3018
0.47590
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1704
0.67530
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2235
0.92070
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2209
0.92330
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1751
0.50000
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
112.33
-8.961
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
87.830
-16.55
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
82.326
-22.14
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
111.32
-14.06
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
0.66300
-0.5000
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.0499
-0.5000
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.3078
-0.6411
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.2579
-0.6381
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
2.5326
-0.3379
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.2861
-0.8413
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.2349
0.17220
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.2084
0.78300
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.1338
-0.1000
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2708
0.49730
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
MON, JAN 15 2024 11:38
BRANCH Q
CHNL# 650: [1035L Q]
327.07
-353.3
CHNL# 648: [1034L Q]
305.55
-351.7
CHNL# 646: [983L Q]
90.034
-60.90
CHNL# 644: [675L Q]
245.99
-81.47
CHNL# 642: [1074L Q]
85.799
-284.3
CHNL# 640: [964L Q]
57.723
-127.7
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.3496
0.51850
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.2765
0.30470
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.2107
0.79260
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.1344
-0.1000
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.1335
-0.1000
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.2701
-0.0930
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD
FILE: Scn3_SL_14_600L_Bullshead.out
MON, JAN 15 2024 11:38
BRANCH P
CHNL# 649: [1035L P]
872.26
-17.82
CHNL# 647: [1034L P]
839.08
-26.22
CHNL# 645: [983L P]
353.46
16.677
CHNL# 643: [675L P]
99.90
-189.6
CHNL# 641: [1074L P]
-41.21
-831.3
CHNL# 639: [964L P]
-25.79
-557.7
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD

FILE: Scn3_SL_14_600L_Bullshead.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 656: [600L Q]
1737.8 -579.3

CHNL# 654: [880L Q]
173.69 -67.48

CHNL# 652: [676L Q]
301.49 -283.6

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER

FILE: Scn3_SL_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4035 -0.1996

CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.8404 0.39010

CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.71390 -0.1684

CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
2.6186 1.3978

CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
2.5685 1.3186

CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.63260 -0.3574

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_14_600L_BULLSHEAD

FILE: Scn3_SL_14_600L_Bullshead.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 655: [600L P]
5000.0 -5000.

CHNL# 653: [880L P]
181.36 -63.38

CHNL# 651: [676L P]
142.26 -361.3

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER

FILE: Scn3_SL_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

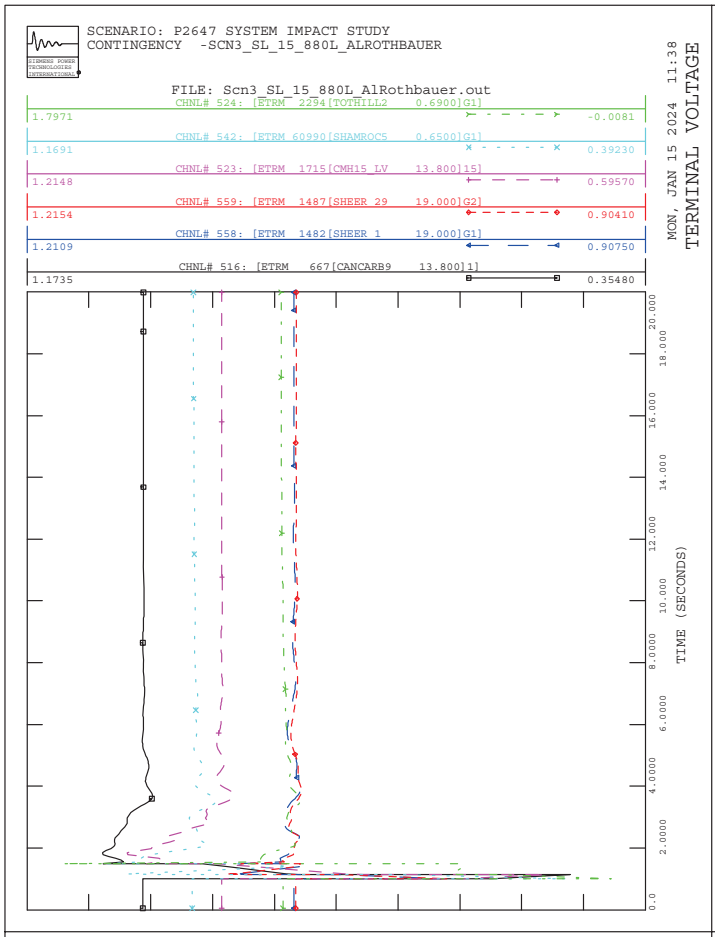
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
128.33 -23.64

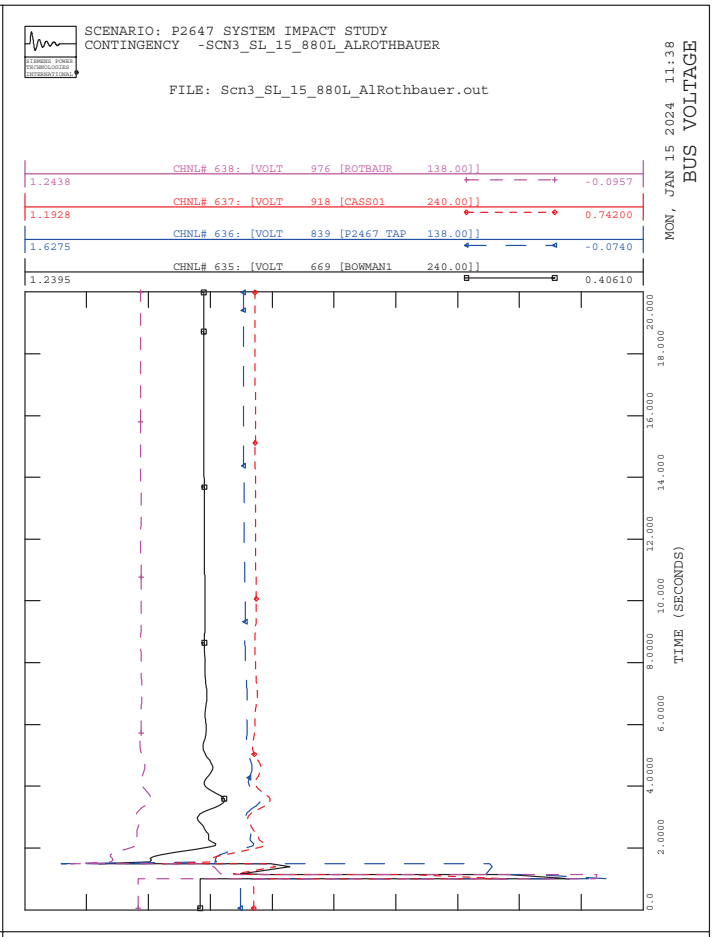
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
91.307 -19.55

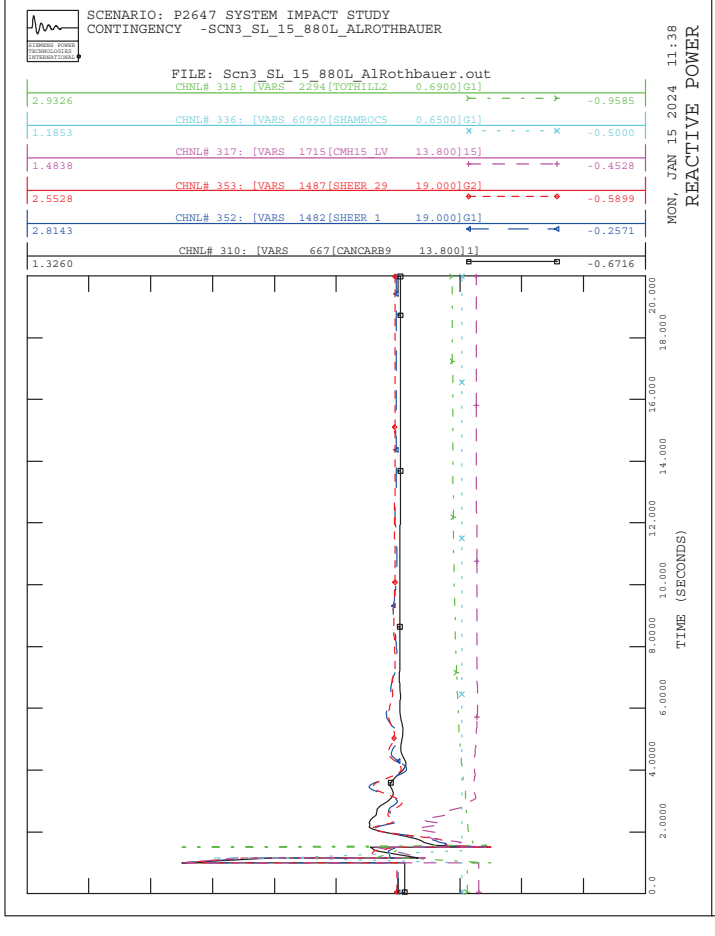
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
85.973 -24.83

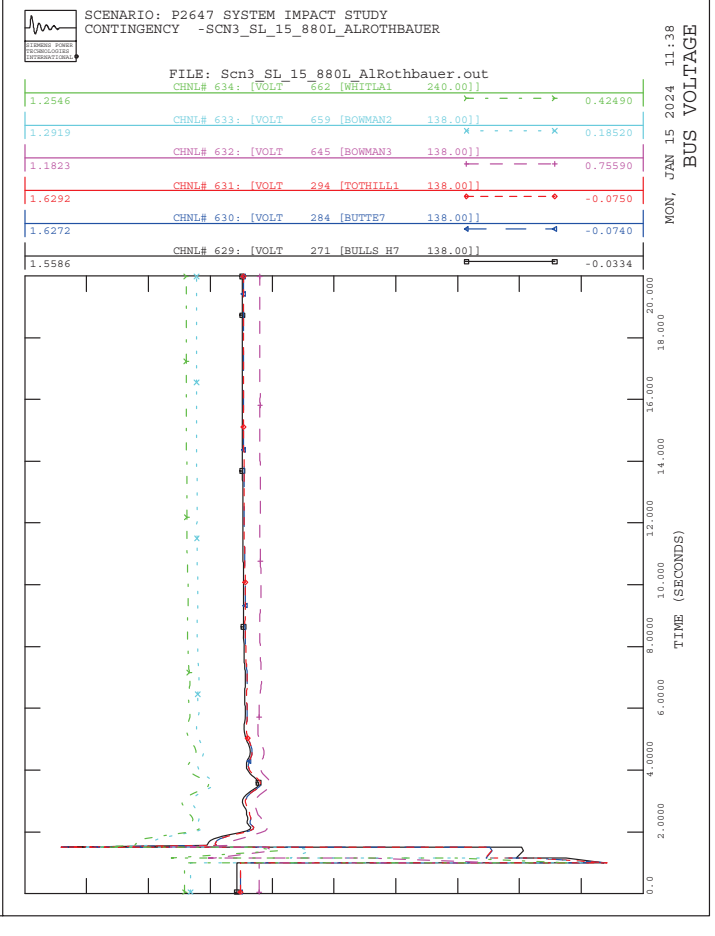
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
119.74 -29.46

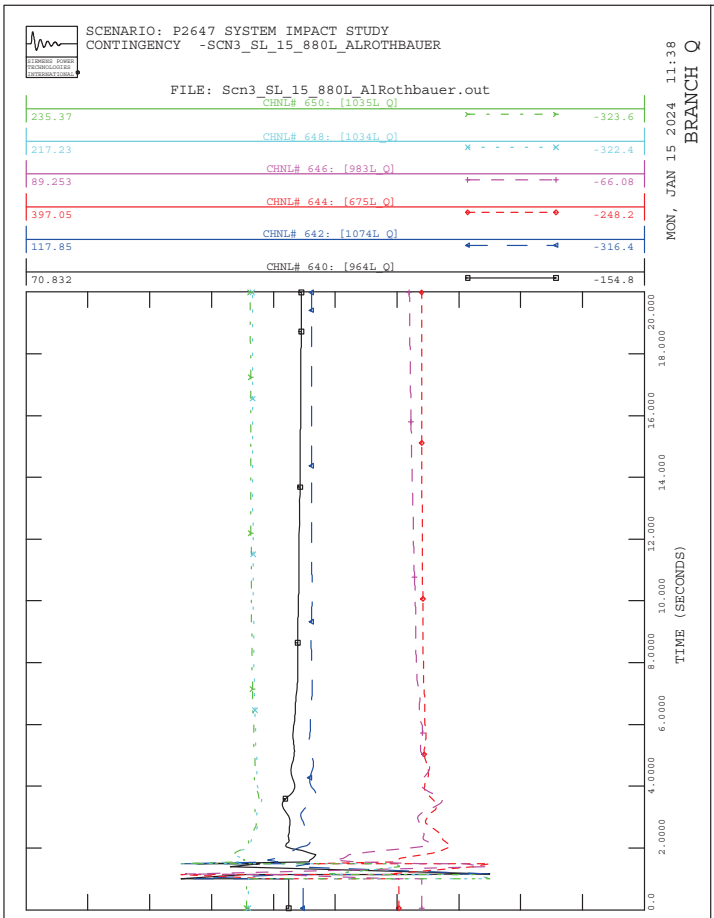
TIME (SECONDS)

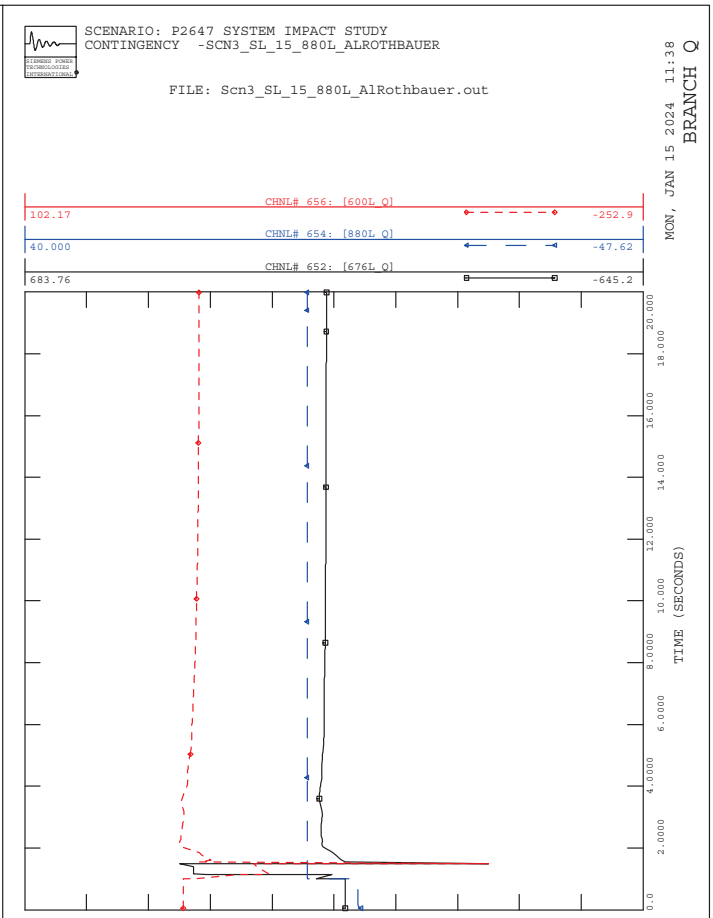

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.7971
-0.0081
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1691
0.39230
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.2148
0.59570
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2154
0.90410
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2109
0.90750
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1735
0.35480
TERMINAL VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

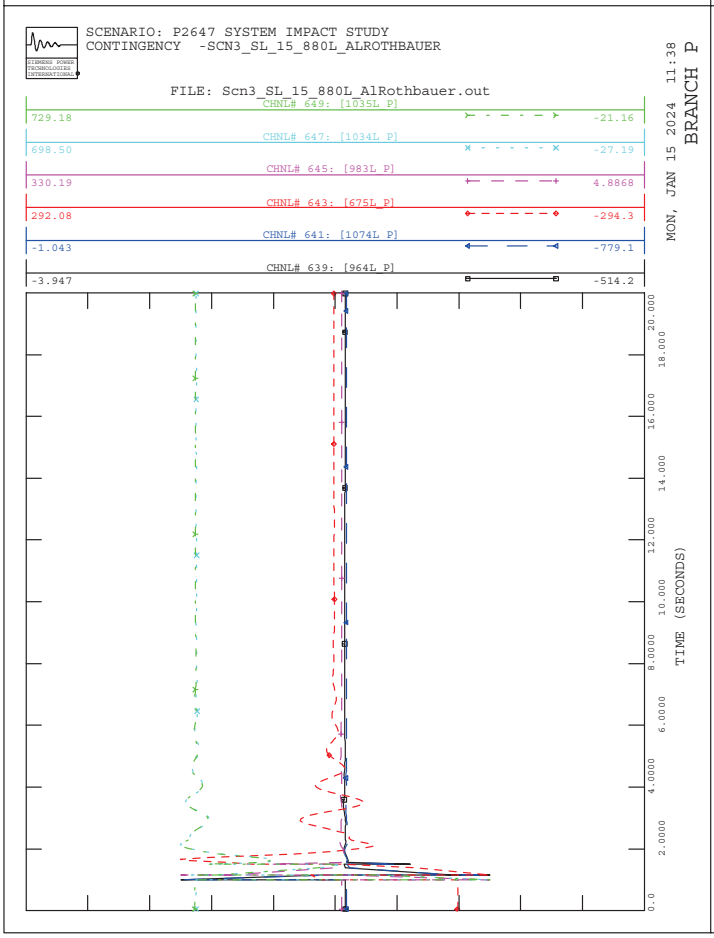

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.2438
-0.0957
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1928
0.74200
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.6275
-0.0740
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2395
0.40610
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

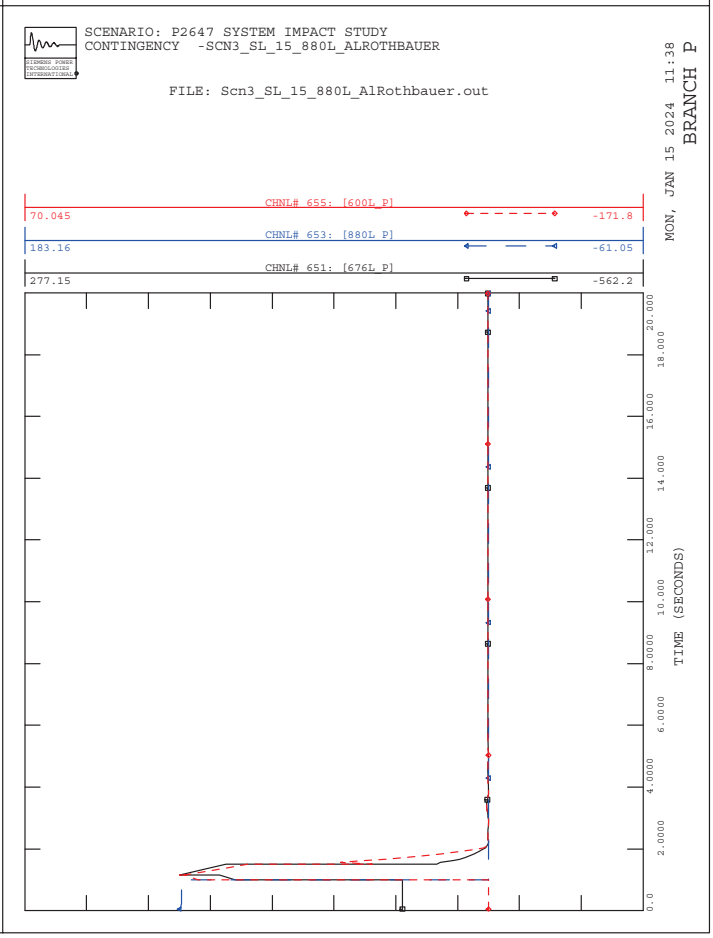

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
2.9326
-0.9585
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.1853
-0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.4838
-0.4528
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.5528
-0.5899
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
2.8143
-0.2571
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.3260
-0.6716
REACTIVE POWER
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2546
0.42490
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.2919
0.18520
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1823
0.75590
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.6292
-0.0750
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.6272
-0.0740
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.5586
-0.0334
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 650: [1035L Q]
235.37
-323.6
CHNL# 648: [1034L Q]
217.23
-322.4
CHNL# 646: [983L Q]
89.253
-66.08
CHNL# 644: [675L Q]
397.05
-248.2
CHNL# 642: [1074L Q]
117.85
-316.4
CHNL# 640: [964L Q]
70.832
-154.8
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 656: [600L Q]
102.17
-252.9
CHNL# 654: [880L Q]
40.000
-47.62
CHNL# 652: [676L Q]
683.76
-645.2
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 649: [1035L P]
729.18
-21.16
CHNL# 647: [1034L P]
698.50
-27.19
CHNL# 645: [983L P]
330.19
4.8868
CHNL# 643: [675L P]
292.08
-294.3
CHNL# 641: [1074L P]
-1.043
-779.1
CHNL# 639: [964L P]
-3.947
-514.2
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_15_880L_ALROTHBAUER
FILE: Scn3_SL_15_880L_AlRothbauer.out
CHNL# 655: [600L P]
70.045
-171.8
CHNL# 653: [880L P]
183.16
-61.05
CHNL# 651: [676L P]
277.15
-562.2
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD

FILE: Scn3_SL_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4011 -0.1998

CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.9410 0.48630

CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.47410 -0.1474

CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
2.6397 1.4267

CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
2.5821 1.3171

CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.50410 -0.1042

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD

FILE: Scn3_SL_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.4167 0.01020

CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1577 0.47250

CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.2212 0.67390

CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2229 0.92000

CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2232 0.92260

CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1667 0.49640

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD

FILE: Scn3_SL_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
112.33 -9.270

CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
89.840 -18.02

CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
84.528 -23.45

CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
111.32 -7.587

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD

FILE: Scn3_SL_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.9542 -0.6286

CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.93460 -0.5000

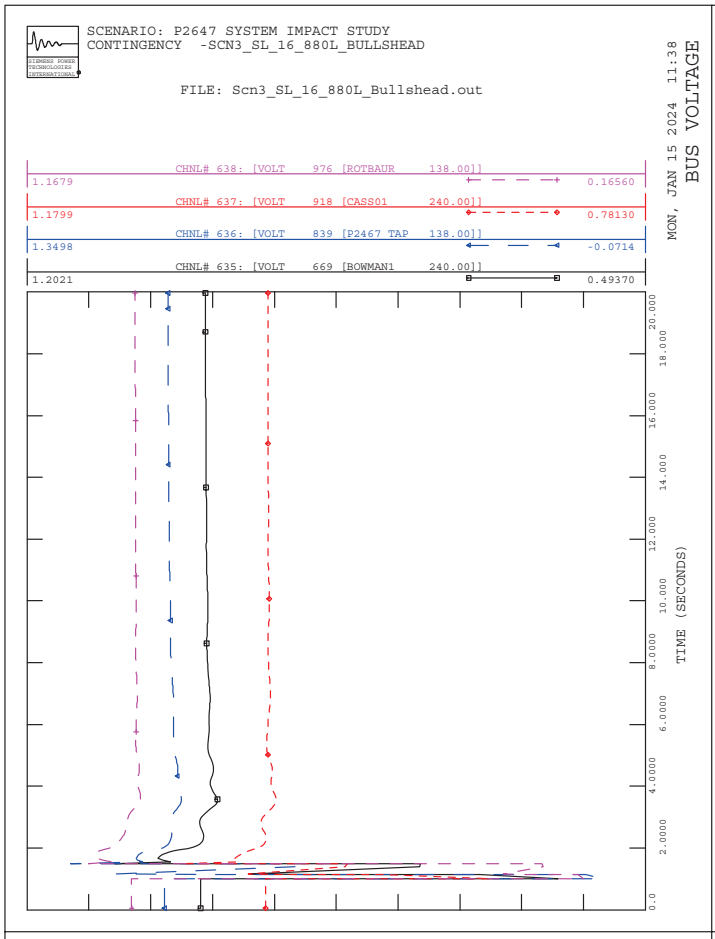
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.3679 -0.4310

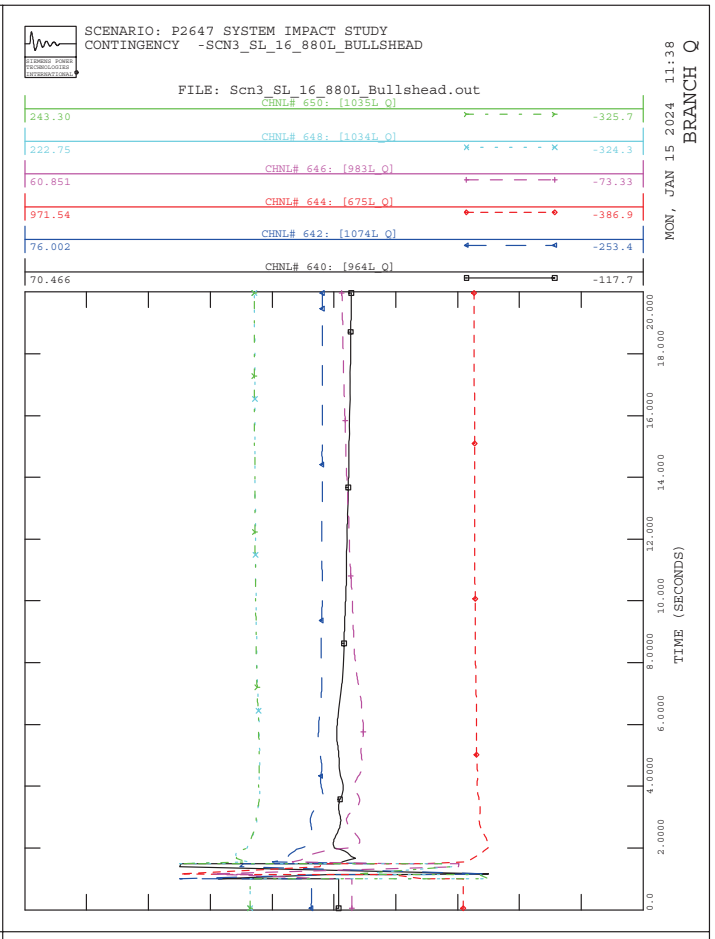
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.0879 -0.0891

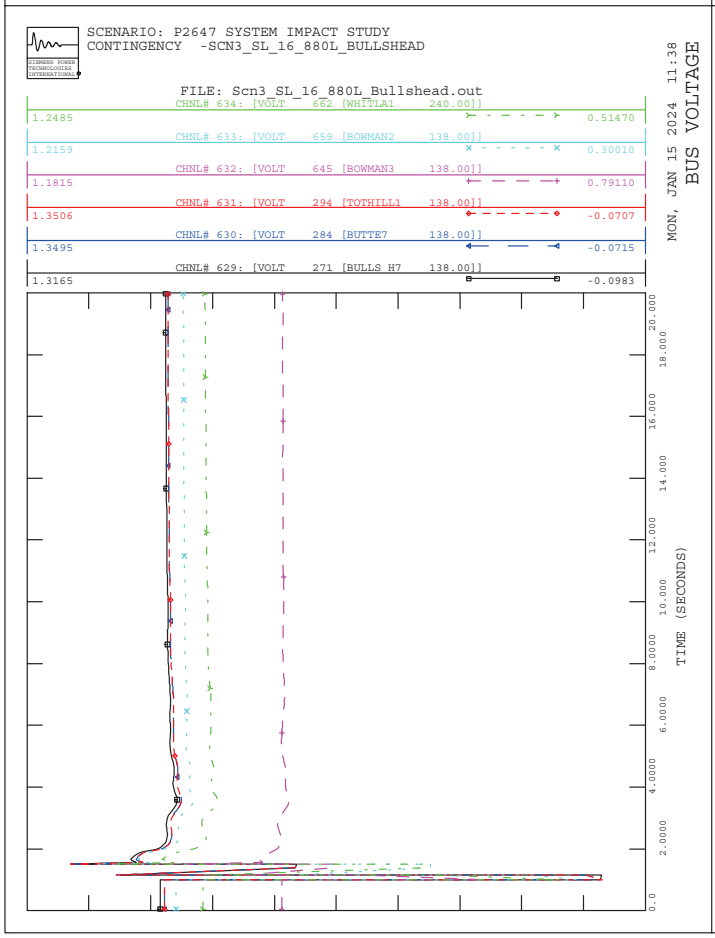
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
2.3408 0.27630

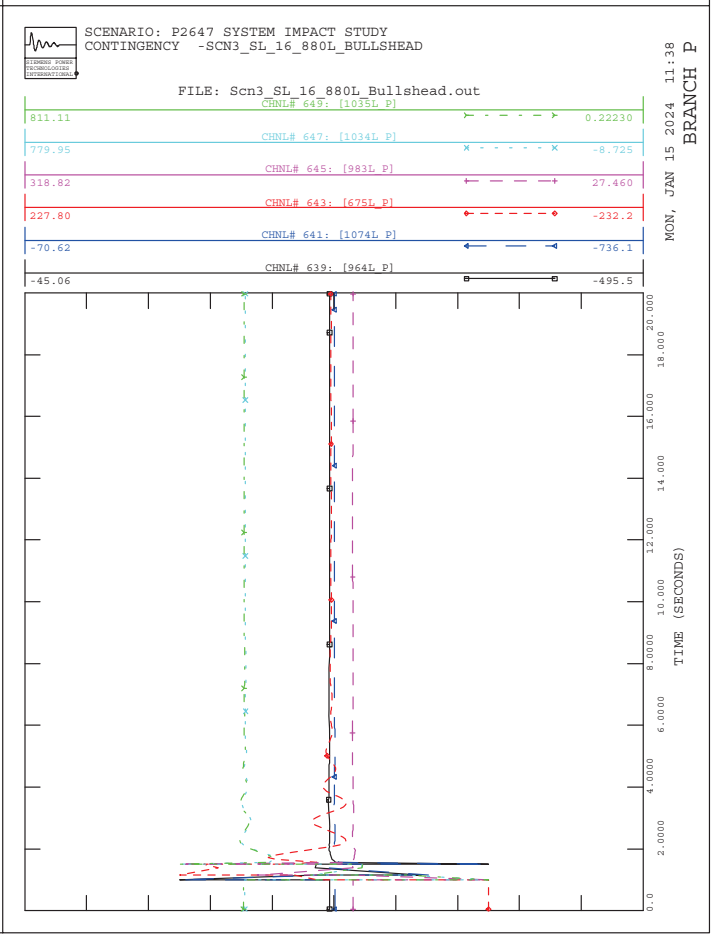
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.2795 -0.8101

TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD
FILE: Scn3_SL_16_880L_Bullshead.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1679
0.16560
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1799
0.78130
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.3498
-0.0714
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2021
0.49370
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD
FILE: Scn3_SL_16_880L_Bullshead.out
CHNL# 650: [1035L Q]
243.30
-325.7
CHNL# 648: [1034L Q]
222.75
-324.3
CHNL# 646: [983L Q]
60.851
-73.33
CHNL# 644: [675L Q]
971.54
-386.9
CHNL# 642: [1074L Q]
76.002
-253.4
CHNL# 640: [964L Q]
70.466
-117.7
BRANCH Q
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD
FILE: Scn3_SL_16_880L_Bullshead.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2485
0.51470
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.2159
0.30010
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.1815
0.79110
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.3506
-0.0707
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.3495
-0.0715
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.3165
-0.0983
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD
FILE: Scn3_SL_16_880L_Bullshead.out
CHNL# 649: [1035L P]
811.11
0.22230
CHNL# 647: [1034L P]
779.95
-8.725
CHNL# 645: [983L P]
318.82
27.460
CHNL# 643: [675L P]
227.80
-232.2
CHNL# 641: [1074L P]
-70.62
-736.1
CHNL# 639: [964L P]
-45.06
-495.5
BRANCH P
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD

FILE: Scn3_SL_16_880L_Bullshead.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 656: [600L Q] 74.820 -176.9
CHNL# 654: [880L Q] 357.25 -1072.
CHNL# 652: [676L Q] 382.29 -535.3

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER

FILE: Scn3_SL_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38 ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.4033 -0.1941
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.9891 0.38780
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.62270 -0.1033
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 2.6162 1.5018
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 2.5663 1.4318
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.58030 -0.1363

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_16_880L_BULLSHEAD

FILE: Scn3_SL_16_880L_Bullshead.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 655: [600L P] 82.674 -175.8
CHNL# 653: [880L P] 5000.0 -5000.
CHNL# 651: [676L P] 200.34 -535.9

TIME (SECONDS)

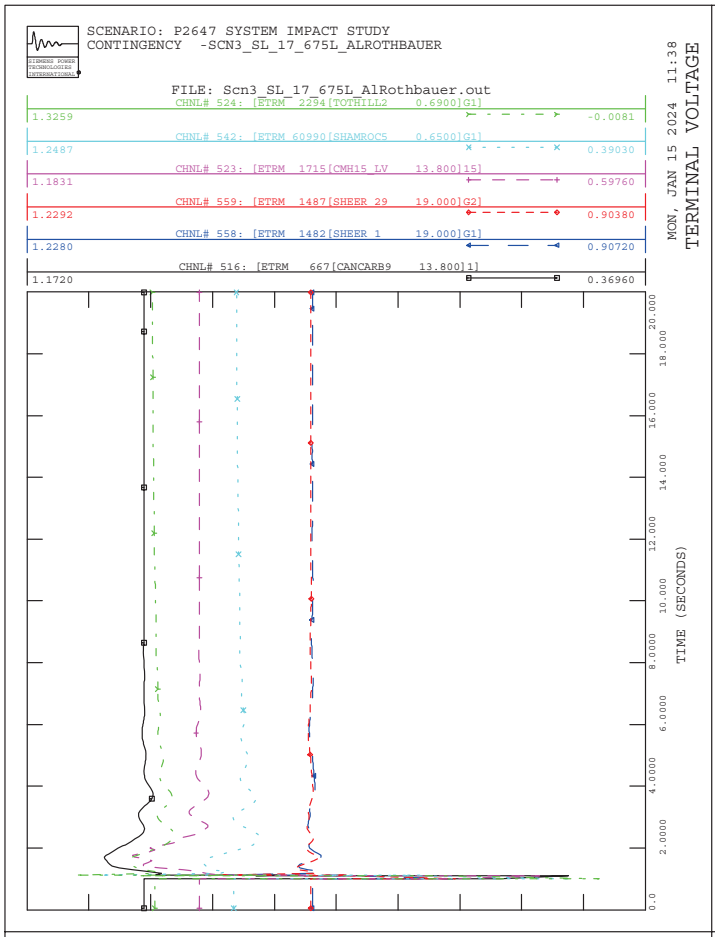
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER

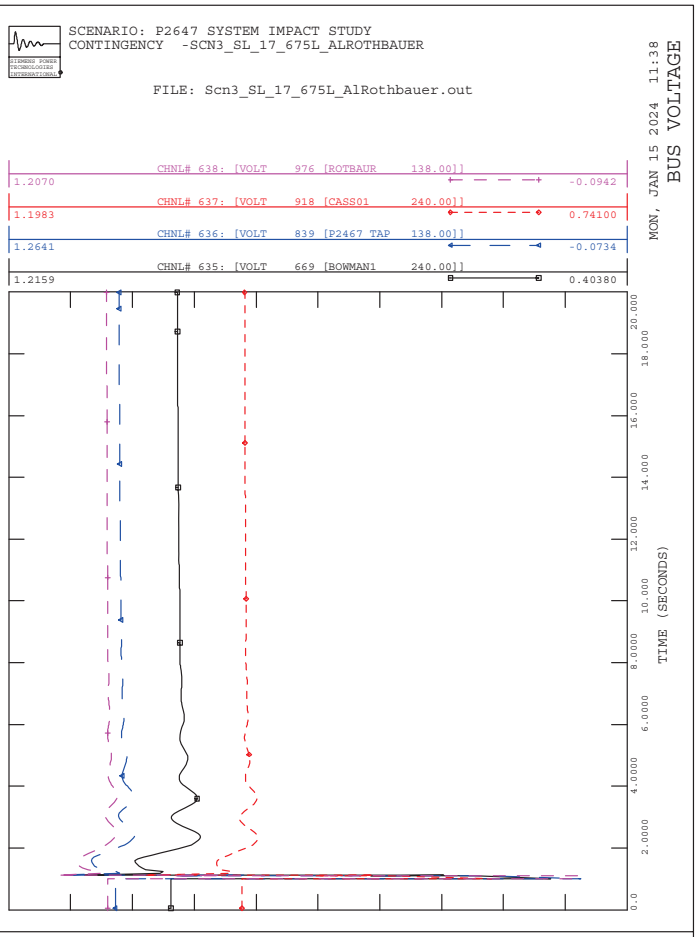
FILE: Scn3_SL_17_675L_AlRothbauer.out

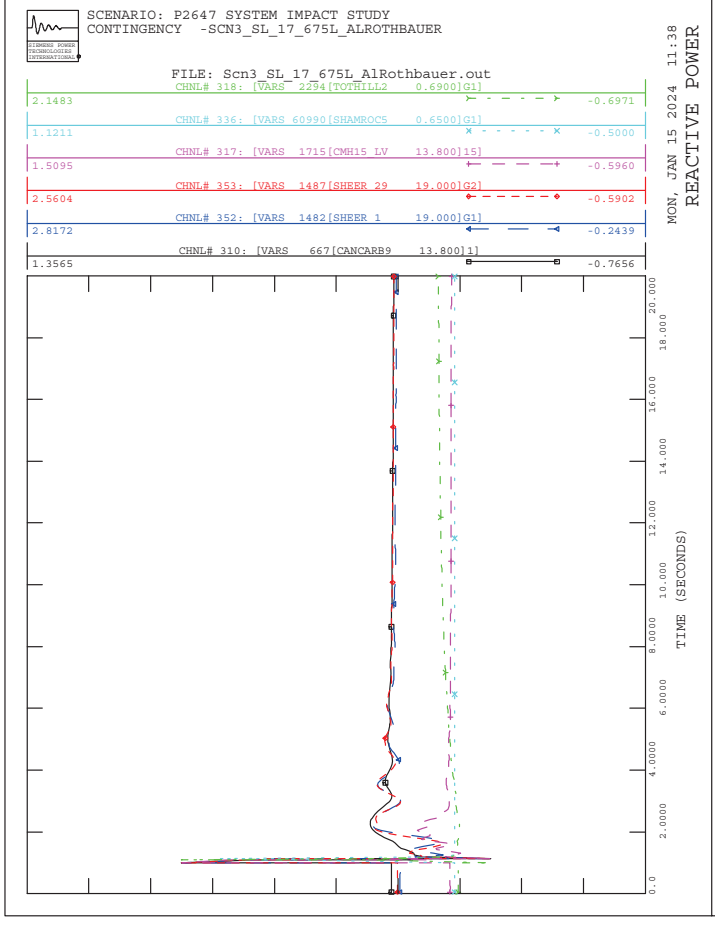
MON, JAN 15 2024 11:38 ROTOR ANGLE

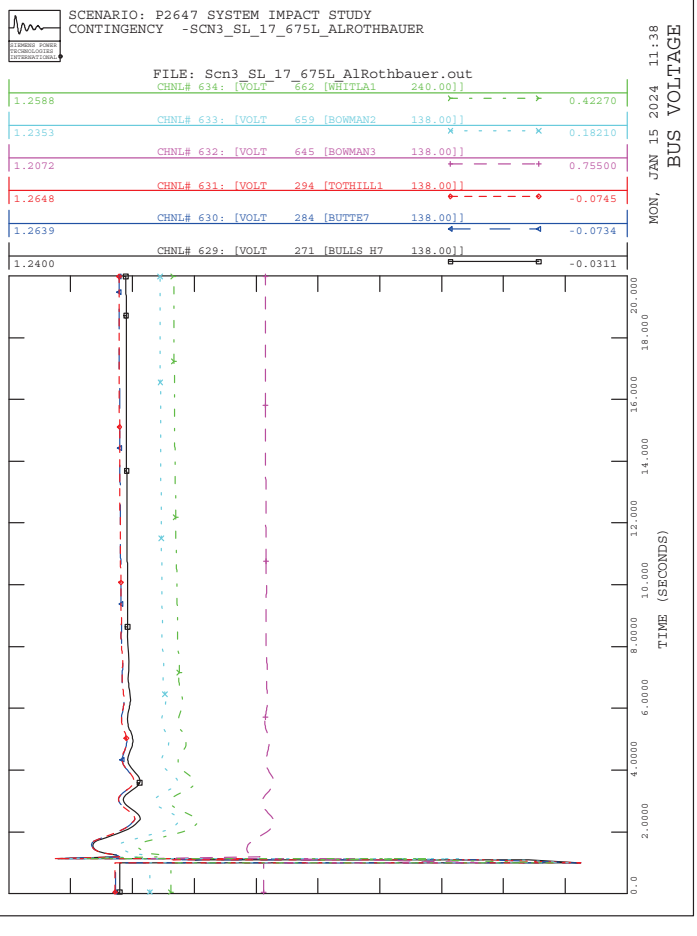
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 127.92 -0.5924
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 89.254 -16.21
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 83.736 -21.62
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 126.54 -1.816

TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER
FILE: Scn3_SL_17_675L_AlRothbauer.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3259 -0.0081
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2487 0.39030
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.1831 0.59760
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2292 0.90380
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2280 0.90720
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1720 0.36960
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER
FILE: Scn3_SL_17_675L_AlRothbauer.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.2070 -0.0942
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.1983 0.74100
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.2641 -0.0734
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2159 0.40380
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER
FILE: Scn3_SL_17_675L_AlRothbauer.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
2.1483 -0.6971
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.1211 -0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.5095 -0.5960
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
2.5604 -0.5902
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
2.8172 -0.2439
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.3565 -0.7656
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER
FILE: Scn3_SL_17_675L_AlRothbauer.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2588 0.42270
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.2353 0.18210
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.2072 0.75500
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.2648 -0.0745
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.2639 -0.0734
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.2400 -0.0311
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

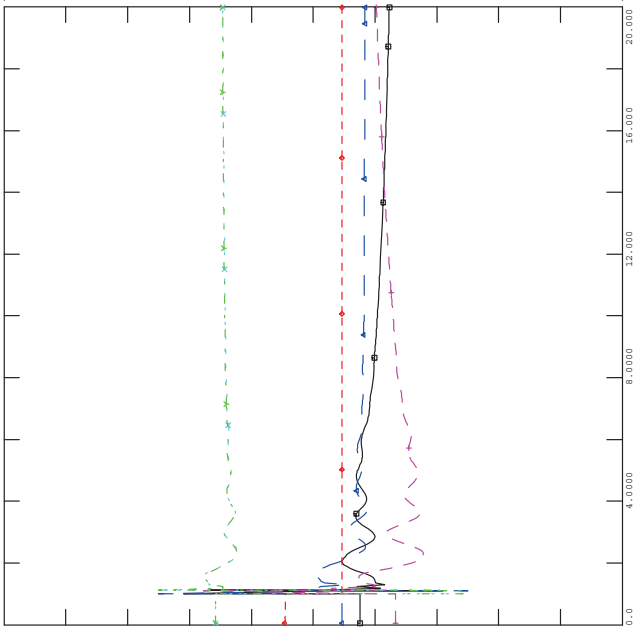
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER

FILE: Scn3_SL_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 650: [1035L Q] 220.55 -318.3
CHNL# 648: [1034L Q] 200.26 -316.4
CHNL# 646: [983L Q] 68.432 -55.70
CHNL# 644: [675L Q] 48.209 -40.00
CHNL# 642: [1074L Q] 65.256 -194.5
CHNL# 640: [964L Q] 54.376 -83.51



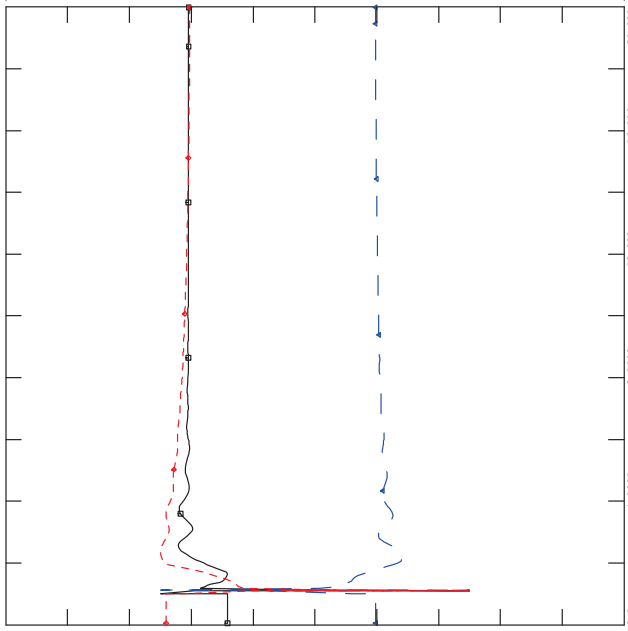
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER

FILE: Scn3_SL_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 656: [600L Q] 71.248 -160.6
CHNL# 654: [880L Q] 276.12 -197.3
CHNL# 652: [676L Q] 194.41 -362.0



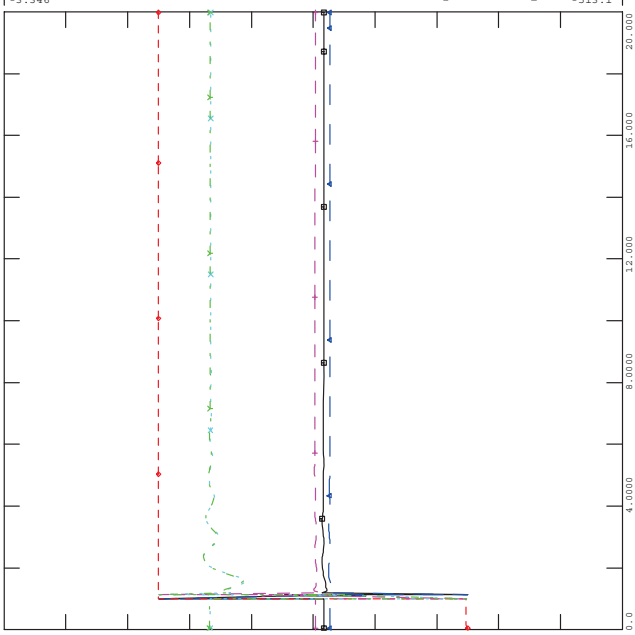
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER

FILE: Scn3_SL_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 649: [1035L P] 808.73 -48.34
CHNL# 647: [1034L P] 775.72 -53.50
CHNL# 645: [983L P] 324.26 6.3310
CHNL# 643: [675L P] 59.561 -178.7
CHNL# 641: [1074L P] -4.947 -762.8
CHNL# 639: [964L P] -3.346 -513.1



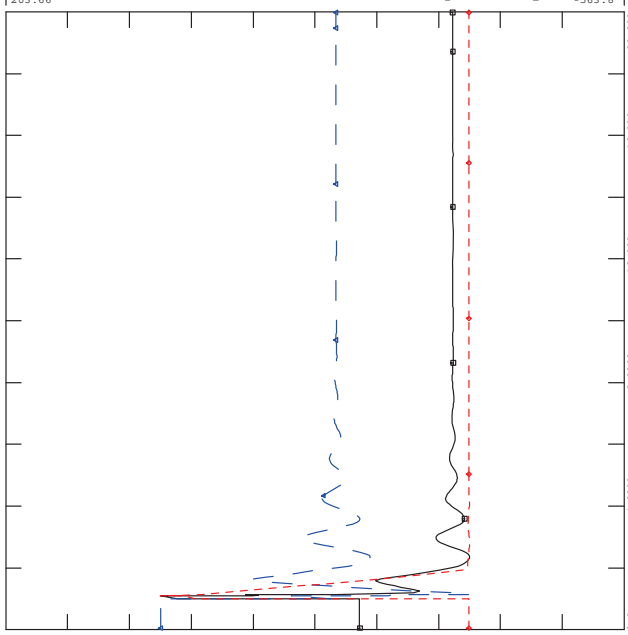
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_17_675L_ALROTHBAUER

FILE: Scn3_SL_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 655: [600L P] 80.411 -175.3
CHNL# 653: [880L P] 225.52 -195.9
CHNL# 651: [676L P] 203.66 -563.8



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.4020 -0.0872
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.4612 0.13830
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.66370 -0.0918
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
2.9551 1.2466
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
2.6385 1.2037
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.61050 -0.1377

MON, JAN 15 2024 11:38
ACTIVE POWER

TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3505 0.09390
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2769 0.18220
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1780 0.68160
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2736 0.86020
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2710 0.86590
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1676 0.50690

MON, JAN 15 2024 11:38
TERMINAL VOLTAGE

TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
125.02 3.2115
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
89.142 -18.00
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
83.622 -23.40
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
124.82 1.1914

MON, JAN 15 2024 11:38
ROTOR ANGLE

TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.6598 -0.5131
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.79540 -0.5000
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.3461 -0.5460
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
3.7407 -1.864
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
3.9814 -1.462
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.2842 -0.7087

MON, JAN 15 2024 11:38
REACTIVE POWER

TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

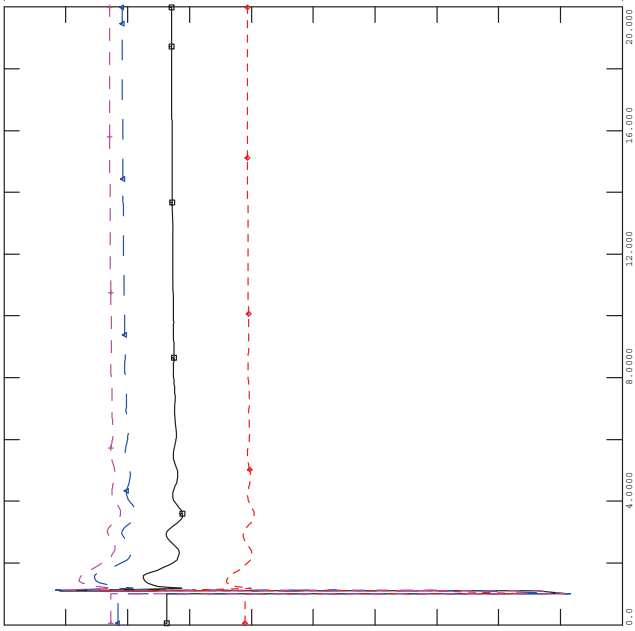
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1850 0.10540
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.2760 0.63460
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.2540 0.05690
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2954 0.18370



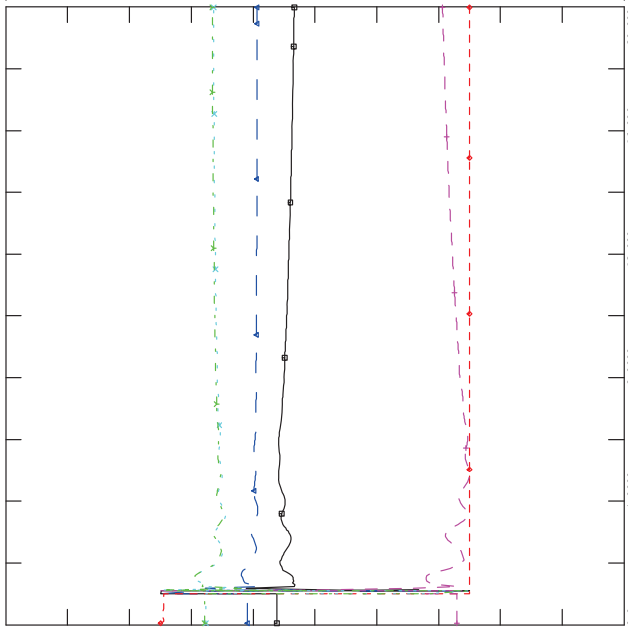
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 650: [1035L Q]
192.19 -293.3
CHNL# 648: [1034L Q]
173.27 -290.7
CHNL# 646: [983L Q]
108.75 -54.23
CHNL# 644: [675L Q]
1352.9 -451.0
CHNL# 642: [1074L Q]
176.28 -470.3
CHNL# 640: [964L Q]
78.522 -157.5



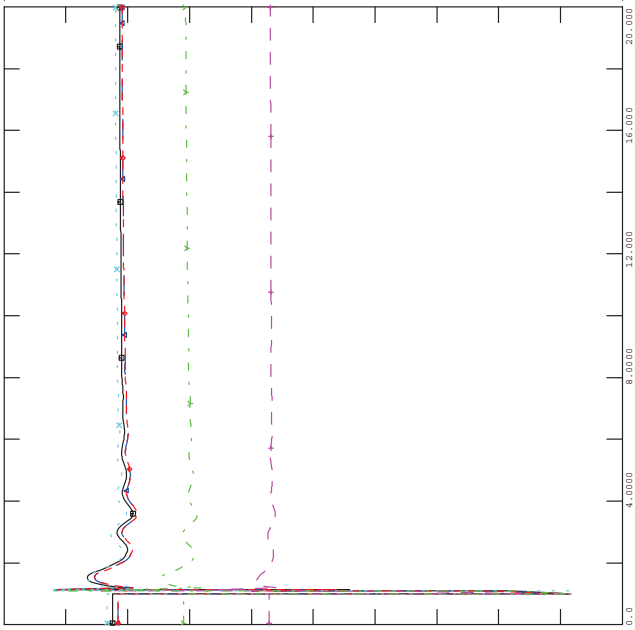
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.3883 0.18830
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.2127 -0.0922
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.2931 0.65820
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.2550 0.05710
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.2538 0.05680
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.2143 0.06220



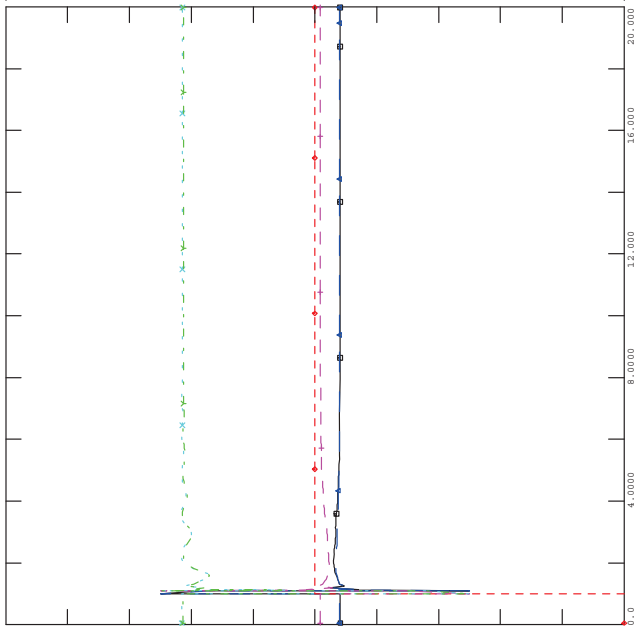
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 649: [1035L P]
798.44 -159.8
CHNL# 647: [1034L P]
759.43 -155.5
CHNL# 645: [983L P]
413.61 -76.52
CHNL# 643: [675L P]
5000.0 -5000.
CHNL# 641: [1074L P]
177.05 -899.7
CHNL# 639: [964L P]
111.89 -588.8



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 656: [600L Q] 57.157 -120.6

CHNL# 654: [880L Q] 698.09 -266.2

CHNL# 652: [676L Q] 435.60 -194.8

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

FILE: Scn4_SP_00_nofault.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4000 1.0000

CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.3280 0.92800

CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.57340 0.17340

CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 1.7001 1.2997

CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 2.2000 1.7996

CHNL# 215: [POWR 667[CANCARB9 13.800]1] 0.63430 0.23420

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN3_SL_18_675L_BOWMANTON

FILE: Scn3_SL_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 655: [600L P] 49.054 -164.8

CHNL# 653: [880L P] 236.26 -228.1

CHNL# 651: [676L P] 180.80 -547.2

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

FILE: Scn4_SP_00_nofault.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 120.37 20.184

CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 72.302 -27.84

CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 76.812 -23.32

CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 127.98 27.783

TIME (SECONDS)

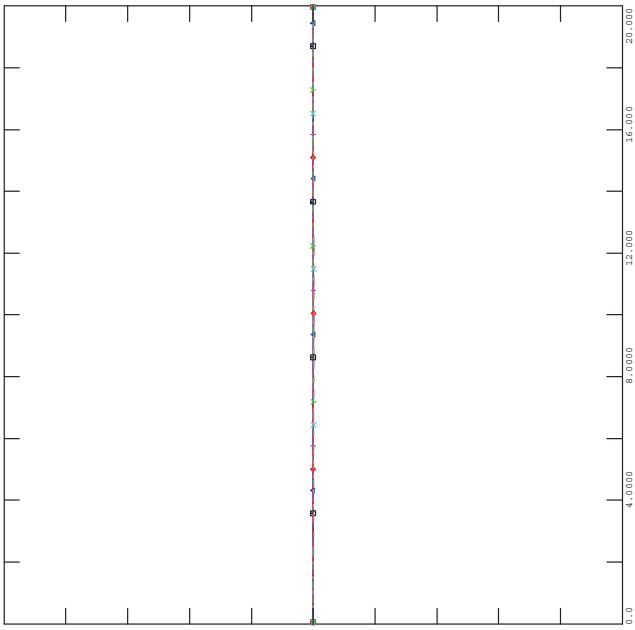
SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

FILE: Scn4_SP_00_nofault.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 1.1501 0.94990
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1176 0.91740
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15] 1.1200 0.92000
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.1801 0.97990
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.1801 0.97990
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1200 0.91990



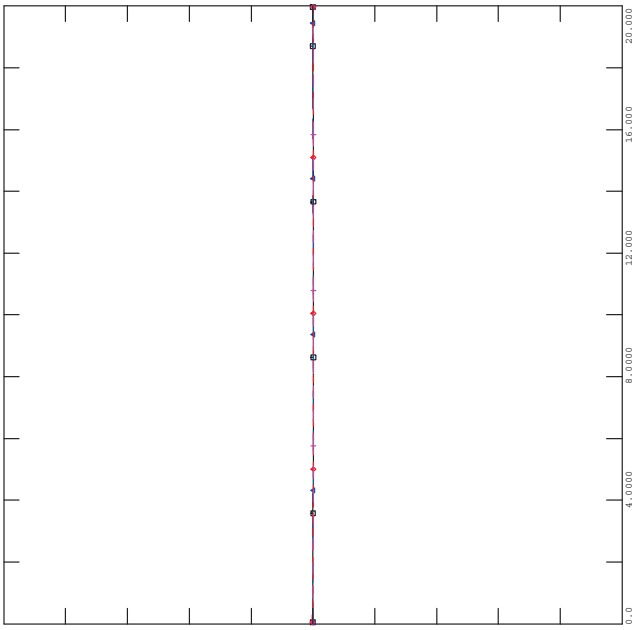
SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

FILE: Scn4_SP_00_nofault.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.1058 0.90560
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.1233 0.92300
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.1411 0.94100
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.1033 0.90310



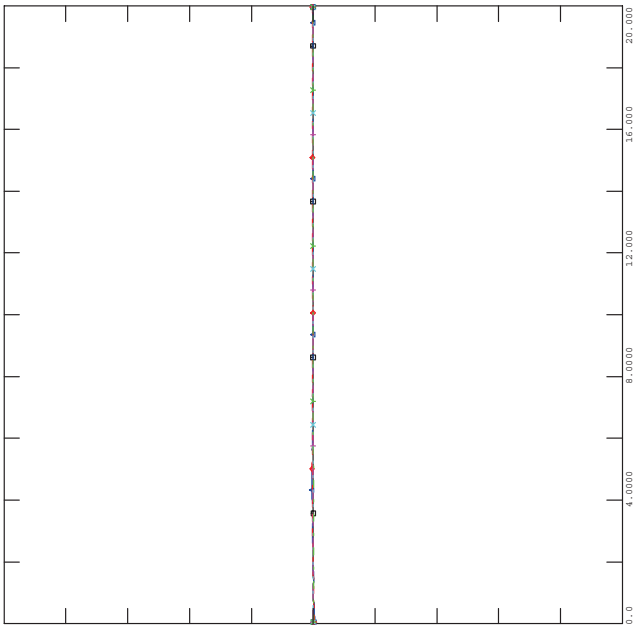
SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

FILE: Scn4_SP_00_nofault.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 0.64890 -0.3518
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 0.59980 -0.4002
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15] 0.61880 -0.3814
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 1.4753 0.47160
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 1.4626 0.45770
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 0.59230 -0.4081



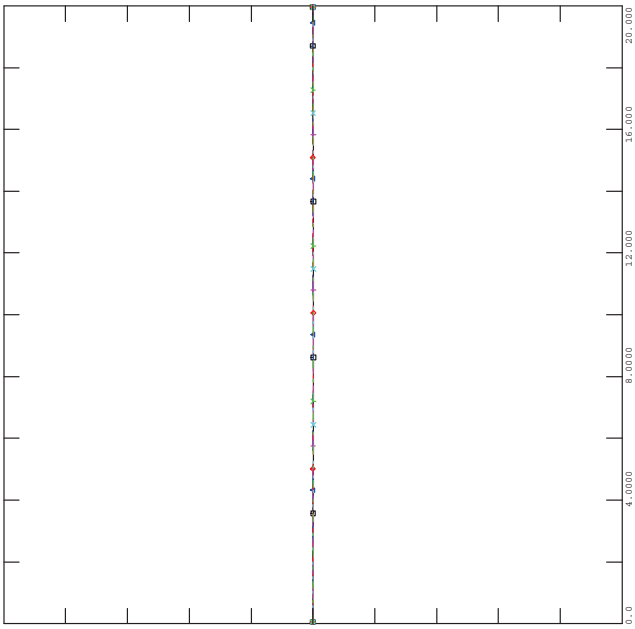
SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

FILE: Scn4_SP_00_nofault.out

MON, JAN 15 2024 11:38

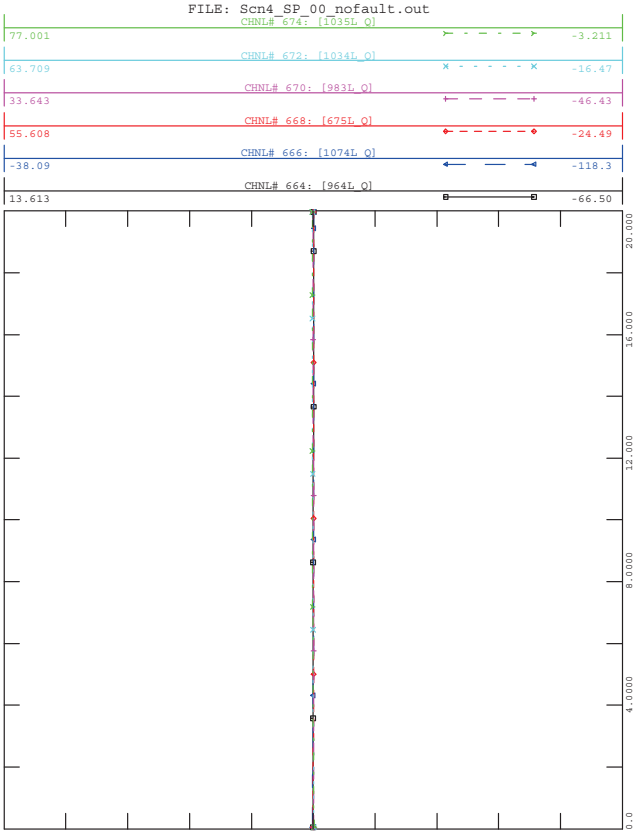
BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.1415 0.94130
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.1069 0.90670
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.1209 0.92080
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.1417 0.94150
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.1406 0.94040
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.1215 0.92130



SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

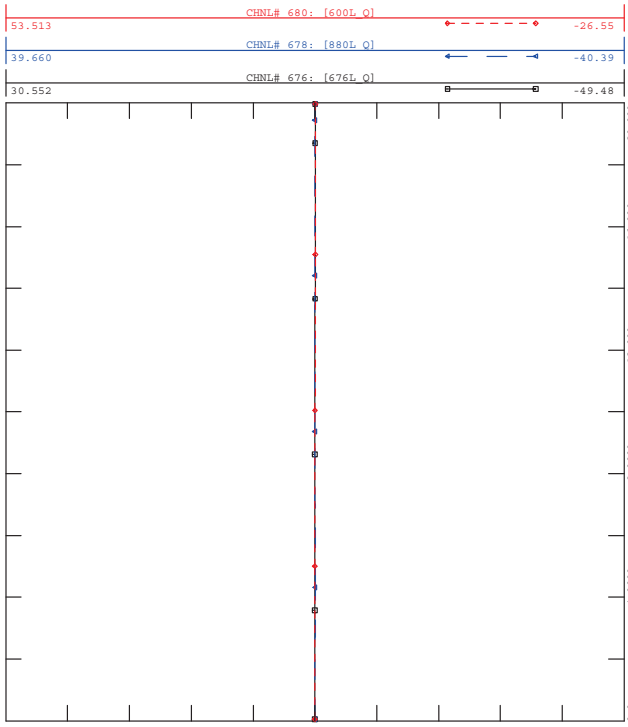
FILE: Scn4_SP_00_nofault.out



MON, JAN 15 2024 11:38 BRANCH Q

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

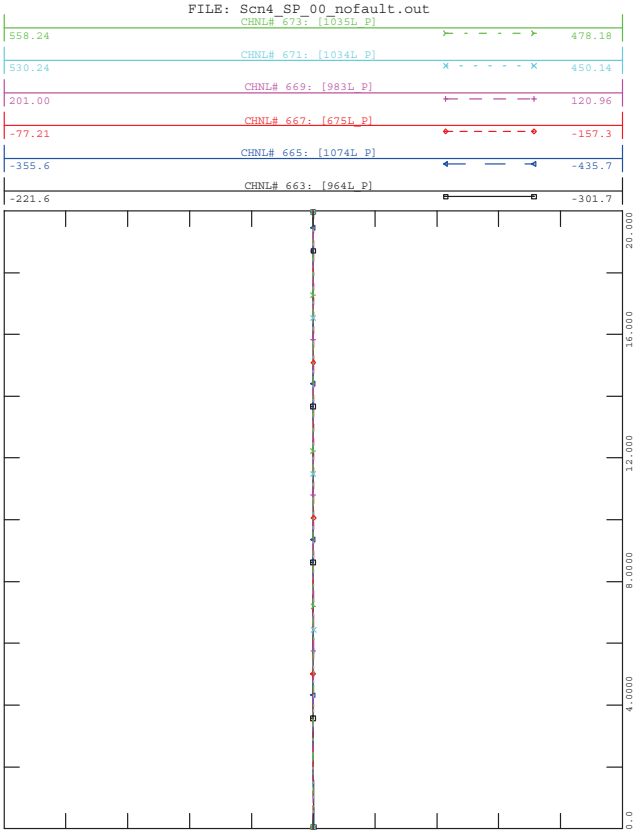
FILE: Scn4_SP_00_nofault.out



MON, JAN 15 2024 11:38 BRANCH Q

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

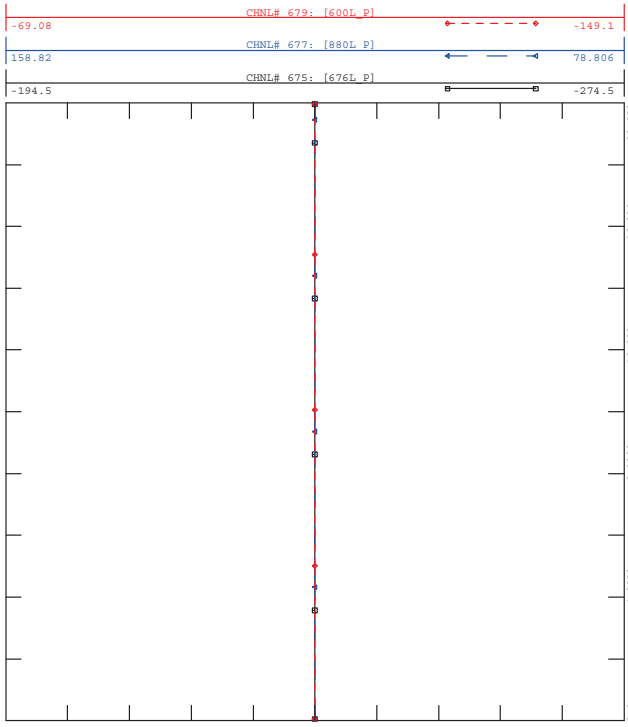
FILE: Scn4_SP_00_nofault.out



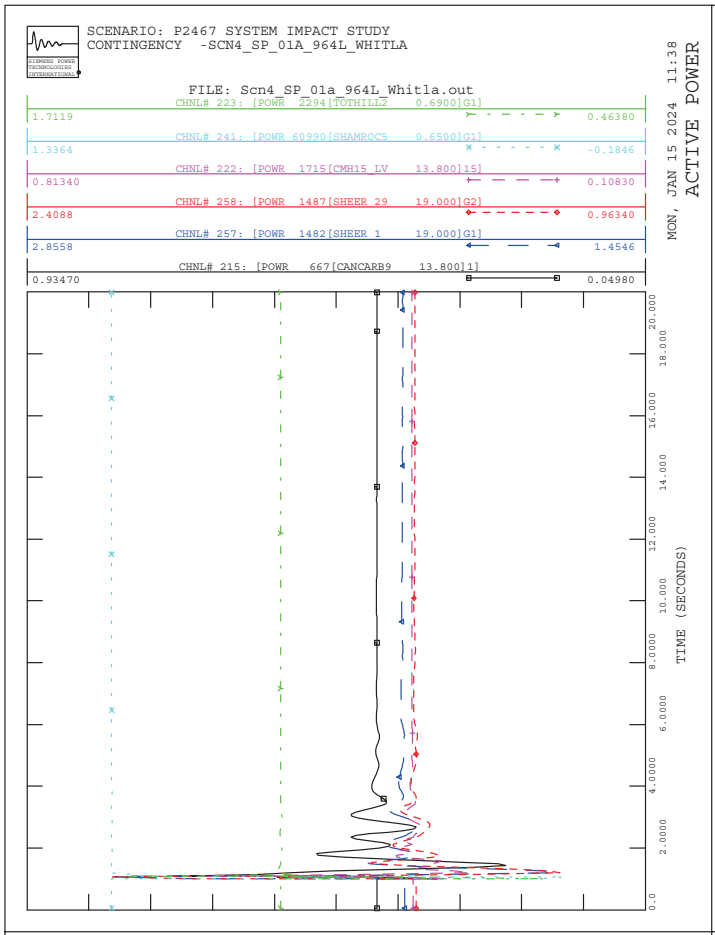
MON, JAN 15 2024 11:38 BRANCH P

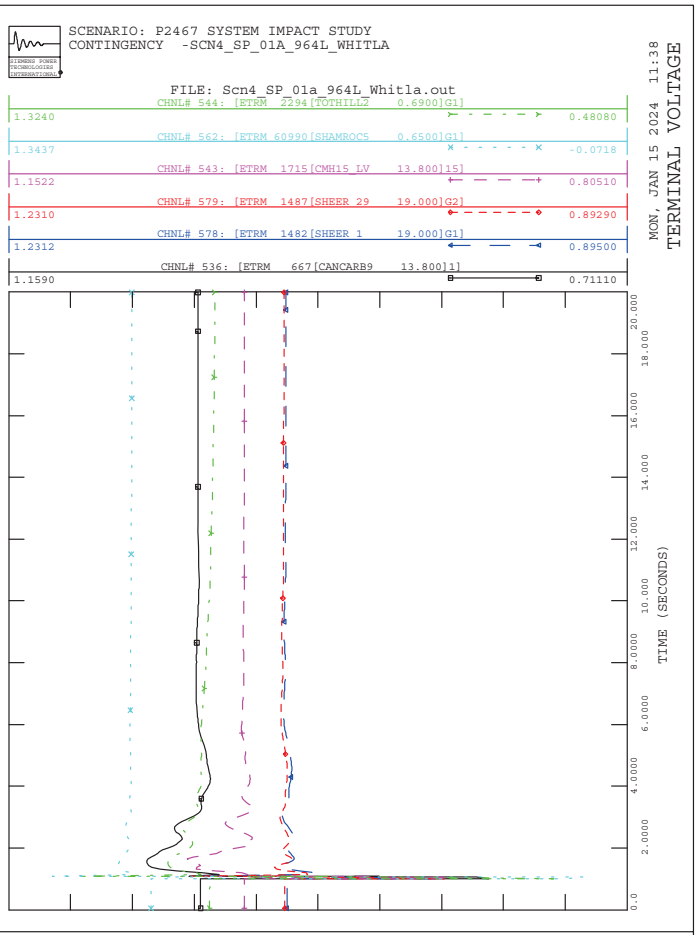
SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_00_NOFAULT

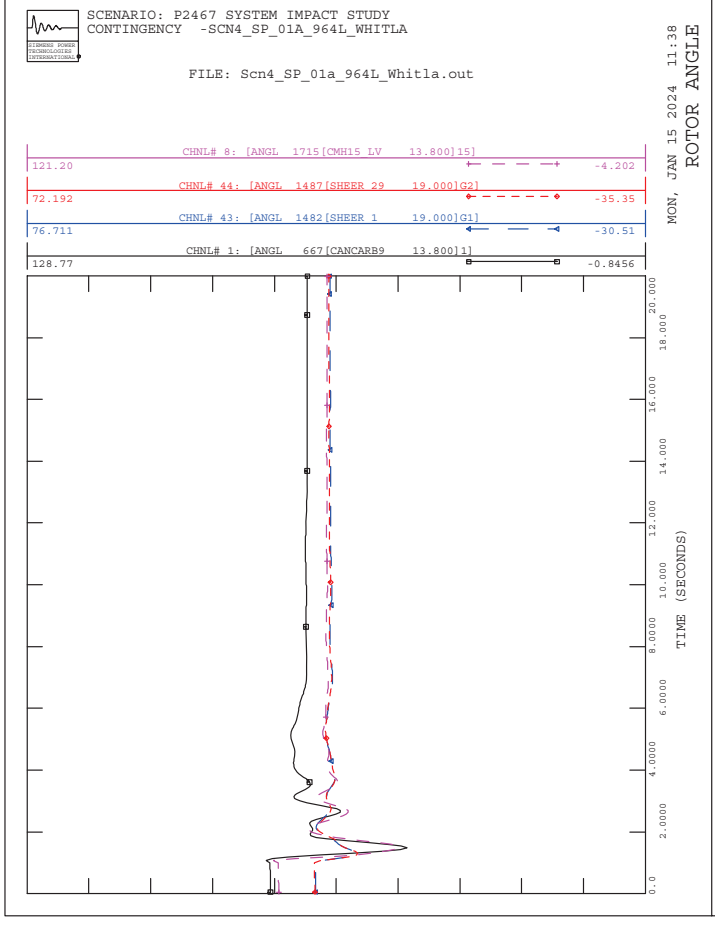
FILE: Scn4_SP_00_nofault.out

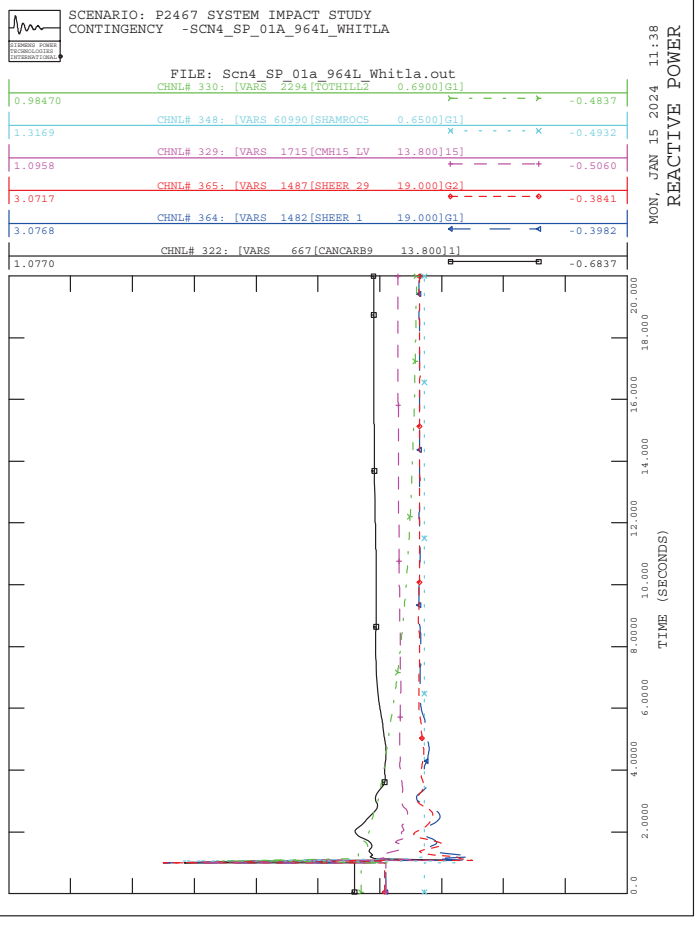


MON, JAN 15 2024 11:38 BRANCH P


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA
FILE: Scn4_SP_01a_964L_Whitla.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.7119
0.46380
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.3364
-0.1846
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.81340
0.10830
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.4088
0.96340
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
2.8558
1.4546
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.93470
0.04980
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA
FILE: Scn4_SP_01a_964L_Whitla.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3240
0.48080
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3437
-0.0718
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1522
0.80510
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2310
0.89290
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2312
0.89500
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1590
0.71110
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA
FILE: Scn4_SP_01a_964L_Whitla.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
121.20
-4.202
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
72.192
-35.35
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
76.711
-30.51
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
128.77
-0.8456
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA
FILE: Scn4_SP_01a_964L_Whitla.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
0.98470
-0.4837
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
1.3169
-0.4932
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.0958
-0.5060
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
3.0717
-0.3841
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
3.0768
-0.3982
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.0770
-0.6837
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA

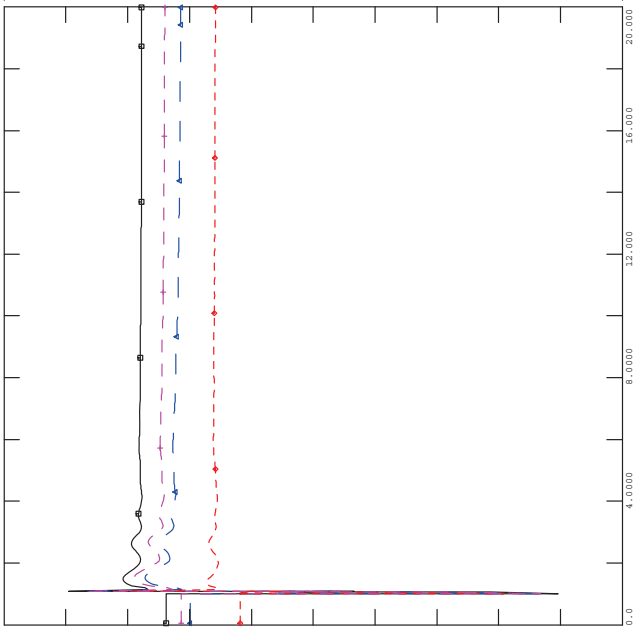
FILE: Scn4_SP_01a_964L_Whitla.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.2221 0.46590
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.2226 0.70080
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2891 0.46460
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2547 0.29510

TIME (SECONDS)



SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA

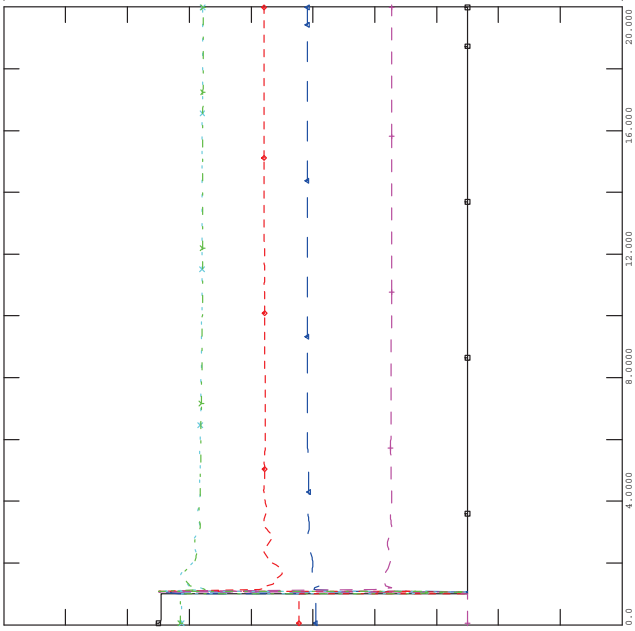
FILE: Scn4_SP_01a_964L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 674: [1035L Q]
209.96 -397.3
CHNL# 672: [1034L Q]
191.85 -392.9
CHNL# 670: [983L Q]
190.96 -72.20
CHNL# 668: [675L Q]
181.96 -166.7
CHNL# 666: [1074L Q]
565.31 -710.2
CHNL# 664: [964L Q]
4149.4 -1383.

TIME (SECONDS)



SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA

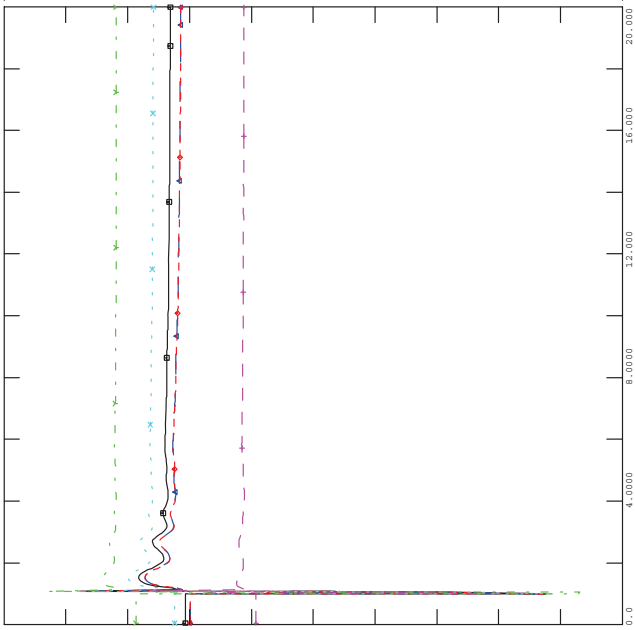
FILE: Scn4_SP_01a_964L_Whitla.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.3511 -0.0995
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2531 0.35930
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2232 0.72700
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2900 0.46500
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2886 0.46410
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.2581 0.45030

TIME (SECONDS)



SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA

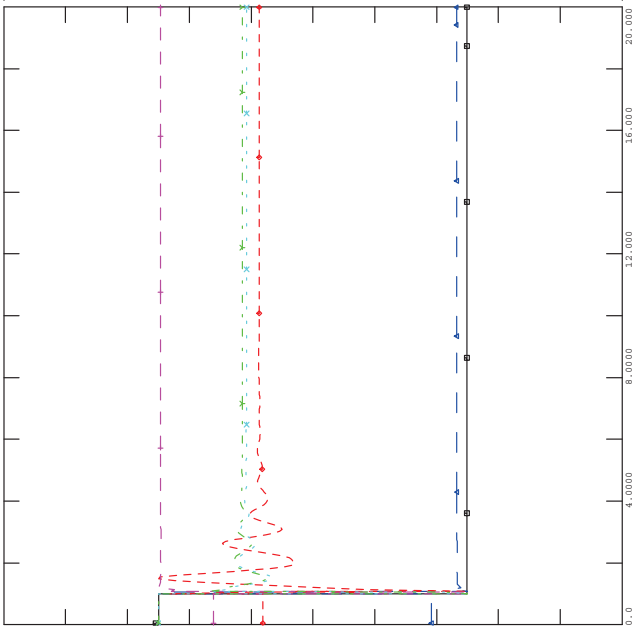
FILE: Scn4_SP_01a_964L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 673: [1035L P]
729.27 -114.9
CHNL# 671: [1034L P]
692.69 -117.1
CHNL# 669: [983L P]
293.88 -97.91
CHNL# 667: [675L P]
9.3477 -292.7
CHNL# 665: [1074L P]
178.05 -651.1
CHNL# 663: [964L P]
5000.0 -1679.

TIME (SECONDS)



SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA

FILE: Scn4_SP_01a_964L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 680: [600L Q] 66.750 -46.94

CHNL# 678: [880L Q] 159.27 -115.6

CHNL# 676: [676L Q] 49.887 -150.2

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S

FILE: Scn4_SP_01b_965L_326s.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.6470 0.45860

CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.4855 -0.1308

CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.67000 0.12450

CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.4035 1.1158

CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 2.8552 1.6180

CHNL# 215: [POWR 667[CANCARB9 13.800]1] 0.76520 0.14200

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01A_964L_WHITLA

FILE: Scn4_SP_01a_964L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 679: [600L P] -16.45 -178.8

CHNL# 677: [880L P] 183.05 9.9732

CHNL# 675: [676L P] -23.58 -321.7

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S

FILE: Scn4_SP_01b_965L_326s.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

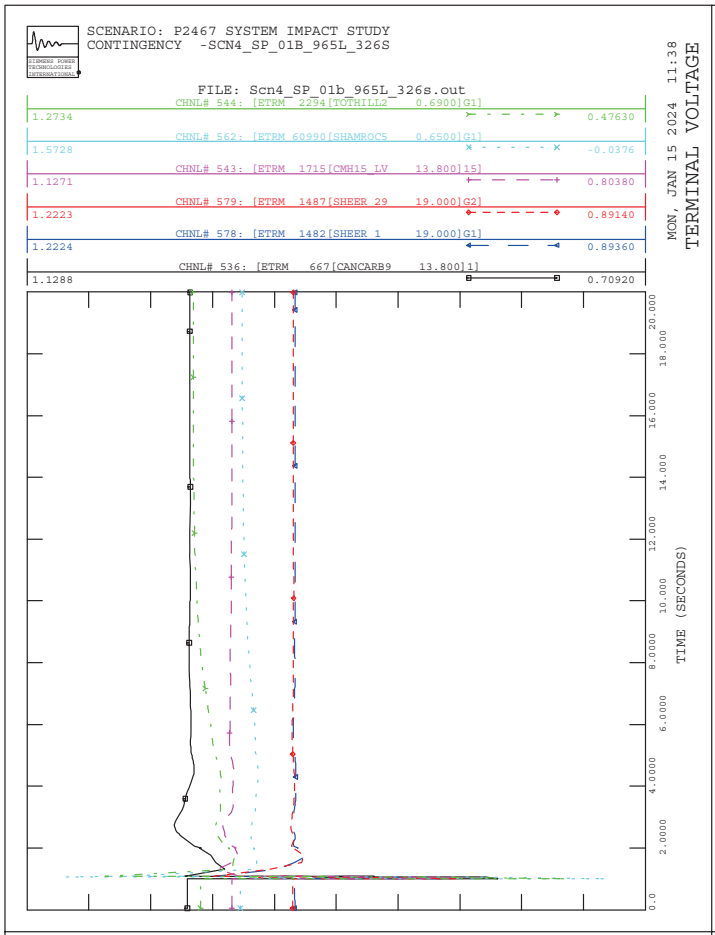
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 122.34 18.901

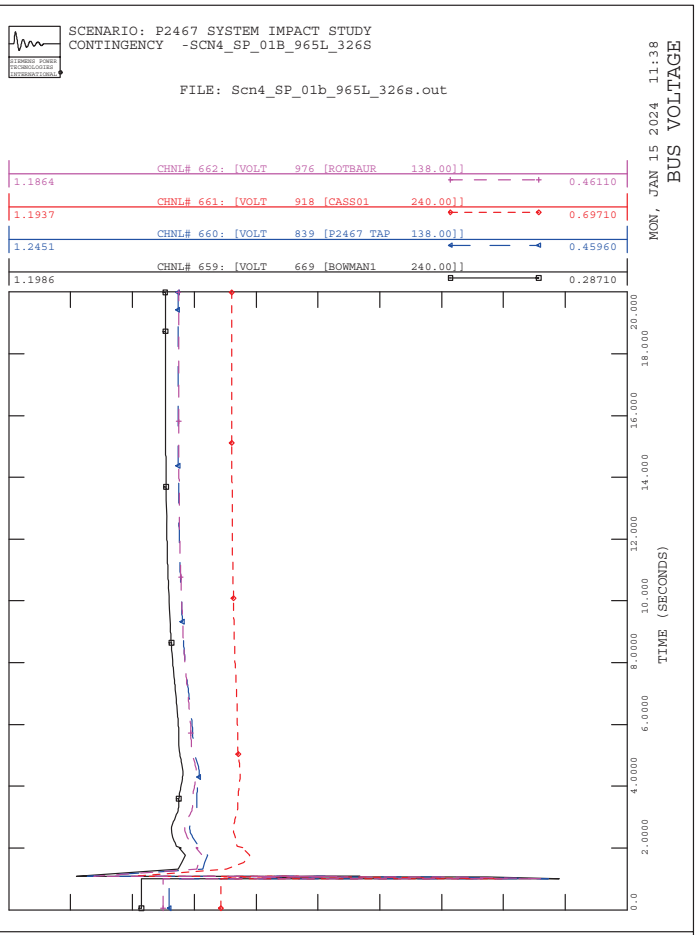
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 73.541 -30.88

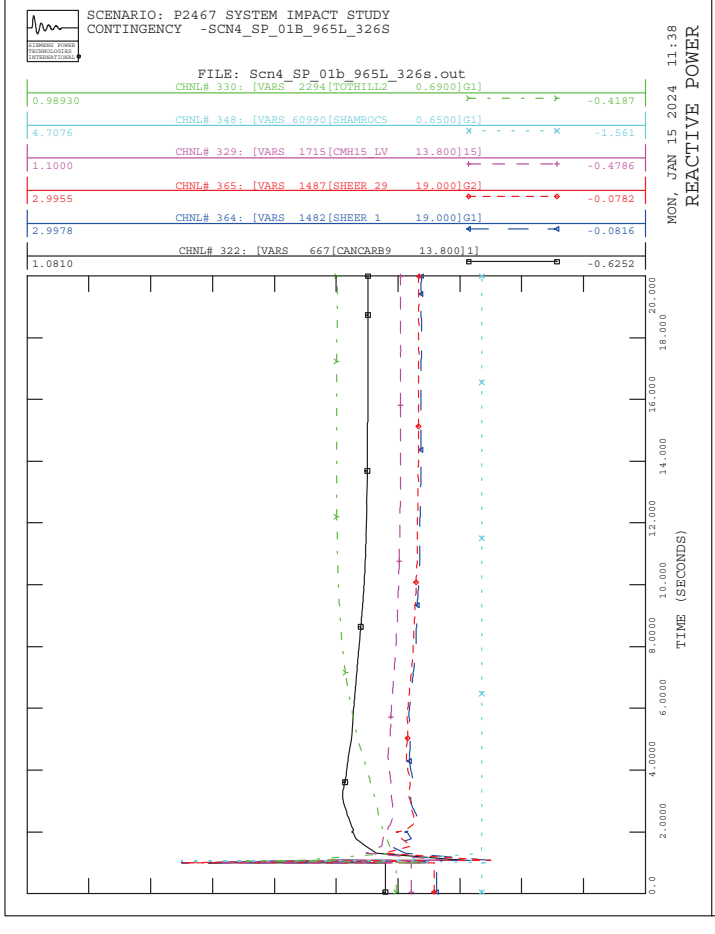
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 77.700 -26.63

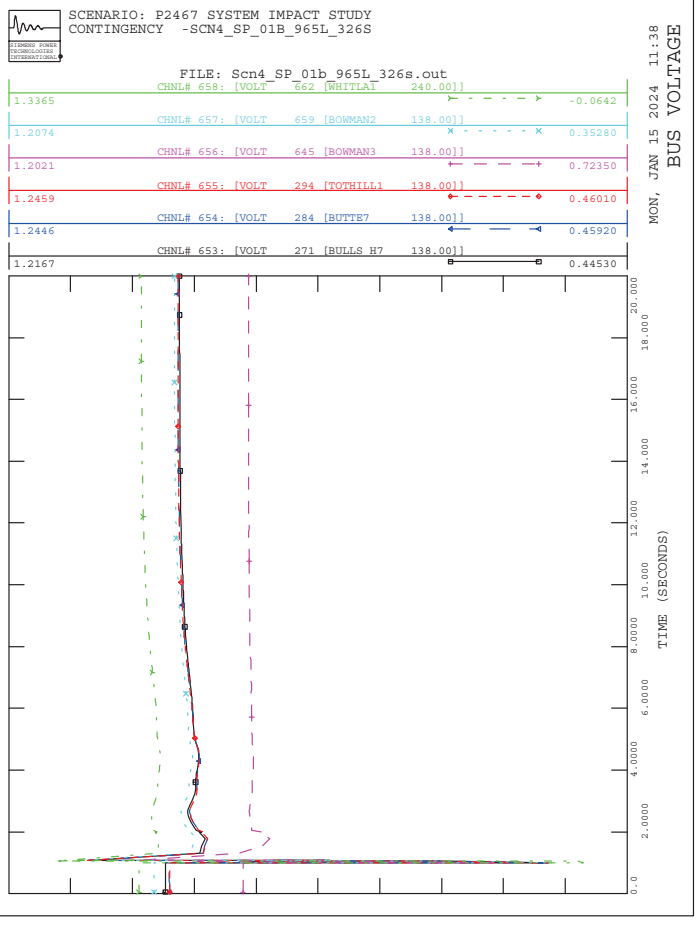
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 129.23 22.394

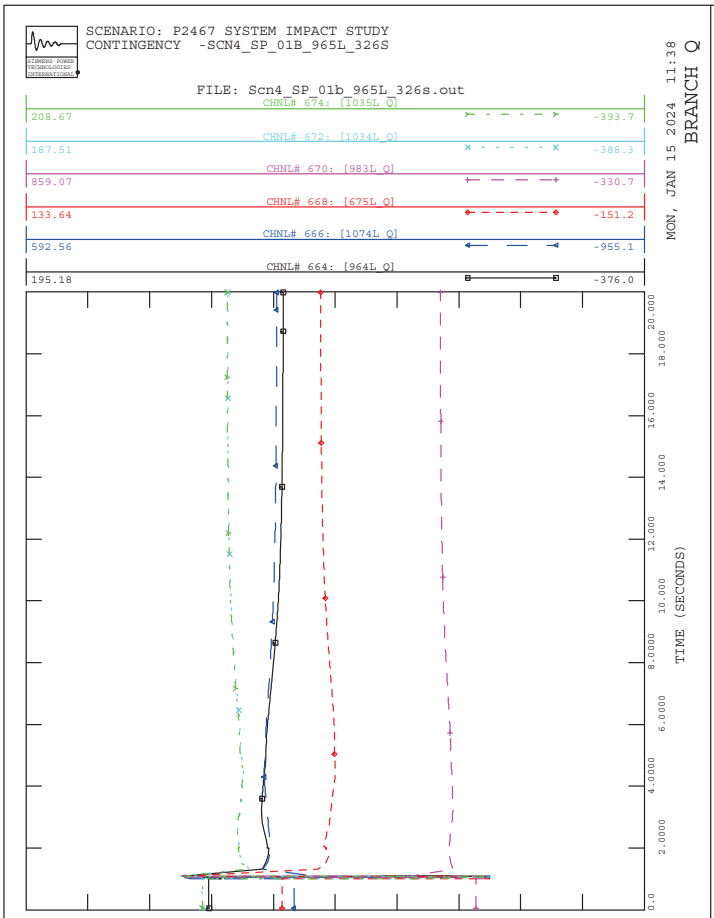
TIME (SECONDS)

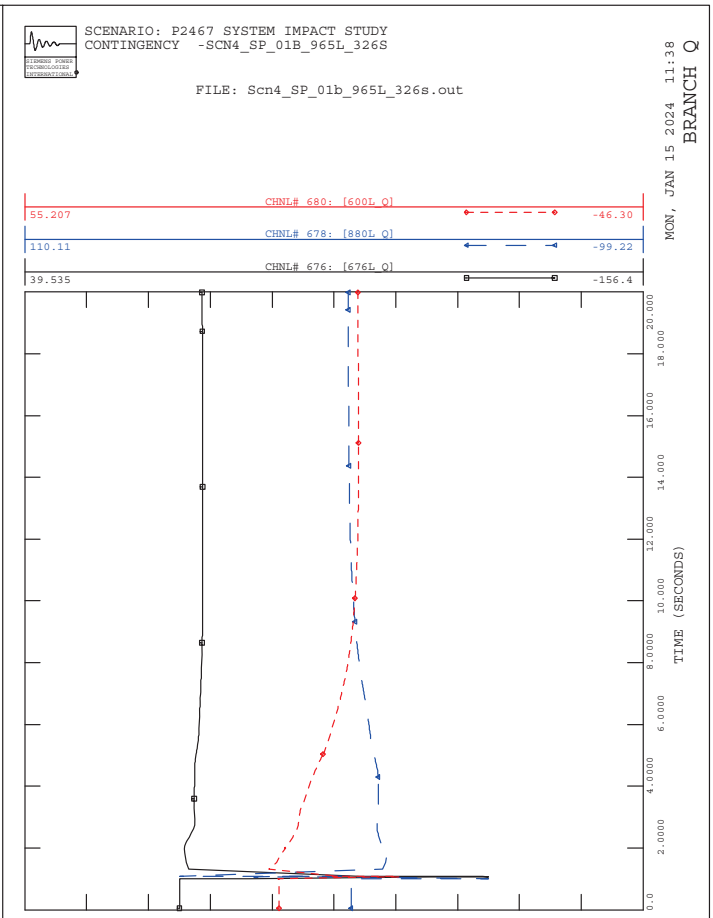

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.2734
0.47630
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.5728
-0.0376
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.1271
0.80380
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2223
0.89140
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2224
0.89360
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1288
0.70920
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

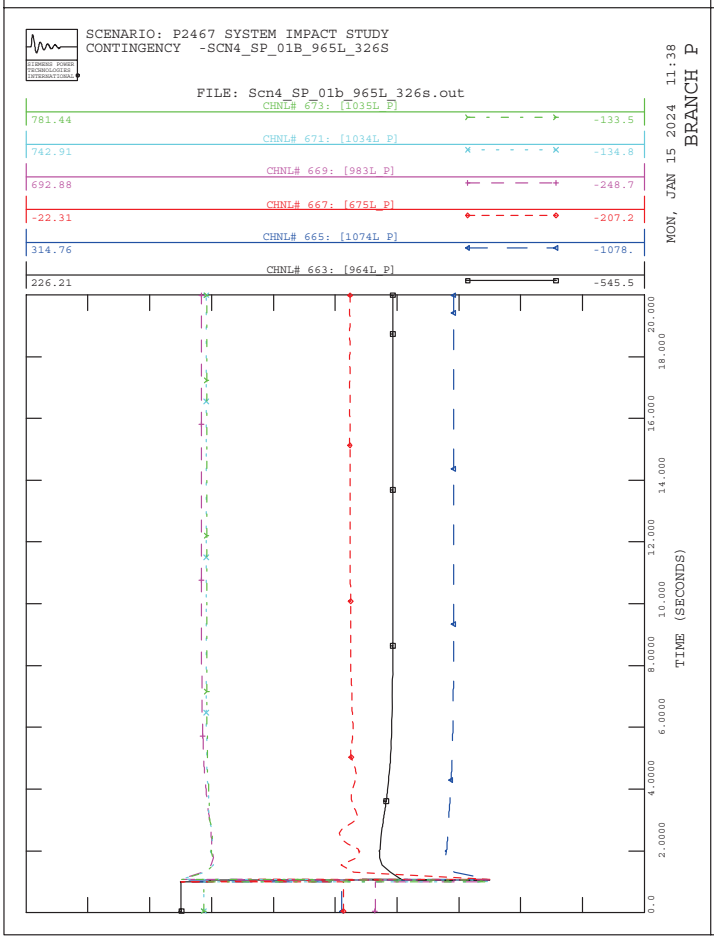

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1864
0.46110
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.1937
0.69710
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2451
0.45960
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.1986
0.28710
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

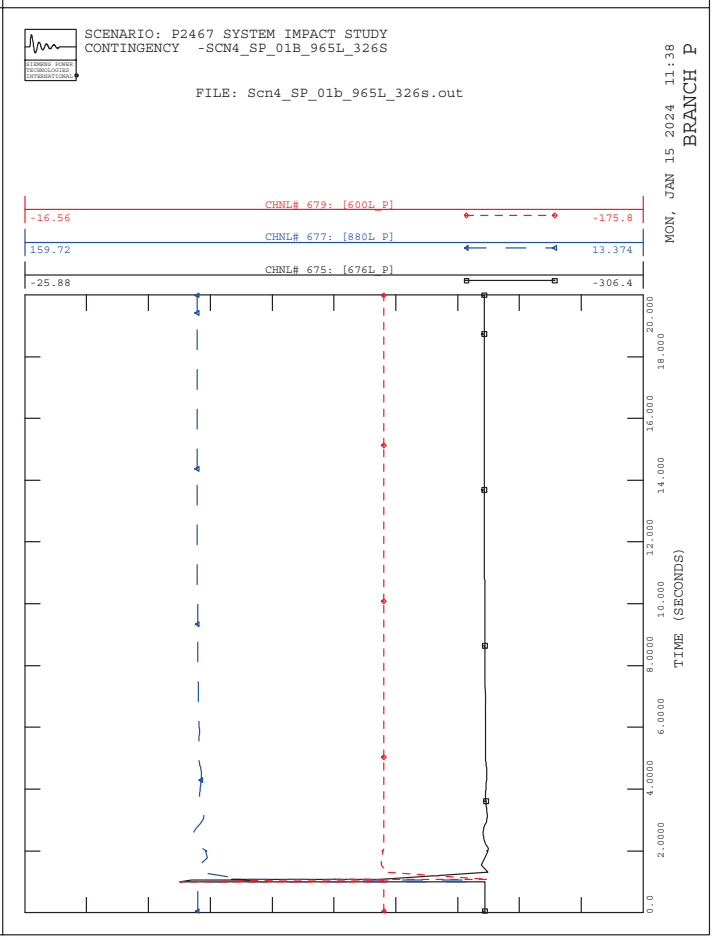

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
0.98930
-0.4187
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
4.7076
-1.561
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.1000
-0.4786
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
2.9955
-0.0782
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
2.9978
-0.0816
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.0810
-0.6252
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

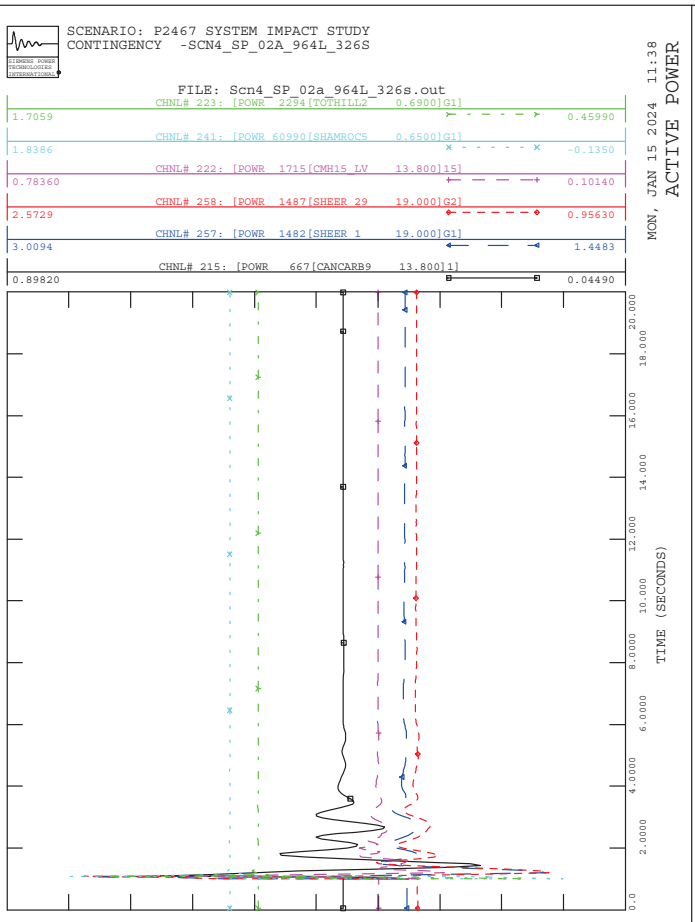

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 658: [VOLT 662 [WHITLAI 240.00]]
1.3365
-0.0642
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2074
0.35280
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2021
0.72350
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2459
0.46010
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2446
0.45920
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.2167
0.44530
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

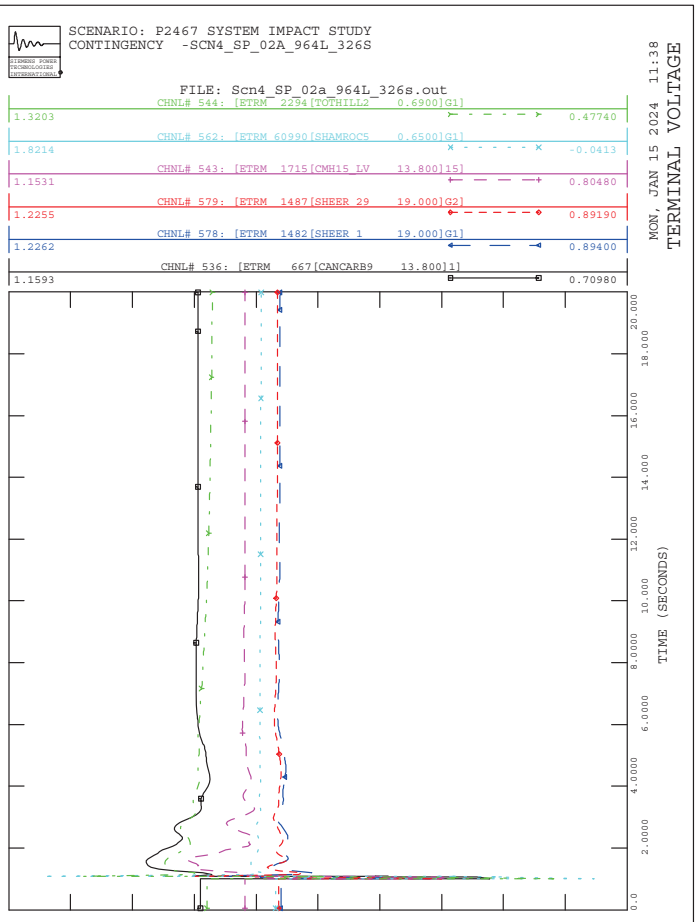

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 674: [1035L Q]
208.67
-393.7
CHNL# 672: [1034L Q]
187.51
-388.3
CHNL# 670: [983L Q]
859.07
-330.7
CHNL# 668: [675L Q]
133.64
-151.2
CHNL# 666: [1074L Q]
592.56
-955.1
CHNL# 664: [964L Q]
195.18
-376.0
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

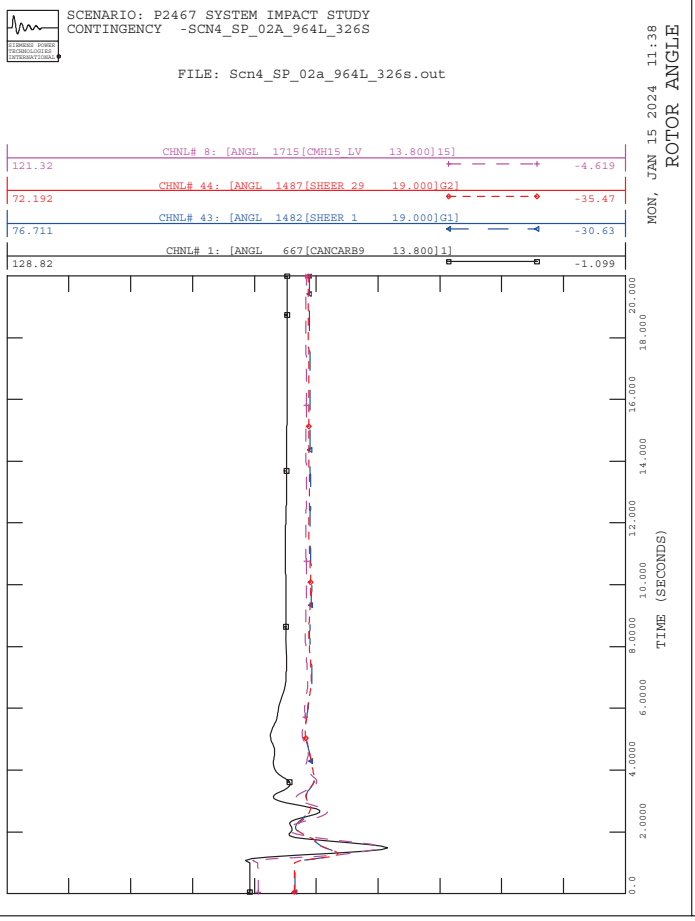

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 680: [600L Q]
55.207
-46.30
CHNL# 678: [880L Q]
110.11
-99.22
CHNL# 676: [676L Q]
39.535
-156.4
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

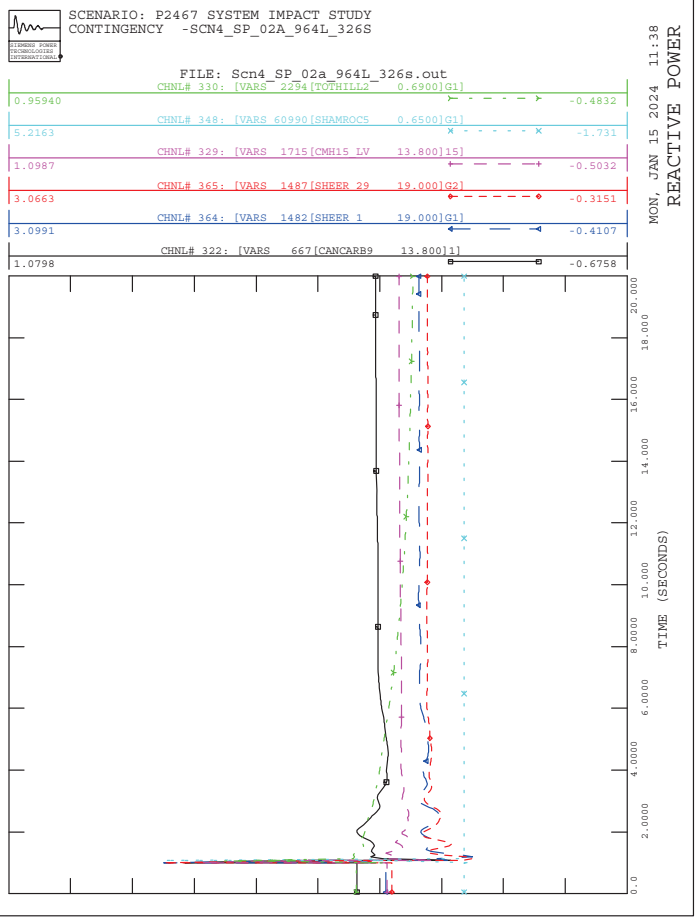

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 673: [1035L P]
781.44
-133.5
CHNL# 671: [1034L P]
742.91
-134.8
CHNL# 669: [983L P]
692.88
-248.7
CHNL# 667: [675L P]
-22.31
-207.2
CHNL# 665: [1074L P]
314.76
-1078.
CHNL# 663: [964L P]
226.21
-545.5
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

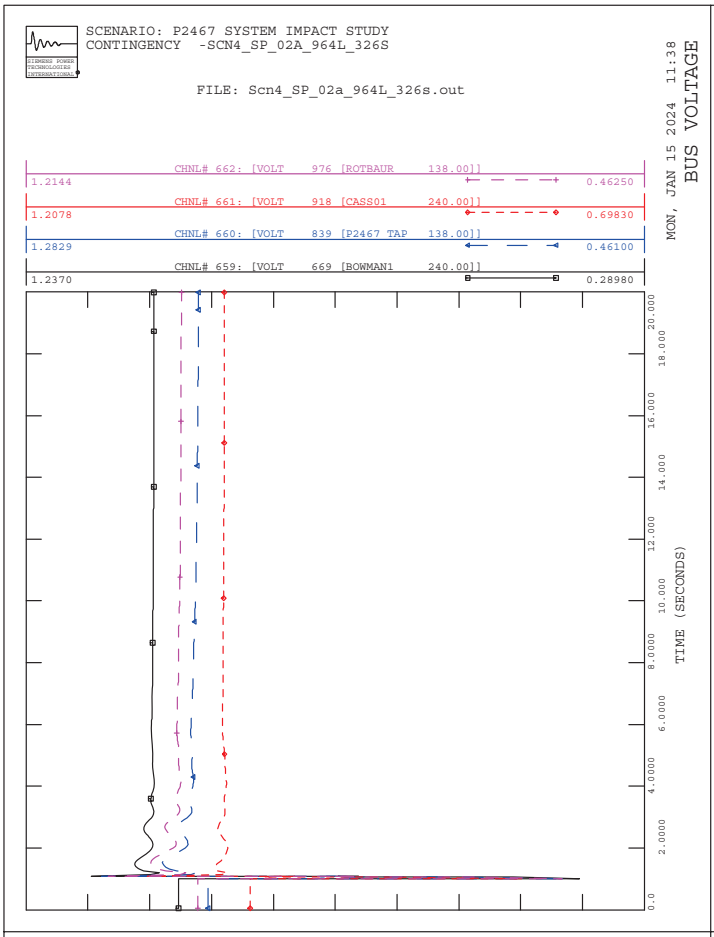

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_01B_965L_326S
FILE: Scn4_SP_01b_965L_326s.out
CHNL# 679: [600L P]
-16.56
-175.8
CHNL# 677: [880L P]
159.72
13.374
CHNL# 675: [676L P]
-25.88
-306.4
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

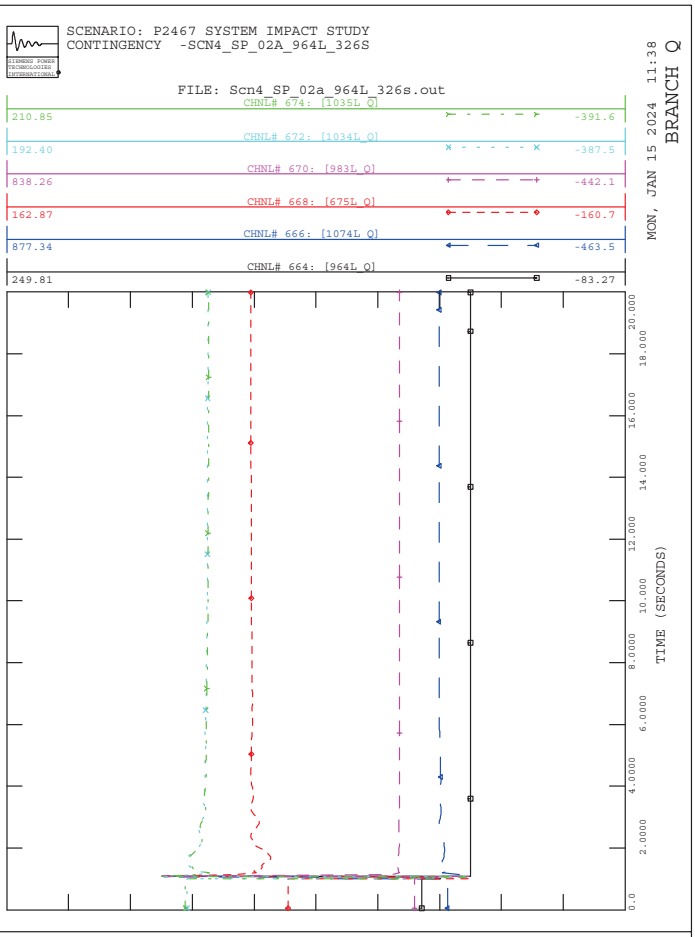

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.7059
0.45990
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.8386
-0.1350
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.78360
0.10140
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.5729
0.95630
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.0094
1.4483
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.89820
0.04490
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
ACTIVE POWER

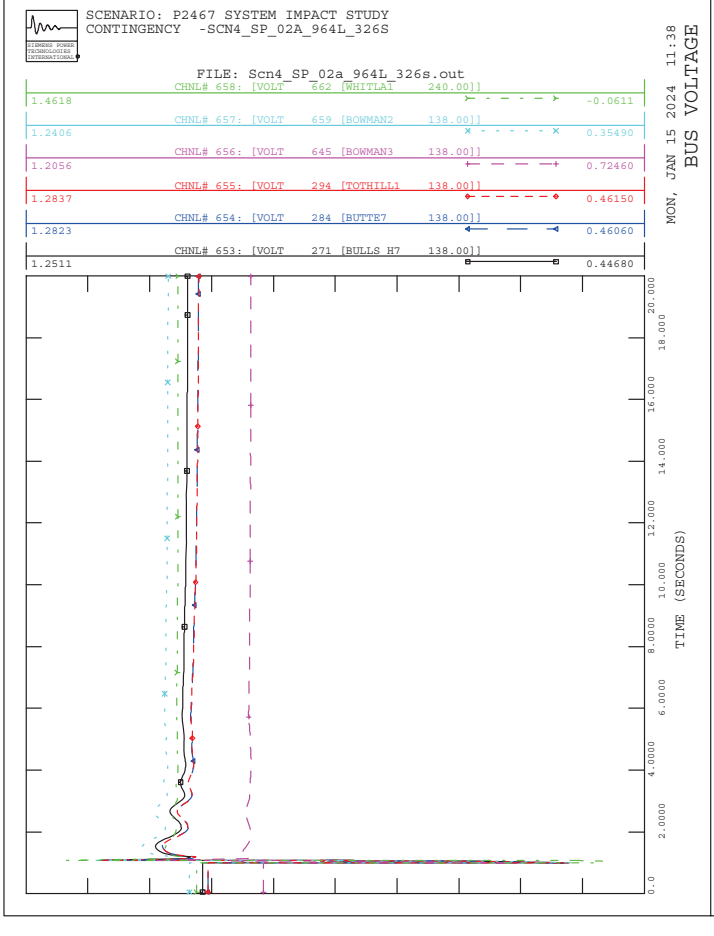

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3203
0.47740
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.8214
-0.0413
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1531
0.80480
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2255
0.89190
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2262
0.89400
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1593
0.70980
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE

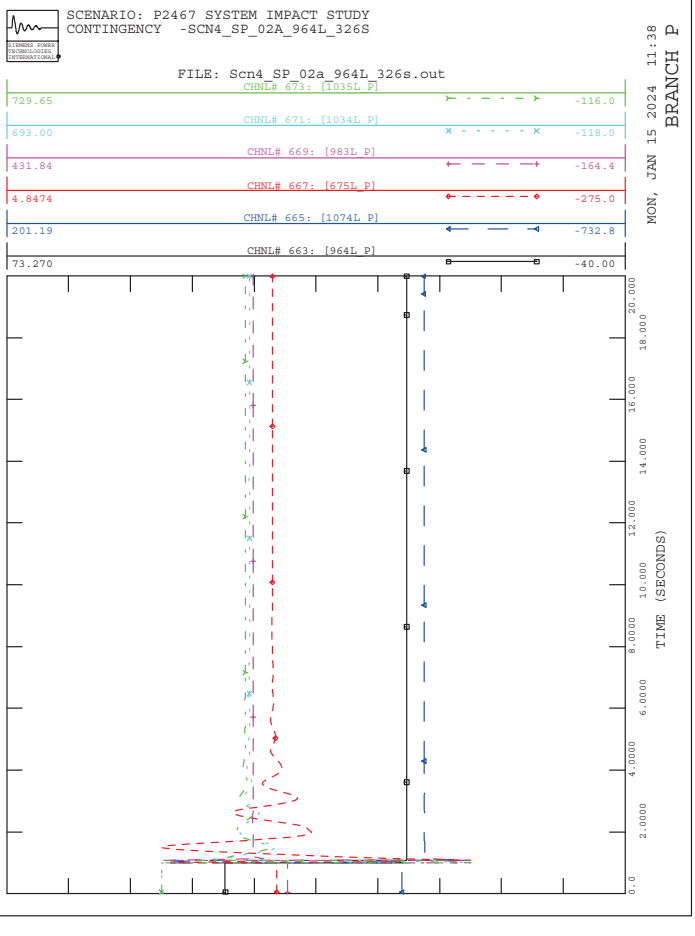

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
121.32
-4.619
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
72.192
-35.47
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
76.711
-30.63
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
128.82
-1.099
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
ROTOR ANGLE


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
0.95940
-0.4832
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
5.2163
-1.731
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.0987
-0.5032
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
3.0663
-0.3151
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
3.0991
-0.4107
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.0798
-0.6758
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
REACTIVE POWER


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.2144
0.46250
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.2078
0.69830
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2829
0.46100
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2370
0.28980
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
MON, JAN 15 2024 11:38
BRANCH Q
CHNL# 674: [1035L Q]
210.85
-391.6
CHNL# 672: [1034L Q]
192.40
-387.5
CHNL# 670: [983L Q]
838.26
-442.1
CHNL# 668: [675L Q]
162.87
-160.7
CHNL# 666: [1074L Q]
877.34
-463.5
CHNL# 664: [964L Q]
249.81
-83.27
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 658: [VOLT 662 [WHITLAT 240.00]]
1.4618
-0.0611
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2406
0.35490
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2056
0.72460
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2837
0.46150
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2823
0.46060
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.2511
0.44680
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S
FILE: Scn4_SP_02a_964L_326s.out
MON, JAN 15 2024 11:38
BRANCH P
CHNL# 673: [1035L P]
729.65
-116.0
CHNL# 671: [1034L P]
693.00
-118.0
CHNL# 669: [983L P]
431.84
-164.4
CHNL# 667: [675L P]
4.8474
-275.0
CHNL# 665: [1074L P]
201.19
-732.8
CHNL# 663: [964L P]
73.270
-40.00
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S

FILE: Scn4_SP_02a_964L_326s.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 680: [600L Q] 66.695 -45.57
CHNL# 678: [880L Q] 158.53 -115.4
CHNL# 676: [676L Q] 46.101 -140.4

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON

FILE: Scn4_SP_02b_965L_Bowmanton.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4276 -0.1209
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.4636 -0.0767
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.87270 -0.0306
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 3.0699 0.33250
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 3.4929 1.0744
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 0.88310 -0.0547

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02A_964L_326S

FILE: Scn4_SP_02a_964L_326s.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 679: [600L P] -16.46 -177.4
CHNL# 677: [880L P] 183.66 9.8064
CHNL# 675: [676L P] -22.15 -320.2

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON

FILE: Scn4_SP_02b_965L_Bowmanton.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 148.85 7.1593
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 98.716 -33.87
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 102.19 -28.87
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 156.63 10.043

TIME (SECONDS)

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON

FILE: Scn4_SP_02b_965L_Bowmanton.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 1.4846 -0.0308
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1497 0.01120
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15] 1.1579 0.72530
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2831 0.80800
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2795 0.81740
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1489 0.57080

TIME (SECONDS)

0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON

FILE: Scn4_SP_02b_965L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.2664 0.17990
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.3347 0.51170
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.3761 0.06530
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.2452 -0.0894

TIME (SECONDS)

0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON

FILE: Scn4_SP_02b_965L_Bowmanton.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 1.9199 -0.6269
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 1.6590 -0.5385
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15] 1.3357 -0.5988
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 4.7877 -2.149
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 4.8785 -2.270
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.2809 -0.8597

TIME (SECONDS)

0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON

FILE: Scn4_SP_02b_965L_Bowmanton.out

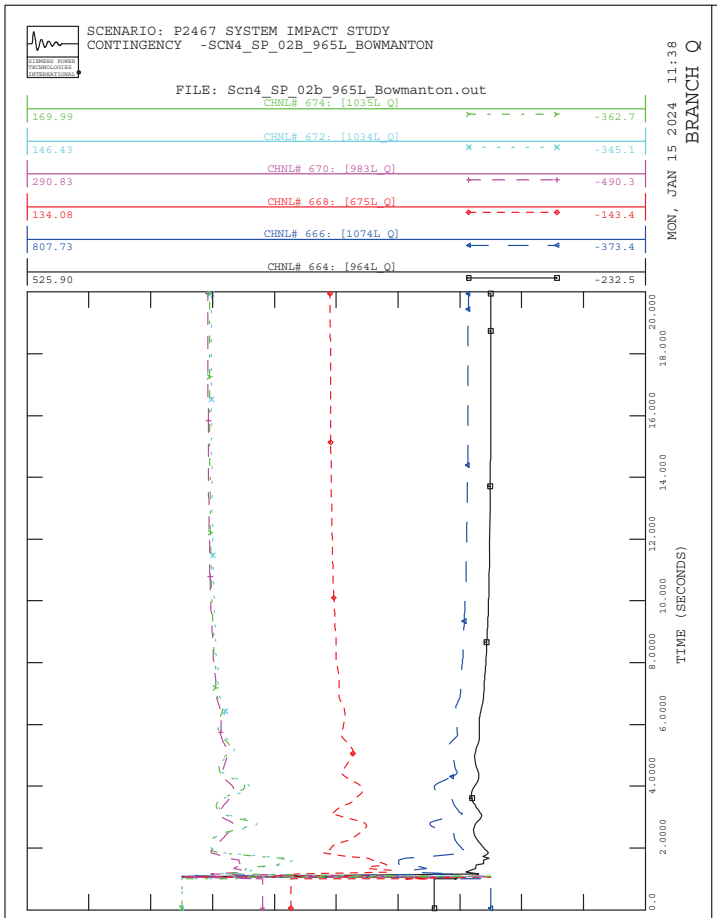
MON, JAN 15 2024 11:38

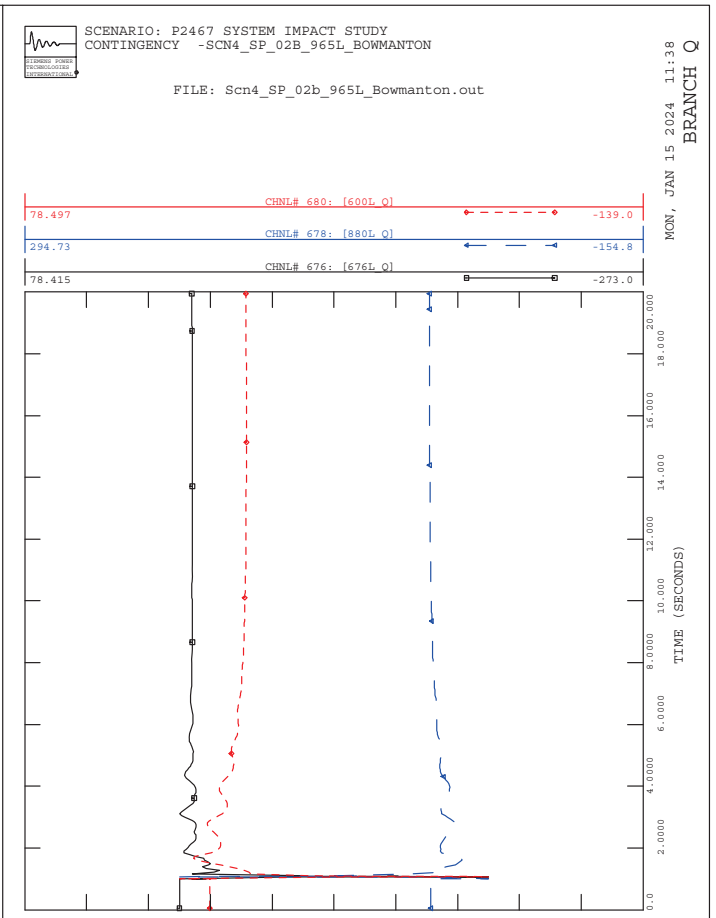
BUS VOLTAGE

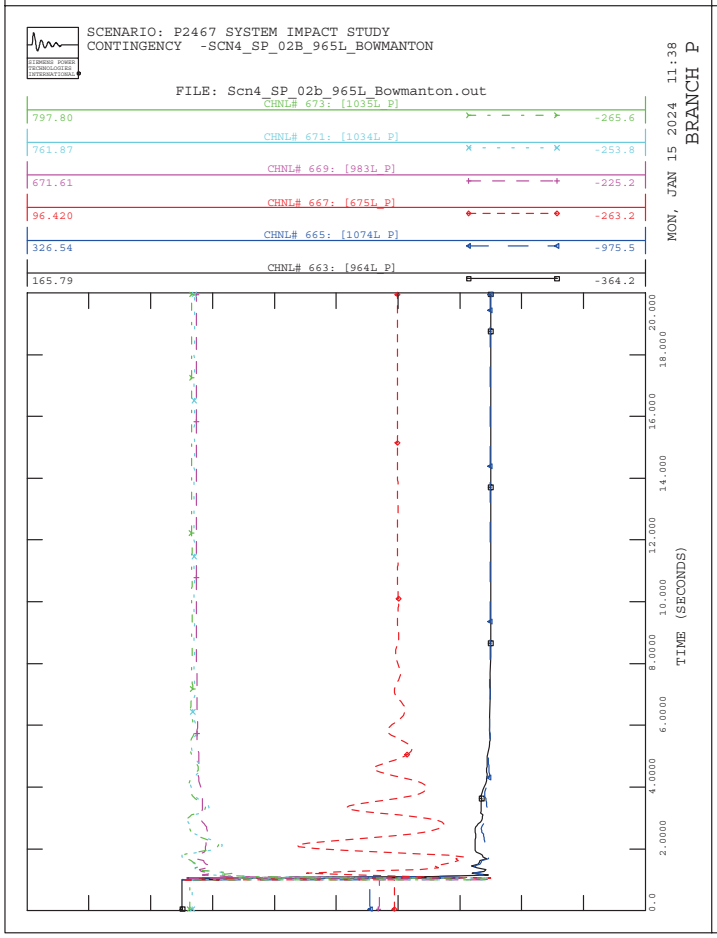
CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.1703 -0.0494
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.2867 0.03360
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.3163 0.55570
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.3775 0.06410
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.3756 0.06500
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.3244 0.11770

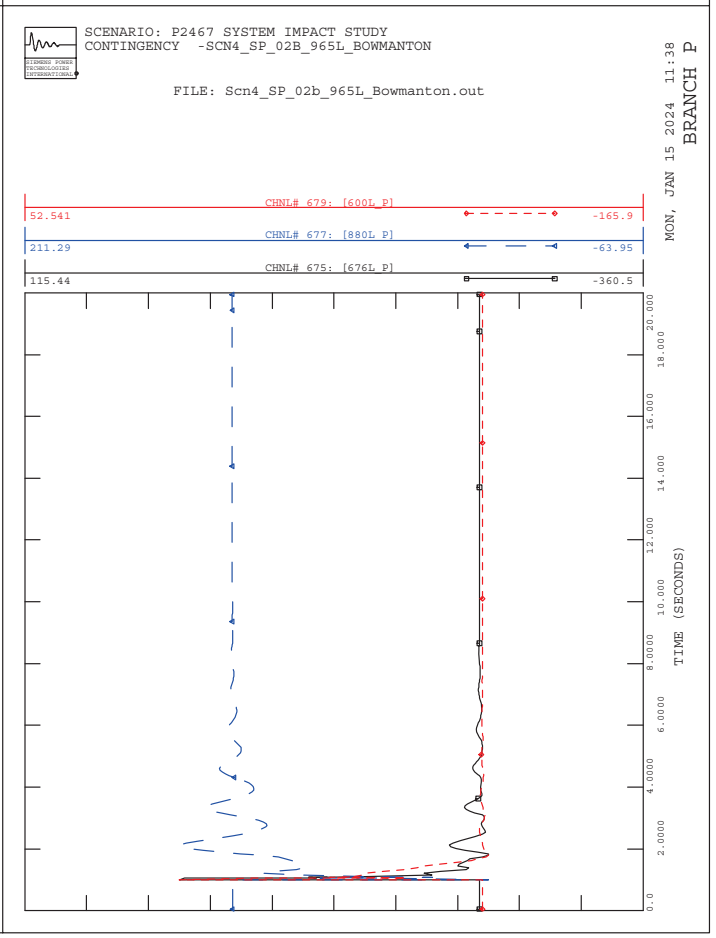
TIME (SECONDS)

0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON
FILE: Scn4_SP_02b_965L_Bowmanton.out
CHNL# 674: [1035L Q]
169.99
-362.7
CHNL# 672: [1034L Q]
146.43
-345.1
CHNL# 670: [983L Q]
290.83
-490.3
CHNL# 668: [675L Q]
134.08
-143.4
CHNL# 666: [1074L Q]
807.73
-373.4
CHNL# 664: [964L Q]
525.90
-232.5
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON
FILE: Scn4_SP_02b_965L_Bowmanton.out
CHNL# 680: [600L Q]
78.497
-139.0
CHNL# 678: [880L Q]
294.73
-154.8
CHNL# 676: [676L Q]
78.415
-273.0
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON
FILE: Scn4_SP_02b_965L_Bowmanton.out
CHNL# 673: [1035L P]
797.80
-265.6
CHNL# 671: [1034L P]
761.87
-253.8
CHNL# 669: [983L P]
671.61
-225.2
CHNL# 667: [675L P]
96.420
-263.2
CHNL# 665: [1074L P]
326.54
-975.5
CHNL# 663: [964L P]
165.79
-364.2
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2467 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_02B_965L_BOWMANTON
FILE: Scn4_SP_02b_965L_Bowmanton.out
CHNL# 679: [600L P]
52.541
-165.9
CHNL# 677: [880L P]
211.29
-63.95
CHNL# 675: [676L P]
115.44
-360.5
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 40.201 -1.220
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 261.38 -12.42
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 3.3320 -57.23
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 33.467 -649.6
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 21.964 -404.0
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 2.2029 -30.93

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 32.195 -0.9255
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 326.34 -15.50
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15] 12.877 0.25640
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 18.305 -0.4599
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 15.080 -0.2113
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 24.185 -0.4371

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 121.56 20.183
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 72.193 -29.92
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 76.712 -25.20
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 129.16 27.782

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 14.230 -4.634
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 208.32 -69.43
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15] 350.50 -1048.
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 4229.8 -5000.
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 2137.0 -5000.
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 782.15 -2344.

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

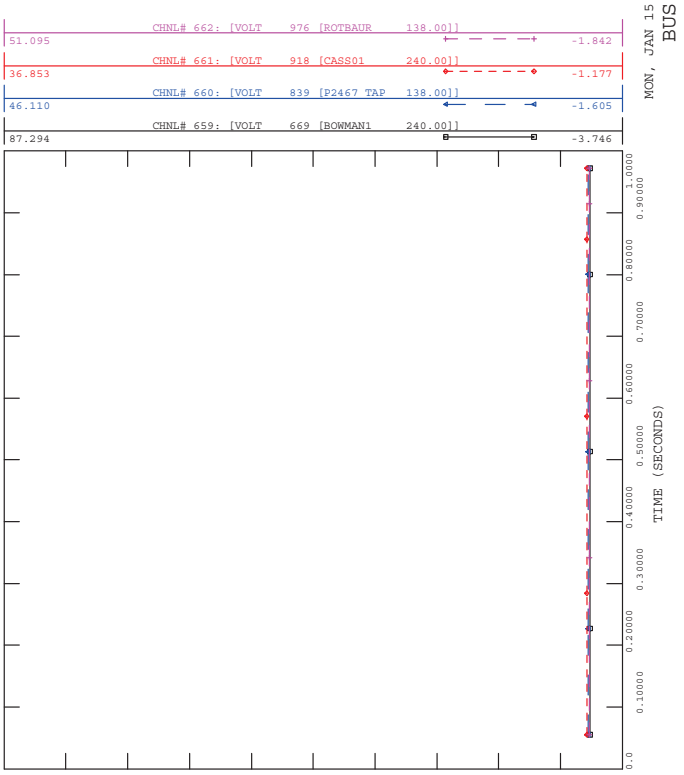
TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

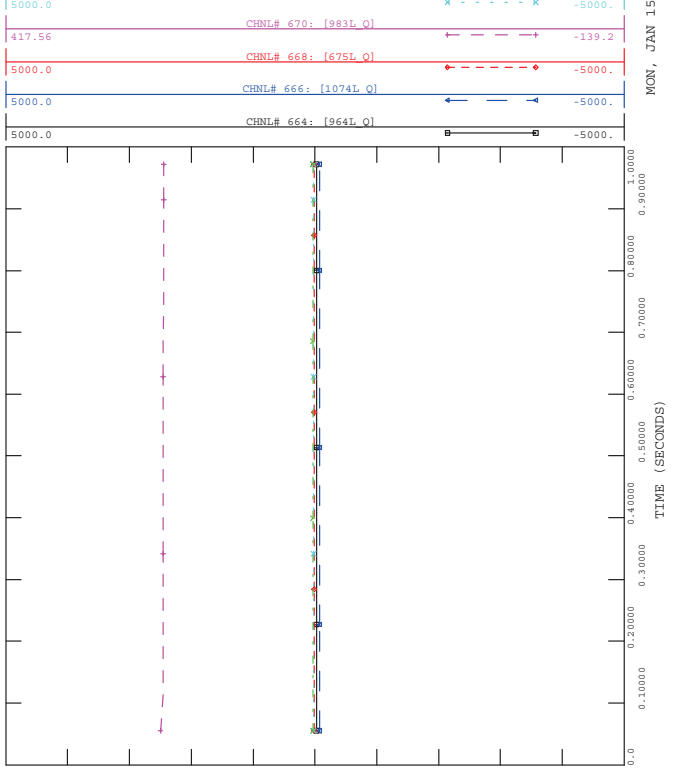


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH Q

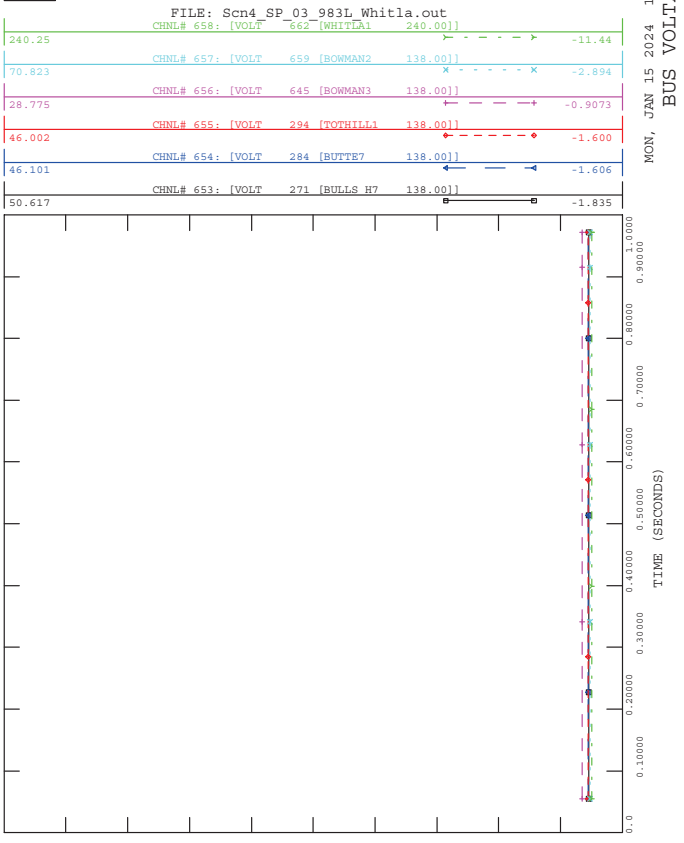


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

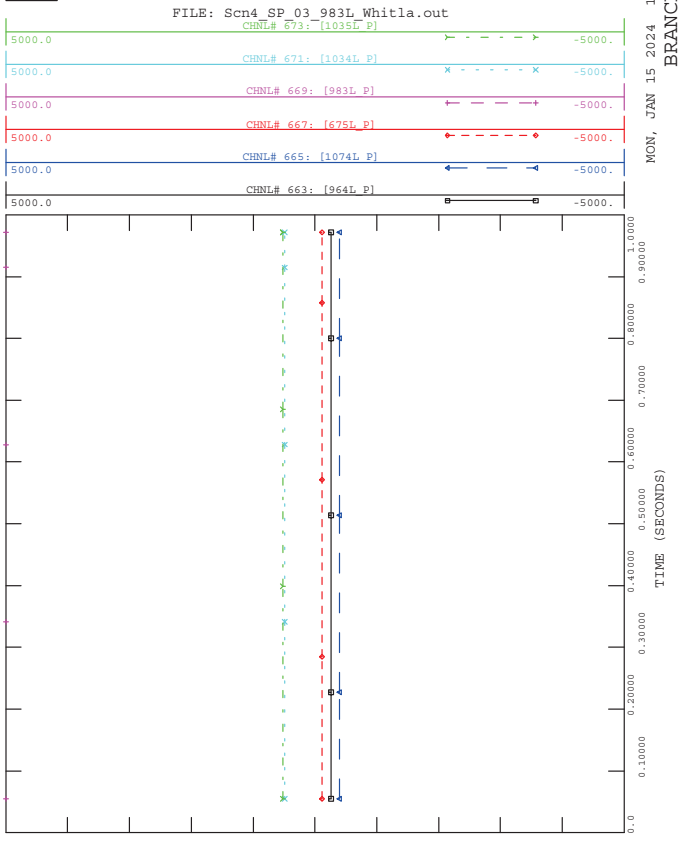


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH P

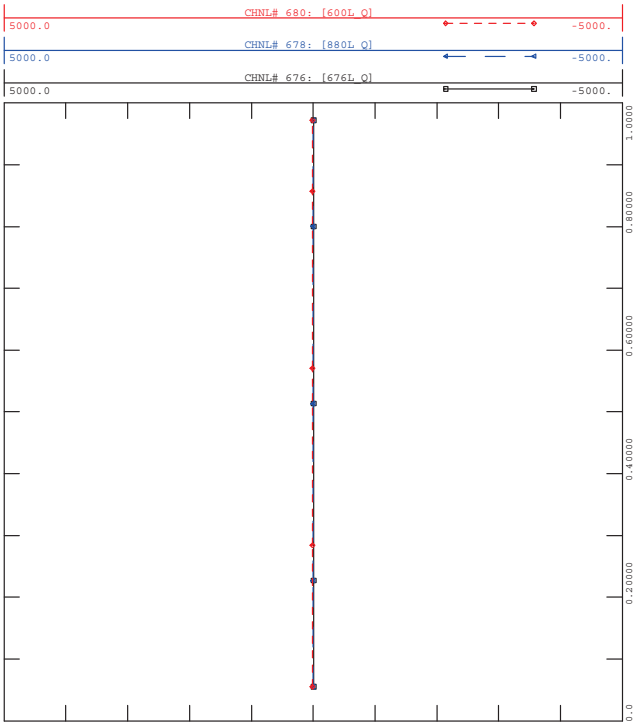


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH Q

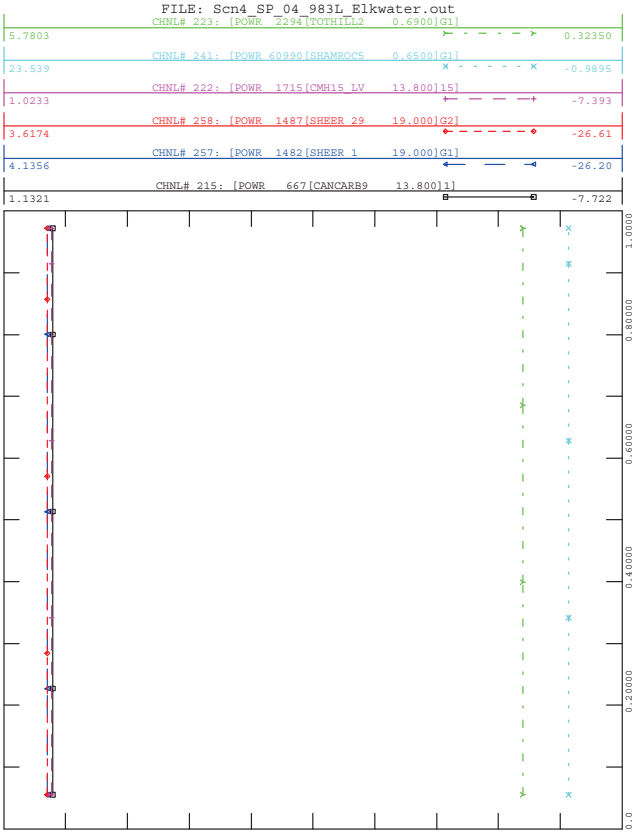


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

ACTIVE POWER

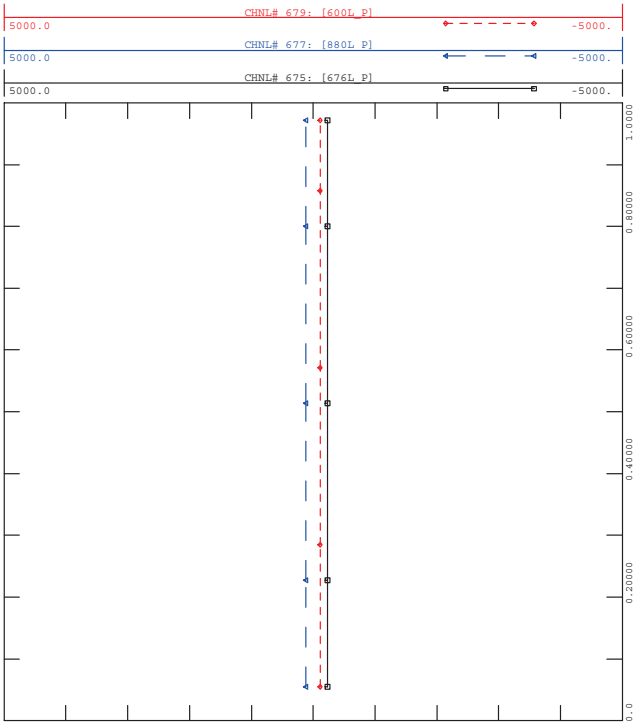


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_03_983L_WHITLA

FILE: Scn4_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:38

BRANCH P

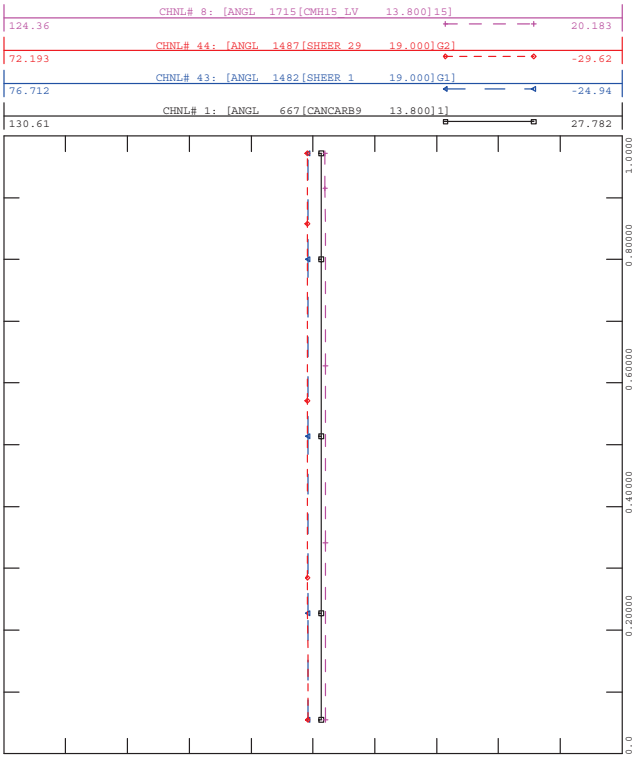


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

ROTOR ANGLE



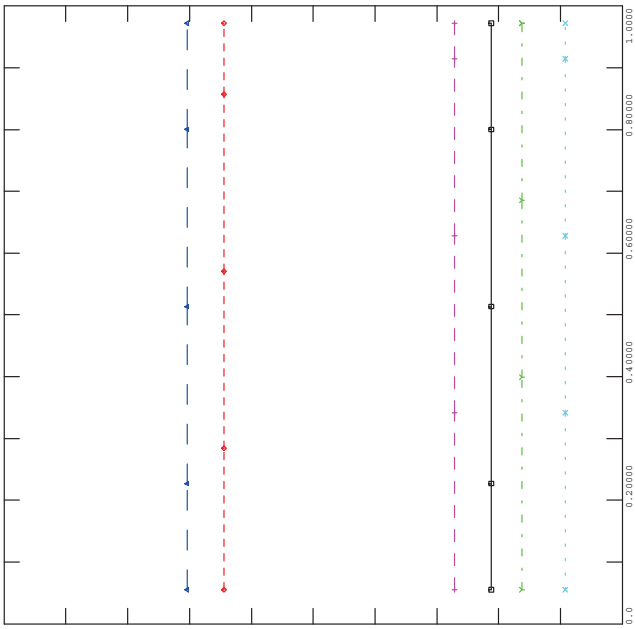
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 4.9749 0.28700
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 18.439 -0.7595
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15] 1.9623 0.66850
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.5053 0.30820
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.4731 0.14500
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 3.1530 0.44550



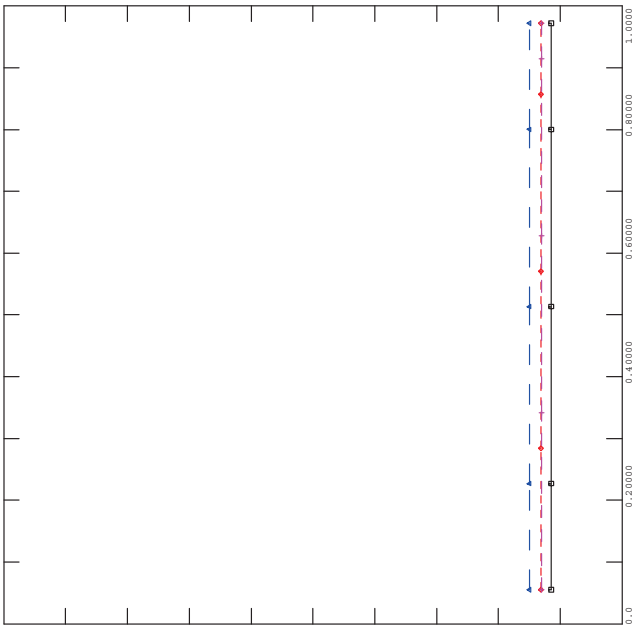
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 6.3334 0.20900
CHNL# 661: [VOLT 918 [CASS01 240.00]] 3.8341 0.59820
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 6.0723 0.15230
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 10.276 -0.2000



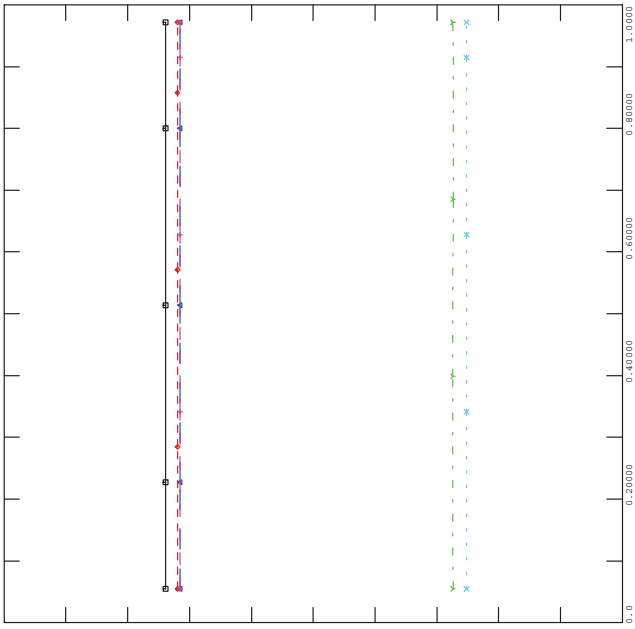
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 2.4982 -0.7386
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 33.160 -11.04
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15] 6.6045 -16.16
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 14.989 -35.03
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 13.504 -30.53
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 12.703 -35.56



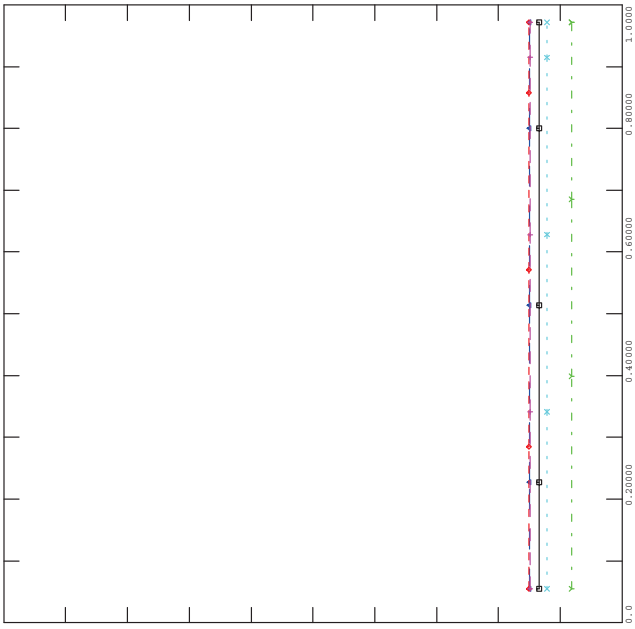
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 25.506 -1.143
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 8.5095 -0.0295
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 3.0217 0.67060
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 6.0641 0.15250
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 6.0706 0.15170
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 6.4173 0.18400



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 674: [1035L Q] 5000.0 -5000.
CHNL# 672: [1034L Q] 5000.0 -5000.
CHNL# 670: [983L Q] 40.000 -46.38
CHNL# 668: [675L Q] 5000.0 -5000.
CHNL# 666: [1074L Q] 5000.0 -5000.
CHNL# 664: [964L Q] 5000.0 -5000.

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 680: [600L Q] 5000.0 -2036.
CHNL# 678: [880L Q] 1968.5 -717.7
CHNL# 676: [676L Q] 5000.0 -5000.

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 673: [1035L P] 5000.0 -5000.
CHNL# 671: [1034L P] 5000.0 -5000.
CHNL# 669: [983L P] 245.44 -81.81
CHNL# 667: [675L P] 5000.0 -2919.
CHNL# 665: [1074L P] 2315.2 -4786.
CHNL# 663: [964L P] 5000.0 -5000.

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_04_983L_ELKWATER

FILE: Scn4_SP_04_983L_Elkwater.out

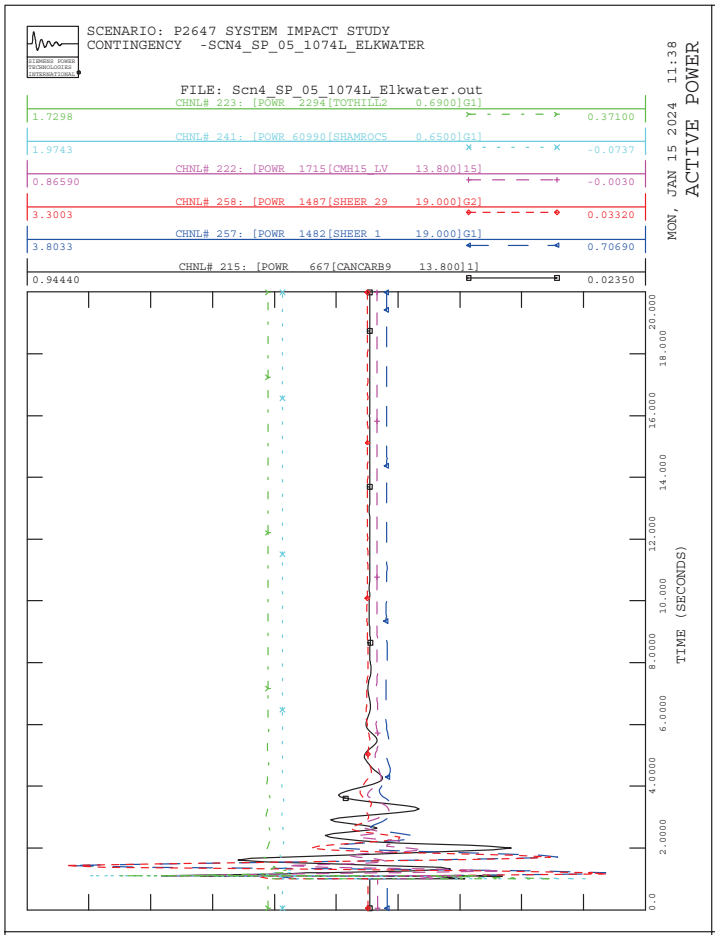
MON, JAN 15 2024 11:38

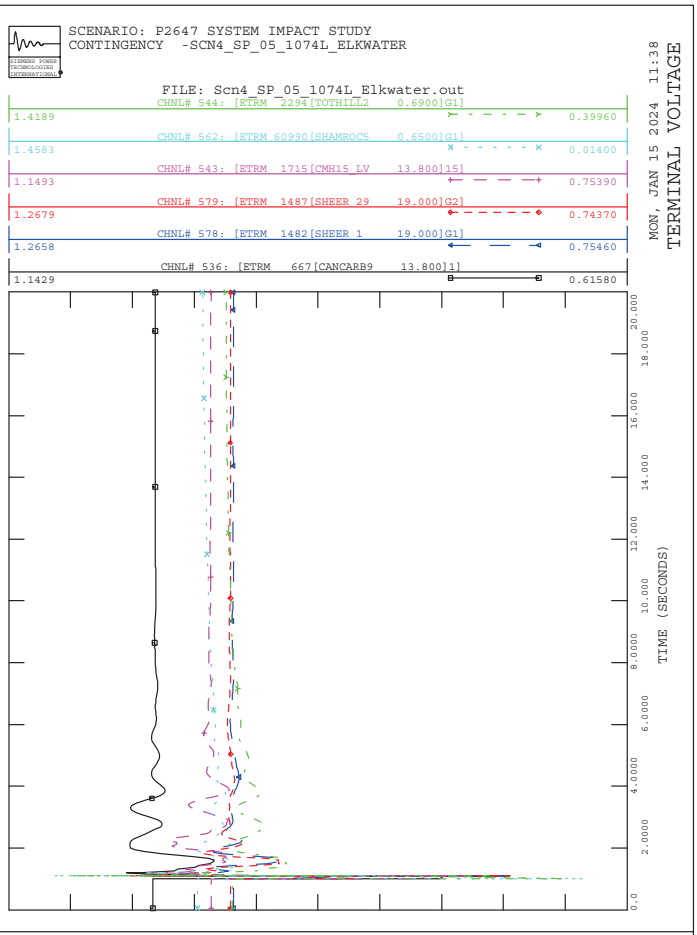
BRANCH P

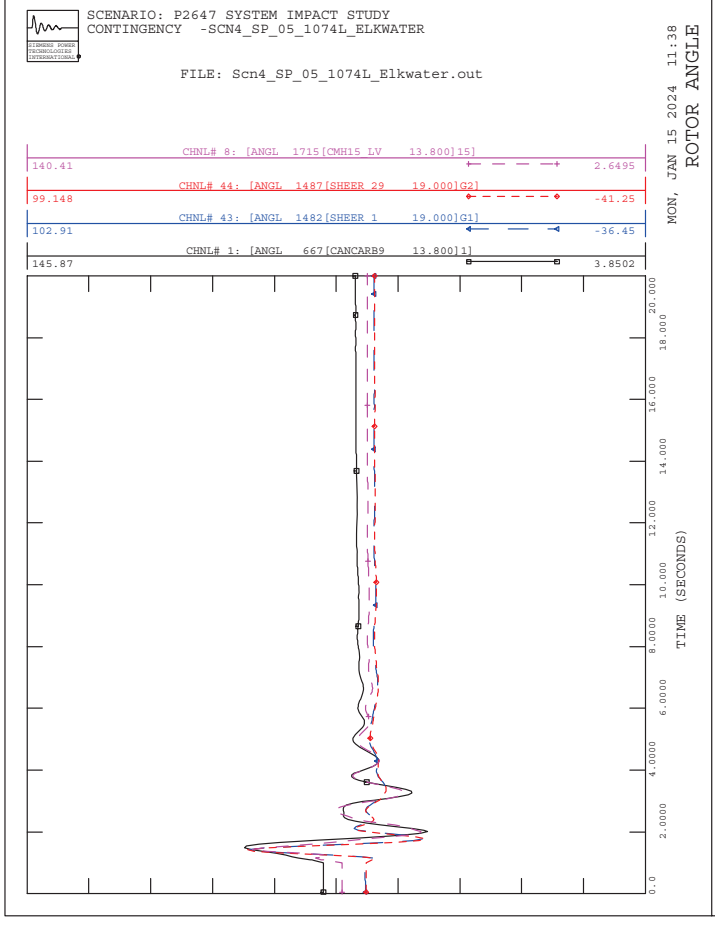
CHNL# 679: [600L P] 610.12 -360.7
CHNL# 677: [880L P] 951.53 -415.8
CHNL# 675: [676L P] 2624.5 -2139.

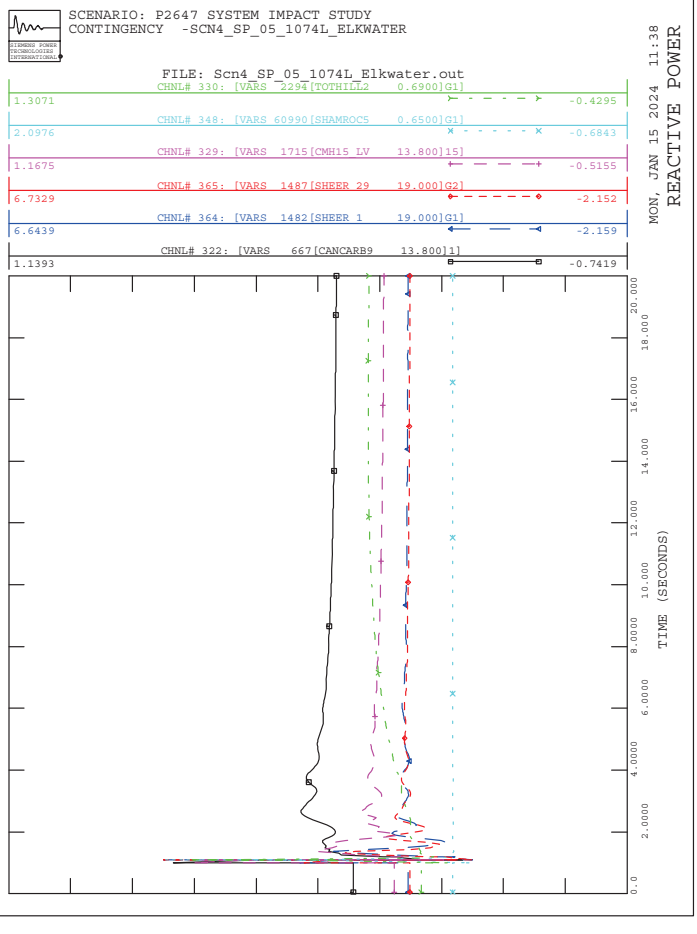
TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER
FILE: Scn4_SP_05_1074L_Elkwater.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.7298
0.37100
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.9743
-0.0737
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.86590
-0.0030
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
3.3003
0.03320
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.8033
0.70690
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.94440
0.02350
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER
FILE: Scn4_SP_05_1074L_Elkwater.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.4189
0.39960
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.4583
0.01400
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1493
0.75390
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2679
0.74370
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2658
0.75460
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1429
0.61580
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER
FILE: Scn4_SP_05_1074L_Elkwater.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
140.41
2.6495
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
99.148
-41.25
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
102.91
-36.45
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
145.87
3.8502
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER
FILE: Scn4_SP_05_1074L_Elkwater.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.3071
-0.4295
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
2.0976
-0.6843
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.1675
-0.5155
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
6.7329
-2.152
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
6.6439
-2.159
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.1393
-0.7419
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

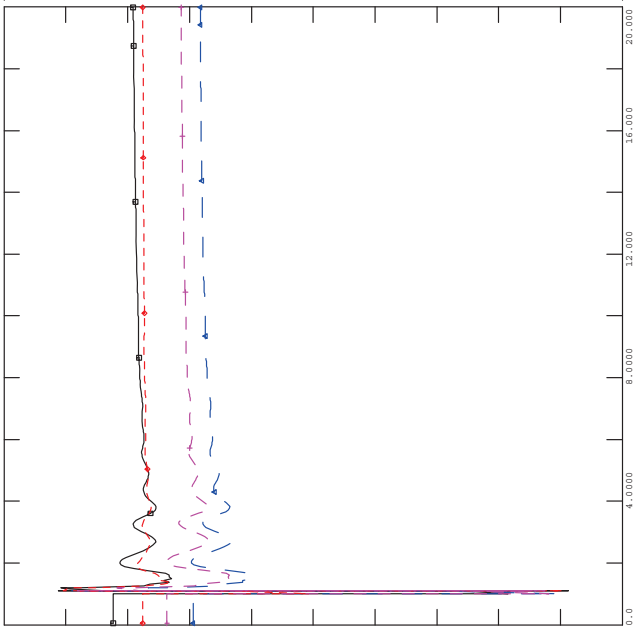
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER

FILE: Scn4_SP_05_1074L_Elkwater.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.2274 0.38650
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.2563 0.21670
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.3325 0.37960
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.2046 0.06270



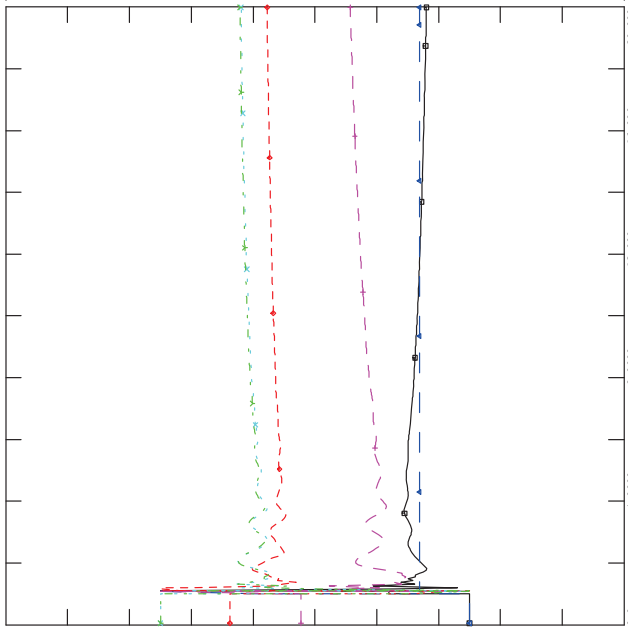
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER

FILE: Scn4_SP_05_1074L_Elkwater.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 674: [1035L Q] 153.00 -311.8
CHNL# 672: [1034L Q] 133.59 -306.6
CHNL# 670: [983L Q] 254.08 -291.7
CHNL# 668: [675L Q] 129.51 -184.7
CHNL# 666: [1074L Q] 643.26 -318.6
CHNL# 664: [964L Q] 648.30 -251.3



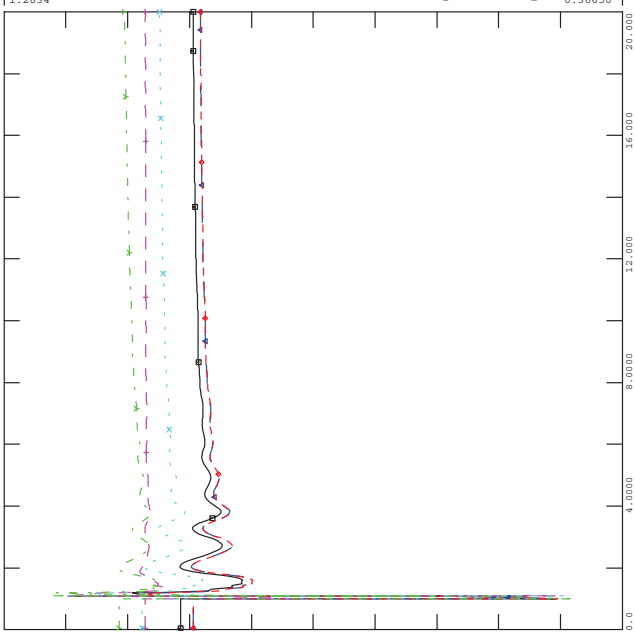
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER

FILE: Scn4_SP_05_1074L_Elkwater.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.2863 -0.0314
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.2377 0.20260
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.2406 0.27690
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.3338 0.38000
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.3320 0.37910
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.2834 0.36650



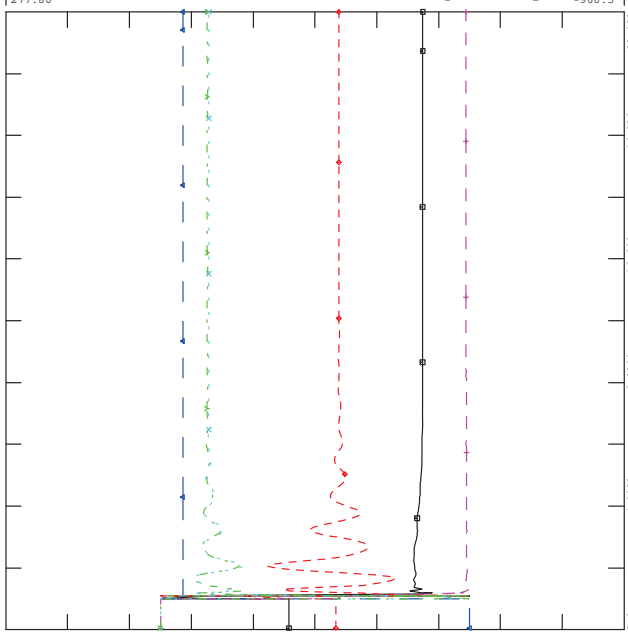
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER

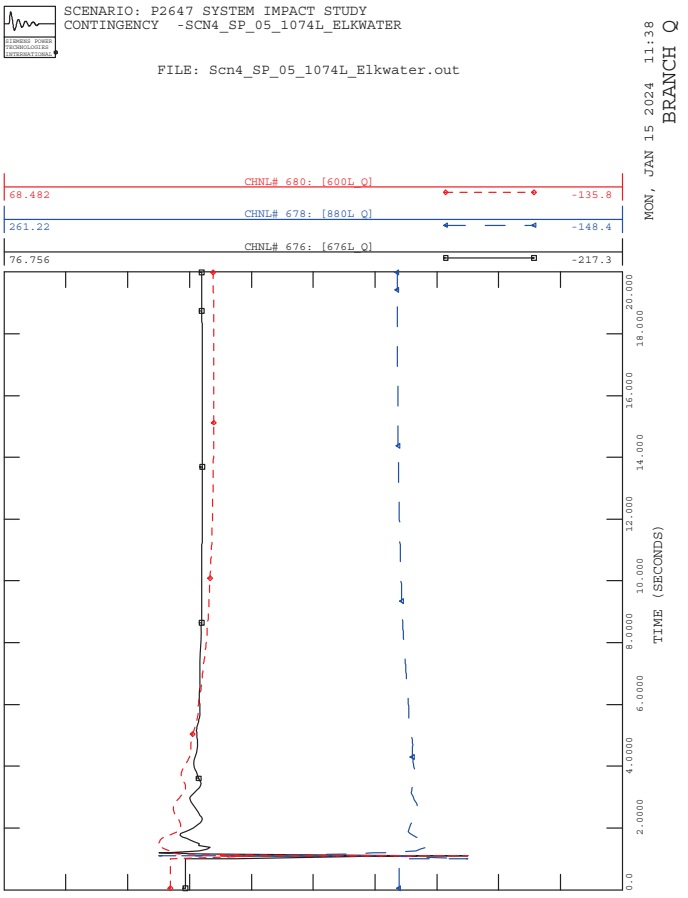
FILE: Scn4_SP_05_1074L_Elkwater.out

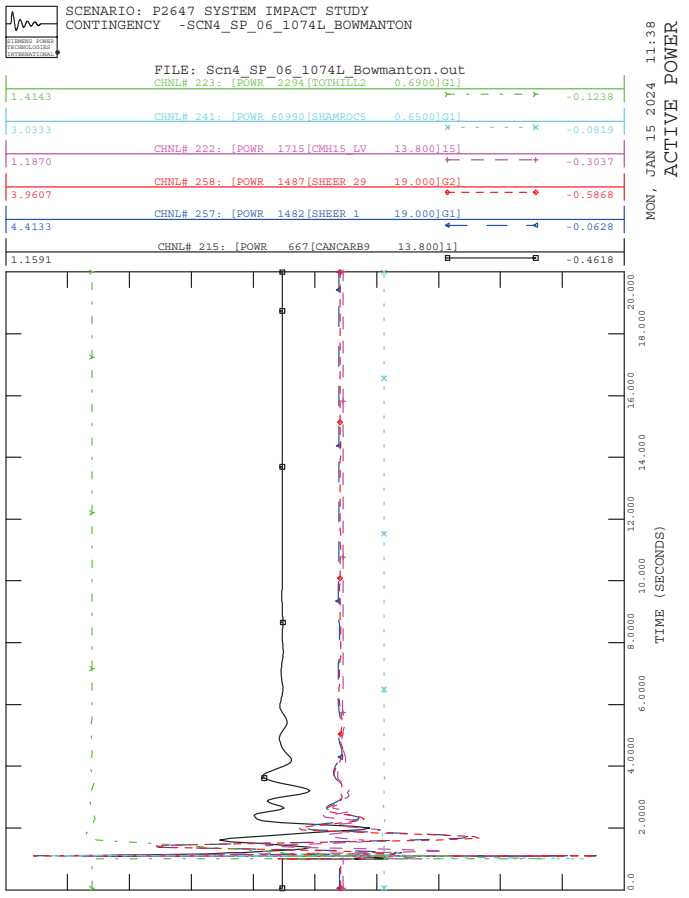
MON, JAN 15 2024 11:38

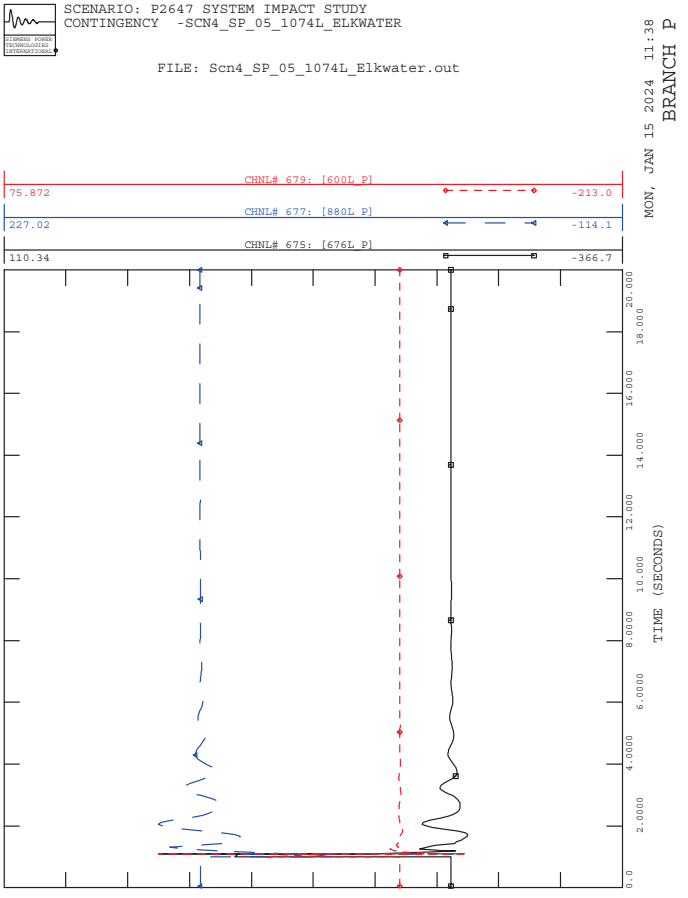
BRANCH P

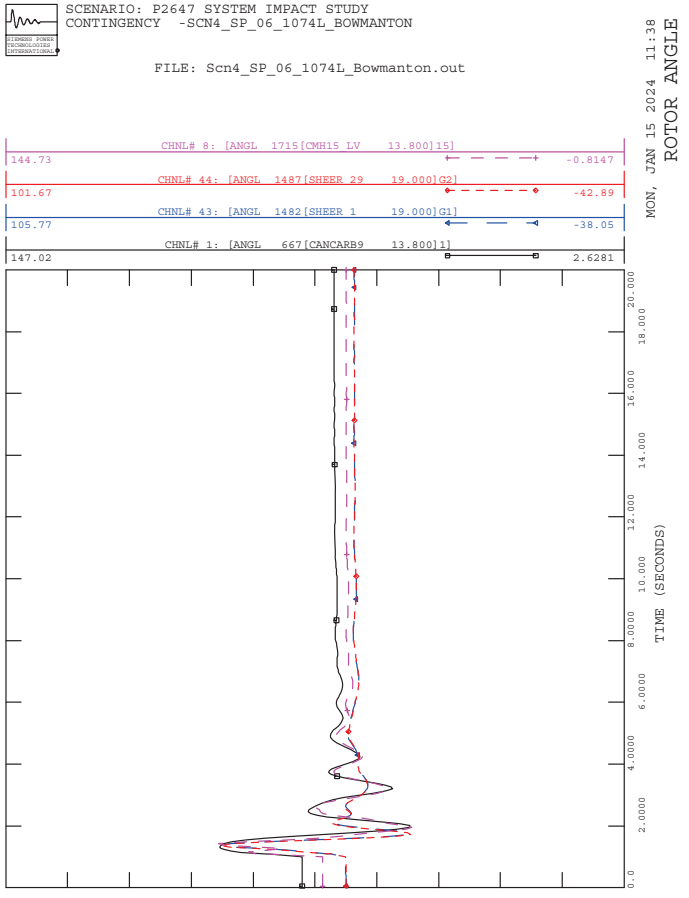
CHNL# 673: [1035L P] 747.82 -170.5
CHNL# 671: [1034L P] 709.19 -166.6
CHNL# 669: [983L P] 295.93 -243.8
CHNL# 667: [675L P] 149.94 -350.4
CHNL# 665: [1074L P] 244.39 -609.0
CHNL# 663: [964L P] 277.80 -900.5

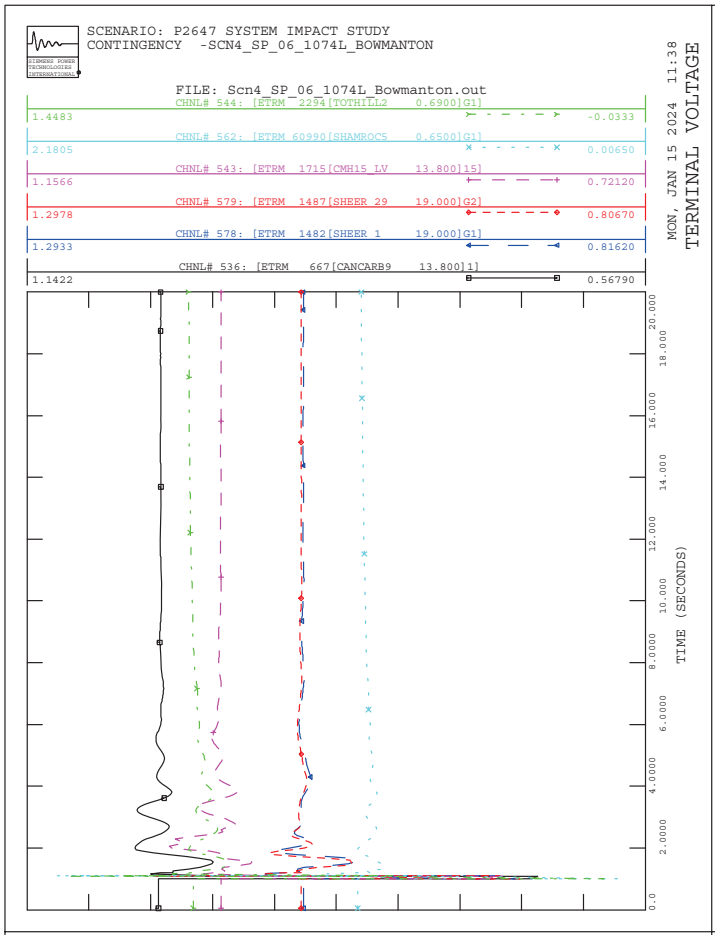


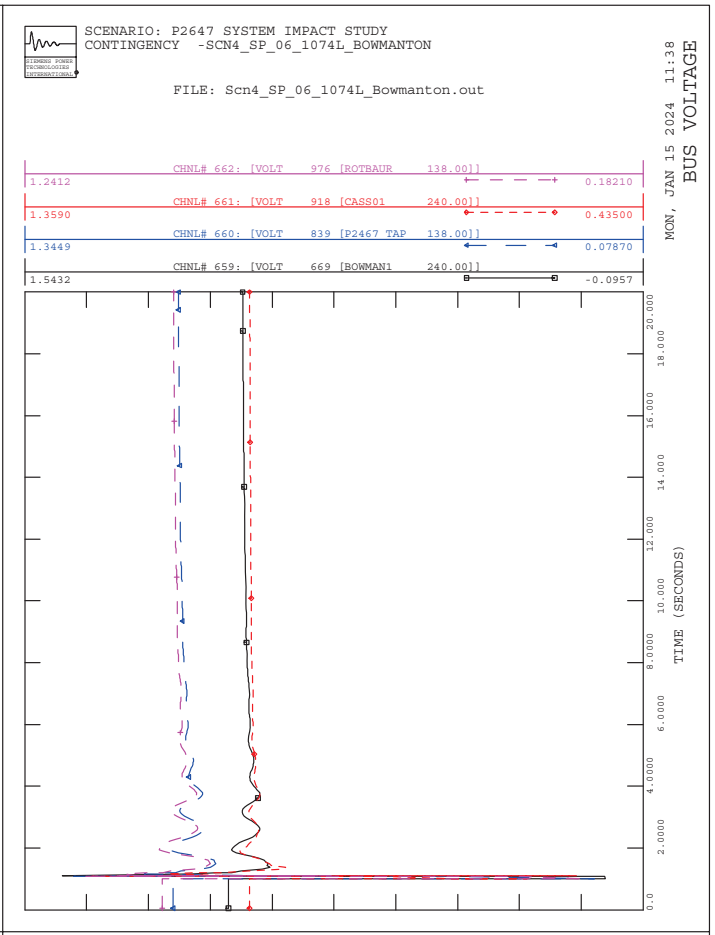

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER
FILE: Scn4_SP_05_1074L_Elkwater.out
MON, JAN 15 2024 11:38
BRANCH Q
CHNL# 680: [600L Q] 68.482 -135.8
CHNL# 678: [880L Q] 261.22 -148.4
CHNL# 676: [676L Q] 76.756 -217.3
TIME (SECONDS)

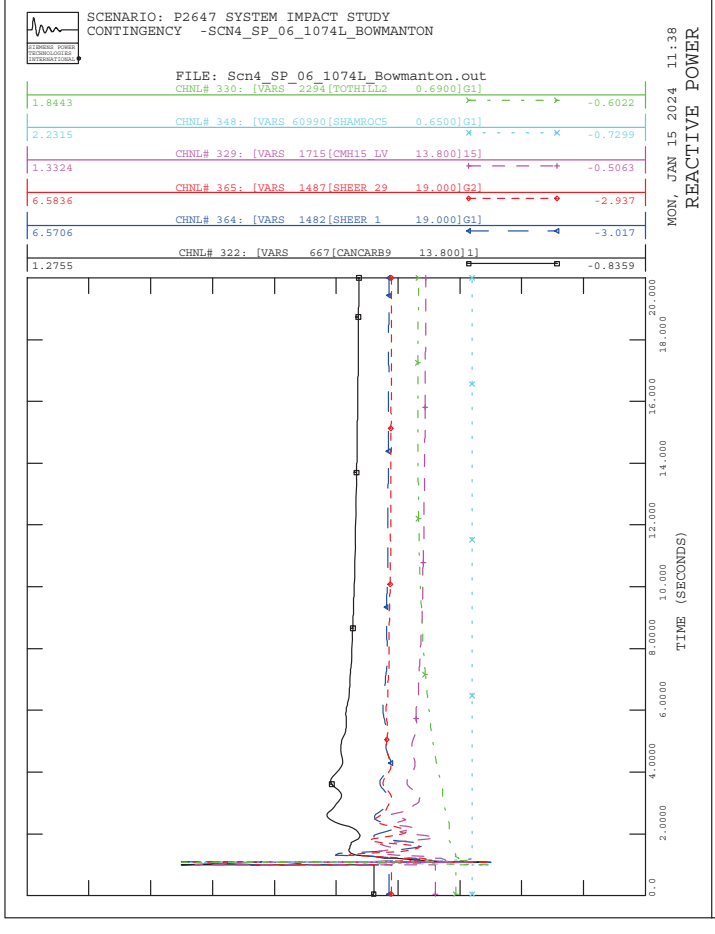

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
MON, JAN 15 2024 11:38
ACTIVE POWER
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4143 -0.1238
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 3.0333 -0.0819
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 1.1870 -0.3037
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 3.9607 -0.5868
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 4.4133 -0.0628
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.1591 -0.4618
TIME (SECONDS)

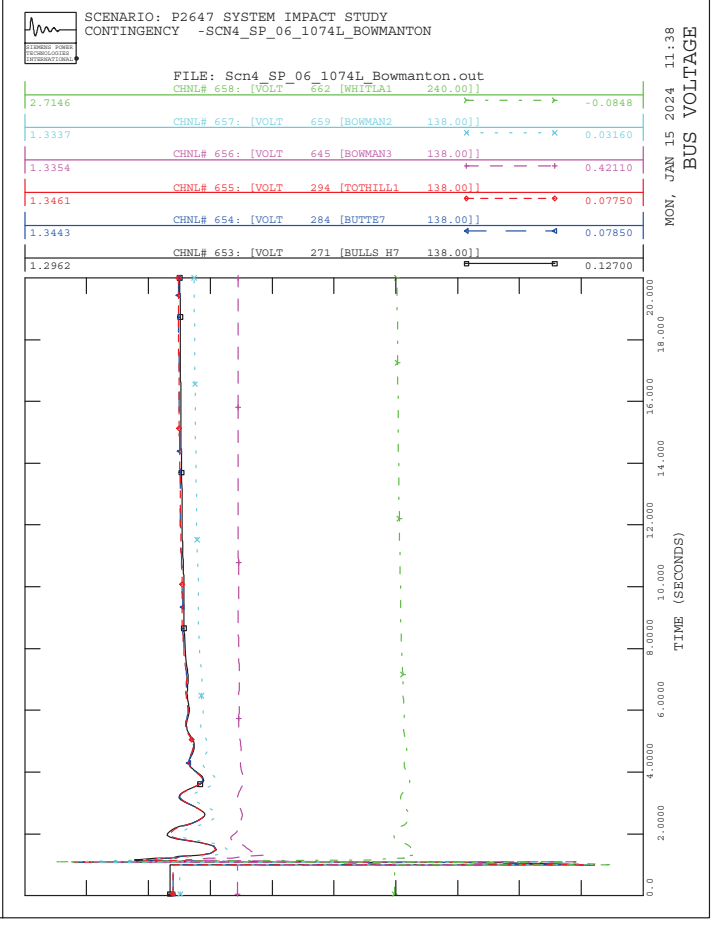

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_05_1074L_ELKWATER
FILE: Scn4_SP_05_1074L_Elkwater.out
MON, JAN 15 2024 11:38
BRANCH P
CHNL# 679: [600L P] 75.872 -213.0
CHNL# 677: [880L P] 227.02 -114.1
CHNL# 675: [676L P] 110.34 -366.7
TIME (SECONDS)

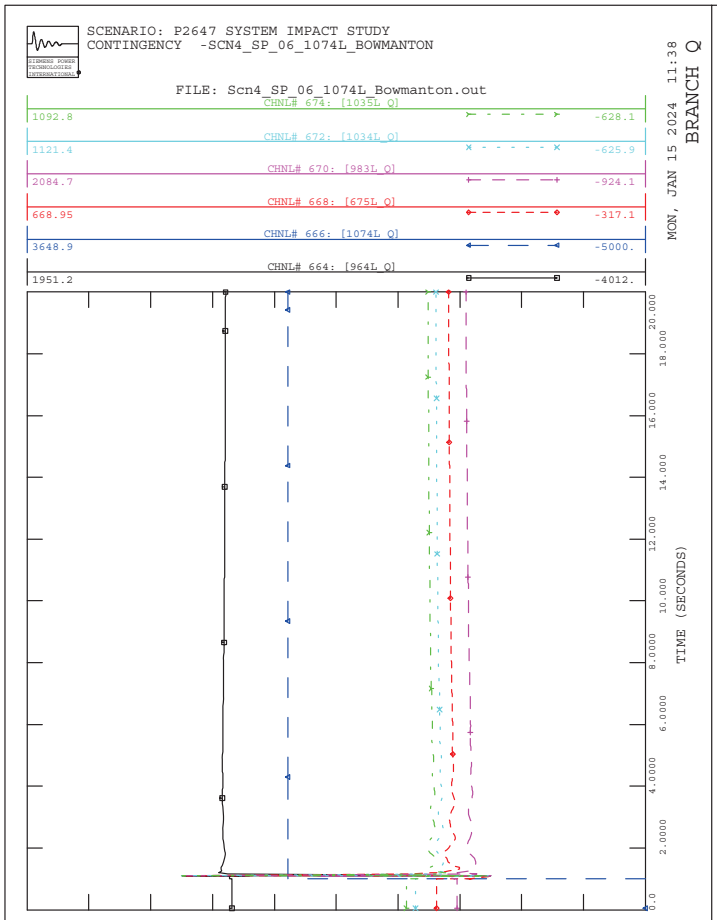

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
MON, JAN 15 2024 11:38
ROTOR ANGLE
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 144.73 -0.8147
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 101.67 -42.89
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 105.77 -38.05
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 147.02 2.6281
TIME (SECONDS)

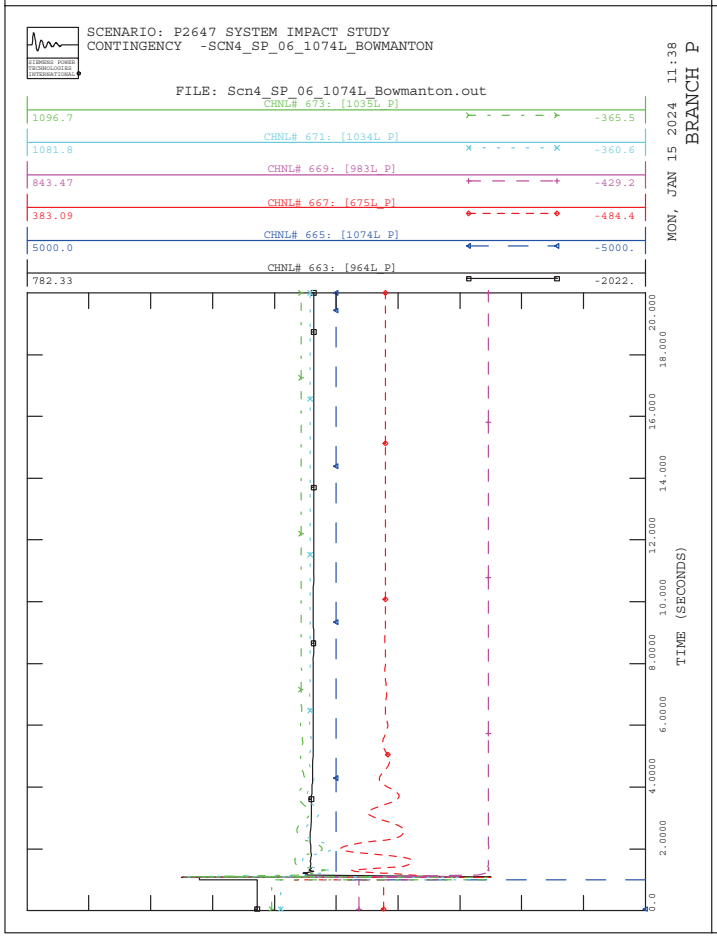

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.4483 -0.0333
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
2.1805 0.00650
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.1566 0.72120
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2978 0.80670
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2933 0.81620
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1422 0.56790
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

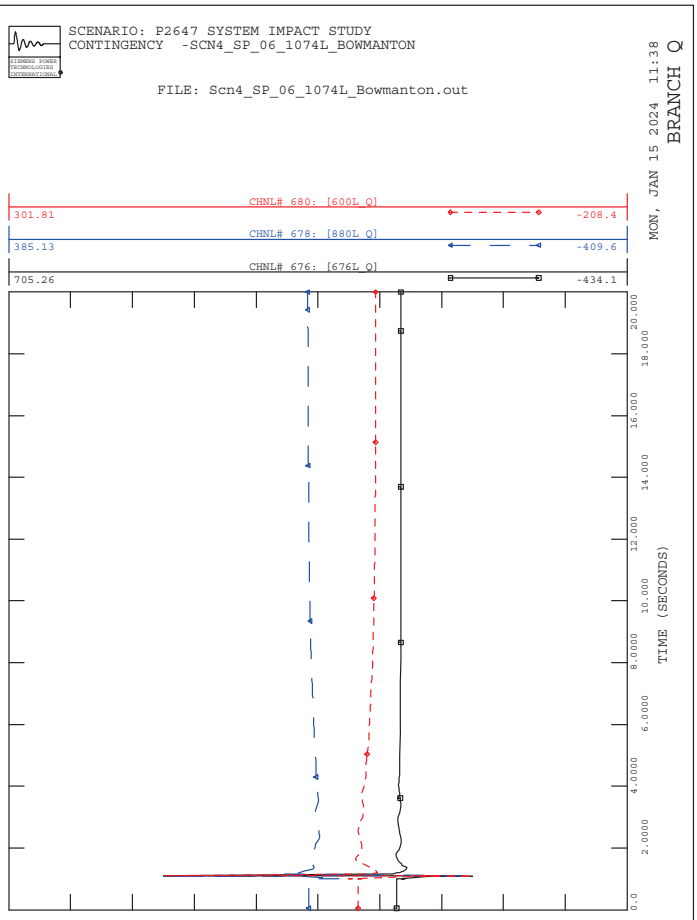

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.2412 0.18210
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.3590 0.43500
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.3449 0.07870
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.5432 -0.0957
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

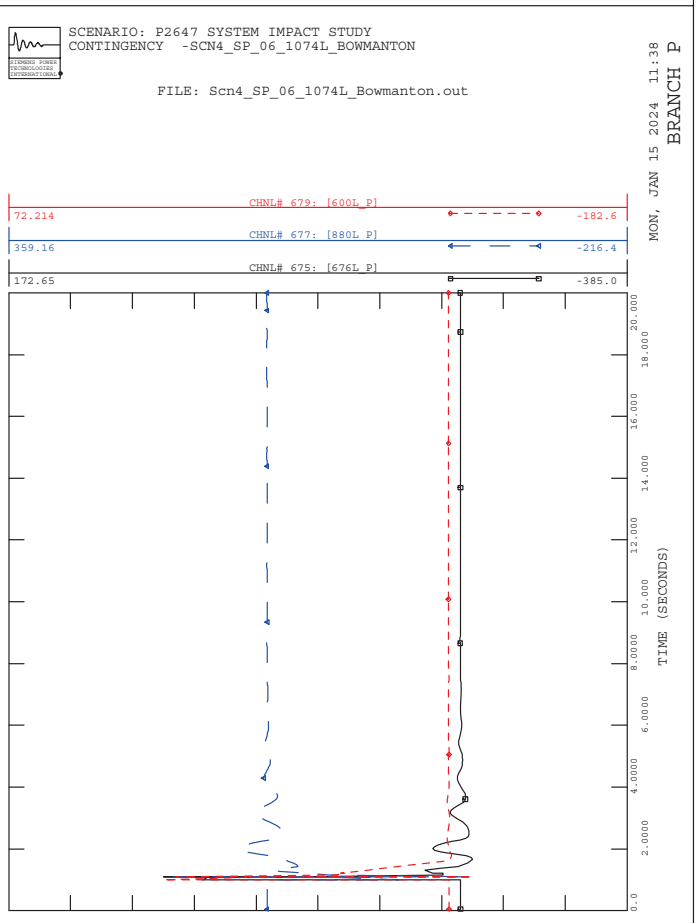

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.8443 -0.6022
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
2.2315 -0.7299
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.3324 -0.5063
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
6.5836 -2.937
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
6.5706 -3.017
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.2755 -0.8359
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
2.7146 -0.0848
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.3337 0.03160
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.3354 0.42110
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.3461 0.07750
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.3443 0.07850
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.2962 0.12700
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 674: [1035L Q]
1092.8
-628.1
CHNL# 672: [1034L Q]
1121.4
-625.9
CHNL# 670: [983L Q]
2084.7
-924.1
CHNL# 668: [675L Q]
668.95
-317.1
CHNL# 666: [1074L Q]
3648.9
-5000.
CHNL# 664: [964L Q]
1951.2
-4012.
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 673: [1035L P]
1096.7
-365.5
CHNL# 671: [1034L P]
1081.8
-360.6
CHNL# 669: [983L P]
843.47
-429.2
CHNL# 667: [675L P]
383.09
-484.4
CHNL# 665: [1074L P]
5000.0
-5000.
CHNL# 663: [964L P]
782.33
-2022.
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 680: [600L Q]
301.81
-208.4
CHNL# 678: [880L Q]
385.13
-409.6
CHNL# 676: [676L Q]
705.26
-434.1
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_06_1074L_BOWMANTON
FILE: Scn4_SP_06_1074L_Bowmanton.out
CHNL# 679: [600L P]
72.214
-182.6
CHNL# 677: [880L P]
359.16
-216.4
CHNL# 675: [676L P]
172.65
-385.0
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR Z294[TOTHILL2 0.6900]G1]
1.4005 0.00720
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.5384 0.09750
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
1.3526 -0.8956
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
3.5428 -0.1468
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.9785 0.57480
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
1.2094 -0.6391

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM Z294[TOTHILL2 0.6900]G1]
1.2857 0.27250
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1719 0.15640
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1278 0.59730
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2607 0.58770
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2427 0.60550
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1201 0.19020

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
792.28 -170.5
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
94.695 -50.99
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
98.650 -47.66
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
825.19 -171.4

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS Z294[TOTHILL2 0.6900]G1]
1.4353 -0.3987
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.71110 -0.4741
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.6085 -0.4574
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
7.6256 -4.624
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
7.9859 -4.748
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.0652 -0.6464

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

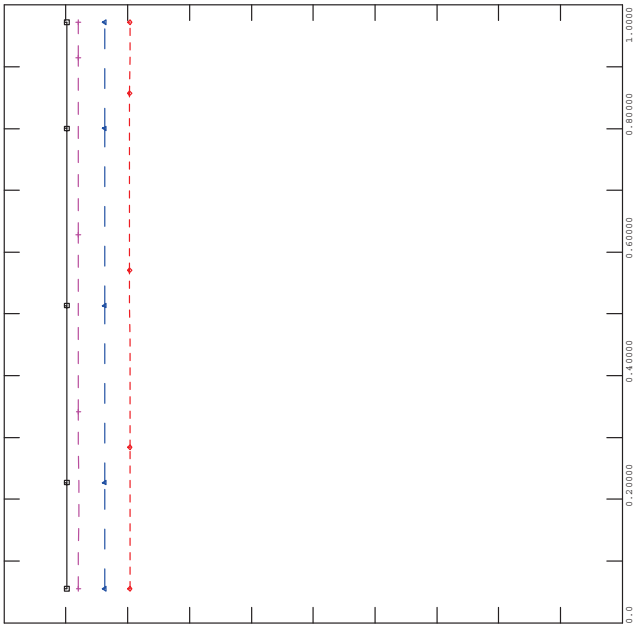
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.1436 -0.0016
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.2997 -0.0600
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.2176 0.13180
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.1230 -0.0573



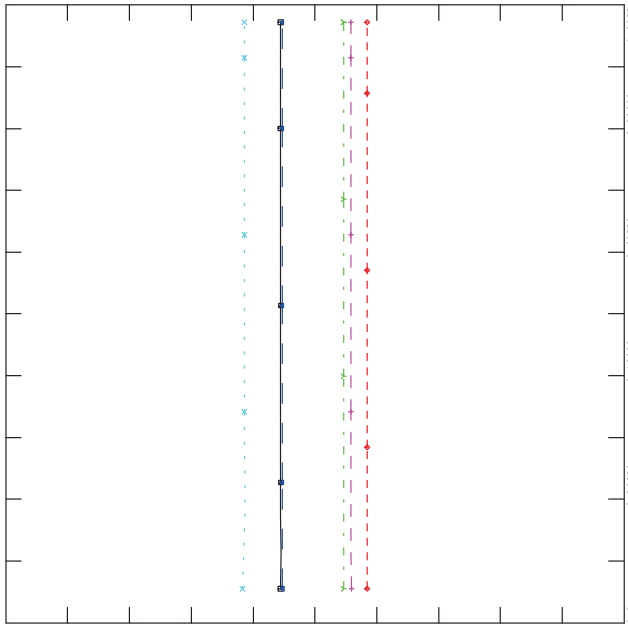
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 674: [1035L Q] 665.95 -485.6
CHNL# 672: [1034L Q] 64.382 -40.00
CHNL# 670: [983L Q] 120.41 -106.8
CHNL# 668: [675L Q] 414.89 -268.8
CHNL# 666: [1074L Q] 175.89 -392.7
CHNL# 664: [964L Q] 162.75 -262.7



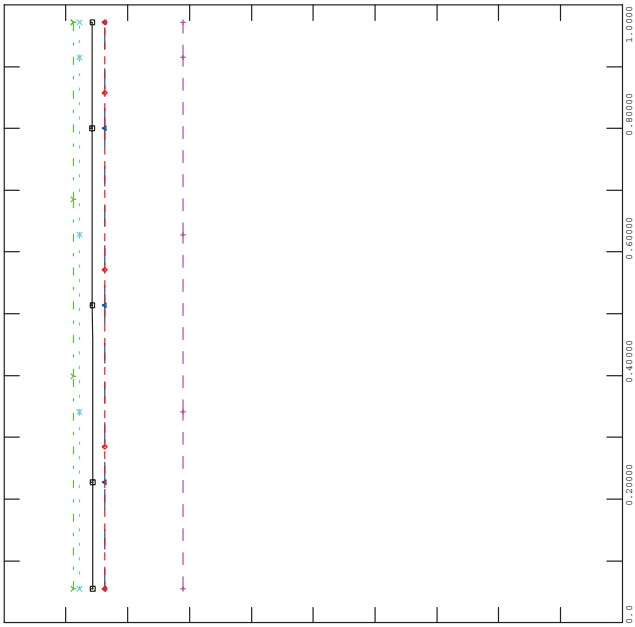
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.1666 0.05260
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.1387 0.05850
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.3878 0.11890
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.2186 0.13330
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.2170 0.13150
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.1793 0.07500



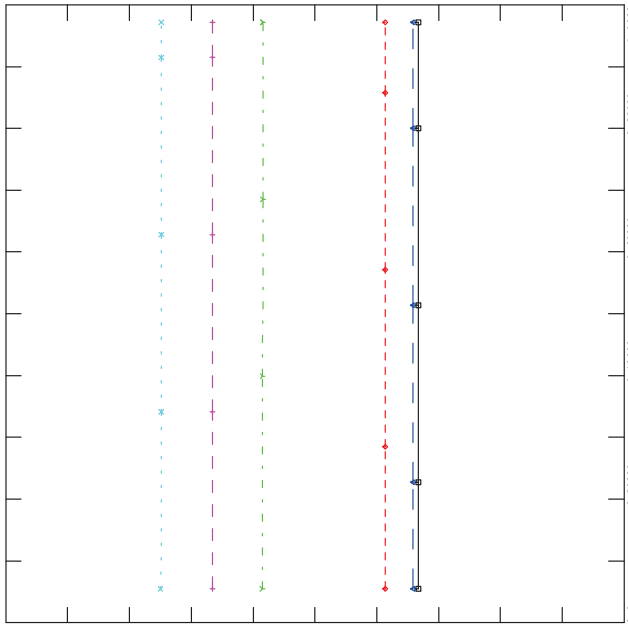
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 673: [1035L P] 1158.7 -382.9
CHNL# 671: [1034L P] 744.89 -248.3
CHNL# 669: [983L P] 285.48 -86.86
CHNL# 667: [675L P] 595.43 -566.4
CHNL# 665: [1074L P] 254.97 -733.6
CHNL# 663: [964L P] 167.37 -475.6

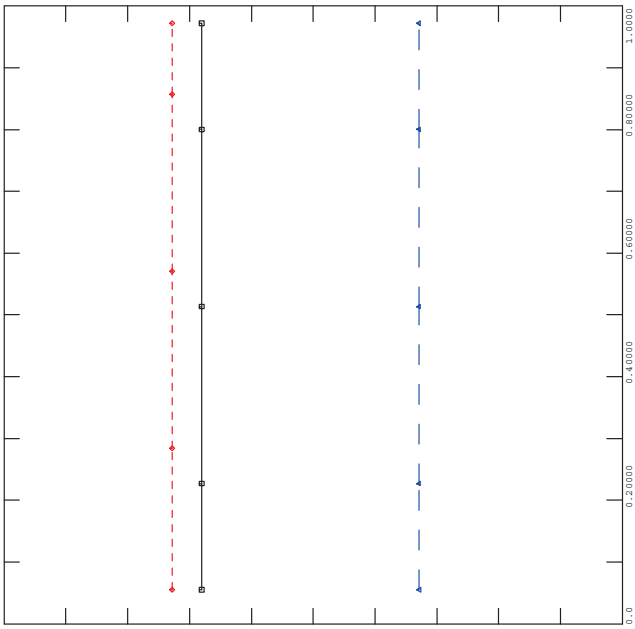


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 680: [600L Q] 53.543 -93.70
CHNL# 678: [880L Q] 229.26 -113.0
CHNL# 676: [676L Q] 88.681 -218.5

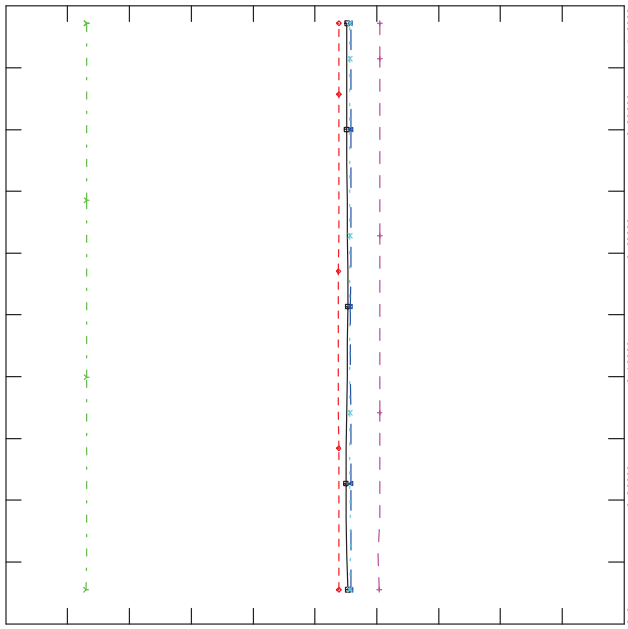


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON

FILE: Scn4_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4005 -0.1363
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 2.6402 -0.0764
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 1.0231 -0.0513
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 3.1643 0.07200
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 3.5761 0.75050
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.1379 -0.1374

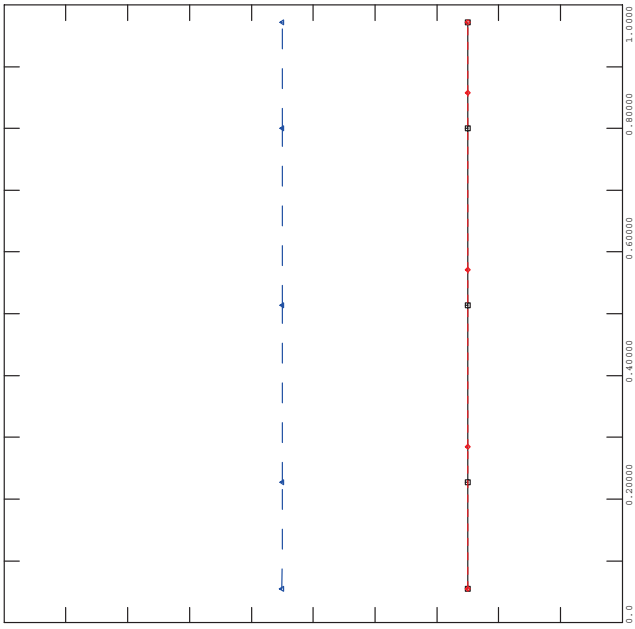


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_07_1034L_CASSILS

FILE: Scn4_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 679: [600L P] 30.470 -155.7
CHNL# 677: [880L P] 374.60 -194.2
CHNL# 675: [676L P] 233.59 -390.8

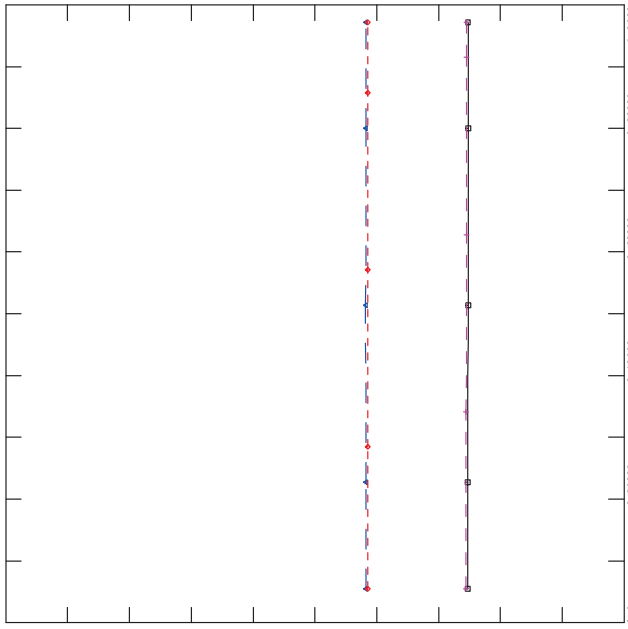


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON

FILE: Scn4_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38 ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 216.23 20.151
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 92.816 -27.85
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 96.358 -23.33
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 225.99 27.730



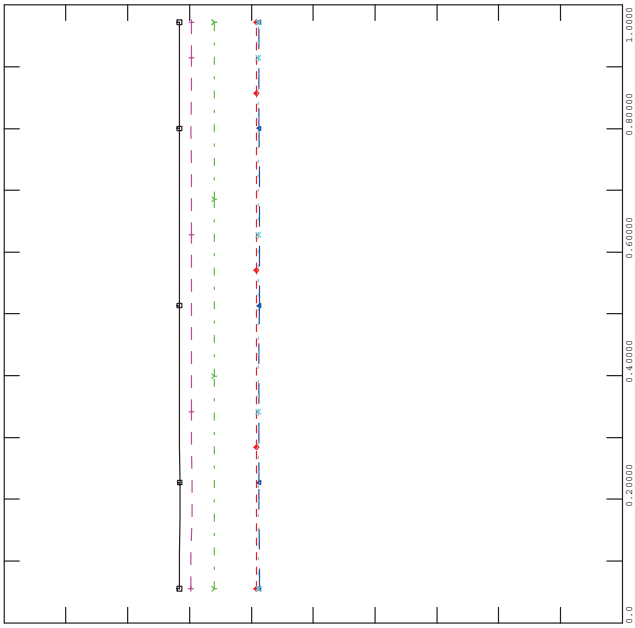
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON

FILE: Scn4_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 1.6130 -0.0442
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.7202 0.01150
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15] 1.1478 0.72590
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2689 0.80590
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2658 0.81550
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1981 0.57020



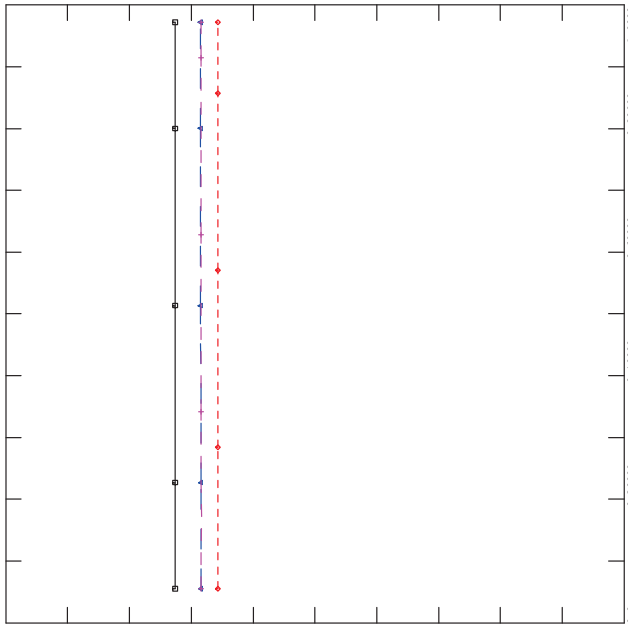
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON

FILE: Scn4_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.3877 0.17870
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.2928 0.50670
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.4922 0.06090
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.4160 -0.0921



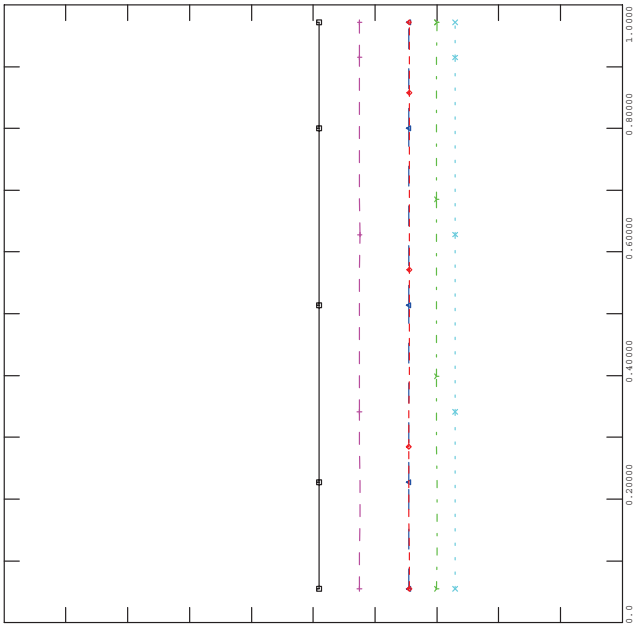
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON

FILE: Scn4_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 2.1025 -0.6903
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 3.2099 -1.055
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15] 1.3890 -0.8201
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 4.3723 -0.8180
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 4.4452 -0.8802
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.3784 -1.148



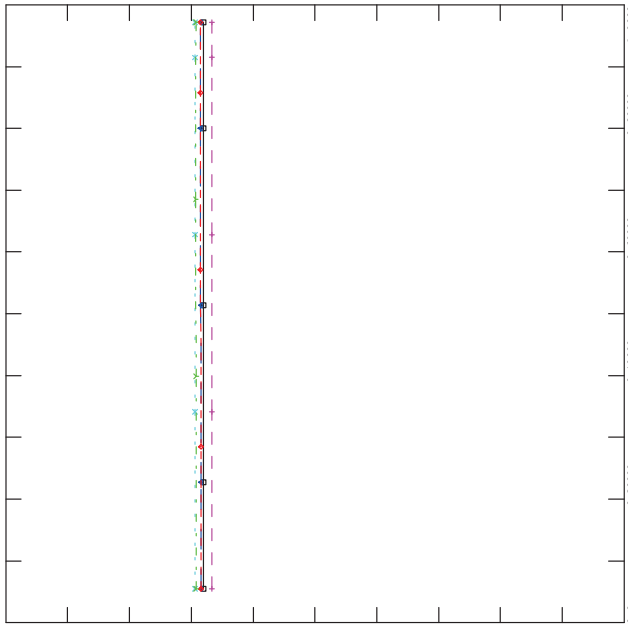
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON

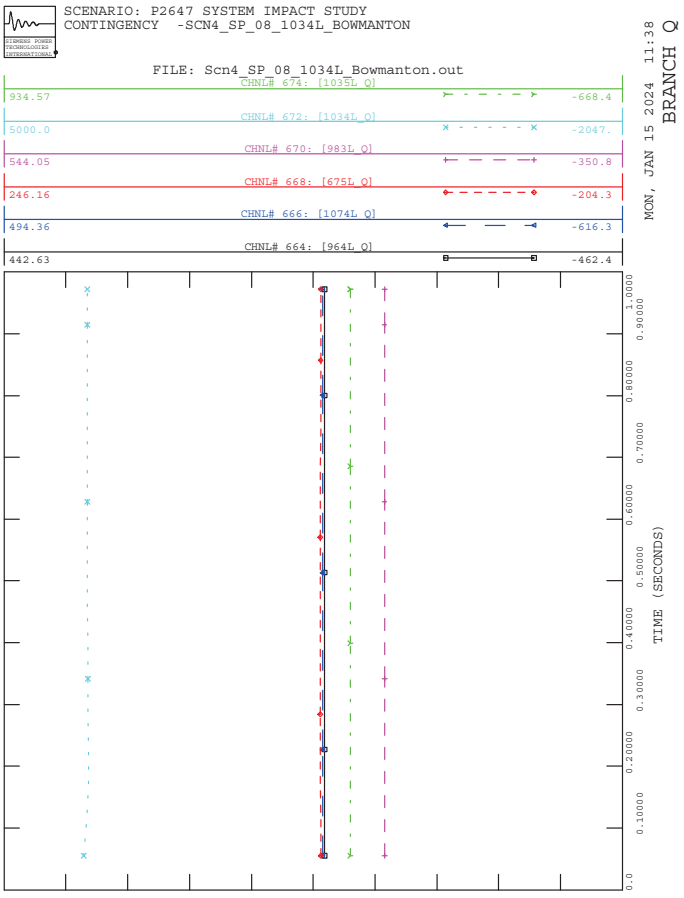
FILE: Scn4_SP_08_1034L_Bowmanton.out

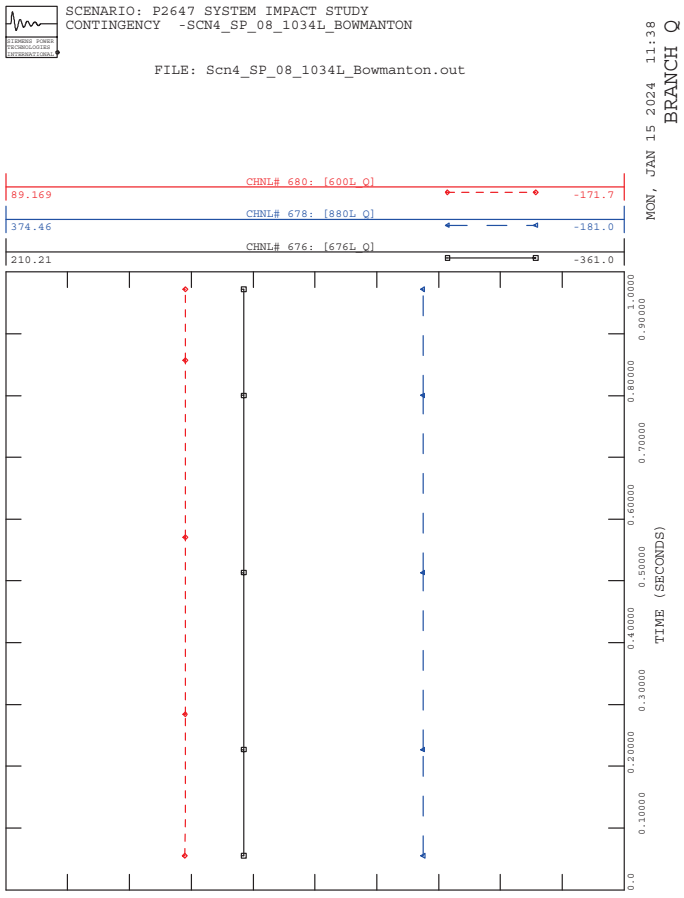
MON, JAN 15 2024 11:38

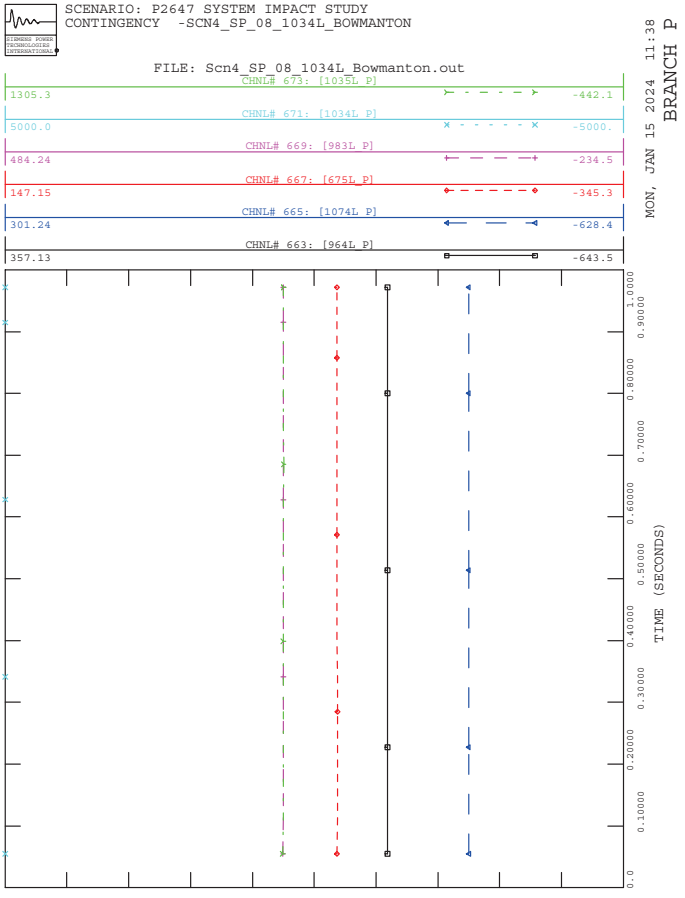
BUS VOLTAGE

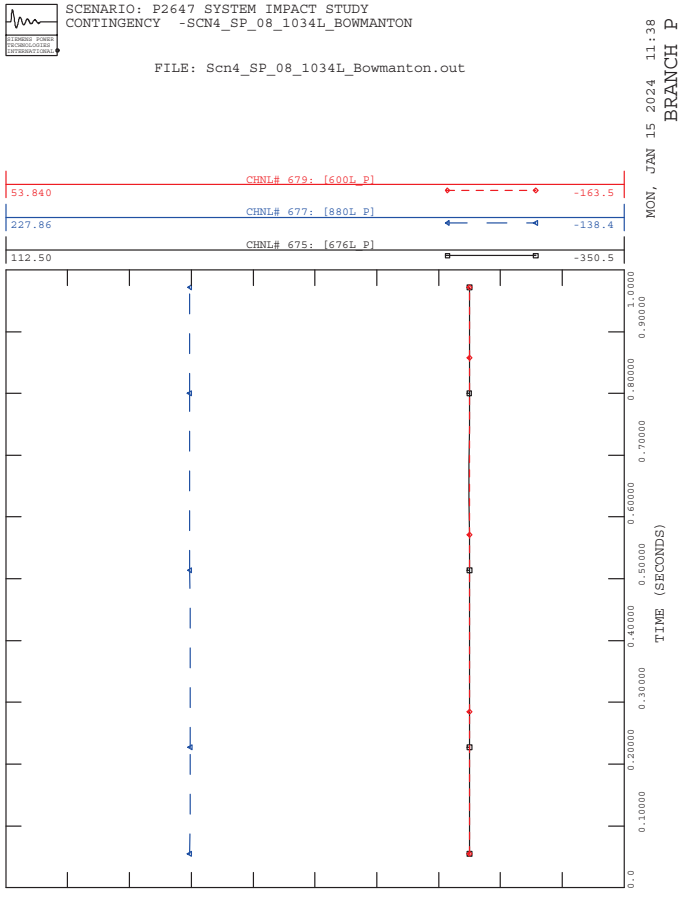
CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.5260 -0.0499
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.4366 0.03200
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.2559 0.55120
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.4937 0.05970
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.4917 0.06070
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.4466 0.11570




SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON
FILE: Scn4_SP_08_1034L_Bowmanton.out
CHNL# 674: [1035L Q]
934.57
-668.4
CHNL# 672: [1034L Q]
5000.0
-2047.
CHNL# 670: [983L Q]
544.05
-350.8
CHNL# 668: [675L Q]
246.16
-204.3
CHNL# 666: [1074L Q]
494.36
-616.3
CHNL# 664: [964L Q]
442.63
-462.4
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON
FILE: Scn4_SP_08_1034L_Bowmanton.out
CHNL# 680: [600L Q]
89.169
-171.7
CHNL# 678: [880L Q]
374.46
-181.0
CHNL# 676: [676L Q]
210.21
-361.0
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON
FILE: Scn4_SP_08_1034L_Bowmanton.out
CHNL# 673: [1035L P]
1305.3
-442.1
CHNL# 671: [1034L P]
5000.0
-5000.
CHNL# 669: [983L P]
484.24
-234.5
CHNL# 667: [675L P]
147.15
-345.3
CHNL# 665: [1074L P]
301.24
-628.4
CHNL# 663: [964L P]
357.13
-643.5
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_08_1034L_BOWMANTON
FILE: Scn4_SP_08_1034L_Bowmanton.out
CHNL# 679: [600L P]
53.840
-163.5
CHNL# 677: [880L P]
227.86
-138.4
CHNL# 675: [676L P]
112.50
-350.5
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.4005 0.39620
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.5980 0.22220
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.91470 -0.2508
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.9149 0.16810
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.2587 0.75100
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.85420 -0.3478

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3626 0.42170
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2874 0.28080
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1208 0.58120
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2724 0.61830
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2682 0.63730
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1351 0.28130

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
277.76 0.97090
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
99.91 -36.76
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
103.86 -30.62
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
301.08 3.3087

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.1948 -0.4263
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.66170 -0.4626
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.6334 -0.6391
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
7.5464 -4.163
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
7.9620 -4.368
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.1809 -0.8129

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

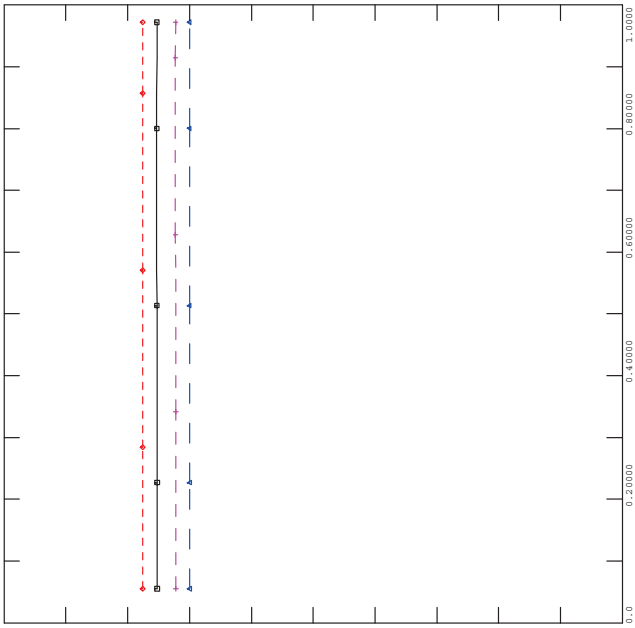
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.2572 0.35050
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.3221 -0.0106
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.3255 0.37720
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.2861 0.14190



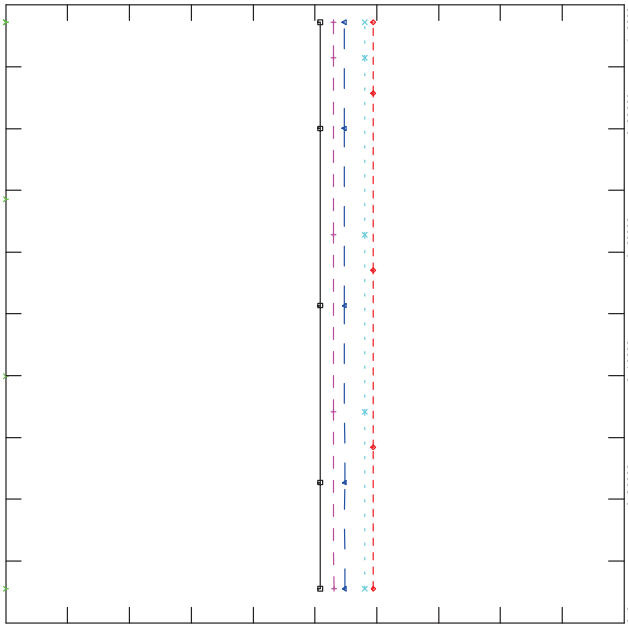
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 674: [1035L Q] 5000.0 -2687.
CHNL# 672: [1034L Q] 763.35 -511.4
CHNL# 670: [983L Q] 113.50 -112.8
CHNL# 668: [675L Q] 445.83 -278.0
CHNL# 666: [1074L Q] 409.10 -480.3
CHNL# 664: [964L Q] 208.59 -253.7



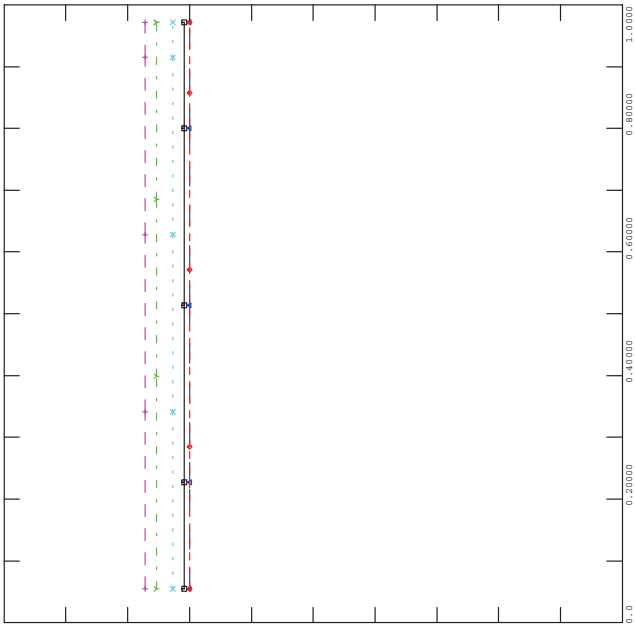
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.3093 0.22310
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.2933 0.24260
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.3157 0.02480
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.3263 0.37790
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.3249 0.37670
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.2955 0.35450



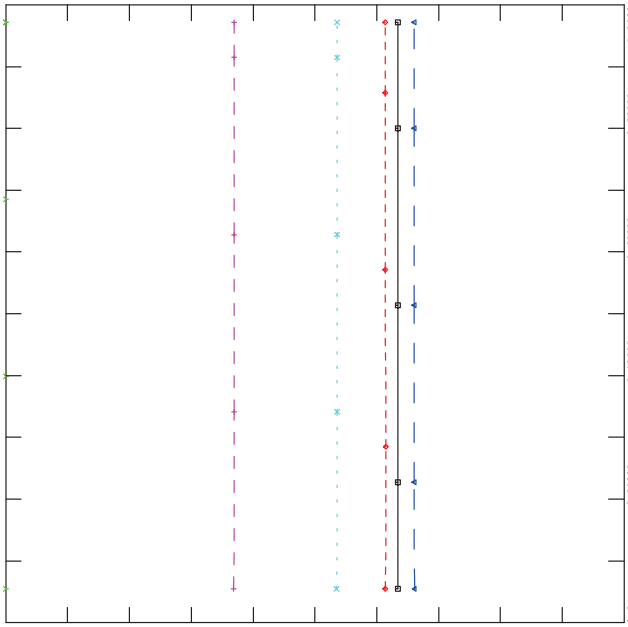
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 673: [1035L P] 5000.0 -5000.
CHNL# 671: [1034L P] 1639.9 -506.4
CHNL# 669: [983L P] 285.27 -51.61
CHNL# 667: [675L P] 248.70 -347.3
CHNL# 665: [1074L P] 170.44 -686.7
CHNL# 663: [964L P] 111.52 -477.3



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 680: [600L Q] 53.543 -83.92
CHNL# 678: [880L Q] 238.58 -126.6
CHNL# 676: [676L Q] 111.57 -228.4

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON

FILE: Scn4_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38 ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 5000.0 -5000.
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 5000.0 -5000.
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 5000.0 -5000.
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 5000.0 -5000.
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 5000.0 -5000.
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 5000.0 -5000.

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_09_1035L_NEWELL

FILE: Scn4_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 679: [600L P] 5.8901 -149.1
CHNL# 677: [880L P] 200.70 -126.3
CHNL# 675: [676L P] 149.57 -362.8

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON

FILE: Scn4_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38 ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 5000.0 -5000.
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 5000.0 -5000.
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 5000.0 -5000.
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 5000.0 -5000.

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON

FILE: Scn4_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]

5000.0 / -5000.

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON

FILE: Scn4_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
CHNL# 661: [VOLT 918 [CASS01 240.00]]
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]

5000.0 / -5000.

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON

FILE: Scn4_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
CHNL# 322: [VARS 667[CANCARB9 13.800]1]

5000.0 / -5000.

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON

FILE: Scn4_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:38

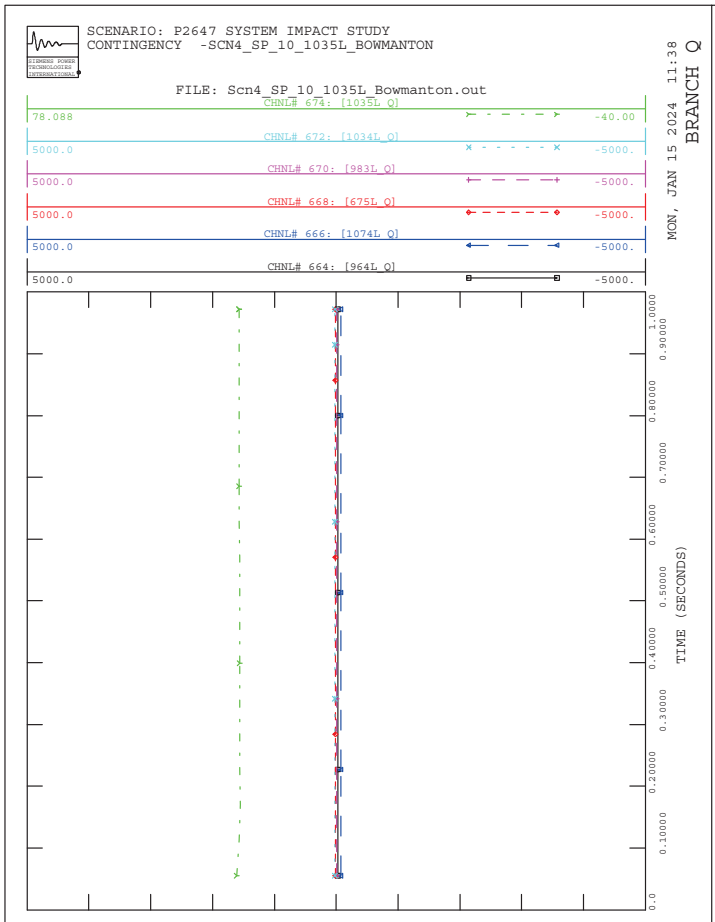
BUS VOLTAGE

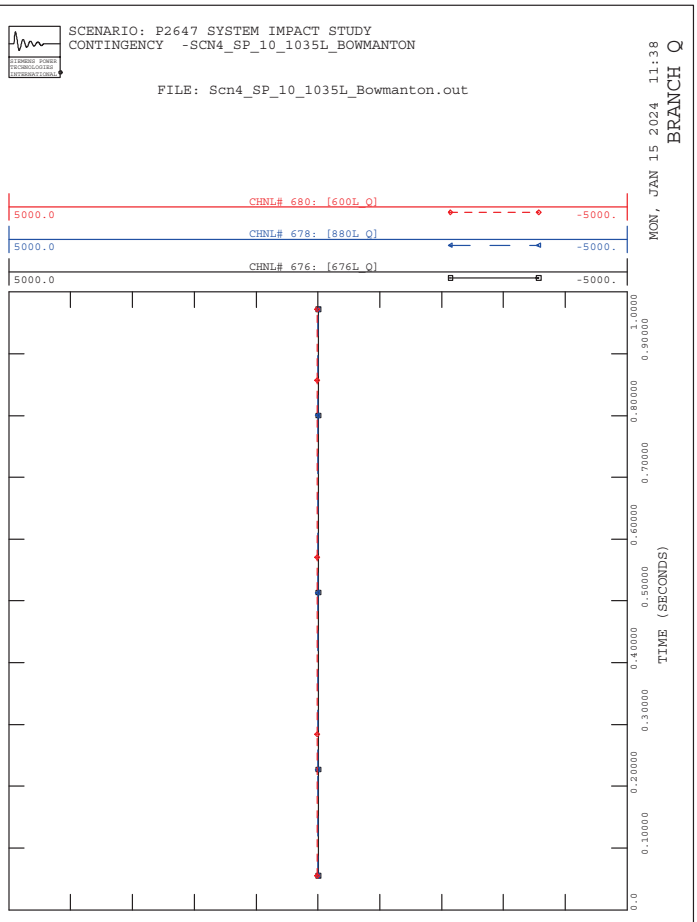
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]

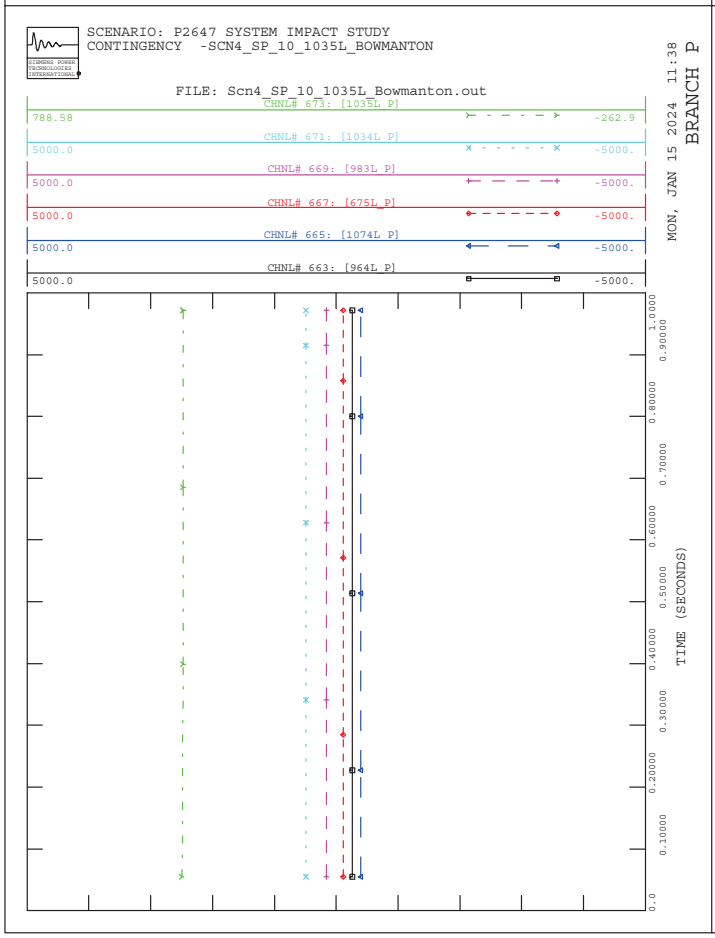
5000.0 / -5000.

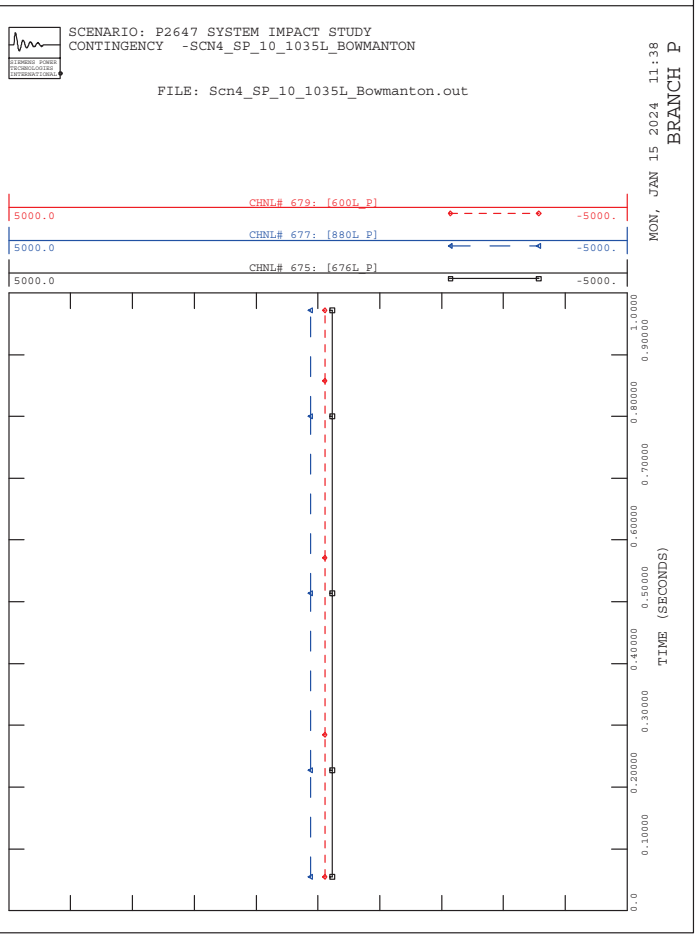
TIME (SECONDS)

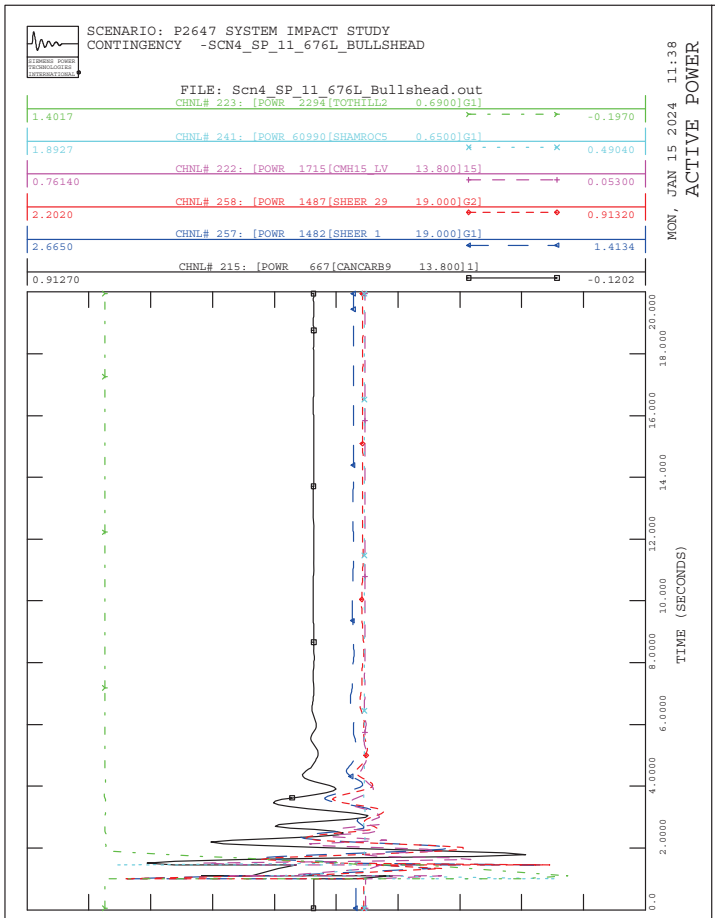
0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

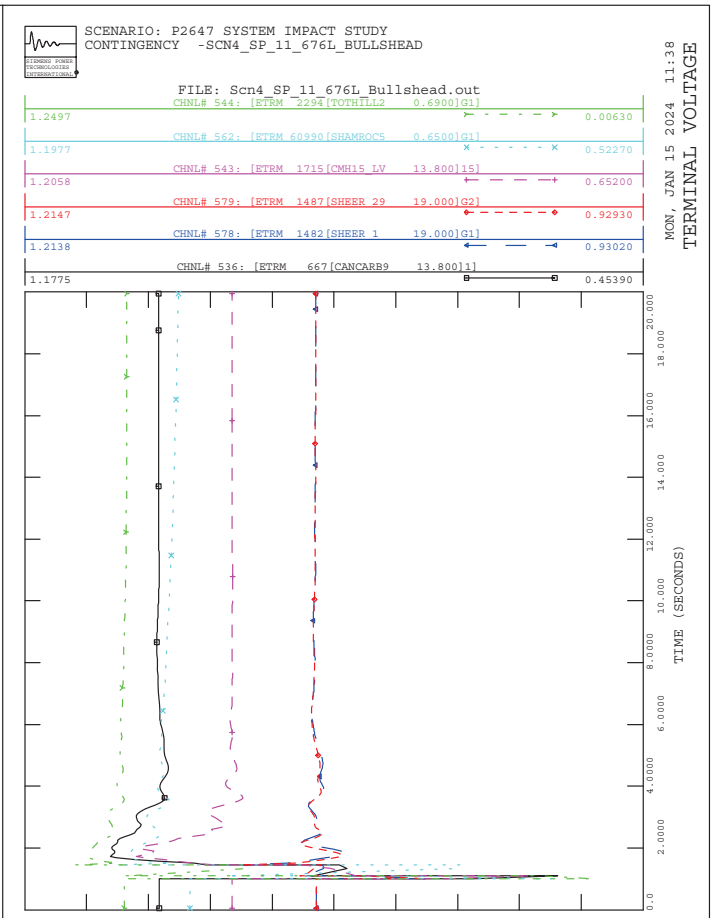

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON
FILE: Scn4_SP_10_1035L_Bowmanton.out
CHNL# 674: [1035L Q]
78.088
-40.00
CHNL# 672: [1034L Q]
5000.0
-5000.
CHNL# 670: [983L Q]
5000.0
-5000.
CHNL# 668: [675L Q]
5000.0
-5000.
CHNL# 666: [1074L Q]
5000.0
-5000.
CHNL# 664: [964L Q]
5000.0
-5000.
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

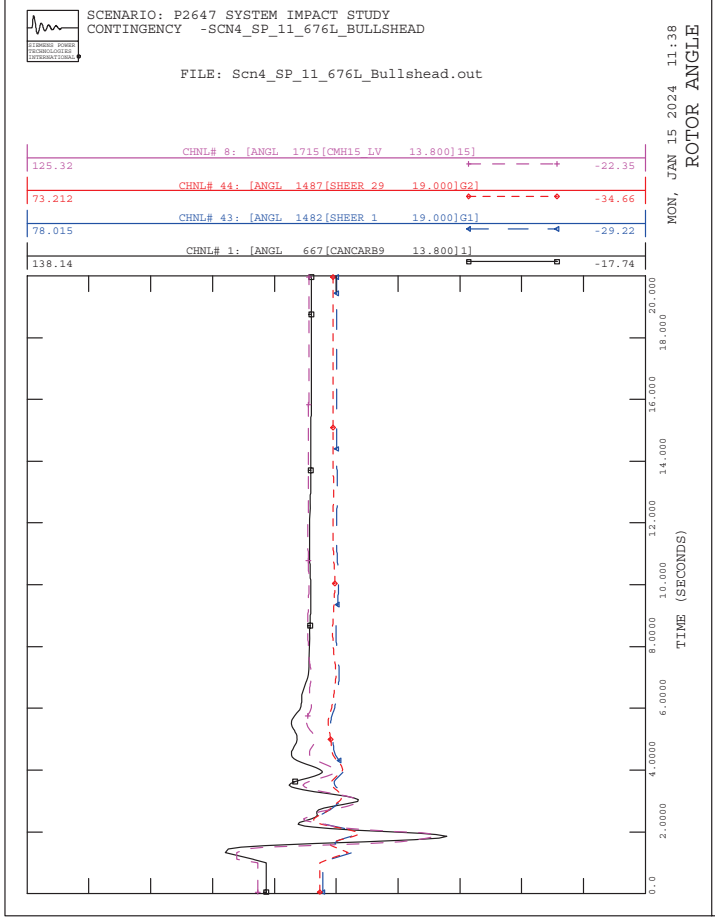

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON
FILE: Scn4_SP_10_1035L_Bowmanton.out
CHNL# 680: [600L Q]
5000.0
-5000.
CHNL# 678: [880L Q]
5000.0
-5000.
CHNL# 676: [676L Q]
5000.0
-5000.
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

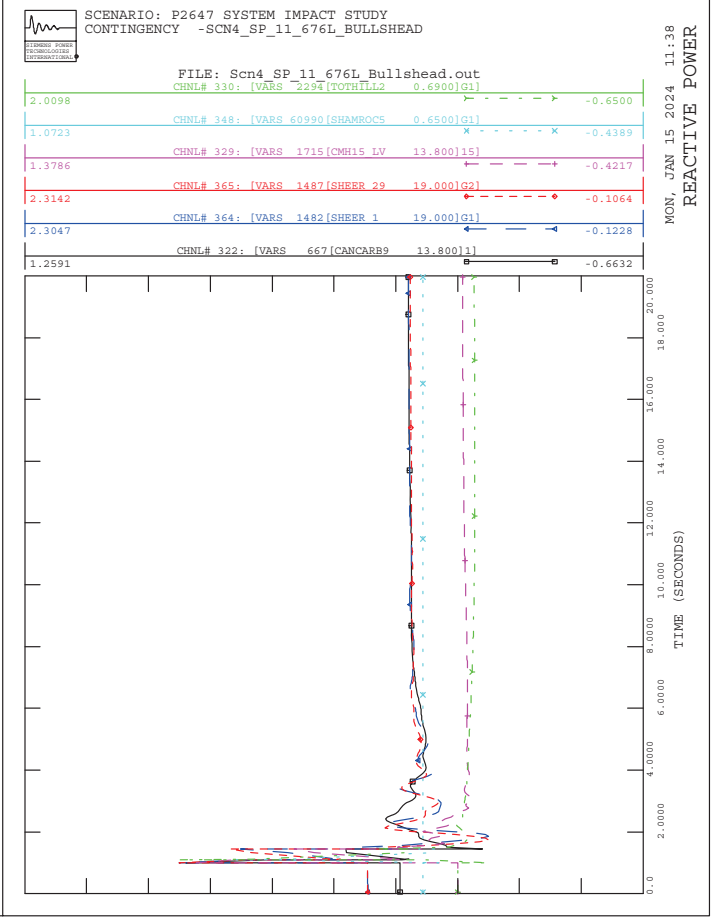

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON
FILE: Scn4_SP_10_1035L_Bowmanton.out
CHNL# 673: [1035L P]
788.58
-262.9
CHNL# 671: [1034L P]
5000.0
-5000.
CHNL# 669: [983L P]
5000.0
-5000.
CHNL# 667: [675L P]
5000.0
-5000.
CHNL# 665: [1074L P]
5000.0
-5000.
CHNL# 663: [964L P]
5000.0
-5000.
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

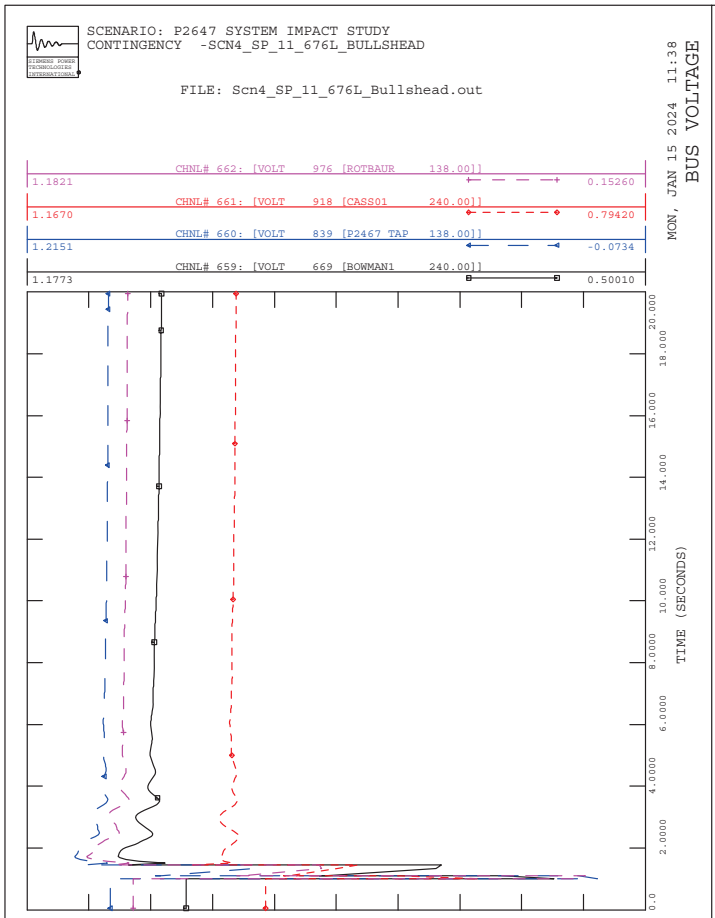

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_10_1035L_BOWMANTON
FILE: Scn4_SP_10_1035L_Bowmanton.out
CHNL# 679: [600L P]
5000.0
-5000.
CHNL# 677: [880L P]
5000.0
-5000.
CHNL# 675: [676L P]
5000.0
-5000.
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

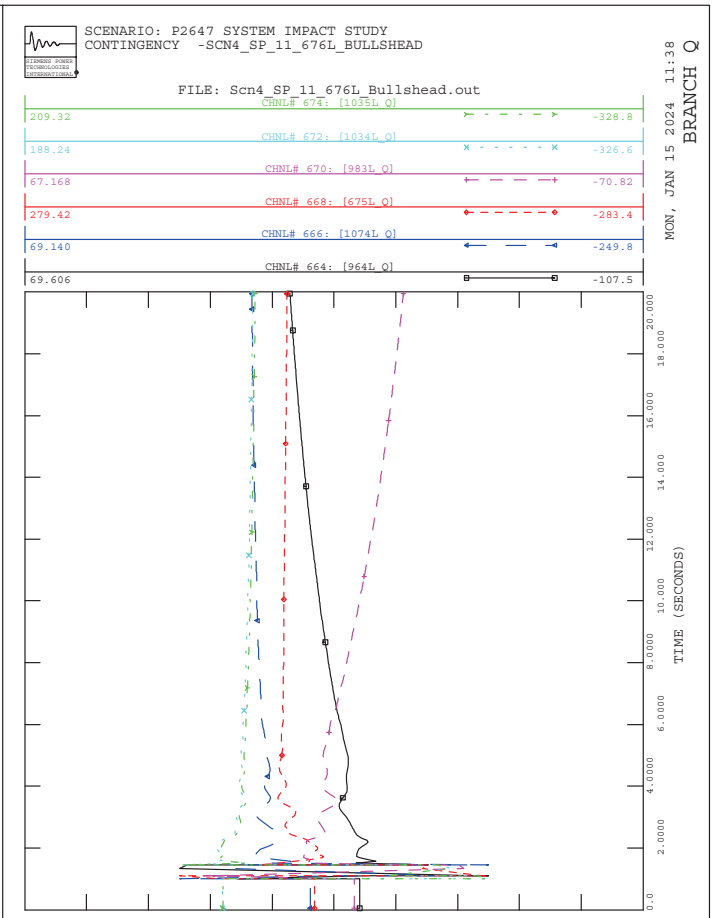

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.4017
-0.1970
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.8927
0.49040
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.76140
0.05300
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.2020
0.91320
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
2.6650
1.4134
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.91270
-0.1202
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
ACTIVE POWER

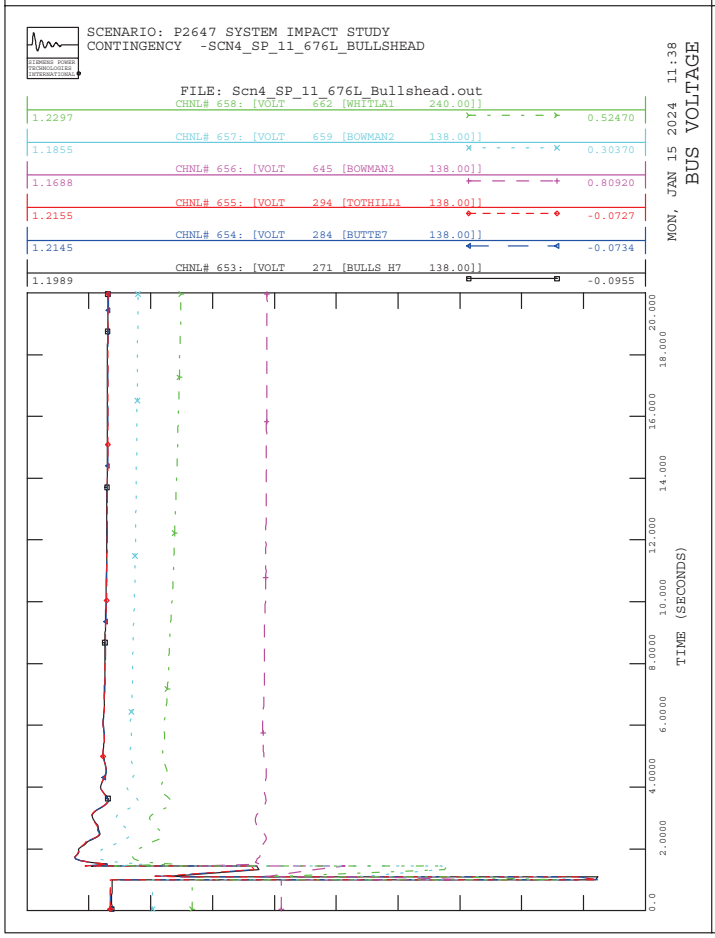

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.2497
0.00630
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1977
0.52270
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.2058
0.65200
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2147
0.92930
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2138
0.93020
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1775
0.45390
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE

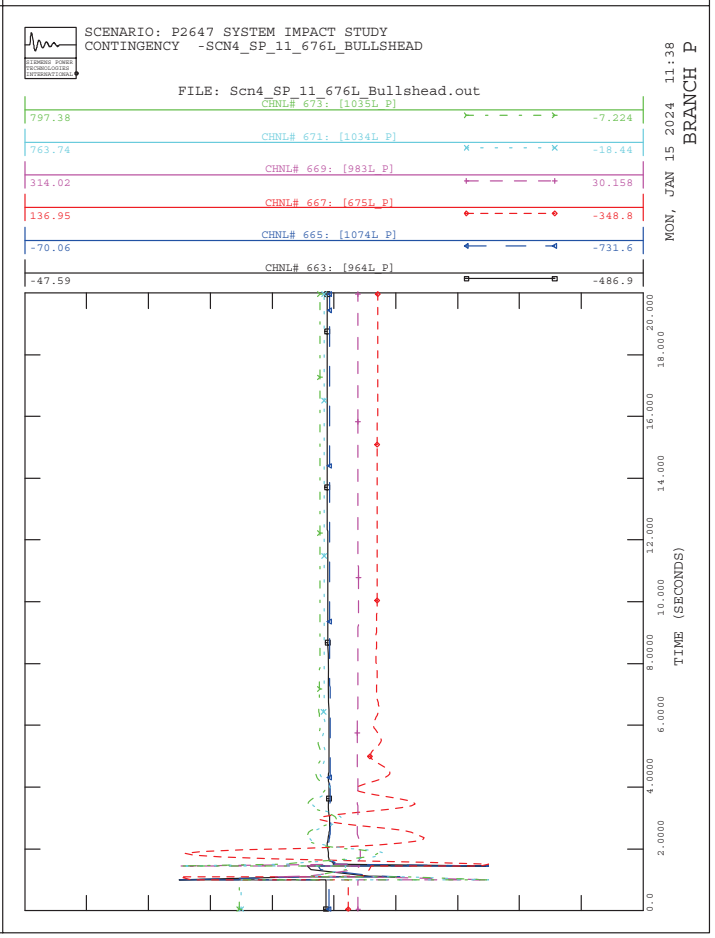

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
125.32
-22.35
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
73.212
-34.66
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
78.015
-29.22
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
138.14
-17.74
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
ROTOR ANGLE


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
2.0098
-0.6500
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
1.0723
-0.4389
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.3786
-0.4217
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
2.3142
-0.1064
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
2.3047
-0.1228
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.2591
-0.6632
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000
TIME (SECONDS)
MON, JAN 15 2024 11:38
REACTIVE POWER


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1821
0.15260
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.1670
0.79420
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2151
-0.0734
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.1773
0.50010
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 674: [1035L Q]
209.32
-328.8
CHNL# 672: [1034L Q]
188.24
-326.6
CHNL# 670: [983L Q]
67.168
-70.82
CHNL# 668: [675L Q]
279.42
-283.4
CHNL# 666: [1074L Q]
69.140
-249.8
CHNL# 664: [964L Q]
69.606
-107.5
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.2297
0.52470
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.1855
0.30370
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.1688
0.80920
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2155
-0.0727
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2145
-0.0734
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.1989
-0.0955
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

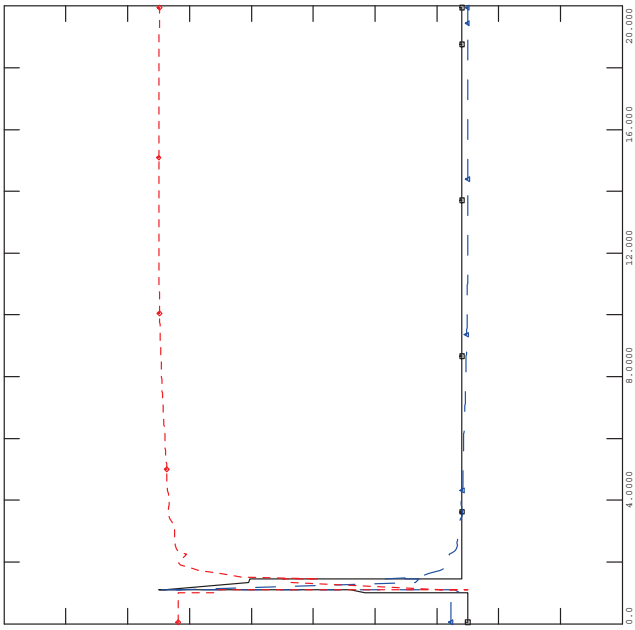

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD
FILE: Scn4_SP_11_676L_Bullshead.out
CHNL# 673: [1035L P]
797.38
-7.224
CHNL# 671: [1034L P]
763.74
-18.44
CHNL# 669: [983L P]
314.02
30.158
CHNL# 667: [675L P]
136.95
-348.8
CHNL# 665: [1074L P]
-70.06
-731.6
CHNL# 663: [964L P]
-47.59
-486.9
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD

FILE: Scn4_SP_11_676L_Bullshead.out

MON, JAN 15 2024 11:38 BRANCH Q

CHNL# 680: [600L Q] 79.240 -154.0
CHNL# 678: [880L Q] 290.45 -112.0
CHNL# 676: [676L Q] 748.15 -262.0

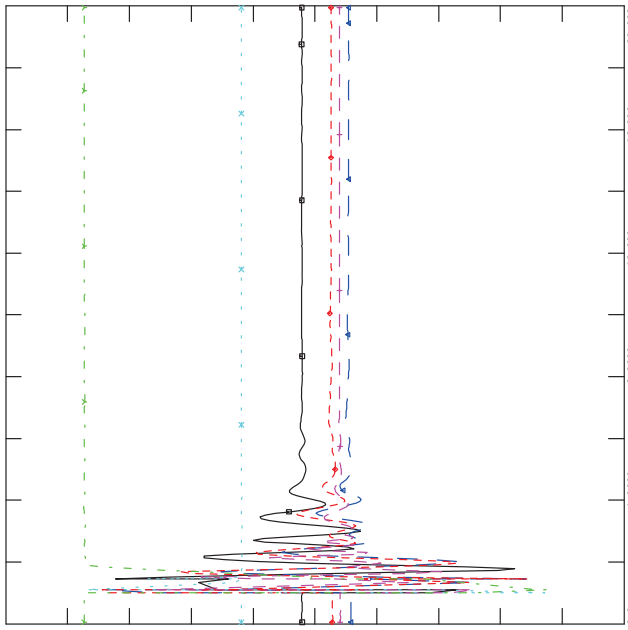


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON

FILE: Scn4_SP_12_676L_Bowmanton.out

MON, JAN 15 2024 11:38 ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4016 -0.1821
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.7234 0.16160
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.81790 -0.0036
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.1754 0.89660
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 2.7020 1.4442
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 0.97400 -0.1534

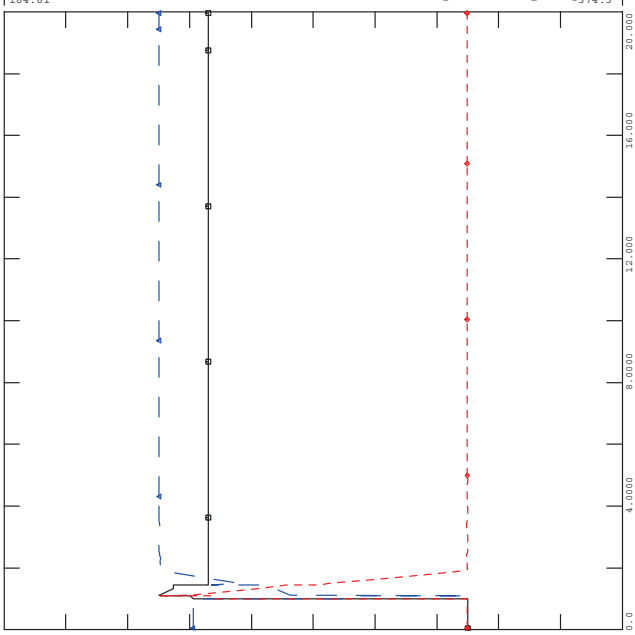


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_11_676L_BULLSHEAD

FILE: Scn4_SP_11_676L_Bullshead.out

MON, JAN 15 2024 11:38 BRANCH P

CHNL# 679: [600L P] 88.544 -175.3
CHNL# 677: [880L P] 255.17 -190.7
CHNL# 675: [676L P] 184.81 -374.3

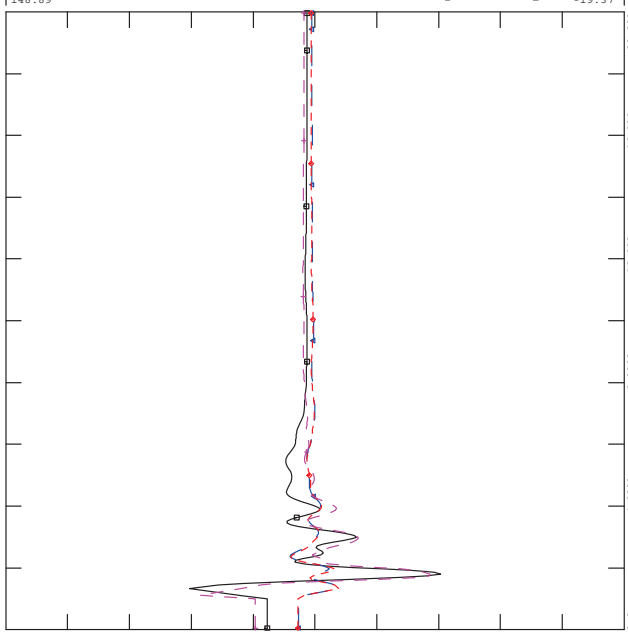


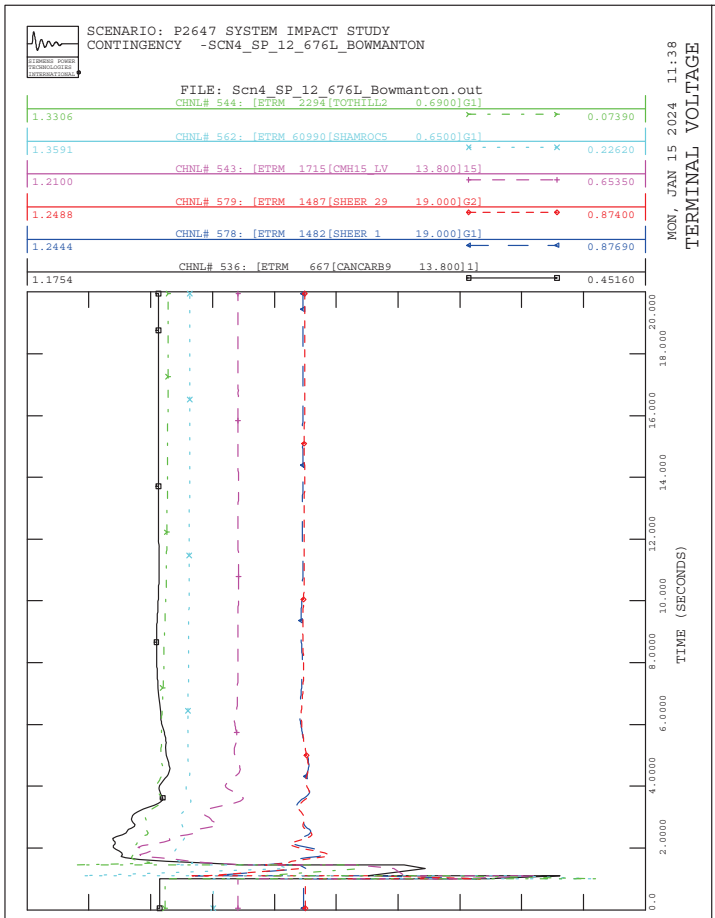
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON

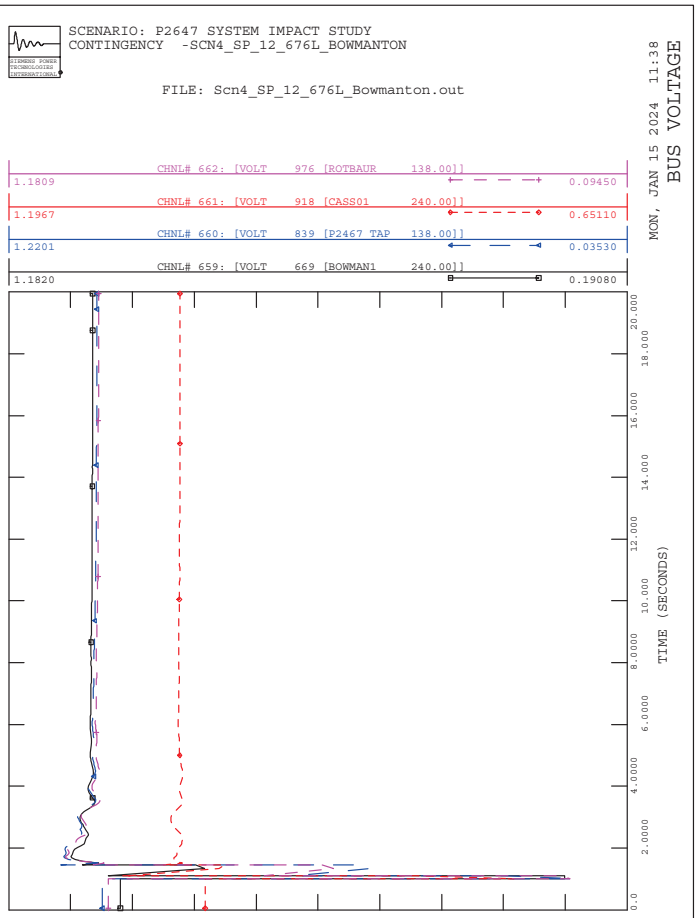
FILE: Scn4_SP_12_676L_Bowmanton.out

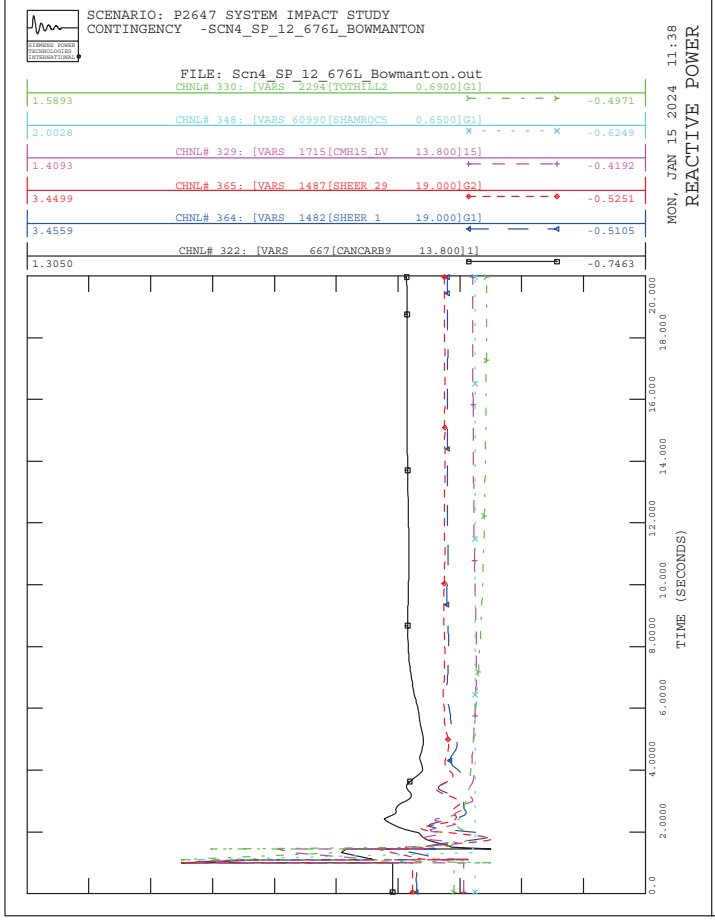
MON, JAN 15 2024 11:38 ROTOR ANGLE

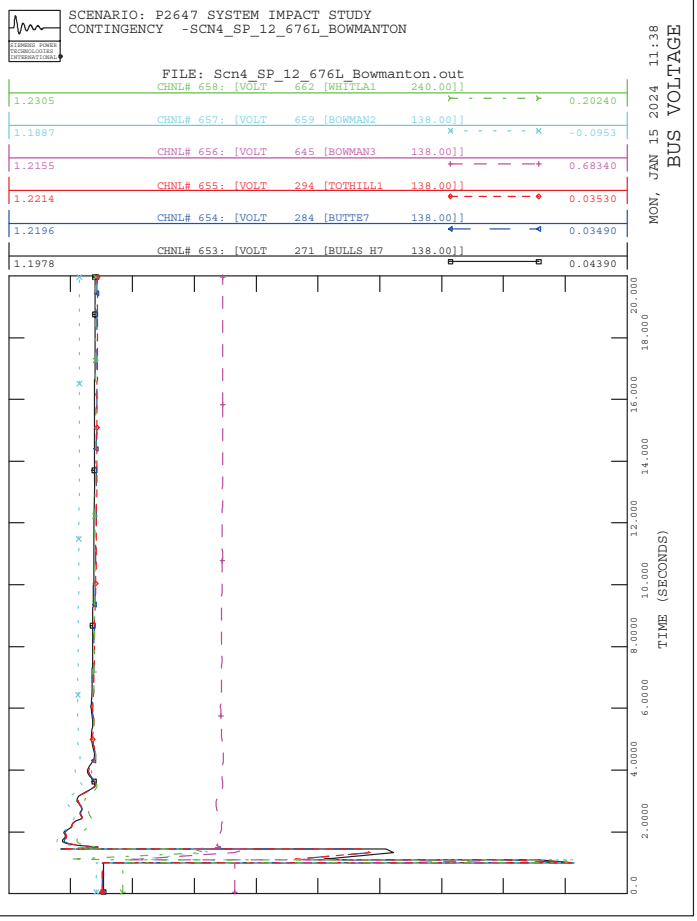
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 134.42 -24.71
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 73.430 -35.01
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 78.146 -30.52
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 148.89 -19.37

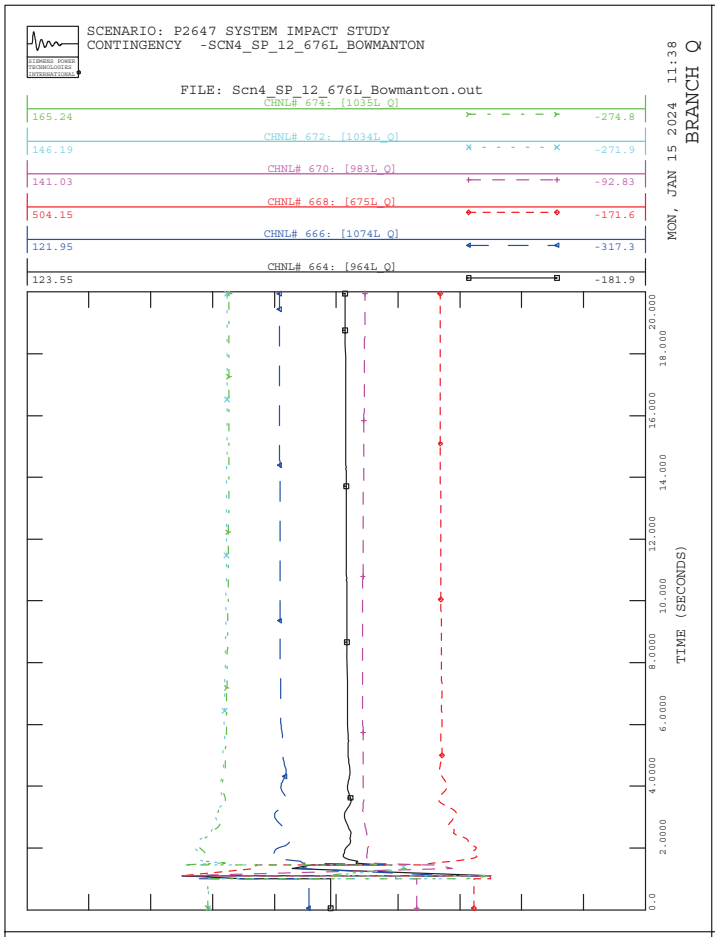


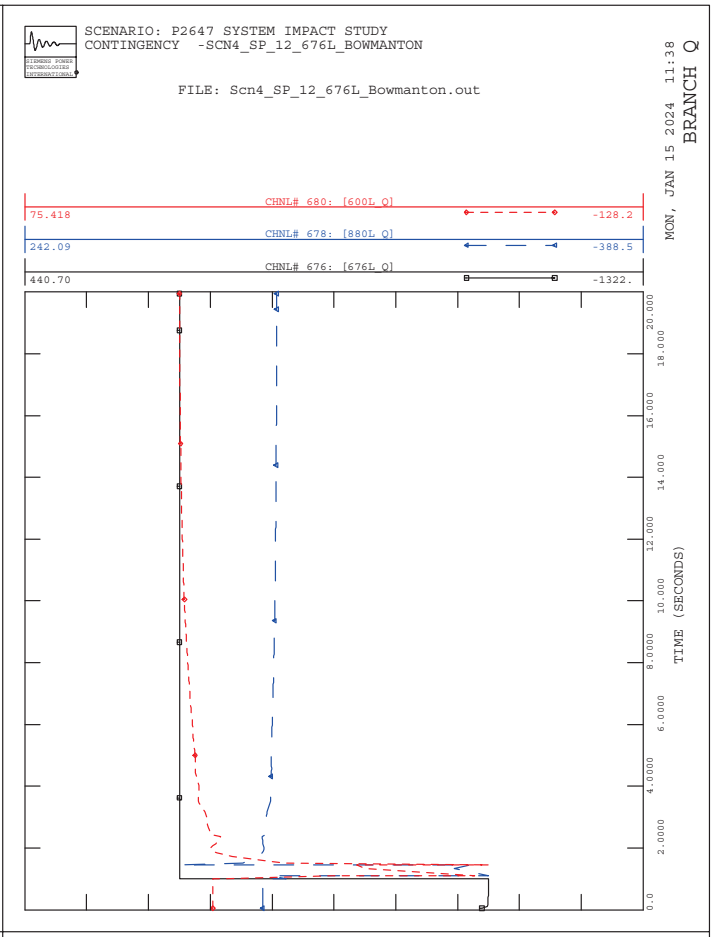

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3306
0.07390
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3591
0.22620
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.2100
0.65350
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2488
0.87400
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2444
0.87690
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1754
0.45160
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

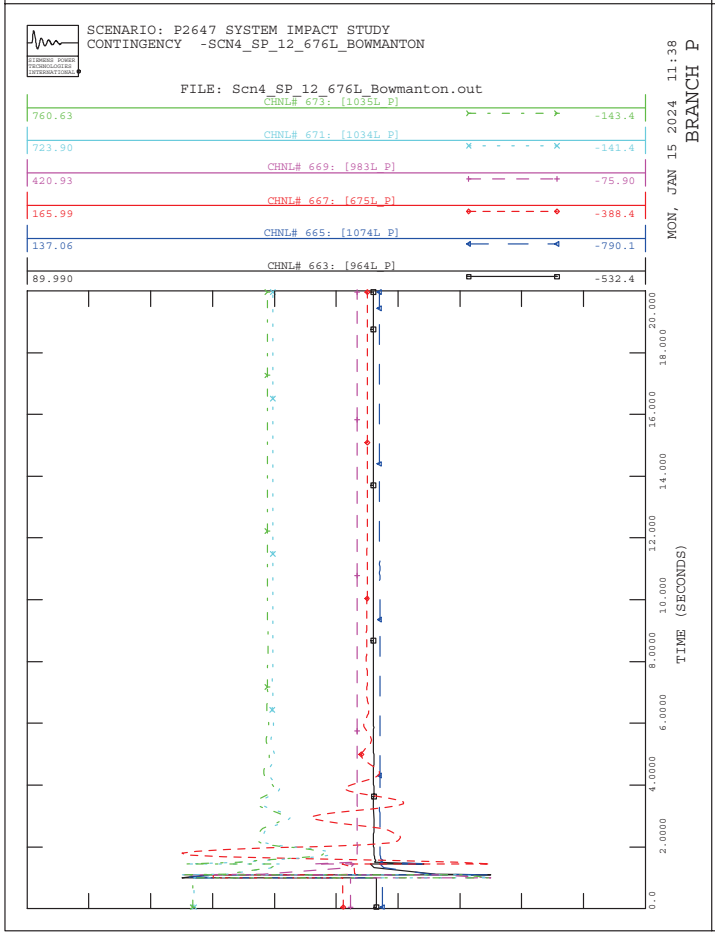

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1809
0.09450
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.1967
0.65110
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2201
0.03530
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.1820
0.19080
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

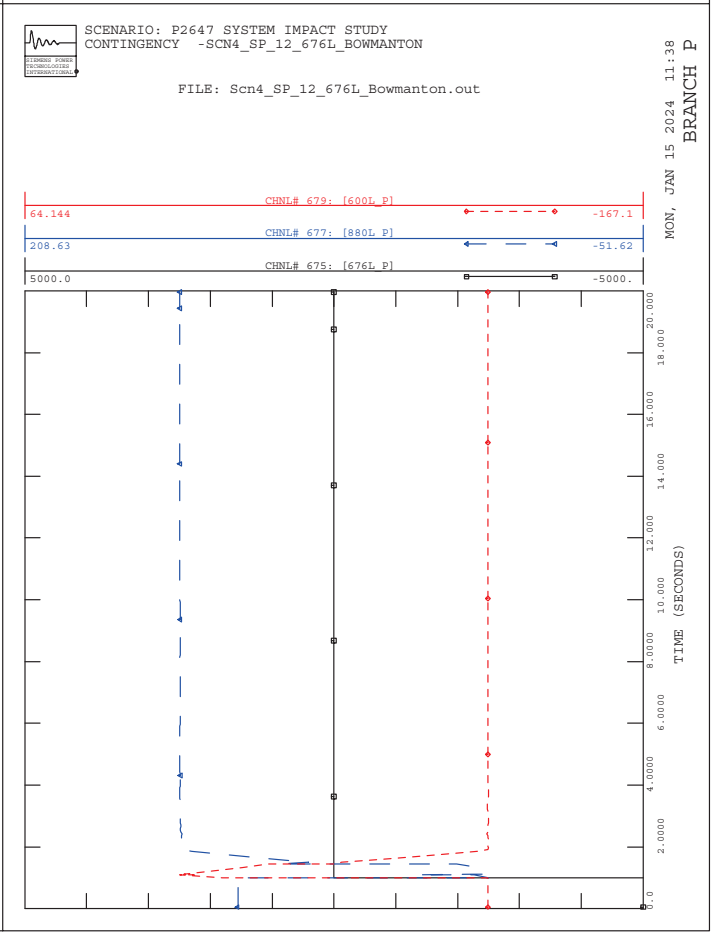

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.5893
-0.4971
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
2.0028
-0.6249
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.4093
-0.4192
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
3.4499
-0.5251
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
3.4559
-0.5105
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.3050
-0.7463
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

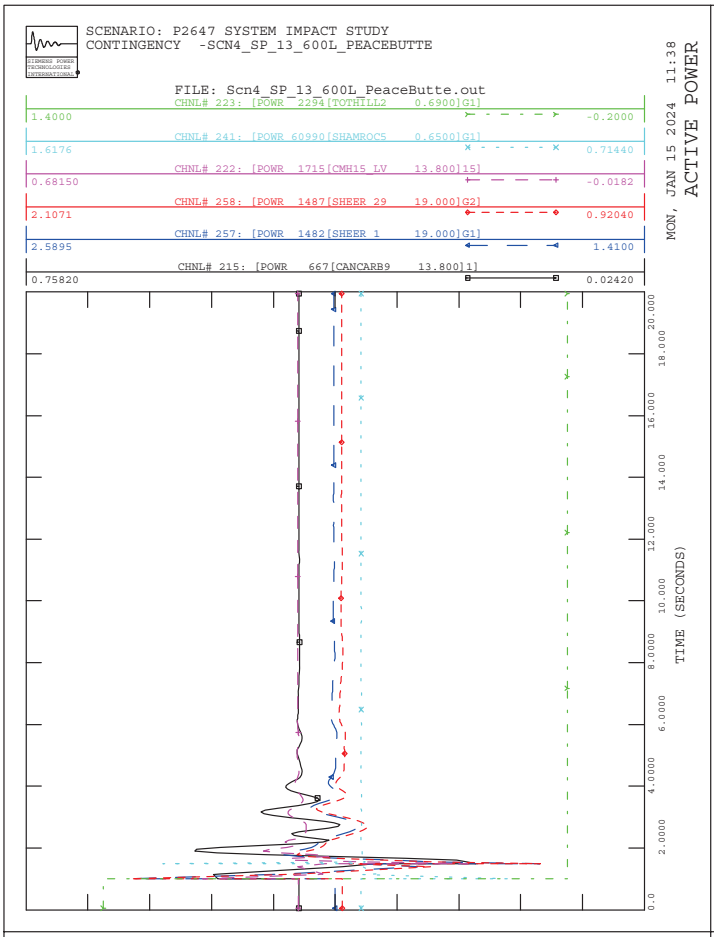

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.2305
0.20240
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.1887
-0.0953
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2155
0.68340
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2214
0.03530
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2196
0.03490
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.1978
0.04390
MON, JAN 15 2024 11:38
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

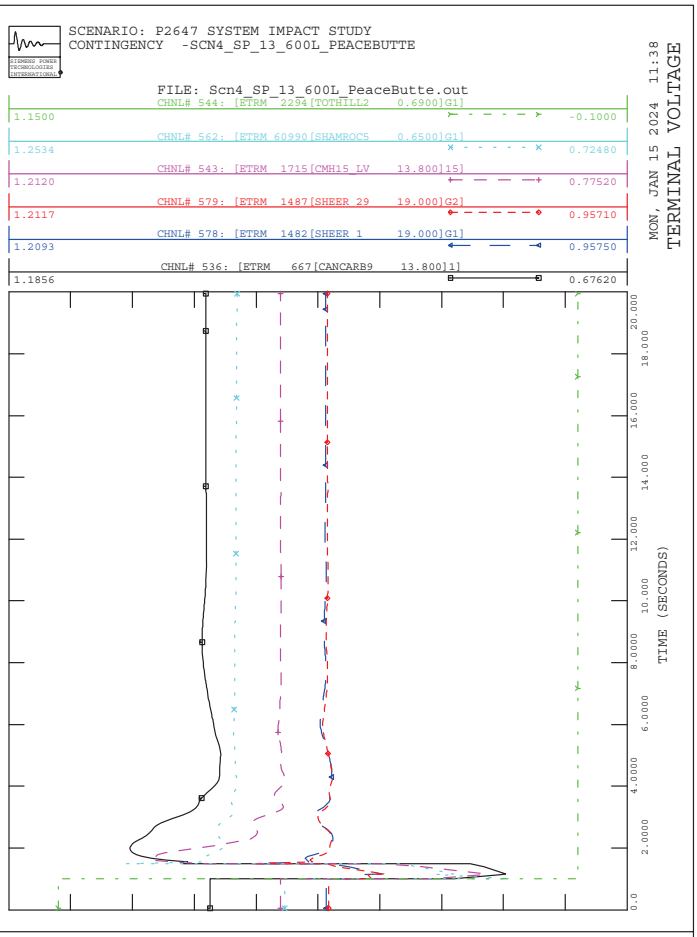

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 674: [1035L Q]
165.24
-274.8
CHNL# 672: [1034L Q]
146.19
-271.9
CHNL# 670: [983L Q]
141.03
-92.83
CHNL# 668: [675L Q]
504.15
-171.6
CHNL# 666: [1074L Q]
121.95
-317.3
CHNL# 664: [964L Q]
123.55
-181.9
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

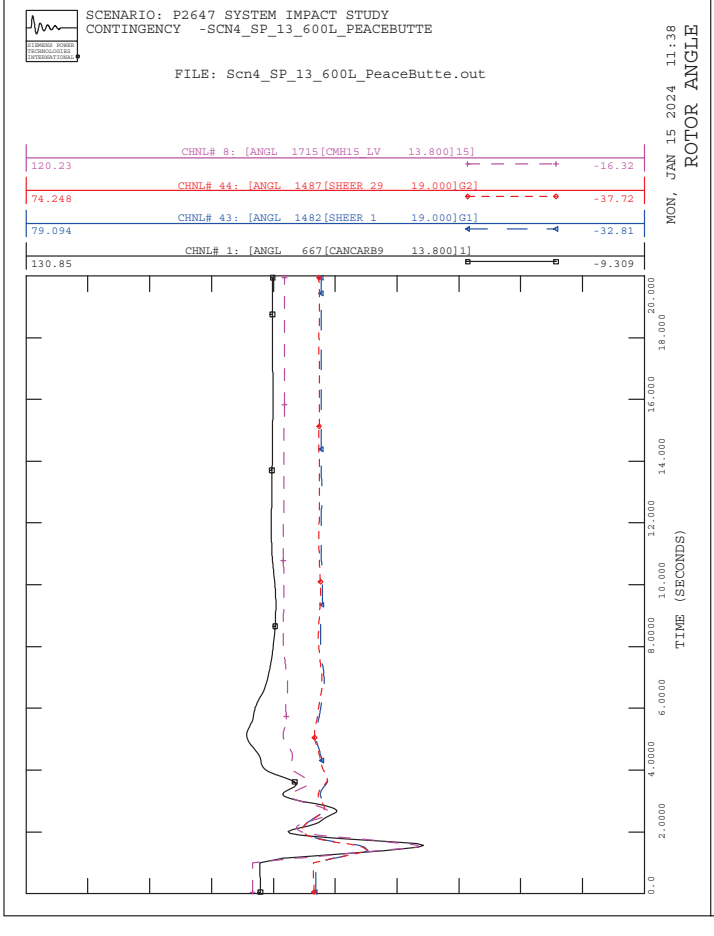

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 680: [600L Q]
75.418
-128.2
CHNL# 678: [880L Q]
242.09
-388.5
CHNL# 676: [676L Q]
440.70
-1322.
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

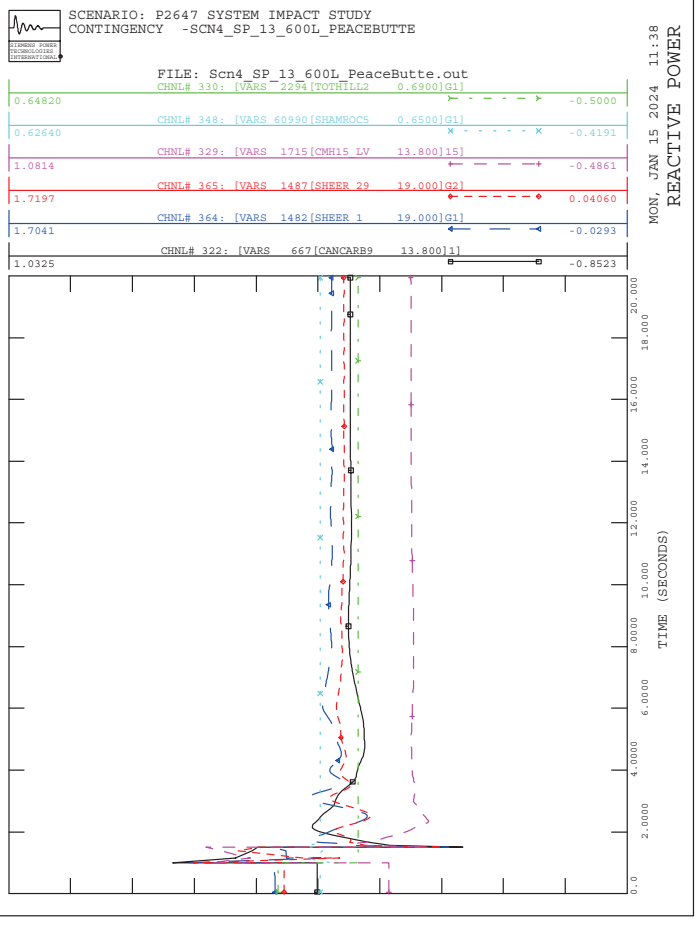

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 673: [1035L P]
760.63
-143.4
CHNL# 671: [1034L P]
723.90
-141.4
CHNL# 669: [983L P]
420.93
-75.90
CHNL# 667: [675L P]
165.99
-388.4
CHNL# 665: [1074L P]
137.06
-790.1
CHNL# 663: [964L P]
89.990
-532.4
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

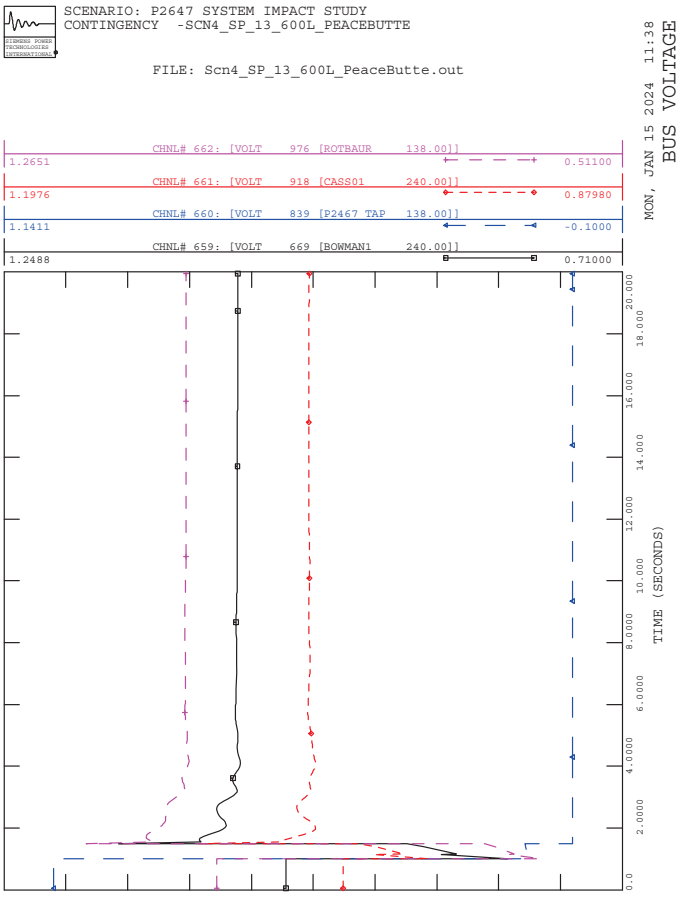

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_12_676L_BOWMANTON
FILE: Scn4_SP_12_676L_Bowmanton.out
CHNL# 679: [600L P]
64.144
-167.1
CHNL# 677: [880L P]
208.63
-51.62
CHNL# 675: [676L P]
5000.0
-5000.
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

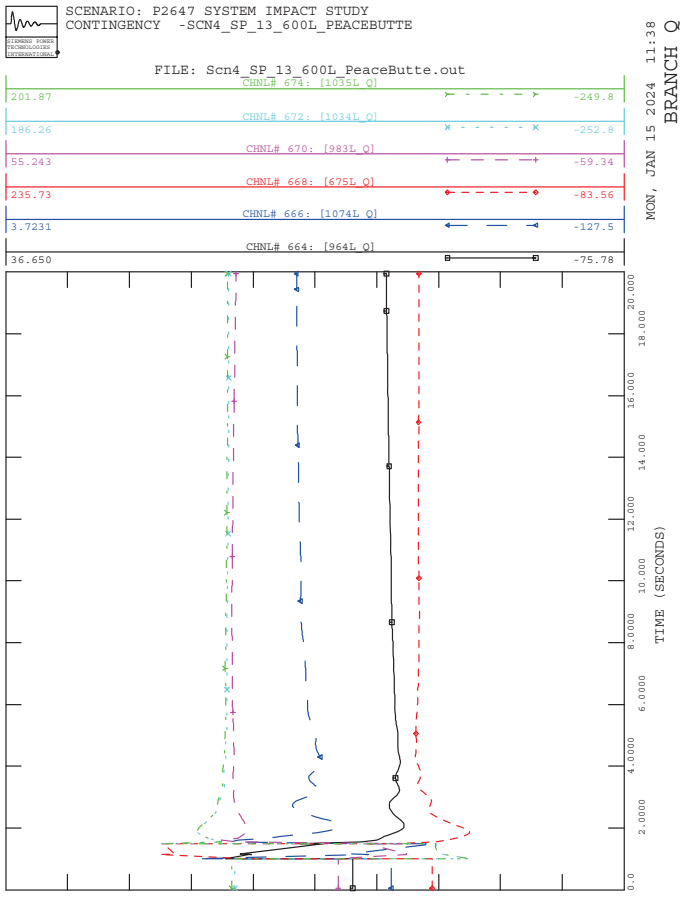

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.4000
-0.2000
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.6176
0.71440
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.68150
-0.0182
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.1071
0.92040
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
2.5895
1.4100
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.75820
0.02420
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

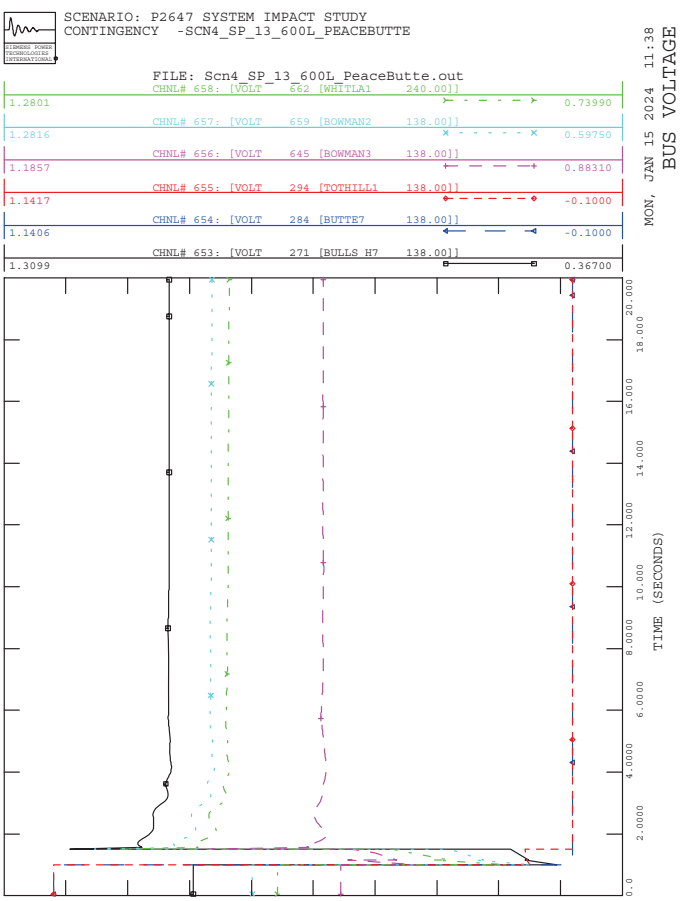

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.1500
-0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2534
0.72480
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.2120
0.77520
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2117
0.95710
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2093
0.95750
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1856
0.67620
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

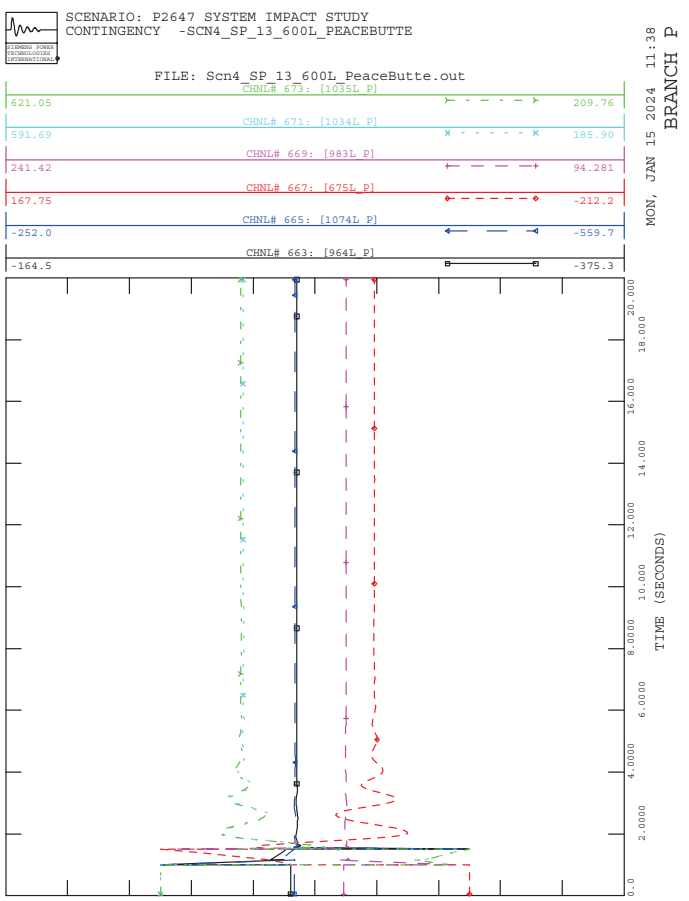

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
120.23
-16.32
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
74.248
-37.72
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
79.094
-32.81
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
130.85
-9.309
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
0.64820
-0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.62640
-0.4191
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.0814
-0.4861
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
1.7197
0.04060
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
1.7041
-0.0293
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.0325
-0.8523
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.2651
0.51100
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.1976
0.87980
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.1411
-0.1000
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2488
0.71000
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
MON, JAN 15 2024 11:38
BRANCH Q
CHNL# 674: [1035L Q]
201.87
-249.8
CHNL# 672: [1034L Q]
186.26
-252.8
CHNL# 670: [983L Q]
55.243
-59.34
CHNL# 668: [675L Q]
235.73
-83.56
CHNL# 666: [1074L Q]
3.7231
-127.5
CHNL# 664: [964L Q]
36.650
-75.78
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
MON, JAN 15 2024 11:38
BUS VOLTAGE
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.2801
0.73990
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2816
0.59750
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.1857
0.88310
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.1417
-0.1000
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.1406
-0.1000
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.3099
0.36700
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE
FILE: Scn4_SP_13_600L_PeaceButte.out
MON, JAN 15 2024 11:38
BRANCH P
CHNL# 673: [1035L P]
621.05
209.76
CHNL# 671: [1034L P]
591.69
185.90
CHNL# 669: [983L P]
241.42
94.281
CHNL# 667: [675L P]
167.75
-212.2
CHNL# 665: [1074L P]
-252.0
-559.7
CHNL# 663: [964L P]
-164.5
-375.3
TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE

FILE: Scn4_SP_13_600L_PeaceButte.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 680: [600L Q] 572.68 -190.9

CHNL# 678: [880L Q] 280.30 -362.4

CHNL# 676: [676L Q] 294.96 -254.3

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD

FILE: Scn4_SP_14_600L_Bullshead.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4002 -0.2000

CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.9902 0.49630

CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.93360 0.09510

CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.1759 0.84410

CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 2.6396 1.4345

CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.0337 0.01050

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_13_600L_PEACEBUTTE

FILE: Scn4_SP_13_600L_PeaceButte.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 679: [600L P] 311.86 -249.4

CHNL# 677: [880L P] 222.14 -191.1

CHNL# 675: [676L P] 90.461 -342.9

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD

FILE: Scn4_SP_14_600L_Bullshead.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 129.76 -8.665

CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 73.070 -31.47

CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 77.765 -26.25

CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 134.40 -1.818

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD

FILE: Scn4_SP_14_600L_Bullshead.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 1.1500 -0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.3786 0.52810
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15] 1.1896 0.65030
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2220 0.93000
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2208 0.93090
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1797 0.43690

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD

FILE: Scn4_SP_14_600L_Bullshead.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.2517 0.16330
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.2231 0.79580
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.1411 -0.1000
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.2881 0.50600

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD

FILE: Scn4_SP_14_600L_Bullshead.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 0.64820 -0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 1.2663 -0.4384
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15] 1.3730 -0.5227
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 2.4256 -0.4725
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 2.4186 -0.4961
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.3522 -1.030

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD

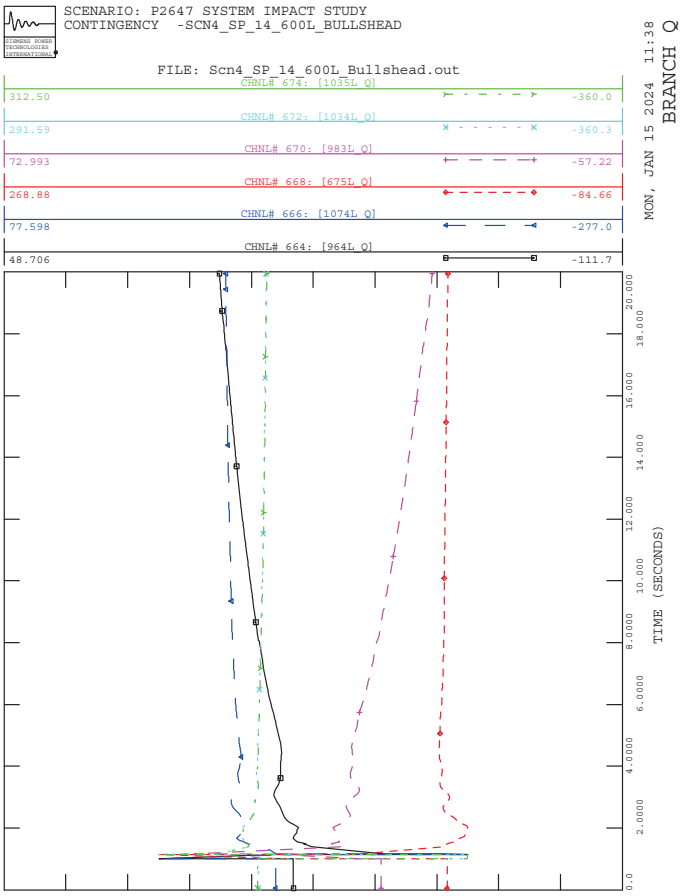
FILE: Scn4_SP_14_600L_Bullshead.out

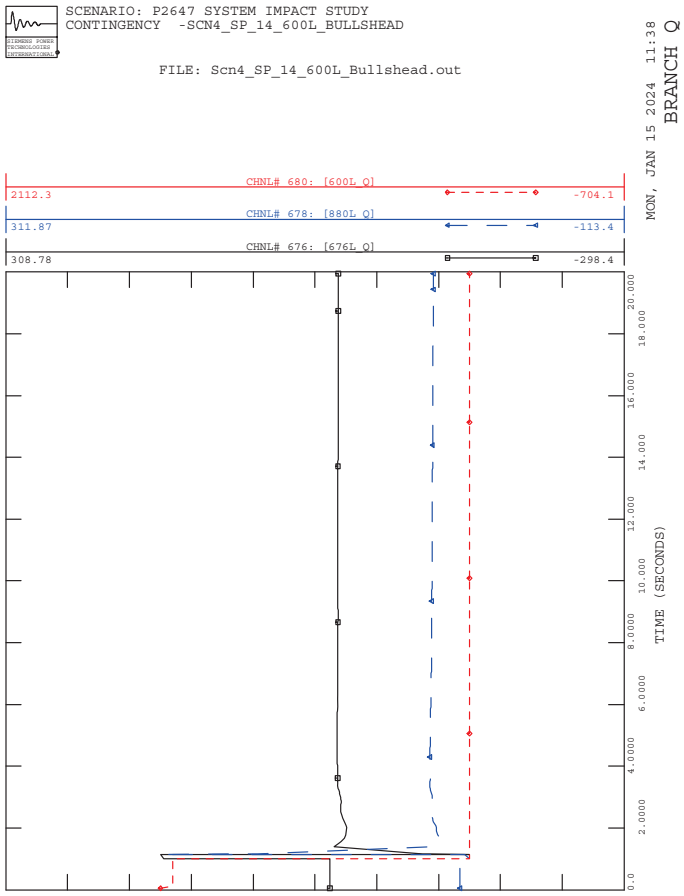
MON, JAN 15 2024 11:38

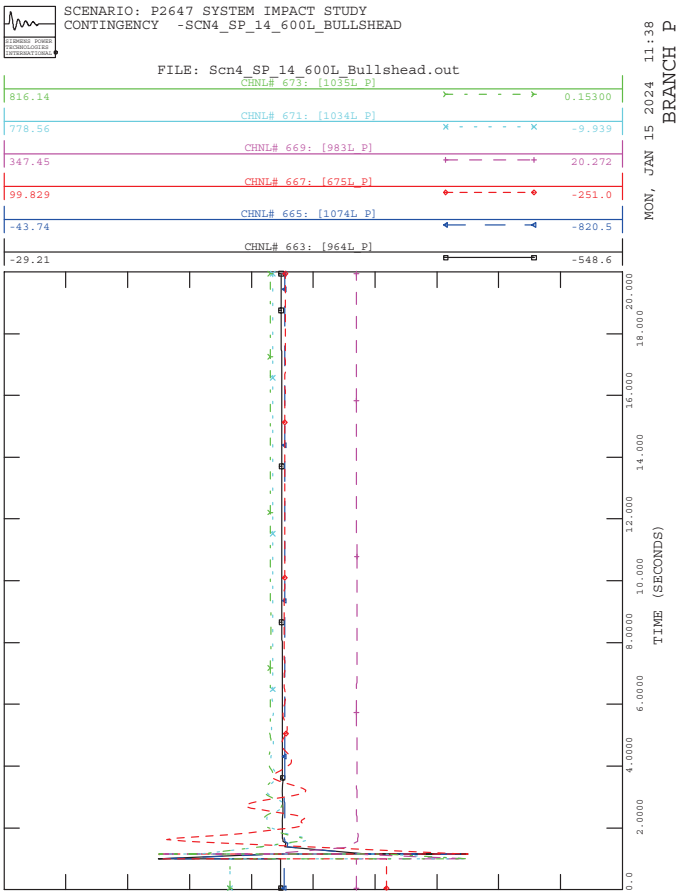
BUS VOLTAGE

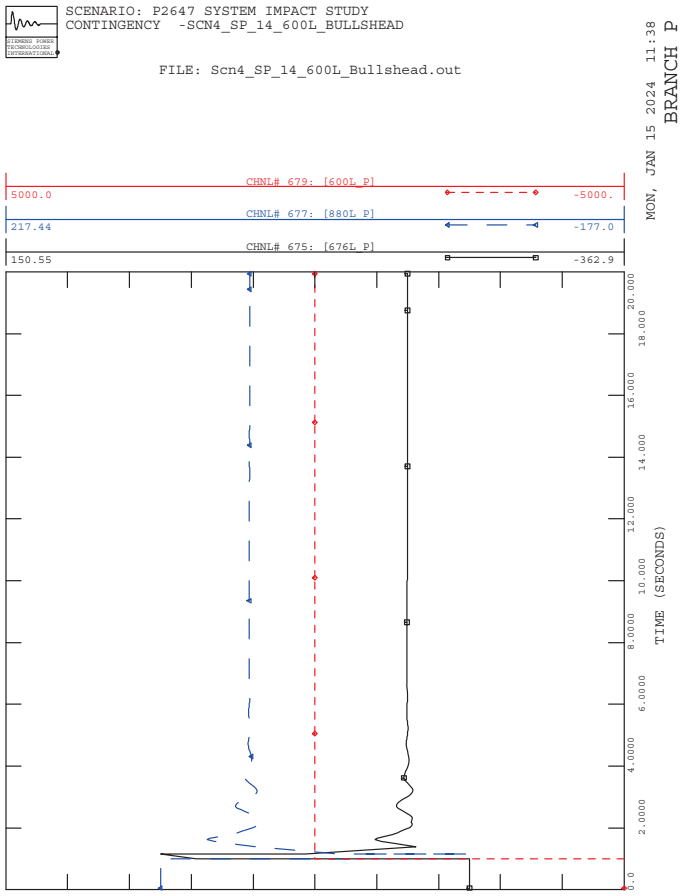
CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.3602 0.53050
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.3041 0.31440
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.2251 0.81050
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.1417 -0.1000
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.1406 -0.1000
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.2974 -0.0933

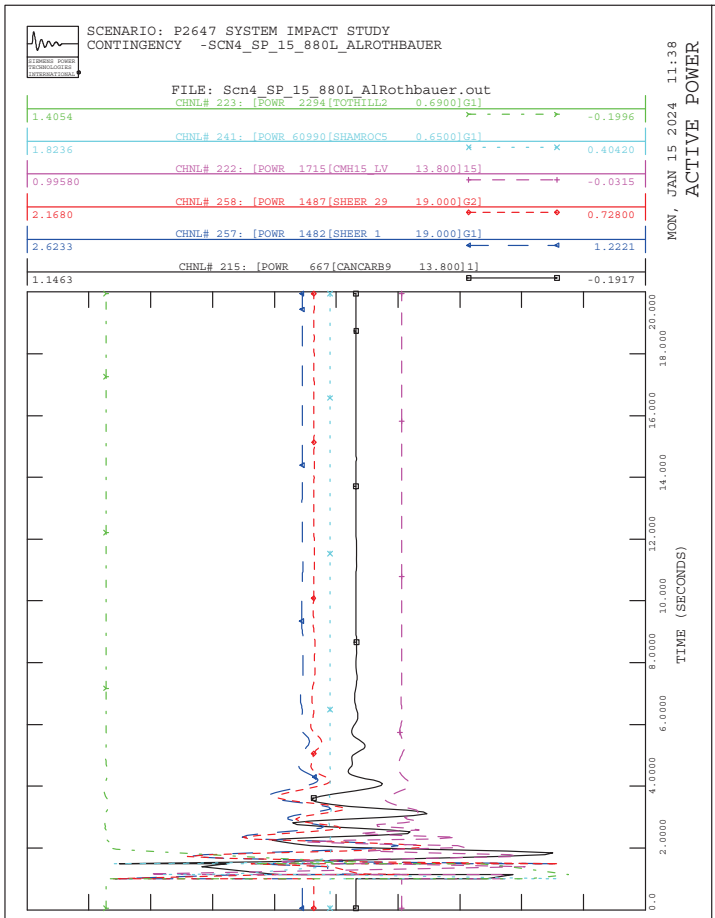
TIME (SECONDS)

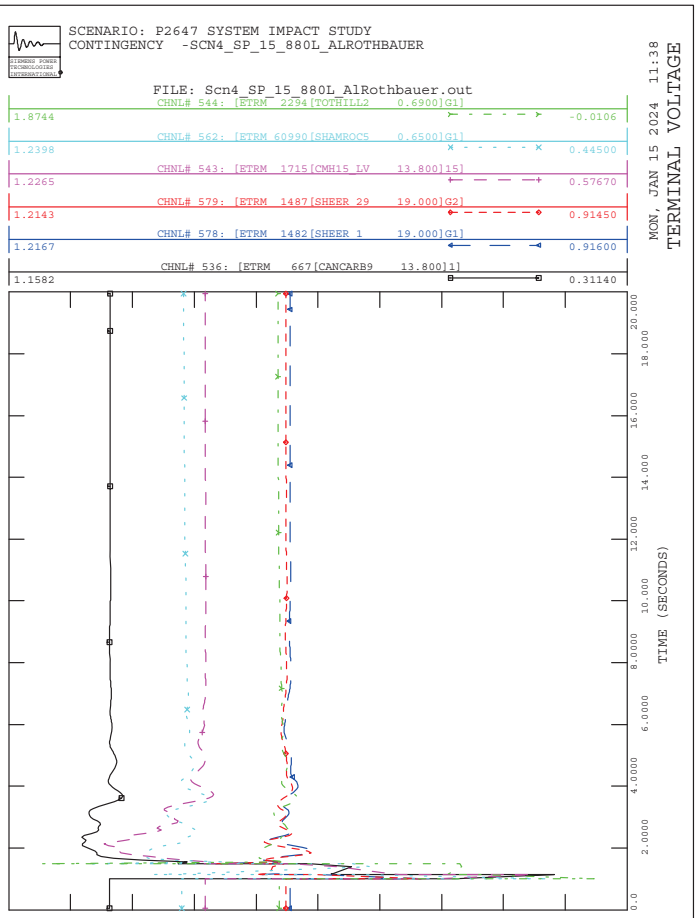

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD
FILE: Scn4_SP_14_600L_Bullshead.out
CHNL# 674: [1035L Q]
312.50
-360.0
CHNL# 672: [1034L Q]
291.59
-360.3
CHNL# 670: [983L Q]
72.993
-57.22
CHNL# 668: [675L Q]
268.88
-84.66
CHNL# 666: [1074L Q]
77.598
-277.0
CHNL# 664: [964L Q]
48.706
-111.7
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

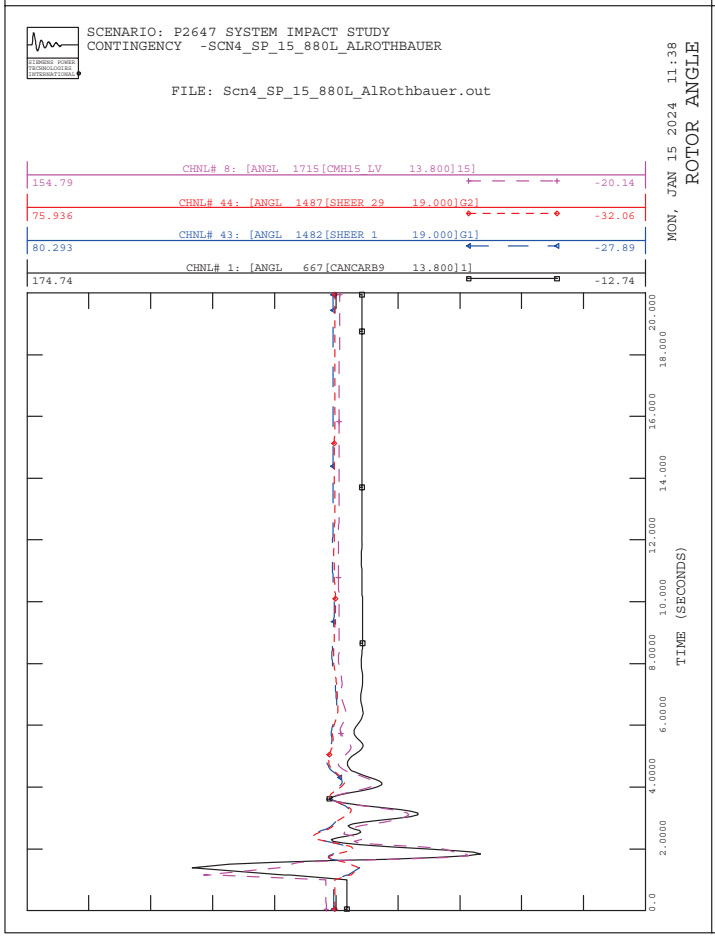

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD
FILE: Scn4_SP_14_600L_Bullshead.out
CHNL# 680: [600L Q]
2112.3
-704.1
CHNL# 678: [880L Q]
311.87
-113.4
CHNL# 676: [676L Q]
308.78
-298.4
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

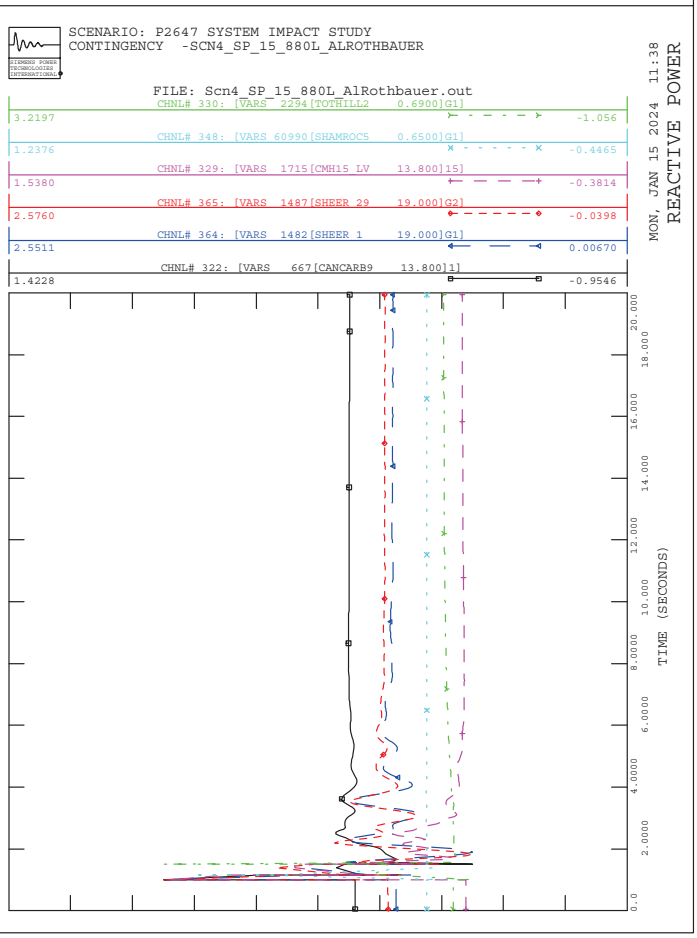

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD
FILE: Scn4_SP_14_600L_Bullshead.out
CHNL# 673: [1035L P]
816.14
0.15300
CHNL# 671: [1034L P]
778.56
-9.939
CHNL# 669: [983L P]
347.45
20.272
CHNL# 667: [675L P]
99.829
-251.0
CHNL# 665: [1074L P]
-43.74
-820.5
CHNL# 663: [964L P]
-29.21
-548.6
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_14_600L_BULLSHEAD
FILE: Scn4_SP_14_600L_Bullshead.out
CHNL# 679: [600L P]
5000.0
-5000.
CHNL# 677: [880L P]
217.44
-177.0
CHNL# 675: [676L P]
150.55
-362.9
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER
FILE: Scn4_SP_15_880L_AlRothbauer.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.4054
-0.1996
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.8236
0.40420
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.99580
-0.0315
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.1680
0.72800
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
2.6233
1.2221
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
1.1463
-0.1917
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER
FILE: Scn4_SP_15_880L_AlRothbauer.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.8744
-0.0106
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.2398
0.44500
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.2265
0.57670
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2143
0.91450
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2167
0.91600
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1582
0.31140
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER
FILE: Scn4_SP_15_880L_AlRothbauer.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
154.79
-20.14
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
75.936
-32.06
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
80.293
-27.89
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
174.74
-12.74
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER
FILE: Scn4_SP_15_880L_AlRothbauer.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
3.2197
-1.056
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
1.2376
-0.4465
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.5380
-0.3814
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
2.5760
-0.0398
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
2.5511
0.00670
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.4228
-0.9546
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

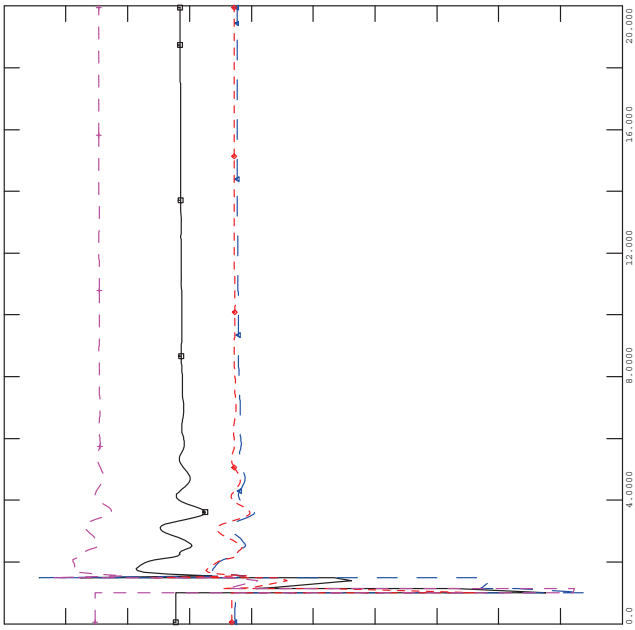
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER

FILE: Scn4_SP_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.1957 -0.0960
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.1795 0.75540
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.7045 -0.0710
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.2291 0.41710



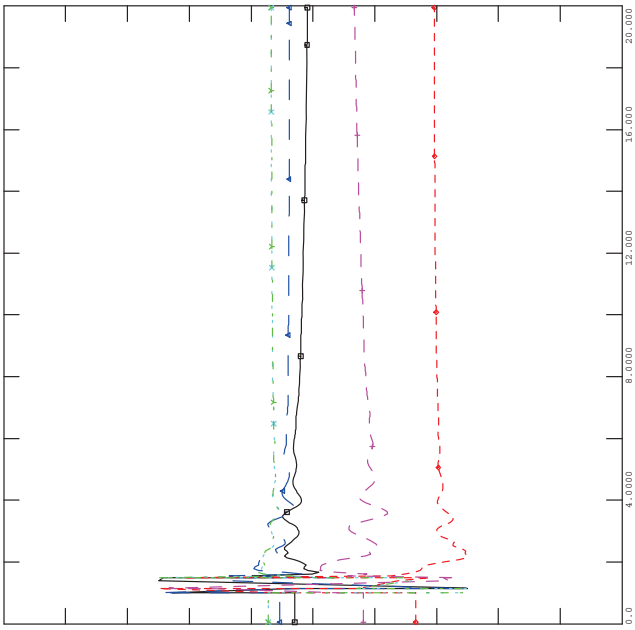
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER

FILE: Scn4_SP_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 674: [1035L Q] 348.13 -379.5
CHNL# 672: [1034L Q] 323.73 -378.9
CHNL# 670: [983L Q] 80.687 -69.13
CHNL# 668: [675L Q] 434.89 -194.9
CHNL# 666: [1074L Q] 89.037 -285.6
CHNL# 664: [964L Q] 62.524 -126.4



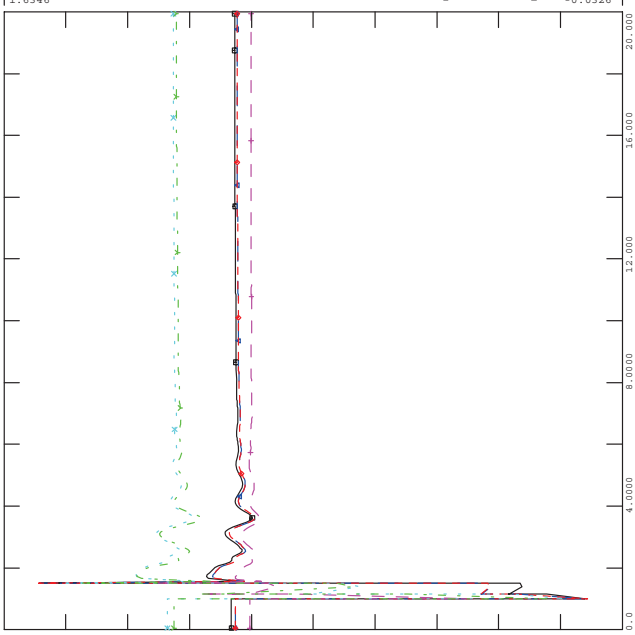
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER

FILE: Scn4_SP_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.2695 0.44050
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.2977 0.19640
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.1829 0.77530
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.7063 -0.0719
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.7039 -0.0709
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.6346 -0.0326



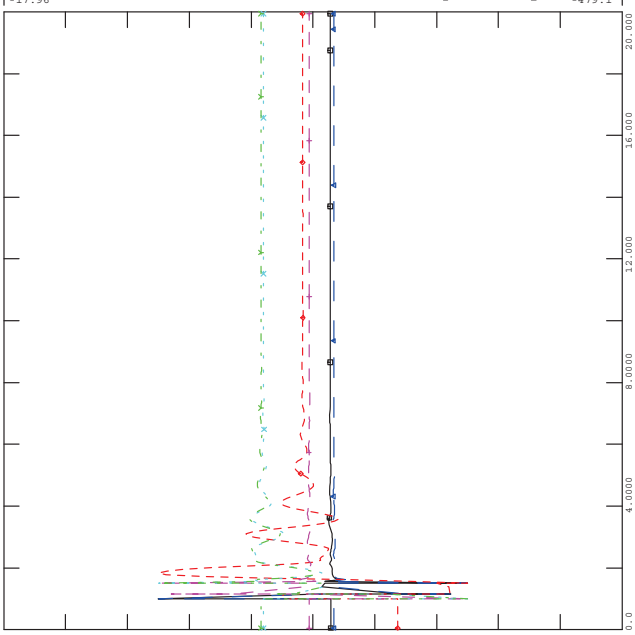
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER

FILE: Scn4_SP_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 673: [1035L P] 954.16 -94.11
CHNL# 671: [1034L P] 918.03 -101.2
CHNL# 669: [983L P] 301.61 17.051
CHNL# 667: [675L P] 360.79 -389.2
CHNL# 665: [1074L P] -22.04 -722.0
CHNL# 663: [964L P] -17.96 -479.1



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER

FILE: Scn4_SP_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 680: [600L Q] 113.12 -274.1
CHNL# 678: [880L Q] 40.000 -40.73
CHNL# 676: [676L Q] 653.22 -872.2

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD

FILE: Scn4_SP_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4051 -0.1998
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.6595 0.49260
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.85130 0.04840
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.1762 0.79540
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 2.6396 1.2836
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.0483 -0.2439

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_15_880L_ALROTHBAUER

FILE: Scn4_SP_15_880L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 679: [600L P] 70.975 -169.7
CHNL# 677: [880L P] 181.16 -60.39
CHNL# 675: [676L P] 293.56 -566.2

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD

FILE: Scn4_SP_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 166.88 -28.03
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 81.313 -34.52
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 85.026 -29.77
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 205.08 -21.63

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD

FILE: Scn4_SP_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 1.2656 0.00760
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1654 0.52470
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15] 1.2507 0.64850
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.1985 0.92940
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2018 0.93030
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1636 0.33360

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD

FILE: Scn4_SP_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.1680 0.15740
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.1391 0.79420
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.2222 -0.0719
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.1539 0.50250

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD

FILE: Scn4_SP_16_880L_Bullshead.out

MON, JAN 15 2024 11:38

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 1.8416 -0.5936
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 1.0886 -0.4387
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15] 1.4501 -0.3814
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 2.5384 -0.0698
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 2.5373 -0.1768
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.2595 -0.6070

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD

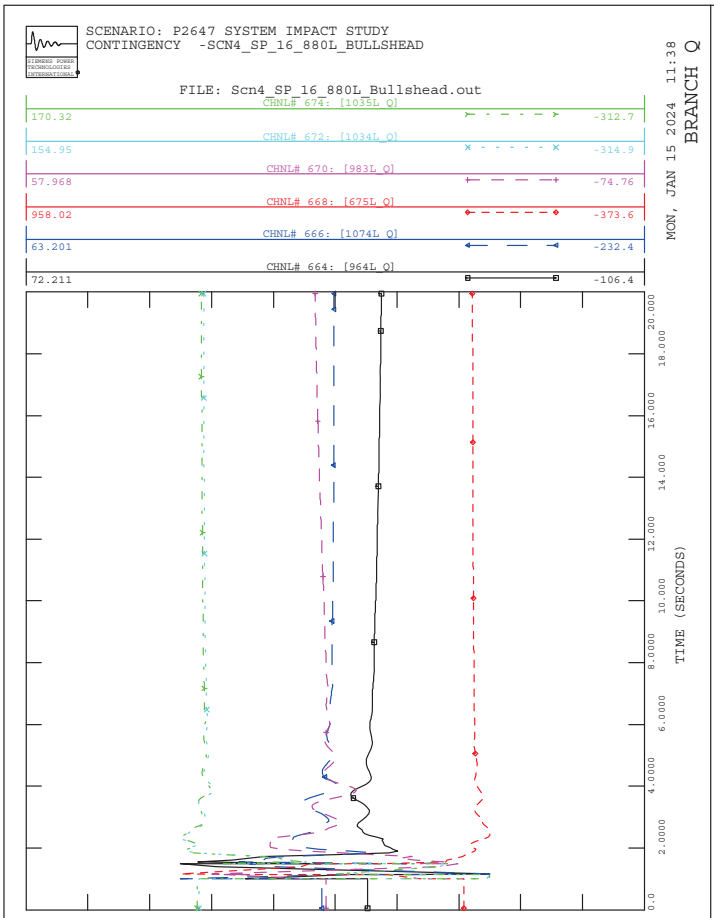
FILE: Scn4_SP_16_880L_Bullshead.out

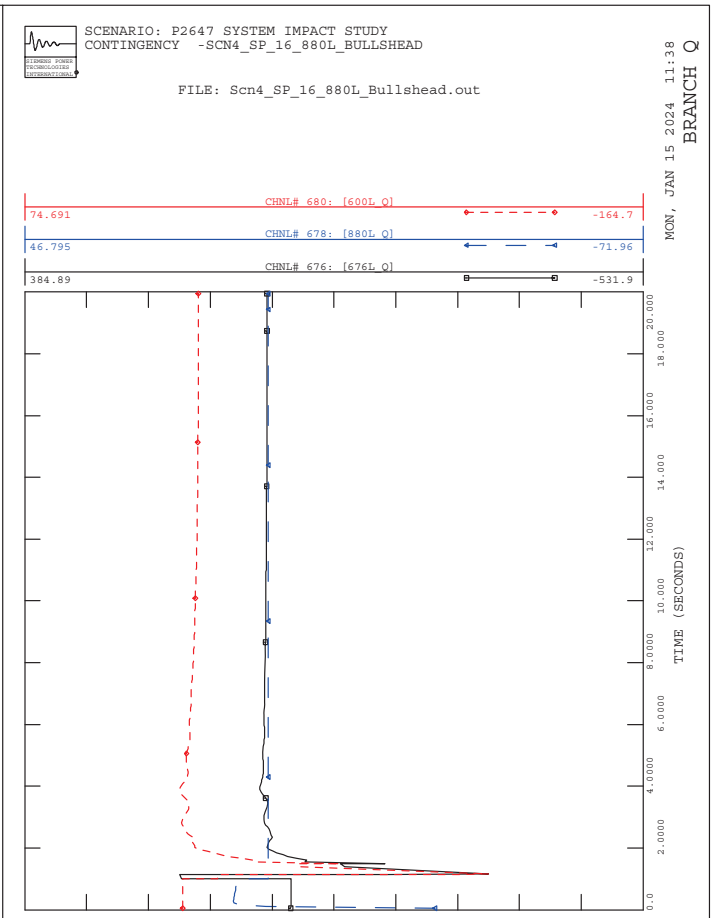
MON, JAN 15 2024 11:38

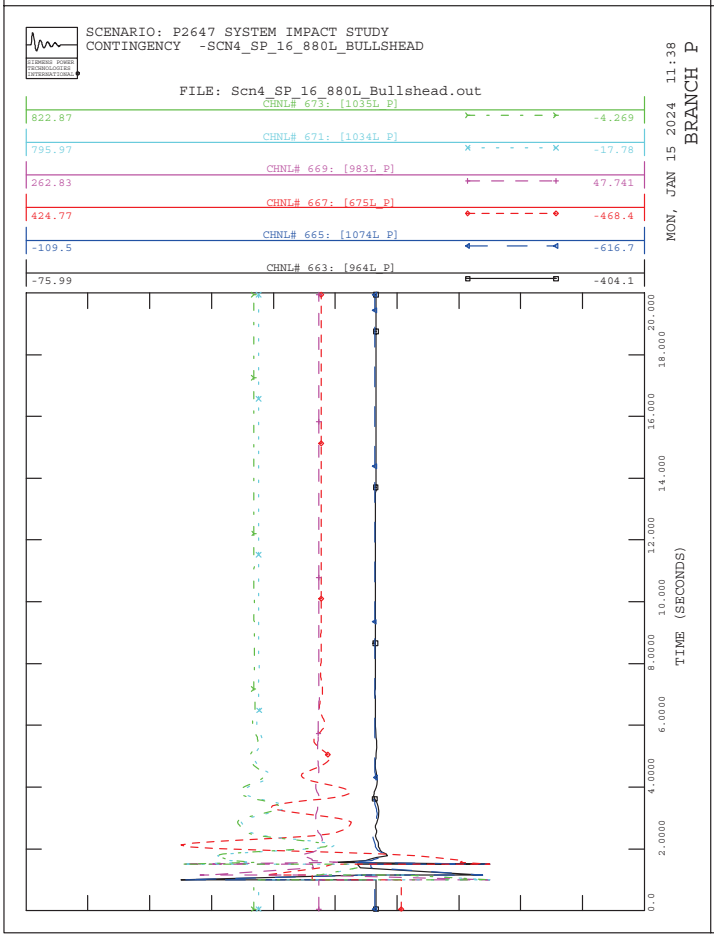
BUS VOLTAGE

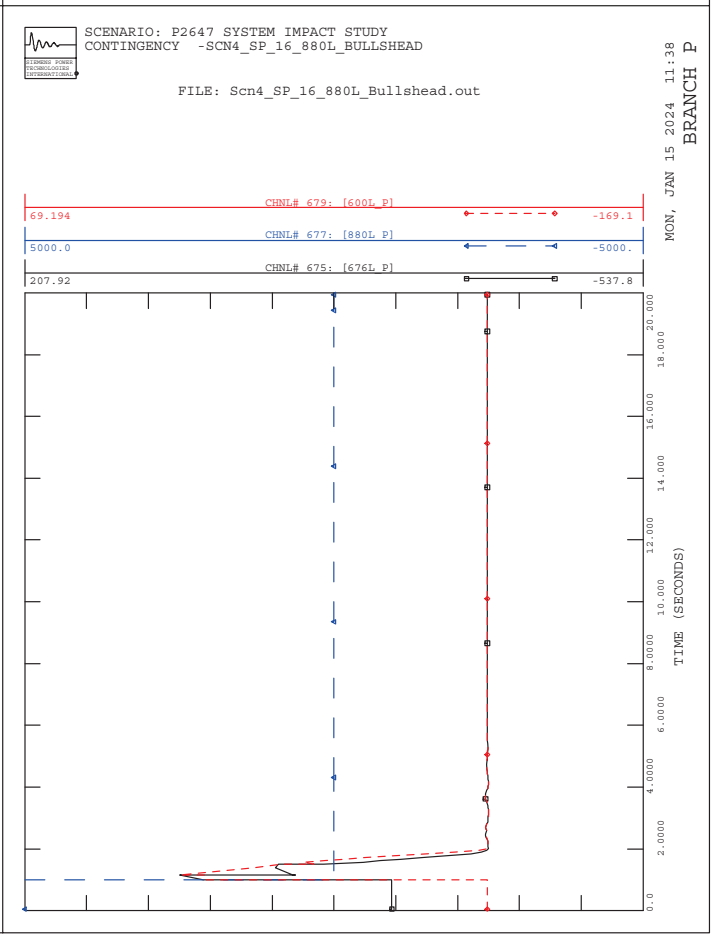
CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.1907 0.52690
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.1602 0.30980
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.1397 0.80920
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.2227 -0.0712
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.2217 -0.0719
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.1888 -0.0988

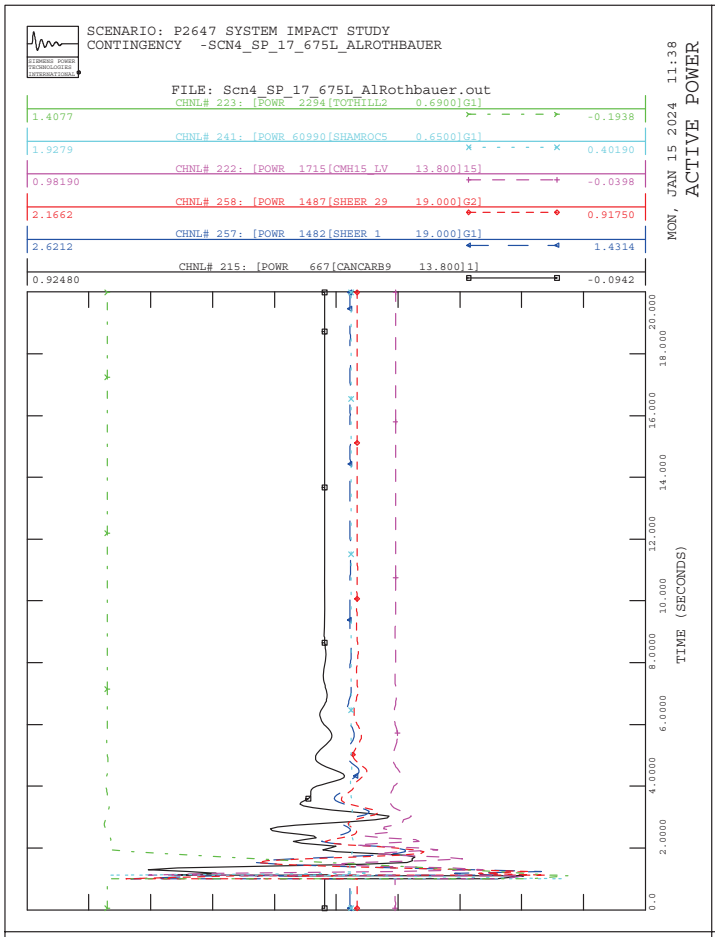
TIME (SECONDS)

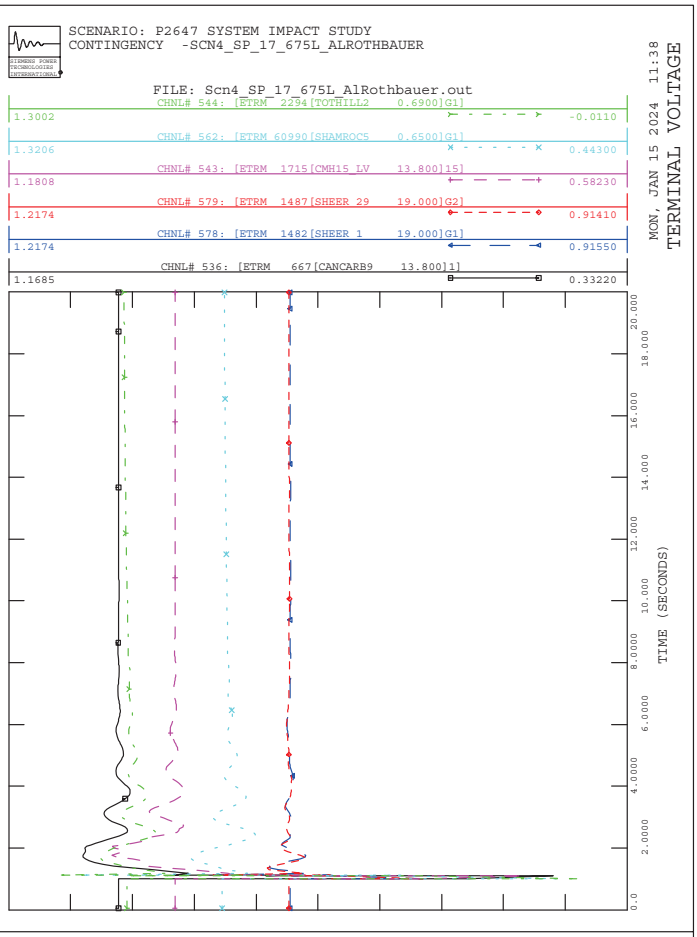

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD
FILE: Scn4_SP_16_880L_Bullshead.out
CHNL# 674: [1035L Q]
170.32
-312.7
CHNL# 672: [1034L Q]
154.95
-314.9
CHNL# 670: [983L Q]
57.968
-74.76
CHNL# 668: [675L Q]
958.02
-373.6
CHNL# 666: [1074L Q]
63.201
-232.4
CHNL# 664: [964L Q]
72.211
-106.4
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

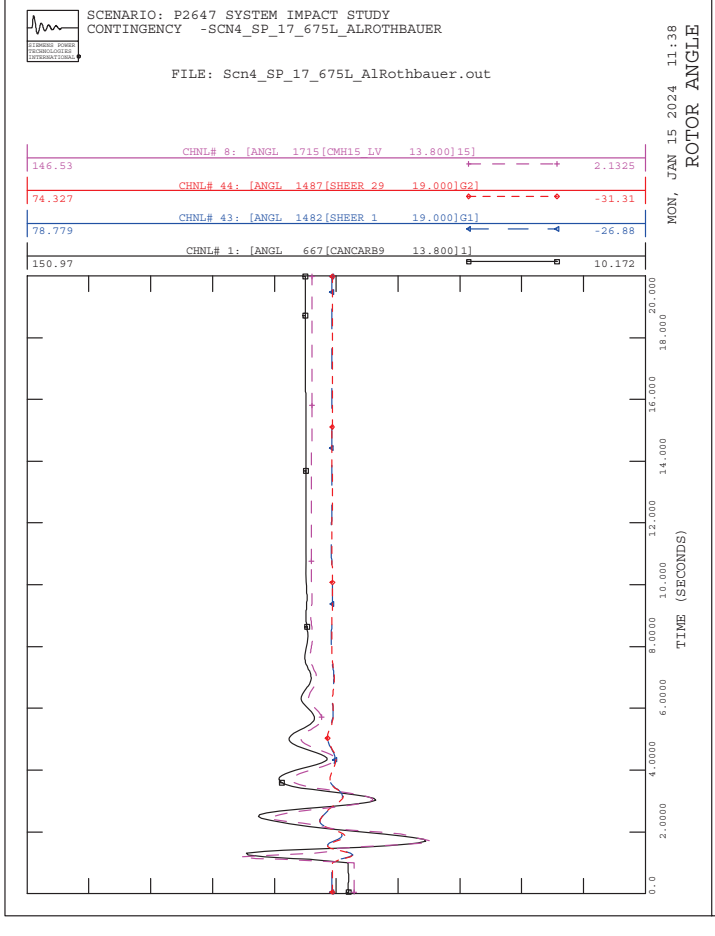

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD
FILE: Scn4_SP_16_880L_Bullshead.out
CHNL# 680: [600L Q]
74.691
-164.7
CHNL# 678: [880L Q]
46.795
-71.96
CHNL# 676: [676L Q]
384.89
-531.9
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

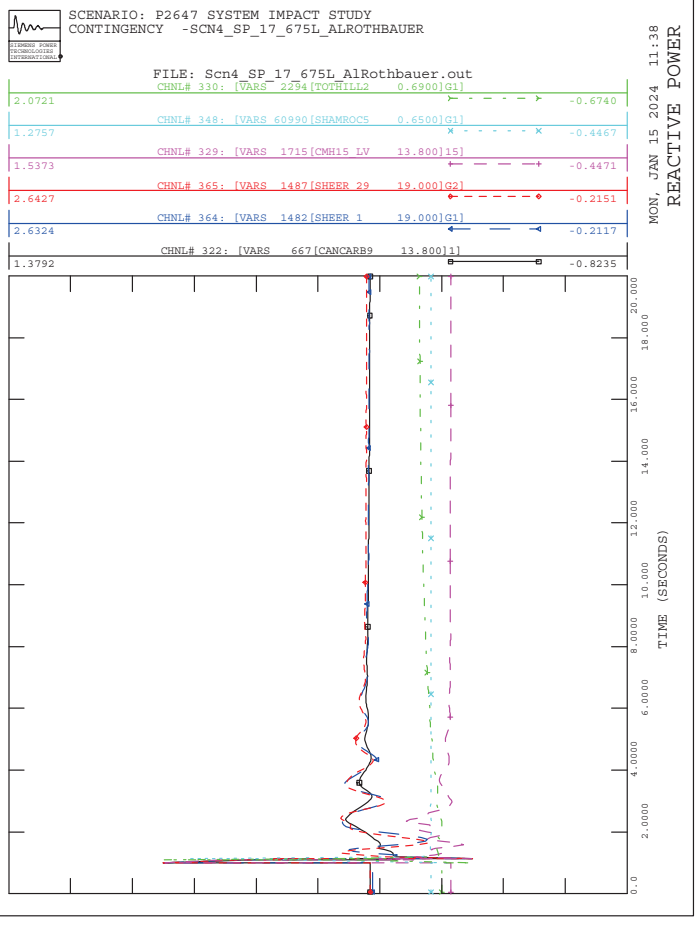

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD
FILE: Scn4_SP_16_880L_Bullshead.out
CHNL# 673: [1035L P]
822.87
-4.269
CHNL# 671: [1034L P]
795.97
-17.78
CHNL# 669: [983L P]
262.83
47.741
CHNL# 667: [675L P]
424.77
-468.4
CHNL# 665: [1074L P]
-109.5
-616.7
CHNL# 663: [964L P]
-75.99
-404.1
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_16_880L_BULLSHEAD
FILE: Scn4_SP_16_880L_Bullshead.out
CHNL# 679: [600L P]
69.194
-169.1
CHNL# 677: [880L P]
5000.0
-5000.
CHNL# 675: [676L P]
207.92
-537.8
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER
FILE: Scn4_SP_17_675L_AlRothbauer.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.4077
-0.1938
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.9279
0.40190
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.98190
-0.0398
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.1662
0.91750
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
2.6212
1.4314
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.92480
-0.0942
MON, JAN 15 2024 11:38
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER
FILE: Scn4_SP_17_675L_AlRothbauer.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3002
-0.0110
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3206
0.44300
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1808
0.58230
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2174
0.91410
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2174
0.91550
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1685
0.33220
MON, JAN 15 2024 11:38
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER
FILE: Scn4_SP_17_675L_AlRothbauer.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
146.53
2.1325
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
74.327
-31.31
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
78.779
-26.88
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
150.97
10.172
MON, JAN 15 2024 11:38
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER
FILE: Scn4_SP_17_675L_AlRothbauer.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
2.0721
-0.6740
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
1.2757
-0.4467
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.5373
-0.4471
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
2.6427
-0.2151
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
2.6324
-0.2117
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.3792
-0.8235
MON, JAN 15 2024 11:38
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

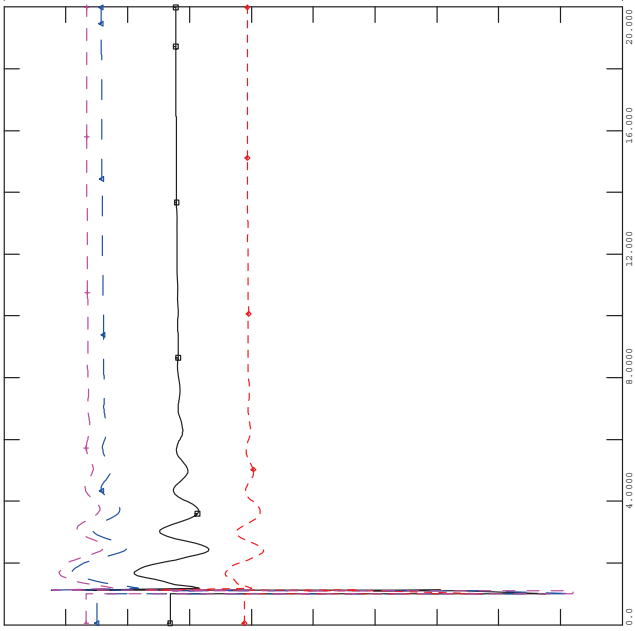
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER

FILE: Scn4_SP_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1747 -0.0945
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.1945 0.75420
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2378 -0.0712
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2194 0.41470



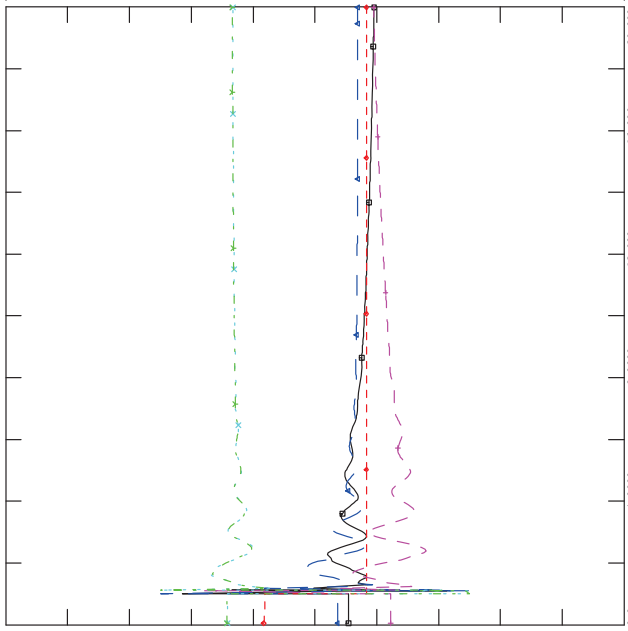
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER

FILE: Scn4_SP_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 674: [1035L Q]
244.47 -335.8
CHNL# 672: [1034L Q]
222.72 -333.3
CHNL# 670: [983L Q]
71.328 -53.56
CHNL# 668: [675L Q]
55.915 -40.00
CHNL# 666: [1074L Q]
59.440 -196.8
CHNL# 664: [964L Q]
51.160 -88.75



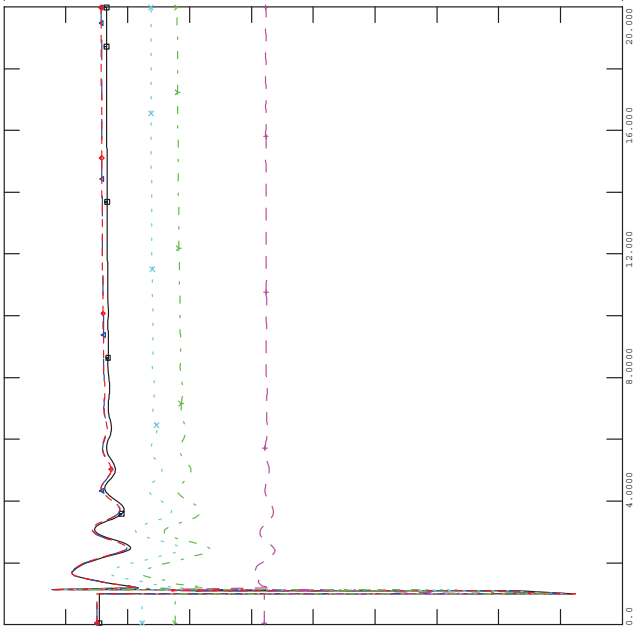
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER

FILE: Scn4_SP_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.2718 0.43810
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2410 0.19330
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2003 0.77430
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2385 -0.0722
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2373 -0.0712
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.2130 -0.0305



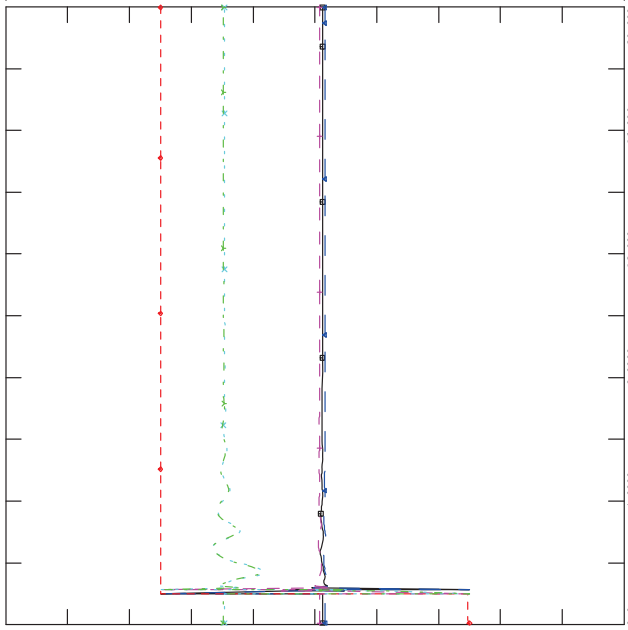
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER

FILE: Scn4_SP_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 673: [1035L P]
827.46 -52.54
CHNL# 671: [1034L P]
790.58 -59.24
CHNL# 669: [983L P]
314.11 12.338
CHNL# 667: [675L P]
59.584 -178.8
CHNL# 665: [1074L P]
-8.233 -758.7
CHNL# 663: [964L P]
-9.555 -501.3



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER

FILE: Scn4_SP_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH Q

CHNL# 680: [600L Q] 72.700 -153.8

CHNL# 678: [880L Q] 323.40 -181.6

CHNL# 676: [676L Q] 187.20 -333.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON

FILE: Scn4_SP_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4060 -0.1231

CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.8610 0.16250

CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.96390 0.00350

CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.1690 0.80070

CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 2.6953 1.2605

CHNL# 215: [POWR 667[CANCARB9 13.800]1] 0.91480 -0.0509

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_17_675L_ALROTHBAUER

FILE: Scn4_SP_17_675L_AlRothbauer.out

MON, JAN 15 2024 11:38

BRANCH P

CHNL# 679: [600L P] 84.464 -174.5

CHNL# 677: [880L P] 247.75 -267.9

CHNL# 675: [676L P] 222.03 -590.7

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON

FILE: Scn4_SP_18_675L_Bowmanton.out

MON, JAN 15 2024 11:38

ROTOR ANGLE

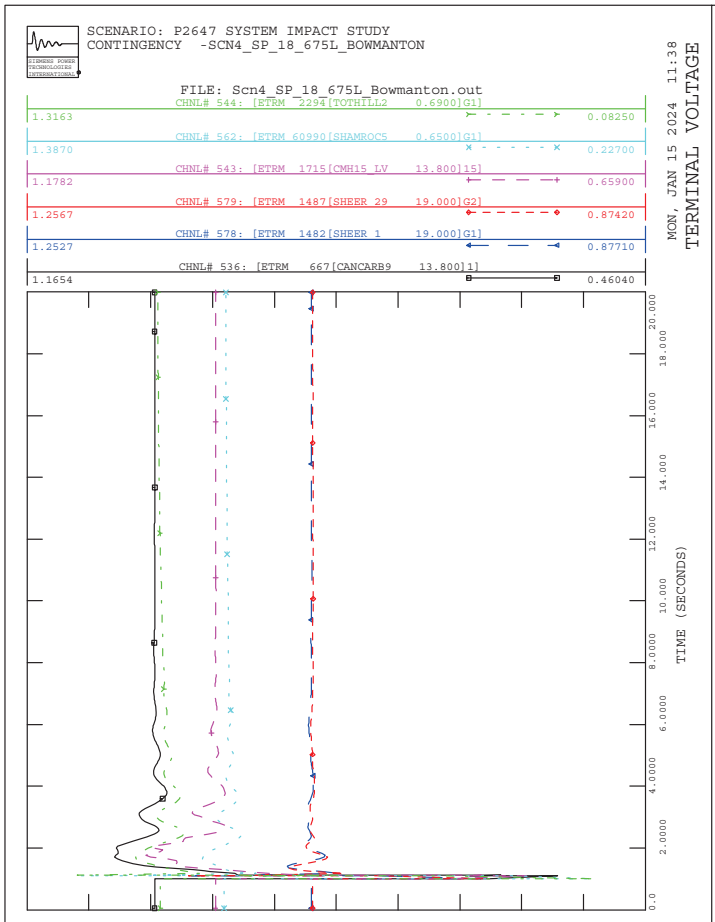
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 145.33 5.3438

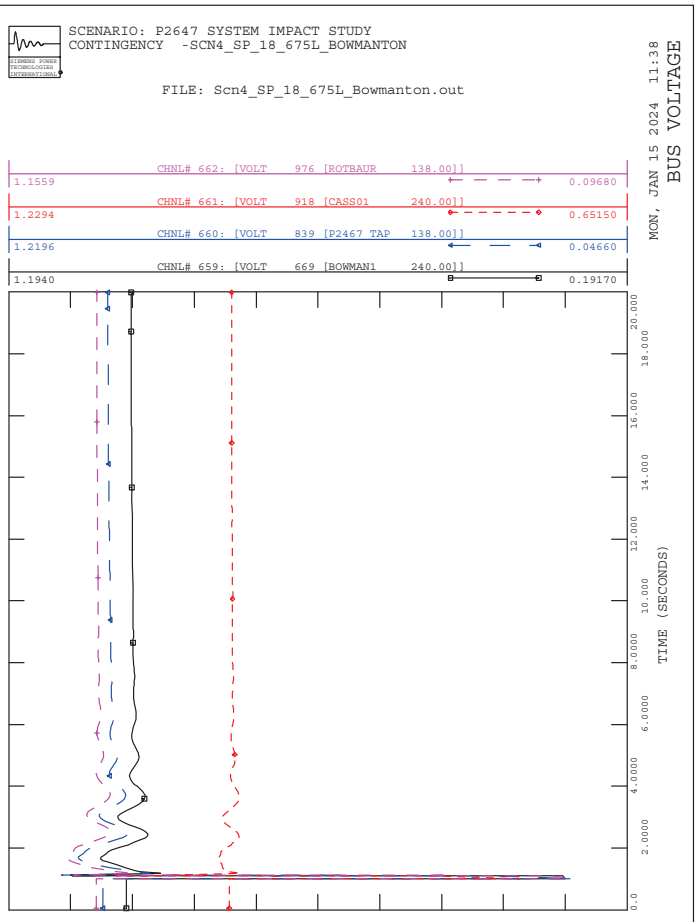
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 73.991 -32.41

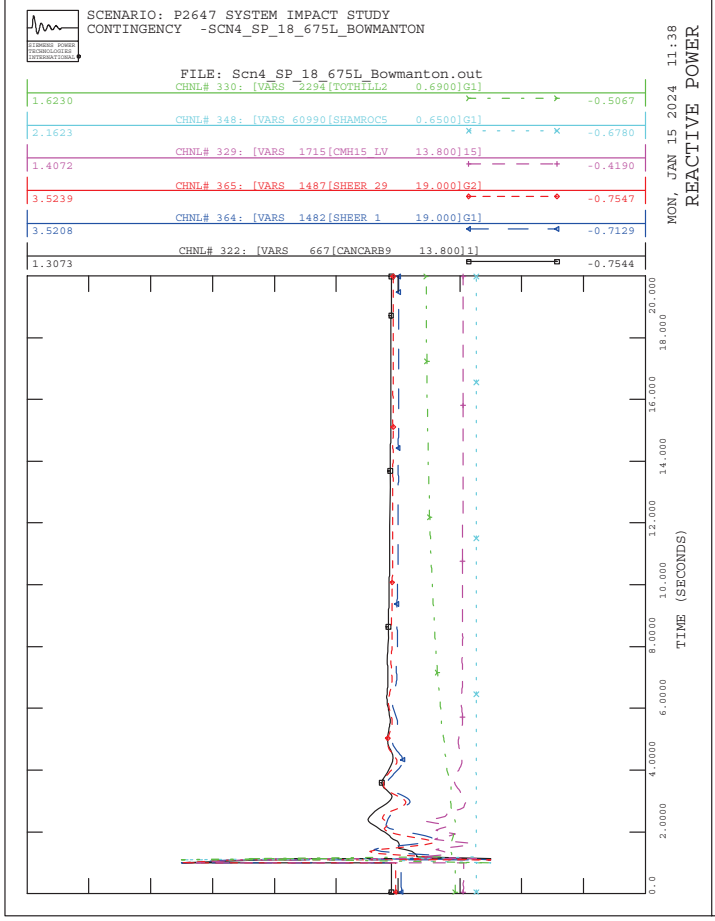
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 78.433 -28.21

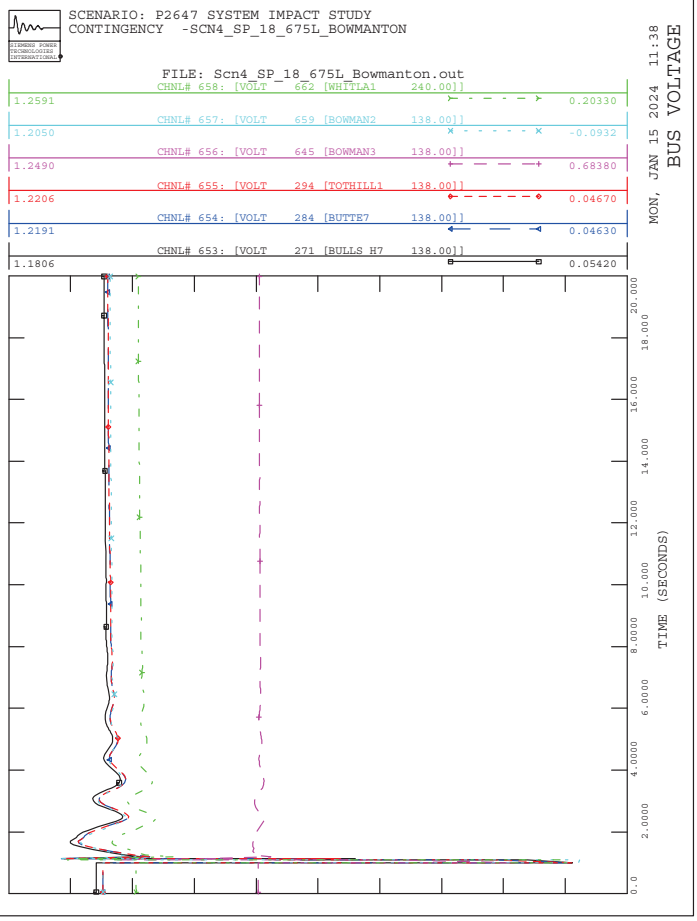
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 150.90 13.091

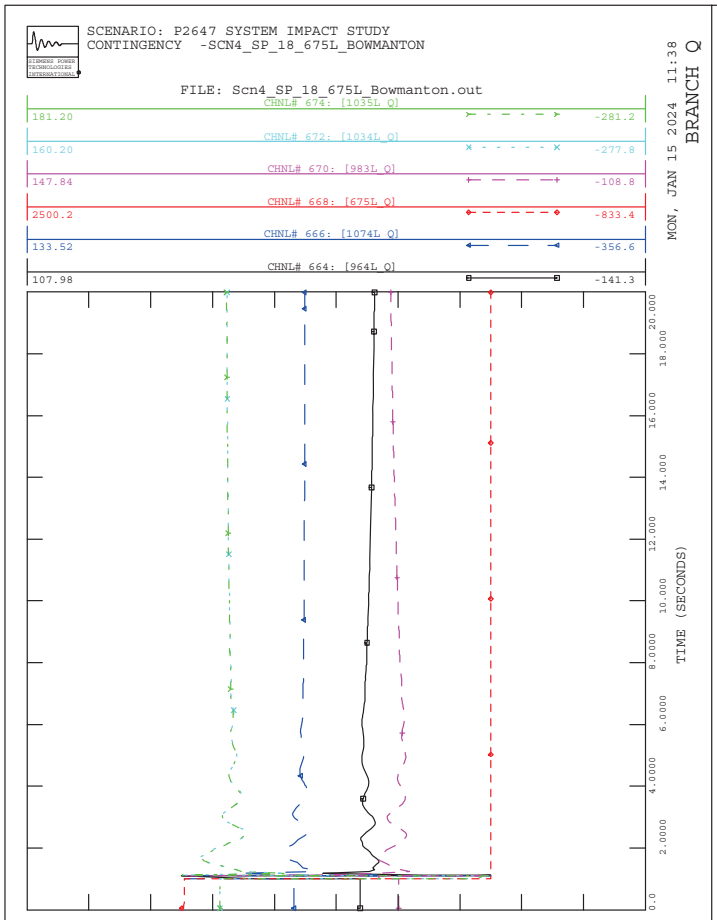
TIME (SECONDS)

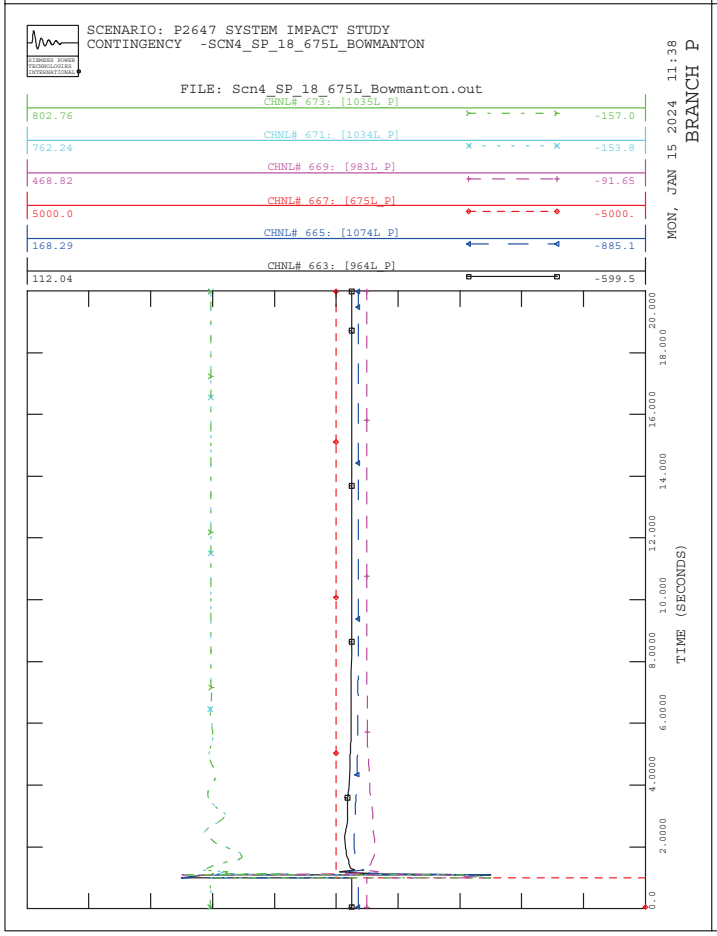

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3163
0.08250
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.3870
0.22700
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.1782
0.65900
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2567
0.87420
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2527
0.87710
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1654
0.46040
TERMINAL VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

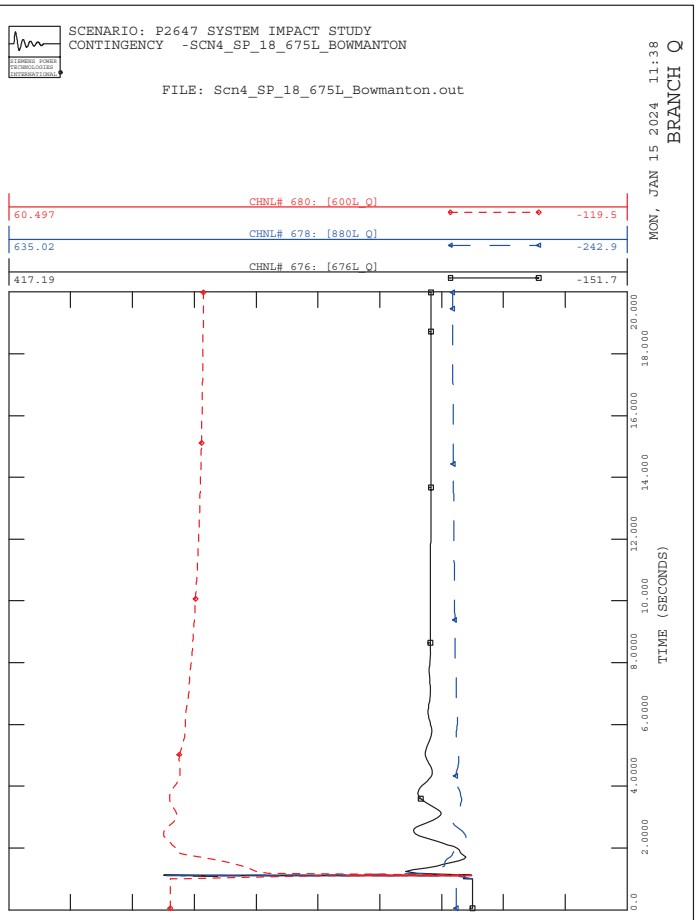

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1559
0.09680
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.2294
0.65150
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2196
0.04660
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.1940
0.19170
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

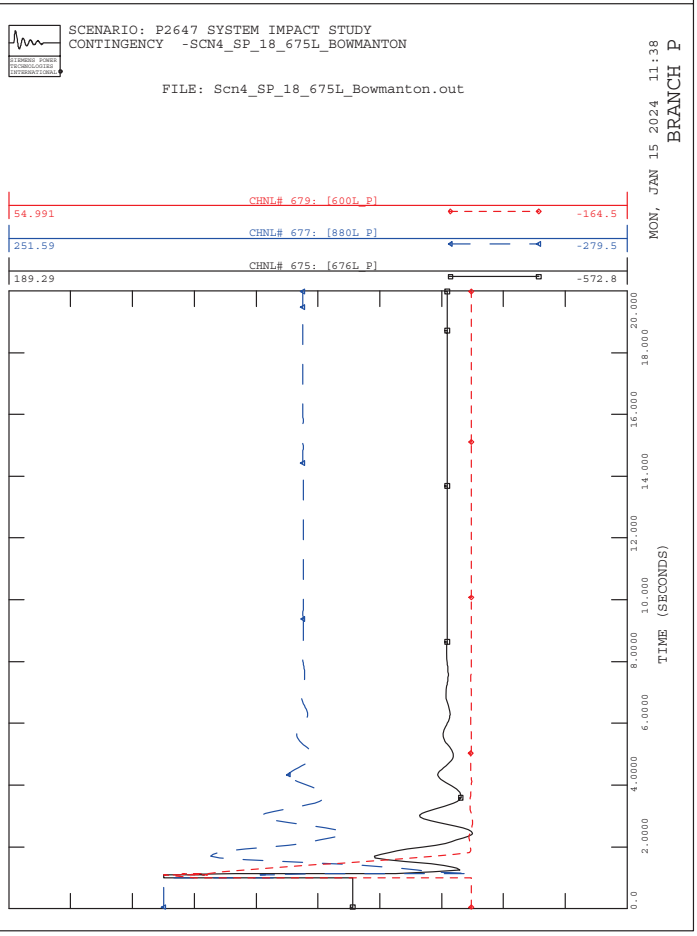

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.6230
-0.5067
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
2.1623
-0.6780
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.4072
-0.4190
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
3.5239
-0.7547
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
3.5208
-0.7129
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.3073
-0.7544
REACTIVE POWER
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

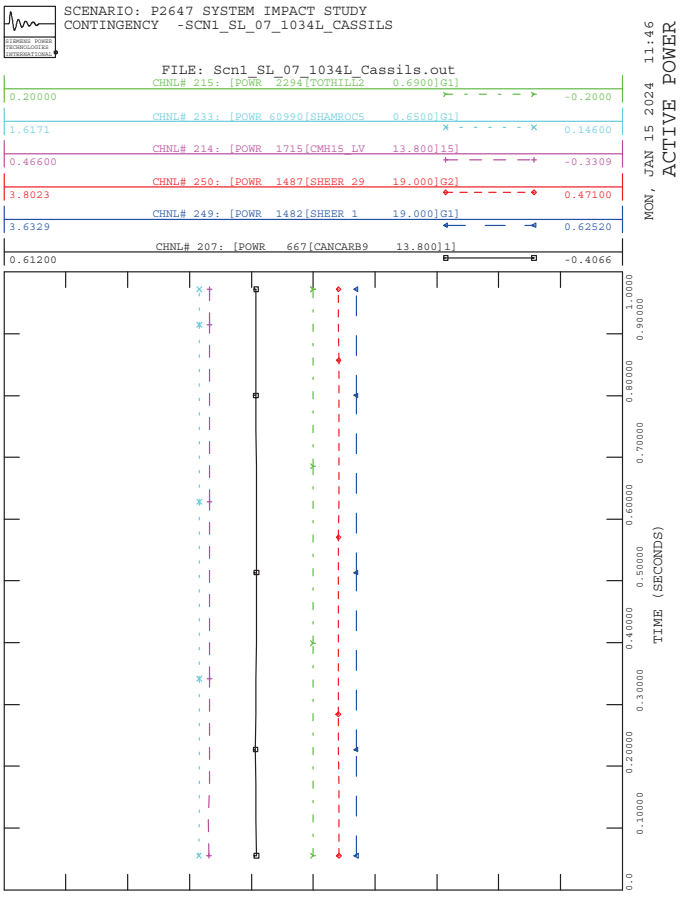

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.2591
0.20330
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2050
-0.0932
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2490
0.68380
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2206
0.04670
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2191
0.04630
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.1806
0.05420
BUS VOLTAGE
MON, JAN 15 2024 11:38
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

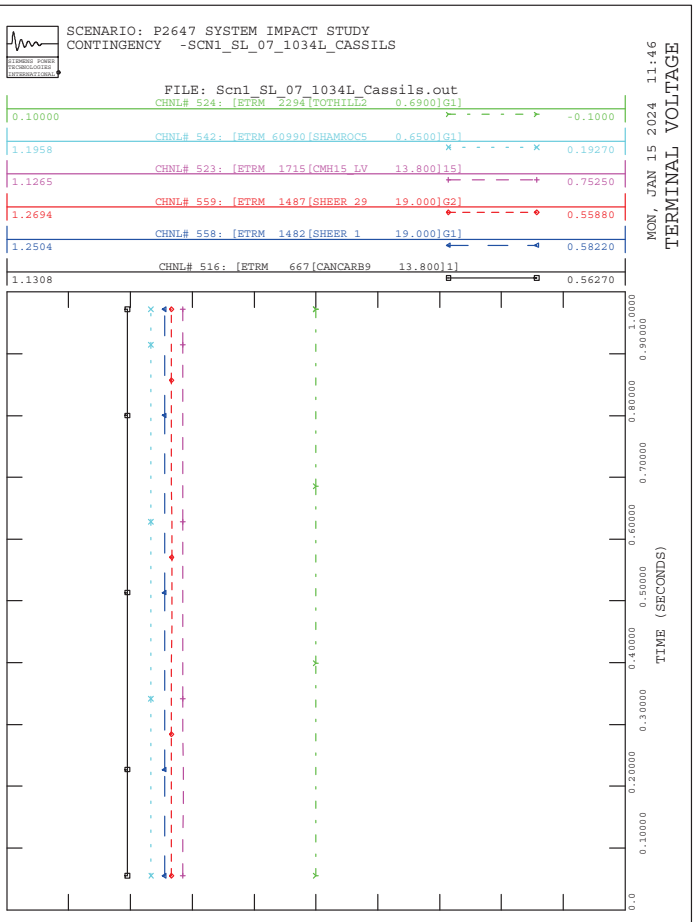

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 674: [1035L Q]
181.20
-281.2
CHNL# 672: [1034L Q]
160.20
-277.8
CHNL# 670: [983L Q]
147.84
-108.8
CHNL# 668: [675L Q]
2500.2
-833.4
CHNL# 666: [1074L Q]
133.52
-356.6
CHNL# 664: [964L Q]
107.98
-141.3
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

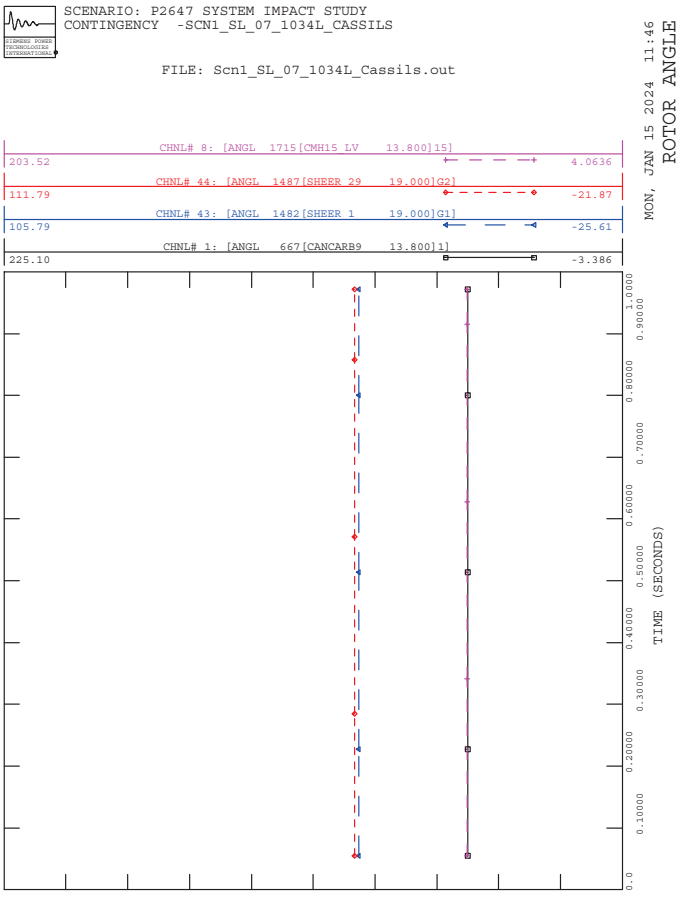

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 673: [1035L P]
802.76
-157.0
CHNL# 671: [1034L P]
762.24
-153.8
CHNL# 669: [983L P]
468.82
-91.65
CHNL# 667: [675L P]
5000.0
-5000.
CHNL# 665: [1074L P]
168.29
-885.1
CHNL# 663: [964L P]
112.04
-599.5
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

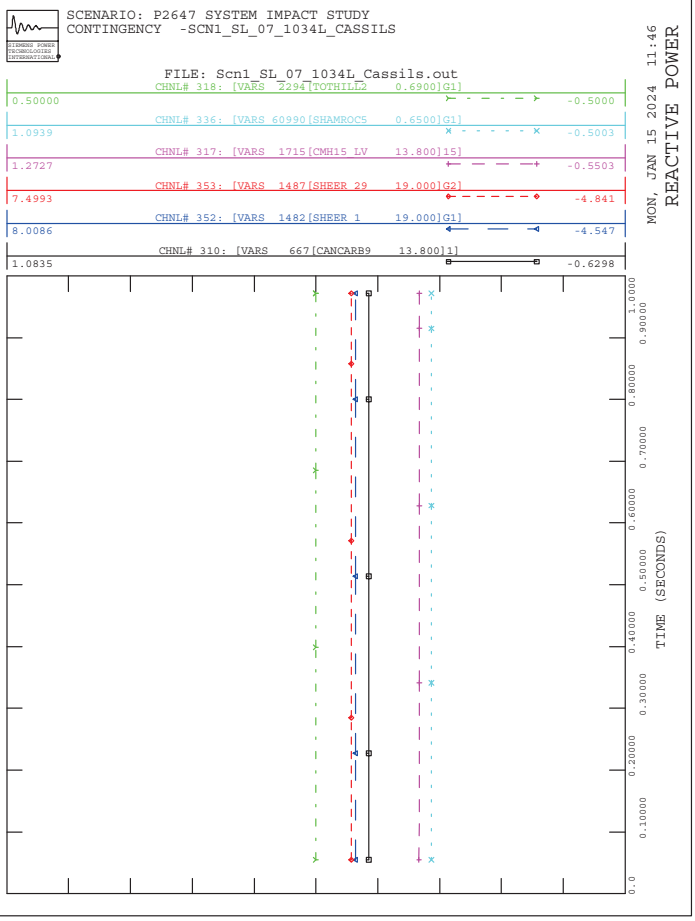

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 680: [600L Q]
60.497
-119.5
CHNL# 678: [880L Q]
635.02
-242.9
CHNL# 676: [676L Q]
417.19
-151.7
MON, JAN 15 2024 11:38
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN4_SP_18_675L_BOWMANTON
FILE: Scn4_SP_18_675L_Bowmanton.out
CHNL# 679: [600L P]
54.991
-164.5
CHNL# 677: [880L P]
251.59
-279.5
CHNL# 675: [676L P]
189.29
-572.8
MON, JAN 15 2024 11:38
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS
FILE: Scn1_SL_07_1034L_Cassils.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
0.20000
-0.2000
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.6171
0.14600
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.46600
-0.3309
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.8023
0.47100
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.6329
0.62520
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.61200
-0.4066
MON, JAN 15 2024 11:46
ACTIVE POWER
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS
FILE: Scn1_SL_07_1034L_Cassils.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
0.10000
-0.1000
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1958
0.19270
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1265
0.75250
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2694
0.55880
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2504
0.58220
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1308
0.56270
MON, JAN 15 2024 11:46
TERMINAL VOLTAGE
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS
FILE: Scn1_SL_07_1034L_Cassils.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
203.52
4.0636
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
111.79
-21.87
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
105.79
-25.61
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
225.10
-3.386
MON, JAN 15 2024 11:46
ROTOR ANGLE
TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS
FILE: Scn1_SL_07_1034L_Cassils.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
0.50000
-0.5000
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
1.0939
-0.5003
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.2727
-0.5503
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
7.4993
-4.841
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
8.0086
-4.547
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0835
-0.6298
MON, JAN 15 2024 11:46
REACTIVE POWER
TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS

FILE: Scn1_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]] 1.1922 0.22270
CHNL# 637: [VOLT 918 [CASS01 240.00]] 1.2925 -0.0645
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]] 1.2177 0.20840
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]] 1.1974 0.04880

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS

FILE: Scn1_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 650: [1035L Q] 647.98 -476.3
CHNL# 648: [1034L Q] 47.200 -40.00
CHNL# 646: [983L Q] 218.36 -117.3
CHNL# 644: [675L Q] 90.728 -161.9
CHNL# 642: [1074L Q] 191.94 -436.6
CHNL# 640: [964L Q] 155.81 -289.5

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS

FILE: Scn1_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]] 1.2292 0.20030
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]] 1.2072 0.04850
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]] 1.3423 0.09300
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]] 1.2177 0.20840
CHNL# 630: [VOLT 284 [BUTTE7 138.00]] 1.2175 0.20810
CHNL# 629: [VOLT 271 [BULLS H7 138.00]] 1.2189 0.20960

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS

FILE: Scn1_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 649: [1035L P] 1277.8 -595.4
CHNL# 647: [1034L P] 673.31 -224.4
CHNL# 645: [983L P] 312.87 -99.14
CHNL# 643: [675L P] 204.84 -161.0
CHNL# 641: [1074L P] 284.02 -694.1
CHNL# 639: [964L P] 207.28 -489.6

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS

FILE: Scn1_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 656: [600L Q] 40.601 -39.82
CHNL# 654: [880L Q] 109.78 -85.18
CHNL# 652: [676L Q] 70.294 -175.7

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 0.20000 -0.2000
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 2.5570 -0.0599
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 1.1142 -0.4114
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 3.9507 0.28650
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 3.7186 0.06310
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 1.1314 -0.3703

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_07_1034L_CASSILS

FILE: Scn1_SL_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 655: [600L P] 44.352 -38.85
CHNL# 653: [880L P] 111.85 -47.82
CHNL# 651: [676L P] 150.03 -293.4

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 256.29 -13.36
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 109.42 -35.80
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 102.95 -42.26
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 264.77 -16.63

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1] 0.10000 -0.1000
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1] 2.0567 0.01690
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15] 1.1232 0.64560
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2] 1.2651 0.84200
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1] 1.2589 0.84910
CHNL# 516: [ETRM 667[CANCARB9 13.800]1] 1.1200 0.42190

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]] 1.1579 0.07640
CHNL# 637: [VOLT 918 [CASS01 240.00]] 1.2723 0.58450
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]] 1.1949 0.05800
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]] 1.1987 -0.0906

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1] 0.50000 -0.5000
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1] 1.6274 -0.5429
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15] 1.3923 -0.5298
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2] 4.2374 -1.468
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1] 4.3686 -1.250
CHNL# 310: [VARS 667[CANCARB9 13.800]1] 1.2109 -0.6127

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]] 1.7742 -0.0603
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]] 1.1660 0.06400
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]] 1.2605 0.61320
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]] 1.1949 0.05800
CHNL# 630: [VOLT 284 [BUTTE7 138.00]] 1.1946 0.05830
CHNL# 629: [VOLT 271 [BULLS H7 138.00]] 1.1961 0.05620

1.0000 0.90000 0.80000 0.70000 0.60000 0.50000 0.40000 0.30000 0.20000 0.10000 0.0

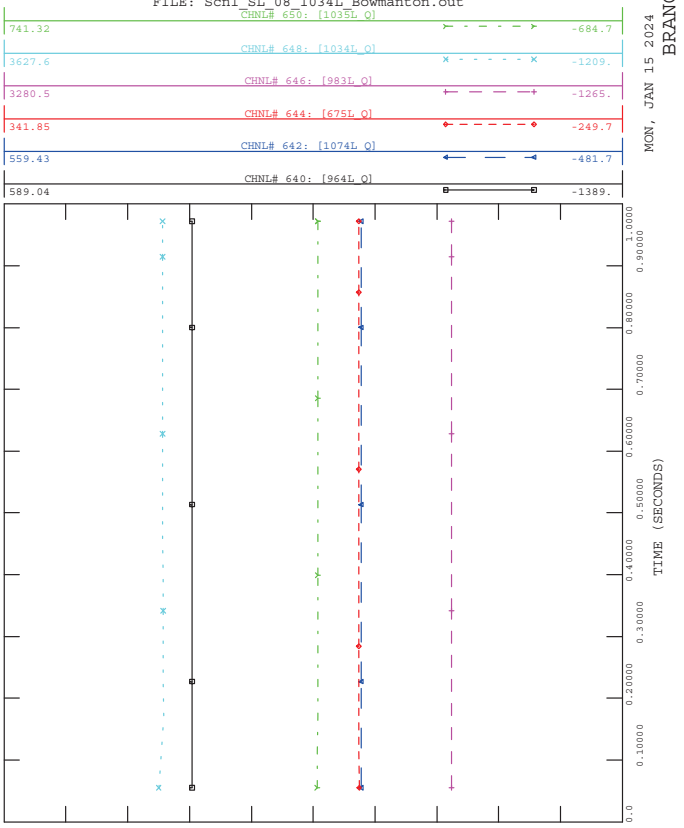
TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

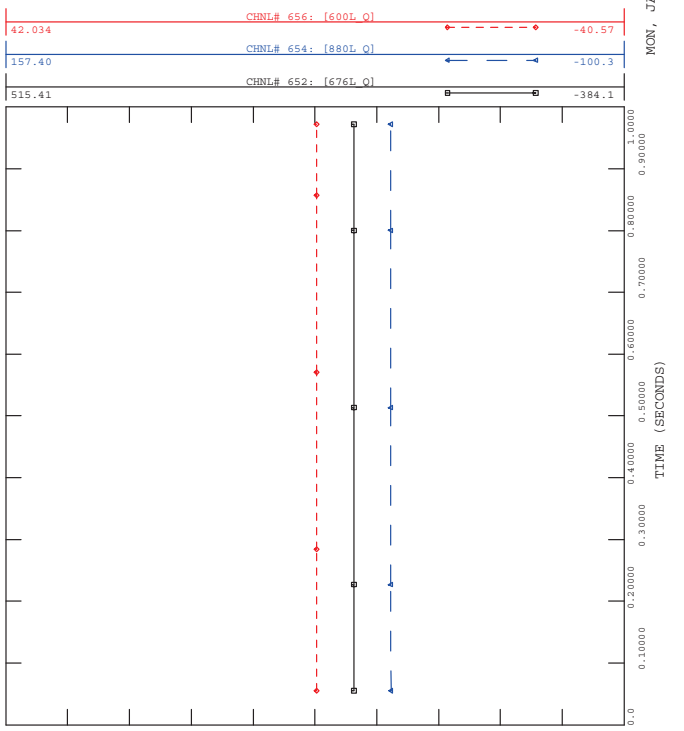


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

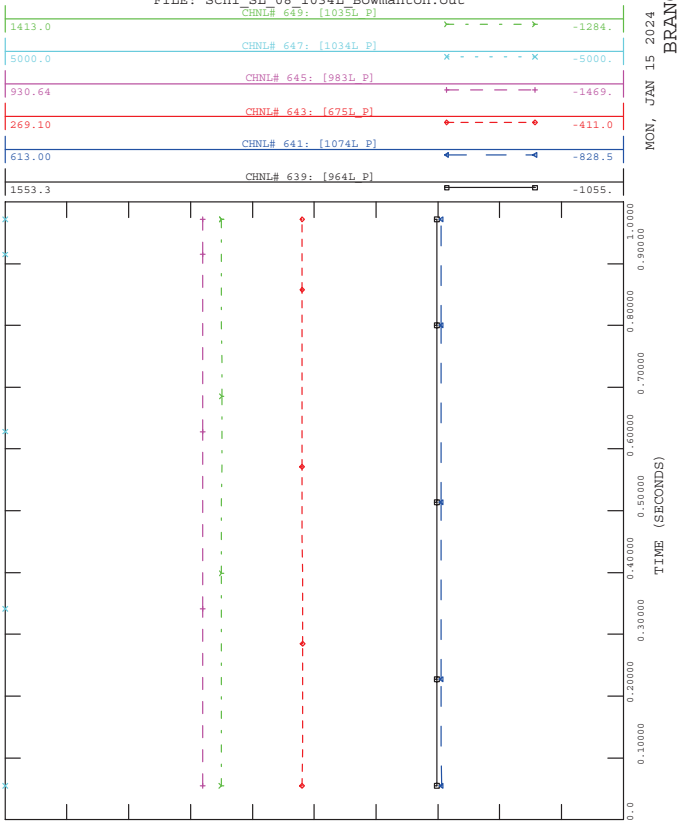


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P

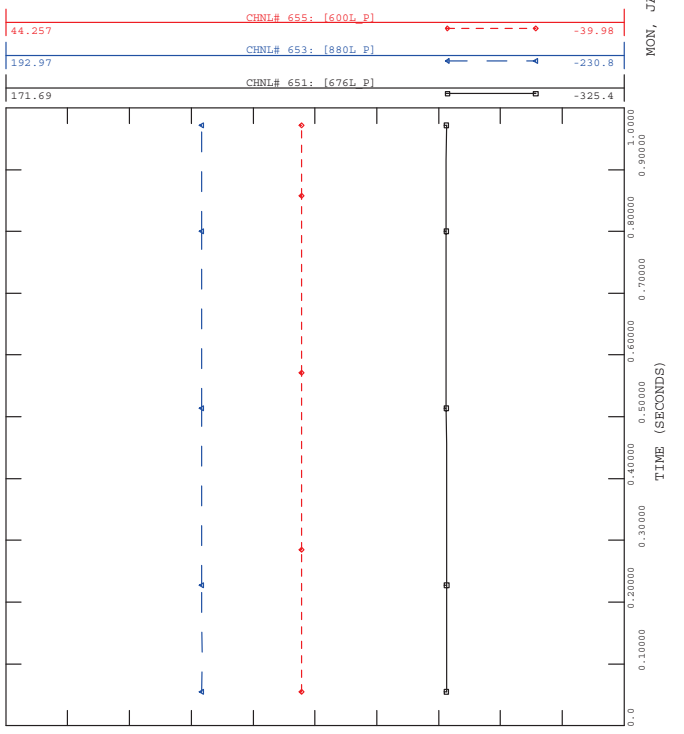


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_08_1034L_BOWMANTON

FILE: Scn1_SL_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P



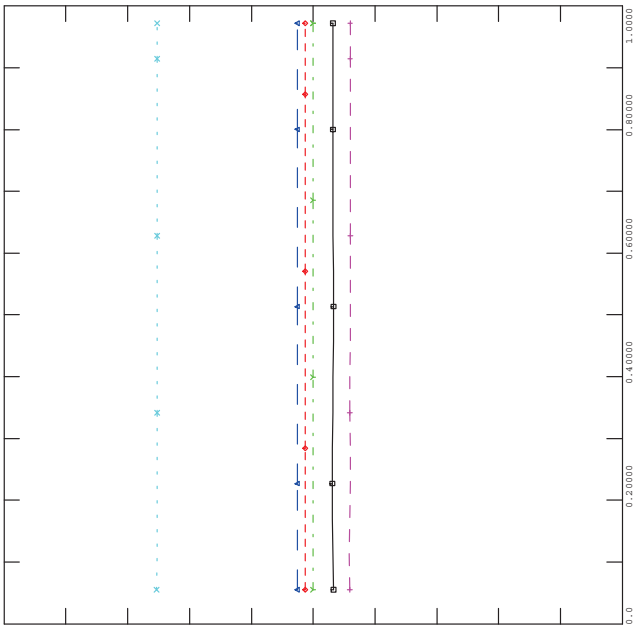
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
0.20000 -0.2000
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.5009 0.09360
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.72260 -0.2088
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.7632 0.14410
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.6939 -0.0448
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.76800 -0.3060



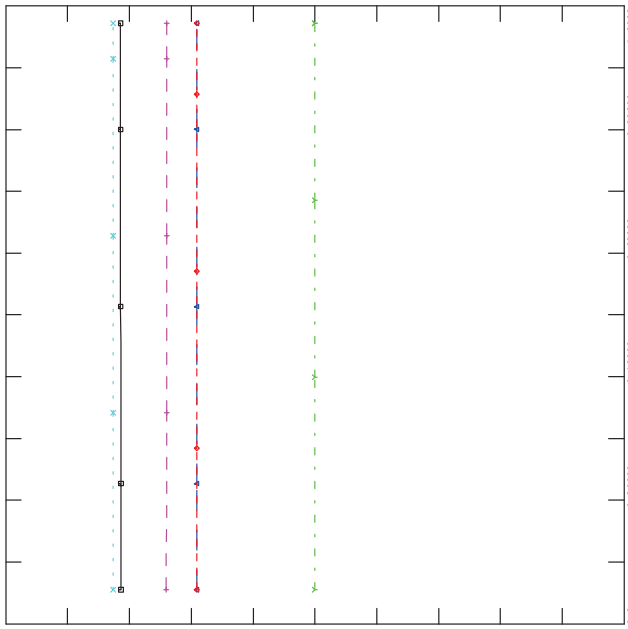
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
0.10000 -0.1000
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1343 0.14150
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1226 0.72820
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.3000 0.58770
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2905 0.60890
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1200 0.58170



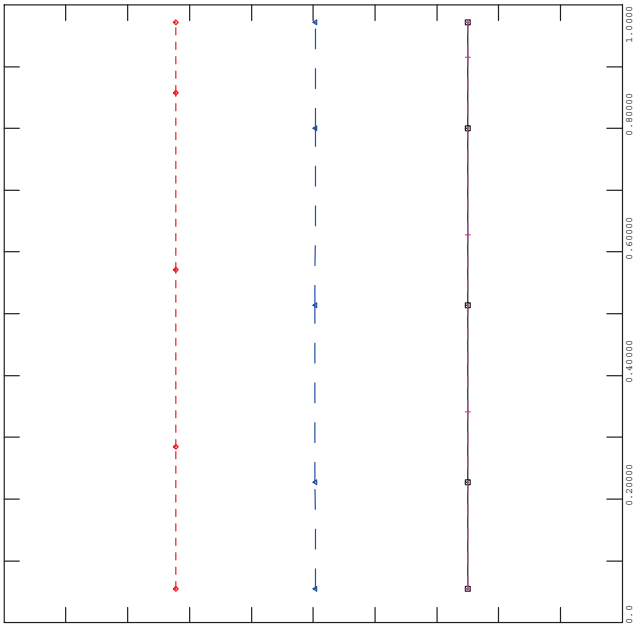
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
819.27 -201.0
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
301.63 -654.9
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
106.32 -44.48
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
1295.2 -360.1



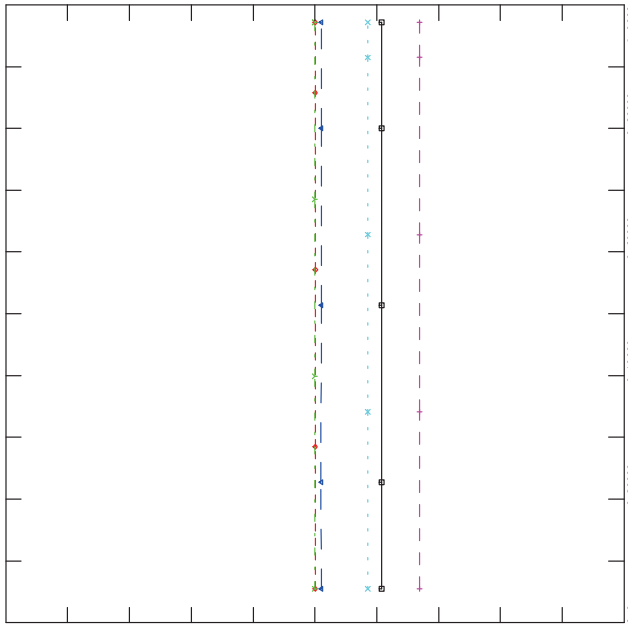
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
0.50000 -0.5000
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.70540 -0.5003
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.2479 -0.5319
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
8.3254 -7.071
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
8.8315 -6.675
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.1634 -0.6165



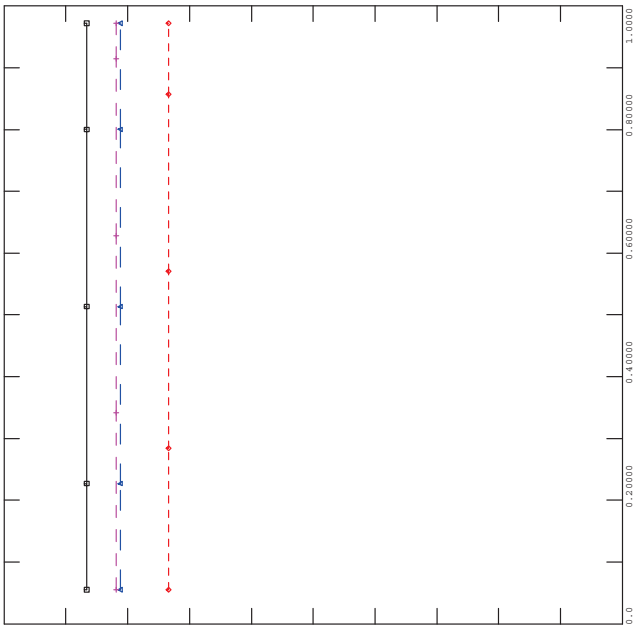
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1710 0.26080
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.4113 -0.0146
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.1920 0.23630
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.1779 -0.0605



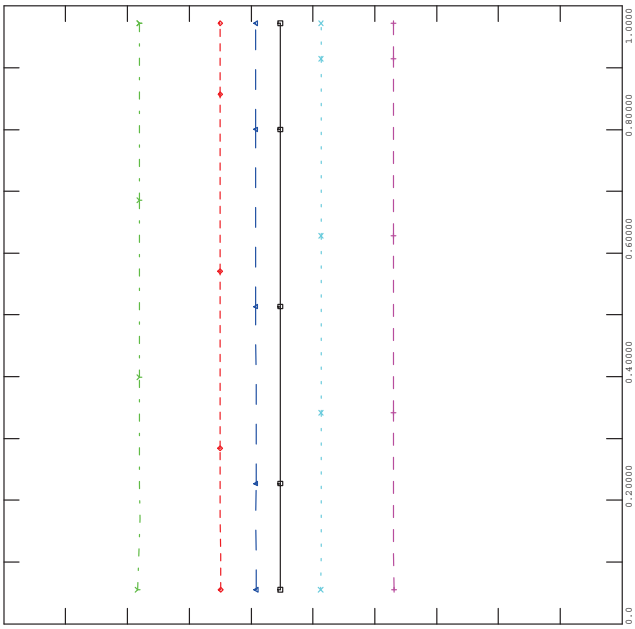
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 650: [1035L Q]
5000.0 -1768.
CHNL# 648: [1034L Q]
812.15 -758.5
CHNL# 646: [983L Q]
96.098 -72.40
CHNL# 644: [675L Q]
99.280 -177.5
CHNL# 642: [1074L Q]
157.15 -331.6
CHNL# 640: [964L Q]
122.47 -177.8



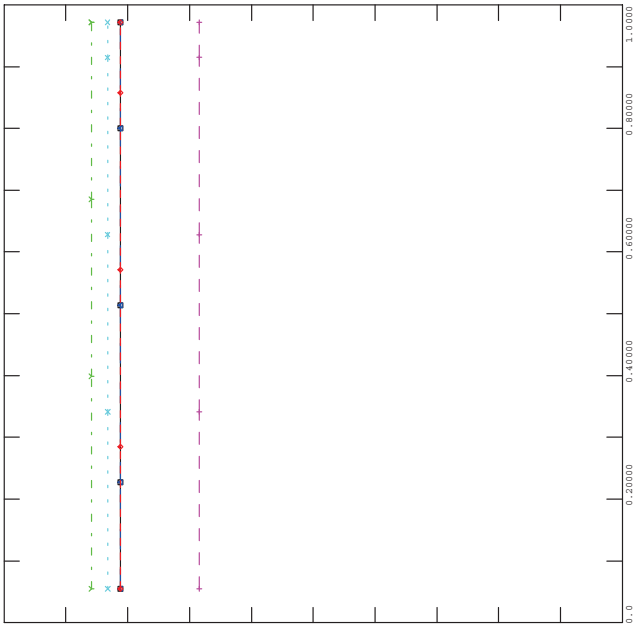
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2088 0.01410
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.1864 0.10040
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.4665 0.05980
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.1920 0.23630
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.1918 0.23620
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.1932 0.23710



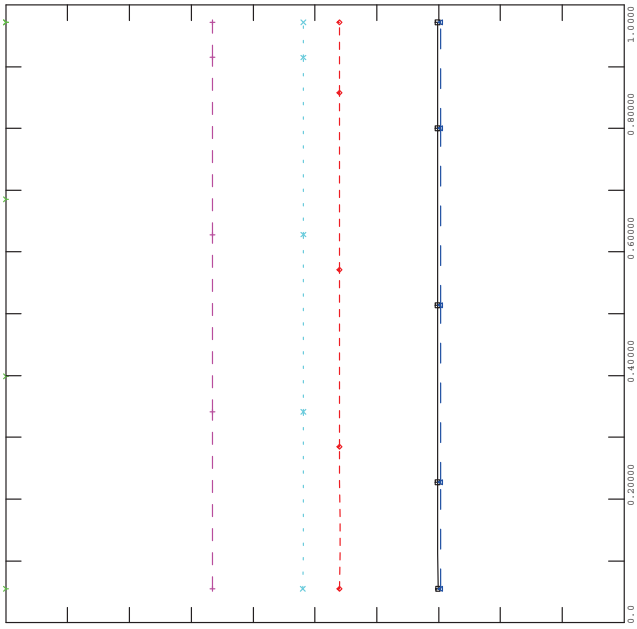
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 649: [1035L P]
5000.0 -5000.
CHNL# 647: [1034L P]
1231.0 -405.7
CHNL# 645: [983L P]
287.17 -81.63
CHNL# 643: [675L P]
148.97 -234.3
CHNL# 641: [1074L P]
213.64 -664.8
CHNL# 639: [964L P]
146.90 -446.7



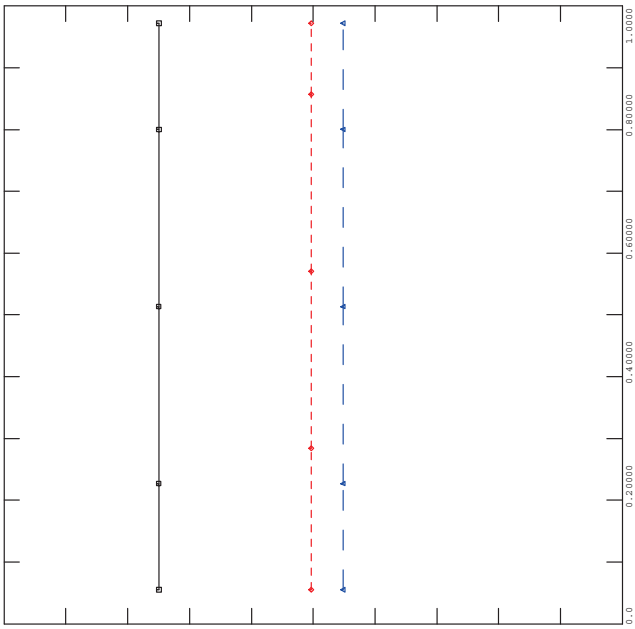
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 656: [600L Q] 40.598 -40.06
CHNL# 654: [880L Q] 89.419 -79.19
CHNL# 652: [676L Q] 65.362 -160.9



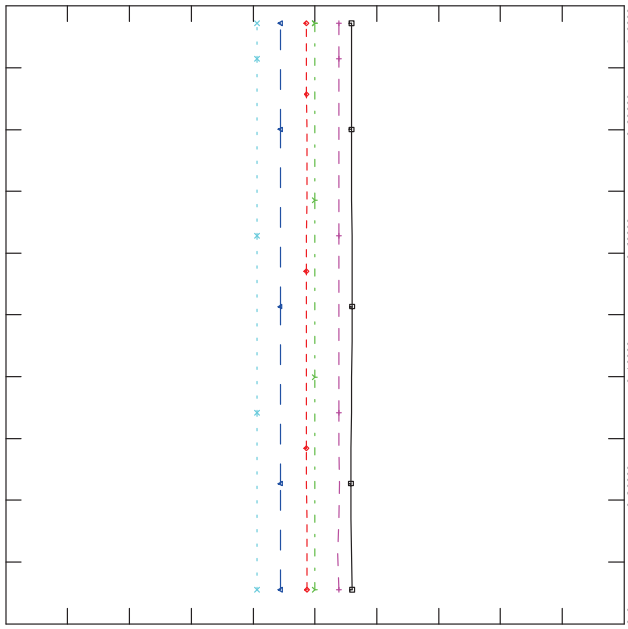
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 0.20000 -0.2000
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 2.0161 -0.1088
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.84570 -0.3502
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 3.7578 0.14420
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 3.4526 0.00220
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.92410 -0.3763



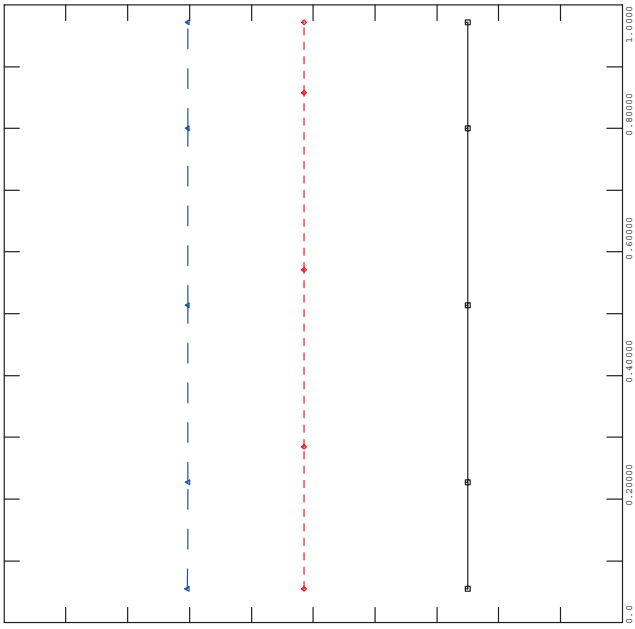
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_09_1035L_NEWELL

FILE: Scn1_SL_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 655: [600L P] 44.251 -38.82
CHNL# 653: [880L P] 135.04 -122.0
CHNL# 651: [676L P] 80.526 -270.3



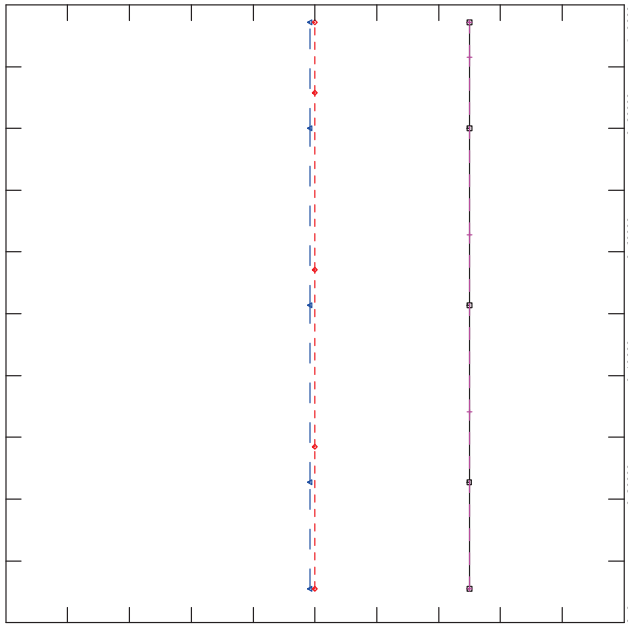
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 262.93 -15.57
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 109.28 -37.31
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 102.70 -44.12
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 280.78 -21.97



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

TERMINAL VOLTAGE

CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1] 0.10000 -0.1000
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1] 1.3495 -0.0212
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15] 1.1255 0.67280
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2] 1.2886 0.84200
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1] 1.2808 0.84910
CHNL# 516: [ETRM 667[CANCARB9 13.800]1] 1.1200 0.42360

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 638: [VOLT 976 [ROTBAUR 138.00]] 1.1485 0.24570
CHNL# 637: [VOLT 918 [CASS01 240.00]] 1.3319 0.58460
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]] 1.1852 0.21270
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]] 1.1190 -0.0908

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

REACTIVE POWER

CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1] 0.50000 -0.5000
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1] 1.6561 -0.5524
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15] 1.3873 -0.5179
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2] 4.1615 -2.127
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1] 4.4780 -1.923
CHNL# 310: [VARS 667[CANCARB9 13.800]1] 1.2109 -0.5990

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 634: [VOLT 662 [WHITLA1 240.00]] 1.2228 -0.0601
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]] 1.1544 0.06380
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]] 1.3184 0.61320
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]] 1.1852 0.21270
CHNL# 630: [VOLT 284 [BUTTE7 138.00]] 1.1849 0.21250
CHNL# 629: [VOLT 271 [BULLS H7 138.00]] 1.1865 0.21360

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 650: [1035L Q] 59.137 -40.00
CHNL# 648: [1034L Q] 796.68 -755.7
CHNL# 646: [983L Q] 253.00 -253.1
CHNL# 644: [675L Q] 208.53 -208.1
CHNL# 642: [1074L Q] 506.77 -493.9
CHNL# 640: [964L Q] 249.93 -248.9

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 656: [600L Q] 41.212 -40.35
CHNL# 654: [880L Q] 157.96 -109.2
CHNL# 652: [676L Q] 130.24 -256.1

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 649: [1035L P] 712.28 -237.4
CHNL# 647: [1034L P] 1151.5 -571.1
CHNL# 645: [983L P] 539.99 -312.6
CHNL# 643: [675L P] 251.83 -351.2
CHNL# 641: [1074L P] 441.80 -760.1
CHNL# 639: [964L P] 474.63 -687.1

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN1_SL_10_1035L_BOWMANTON

FILE: Scn1_SL_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 655: [600L P] 44.218 -38.91
CHNL# 653: [880L P] 177.18 -179.8
CHNL# 651: [676L P] 163.93 -298.1

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA

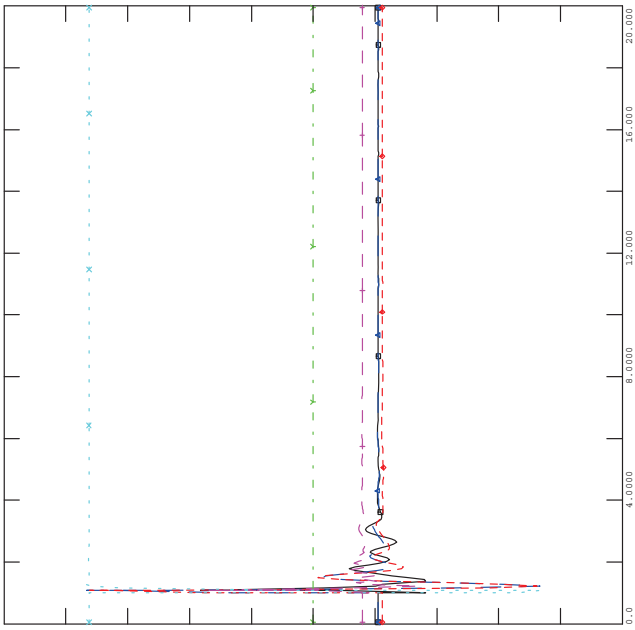
FILE: Scn2_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:46

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 0.20000 -0.2000
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.3357 -0.1782
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.72390 0.11870
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.3837 0.93900
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 2.9082 1.4065
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 0.81470 0.18600

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA

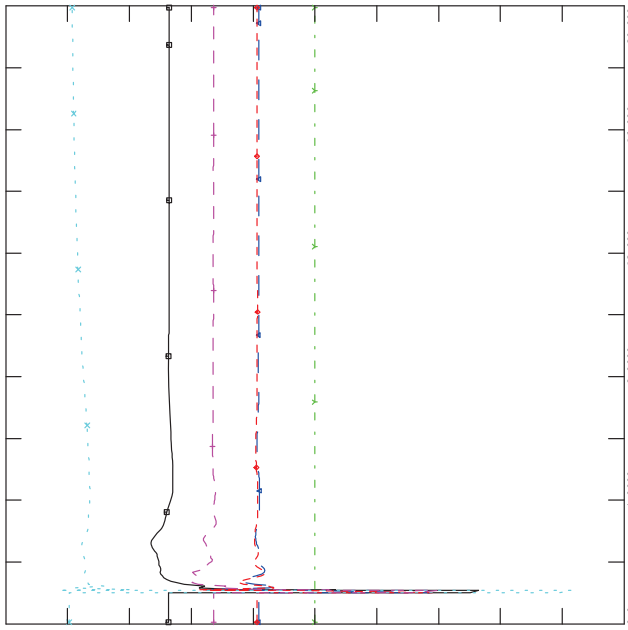
FILE: Scn2_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:46

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 0.10000 -0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1408 -0.0568
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15] 1.1317 0.79910
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2106 0.88900
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2105 0.89140
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1318 0.70680

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA

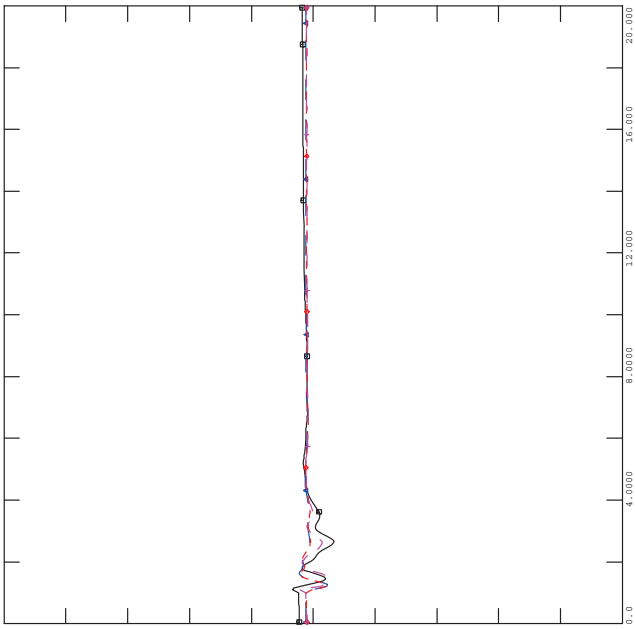
FILE: Scn2_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:46

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 113.35 8.7375
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 72.038 -32.62
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 76.446 -28.31
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 122.84 15.632

TIME (SECONDS)



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA

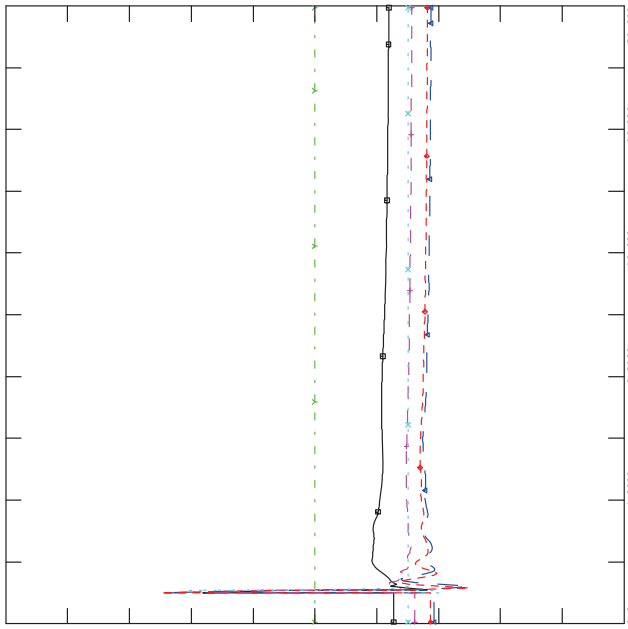
FILE: Scn2_SP_03_983L_Whitla.out

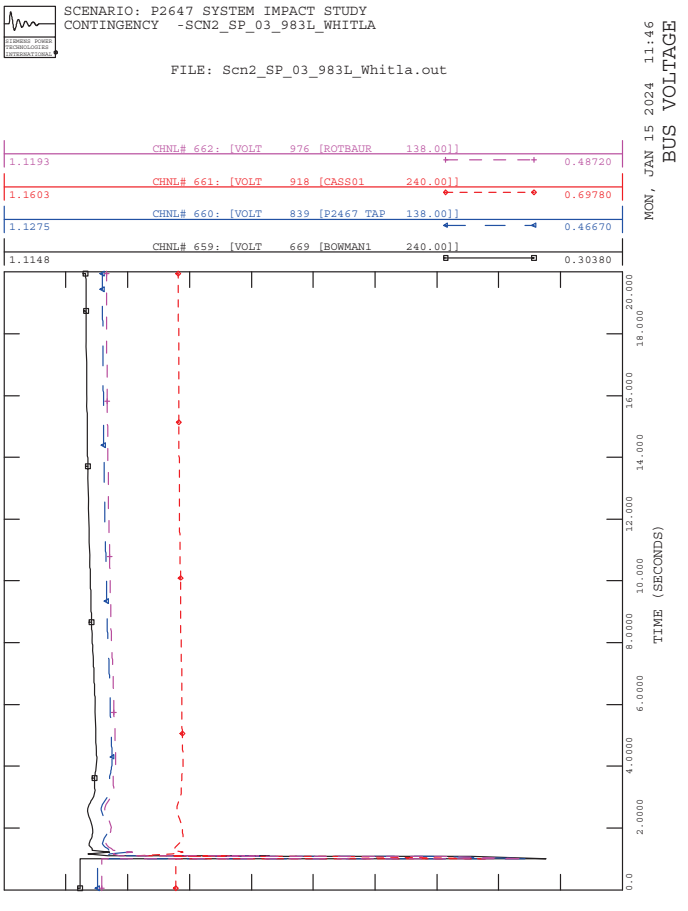
MON, JAN 15 2024 11:46

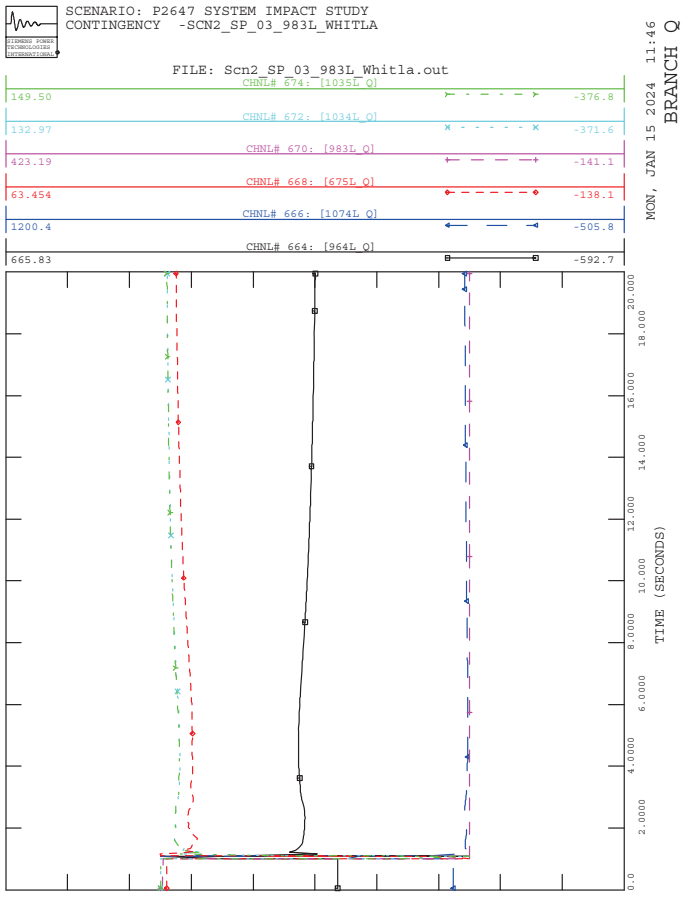
REACTIVE POWER

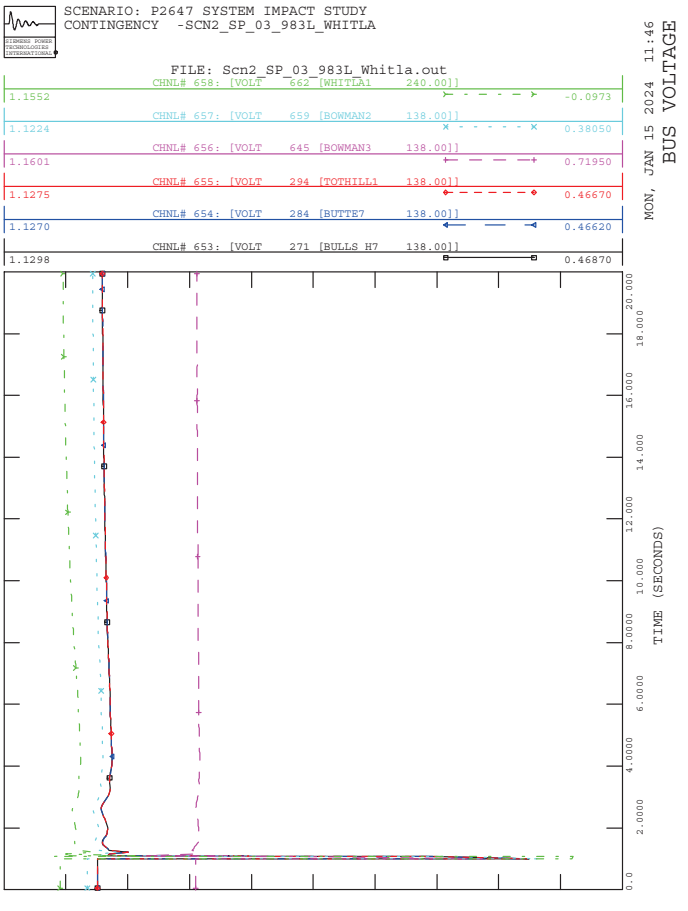
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 0.50000 -0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 1.2021 -0.4932
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15] 1.0722 -0.4029
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 2.9517 -0.0262
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 2.9569 -0.0200
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.0350 -0.5362

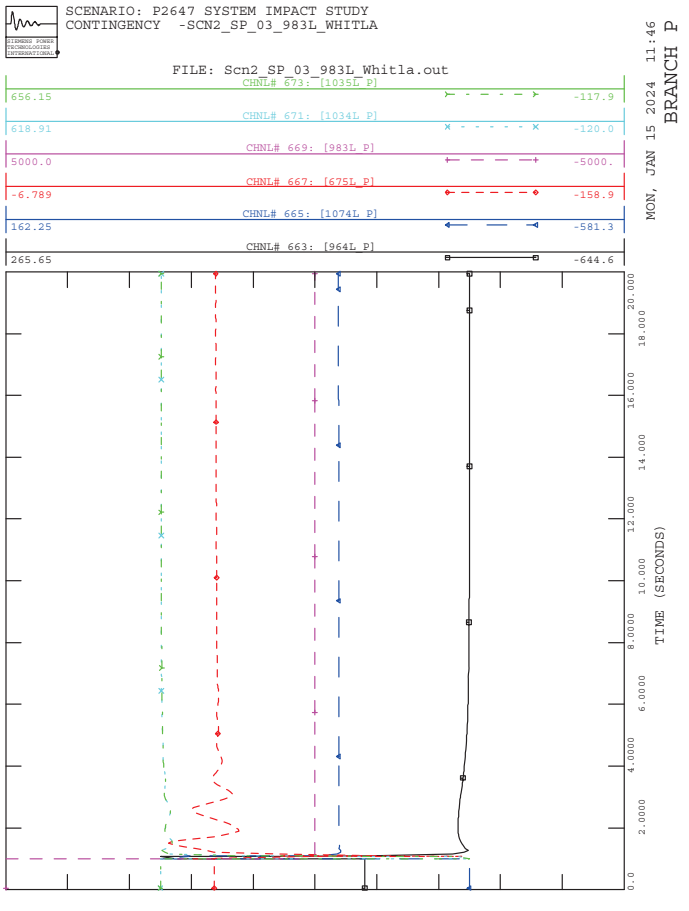
TIME (SECONDS)




SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA
FILE: Scn2_SP_03_983L_Whitla.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1193
0.48720
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.1603
0.69780
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.1275
0.46670
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.1148
0.30380
MON, JAN 15 2024 11:46
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA
FILE: Scn2_SP_03_983L_Whitla.out
CHNL# 674: [1035L Q]
149.50
-376.8
CHNL# 672: [1034L Q]
132.97
-371.6
CHNL# 670: [983L Q]
423.19
-141.1
CHNL# 668: [675L Q]
63.454
-138.1
CHNL# 666: [1074L Q]
1200.4
-505.8
CHNL# 664: [964L Q]
665.83
-592.7
MON, JAN 15 2024 11:46
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA
FILE: Scn2_SP_03_983L_Whitla.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.1552
-0.0973
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.1224
0.38050
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.1601
0.71950
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.1275
0.46670
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.1270
0.46620
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.1298
0.46870
MON, JAN 15 2024 11:46
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

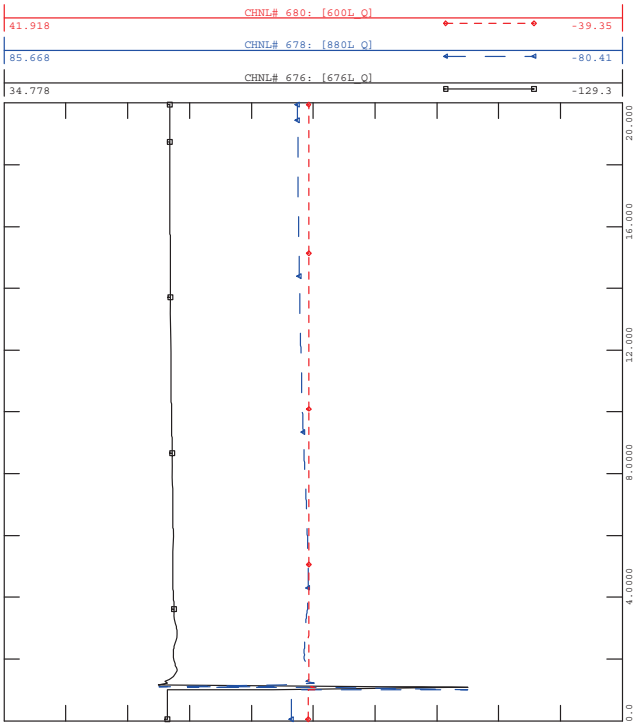

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA
FILE: Scn2_SP_03_983L_Whitla.out
CHNL# 673: [1035L P]
656.15
-117.9
CHNL# 671: [1034L P]
618.91
-120.0
CHNL# 669: [983L P]
5000.0
-5000.
CHNL# 667: [675L P]
-6.789
-158.9
CHNL# 665: [1074L P]
162.25
-581.3
CHNL# 663: [964L P]
265.65
-644.6
MON, JAN 15 2024 11:46
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA

FILE: Scn2_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:46

BRANCH Q

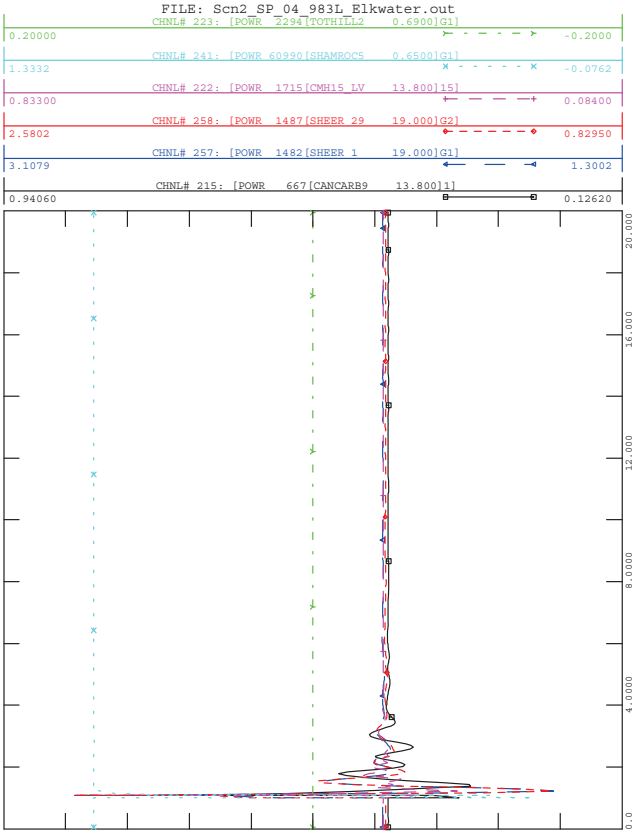


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER

FILE: Scn2_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:46

ACTIVE POWER

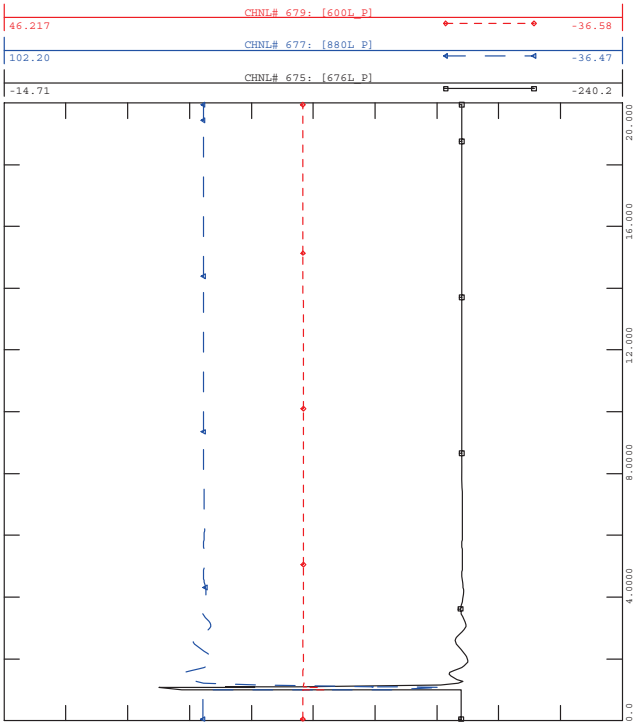


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_03_983L_WHITLA

FILE: Scn2_SP_03_983L_Whitla.out

MON, JAN 15 2024 11:46

BRANCH P

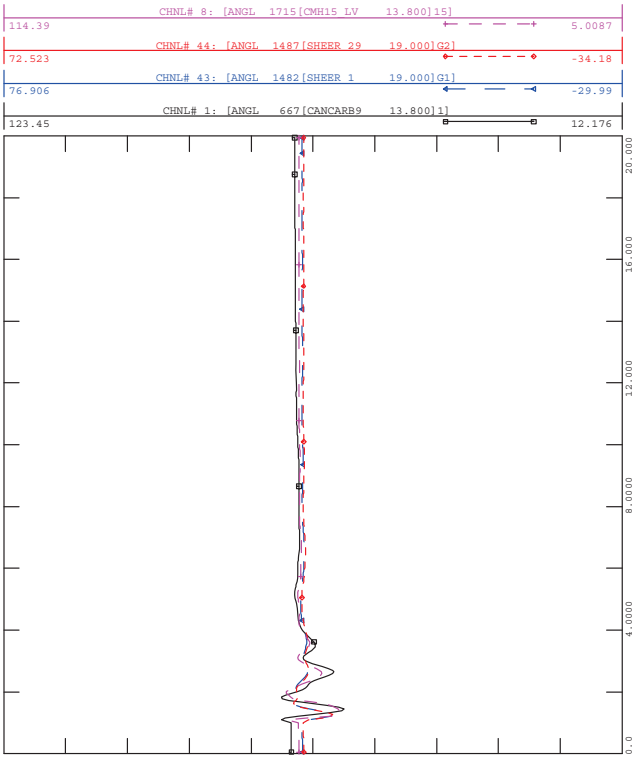


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER

FILE: Scn2_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:46

ROTOR ANGLE



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER

FILE: Scn2_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:46

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 0.10000 -0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1814 0.01170
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15] 1.1430 0.77140
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2404 0.86960
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2362 0.87280
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1344 0.65600

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER

FILE: Scn2_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.1316 0.41390
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.1945 0.64740
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.1438 0.38930
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.1407 0.19080

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER

FILE: Scn2_SP_04_983L_Elkwater.out

MON, JAN 15 2024 11:46

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 0.50000 -0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 2.1995 -0.7186
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15] 1.1392 -0.4029
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 3.3755 -0.3049
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 3.3968 -0.3125
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.0946 -0.5898

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER

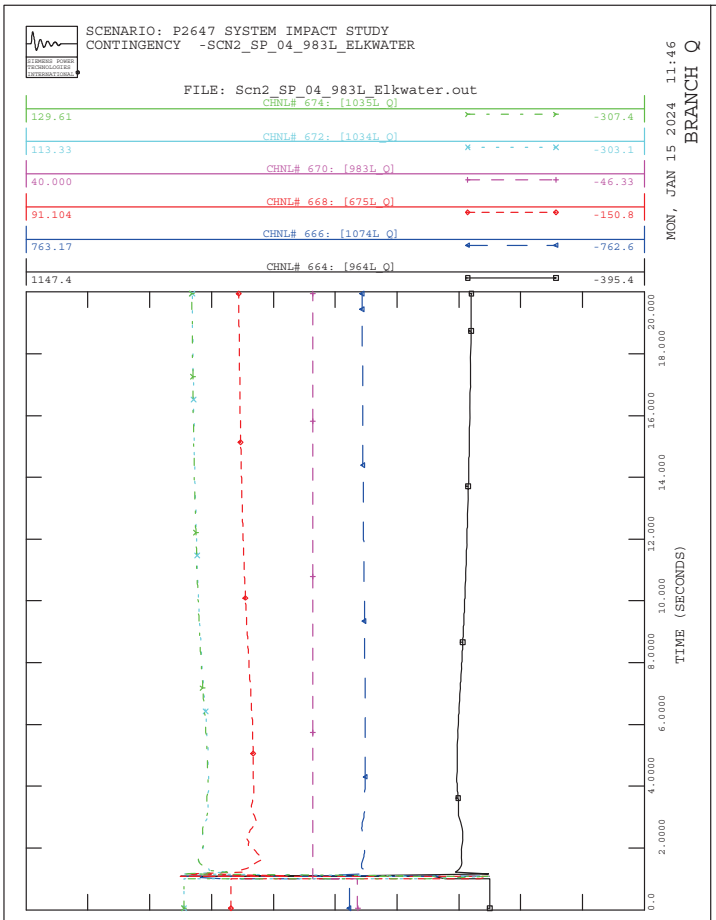
FILE: Scn2_SP_04_983L_Elkwater.out

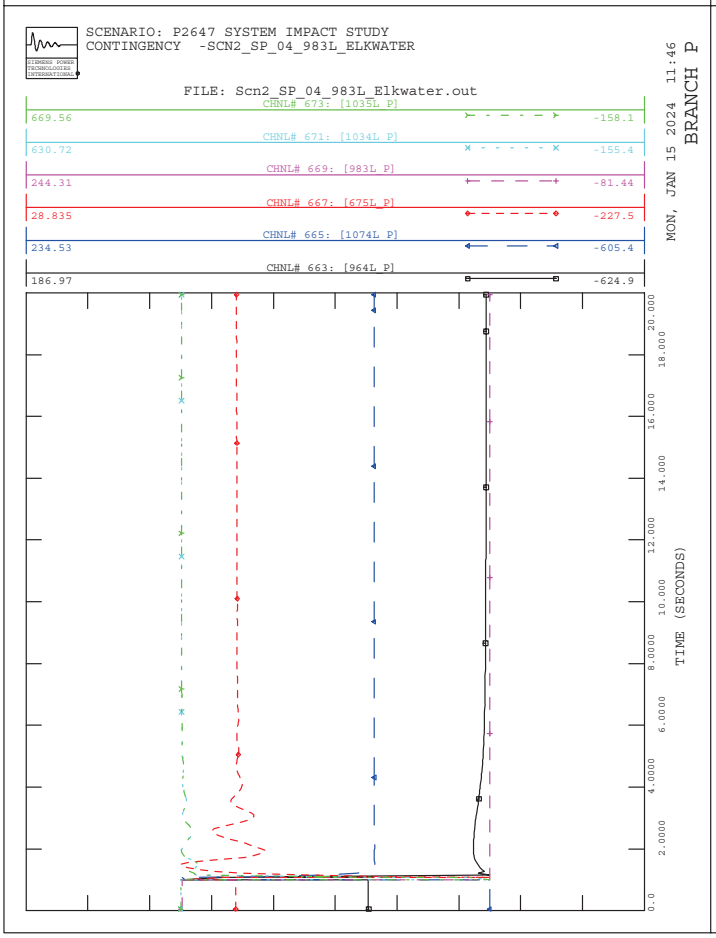
MON, JAN 15 2024 11:46

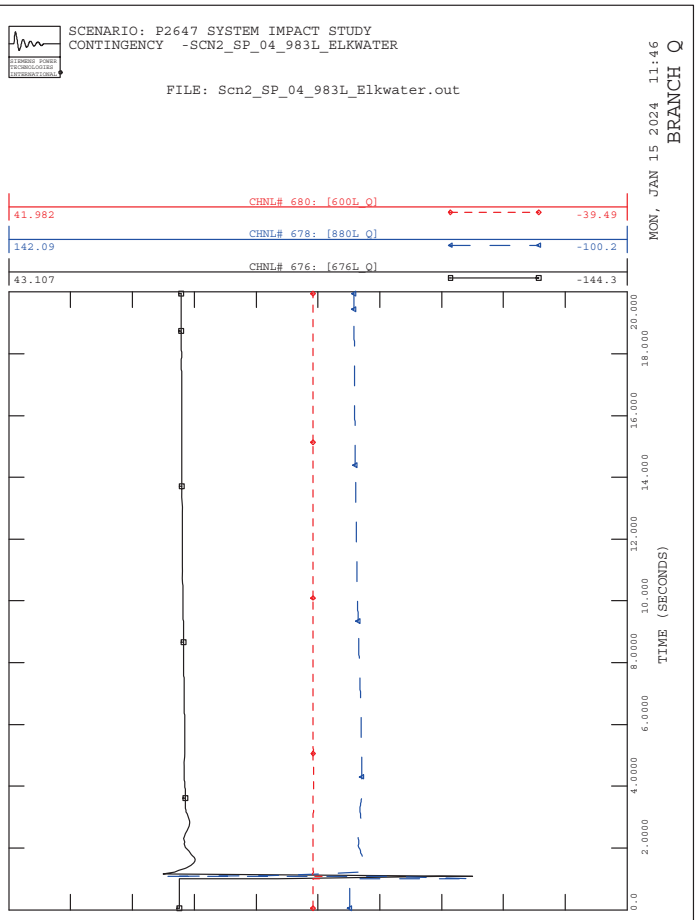
BUS VOLTAGE

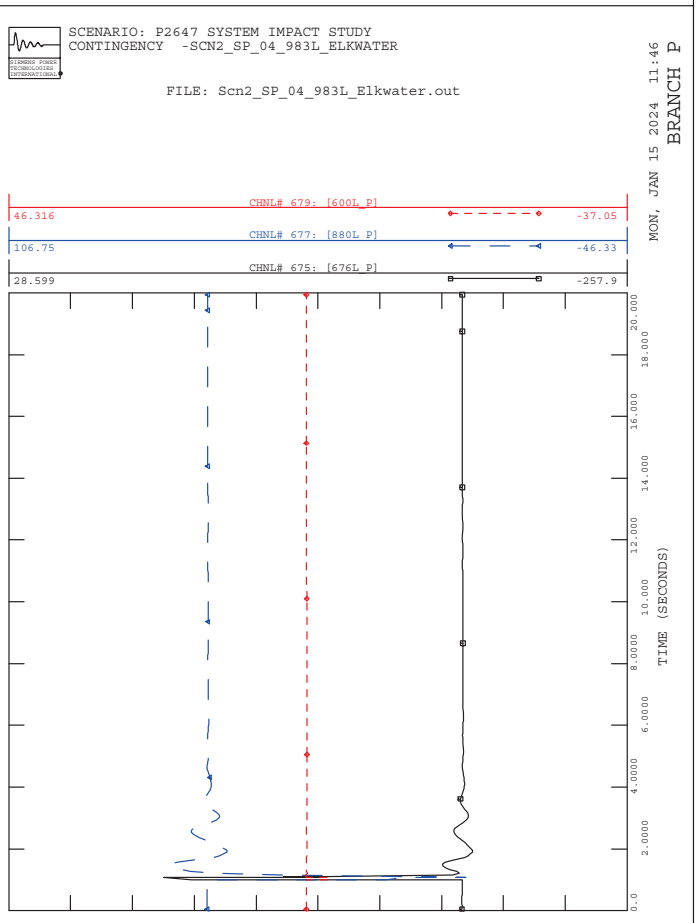
CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.1951 -0.0309
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.1416 0.28580
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.2094 0.67540
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.1438 0.38930
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.1433 0.38890
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.1462 0.39120

TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER
FILE: Scn2_SP_04_983L_Elkwater.out
CHNL# 674: [1035L Q]
129.61
-307.4
CHNL# 672: [1034L Q]
113.33
-303.1
CHNL# 670: [983L Q]
40.000
-46.33
CHNL# 668: [675L Q]
91.104
-150.8
CHNL# 666: [1074L Q]
763.17
-762.6
CHNL# 664: [964L Q]
1147.4
-395.4
MON, JAN 15 2024 11:46
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER
FILE: Scn2_SP_04_983L_Elkwater.out
CHNL# 673: [1035L P]
669.56
-158.1
CHNL# 671: [1034L P]
630.72
-155.4
CHNL# 669: [983L P]
244.31
-81.44
CHNL# 667: [675L P]
28.835
-227.5
CHNL# 665: [1074L P]
234.53
-605.4
CHNL# 663: [964L P]
186.97
-624.9
MON, JAN 15 2024 11:46
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER
FILE: Scn2_SP_04_983L_Elkwater.out
CHNL# 680: [600L Q]
41.982
-39.49
CHNL# 678: [880L Q]
142.09
-100.2
CHNL# 676: [676L Q]
43.107
-144.3
MON, JAN 15 2024 11:46
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_04_983L_ELKWATER
FILE: Scn2_SP_04_983L_Elkwater.out
CHNL# 679: [600L P]
46.316
-37.05
CHNL# 677: [880L P]
106.75
-46.33
CHNL# 675: [676L P]
28.599
-257.9
MON, JAN 15 2024 11:46
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS

FILE: Scn2_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 0.20000 -0.2000
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.8114 0.00980
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.68100 -0.2669
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 3.0256 0.25050
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 3.4013 0.69170
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 0.72490 -0.1374

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS

FILE: Scn2_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 0.10000 -0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.3190 0.10170
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15] 1.1223 0.69600
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2675 0.58680
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2495 0.60430
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1200 0.39450

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS

FILE: Scn2_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 276.66 -9.266
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 95.113 -48.72
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 98.902 -45.53
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 302.98 -5.421

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS

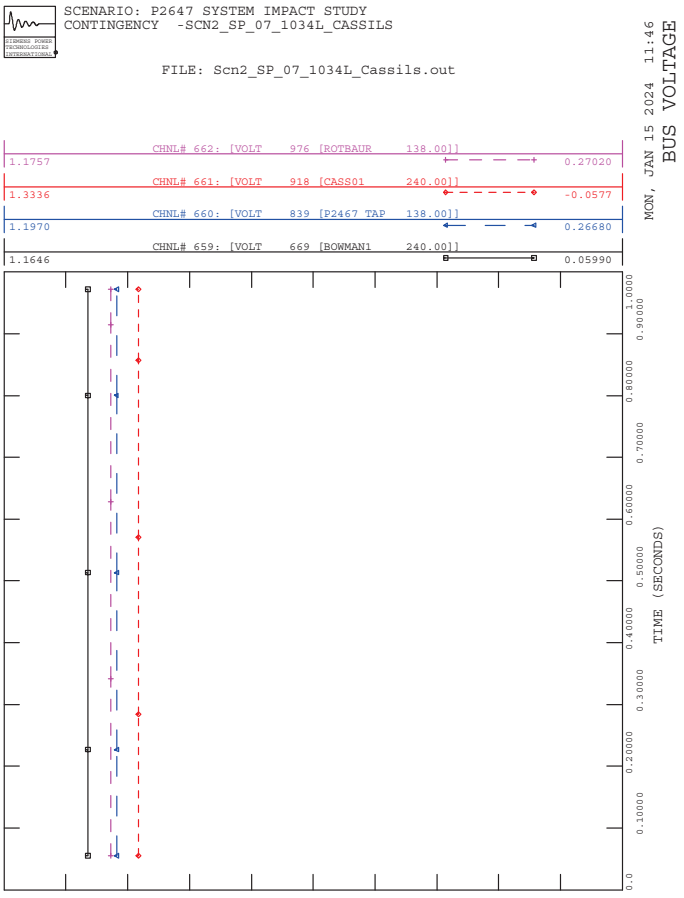
FILE: Scn2_SP_07_1034L_Cassils.out

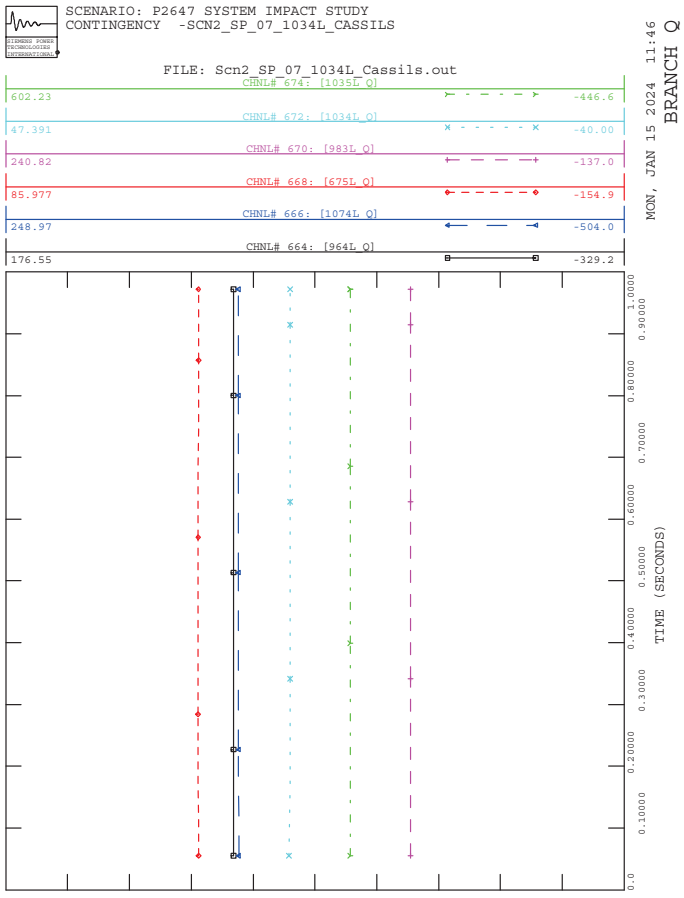
MON, JAN 15 2024 11:46

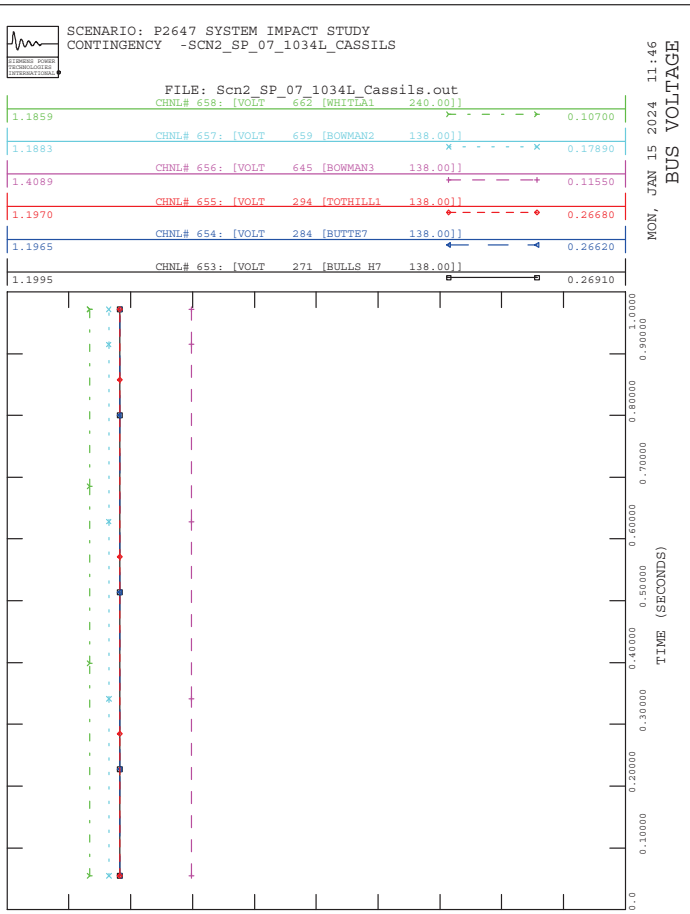
REACTIVE POWER

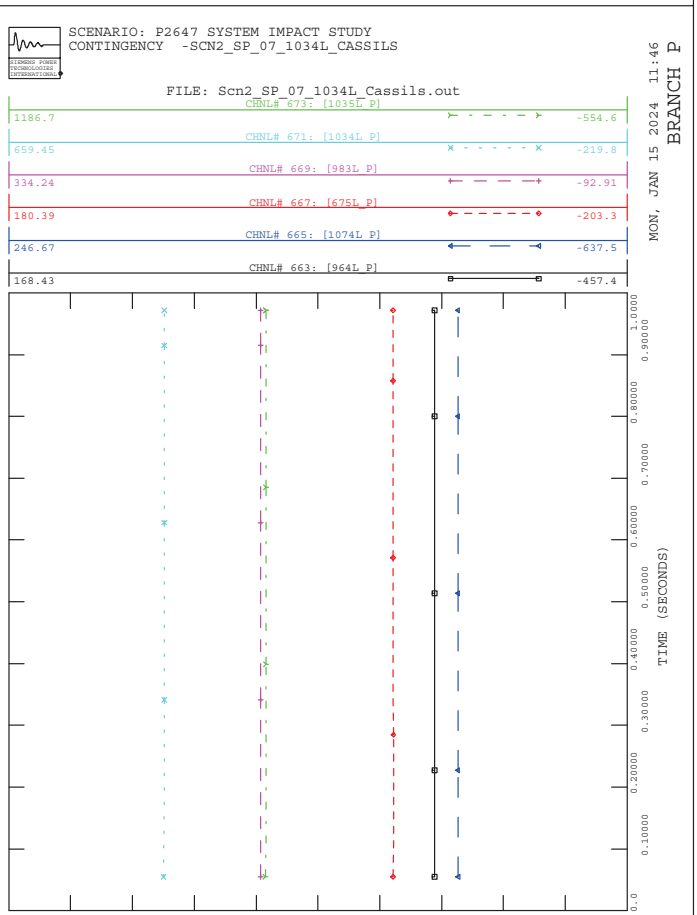
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 0.50000 -0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 1.7299 -0.5498
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15] 1.4491 -0.4633
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 7.7072 -5.016
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 8.0753 -5.139
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.0584 -0.6420

TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS
FILE: Scn2_SP_07_1034L_Cassils.out
MON, JAN 15 2024 11:46
BUS VOLTAGE
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1757
0.27020
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.3336
-0.0577
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.1970
0.26680
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.1646
0.05990
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS
FILE: Scn2_SP_07_1034L_Cassils.out
MON, JAN 15 2024 11:46
BRANCH Q
CHNL# 674: [1035L Q]
602.23
-446.6
CHNL# 672: [1034L Q]
47.391
-40.00
CHNL# 670: [983L Q]
240.82
-137.0
CHNL# 668: [675L Q]
85.977
-154.9
CHNL# 666: [1074L Q]
248.97
-504.0
CHNL# 664: [964L Q]
176.55
-329.2
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS
FILE: Scn2_SP_07_1034L_Cassils.out
MON, JAN 15 2024 11:46
BUS VOLTAGE
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.1859
0.10700
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.1883
0.17890
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.4089
0.11550
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.1970
0.26680
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.1965
0.26620
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.1995
0.26910
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS
FILE: Scn2_SP_07_1034L_Cassils.out
MON, JAN 15 2024 11:46
BRANCH P
CHNL# 673: [1035L P]
1186.7
-554.6
CHNL# 671: [1034L P]
659.45
-219.8
CHNL# 669: [983L P]
334.24
-92.91
CHNL# 667: [675L P]
180.39
-203.3
CHNL# 665: [1074L P]
246.67
-637.5
CHNL# 663: [964L P]
168.43
-457.4
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS

FILE: Scn2_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 680: [600L Q] 42.153 -39.56
CHNL# 678: [880L Q] 125.81 -82.71
CHNL# 676: [676L Q] 62.247 -221.0

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON

FILE: Scn2_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 0.20000 -0.2000
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 2.5133 -0.0569
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.95170 -0.1219
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 3.1013 -0.1143
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 3.4185 0.59310
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.0355 -0.0690

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_07_1034L_CASSILS

FILE: Scn2_SP_07_1034L_Cassils.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 679: [600L P] 46.640 -38.03
CHNL# 677: [880L P] 135.46 -120.9
CHNL# 675: [676L P] 139.67 -288.5

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON

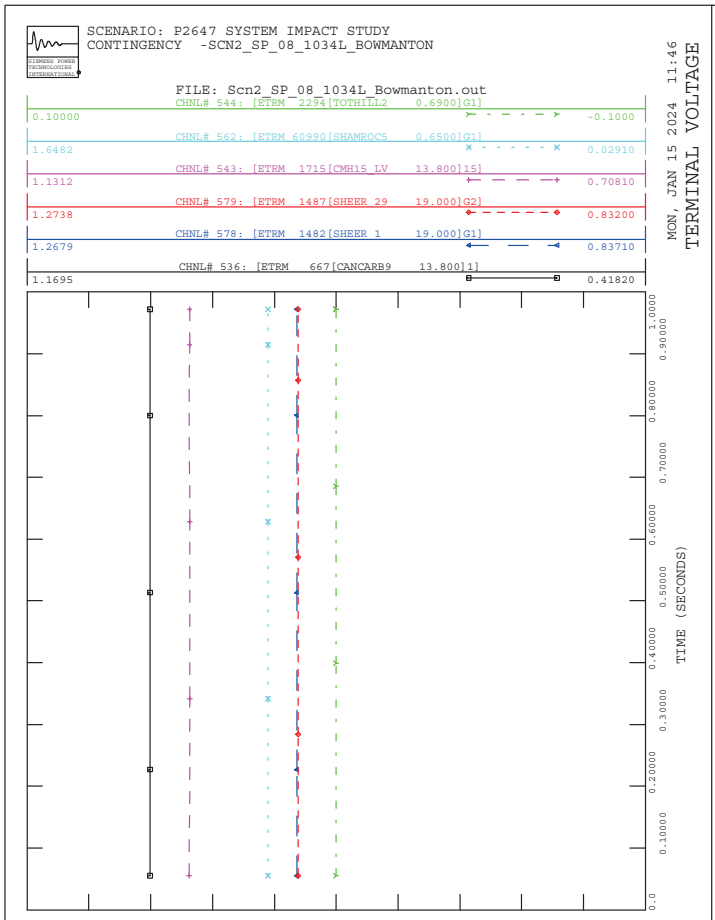
FILE: Scn2_SP_08_1034L_Bowmanton.out

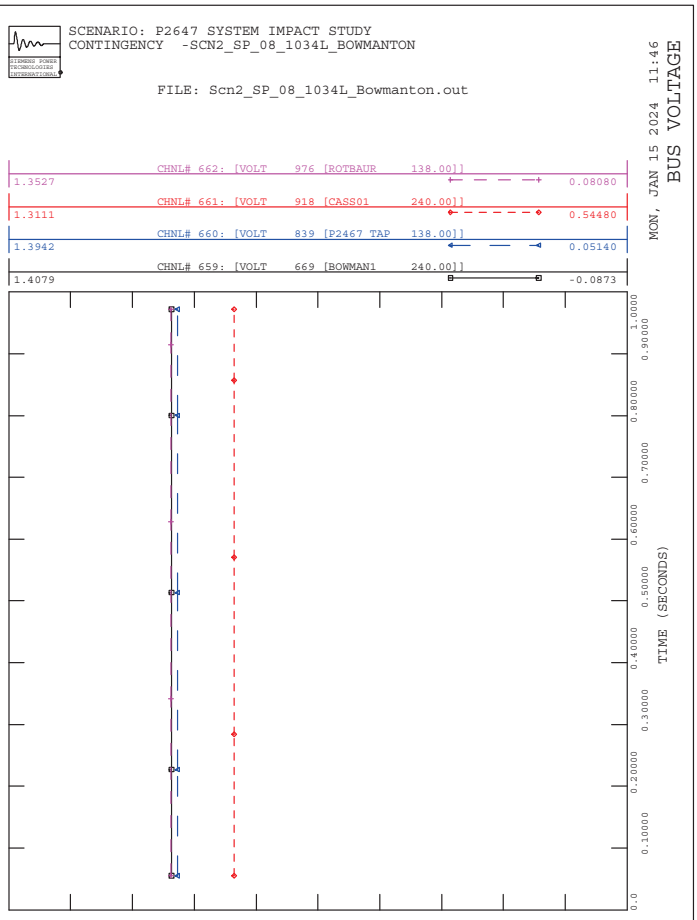
MON, JAN 15 2024 11:46

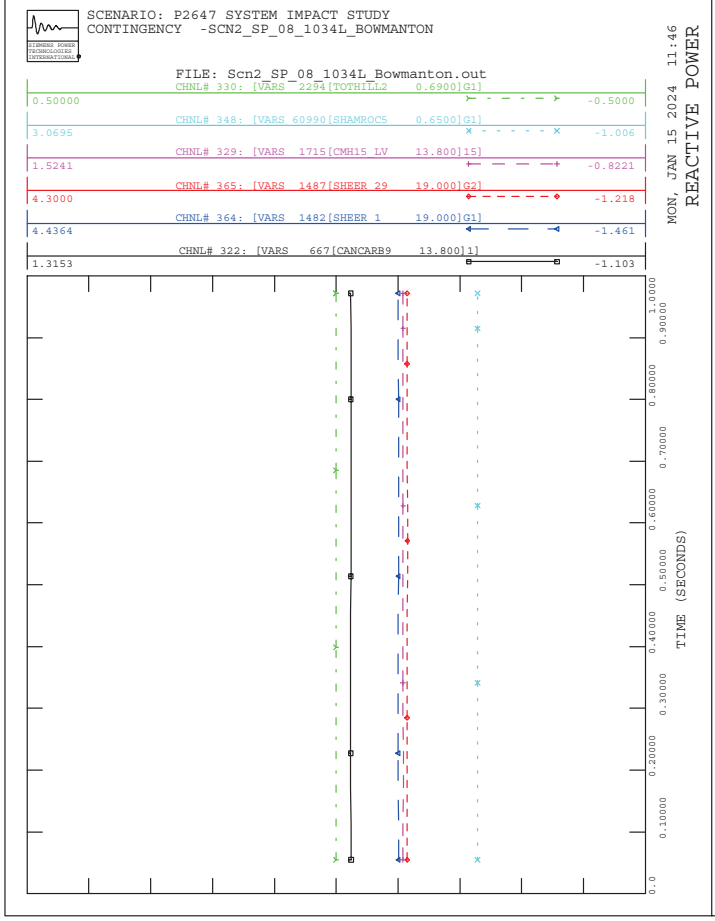
ROTOR ANGLE

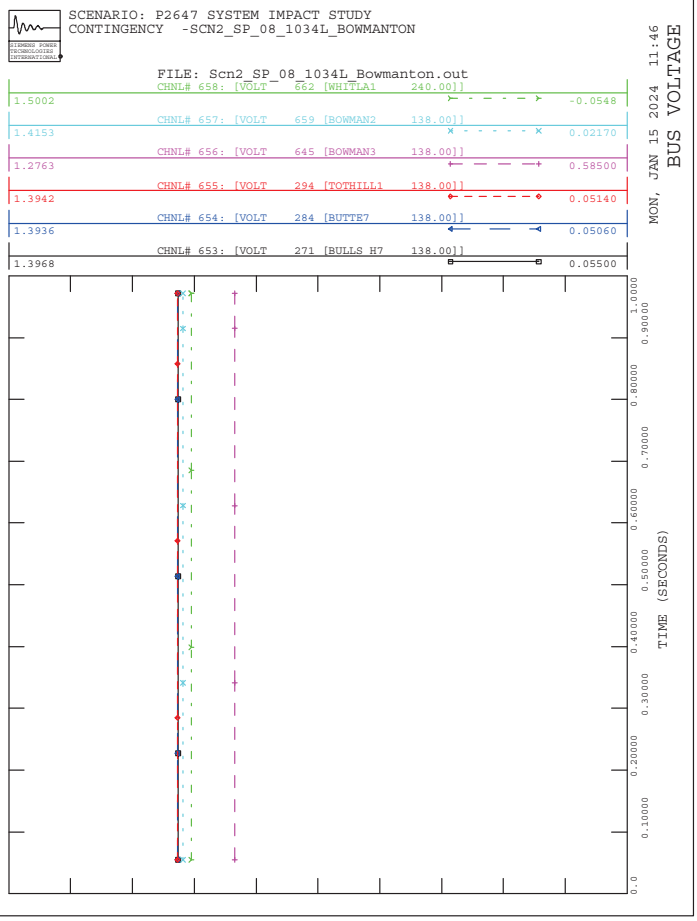
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 293.80 -15.00
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 95.589 -49.26
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 99.053 -46.32
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 328.78 -14.05

TIME (SECONDS)


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON
FILE: Scn2_SP_08_1034L_Bowmanton.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
0.10000
-0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.6482
0.02910
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.1312
0.70810
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2738
0.83200
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2679
0.83710
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1695
0.41820
MON, JAN 15 2024 11:46
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON
FILE: Scn2_SP_08_1034L_Bowmanton.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.3527
0.08080
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.3111
0.54480
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.3942
0.05140
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.4079
-0.0873
MON, JAN 15 2024 11:46
BUS VOLTAGE
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON
FILE: Scn2_SP_08_1034L_Bowmanton.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
0.50000
-0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
3.0695
-1.006
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.5241
-0.8221
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
4.3000
-1.218
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
4.4364
-1.461
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.3153
-1.103
MON, JAN 15 2024 11:46
REACTIVE POWER
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON
FILE: Scn2_SP_08_1034L_Bowmanton.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.5002
-0.0548
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.4153
0.02170
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2763
0.58500
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.3942
0.05140
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.3936
0.05060
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.3968
0.05500
MON, JAN 15 2024 11:46
BUS VOLTAGE
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON

FILE: Scn2_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 674: [1035L Q] 769.52 -398.4
CHNL# 672: [1034L Q] 3666.4 -1222.
CHNL# 670: [983L Q] 603.55 -255.9
CHNL# 668: [675L Q] 267.10 -200.2
CHNL# 666: [1074L Q] 451.90 -607.2
CHNL# 664: [964L Q] 193.04 -421.5

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON

FILE: Scn2_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 680: [600L Q] 43.027 -39.72
CHNL# 678: [880L Q] 265.45 -133.5
CHNL# 676: [676L Q] 82.498 -263.1

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON

FILE: Scn2_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 673: [1035L P] 1336.1 -564.1
CHNL# 671: [1034L P] 5000.0 -5000.
CHNL# 669: [983L P] 541.34 -179.9
CHNL# 667: [675L P] 195.29 -333.5
CHNL# 665: [1074L P] 279.58 -740.9
CHNL# 663: [964L P] 249.99 -701.1

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_08_1034L_BOWMANTON

FILE: Scn2_SP_08_1034L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 679: [600L P] 47.840 -39.52
CHNL# 677: [880L P] 206.20 -162.1
CHNL# 675: [676L P] 132.98 -286.3

TIME (SECONDS)

0.0 0.10000 0.20000 0.30000 0.40000 0.50000 0.60000 0.70000 0.80000 0.90000 1.0000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 0.20000 -0.2000
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.4492 0.17130
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 0.99390 -0.3338
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 3.3378 -6.078
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 3.6975 -4.846
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.0787 -0.4616

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

TERMINAL VOLTAGE

CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 0.10000 -0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1176 0.23490
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15] 1.1202 0.69920
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2414 0.61560
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2348 0.63480
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1200 0.39620

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

ROTOR ANGLE

CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 278.58 -9.908
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 103.02 -50.67
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 106.69 -46.40
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 305.59 -6.292

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

REACTIVE POWER

CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 0.50000 -0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 0.75430 -0.4672
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15] 1.4587 -0.4032
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 7.5890 -4.441
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 8.0167 -4.659
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.1550 -0.5795

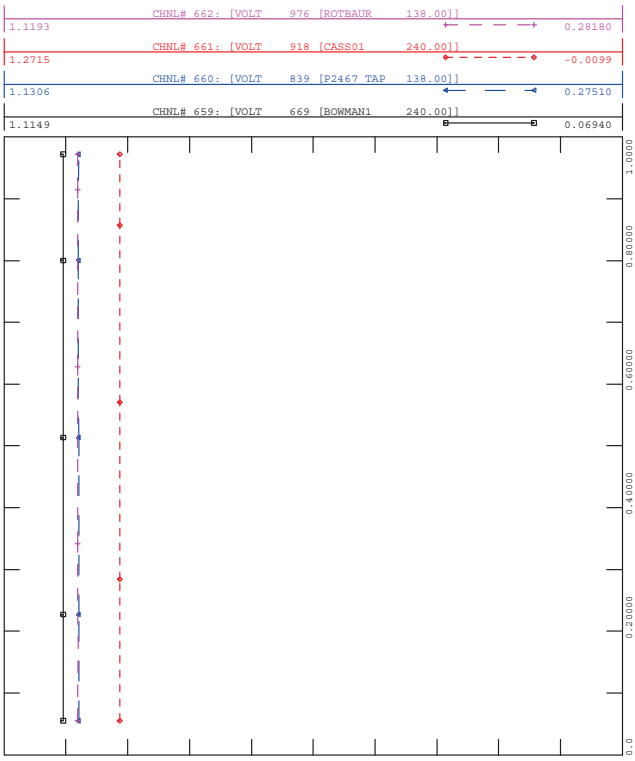
TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

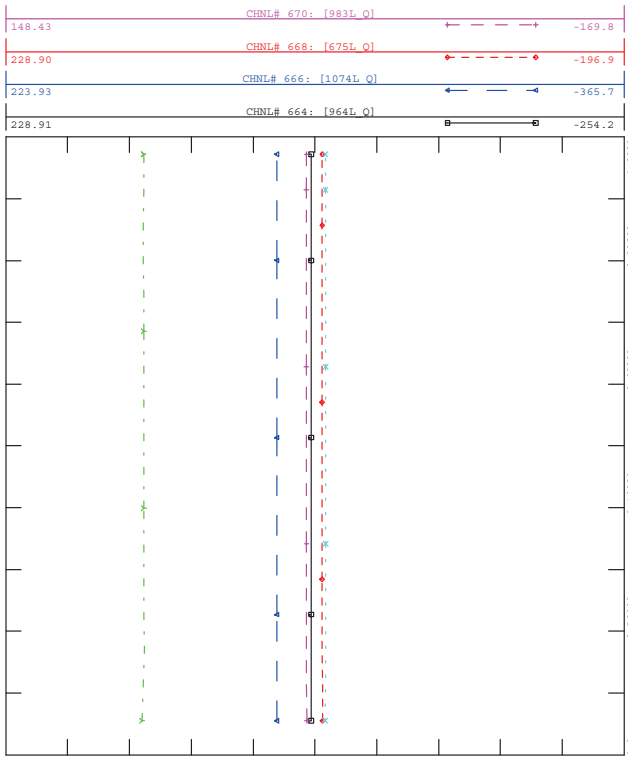


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BRANCH Q

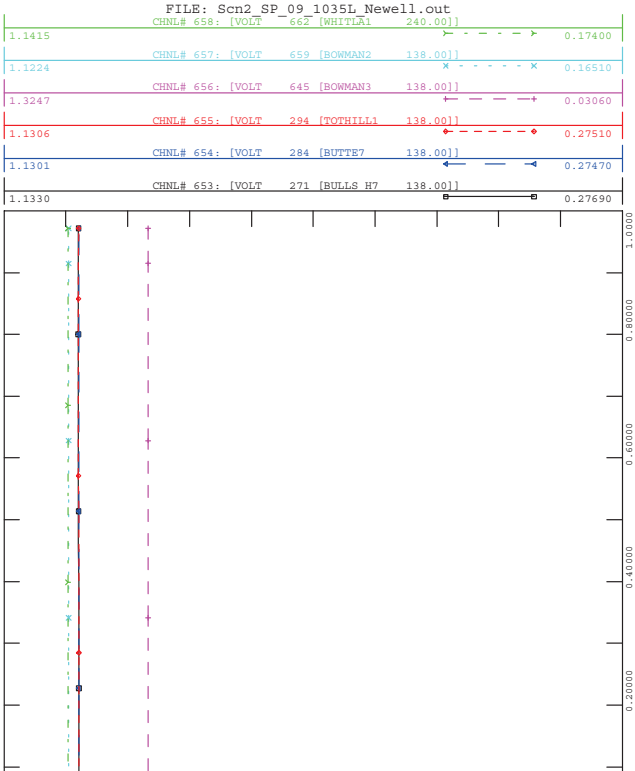


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

BUS VOLTAGE

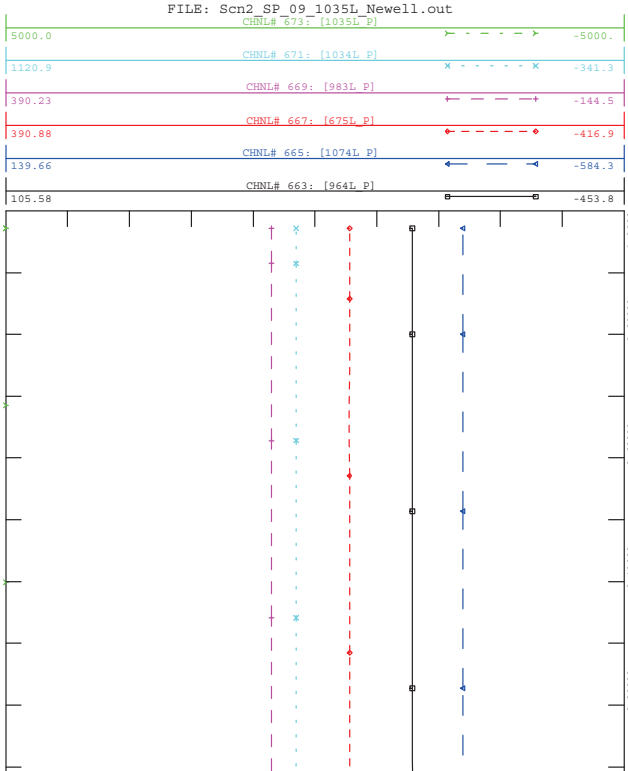


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

MON, JAN 15 2024 11:46

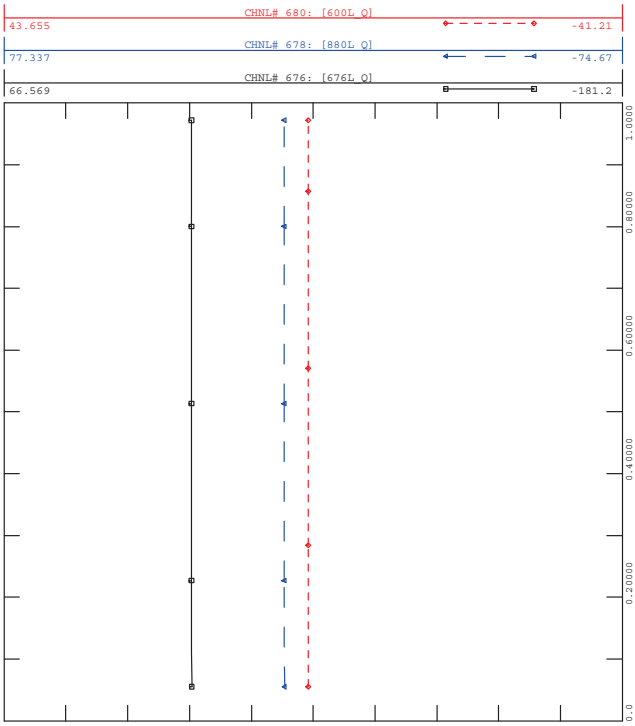
BRANCH P



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

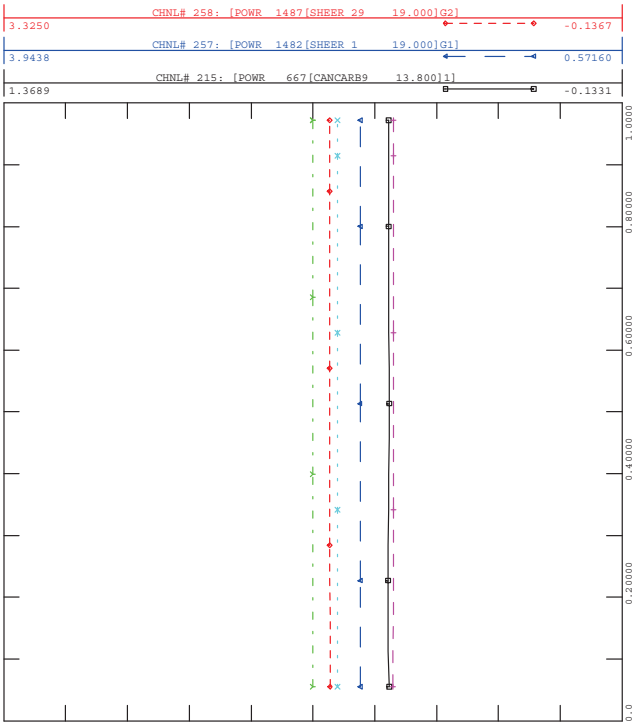
MON, JAN 15 2024 11:46 BRANCH Q



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON

FILE: Scn2_SP_10_1035L_Bowmanton.out

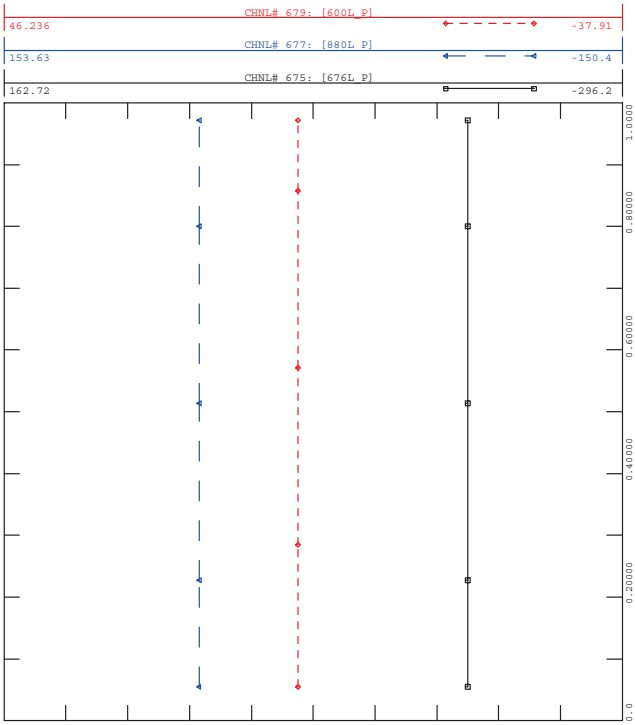
MON, JAN 15 2024 11:46 ACTIVE POWER



SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_09_1035L_NEWELL

FILE: Scn2_SP_09_1035L_Newell.out

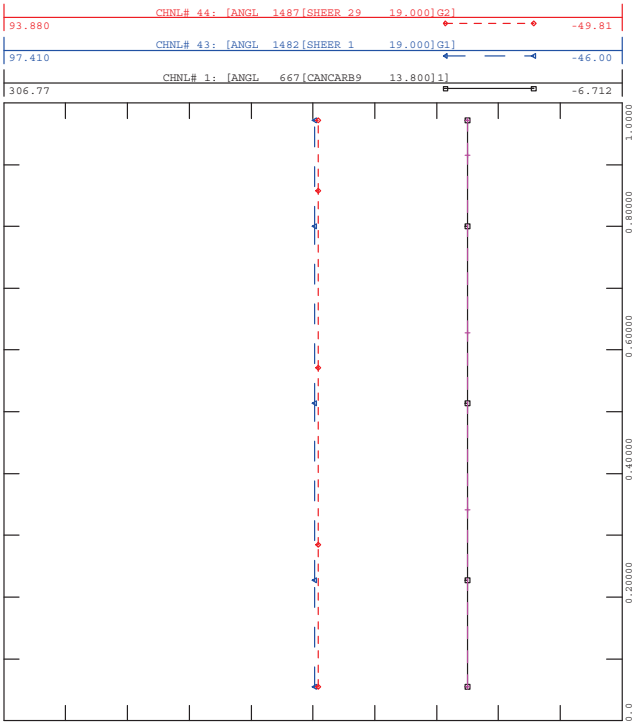
MON, JAN 15 2024 11:46 BRANCH P

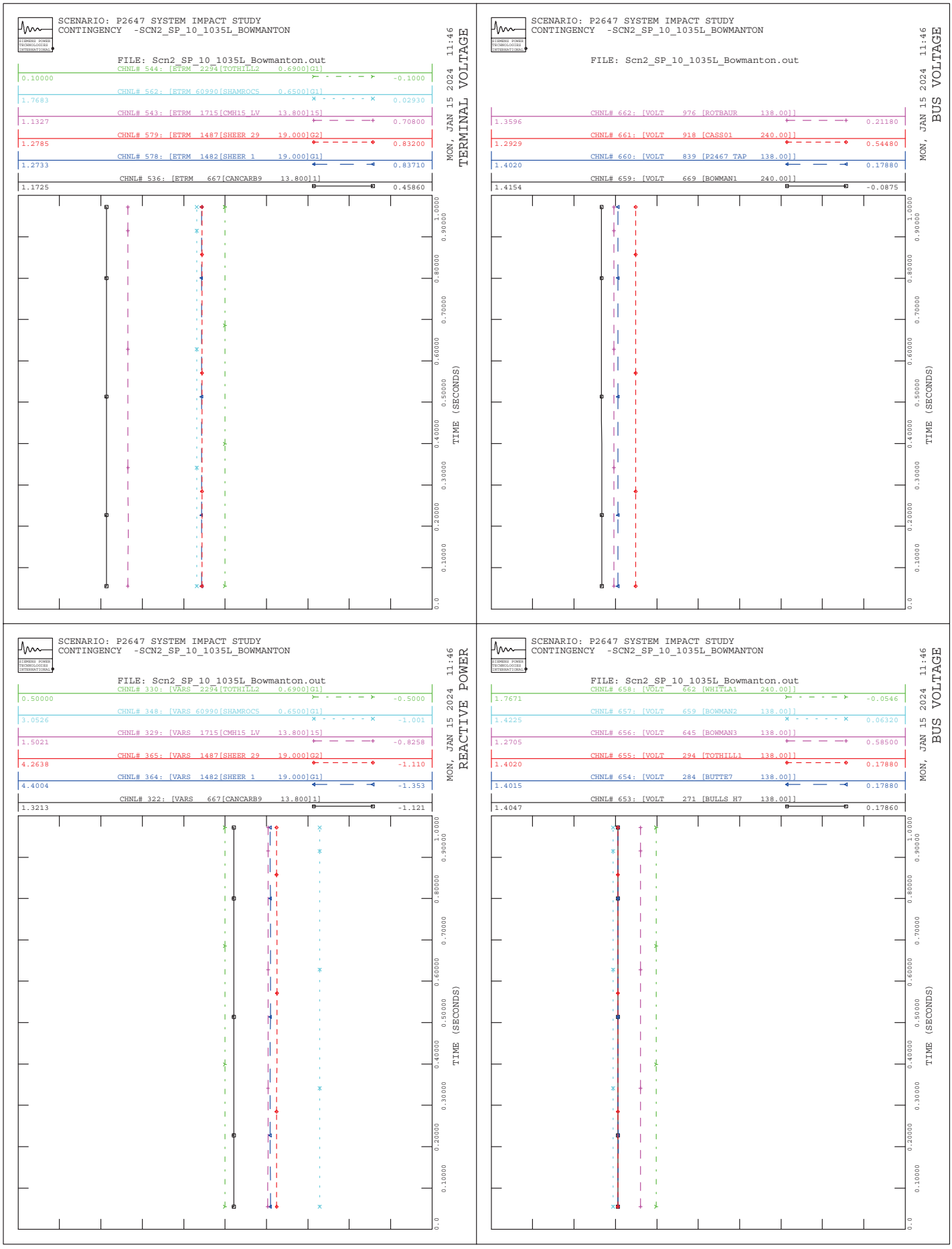


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON

FILE: Scn2_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46 ROTOR ANGLE




SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON
FILE: Scn2_SP_10_1035L_Bowmanton.out
MON, JAN 15 2024 11:46
TERMINAL VOLTAGE
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
0.10000
-0.1000
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.7683
0.02930
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.1327
0.70800
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2785
0.83200
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2733
0.83710
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1725
0.45860
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON
FILE: Scn2_SP_10_1035L_Bowmanton.out
MON, JAN 15 2024 11:46
BUS VOLTAGE
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.3596
0.21180
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.2929
0.54480
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.4020
0.17880
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.4154
-0.0875
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON
FILE: Scn2_SP_10_1035L_Bowmanton.out
MON, JAN 15 2024 11:46
REACTIVE POWER
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
0.50000
-0.5000
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
3.0526
-1.001
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.5021
-0.8258
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
4.2638
-1.110
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
4.4004
-1.353
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.3213
-1.121
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON
FILE: Scn2_SP_10_1035L_Bowmanton.out
MON, JAN 15 2024 11:46
BUS VOLTAGE
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.7671
-0.0546
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.4225
0.06320
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2705
0.58500
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.4020
0.17880
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.4015
0.17880
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.4047
0.17860
TIME (SECONDS)
0.0
0.10000
0.20000
0.30000
0.40000
0.50000
0.60000
0.70000
0.80000
0.90000
1.0000

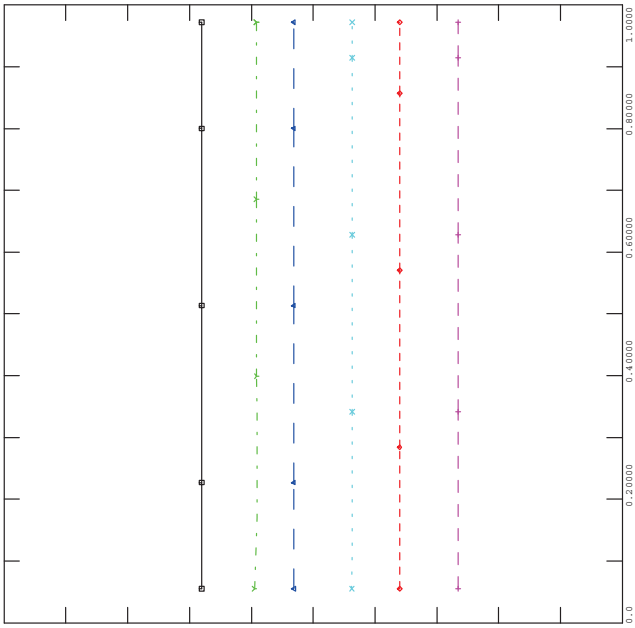
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON

FILE: Scn2_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 674: [1035L Q] 58.816 -40.00
CHNL# 672: [1034L Q] 870.06 -664.1
CHNL# 670: [983L Q] 1633.6 -598.8
CHNL# 668: [675L Q] 567.25 -302.6
CHNL# 666: [1074L Q] 489.98 -630.0
CHNL# 664: [964L Q] 446.11 -979.6



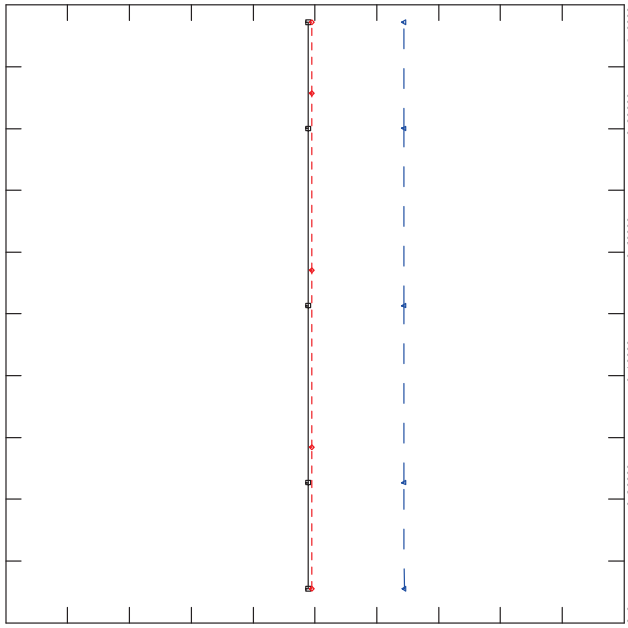
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON

FILE: Scn2_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH Q

CHNL# 680: [600L Q] 43.595 -40.62
CHNL# 678: [880L Q] 264.81 -133.2
CHNL# 676: [676L Q] 307.71 -339.1



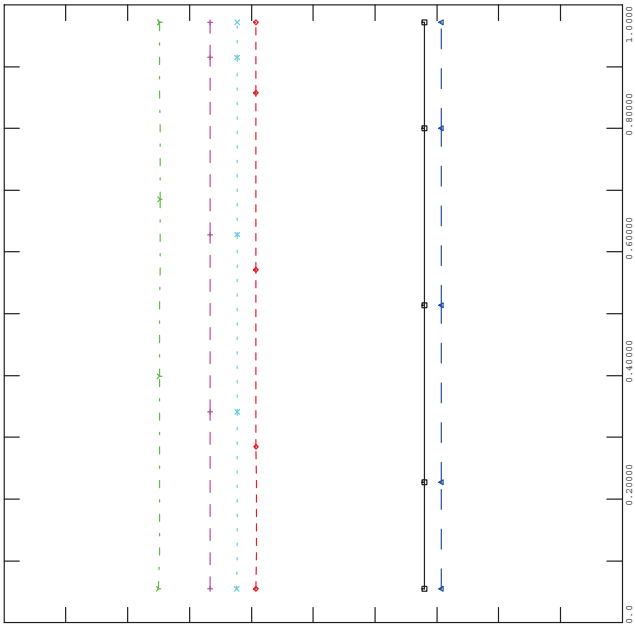
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON

FILE: Scn2_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 673: [1035L P] 703.55 -234.5
CHNL# 671: [1034L P] 1648.0 -1572.
CHNL# 669: [983L P] 947.79 -1418.
CHNL# 667: [675L P] 261.38 -522.8
CHNL# 665: [1074L P] 956.16 -955.1
CHNL# 663: [964L P] 1612.7 -1146.



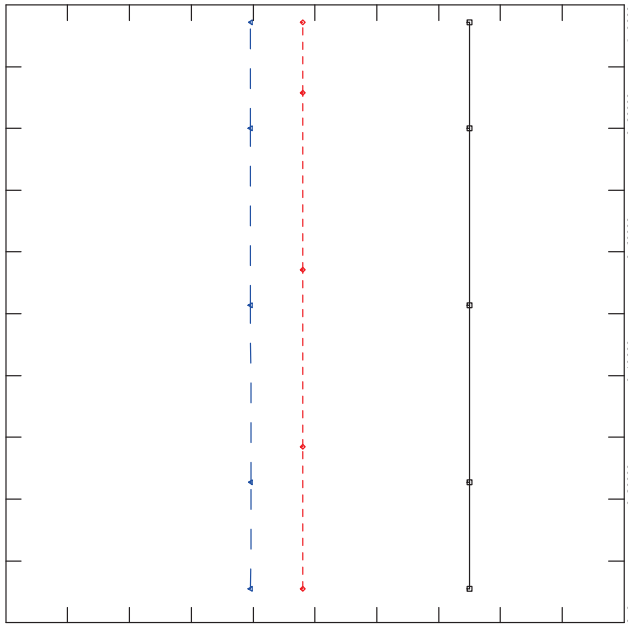
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN2_SP_10_1035L_BOWMANTON

FILE: Scn2_SP_10_1035L_Bowmanton.out

MON, JAN 15 2024 11:46

BRANCH P

CHNL# 679: [600L P] 47.887 -38.81
CHNL# 677: [880L P] 211.95 -177.7
CHNL# 675: [676L P] 178.29 -301.4



Attachment A5
Dynamic Data and Assumptions

Study Area load representation assumed for the transient studies is shown in Table A5-1:

Table A5-1: Transient Stability Analysis Load Representation

Planning Areas	% of load specified as Large Motors	% of load specified as Small Motors	The Remainder of the Load (excluding Motor loads)	
			Active Power	Reactive Power
			Constant Current	Constant Impedance
Areas in South regions	*40%*	*30%*	*100%*	*100%*
Areas in other regions	*10%*	*10%*	*100%*	*100%*

Table A5-2: Generator Dynamic

Generator Dynamic Data (REGCAU1 model)											
Tg	**Rrpwr**	**Brkpt**	**Zerox**	**Lvpl1**	**Volim**	**Lvpnt1**	**Lvpnt0**	**Lolin**	**Tfltr**	**Khv**	**Iqrmax**
0.0200	1.000	0.9000	0.5000	1.0000	1.2000	0.0100	0.0000	-1.0000	0.0000	0.0000	20.0000
Iqrmin	**Accel**										
-20.0000	0.7000										
Lvplsw											
0											

Table A5-3: Electrical Dynamic Data

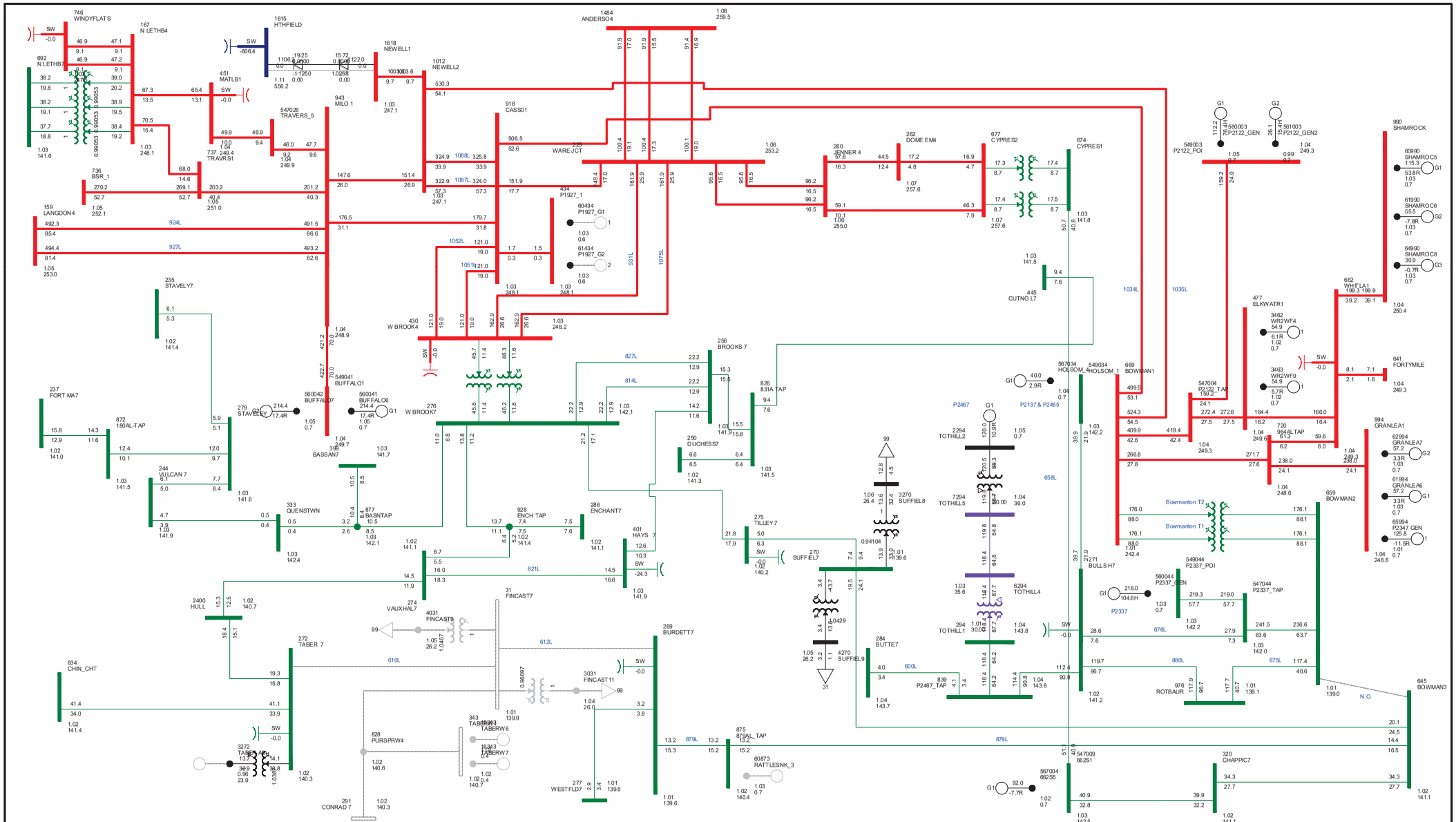
Electrical Dynamic Data (REECAU1 model)											
Vdip	**Vup**	**Trv**	**Dbd1**	**Dbd2**	**Kqv**	**Lqhl**	**Lqll**	**Vref0**	**Lqfrz**	**Thld**	**Thld2**
0.9000	1.1000	0.0100	-0.1000	0.1000	2.0000	2.0000	-2.0000	1.0000	0.0000	0.0000	0.0000
Tp	**QMax**	**QMin**	**VMAX**	**VMIN**	**Kqp**	**Kqi**	**Kvp**	**Kvi**	**Vbias**	**Tiq**	**dPmax**
0.0500	0.6000	-0.6000	2.0000	0.0000	0.0000	1.0000	0.0000	1.0000	0.0000	0.0100	0.2000
dPmin	**PMAX**	**PMIN**	**Imax**	**Tpord**	**Vq1**	**Iq1**	**Vq2**	**Iq2**	**Vq3**	**Iq3**	**Vq4**
-0.2000	1.0000	0.0000	1.0000	0.0100	-1.0000	1.0000	2.0000	1.0000	0.0000	0.0000	0.0000
Iq4	**Vp1**	**Ip1**	**Vp2**	**Ip2**	**Vp3**	**Ip3**	**Vp4**	**Ip4**			
0.0000	-1.0000	1.0000	2.0000	1.0000	0.0000	0.0000	0.0000	0.0000			

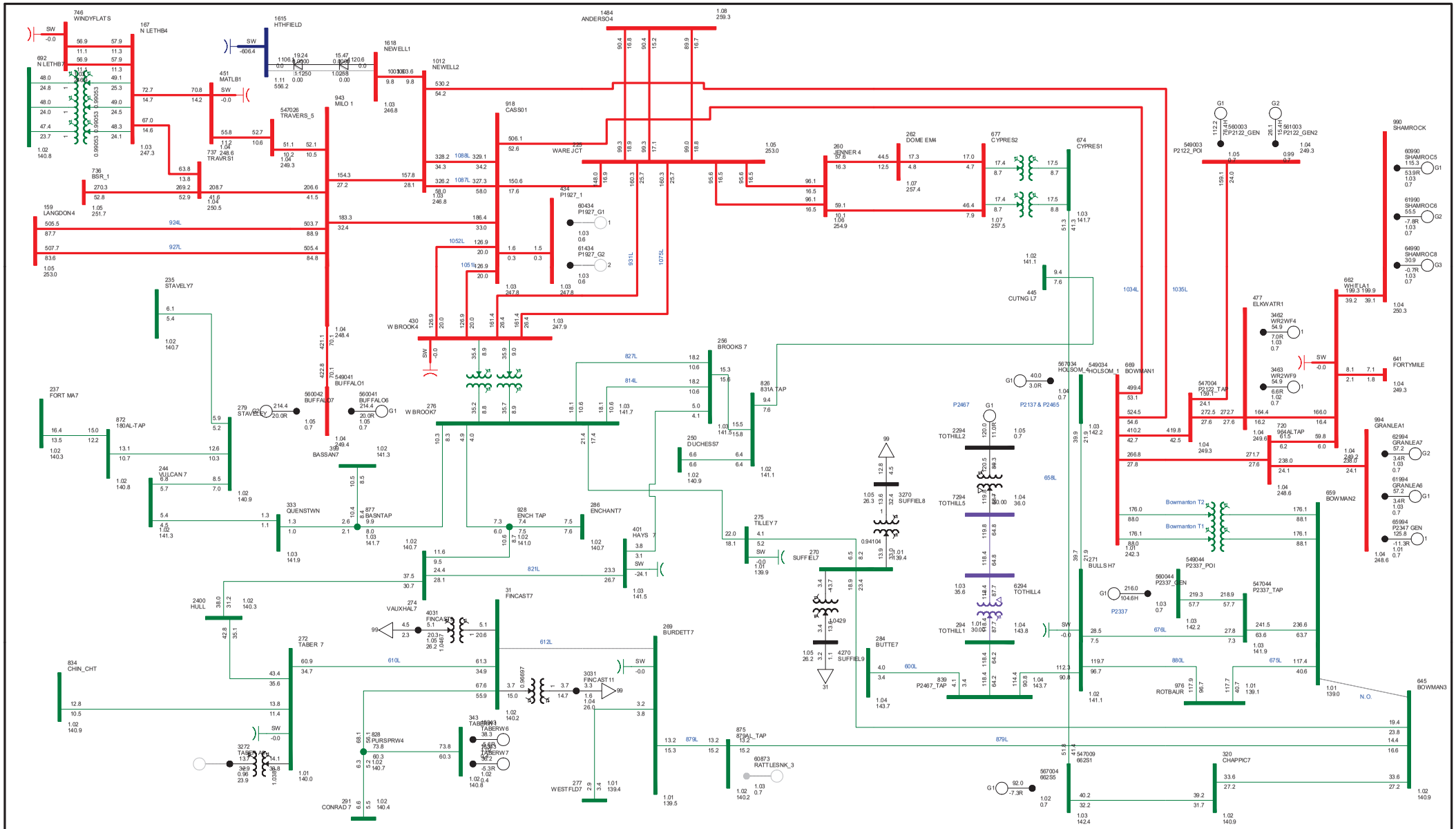
Electrical Dynamic Data (REECAU1 model)					
Input this as 0, For remote bus control use the plant controller model	**PFFLAG**	**VFLAG**	**QFLAG**	**PFLAG**	**PQFLAG**
0	0	1	0	0	0

Table A5-4: Auxiliary Dynamic Data

Auxiliary Dynamic Data (REPCAU1 model)											
Tfltr	**Kp**	**Ki**	**Tft**	**Tfv**	**Vfrz**	**Rc**	**Xc**	**Kc**	**Emax**	**Emin**	**Dbd1**
0.0500	0.5000	3.0000	0.0000	0.0500	0.9000	0.0000	0.0000	0.0400	999.00	-999.00	0.0000
Dbd2	**Qmax**	**Qmin**	**Kpg**	**Kig**	**Tp**	**Fdbd1**	**Fdbd2**	**Femax**	**Femin**	**Pmax**	**Pmin**
0.0000	0.6000	-0.6000	0.0000	0.5000	0.0400	0.0000	0.0000	999.0000	-999.0000	1.0000	0.0000
Tg	**Ddn**	**Dup**									
0.0400	20.0000	20.0000									
Remote bus number	**Monitored branch FROM bus**		**Monitored branch TO bus**			**Monitored branch ID**			**VCFlag**	**RefFlag**	**Fflag**
6294	7294		6294			‘CL’			0	1	0

Attachment A6
Post-Mitigation Power Flow Diagrams

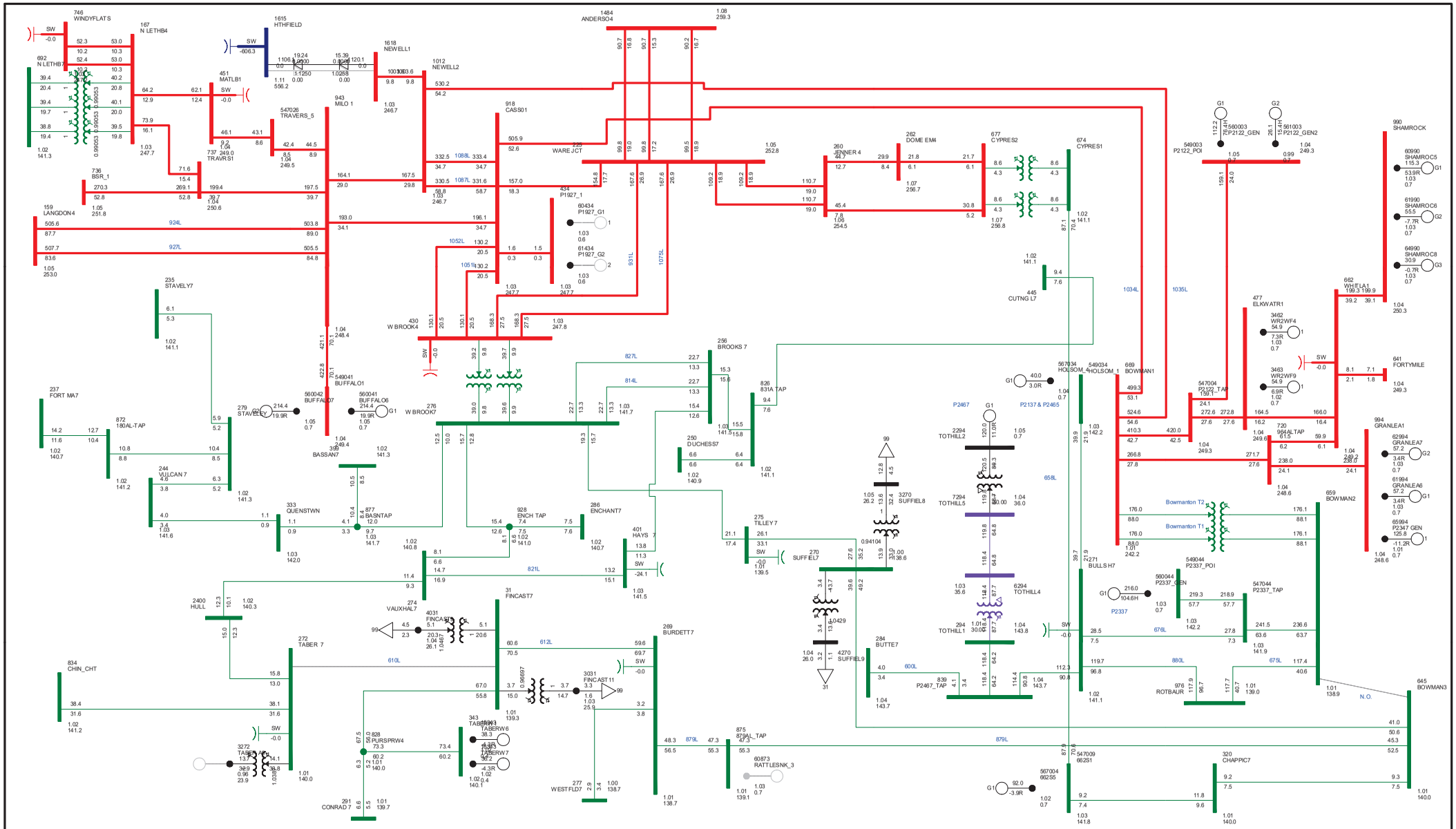

P2467 - Pteragen Peace Butte Wind
FIGURE B-3-1-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - FINCASTLE 336ST1
SUN, NOV 03 2024 12:35
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-2-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - 612L (FINCASTLE 336S TO BURDETT 368S)
SUN, NOV 03 2024 12:35

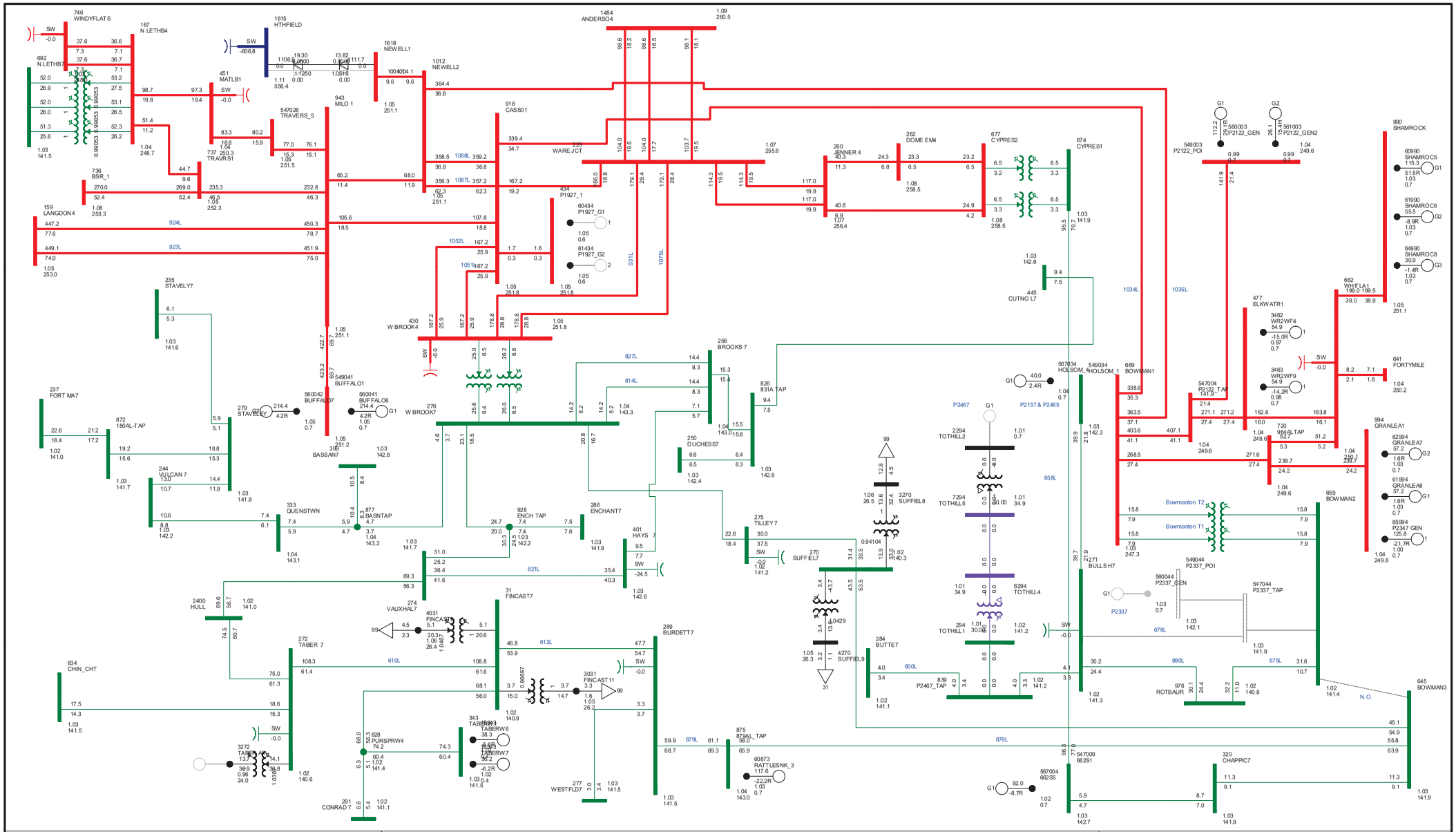
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-3-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - 610L (FINCASTLE 336S TO TABER 83S)
SUN, NOV 03 2024 12:36

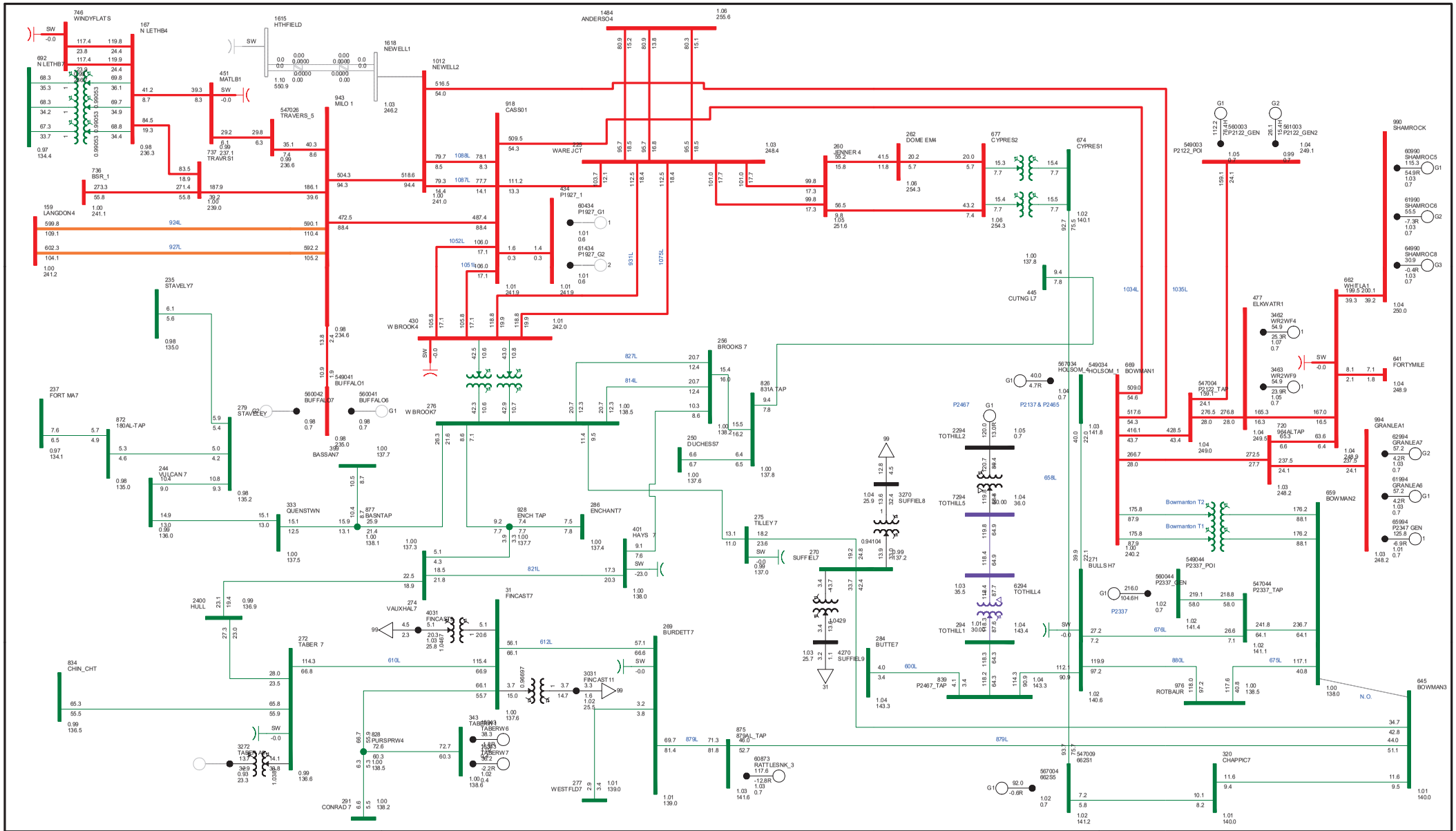
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

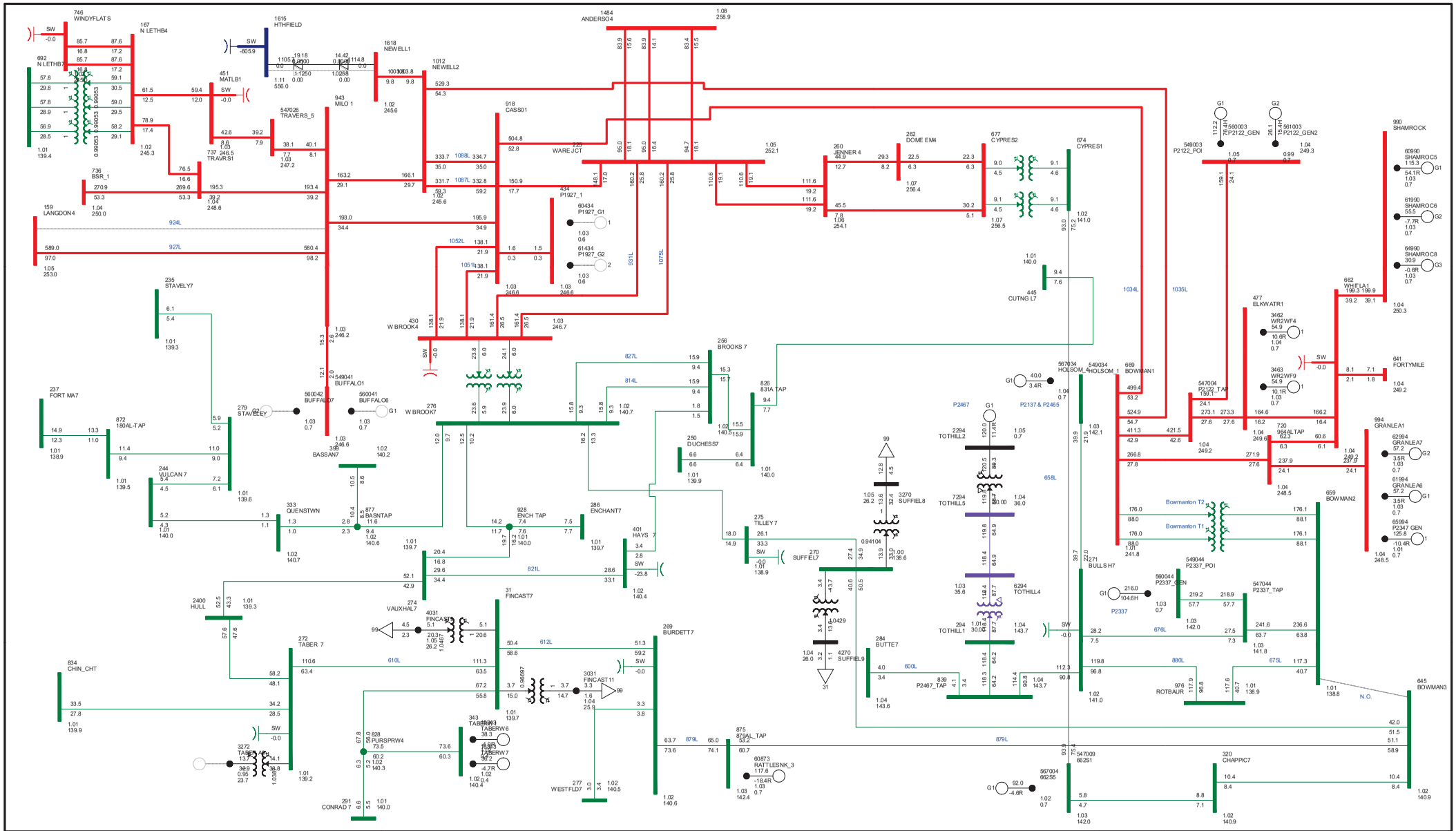


P2467 - Pteragen Peace Butte Wind

FIGURE B-3-4-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - 676L (BULLSHEAD 523S TO BOWMANTON 244S)
SUN, NOV 03 2024 13:23

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

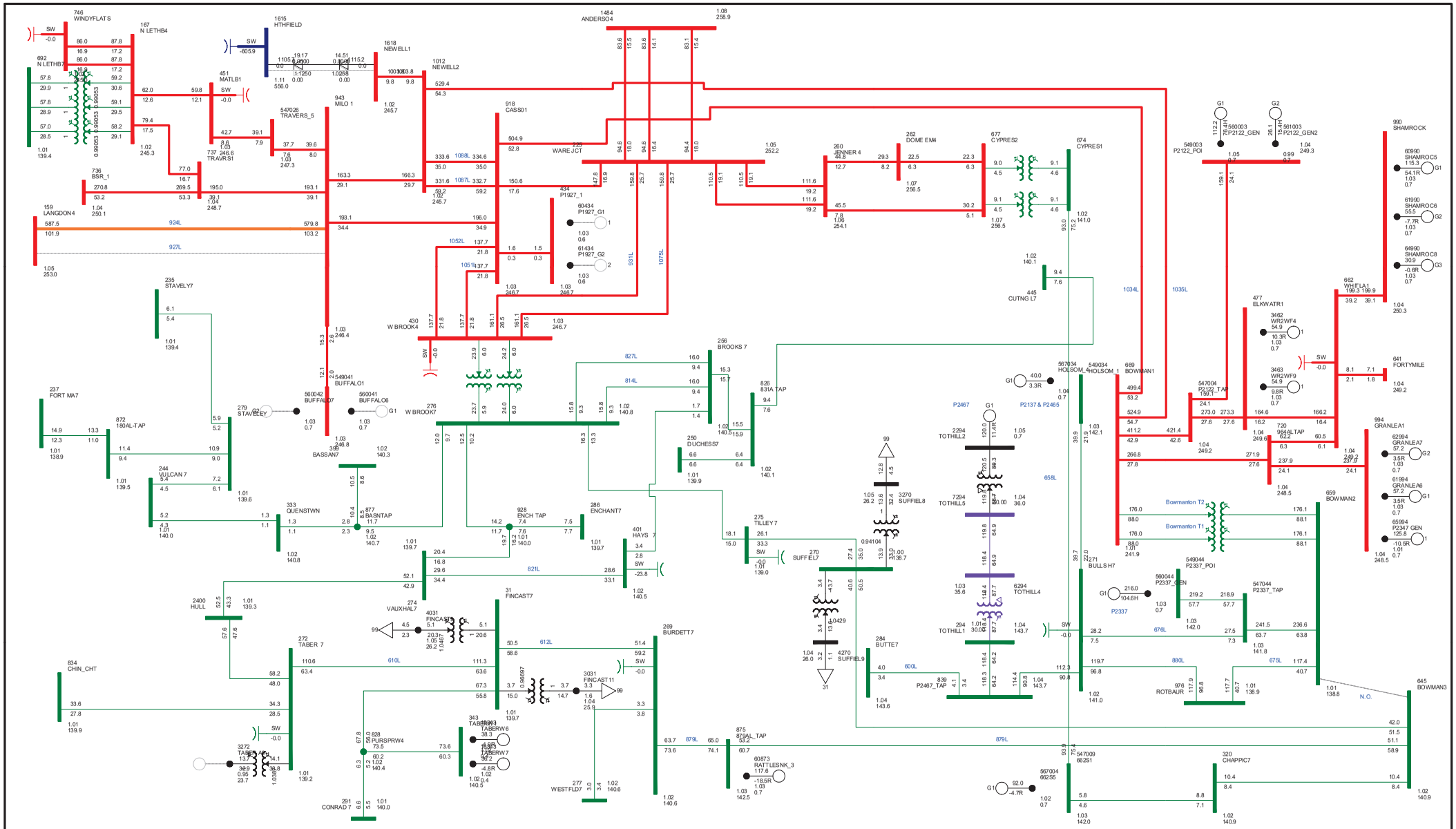

746 WINDYFLAT S
167 N LETHB4
692 N LETHB7
1615 HTHFIELD
1618 NEWELL1
1012 NEWELL2
451 MATLB1
547026 TRAVERS_5
943 MILO 1
1484 ANDERSO4
918 CAS501
WARE JCT
434 P1927_1
60434 P1927_G1
614434 P1927_G2
260 BENNER 4
262 DOME EM4
677 CYPRES2
674 CYPRES1
736 BSR_1
159 LANGDON4
924L
927L
1088L
1087L
1052L
1051L
931L
1075L
1034L
1035L
445 CUTNG L7
549003 P2122_POI
560003 P2122_GEN
561003 P2122_GEN2
990 SHAMROCK
60990 SHAMROC5
61990 SHAMROC6
64990 SHAMROC8
662 WHITLA1
641 FORTYMILE
477 ELKWATR1
3462 WR2WF4
3463 WR2WF9
547004 P2122_TAP
720 964ALTAP
994 GRANLEA1
62994 GRANLEA7
61994 GRANLEA6
65994 P2347 GEN
659 BOWMAN2
669 BOWMAN1
567034 HOLSOM_4
549034 HOLSOM_1
Bowmanton T2
Bowmanton T1
549044 P2337_POI
560044 P2337_GEN
547044 P2337_TAP
P2337
676L
880L
675L
976 ROTBAUR
645 BOWMAN3
N.O.
235 STAVELY7
237 FORT MA7
872 180AL-TAP
279 STAVELEY
560042 BUFFALO7
560041 BUFFALO6
549041 BUFFALO1
244 VULCAN 7
333 QUENSTWN
877 BASNTAP
BASSAN7
928 ENCH TAP
286 ENCHANT7
401 HAYS 7
821L
827L
814L
430 W BROOK4
276 W BROOK7
256 BROOKS 7
826 831A TAP
250 DUCHESS7
275 TILLEY 7
270 SUFFEL7
99 SUFFIEL8
3270
94104
99
4270 SUFFIEL9
284 BUTTE7
839 P2467_TAP
P2467
P2137 & P2465
2294 TOTHILL2
7294 TOTHILL5
6294 TOTHILL4
294 TOTHILL1
658L
600L
879L
879AL_TAP
875
60873 RATTLESNK_3
277 WESTFLD7
269 BURDETT7
31 FINCAST7
4031 FINCAST
3031 FINCAST11
274 VAUXHAL7
2400 HULL
834 CHIN_CHT
272 TABER 7
610L
612L
343 TABER6
TABERW6
TABERW7
828 PURSPRW4
291 CONRAD 7
2271 BULLS H7
320 CHAPPIC7
547009 66251
567004 66255
P2467 - Pteragen Peace Butte Wind
FIGURE B-3-5-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - EATL HVDC
SUN, NOV 03 2024 13:24
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-6-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - 924L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:25

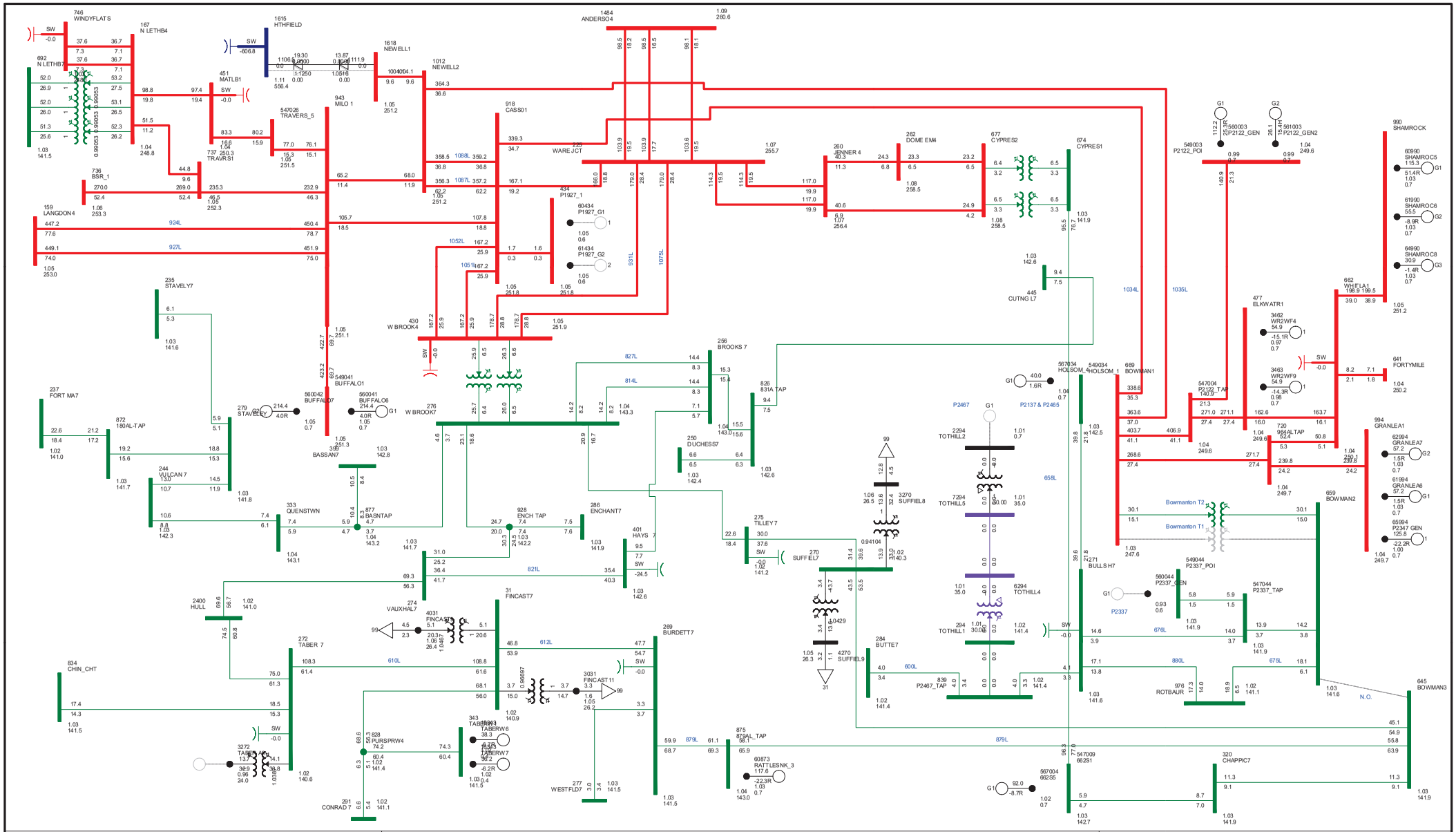
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-7-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - 927L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:25

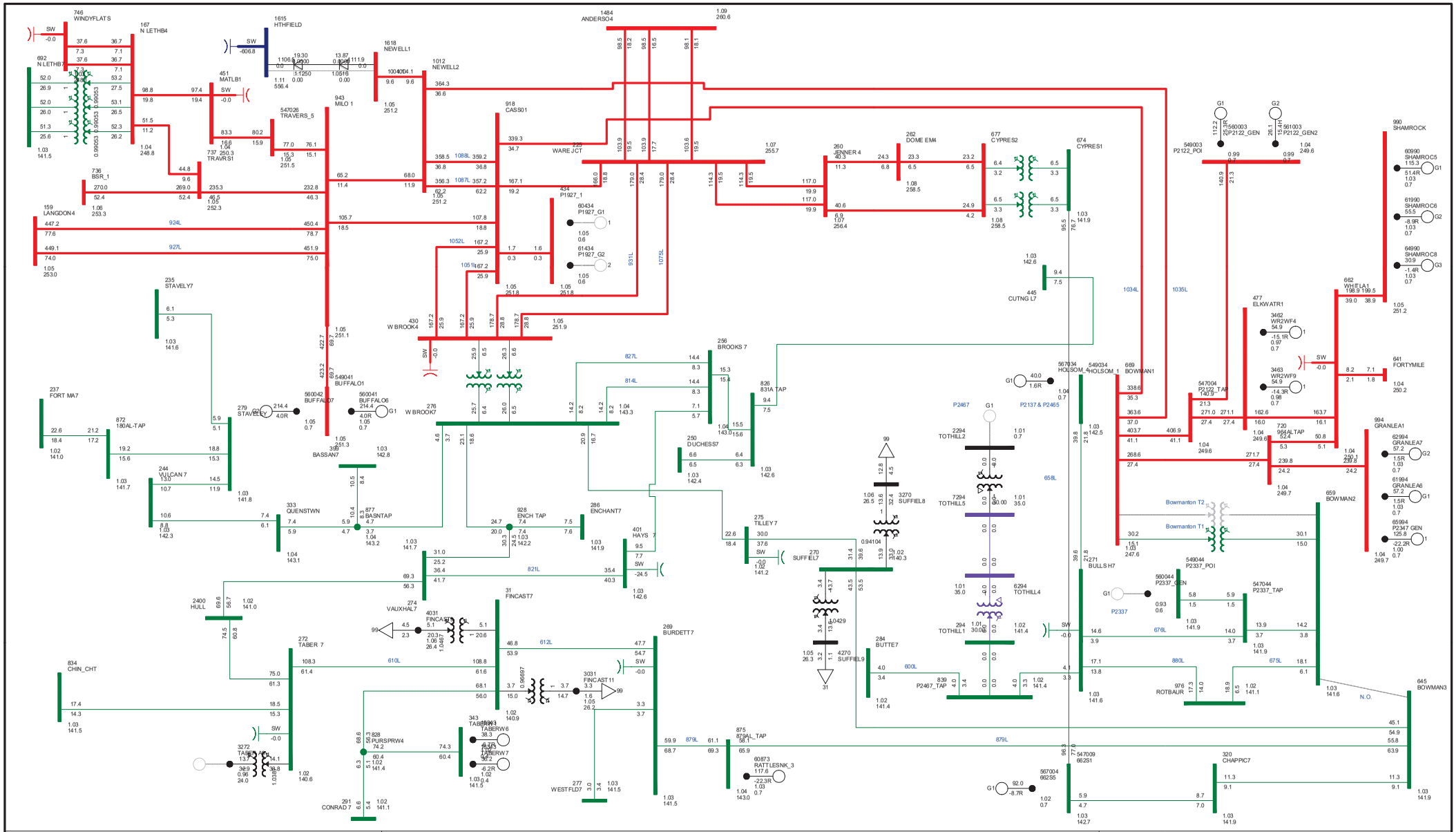
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-8-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T1
SUN, NOV 03 2024 13:26

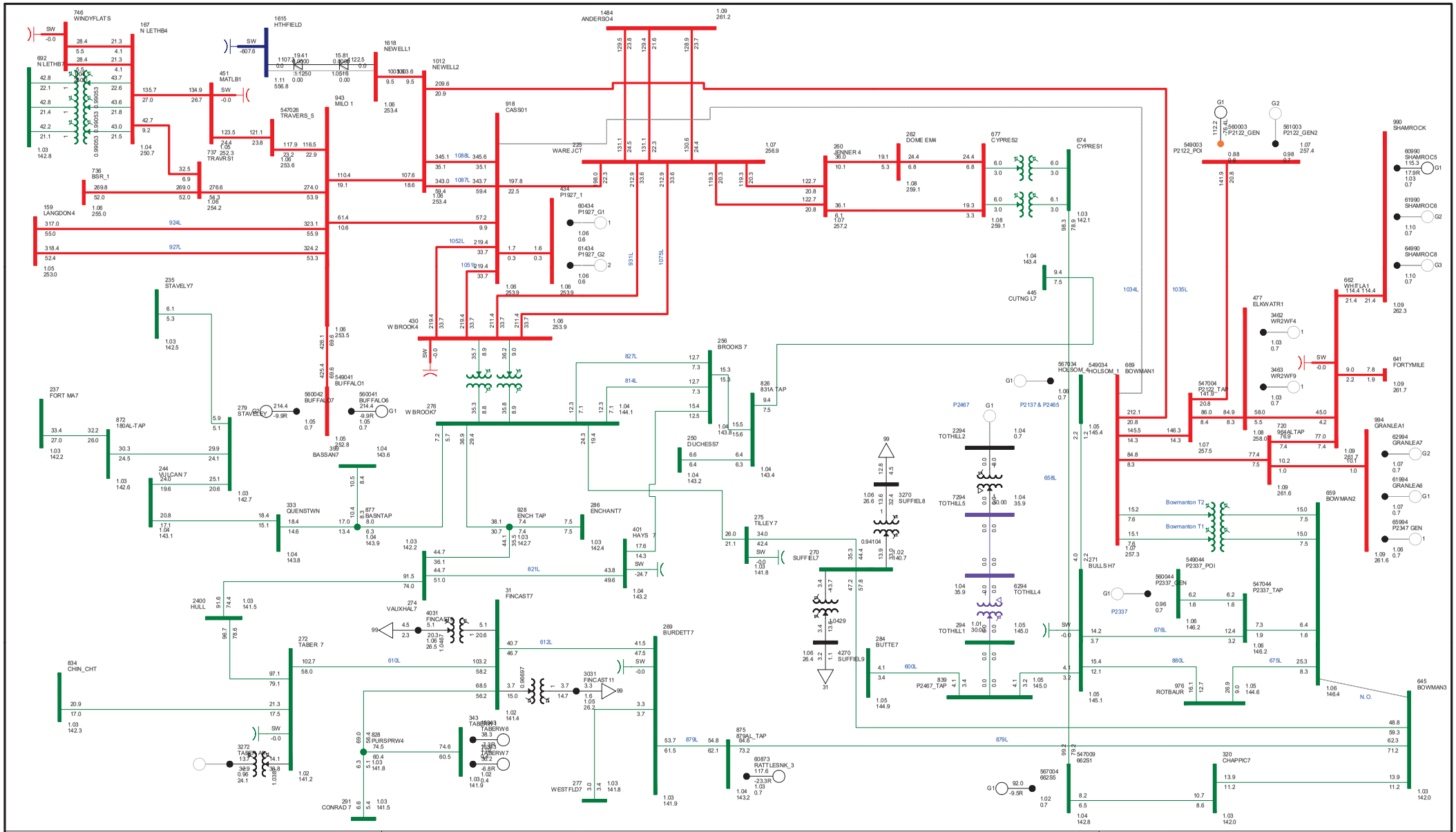
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

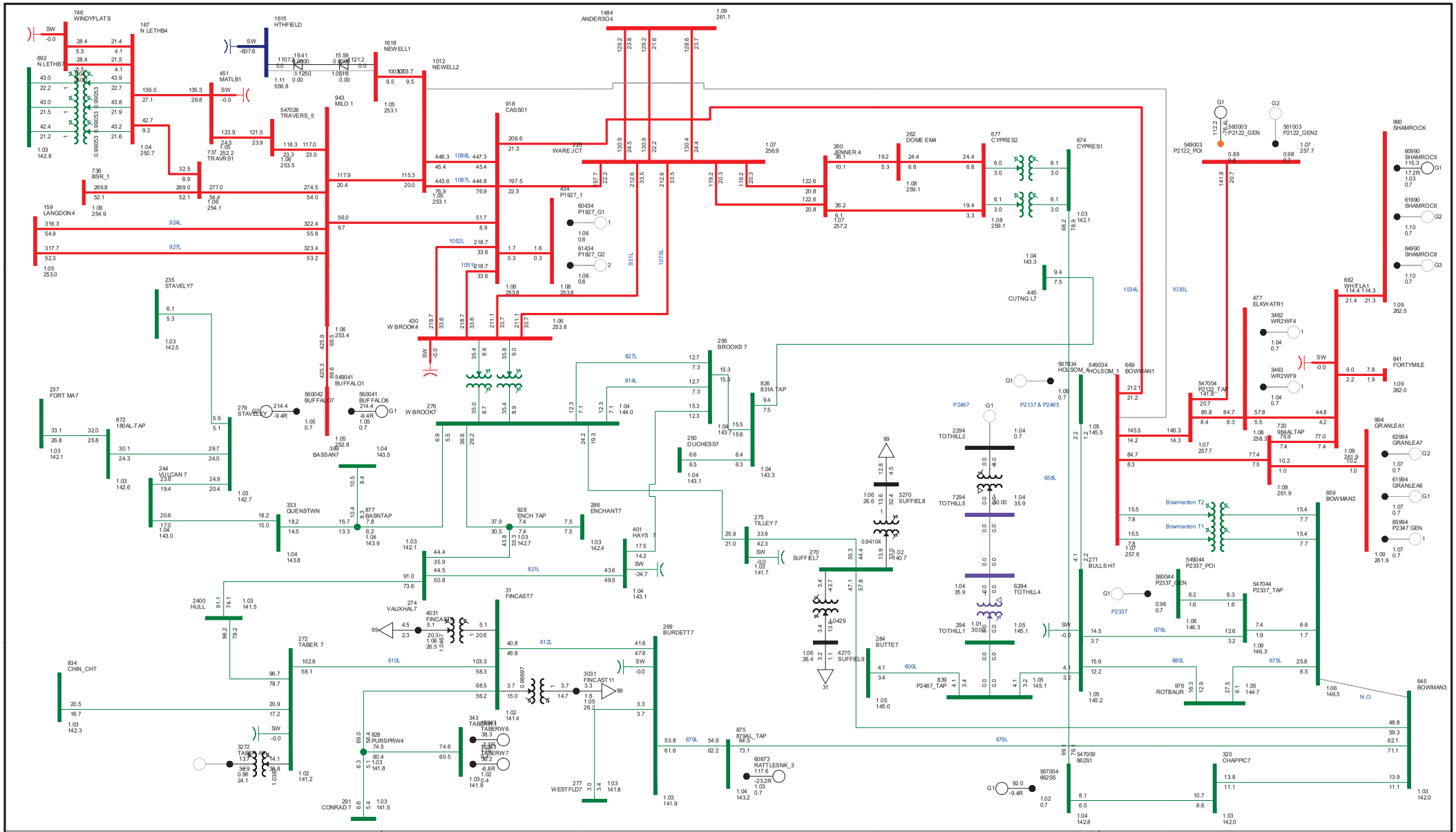


P2467 - Pteragen Peace Butte Wind

FIGURE B-3-9-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T2
SUN, NOV 03 2024 13:26

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

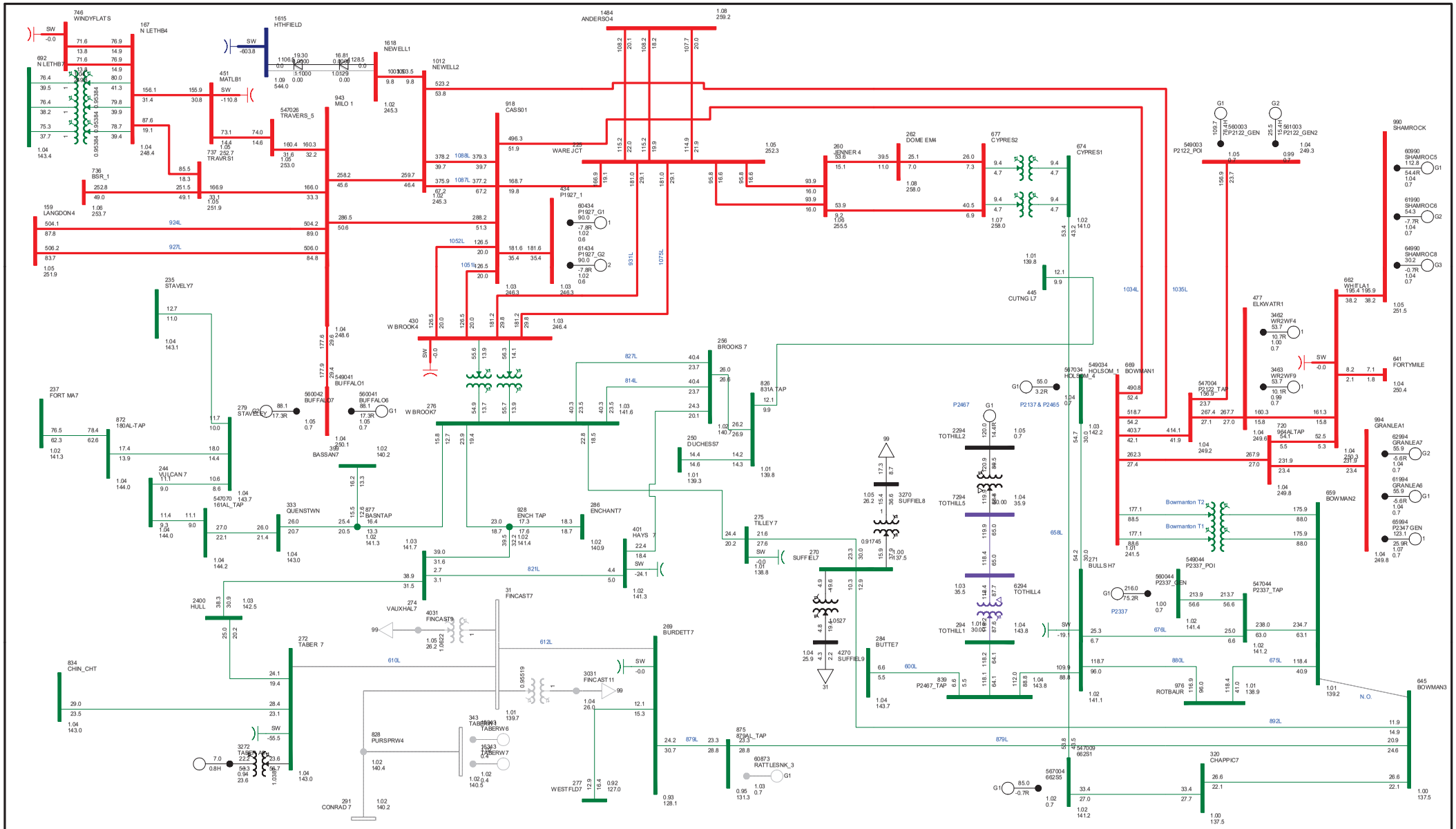

P2467 - Pteragen Peace Butte Wind
FIGURE B-3-10-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - 1034L (CASSILS 324S TO BOWMANTON 244S)
SUN, NOV 03 2024 13:28
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-3-11-PR: 2025-SCN3-SL-POST.SAV
CATEGORY B - 1035L (BOWMANTON 244S TO NEWELL A2075S)
SUN, NOV 03 2024 13:28

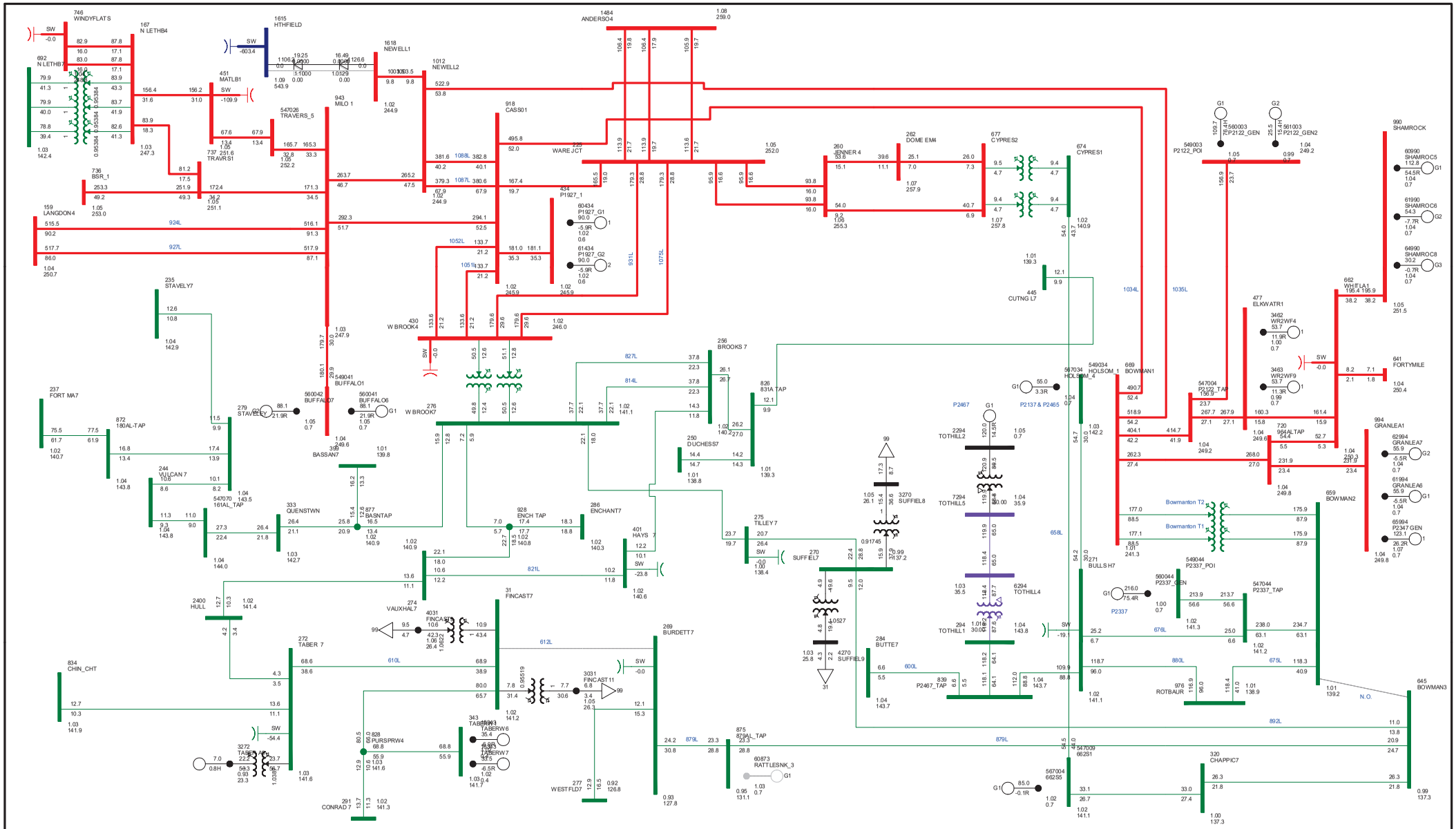
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-1-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - FINCASTLE 336ST1
SUN, NOV 03 2024 13:29

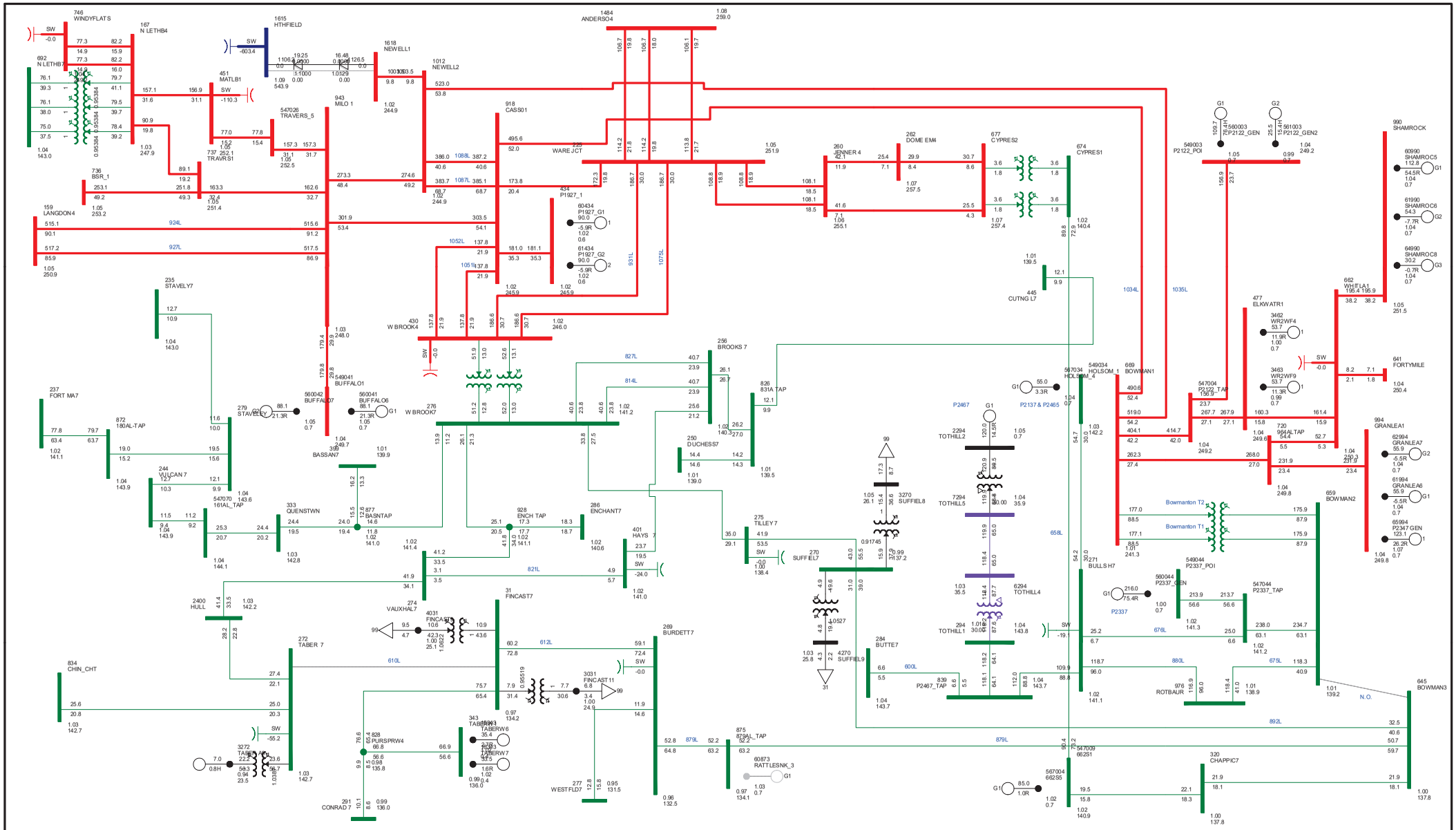
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-2-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 612L (FINCASTLE 336S TO BURDETT 368S)
SUN, NOV 03 2024 13:30

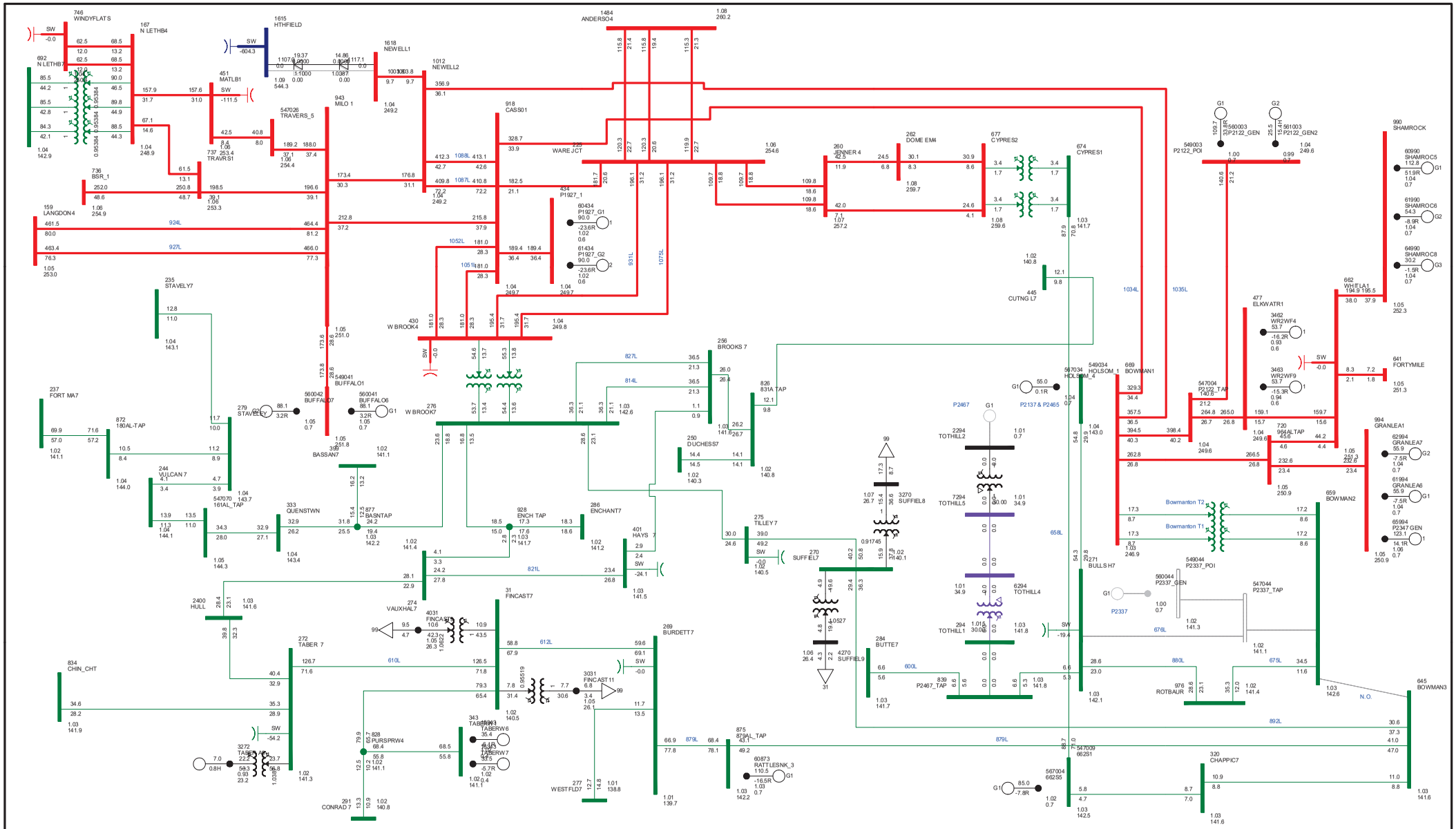
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-3-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 610L (FINCASTLE 336S TO TABER 83S)
SUN, NOV 03 2024 13:31

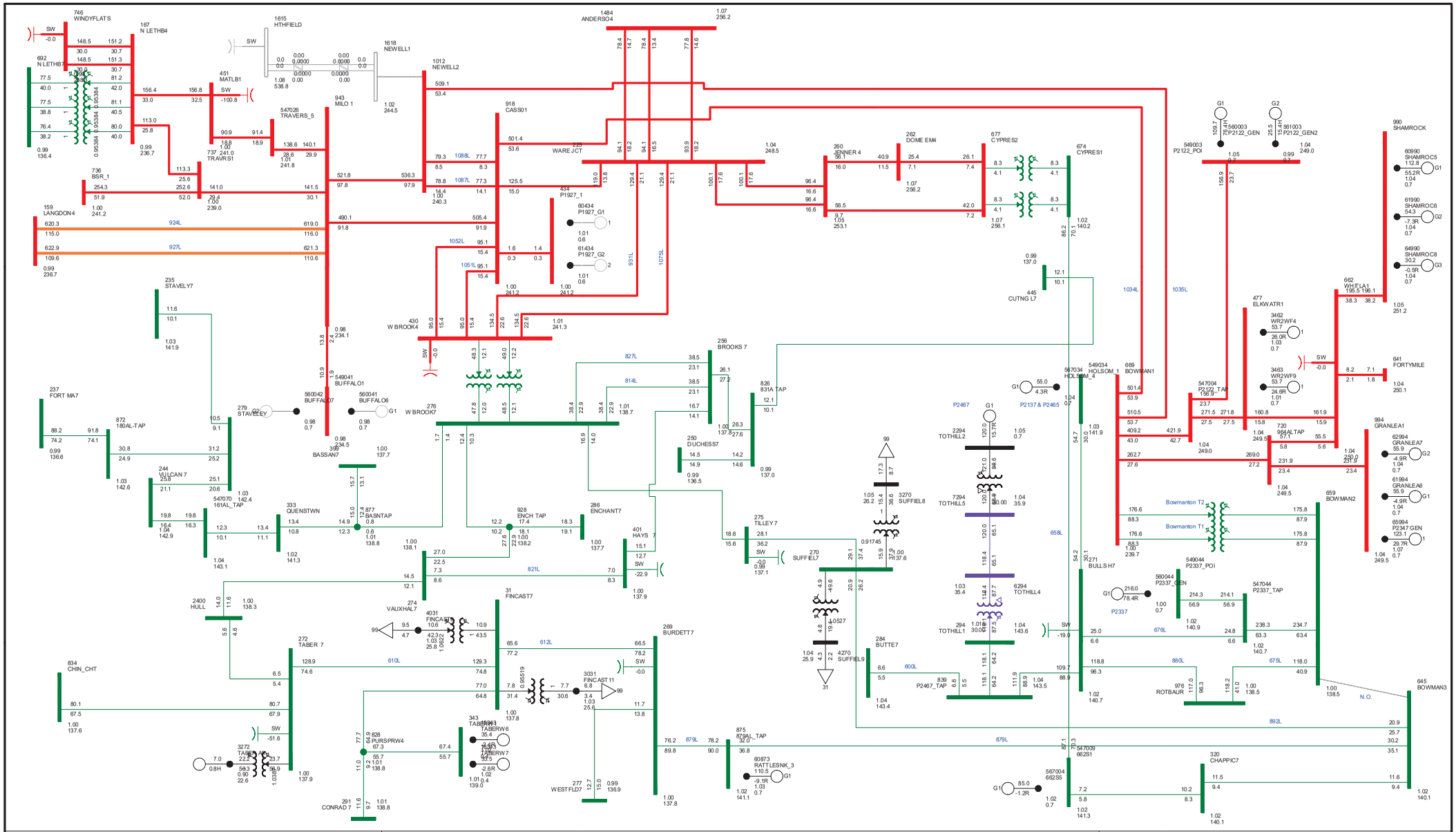
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-4-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 676L (BULLSHEAD 523S TO BOWMANTON 244S)
SUN, NOV 03 2024 13:32

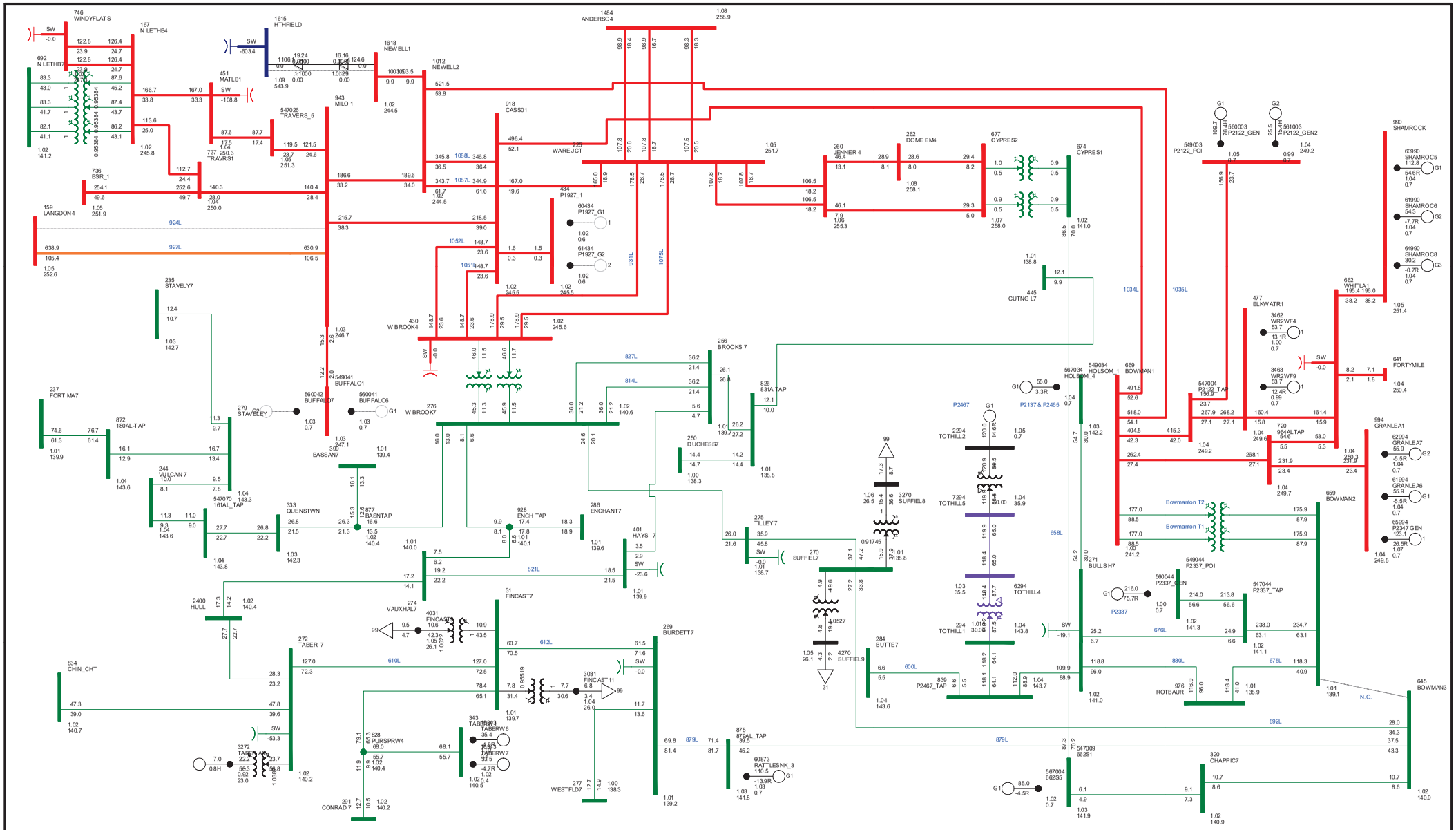
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-5-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - EATL HVDC
SUN, NOV 03 2024 13:32

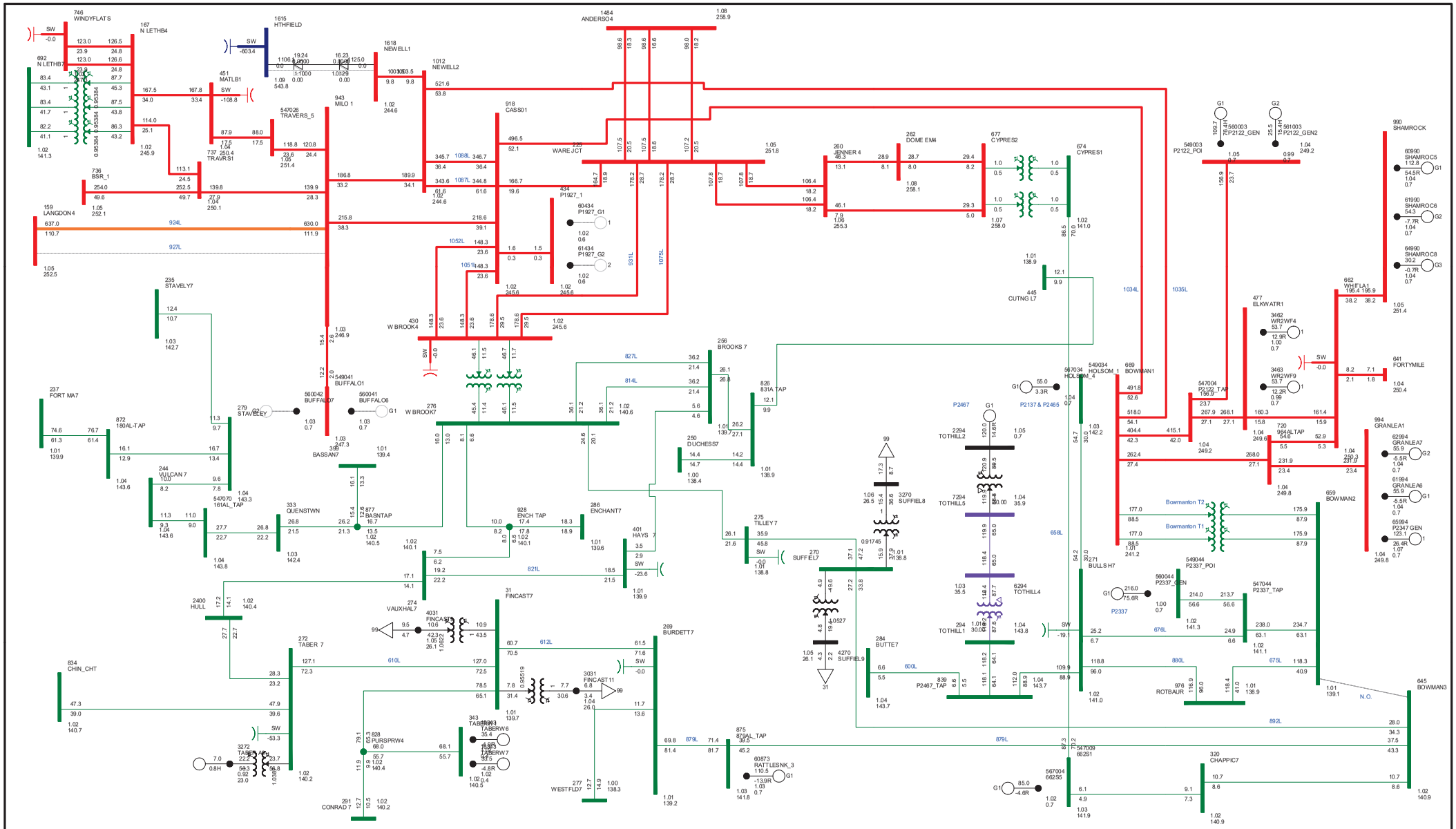
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-6-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 924L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:33

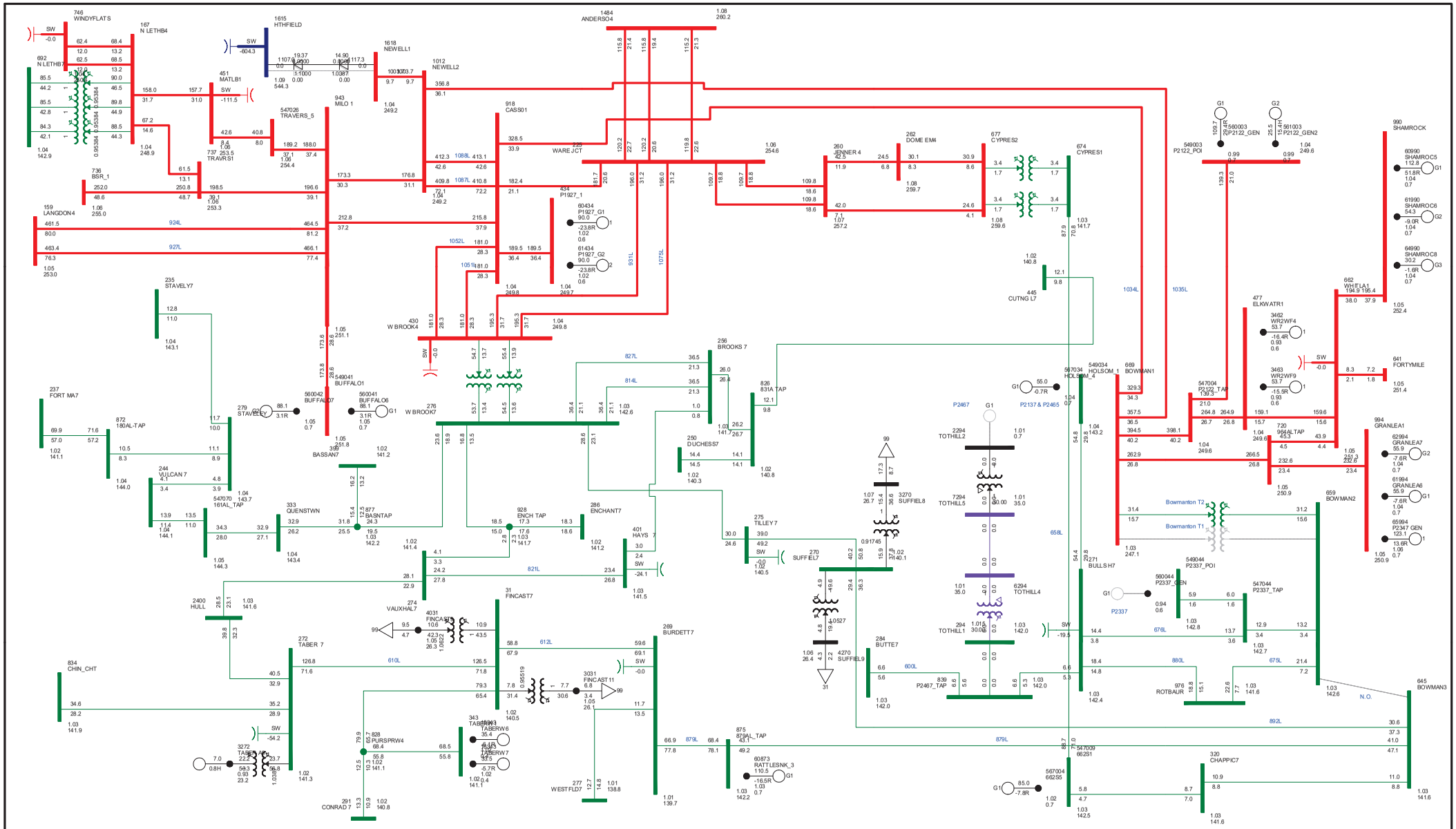
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

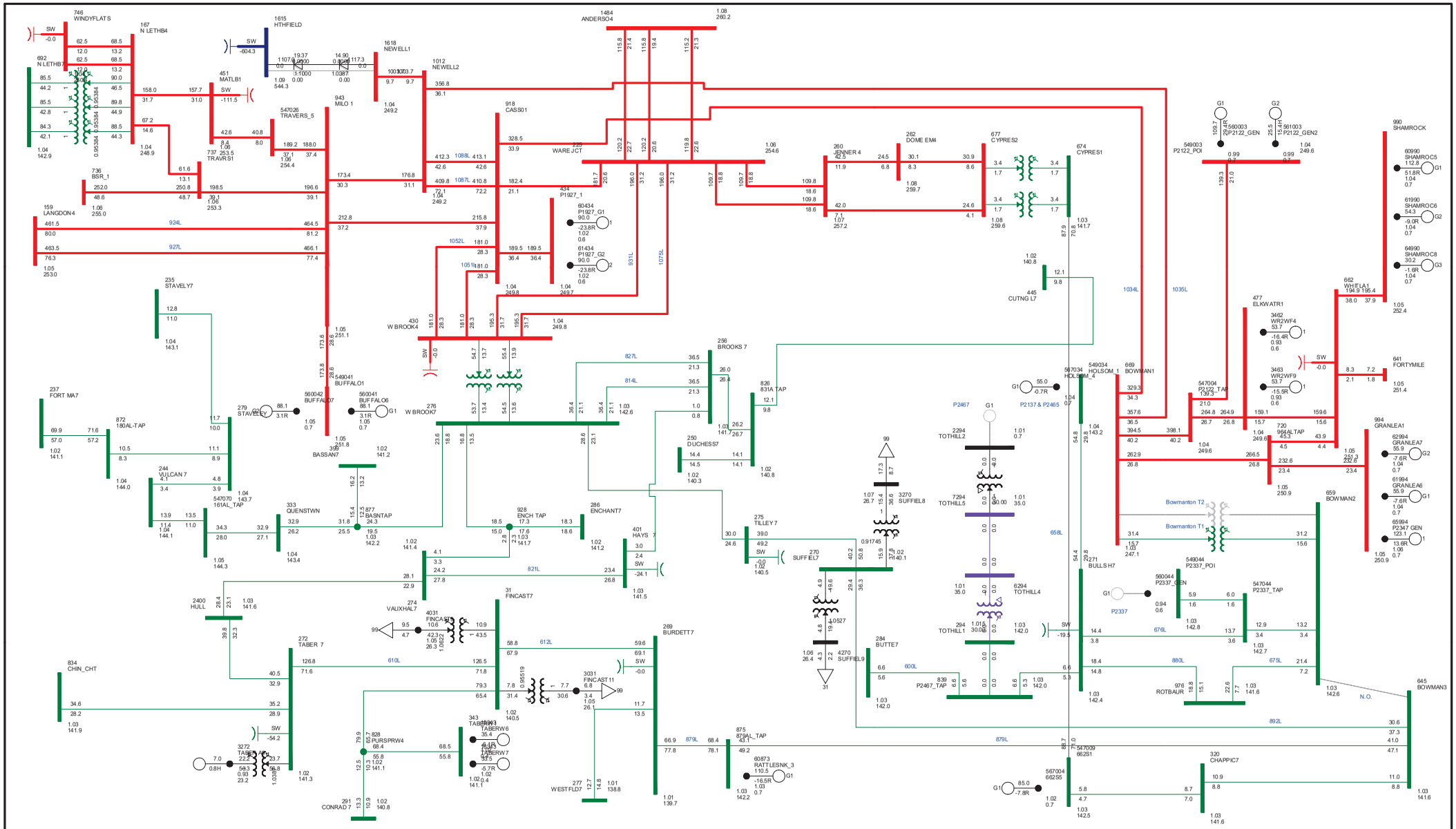


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-7-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 927L (LANGDON 102S TO MILO 356S)
SUN, NOV 03 2024 13:34

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

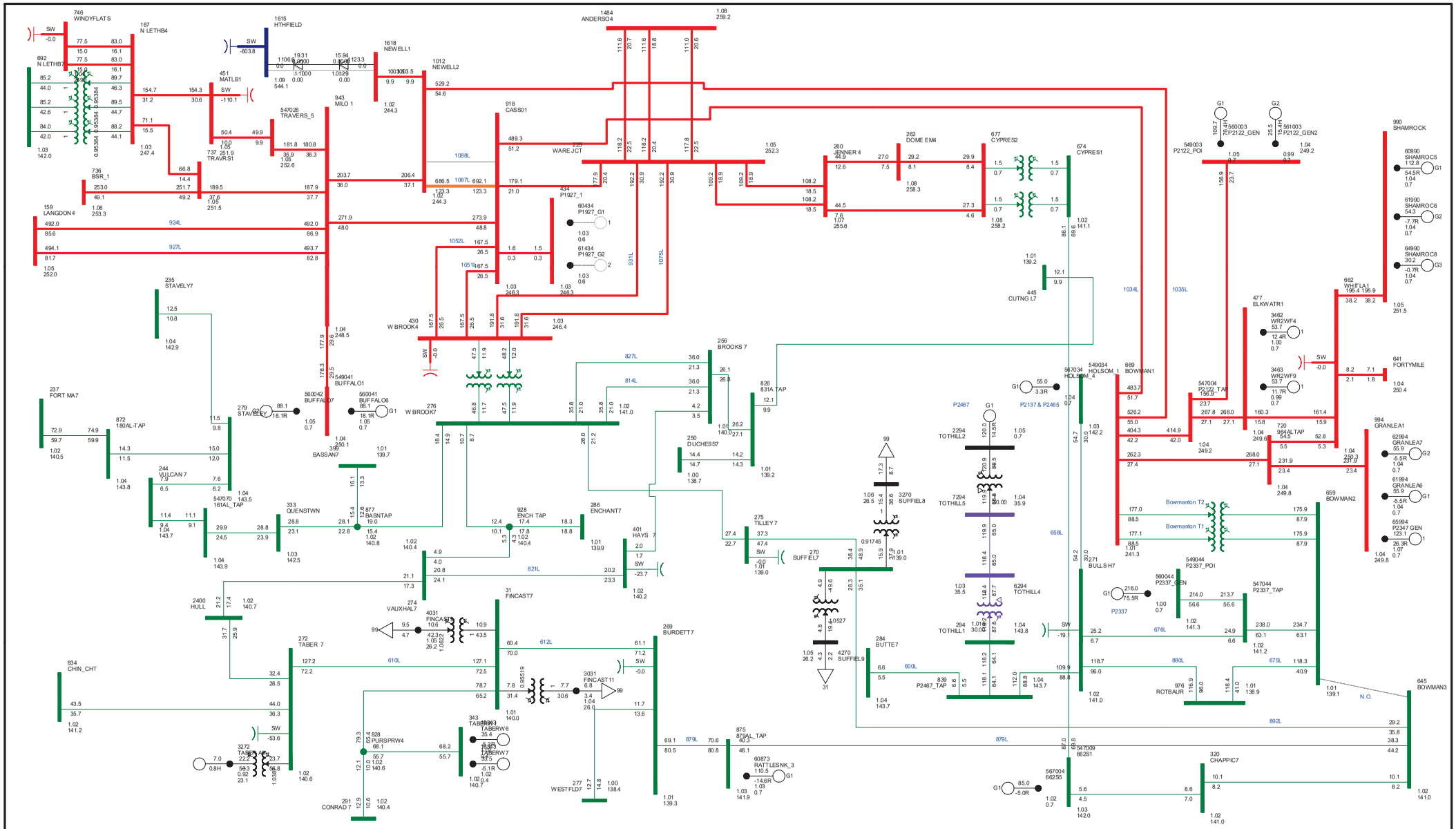

P2467 - Pteragen Peace Butte Wind
FIGURE B-4-8-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T1
SUN, NOV 03 2024 13:35
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2467 - Pteragen Peace Butte Wind

FIGURE B-4-9-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - BOWMANTON 240/138 KV TRANSFORMER T2
SUN, NOV 03 2024 13:35

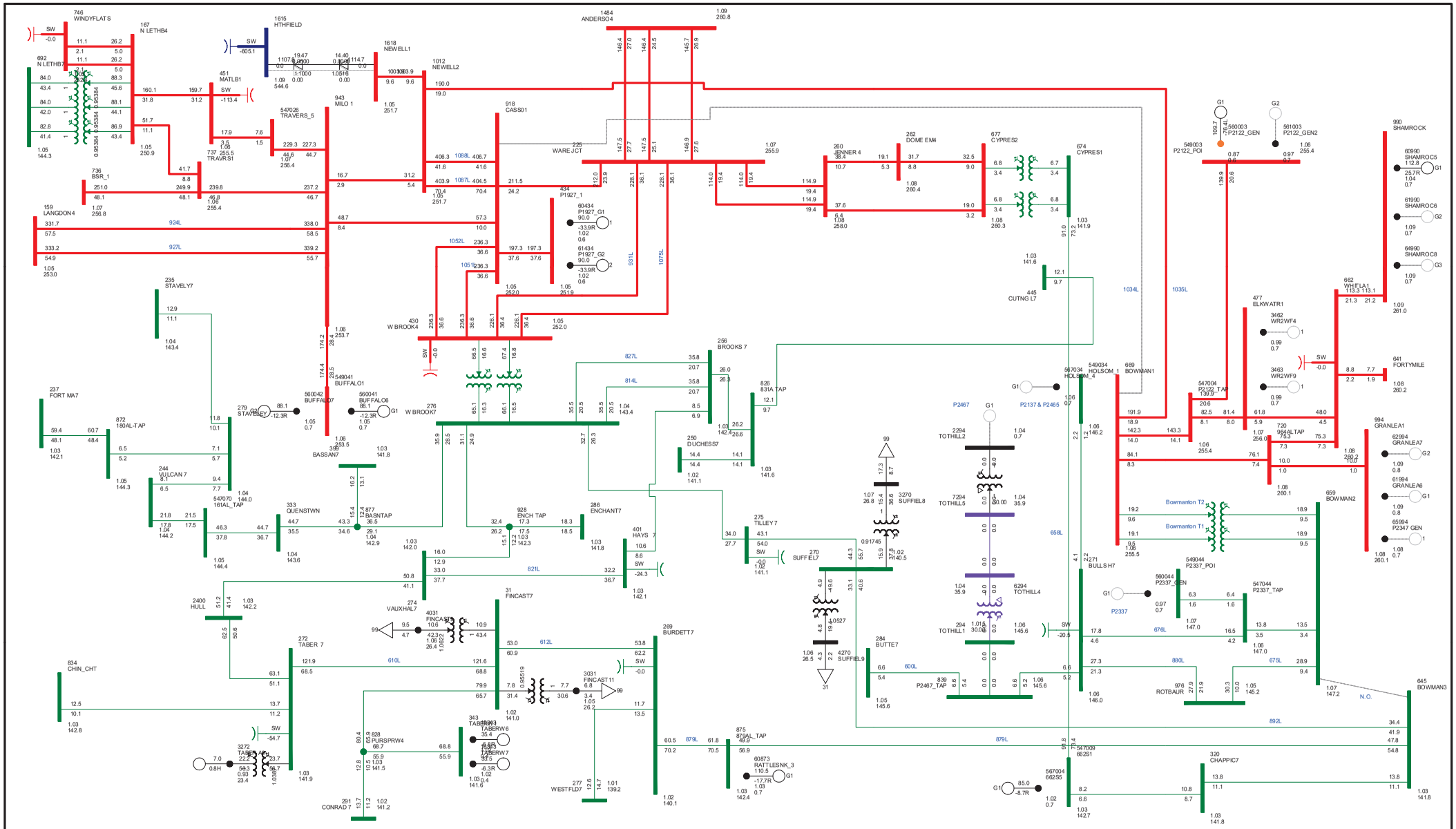
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

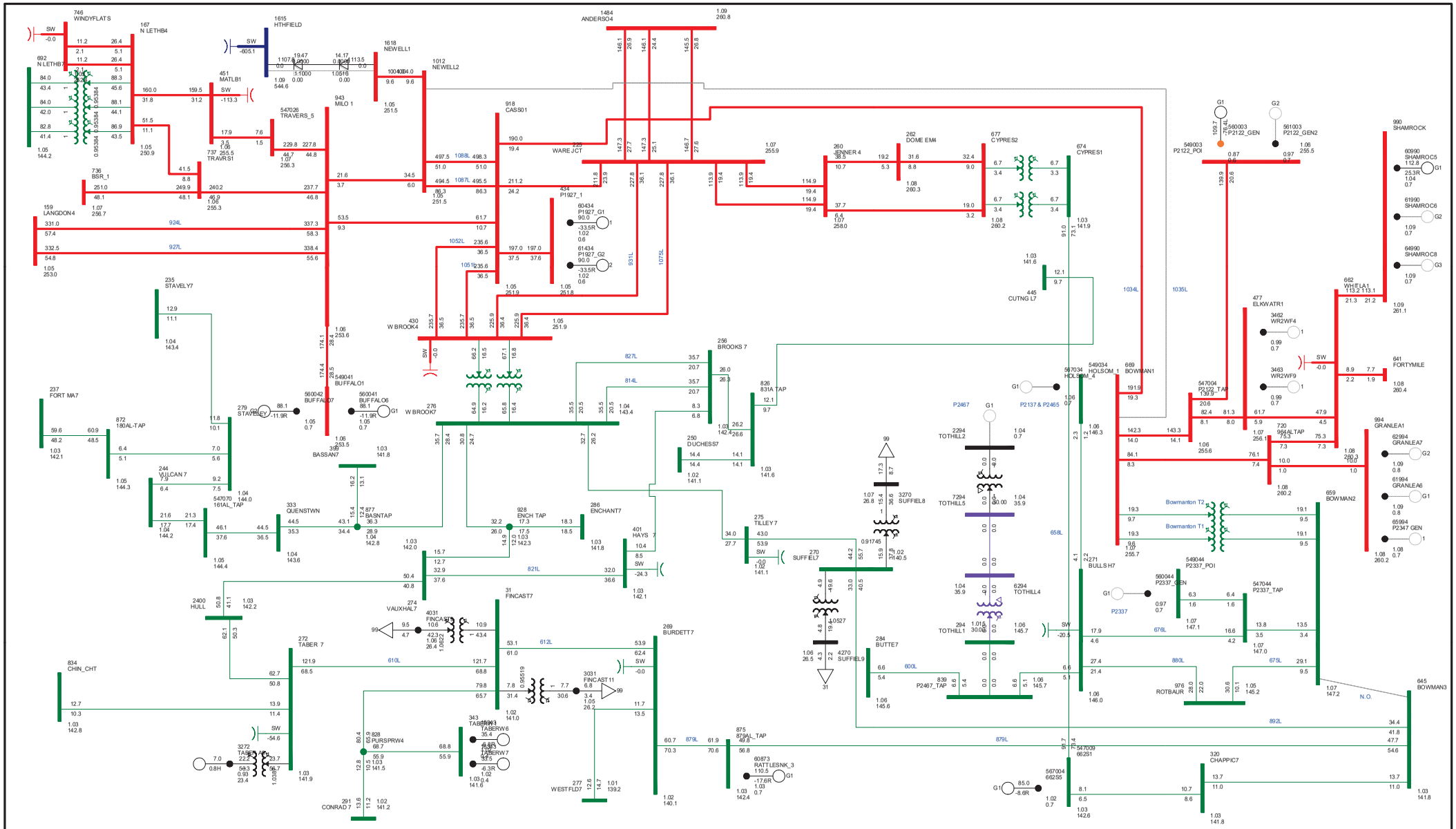


P2467 - Pteragen Peace Butte Wind

FIGURE B-4-10-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 1088L (CASSILS 324S TO NEWELL 2075S)
SUN, NOV 03 2024 13:36

Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


P2467 - Pteragen Peace Butte Wind
FIGURE B-4-11-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 1034L (CASSILS 324S TO BOWMANTON 244S)
SUN, NOV 03 2024 13:37
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000


P2467 - Pteragen Peace Butte Wind
FIGURE B-4-12-PR: 2025-SCN4-SP-POST.SAV
CATEGORY B - 1035L (BOWMANTON 244S TO NEWELL A2075S)
SUN, NOV 03 2024 13:38
Bus - Voltage (kV/pu)
Branch - MVA/% Rate A
Equipment - MW/Mvar
100.0%Rate A
1.146OV 0.899UV
kV: <=25.000 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

Attachment A7
Constraint Effective Factor

Table F-1: Scenario 1 and 2 – SL/SP pre-project GEF (N-1)

Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																	
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247	
			(Bus 560044 ID: G1)	(Bus 567034 ID: G1)	(Bus 560003 ID: G1)	(Bus 561003 ID: G2)	(Bus 3462 ID: 1)	(Bus 3463 ID: 1)	(Bus 60990 ID: G1)	(Bus 61990 ID: G2)	(Bus 64990 ID: G3)	(Bus 61994 ID: G1)	(Bus 62994 ID: G2)	(Bus 65994 ID: 1)	(Bus 60873 ID: G1)	(Bus 61736 ID: 1)	(Bus 61737 ID: 2)	(Bus 60434 ID: 1)	(Bus 61434 ID: 2)	(Bus 560041 ID: G1)	(Bus 560042 ID: G2)
Scenario 1 – 2025 SL HW Pre-Project	Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	EATL HVDC	924L (Milo 356s to Langdon 102s)	13.2%	13.6%	13.6%	13.9%	13.4%	13.6%	13.2%	13.1%	13.4%	13.3%	13.3%	13.4%	10.6%	16.6%	16.7%	17.3%	17.3%	21.9%	21.9%
		927L (Milo 356s to Langdon 102s)	13.2%	13.6%	13.6%	13.9%	13.4%	13.6%	13.2%	13.1%	13.4%	13.3%	13.3%	13.4%	10.5%	16.6%	16.7%	17.2%	17.2%	21.8%	21.8%
	612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	610L (Fincastle 336s to Taber 83s)	892L (Bowmanton 244s to Suffield 895s)	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	24.1%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
		879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		658L (Cypress 562s to 662s Tap)	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	41.9%	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%
	924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	25.3%	25.9%	25.8%	26.4%	25.5%	25.9%	25.3%	25.1%	25.6%	25.3%	25.3%	25.5%	19.6%	28.3%	28.1%	30.7%	30.7%	35.5%	35.5%
	927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	25.2%	25.9%	25.8%	26.4%	25.5%	25.9%	25.3%	25.1%	25.6%	25.3%	25.3%	25.5%	19.6%	28.3%	28.1%	30.7%	30.7%	35.5%	35.5%
	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	94.9%	96.6%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	94.9%	96.6%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	1034L (Cassils 324s to Bowmanton 244s)	1035L (Bowmanton 244s to Newell A2075s)	84.4%	87.0%	86.3%	88.2%	86.0%	86.9%	84.7%	84.2%	85.5%	84.9%	84.9%	85.6%	-0.2%	-0.1%	-0.1%	0.1%	0.1%	-0.1%	-0.1%
	1035L (Bowmanton 244s to Newell A2075s)	1034L (Cassils 324s to Bowmanton 244s)	83.1%	85.8%	85.1%	87.0%	84.8%	85.7%	83.4%	83.0%	84.2%	83.7%	83.7%	84.4%	-0.3%	-0.1%	-0.1%	0.1%	0.1%	-0.1%	-0.1%

Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																		
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247	
			(Bus 560044 ID: G1)	**(Bus 567034 ID: G1)**	**(Bus 560003 ID: G1)**	**(Bus 561003 ID: G2)**	**(Bus 3462 ID: 1)**	**(Bus 3463 ID: 1)**	**(Bus 60990 ID: G1)**	**(Bus 61990 ID: G2)**	**(Bus 64990 ID: G3)**	**(Bus 61994 ID: G1)**	**(Bus 62994 ID: G2)**	**(Bus 65994 ID: 1)**	**(Bus 60873 ID: G1)**	**(Bus 61736 ID: 1)**	**(Bus 61737 ID: 2)**	**(Bus 60434 ID: 1)**	**(Bus 61434 ID: 2)**	**(Bus 560041 ID: G1)**	**(Bus 560042 ID: G2)**
		1087L (Cassils 324s to Newell A2075s)	-0.3%	0.6%	0.3%	0.8%	0.4%	0.5%	0.2%	0.1%	0.3%	0.2%	0.2%	0.5%	5.1%	-5.4%	-5.4%	14.7%	14.7%	-6.7%	-6.7%
	1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	-16.9%	-17.2%	-17.1%	-17.3%	-17.0%	-17.1%	-16.9%	-16.9%	-17.0%	-16.9%	-16.9%	-17.0%	10.9%	-10.2%	-10.2%	27.6%	27.6%	-12.7%	-12.7%
Scenario 2 – 2025 SP HW Pre-Project	Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	EATL HVDC	924L (Milo 356s to Langdon 102s)	12.5%	12.8%	12.9%	13.2%	12.8%	13.0%	12.6%	12.5%	12.7%	12.6%	12.6%	12.7%	10.5%	16.4%	16.3%	15.9%	15.9%	22.4%	22.4%
		927L (Milo 356s to Langdon 102s)	12.4%	12.7%	12.9%	13.2%	12.7%	12.9%	12.6%	12.5%	12.7%	12.6%	12.6%	12.7%	10.4%	16.4%	16.3%	15.8%	15.8%	22.3%	22.3%
	612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	610L (Fincastle 336s to Taber 83s)	100L (Tilley 498S to Suffield 895S)	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	21.7%	-0.5%	-0.5%	-0.5%	-0.5%	-0.4%	-0.4%
		879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	96.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		658L (Cypress 562s to 662s Tap)	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	41.7%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
	924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	24.0%	24.5%	24.8%	25.2%	24.4%	24.7%	24.2%	24.0%	24.4%	24.2%	24.2%	24.4%	19.2%	27.7%	27.5%	28.6%	28.6%	35.5%	35.5%
	927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	24.1%	24.5%	24.8%	25.2%	24.4%	24.8%	24.2%	24.1%	24.5%	24.3%	24.3%	24.4%	19.2%	27.7%	27.6%	28.6%	28.6%	35.5%	35.5%
	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	94.7%	95.9%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	94.7%	95.9%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	1034L (Cassils 324s to Bowmanton 244s)	1035L (Bowmanton 244s to Newell A2075s)	89.9%	91.3%	91.5%	93.2%	91.2%	92.0%	89.9%	89.4%	90.7%	90.1%	90.1%	90.8%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%

Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																		
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247	
			(Bus 560044 ID: G1)	(Bus 567034 ID: G1)	(Bus 560003 ID: G1)	(Bus 561003 ID: G2)	(Bus 3462 ID: 1)	(Bus 3463 ID: 1)	(Bus 60990 ID: G1)	(Bus 61990 ID: G2)	(Bus 64990 ID: G3)	(Bus 61994 ID: G1)	(Bus 62994 ID: G2)	(Bus 65994 ID: 1)	(Bus 60873 ID: G1)	(Bus 61736 ID: 1)	(Bus 61737 ID: 2)	(Bus 60434 ID: 1)	(Bus 61434 ID: 2)	(Bus 560041 ID: G1)	(Bus 560042 ID: G2)
	1035L (Bowmanton 244s to Newell A2075s)	1034L (Cassils 324s to Bowmanton 244s)	89.6%	91.0%	91.2%	92.9%	90.8%	91.7%	89.6%	89.1%	90.4%	89.8%	89.8%	90.5%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%
		1087L (Cassils 324s to Newell A2075s)	5.3%	5.6%	5.5%	5.9%	5.5%	5.6%	5.3%	5.3%	5.4%	5.3%	5.3%	5.5%	5.5%	-5.6%	-5.6%	14.1%	14.1%	-7.0%	-7.0%
	1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	-17.4%	-17.6%	-17.7%	-17.8%	-17.5%	-17.7%	-17.5%	-17.4%	-17.6%	-17.5%	-17.5%	-17.5%	11.0%	-10.7%	-10.7%	26.8%	26.8%	-13.3%	-13.3%

Table F-2: Scenario 3 – SL/SP post-project GEF (N-0)

Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																			
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247		P2467
			(Bus 560044 ID: G1)	(Bus 567034 ID: G1)	(Bus 560003 ID: G1)	(Bus 561003 ID: G2)	(Bus 3462 ID: 1)	(Bus 3463 ID: 1)	(Bus 60990 ID: G1)	(Bus 61990 ID: G2)	(Bus 64990 ID: G3)	(Bus 61994 ID: G1)	(Bus 62994 ID: G2)	(Bus 65994 ID: 1)	(Bus 60873 ID: G1)	(Bus 61736 ID: 1)	(Bus 61737 ID: 2)	(Bus 60434 ID: 1)	(Bus 61434 ID: 2)	(Bus 560041 ID: G1)	(Bus 560042 ID: G2)	(Bus 2294 ID: G1
Scenario 3 – 2025 SL HW Post-Project	N-0	Bowmanton 240/138 kV transformer T1	46.7%	43.7%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.6%
		Bowmanton 240/138 kV transformer T2	46.7%	43.7%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.6%
		880L (Al Rothbauer 321s to Bullshead 523s)	19.7%	48.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%
Scenario 4 – 2025 SP HW Post-Project	N-0	880L (Al Rothbauer 321s to Bullshead 523s)	19.7%	48.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.2%
		Bowmanton 240/138 kV transformer T1	46.6%	43.7%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.7%
		Bowmanton 240/138 kV transformer T2	46.6%	43.7%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	43.7%

Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																			
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247		P2467
			(Bus 560044 ID: G1)	(Bus 567034 ID: G1)	(Bus 560003 ID: G1)	(Bus 561003 ID: G2)	(Bus 3462 ID: 1)	(Bus 3463 ID: 1)	(Bus 60990 ID: G1)	(Bus 61990 ID: G2)	(Bus 64990 ID: G3)	(Bus 61994 ID: G1)	(Bus 62994 ID: G2)	(Bus 65994 ID: 1)	(Bus 60873 ID: G1)	(Bus 61736 ID: 1)	(Bus 61737 ID: 2)	(Bus 60434 ID: 1)	(Bus 61434 ID: 2)	(Bus 560041 ID: G1)	(Bus 560042 ID: G2)	(Bus 2294 ID: G1
		924L (Milo 356s to Langdon 102s)	15.3%	14.0%	16.4%	16.7%	16.3%	16.5%	16.1%	16.0%	16.3%	16.1%	16.1%	16.3%	13.1%	19.1%	19.0%	19.5%	19.5%	24.1%	24.1%	14.1%
		927L (Milo 356s to Langdon 102s)	15.4%	14.1%	16.5%	16.8%	16.3%	16.5%	16.1%	16.0%	16.3%	16.2%	16.2%	16.3%	13.1%	19.1%	19.0%	19.6%	19.6%	24.1%	24.1%	14.1%

Table F-3: Scenario 3 and 4 – SL/SP post-project GEF (N-1)

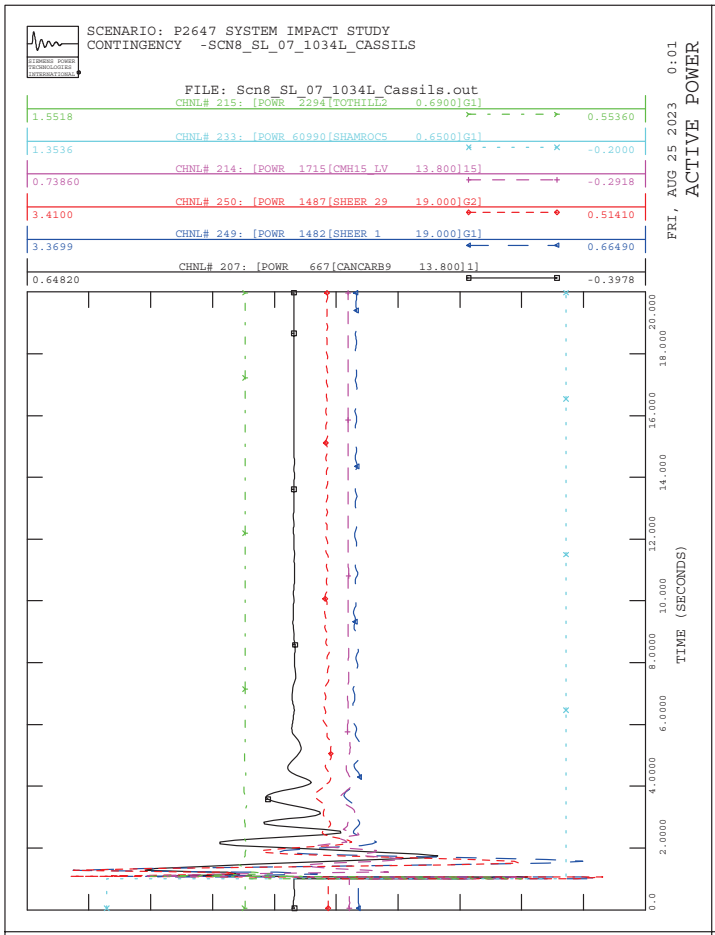
Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																			
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247		P2467
			(Bus 560044 ID: G1)	(Bus 567034 ID: G1)	(Bus 560003 ID: G1)	(Bus 561003 ID: G2)	(Bus 3462 ID: 1)	(Bus 3463 ID: 1)	(Bus 60990 ID: G1)	(Bus 61990 ID: G2)	(Bus 64990 ID: G3)	(Bus 61994 ID: G1)	(Bus 62994 ID: G2)	(Bus 65994 ID: 1)	(Bus 60873 ID: G1)	(Bus 61736 ID: 1)	(Bus 61737 ID: 2)	(Bus 60434 ID: 1)	(Bus 61434 ID: 2)	(Bus 560041 ID: G1)	(Bus 560042 ID: G2)	(Bus 2294 ID: G1
Scenario 3 – 2025 SL HW Post-Project	Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	676L (Bullshead 523s to Bowmanton 244s)	880L (Alrothbauer 321s to Bullshead 523s)	0.0%	98.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	92.1%
	EATL	924L (Milo 356s to Langdon 102s)	10.5%	10.9%	11.5%	11.8%	11.4%	11.5%	11.1%	11.0%	11.2%	11.1%	11.1%	11.2%	9.5%	15.4%	15.3%	16.2%	16.2%	21.0%	21.0%	9.7%
		927L (Milo 356s to Langdon 102s)	10.5%	10.9%	11.4%	11.7%	11.3%	11.5%	11.1%	11.0%	11.2%	11.1%	11.1%	11.2%	9.5%	15.3%	15.2%	16.1%	16.1%	20.9%	20.9%	9.7%
	612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	610L (Fincastle 336s to Taber 83s)	892L (Bowmanton 244s to Suffield 895s)	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	24.0%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%
		879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		658L (Cypress 562s to 662s Tap)	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	41.9%	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%

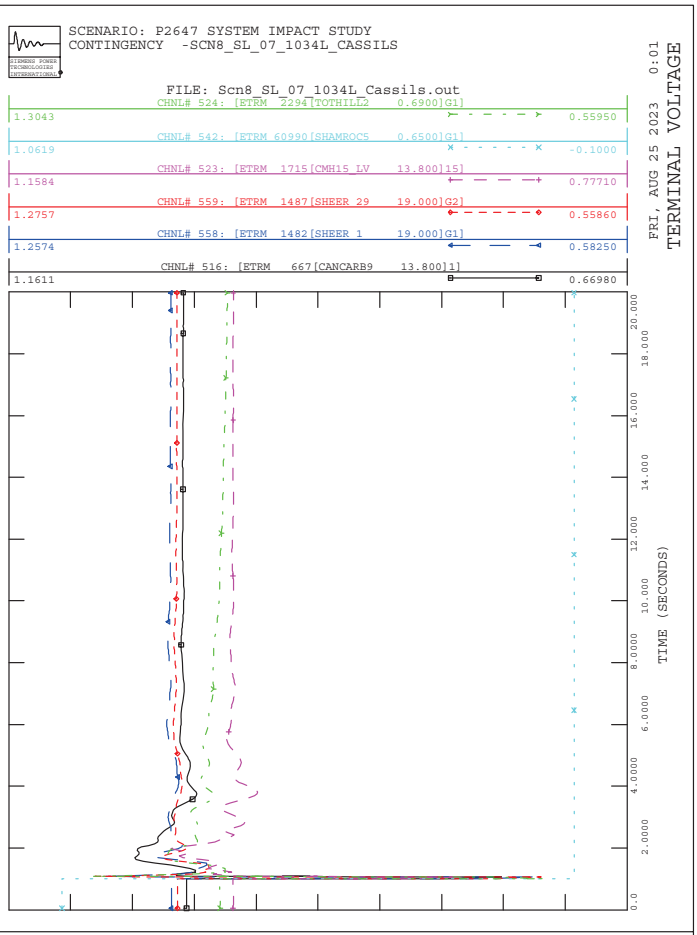
Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																			
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247		P2467
			(Bus 560044 ID: G1)	(Bus 567034 ID: G1)	(Bus 560003 ID: G1)	(Bus 561003 ID: G2)	(Bus 3462 ID: 1)	(Bus 3463 ID: 1)	(Bus 60990 ID: G1)	(Bus 61990 ID: G2)	(Bus 64990 ID: G3)	(Bus 61994 ID: G1)	(Bus 62994 ID: G2)	(Bus 65994 ID: 1)	(Bus 60873 ID: G1)	(Bus 61736 ID: 1)	(Bus 61737 ID: 2)	(Bus 60434 ID: 1)	(Bus 61434 ID: 2)	(Bus 560041 ID: G1)	(Bus 560042 ID: G2)	(Bus 2294 ID: G1
	924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	23.9%	24.3%	25.1%	25.6%	24.8%	25.2%	24.5%	24.3%	24.7%	24.5%	24.5%	24.7%	19.7%	28.4%	28.2%	30.5%	30.5%	35.5%	35.5%	22.3%
	927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	23.9%	24.3%	25.0%	25.6%	24.8%	25.1%	24.4%	24.3%	24.7%	24.5%	24.5%	24.7%	19.7%	28.4%	28.2%	30.6%	30.6%	35.5%	35.5%	22.2%
	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	93.8%	94.6%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.6%
	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	93.8%	94.6%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.6%
	1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	-17.1%	-17.2%	-17.4%	-17.6%	-17.3%	-17.4%	-17.2%	-17.1%	-17.3%	-17.2%	-17.2%	-17.2%	10.7%	-10.4%	-10.4%	27.3%	27.3%	-13.0%	-13.0%	-16.4%
	MH-65L (Cancarb Limited Co-gen Station to MHS-7 Substation)	880L (Alrothbauer 321s to Bullshead 523s)	19.7%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.2%
	Cancarb Limited Co-gen Station Transformer T1	880L (Alrothbauer 321s to Bullshead 523s)	19.7%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.2%
	MH69s-1 Power Plant Transformer 12	880L (Alrothbauer 321s to Bullshead 523s)	19.7%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%
	MH69s-1 Power Plant Transformer T5	880L (Alrothbauer 321s to Bullshead 523s)	19.7%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.2%
	MH69s-1 Power Plant Transformer T1	880L (Alrothbauer 321s to Bullshead 523s)	19.7%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%
	MH69s-1 Power Plant Transformer 3B	880L (Alrothbauer 321s to Bullshead 523s)	19.7%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%
	MH69s-1 Power Plant Transformer 14	880L (Alrothbauer 321s to Bullshead 523s)	19.6%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%
	MH69s-1 Power Plant Transformer 15	880L (Alrothbauer 321s to Bullshead 523s)	19.6%	52.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.1%

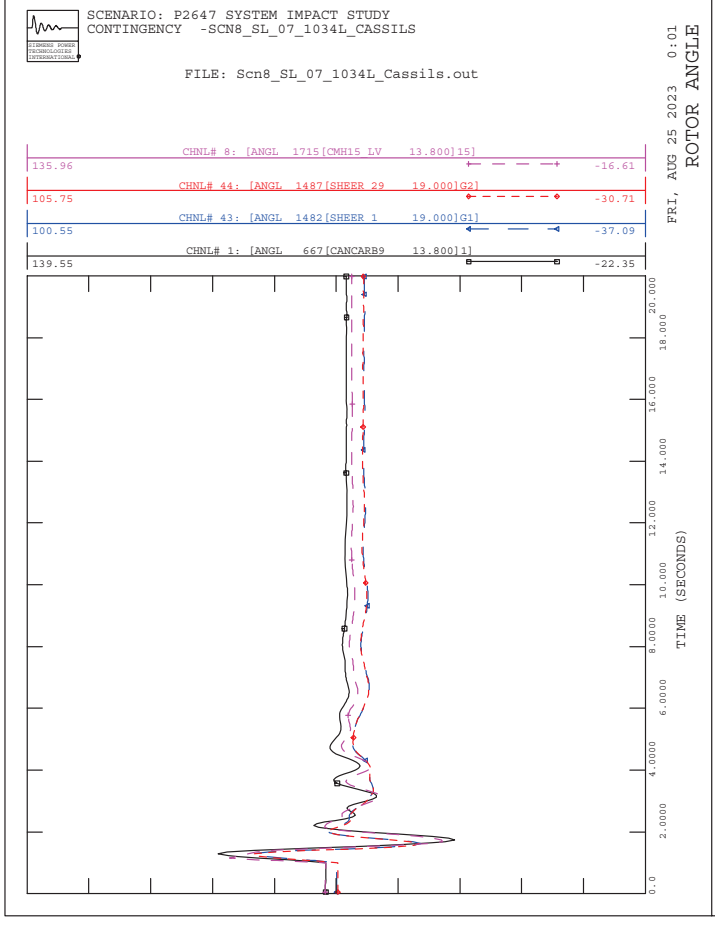
Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																			
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247		P2467
			(Bus 560044 ID: G1)	(Bus 567034 ID: G1)	(Bus 560003 ID: G1)	(Bus 561003 ID: G2)	(Bus 3462 ID: 1)	(Bus 3463 ID: 1)	(Bus 60990 ID: G1)	(Bus 61990 ID: G2)	(Bus 64990 ID: G3)	(Bus 61994 ID: G1)	(Bus 62994 ID: G2)	(Bus 65994 ID: 1)	(Bus 60873 ID: G1)	(Bus 61736 ID: 1)	(Bus 61737 ID: 2)	(Bus 60434 ID: 1)	(Bus 61434 ID: 2)	(Bus 560041 ID: G1)	(Bus 560042 ID: G2)	(Bus 2294 ID: G1
Scenario 4 – 2025 SP HW Post-Project	Fincastle 336sT1	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	676L (Bullshead 523s to Bowmanton 244s)	880L (Alrothbauer 321s to Bullshead 523s)	0.0%	97.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	92.2%
	EATL	924L (Milo 356s to Langdon 102s)	10.7%	10.8%	11.4%	11.7%	11.3%	11.5%	11.1%	11.0%	11.2%	11.1%	11.1%	11.3%	9.8%	15.9%	15.8%	15.1%	15.1%	21.8%	21.8%	9.9%
		927L (Milo 356s to Langdon 102s)	10.7%	10.7%	11.4%	11.7%	11.3%	11.4%	11.0%	10.9%	11.2%	11.1%	11.1%	11.2%	9.8%	15.8%	15.7%	15.0%	15.0%	21.7%	21.7%	9.8%
		923L (Newell A2075s to Milo 356s)	19.4%	19.5%	20.4%	20.8%	20.2%	20.4%	19.8%	19.7%	20.1%	19.9%	19.9%	20.1%	8.2%	-16.5%	-16.4%	23.6%	23.6%	-18.6%	-18.6%	17.9%
		935L (Milo 356s to Cassils 324s)	17.2%	17.3%	18.1%	18.5%	17.9%	18.2%	17.6%	17.5%	17.8%	17.7%	17.7%	17.8%	8.3%	-16.3%	-16.2%	23.7%	23.7%	-18.4%	-18.4%	15.9%
	612L (Fincastle 336s to Burdett 368s)	879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	610L (Fincastle 336s to Taber 83s)	100L (Tilley 498S to Suffield 895S)	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%	21.6%	-0.5%	-0.5%	-0.5%	-0.5%	-0.4%	-0.4%	-0.4%
		879L (Bowmanton 244s to 879AL Tap)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	96.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		658L (Cypress 562s to 662s Tap)	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	41.7%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%
	924L (Milo 356s to Langdon 102s)	927L (Milo 356s to Langdon 102s)	22.5%	22.6%	23.5%	24.0%	23.3%	23.6%	23.0%	22.8%	23.2%	23.0%	23.0%	23.2%	19.0%	27.5%	27.4%	28.2%	28.2%	35.3%	35.3%	20.9%
	927L (Milo 356s to Langdon 102s)	924L (Milo 356s to Langdon 102s)	22.5%	22.6%	23.5%	24.0%	23.3%	23.6%	23.0%	22.8%	23.2%	23.0%	23.0%	23.2%	19.0%	27.6%	27.4%	28.2%	28.2%	35.3%	35.3%	20.9%
	Bowmanton 240/138 kV transformer T1	Bowmanton 240/138 kV transformer T2	93.6%	93.8%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.7%
	Bowmanton 240/138 kV transformer T2	Bowmanton 240/138 kV transformer T1	93.6%	93.8%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.7%

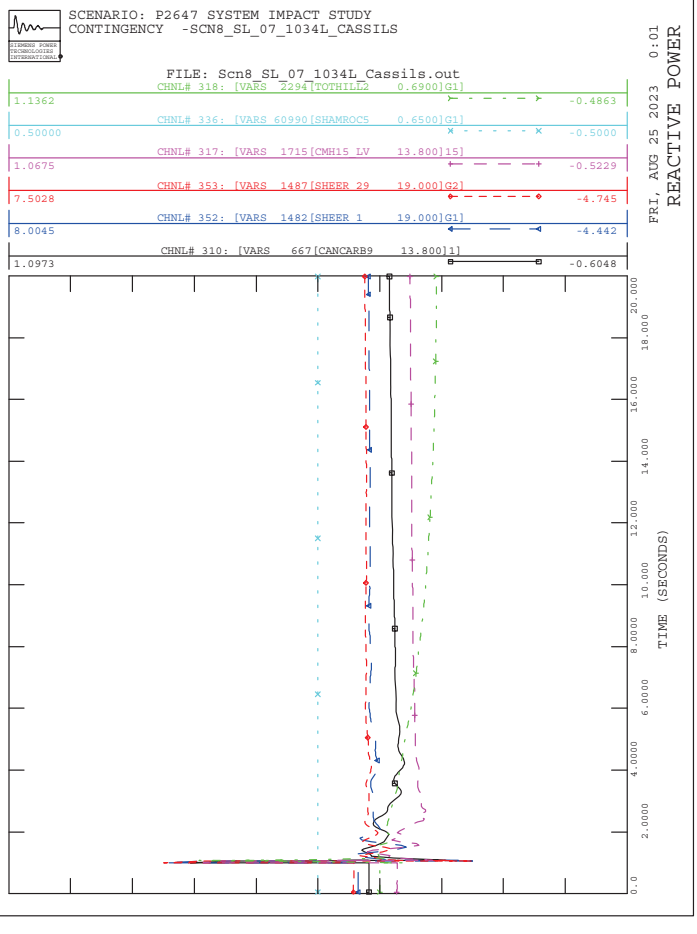
Scenario and Case Name	Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Generating Facility Name and Unit Number																		
			P2337	P2137 & P2465	Cypress 1 and 2		Wildrose		Capital Power Whitla			Forty Mile Granlea			Rattlesnake	BSR		P1927		P2247		P2467
			(Bus 560044 ID: G1)	**(Bus 567034 ID: G1)**	**(Bus 560003 ID: G1)**	**(Bus 561003 ID: G2)**	**(Bus 3462 ID: 1)**	**(Bus 3463 ID: 1)**	**(Bus 60990 ID: G1)**	**(Bus 61990 ID: G2)**	**(Bus 64990 ID: G3)**	**(Bus 61994 ID: G1)**	**(Bus 62994 ID: G2)**	**(Bus 65994 ID: 1)**	**(Bus 60873 ID: G1)**	**(Bus 61736 ID: 1)**	**(Bus 61737 ID: 2)**	**(Bus 60434 ID: 1)**	**(Bus 61434 ID: 2)**	**(Bus 560041 ID: G1)**	**(Bus 560042 ID: G2)**	**(Bus 2294 ID: G1**
	1088L (Cassils 324s to Newell A2075s)	1087L (Cassils 324s to Newell A2075s)	-17.2%	-17.3%	-17.6%	-17.8%	-17.5%	-17.6%	-17.4%	-17.3%	-17.5%	-17.4%	-17.4%	-17.5%	10.9%	-10.8%	-10.7%	26.7%	26.7%	-13.4%	-13.4%	-16.6%
	Bullshead 523s Transformer T1	880L (Alrothbauer 321s to Bullshead 523s)	19.6%	51.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.2%
	MH-65L (Cancarb Limited Co-gen Station to MHS-7 Substation)	880L (Alrothbauer 321s to Bullshead 523s)	19.6%	51.6%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%
	Cancarb Limited Co-gen Station Transformer T1	880L (Alrothbauer 321s to Bullshead 523s)	19.6%	51.6%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%
	MH69s-1 Power Plant Transformer 12	880L (Alrothbauer 321s to Bullshead 523s)	19.5%	51.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%
	MH69s-1 Power Plant Transformer T5	880L (Alrothbauer 321s to Bullshead 523s)	19.5%	51.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%
	MH69s-1 Power Plant Transformer T1	880L (Alrothbauer 321s to Bullshead 523s)	19.5%	51.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%
	MH69s-1 Power Plant Transformer 3B	880L (Alrothbauer 321s to Bullshead 523s)	19.5%	51.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%
	MH69s-1 Power Plant Transformer 14	880L (Alrothbauer 321s to Bullshead 523s)	19.5%	51.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%
	MH69s-1 Power Plant Transformer 15	880L (Alrothbauer 321s to Bullshead 523s)	19.5%	51.5%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.3%

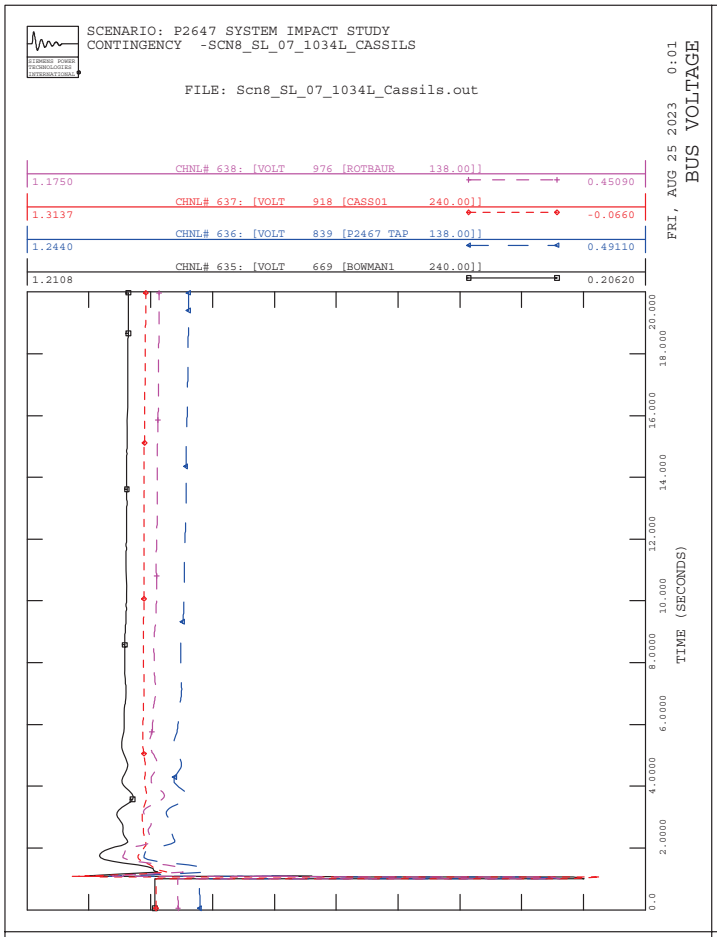
Attachment A8
Post-RAS Post-Project Transient Stability Diagrams

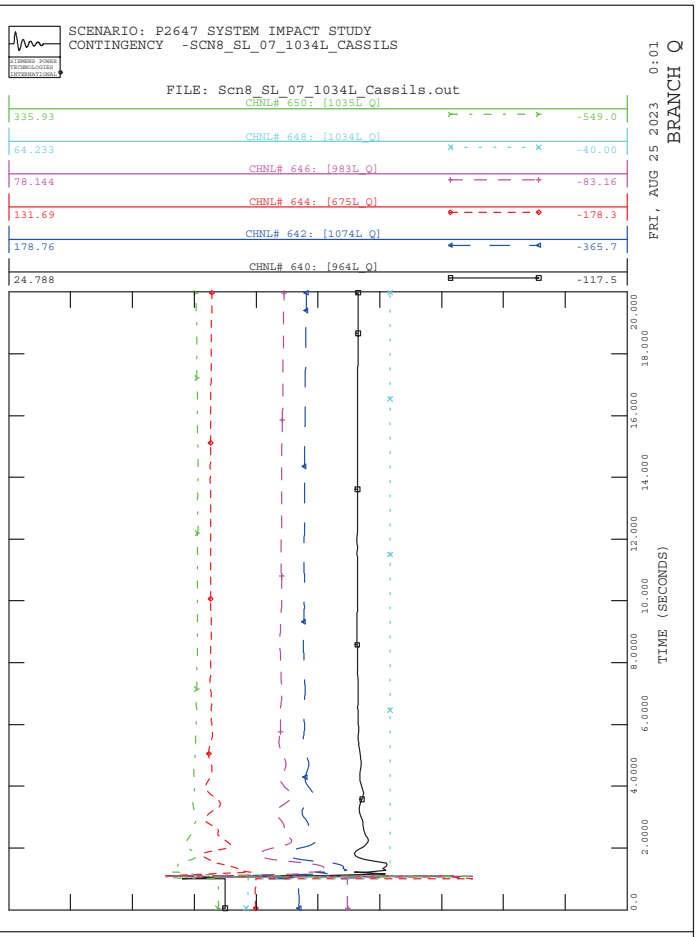

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.5518
0.55360
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.3536
-0.2000
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.73860
-0.2918
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.4100
0.51410
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.3699
0.66490
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.64820
-0.3978
FRI, AUG 25 2023 0:01
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

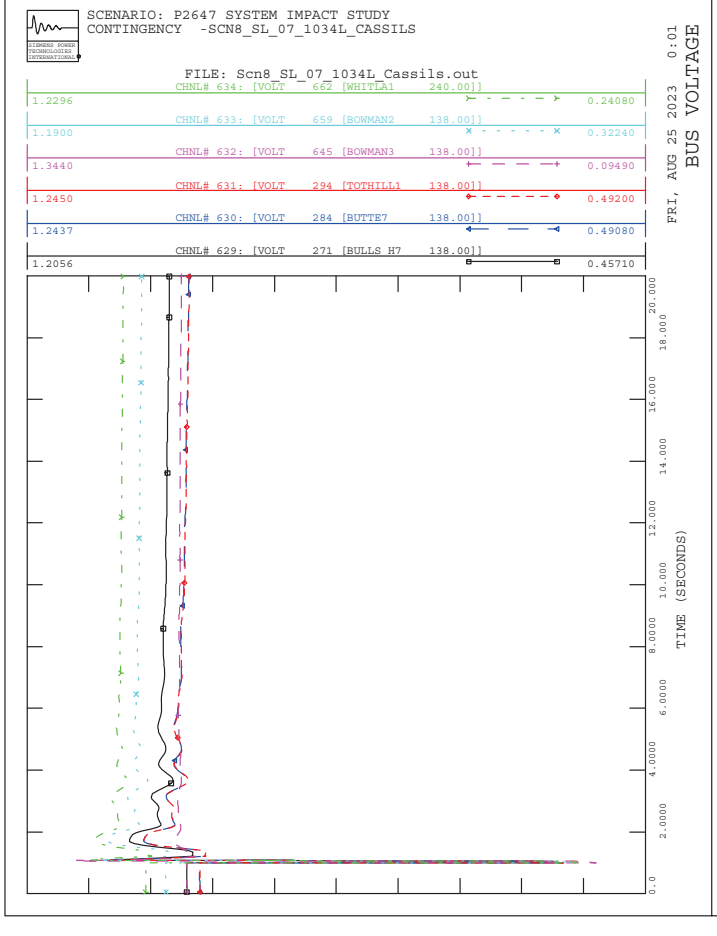

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3043
0.55950
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.0619
-0.1000
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1584
0.77710
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2757
0.55860
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2574
0.58250
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1611
0.66980
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

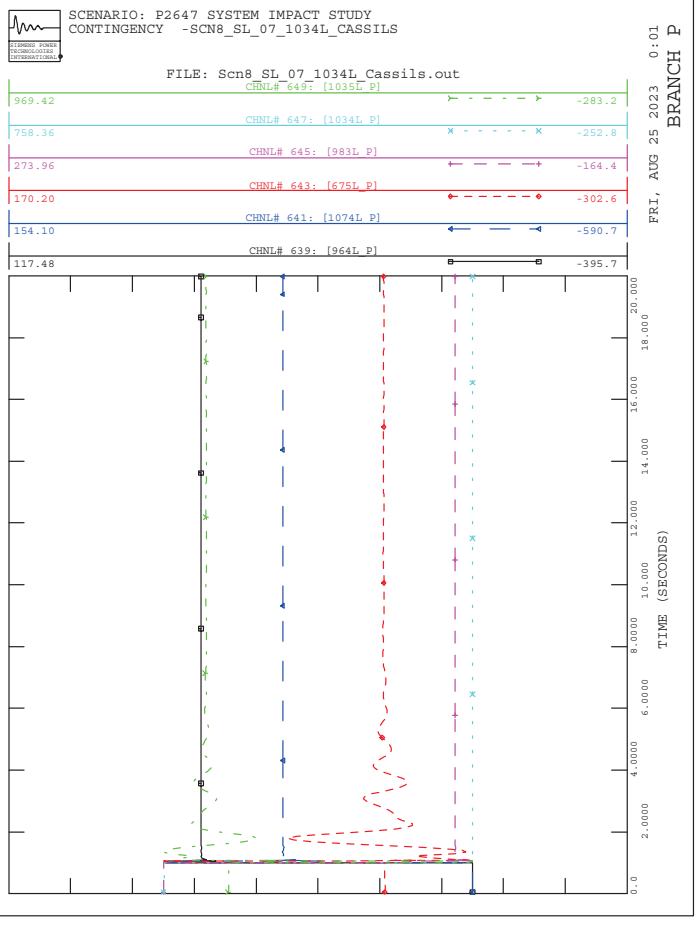

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
135.96
-16.61
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
105.75
-30.71
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
100.55
-37.09
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
139.55
-22.35
FRI, AUG 25 2023 0:01
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.1362
-0.4863
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.50000
-0.5000
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.0675
-0.5229
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
7.5028
-4.745
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
8.0045
-4.442
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0973
-0.6048
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1750
0.45090
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.3137
-0.0660
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.2440
0.49110
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2108
0.20620
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 650: [1035L Q]
335.93
-549.0
CHNL# 648: [1034L Q]
64.233
-40.00
CHNL# 646: [983L Q]
78.144
-83.16
CHNL# 644: [675L Q]
131.69
-178.3
CHNL# 642: [1074L Q]
178.76
-365.7
CHNL# 640: [964L Q]
24.788
-117.5
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2296
0.24080
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.1900
0.32240
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.3440
0.09490
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.2450
0.49200
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.2437
0.49080
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.2056
0.45710
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS
FILE: Scn8_SL_07_1034L_Cassils.out
CHNL# 649: [1035L P]
969.42
-283.2
CHNL# 647: [1034L P]
758.36
-252.8
CHNL# 645: [983L P]
273.96
-164.4
CHNL# 643: [675L P]
170.20
-302.6
CHNL# 641: [1074L P]
154.10
-590.7
CHNL# 639: [964L P]
117.48
-395.7
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS

FILE: Scn8_SL_07_1034L_Cassils.out

FRI, AUG 25 2023 0:01

BRANCH Q

CHNL# 656: [600L Q] 65.971 -66.59
CHNL# 654: [880L Q] 112.85 -66.82
CHNL# 652: [676L Q] 69.062 -185.5

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON

FILE: Scn8_SL_08_1034L_Bowmanton.out

FRI, AUG 25 2023 0:01

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.4012 0.10590
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.3536 -0.2000
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.72610 -0.1303
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 3.4355 1.0925
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 3.2655 1.0445
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.74480 -0.1828

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_07_1034L_CASSILS

FILE: Scn8_SL_07_1034L_Cassils.out

FRI, AUG 25 2023 0:01

BRANCH P

CHNL# 655: [600L P] -12.44 -165.1
CHNL# 653: [880L P] 190.73 36.986
CHNL# 651: [676L P] 106.62 -382.7

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON

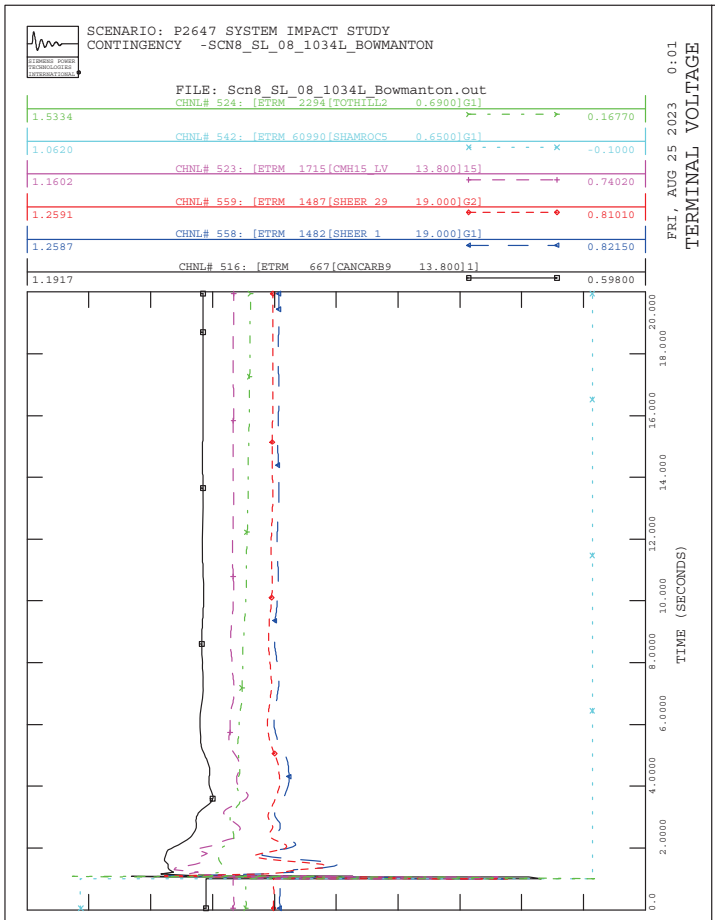
FILE: Scn8_SL_08_1034L_Bowmanton.out

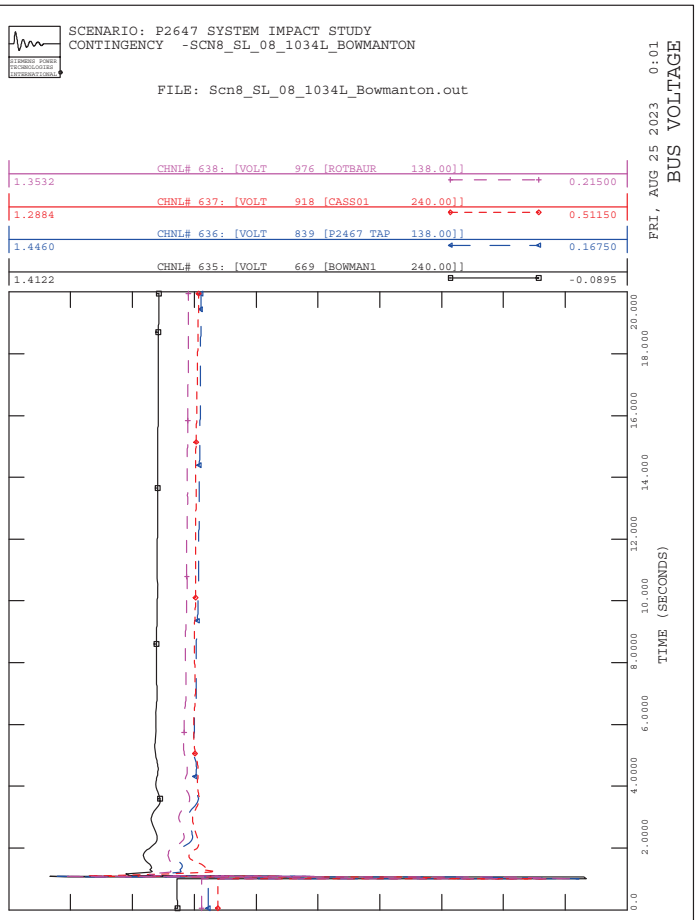
FRI, AUG 25 2023 0:01

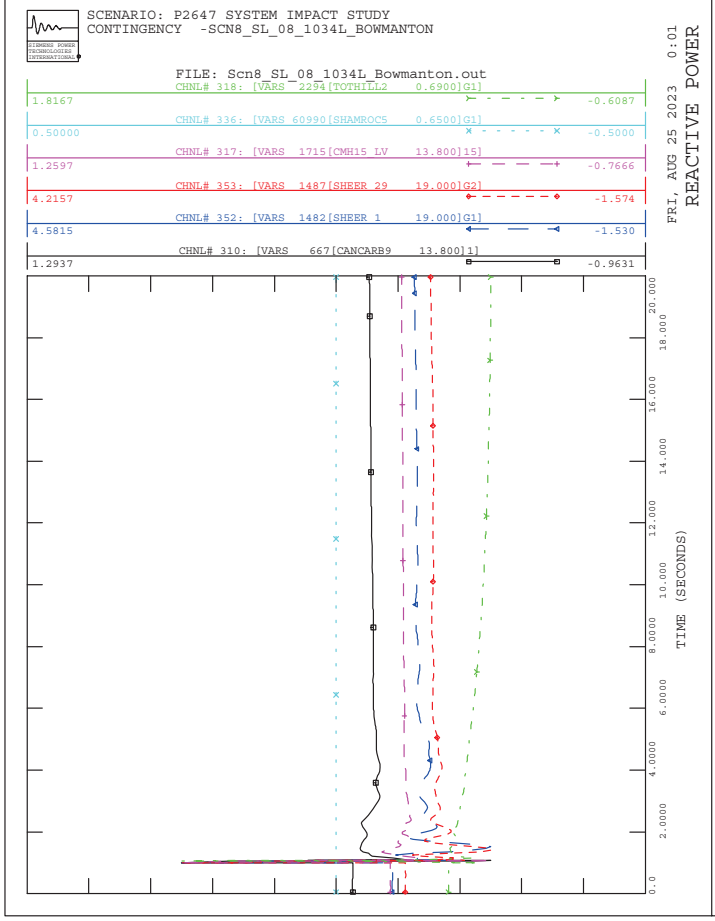
ROTOR ANGLE

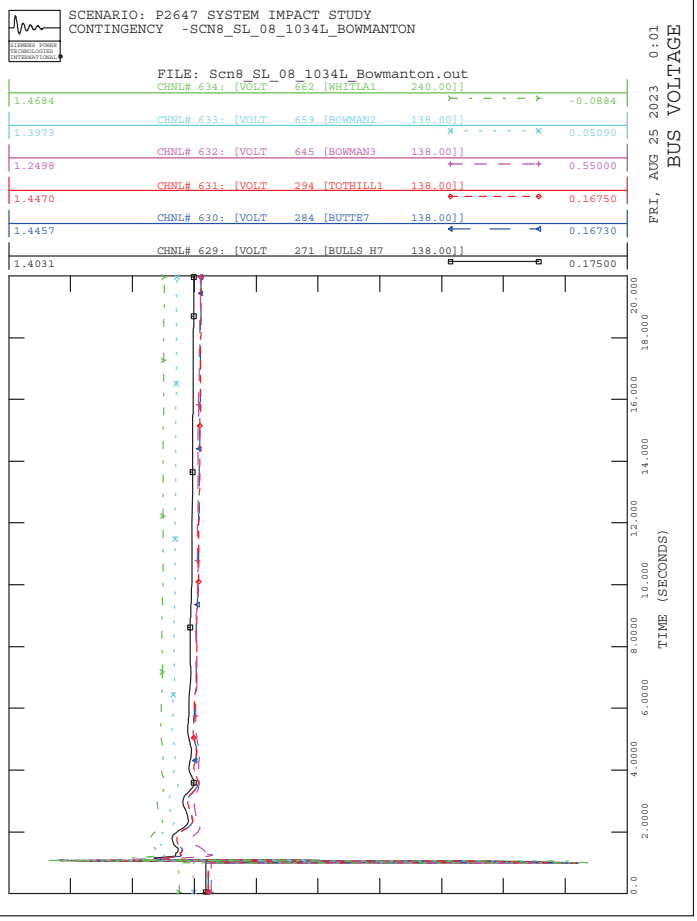
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 121.04 -10.97
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 100.22 -29.45
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 94.547 -34.71
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 119.86 -13.72

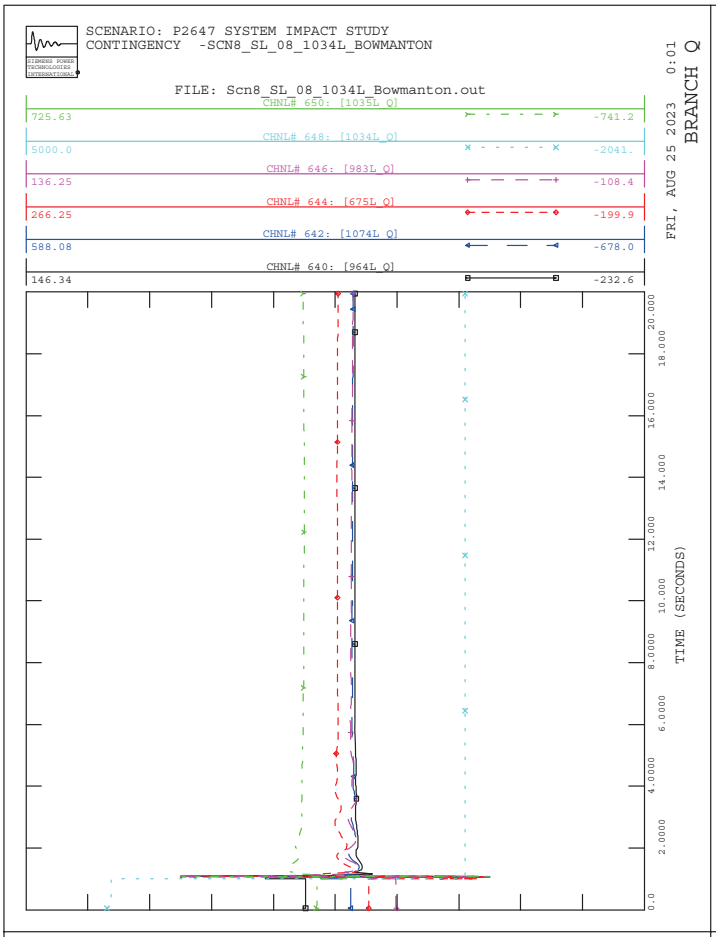
TIME (SECONDS)

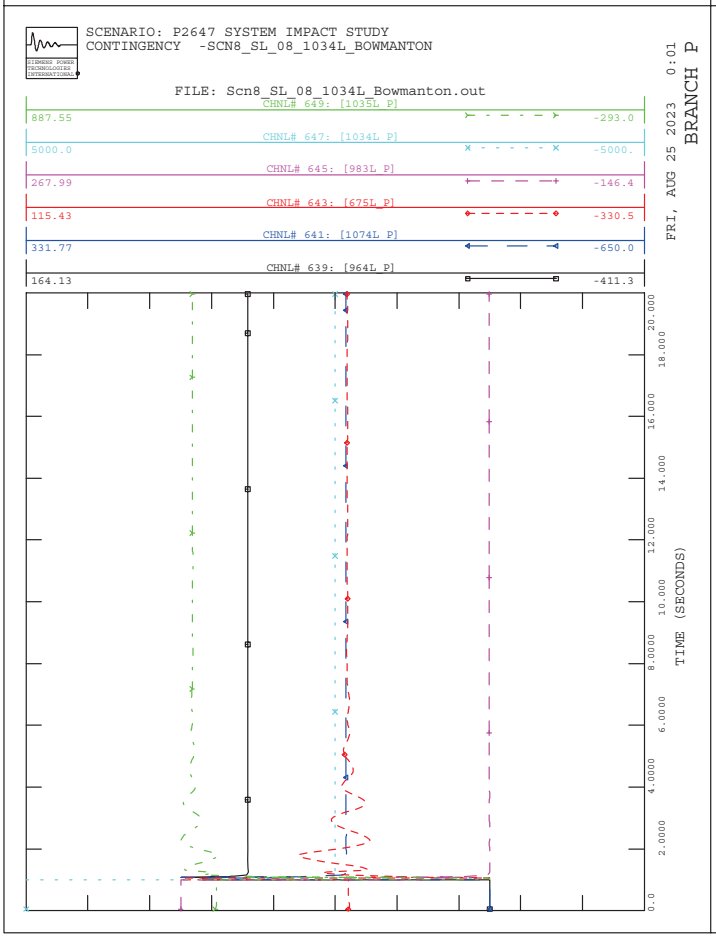

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.5334
0.16770
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.0620
-0.1000
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.1602
0.74020
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2591
0.81010
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2587
0.82150
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1917
0.59800
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

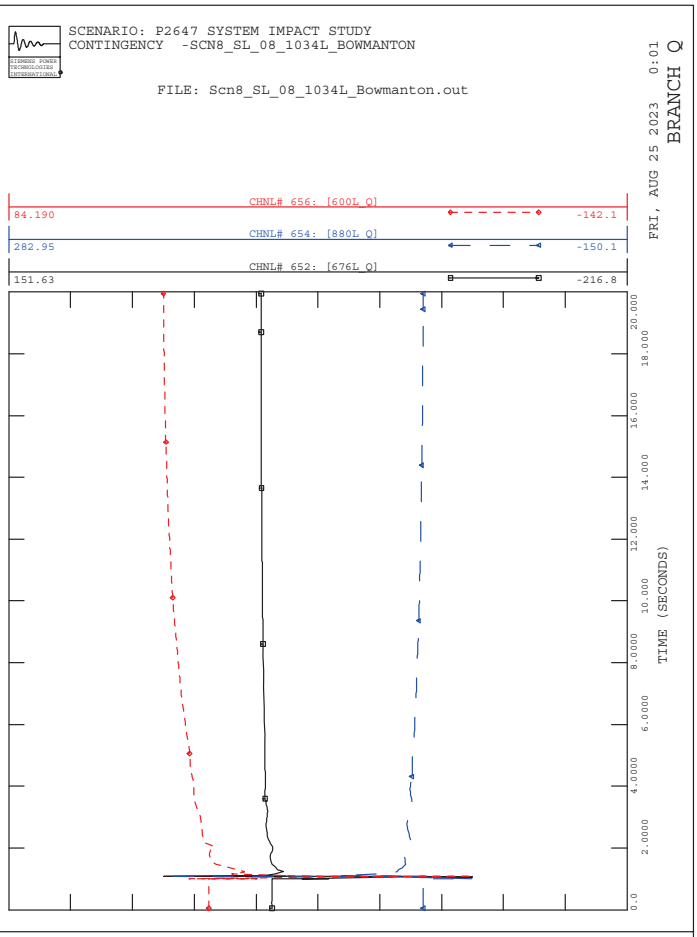

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.3532
0.21500
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.2884
0.51150
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.4460
0.16750
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.4122
-0.0895
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

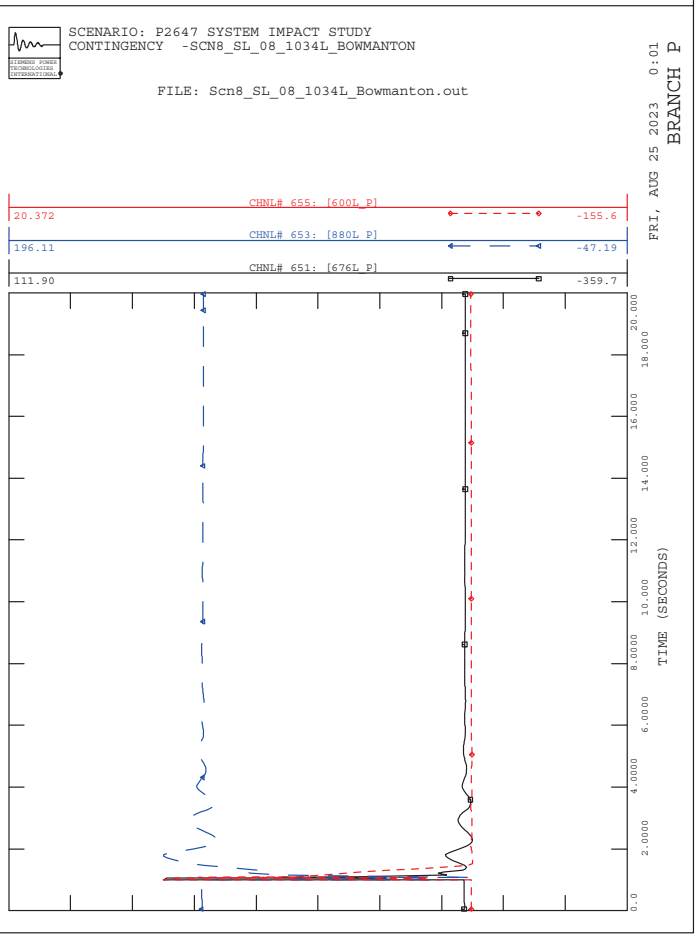

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.8167
-0.6087
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.50000
-0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.2597
-0.7666
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
4.2157
-1.574
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
4.5815
-1.530
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.2937
-0.9631
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

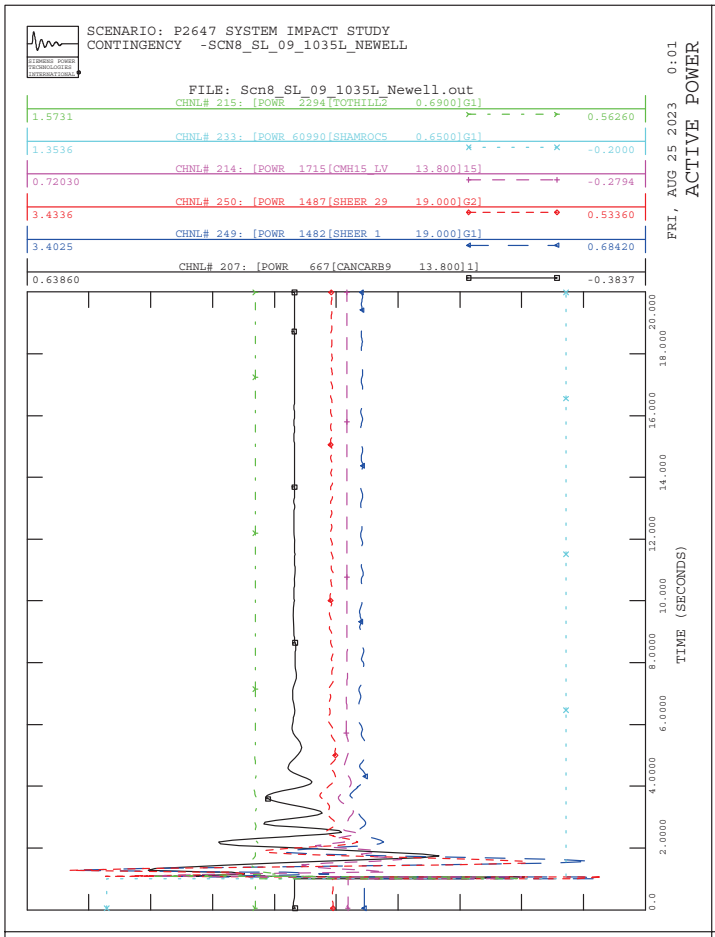

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.4684
-0.0884
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.3973
0.05090
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.2498
0.55000
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.4470
0.16750
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.4457
0.16730
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.4031
0.17500
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

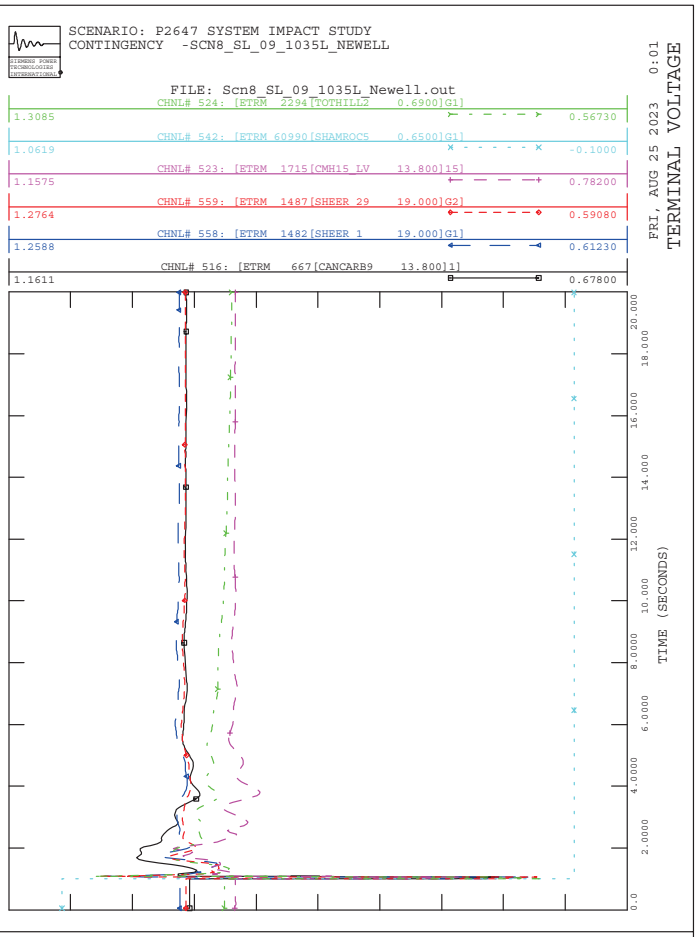

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 650: [1035L Q]
725.63
-741.2
CHNL# 648: [1034L Q]
5000.0
-2041.
CHNL# 646: [983L Q]
136.25
-108.4
CHNL# 644: [675L Q]
266.25
-199.9
CHNL# 642: [1074L Q]
588.08
-678.0
CHNL# 640: [964L Q]
146.34
-232.6
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

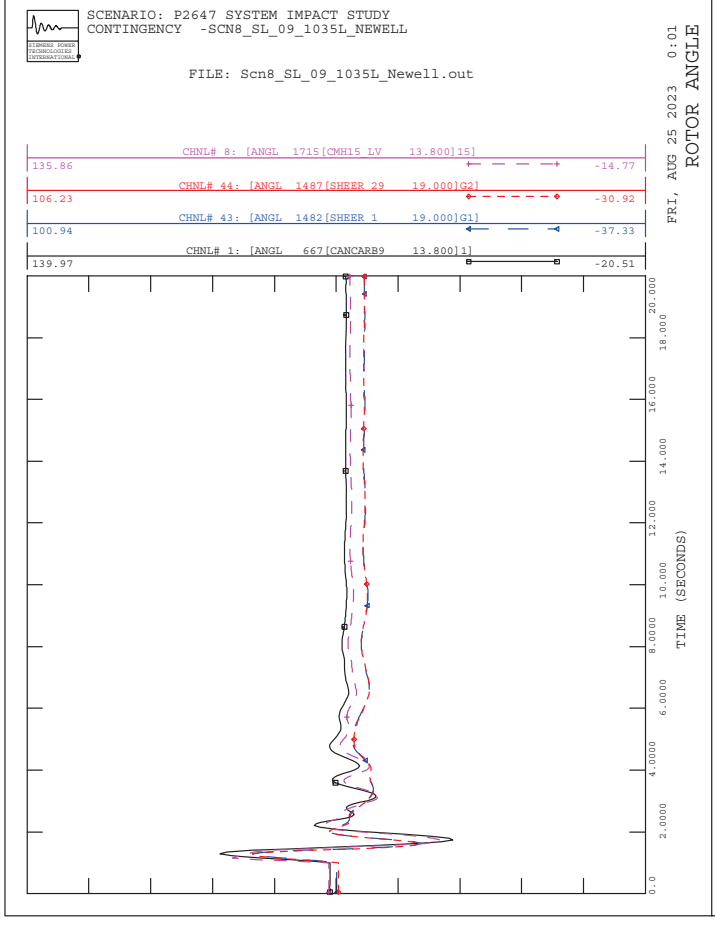

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 649: [1035L P]
887.55
-293.0
CHNL# 647: [1034L P]
5000.0
-5000.
CHNL# 645: [983L P]
267.99
-146.4
CHNL# 643: [675L P]
115.43
-330.5
CHNL# 641: [1074L P]
331.77
-650.0
CHNL# 639: [964L P]
164.13
-411.3
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

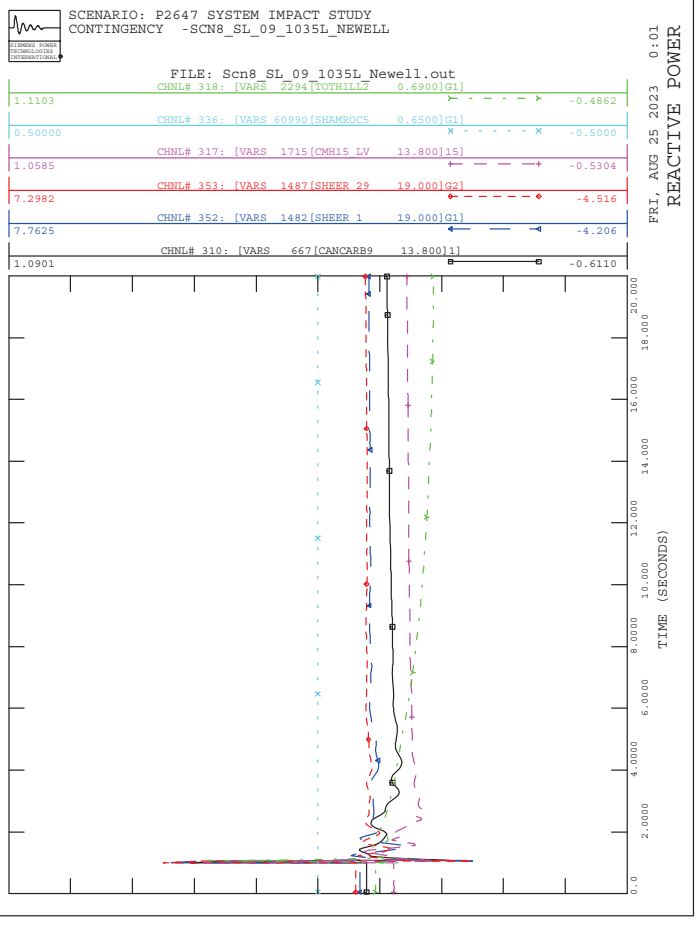

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 656: [600L Q]
84.190
-142.1
CHNL# 654: [880L Q]
282.95
-150.1
CHNL# 652: [676L Q]
151.63
-216.8
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

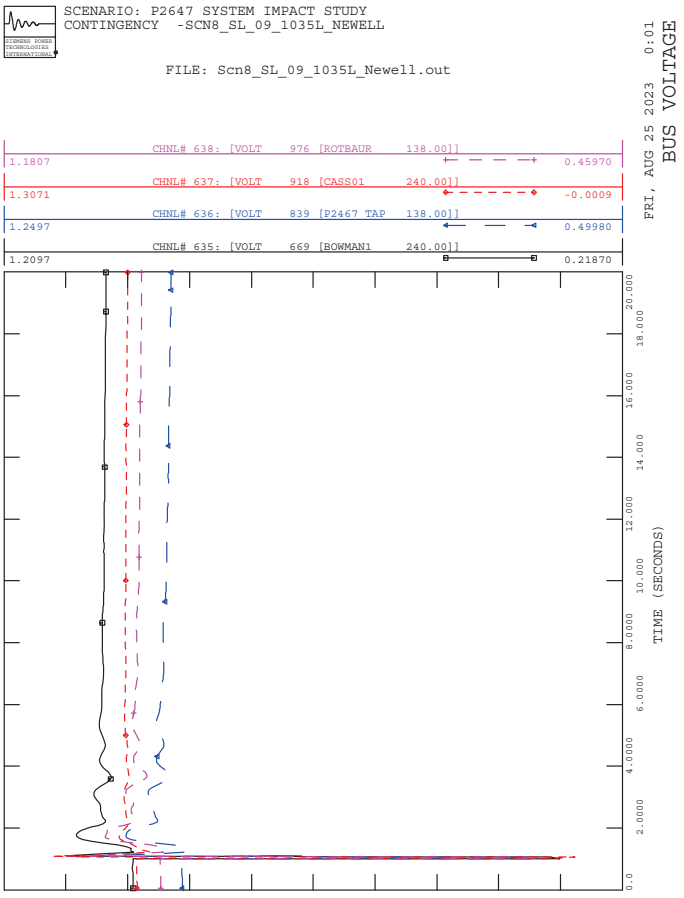

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_08_1034L_BOWMANTON
FILE: Scn8_SL_08_1034L_Bowmanton.out
CHNL# 655: [600L P]
20.372
-155.6
CHNL# 653: [880L P]
196.11
-47.19
CHNL# 651: [676L P]
111.90
-359.7
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

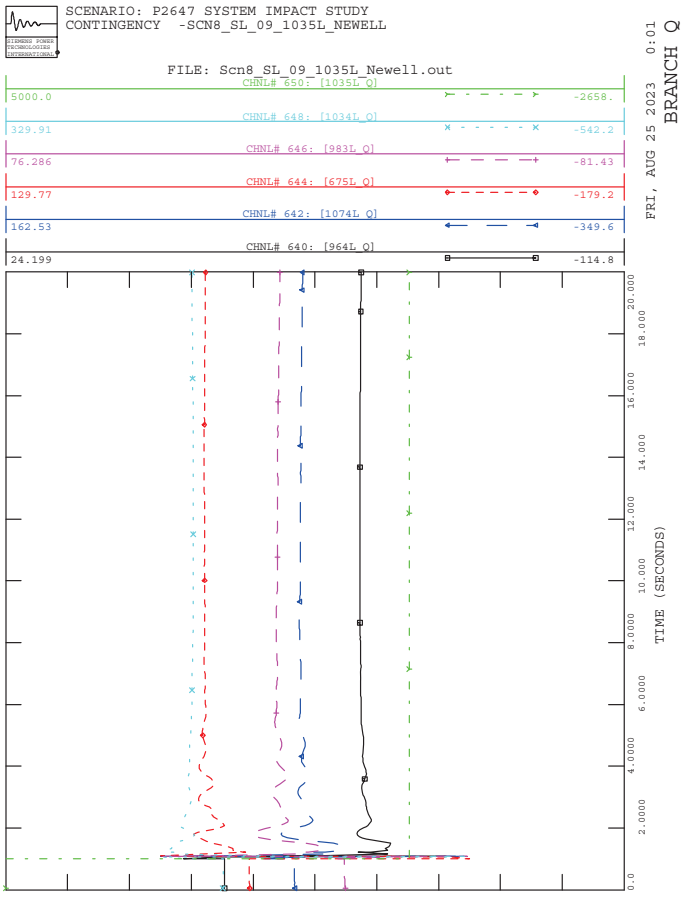

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1]
1.5731 0.56260
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1]
1.3536 -0.2000
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15]
0.72030 -0.2794
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2]
3.4336 0.53360
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1]
3.4025 0.68420
CHNL# 207: [POWR 667[CANCARB9 13.800]1]
0.63860 -0.3837
FRI, AUG 25 2023 0:01
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

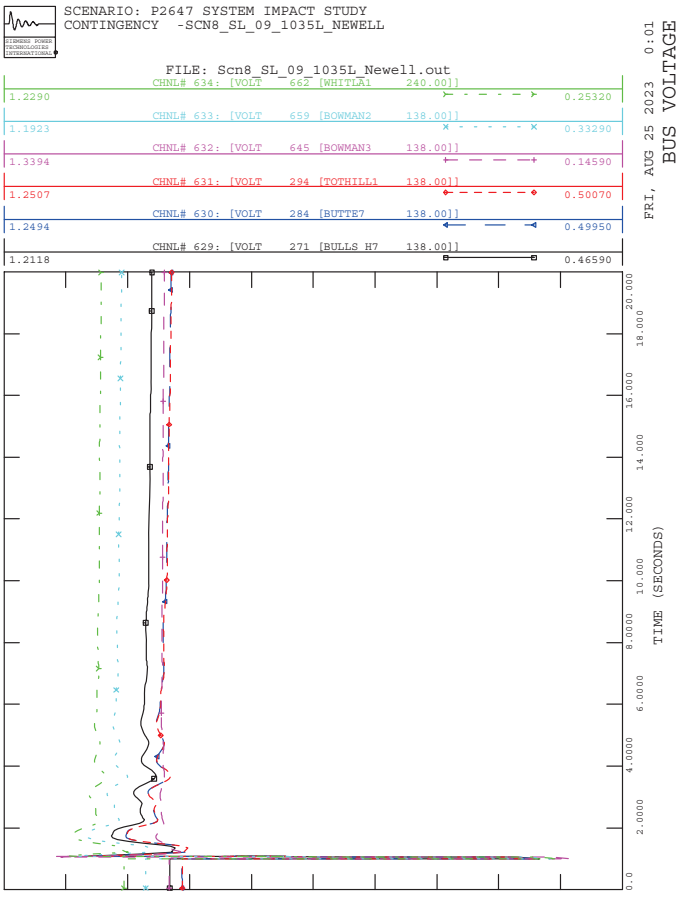

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3085 0.56730
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.0619 -0.1000
CHNL# 523: [ETRM 1715[CMH15_LV 13.800]15]
1.1575 0.78200
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2764 0.59080
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2588 0.61230
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1611 0.67800
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

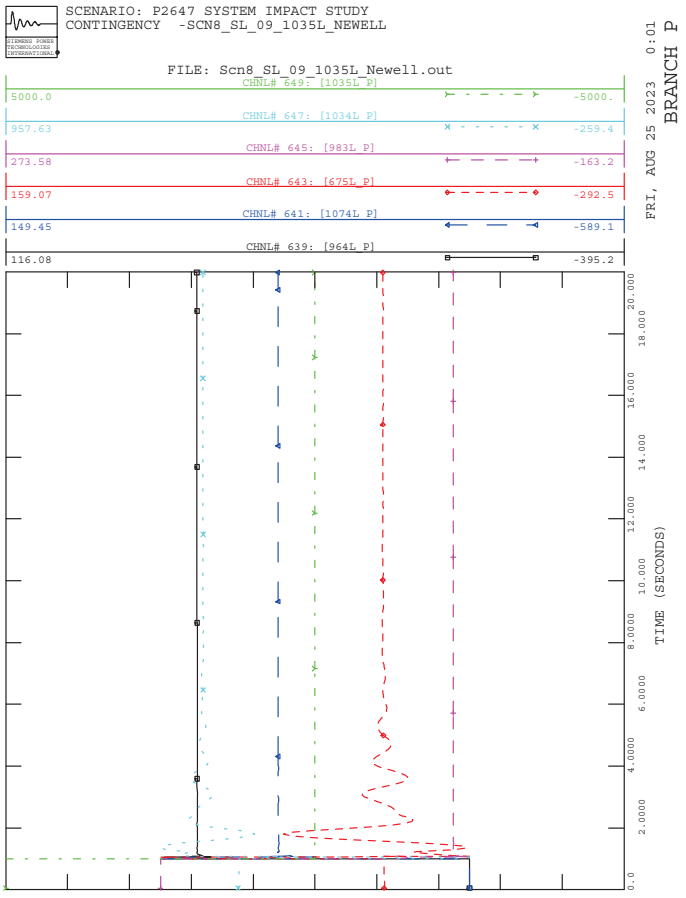

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
135.86 -14.77
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
106.23 -30.92
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
100.94 -37.33
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
139.97 -20.51
FRI, AUG 25 2023 0:01
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.1103 -0.4862
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.50000 -0.5000
CHNL# 317: [VARS 1715[CMH15_LV 13.800]15]
1.0585 -0.5304
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
7.2982 -4.516
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
7.7625 -4.206
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.0901 -0.6110
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.1807
0.45970
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.3071
-0.0009
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.2497
0.49980
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.2097
0.21870
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 650: [1035L Q]
5000.0
-2658.
CHNL# 648: [1034L Q]
329.91
-542.2
CHNL# 646: [983L Q]
76.286
-81.43
CHNL# 644: [675L Q]
129.77
-179.2
CHNL# 642: [1074L Q]
162.53
-349.6
CHNL# 640: [964L Q]
24.199
-114.8
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.2290
0.25320
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.1923
0.33290
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.3394
0.14590
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.2507
0.50070
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.2494
0.49950
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.2118
0.46590
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL
FILE: Scn8_SL_09_1035L_Newell.out
CHNL# 649: [1035L P]
5000.0
-5000.
CHNL# 647: [1034L P]
957.63
-259.4
CHNL# 645: [983L P]
273.58
-163.2
CHNL# 643: [675L P]
159.07
-292.5
CHNL# 641: [1074L P]
149.45
-589.1
CHNL# 639: [964L P]
116.08
-395.2
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL

FILE: Scn8_SL_09_1035L_Newell.out

FRI, AUG 25 2023 0:01

BRANCH Q

CHNL# 656: [600L Q] 65.963 -63.99
CHNL# 654: [880L Q] 112.64 -67.01
CHNL# 652: [676L Q] 67.382 -182.6

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON

FILE: Scn8_SL_10_1035L_Bowmanton.out

FRI, AUG 25 2023 0:01

ACTIVE POWER

CHNL# 215: [POWR 2294[TOTHILL2 0.6900]G1] 1.4012 0.10580
CHNL# 233: [POWR 60990[SHAMROC5 0.6500]G1] 1.3537 -0.2000
CHNL# 214: [POWR 1715[CMH15_LV 13.800]15] 0.71630 -0.1304
CHNL# 250: [POWR 1487[SHEER 29 19.000]G2] 3.4277 1.1019
CHNL# 249: [POWR 1482[SHEER 1 19.000]G1] 3.2519 1.0540
CHNL# 207: [POWR 667[CANCARB9 13.800]1] 0.73330 -0.1829

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_09_1035L_NEWELL

FILE: Scn8_SL_09_1035L_Newell.out

FRI, AUG 25 2023 0:01

BRANCH P

CHNL# 655: [600L P] -13.53 -167.2
CHNL# 653: [880L P] 190.48 39.556
CHNL# 651: [676L P] 98.606 -379.2

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON

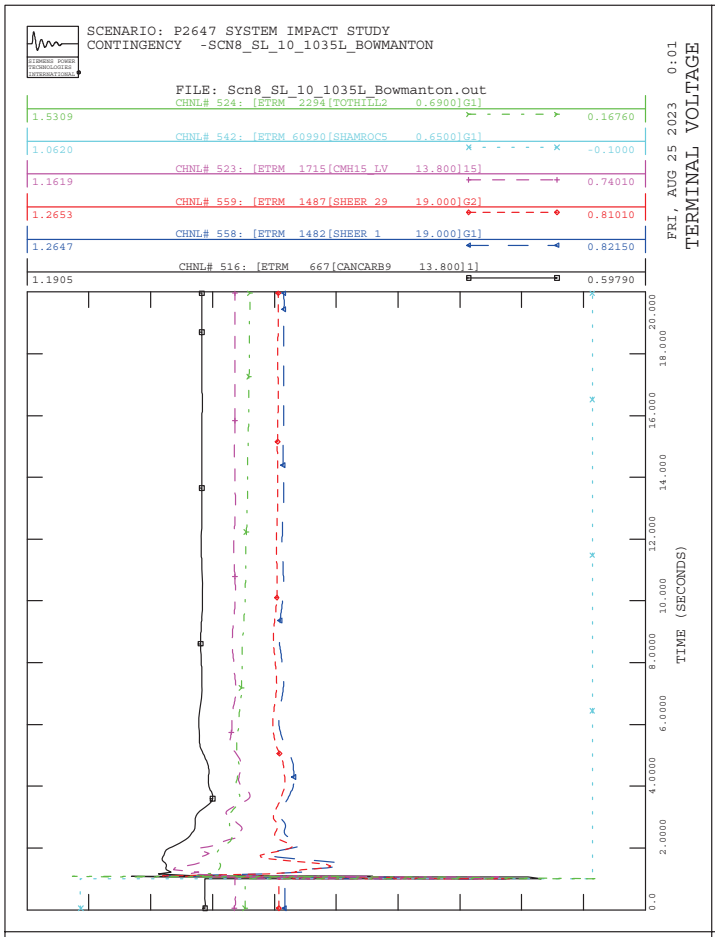
FILE: Scn8_SL_10_1035L_Bowmanton.out

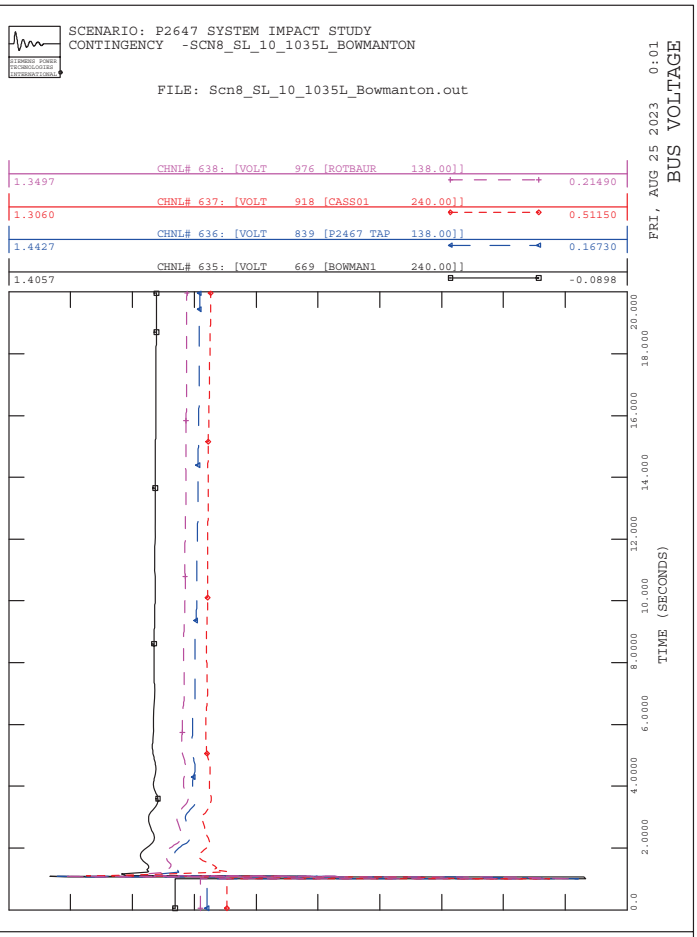
FRI, AUG 25 2023 0:01

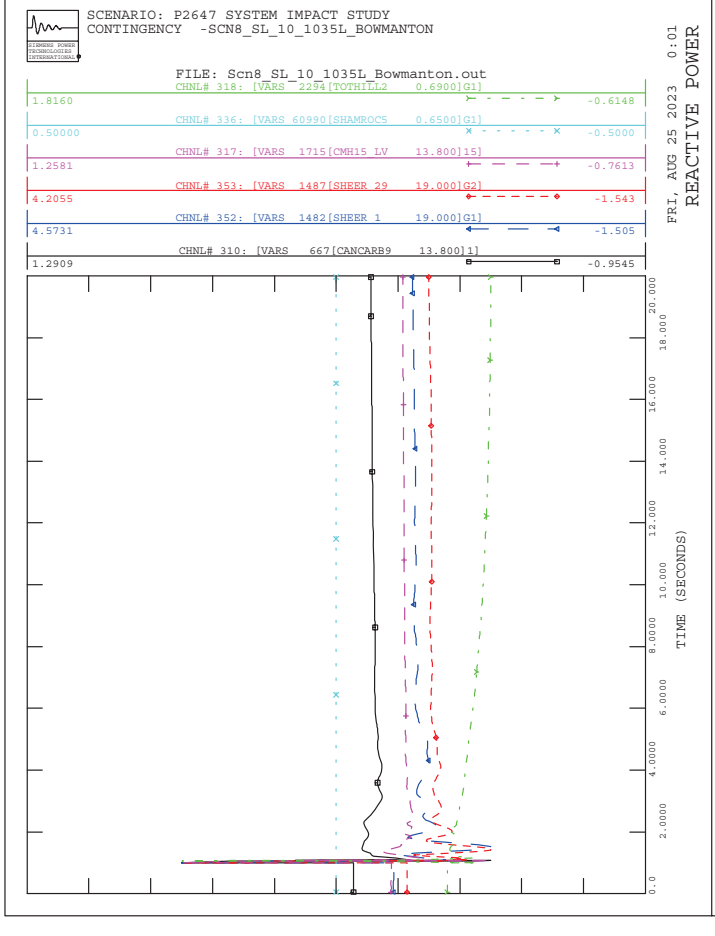
ROTOR ANGLE

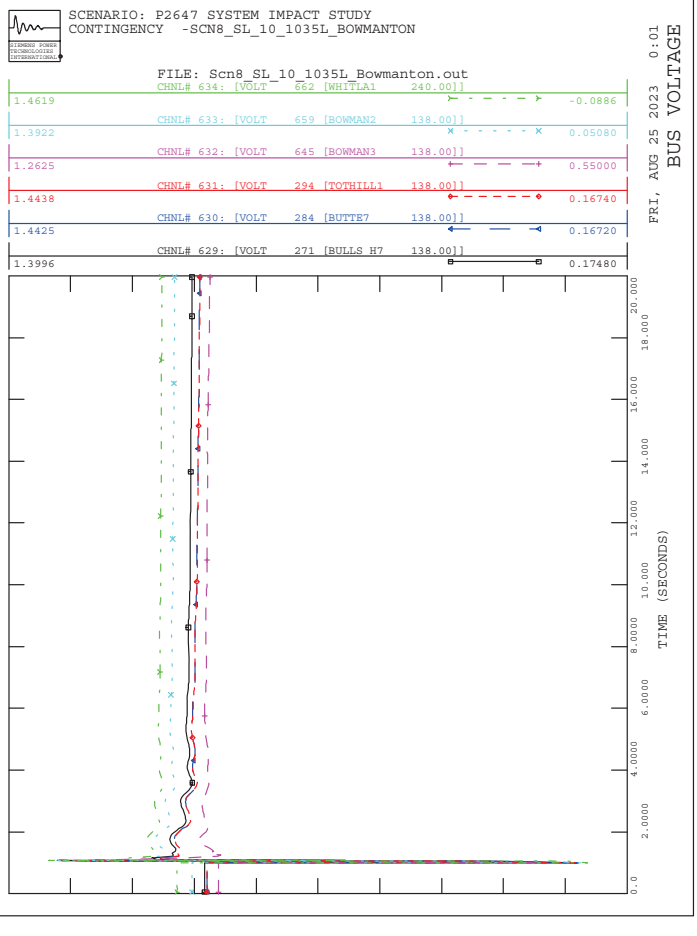
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 121.09 -9.407
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 100.08 -29.16
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 94.423 -34.41
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 119.81 -11.81

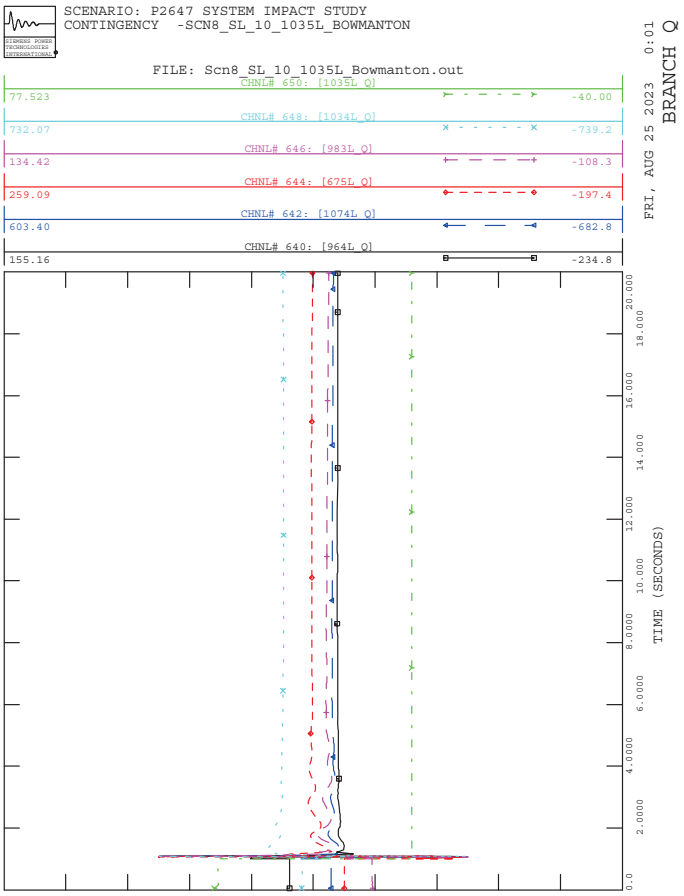
TIME (SECONDS)

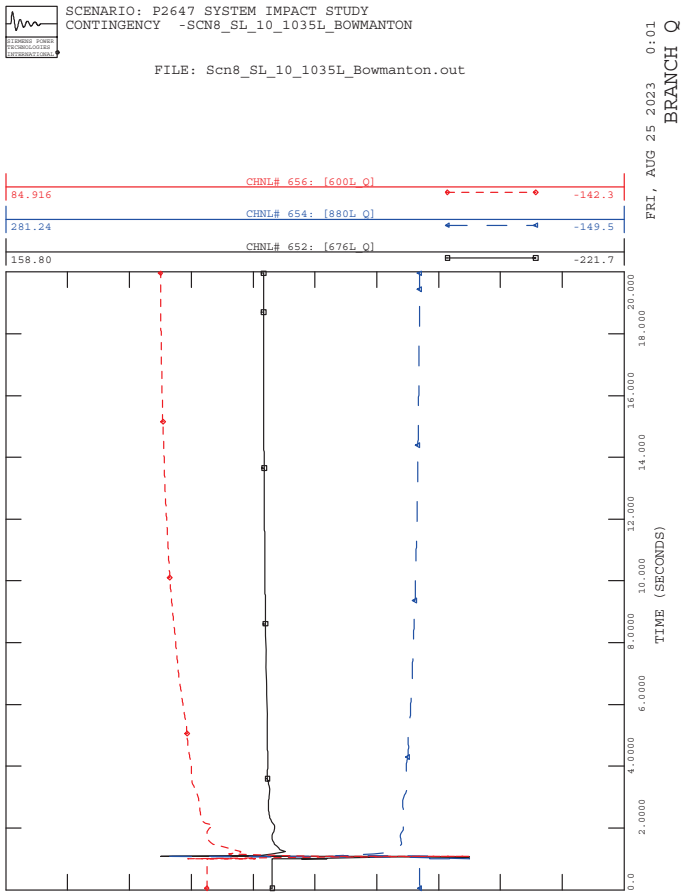

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 524: [ETRM 2294[TOTHILL2 0.6900]G1]
1.5309
0.16760
CHNL# 542: [ETRM 60990[SHAMROC5 0.6500]G1]
1.0620
-0.1000
CHNL# 523: [ETRM 1715[CMH15 LV 13.800]15]
1.1619
0.74010
CHNL# 559: [ETRM 1487[SHEER 29 19.000]G2]
1.2653
0.81010
CHNL# 558: [ETRM 1482[SHEER 1 19.000]G1]
1.2647
0.82150
CHNL# 516: [ETRM 667[CANCARB9 13.800]1]
1.1905
0.59790
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

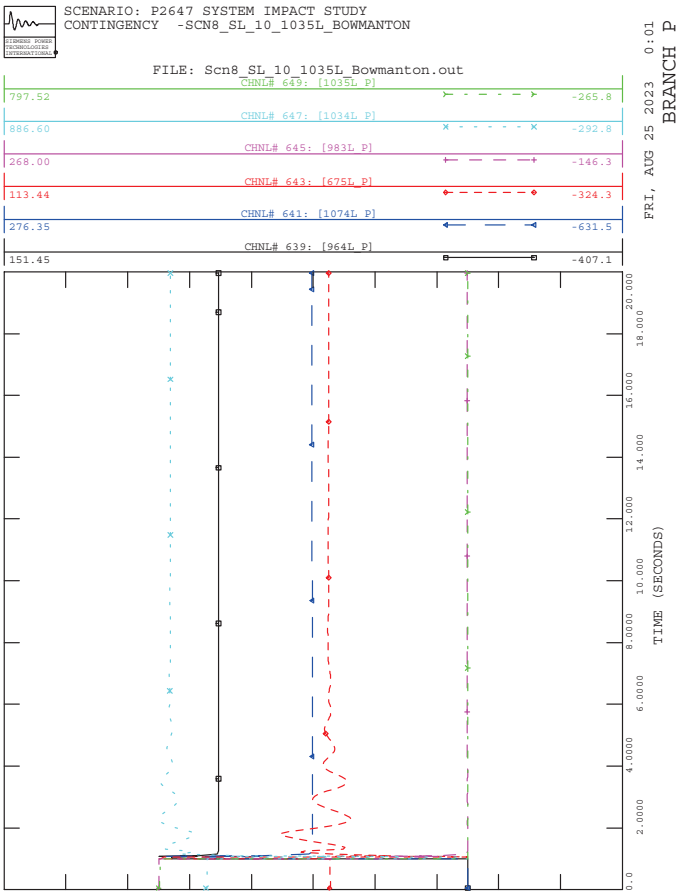

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 638: [VOLT 976 [ROTBAUR 138.00]]
1.3497
0.21490
CHNL# 637: [VOLT 918 [CASS01 240.00]]
1.3060
0.51150
CHNL# 636: [VOLT 839 [P2467 TAP 138.00]]
1.4427
0.16730
CHNL# 635: [VOLT 669 [BOWMAN1 240.00]]
1.4057
-0.0898
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

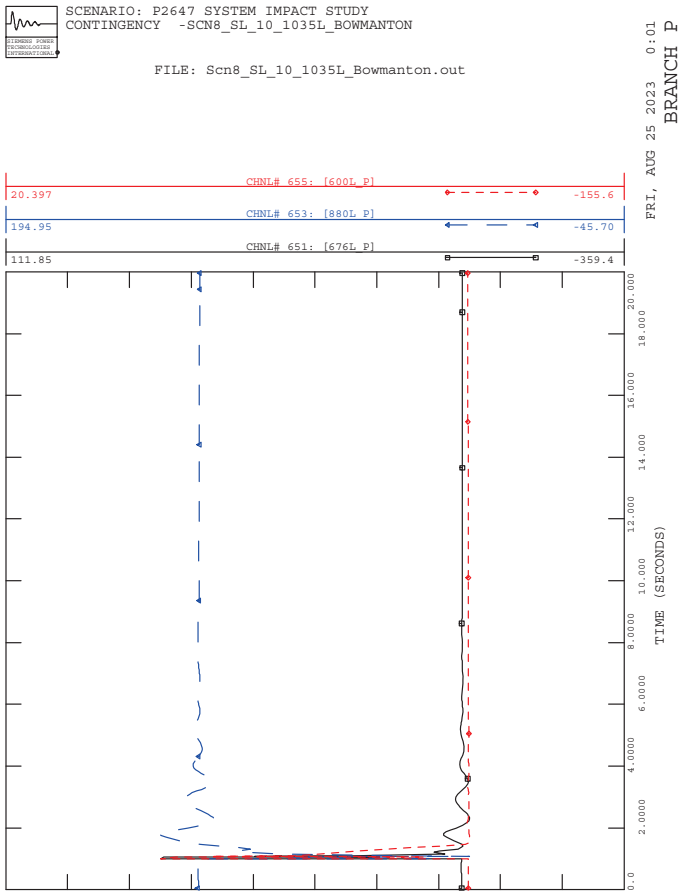

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 318: [VARS 2294[TOTHILL2 0.6900]G1]
1.8160
-0.6148
CHNL# 336: [VARS 60990[SHAMROC5 0.6500]G1]
0.50000
-0.5000
CHNL# 317: [VARS 1715[CMH15 LV 13.800]15]
1.2581
-0.7613
CHNL# 353: [VARS 1487[SHEER 29 19.000]G2]
4.2055
-1.543
CHNL# 352: [VARS 1482[SHEER 1 19.000]G1]
4.5731
-1.505
CHNL# 310: [VARS 667[CANCARB9 13.800]1]
1.2909
-0.9545
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

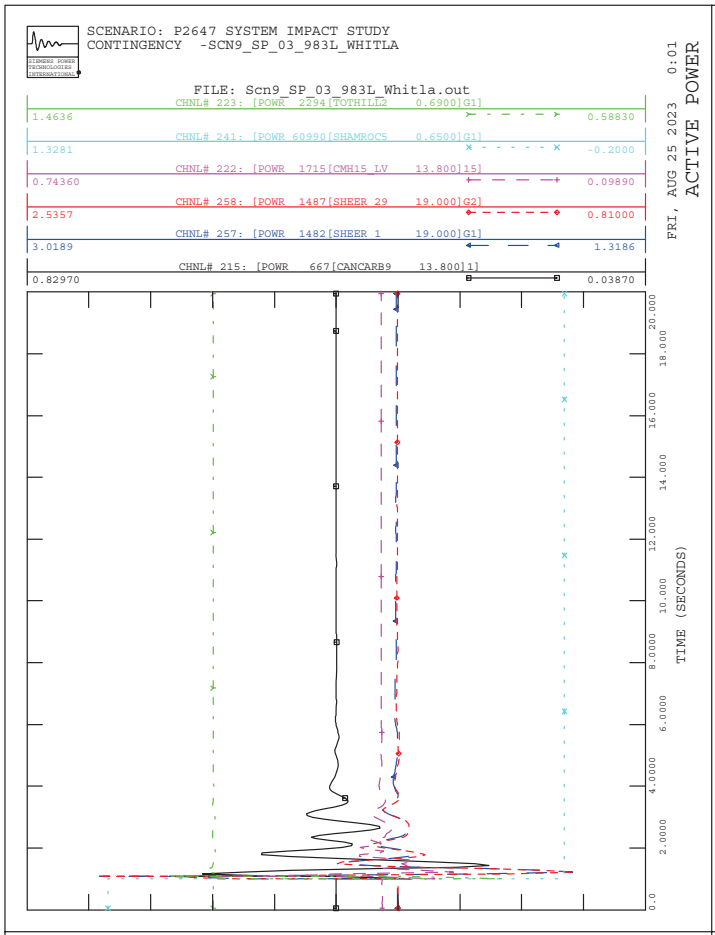

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 634: [VOLT 662 [WHITLA1 240.00]]
1.4619
-0.0886
CHNL# 633: [VOLT 659 [BOWMAN2 138.00]]
1.3922
0.05080
CHNL# 632: [VOLT 645 [BOWMAN3 138.00]]
1.2625
0.55000
CHNL# 631: [VOLT 294 [TOTHILL1 138.00]]
1.4438
0.16740
CHNL# 630: [VOLT 284 [BUTTE7 138.00]]
1.4425
0.16720
CHNL# 629: [VOLT 271 [BULLS H7 138.00]]
1.3996
0.17480
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

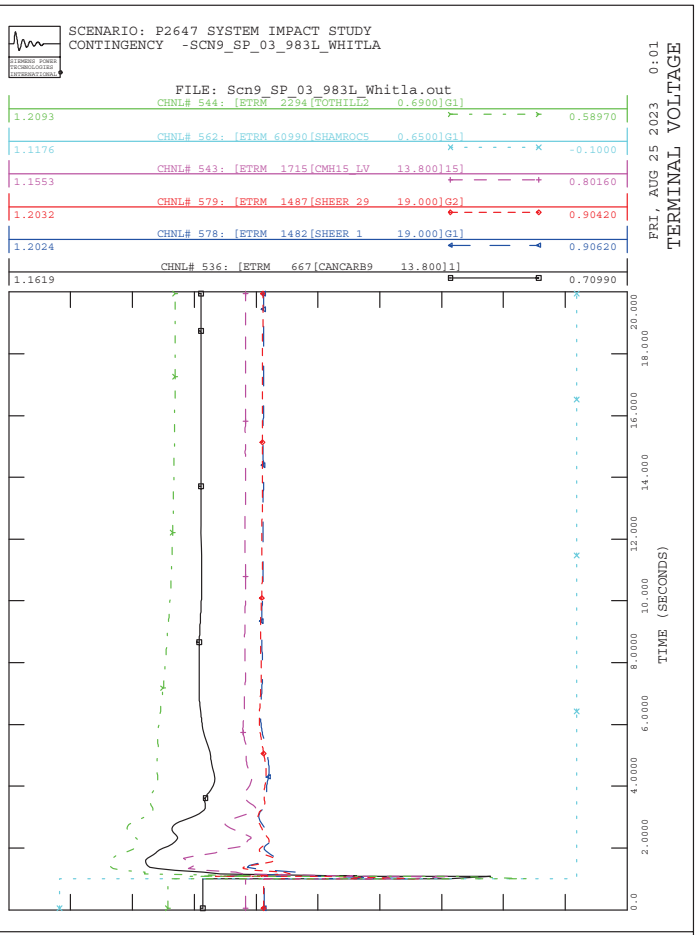

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 650: [1035L Q]
77.523
-40.00
CHNL# 648: [1034L Q]
732.07
-739.2
CHNL# 646: [983L Q]
134.42
-108.3
CHNL# 644: [675L Q]
259.09
-197.4
CHNL# 642: [1074L Q]
603.40
-682.8
CHNL# 640: [964L Q]
155.16
-234.8
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

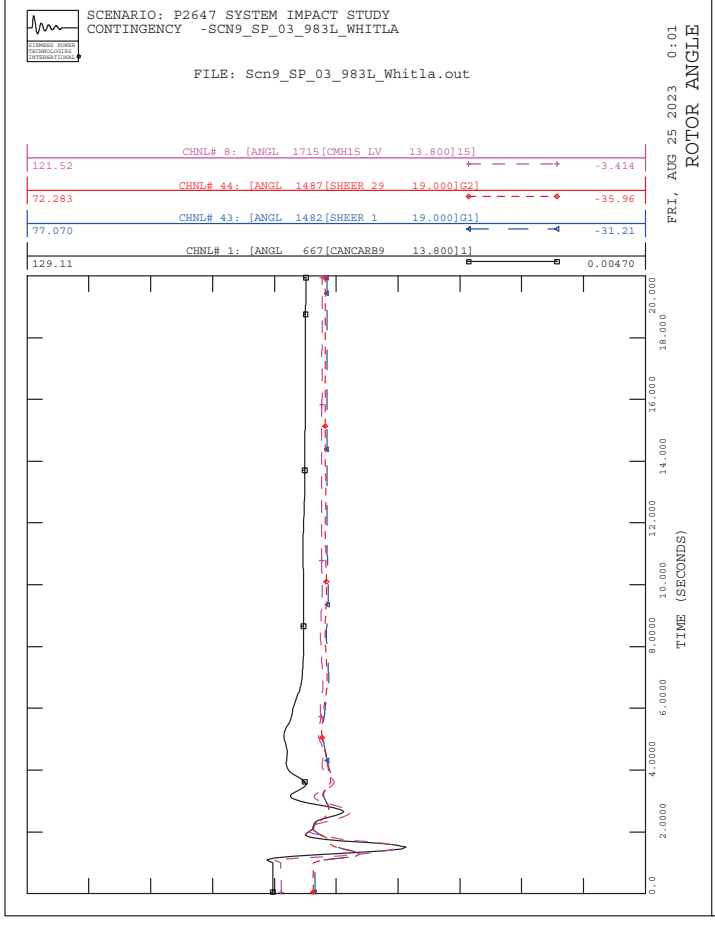

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 656: [600L Q]
84.916
-142.3
CHNL# 654: [880L Q]
281.24
-149.5
CHNL# 652: [676L Q]
158.80
-221.7
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

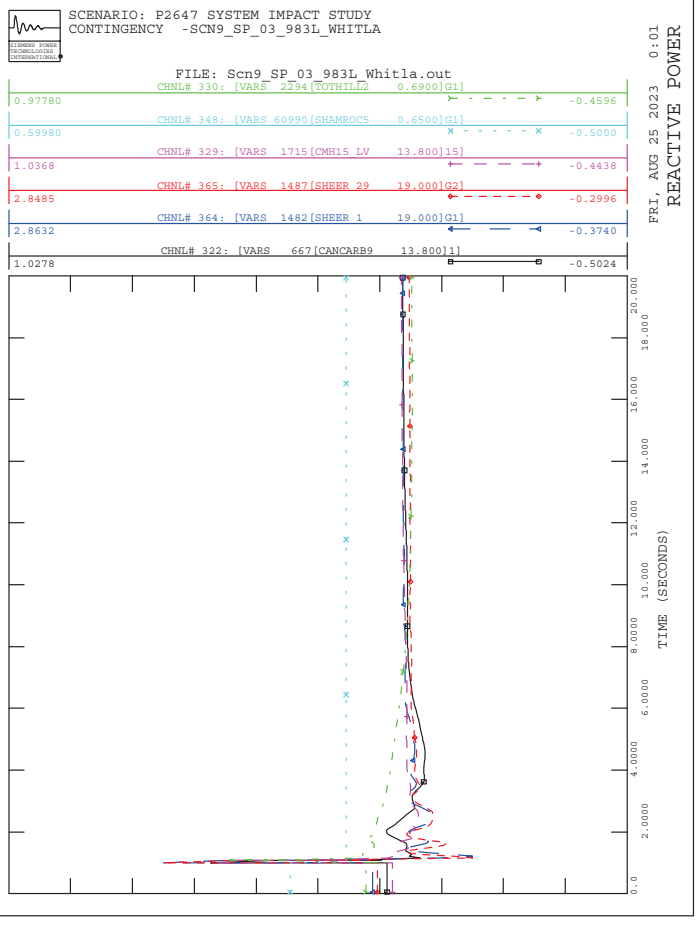

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 649: [1035L P]
797.52
-265.8
CHNL# 647: [1034L P]
886.60
-292.8
CHNL# 645: [983L P]
268.00
-146.3
CHNL# 643: [675L P]
113.44
-324.3
CHNL# 641: [1074L P]
276.35
-631.5
CHNL# 639: [964L P]
151.45
-407.1
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN8_SL_10_1035L_BOWMANTON
FILE: Scn8_SL_10_1035L_Bowmanton.out
CHNL# 655: [600L P]
20.397
-155.6
CHNL# 653: [880L P]
194.95
-45.70
CHNL# 651: [676L P]
111.85
-359.4
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA
FILE: Scn9_SP_03_983L_Whitla.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.4636
0.58830
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.3281
-0.2000
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.74360
0.09890
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.5357
0.81000
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.0189
1.3186
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.82970
0.03870
FRI, AUG 25 2023 0:01
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA
FILE: Scn9_SP_03_983L_Whitla.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.2093
0.58970
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1176
-0.1000
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1553
0.80160
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2032
0.90420
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2024
0.90620
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1619
0.70990
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA
FILE: Scn9_SP_03_983L_Whitla.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
121.52
-3.414
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
72.283
-35.96
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
77.070
-31.21
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
129.11
0.00470
FRI, AUG 25 2023 0:01
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA
FILE: Scn9_SP_03_983L_Whitla.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
0.97780
-0.4596
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.59980
-0.5000
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.0368
-0.4438
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
2.8485
-0.2996
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
2.8632
-0.3740
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.0278
-0.5024
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

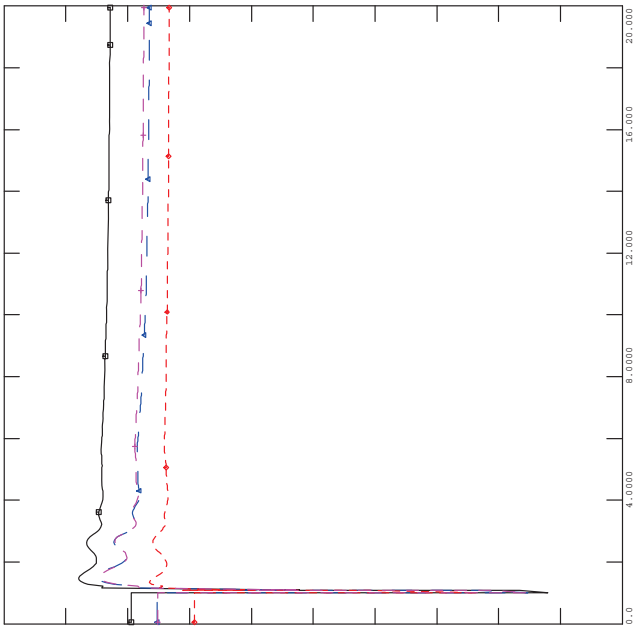
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA

FILE: Scn9_SP_03_983L_Whitla.out

FRI, AUG 25 2023 0:01

BUS VOLTAGE

CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.1653 0.52370
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.1545 0.72830
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.2038 0.54750
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.1733 0.34760



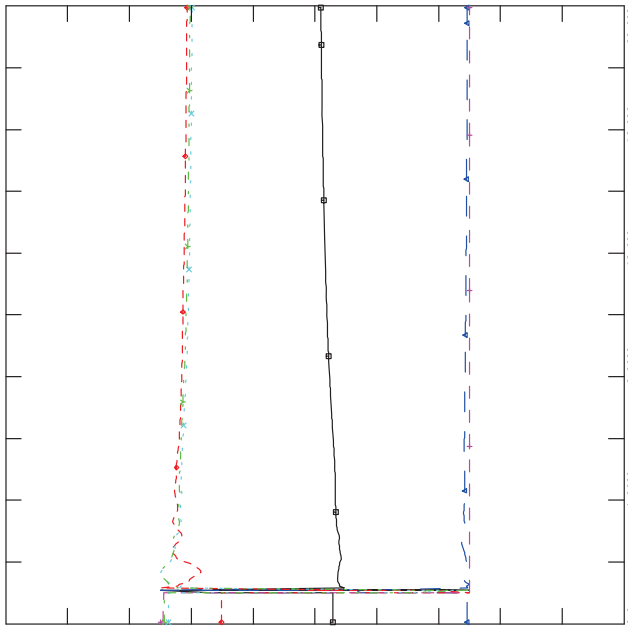
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA

FILE: Scn9_SP_03_983L_Whitla.out

FRI, AUG 25 2023 0:01

BRANCH Q

CHNL# 674: [1035L Q] 182.13 -383.9
CHNL# 672: [1034L Q] 167.94 -380.5
CHNL# 670: [983L Q] 417.56 -139.2
CHNL# 668: [675L Q] 108.73 -158.2
CHNL# 666: [1074L Q] 1193.9 -511.0
CHNL# 664: [964L Q] 658.52 -637.1



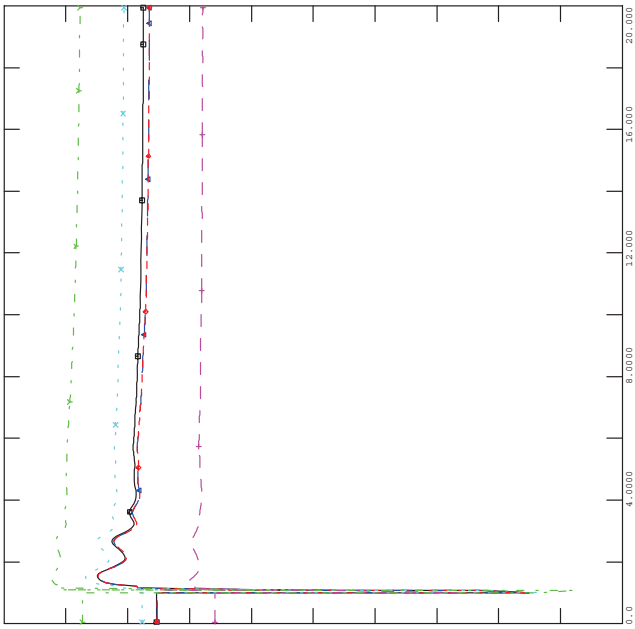
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA

FILE: Scn9_SP_03_983L_Whitla.out

FRI, AUG 25 2023 0:01

BUS VOLTAGE

CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.2072 -0.0977
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.1766 0.41640
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.1595 0.75340
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.2043 0.54820
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.2032 0.54700
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.1851 0.52170



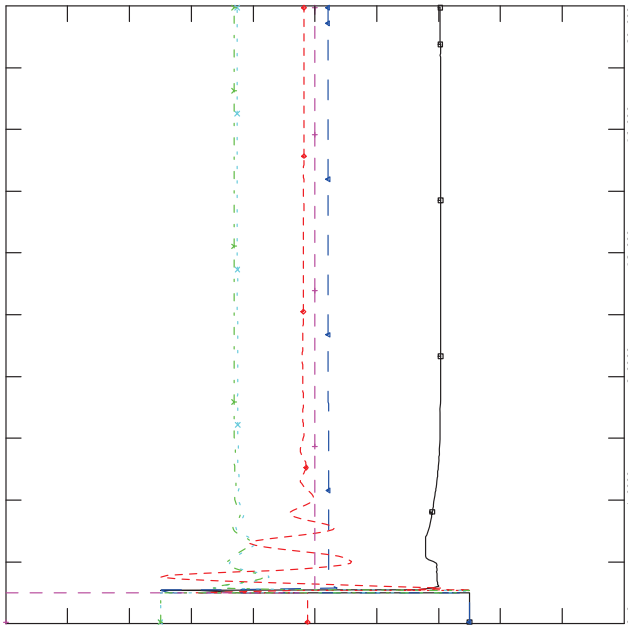
SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA

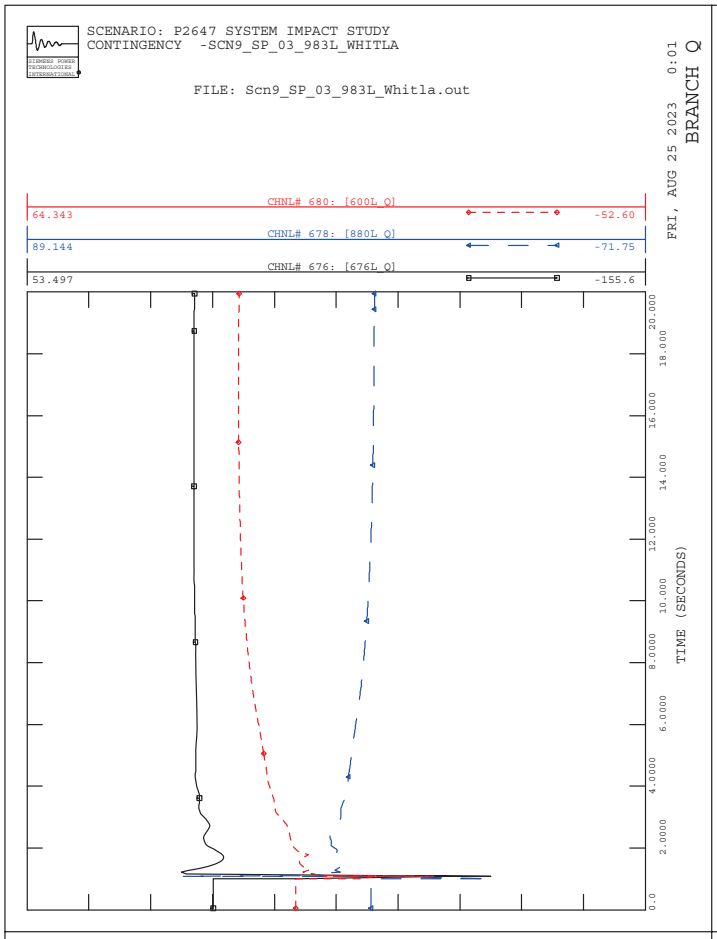
FILE: Scn9_SP_03_983L_Whitla.out

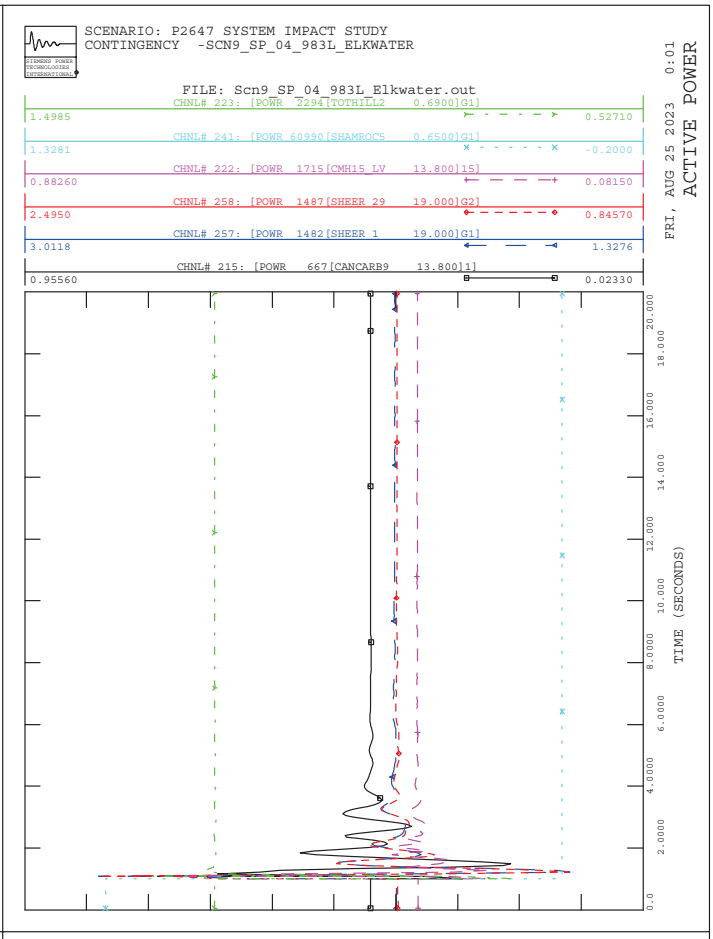
FRI, AUG 25 2023 0:01

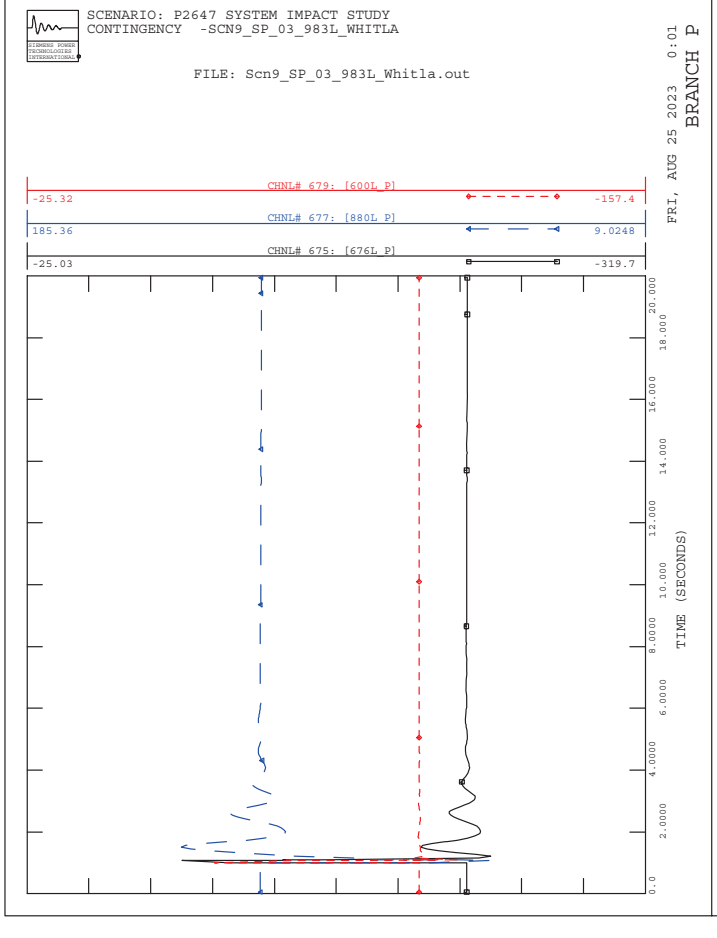
BRANCH P

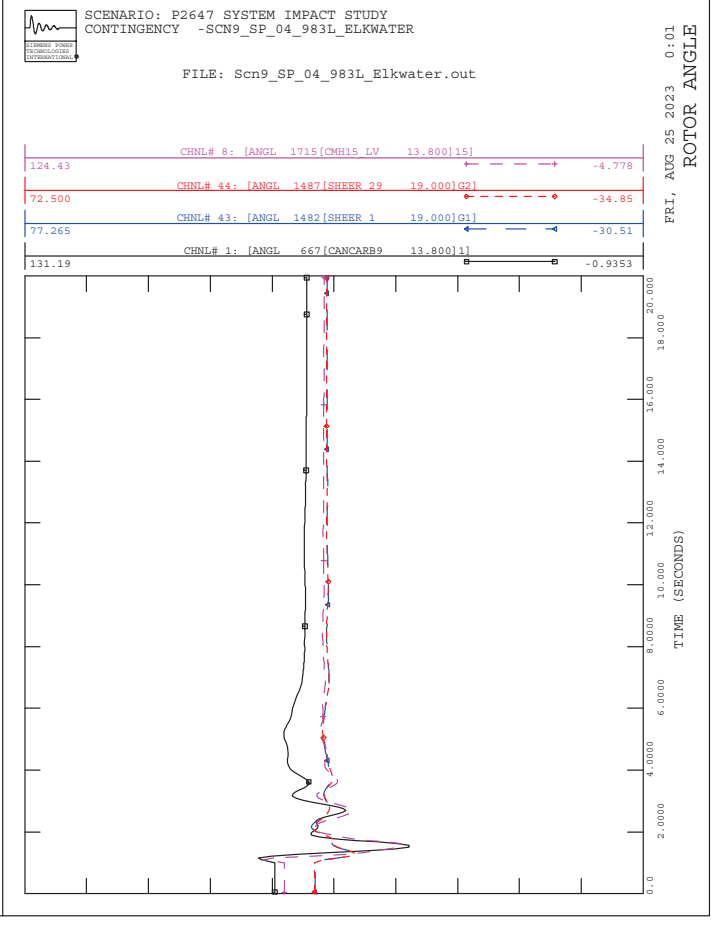
CHNL# 673: [1035L P] 717.05 -78.24
CHNL# 671: [1034L P] 682.02 -85.09
CHNL# 669: [983L P] 5000.0 -5000.
CHNL# 667: [675L P] -4.676 -235.4
CHNL# 665: [1074L P] 120.27 -567.7
CHNL# 663: [964L P] 248.52 -432.3

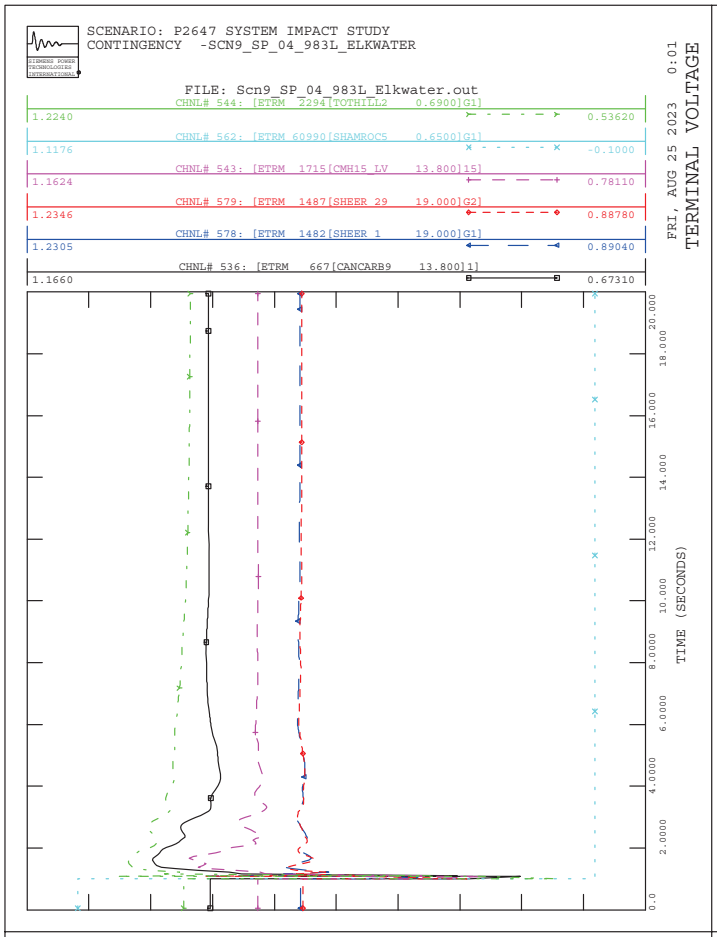


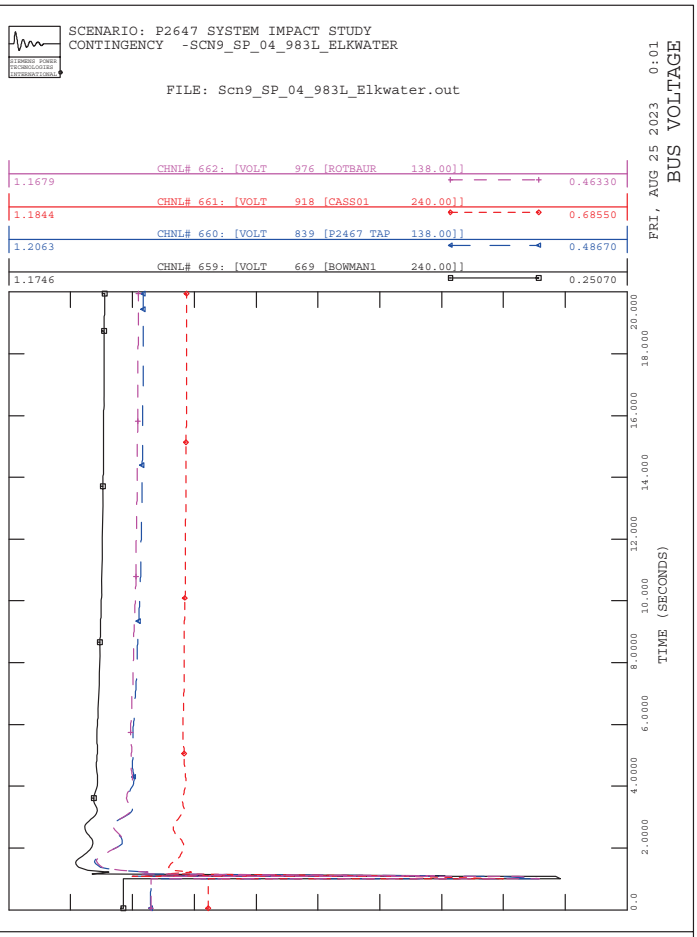

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA
FILE: Scn9_SP_03_983L_Whitla.out
FRI, AUG 25 2023 0:01
BRANCH Q
CHNL# 680: [600L Q]
64.343
-52.60
CHNL# 678: [880L Q]
89.144
-71.75
CHNL# 676: [676L Q]
53.497
-155.6
TIME (SECONDS)

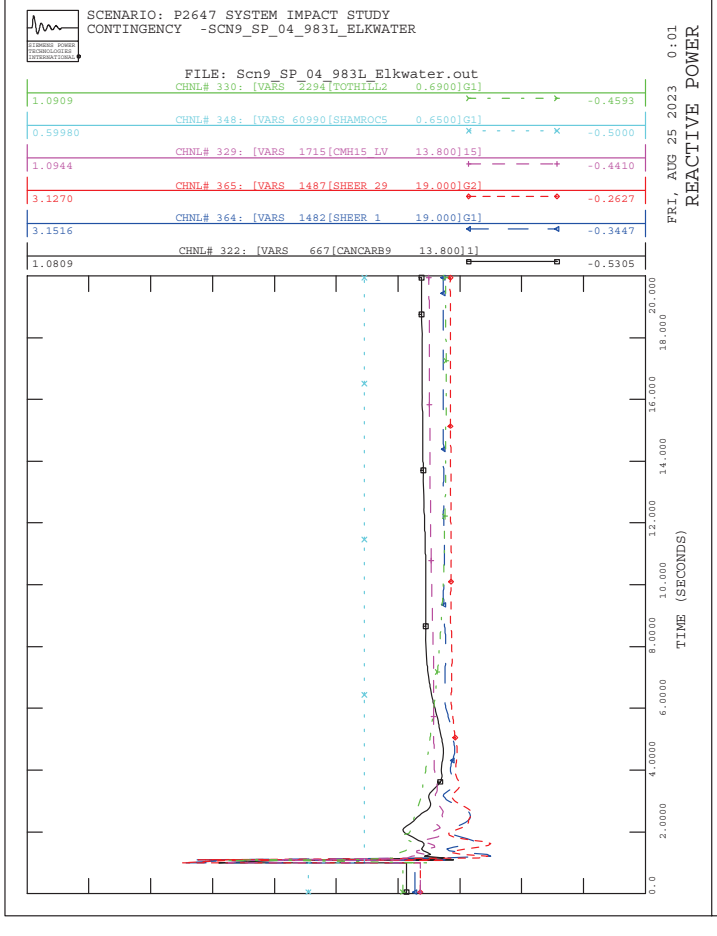

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
FRI, AUG 25 2023 0:01
ACTIVE POWER
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.4985
0.52710
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.3281
-0.2000
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.88260
0.08150
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.4950
0.84570
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.0118
1.3276
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.95560
0.02330
TIME (SECONDS)

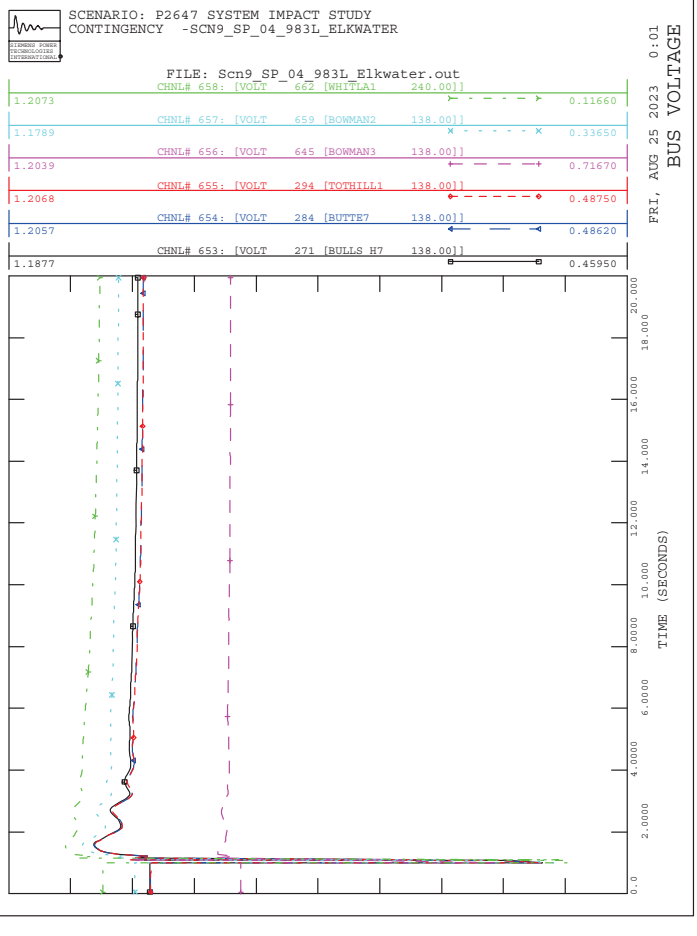

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_03_983L_WHITLA
FILE: Scn9_SP_03_983L_Whitla.out
FRI, AUG 25 2023 0:01
BRANCH P
CHNL# 679: [600L P]
-25.32
-157.4
CHNL# 677: [880L P]
185.36
9.0248
CHNL# 675: [676L P]
-25.03
-319.7
TIME (SECONDS)

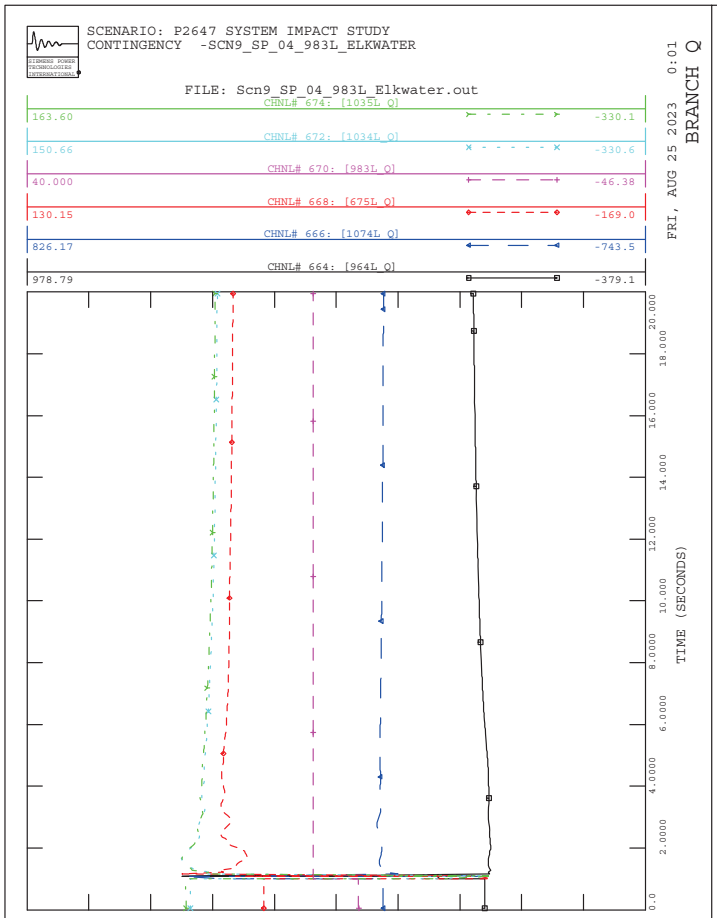

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
FRI, AUG 25 2023 0:01
ROTOR ANGLE
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
124.43
-4.778
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
72.500
-34.85
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
77.265
-30.51
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
131.19
-0.9353
TIME (SECONDS)

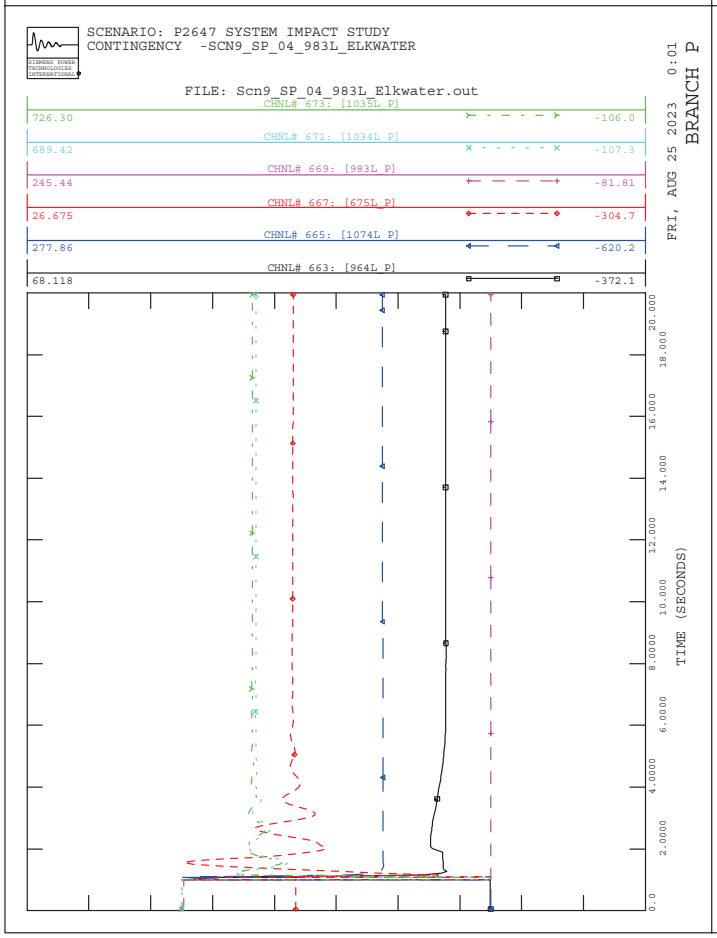

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1] 1.2240 0.53620
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1] 1.1176 -0.1000
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15] 1.1624 0.78110
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2] 1.2346 0.88780
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1] 1.2305 0.89040
CHNL# 536: [ETRM 667[CANCARB9 13.800]1] 1.1660 0.67310
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

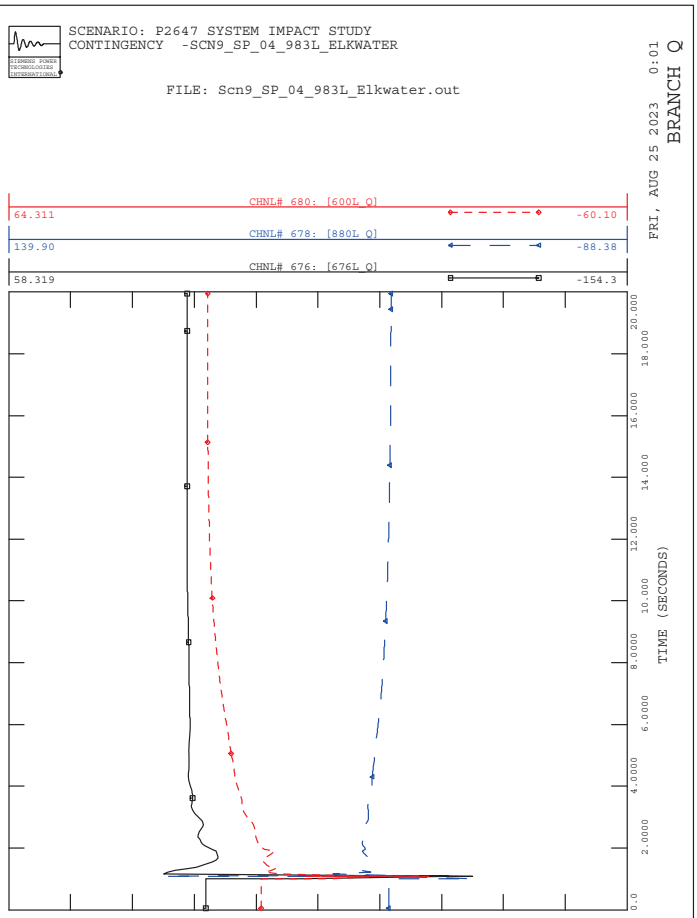

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]] 1.1679 0.46330
CHNL# 661: [VOLT 918 [CASS01 240.00]] 1.1844 0.68550
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]] 1.2063 0.48670
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]] 1.1746 0.25070
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

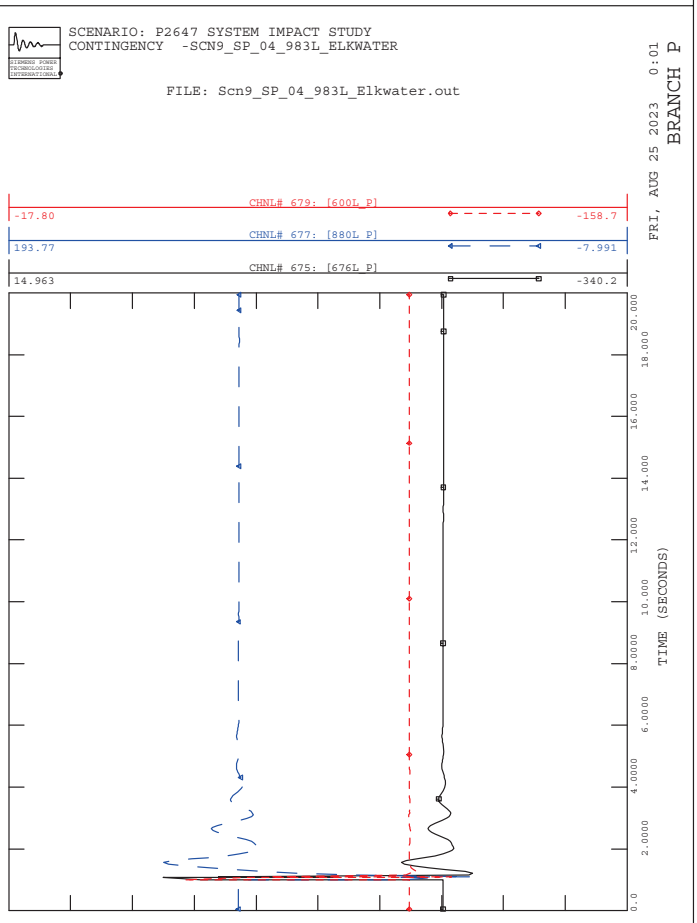

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1] 1.0909 -0.4593
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1] 0.59980 -0.5000
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15] 1.0944 -0.4410
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2] 3.1270 -0.2627
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1] 3.1516 -0.3447
CHNL# 322: [VARS 667[CANCARB9 13.800]1] 1.0809 -0.5305
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

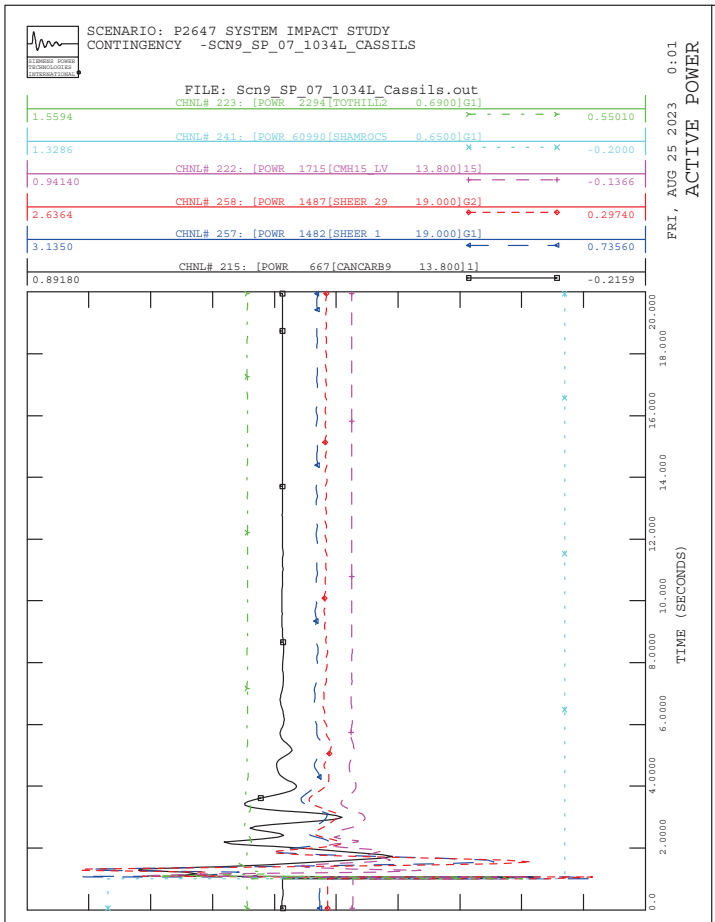

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]] 1.2073 0.11660
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]] 1.1789 0.33650
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]] 1.2039 0.71670
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]] 1.2068 0.48750
CHNL# 654: [VOLT 284 [BUTTE7 138.00]] 1.2057 0.48620
CHNL# 653: [VOLT 271 [BULLS H7 138.00]] 1.1877 0.45950
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0 2.0000 4.0000 6.0000 8.0000 10.000 12.000 14.000 16.000 18.000 20.000

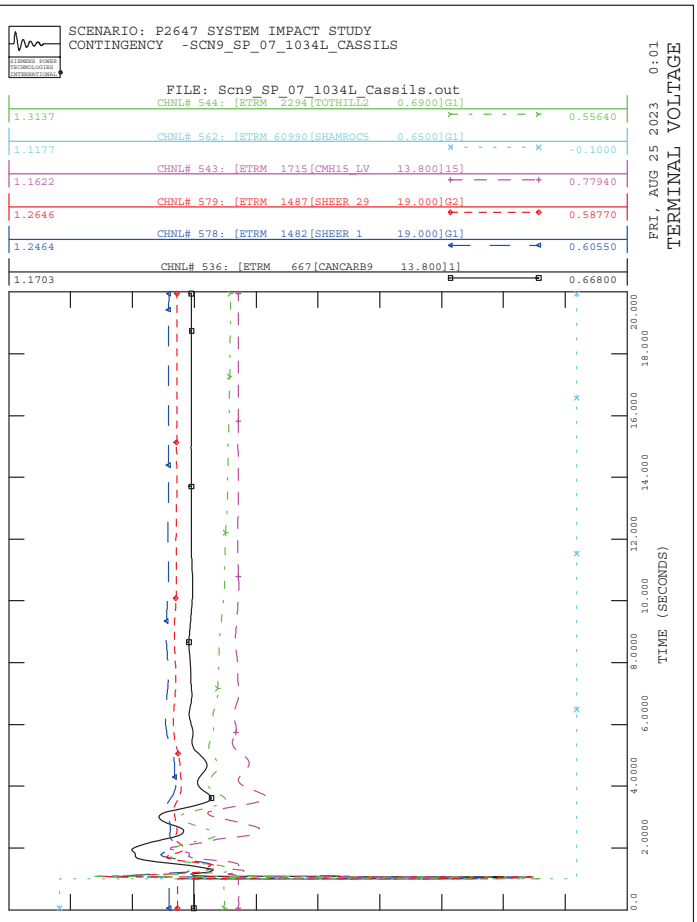

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 674: [1035L Q]
163.60
-330.1
CHNL# 672: [1034L Q]
150.66
-330.6
CHNL# 670: [983L Q]
40.000
-46.38
CHNL# 668: [675L Q]
130.15
-169.0
CHNL# 666: [1074L Q]
826.17
-743.5
CHNL# 664: [964L Q]
978.79
-379.1
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

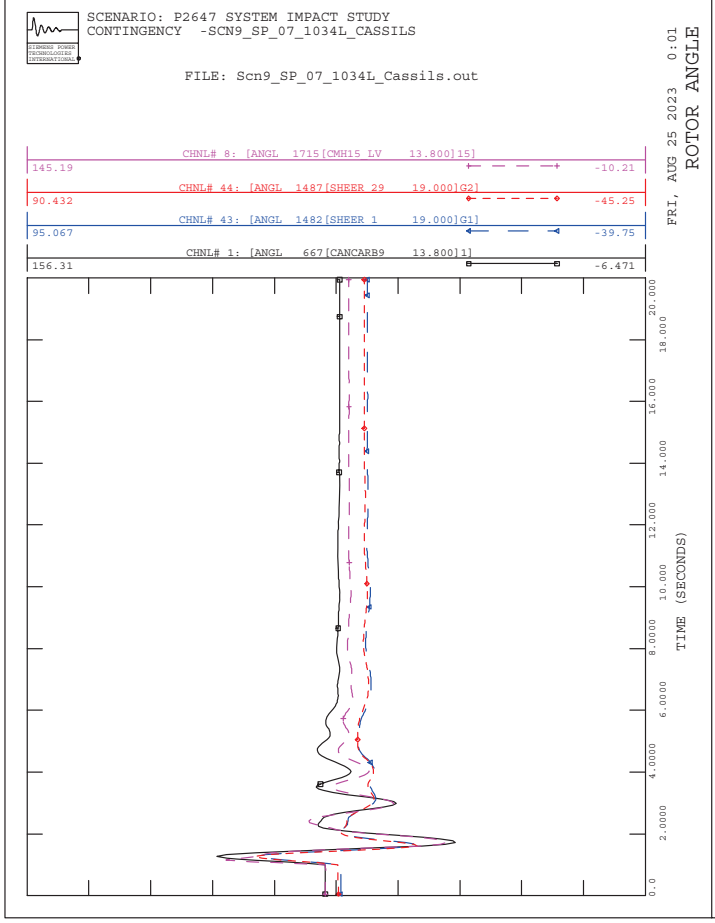

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 673: [1035L P]
726.30
-106.0
CHNL# 671: [1034L P]
689.42
-107.3
CHNL# 669: [983L P]
245.44
-81.81
CHNL# 667: [675L P]
26.675
-304.7
CHNL# 665: [1074L P]
277.86
-620.2
CHNL# 663: [964L P]
68.118
-372.1
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

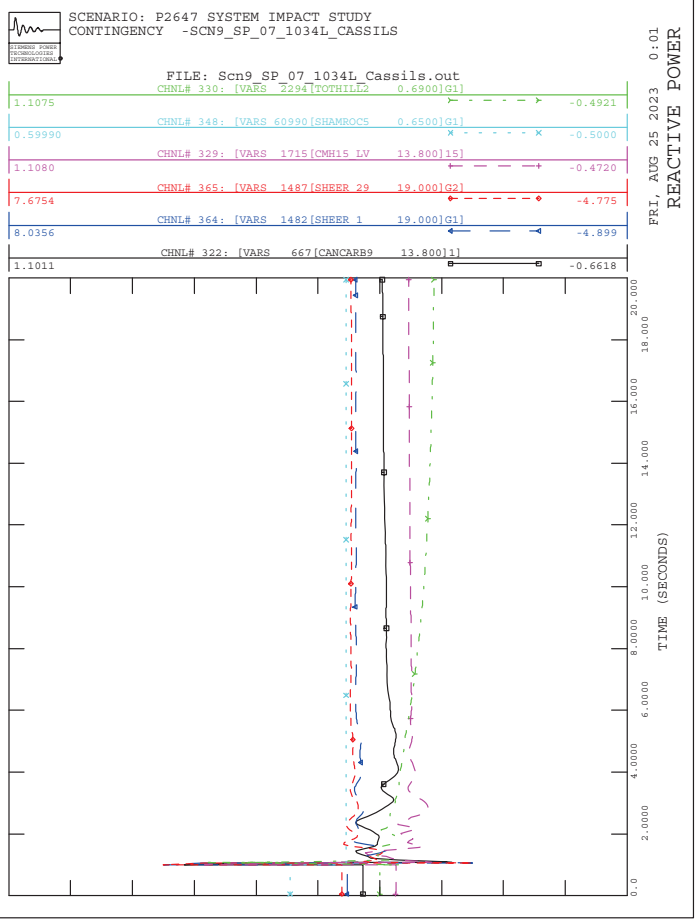

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 680: [600L Q]
64.311
-60.10
CHNL# 678: [880L Q]
139.90
-88.38
CHNL# 676: [676L Q]
58.319
-154.3
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

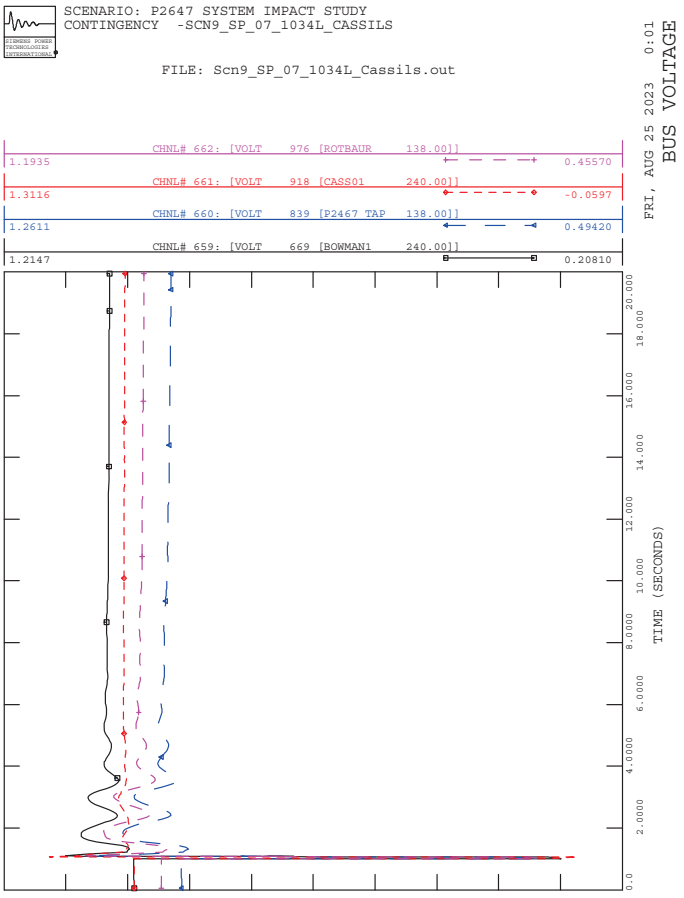

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_04_983L_ELKWATER
FILE: Scn9_SP_04_983L_Elkwater.out
CHNL# 679: [600L P]
-17.80
-158.7
CHNL# 677: [880L P]
193.77
-7.991
CHNL# 675: [676L P]
14.963
-340.2
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

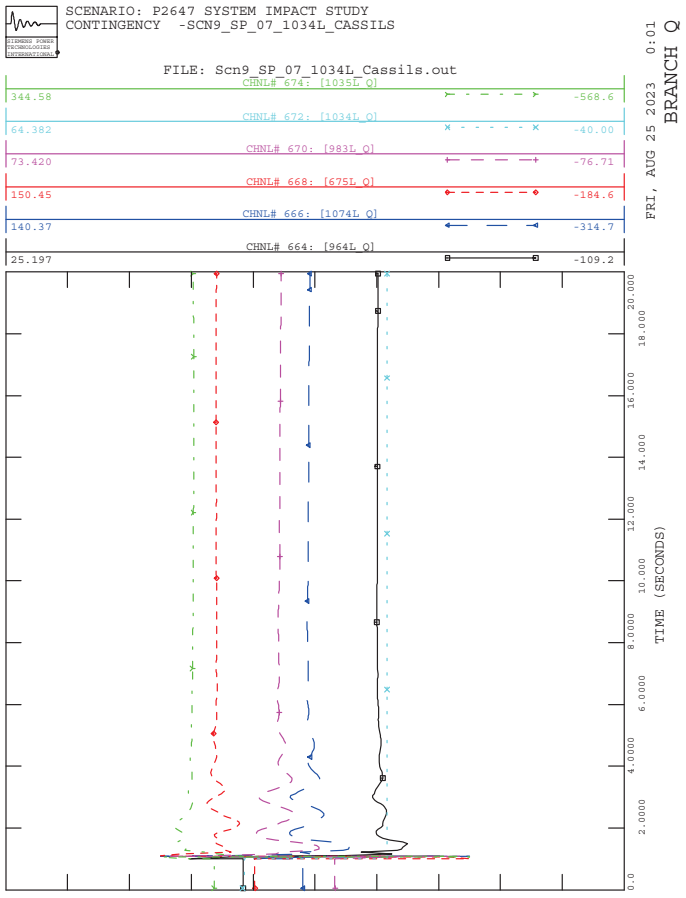

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.5594
0.55010
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.3286
-0.2000
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.94140
-0.1366
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.6364
0.29740
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.1350
0.73560
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.89180
-0.2159
FRI, AUG 25 2023 0:01
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

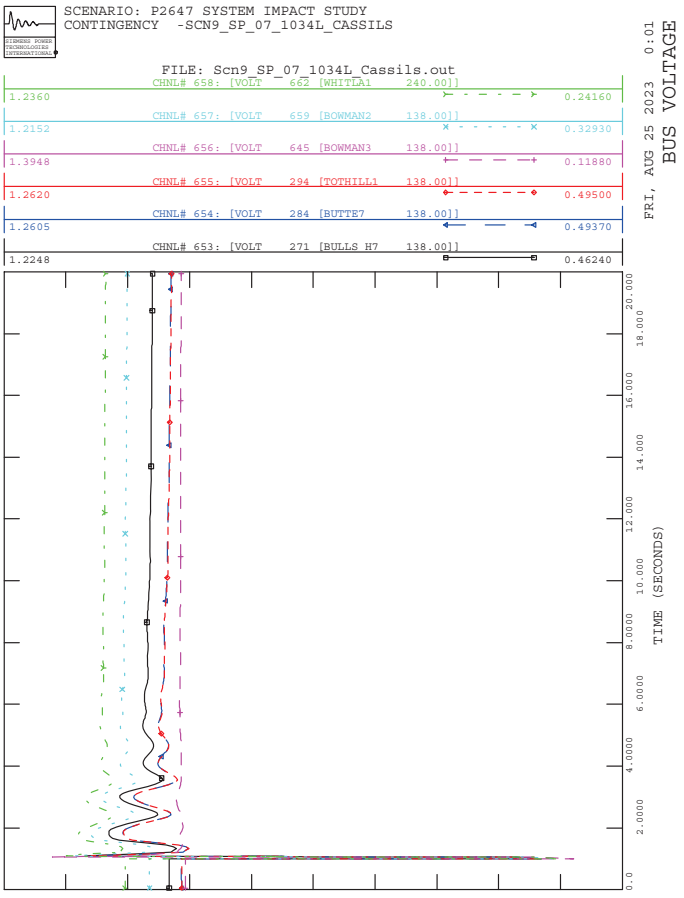

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3137
0.55640
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1177
-0.1000
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1622
0.77940
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2646
0.58770
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2464
0.60550
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1703
0.66800
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

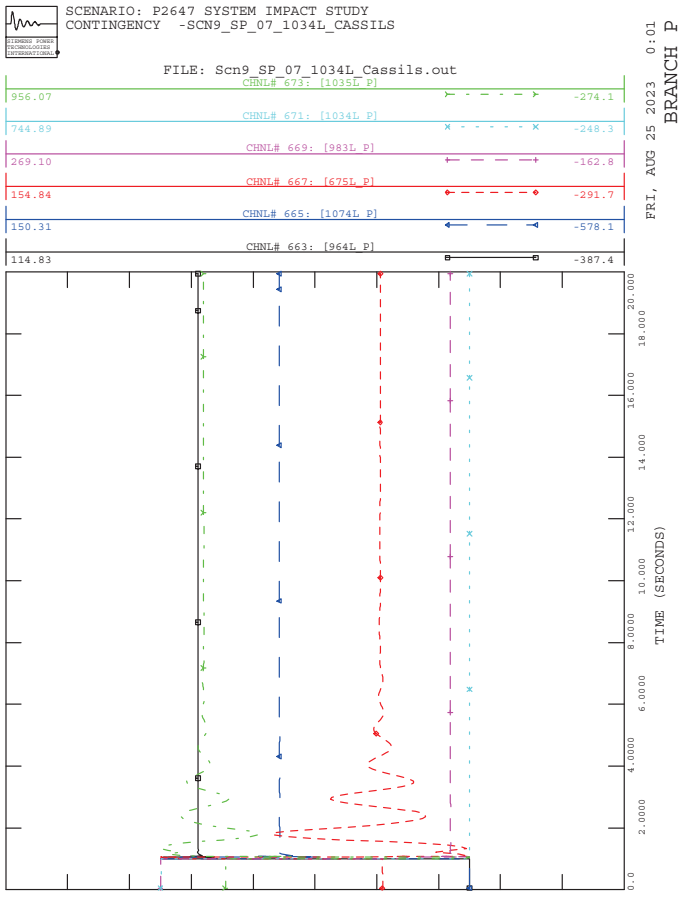

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
145.19
-10.21
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
90.432
-45.25
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
95.067
-39.75
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
156.31
-6.471
FRI, AUG 25 2023 0:01
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.1075
-0.4921
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.59990
-0.5000
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.1080
-0.4720
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
7.6754
-4.775
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
8.0356
-4.899
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.1011
-0.6618
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1935
0.45570
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.3116
-0.0597
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2611
0.49420
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2147
0.20810
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 674: [1035L Q]
344.58
-568.6
CHNL# 672: [1034L Q]
64.382
-40.00
CHNL# 670: [983L Q]
73.420
-76.71
CHNL# 668: [675L Q]
150.45
-184.6
CHNL# 666: [1074L Q]
140.37
-314.7
CHNL# 664: [964L Q]
25.197
-109.2
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.2360
0.24160
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2152
0.32930
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.3948
0.11880
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2620
0.49500
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2605
0.49370
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.2248
0.46240
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS
FILE: Scn9_SP_07_1034L_Cassils.out
CHNL# 673: [1035L P]
956.07
-274.1
CHNL# 671: [1034L P]
744.89
-248.3
CHNL# 669: [983L P]
269.10
-162.8
CHNL# 667: [675L P]
154.84
-291.7
CHNL# 665: [1074L P]
150.31
-578.1
CHNL# 663: [964L P]
114.83
-387.4
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS

FILE: Scn9_SP_07_1034L_Cassils.out

FRI, AUG 25 2023 0:01

BRANCH Q

CHNL# 680: [600L Q] 67.638 -67.76
CHNL# 678: [880L Q] 149.94 -76.81
CHNL# 676: [676L Q] 74.586 -195.7

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON

FILE: Scn9_SP_08_1034L_Bowmanton.out

FRI, AUG 25 2023 0:01

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4031 0.09790
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.3286 -0.2000
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 1.0686 -0.0187
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.7327 0.78640
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 3.2055 1.2986
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.0992 -0.0411

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_07_1034L_CASSILS

FILE: Scn9_SP_07_1034L_Cassils.out

FRI, AUG 25 2023 0:01

BRANCH P

CHNL# 679: [600L P] -11.85 -163.4
CHNL# 677: [880L P] 191.13 31.229
CHNL# 675: [676L P] 105.42 -380.3

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON

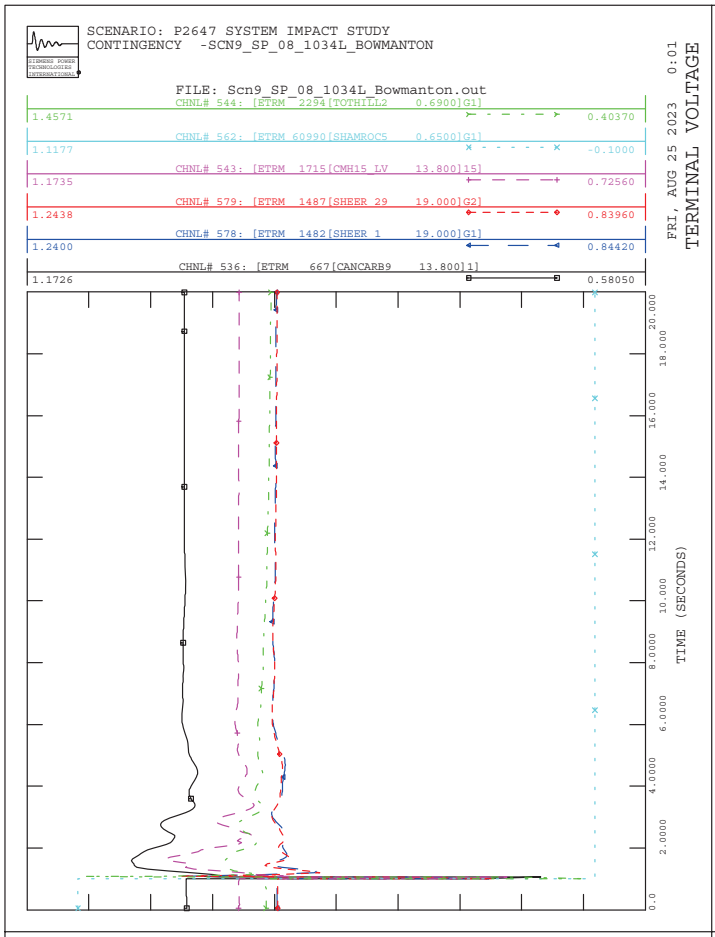
FILE: Scn9_SP_08_1034L_Bowmanton.out

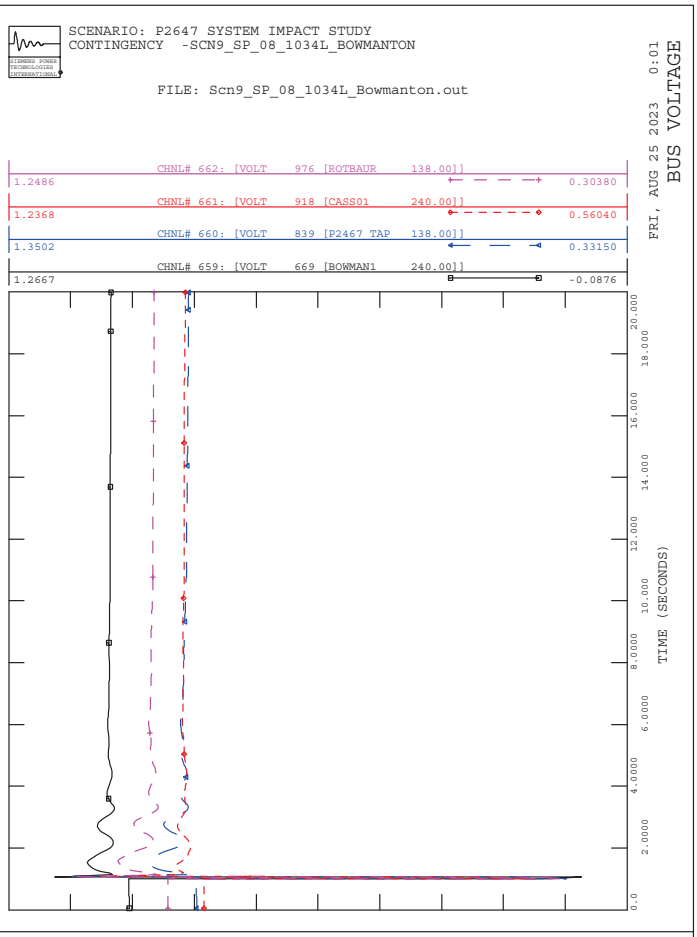
FRI, AUG 25 2023 0:01

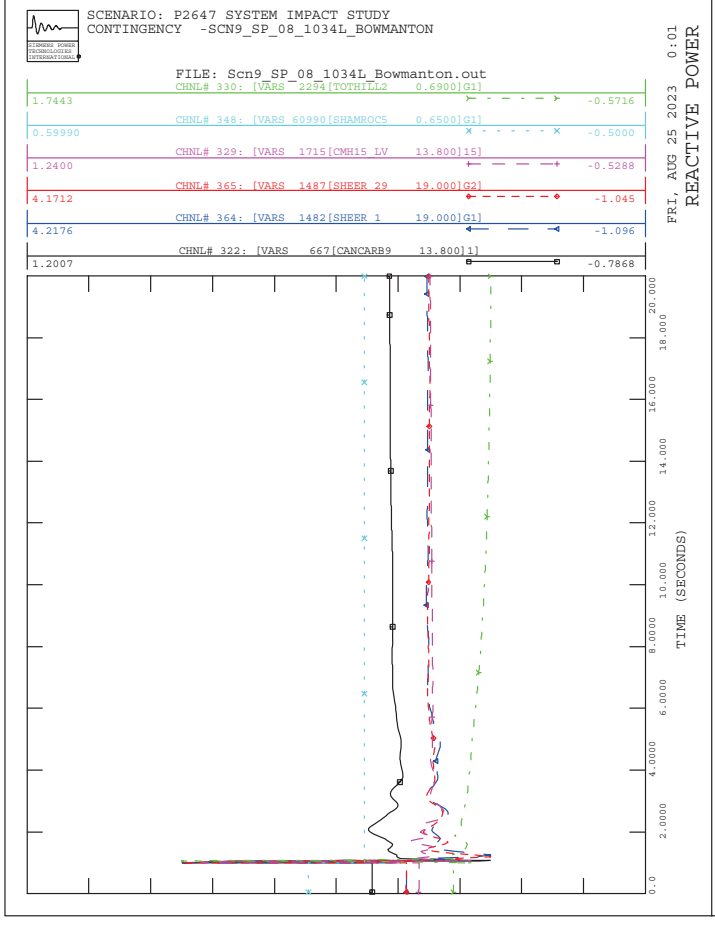
ROTOR ANGLE

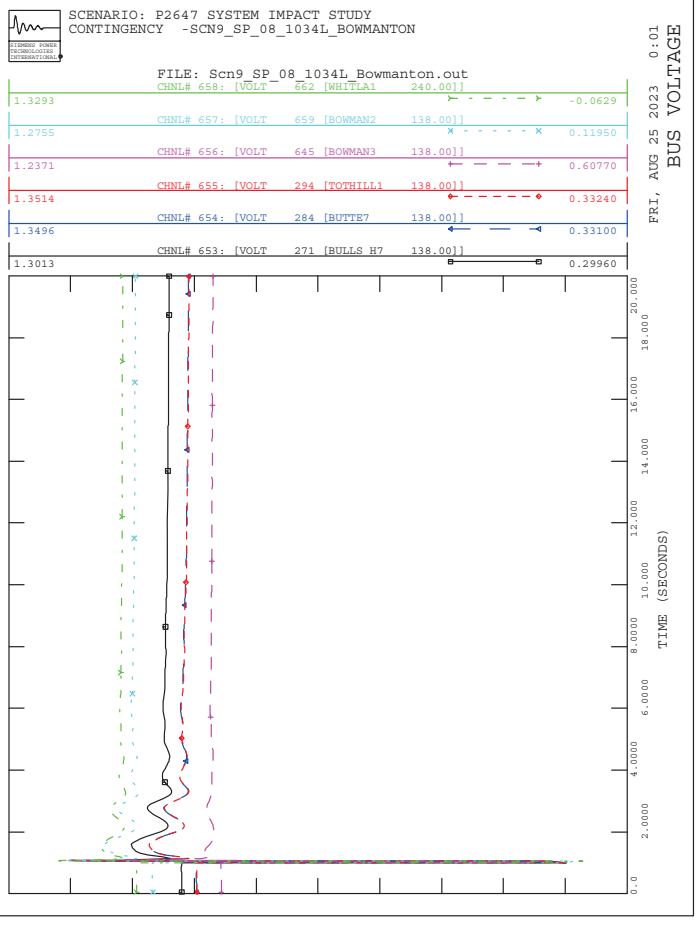
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 129.08 -11.18
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 72.191 -42.13
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 76.709 -36.96
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 133.50 -7.079

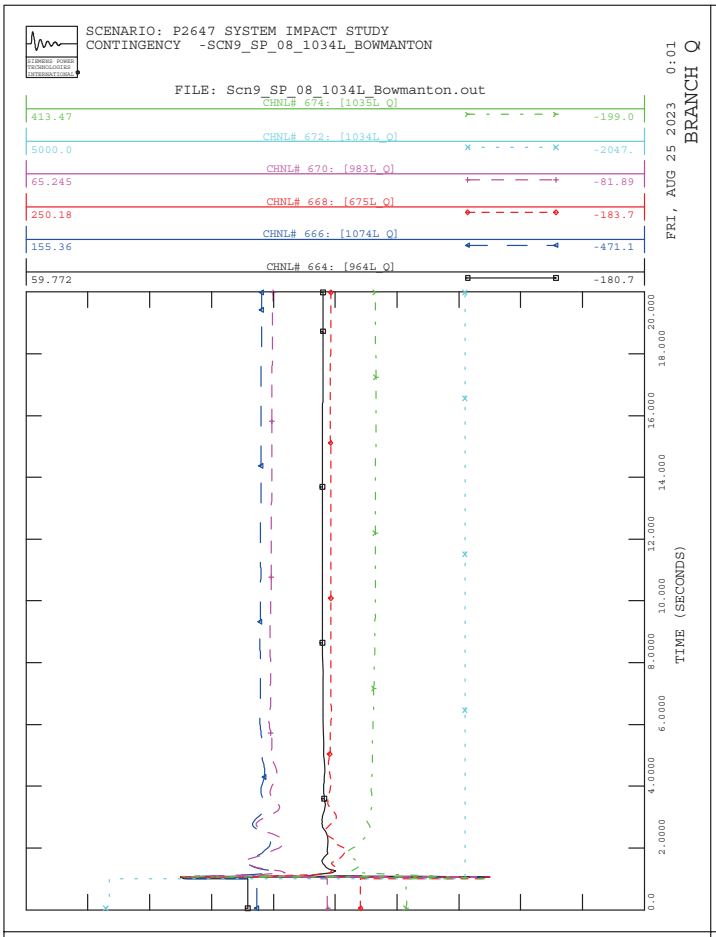
TIME (SECONDS)

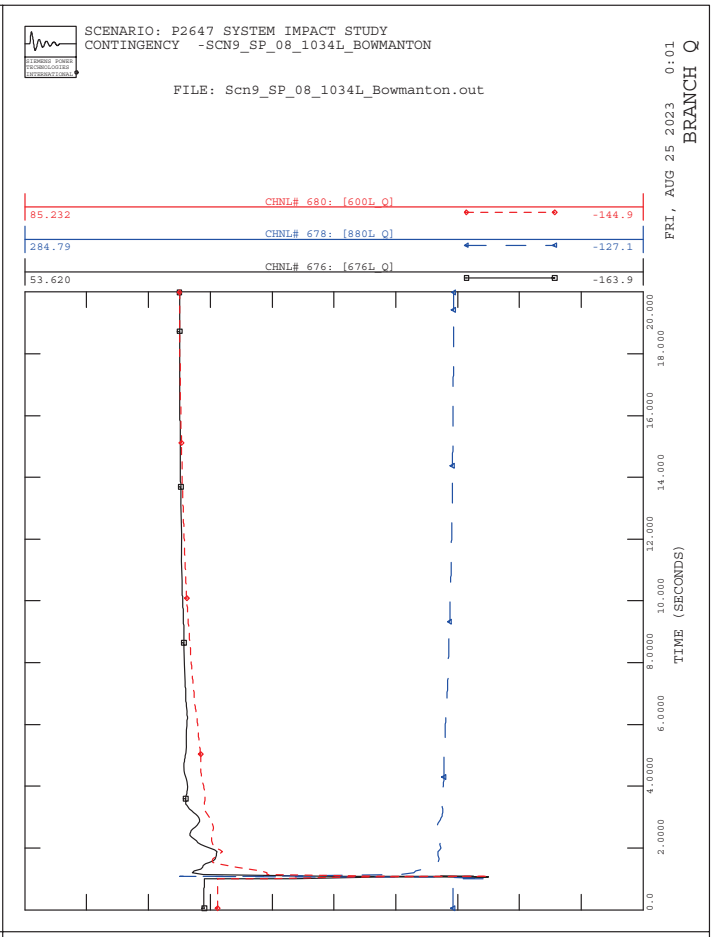

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.4571
0.40370
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1177
-0.1000
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.1735
0.72560
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2438
0.83960
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2400
0.84420
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1726
0.58050
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

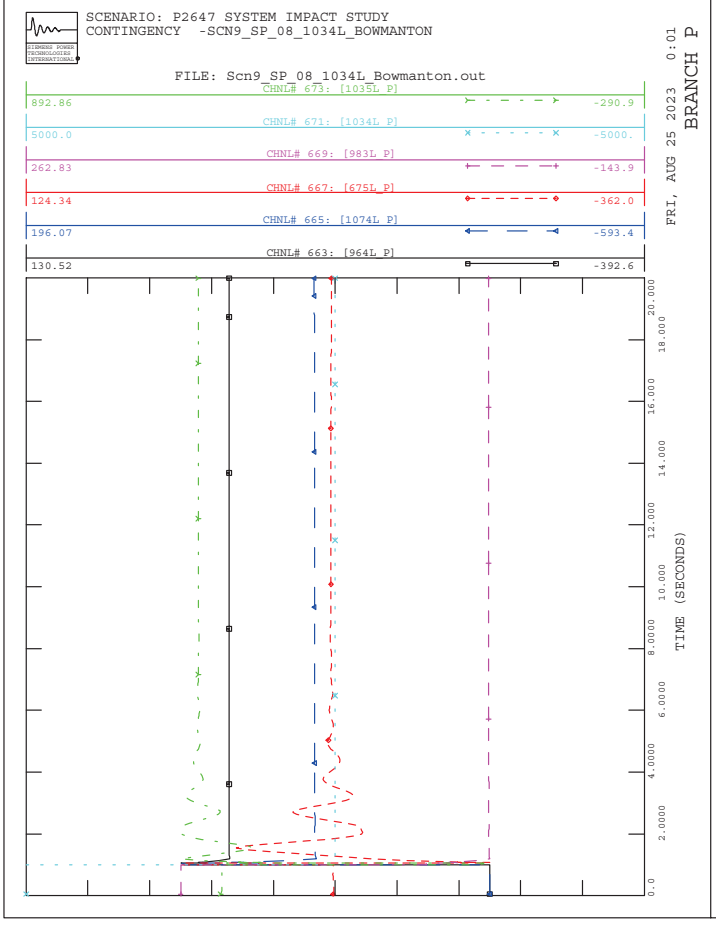

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.2486
0.30380
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.2368
0.56040
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.3502
0.33150
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2667
-0.0876
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

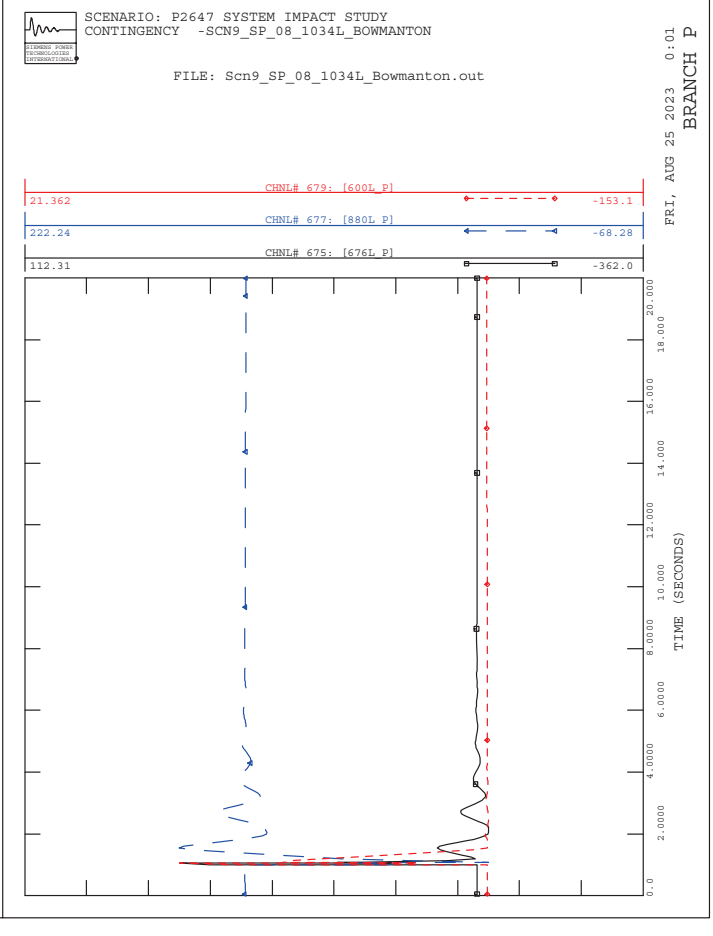

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.7443
-0.5716
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.59990
-0.5000
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.2400
-0.5288
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
4.1712
-1.045
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
4.2176
-1.096
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.2007
-0.7868
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

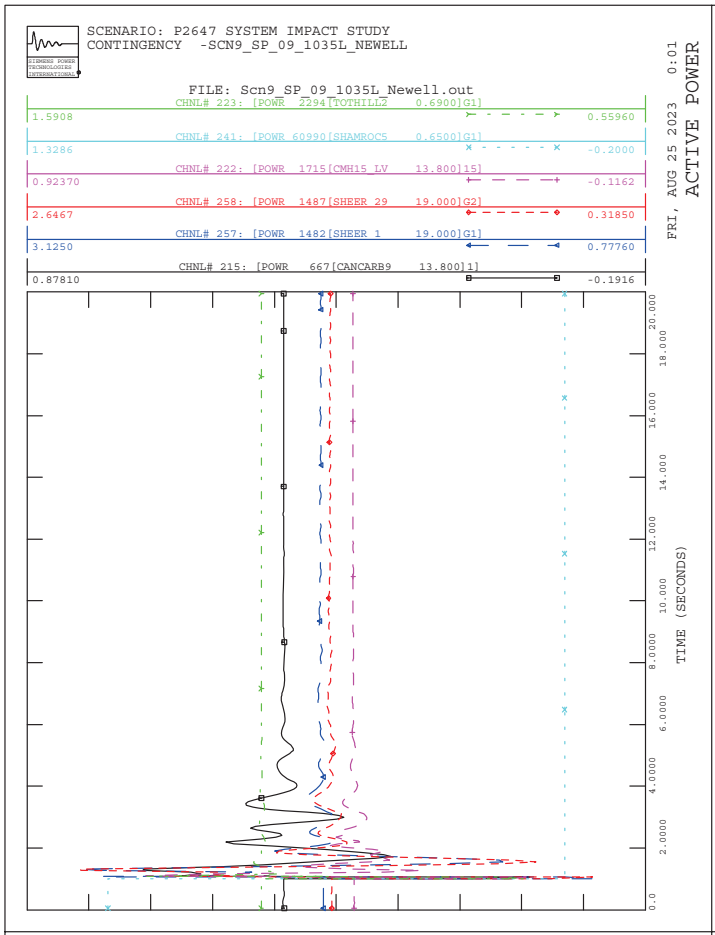

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.3293
-0.0629
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2755
0.11950
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2371
0.60770
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.3514
0.33240
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.3496
0.33100
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.3013
0.29960
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

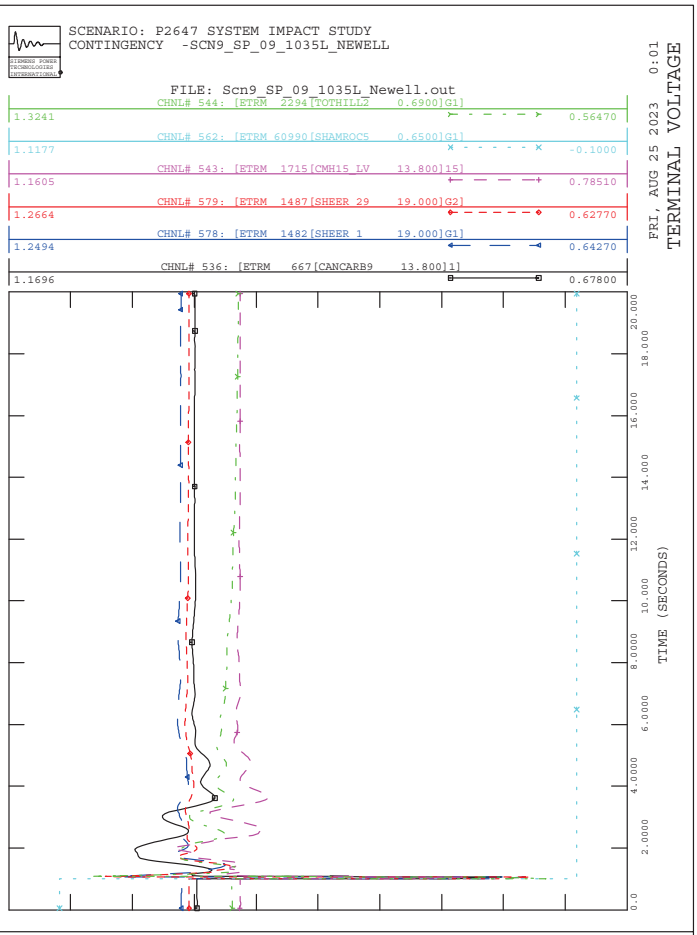

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 674: [1035L Q]
413.47
-199.0
CHNL# 672: [1034L Q]
5000.0
-2047.
CHNL# 670: [983L Q]
65.245
-81.89
CHNL# 668: [675L Q]
250.18
-183.7
CHNL# 666: [1074L Q]
155.36
-471.1
CHNL# 664: [964L Q]
59.772
-180.7
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

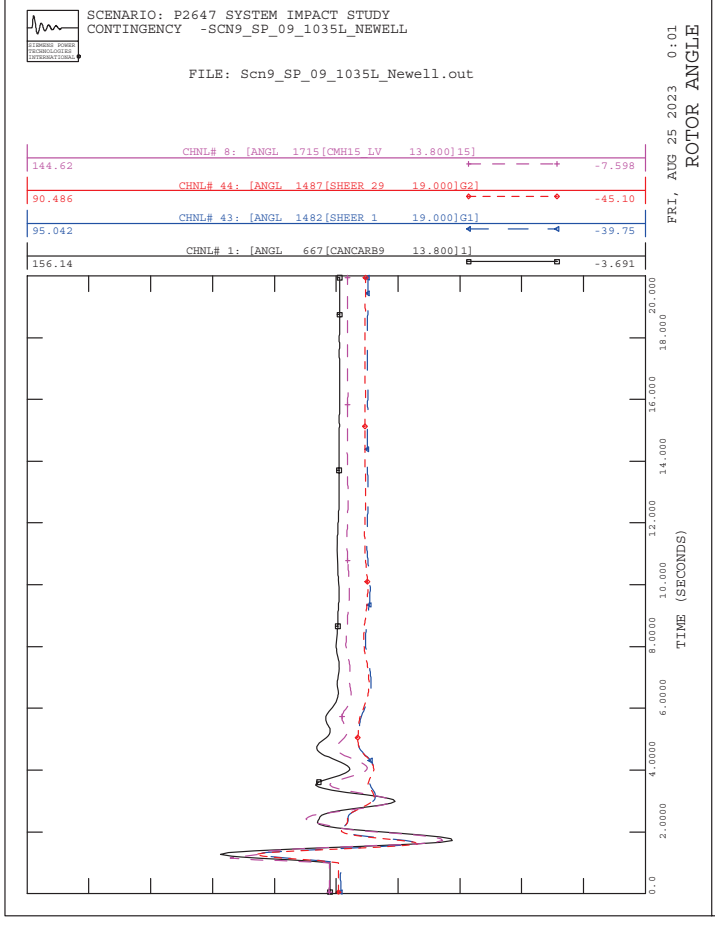

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 680: [600L Q]
85.232
-144.9
CHNL# 678: [880L Q]
284.79
-127.1
CHNL# 676: [676L Q]
53.620
-163.9
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

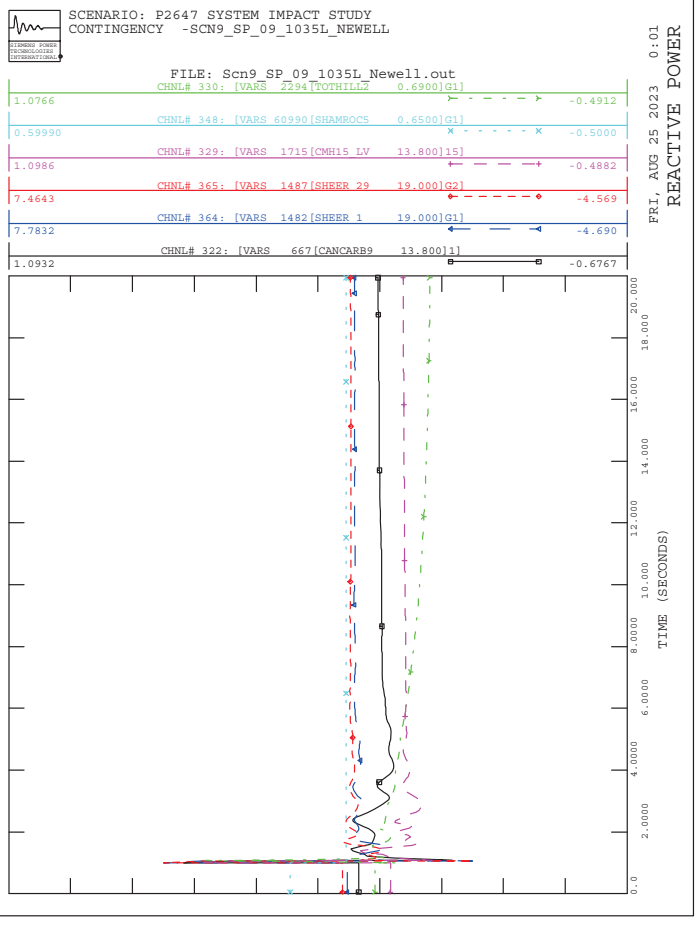

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 673: [1035L P]
892.86
-290.9
CHNL# 671: [1034L P]
5000.0
-5000.
CHNL# 669: [983L P]
262.83
-143.9
CHNL# 667: [675L P]
124.34
-362.0
CHNL# 665: [1074L P]
196.07
-593.4
CHNL# 663: [964L P]
130.52
-392.6
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

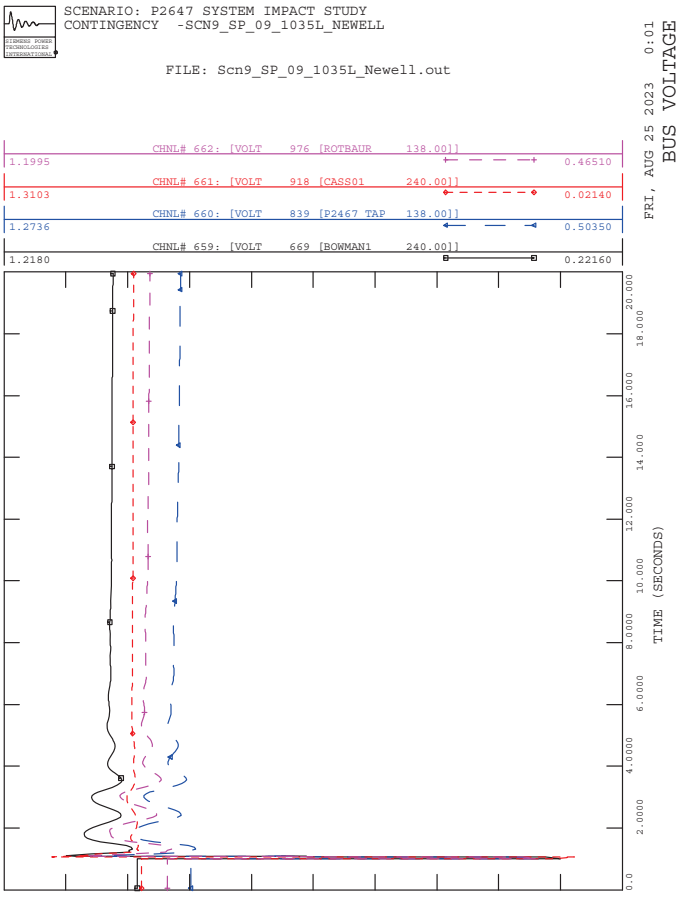

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_08_1034L_BOWMANTON
FILE: Scn9_SP_08_1034L_Bowmanton.out
CHNL# 679: [600L P]
21.362
-153.1
CHNL# 677: [880L P]
222.24
-68.28
CHNL# 675: [676L P]
112.31
-362.0
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

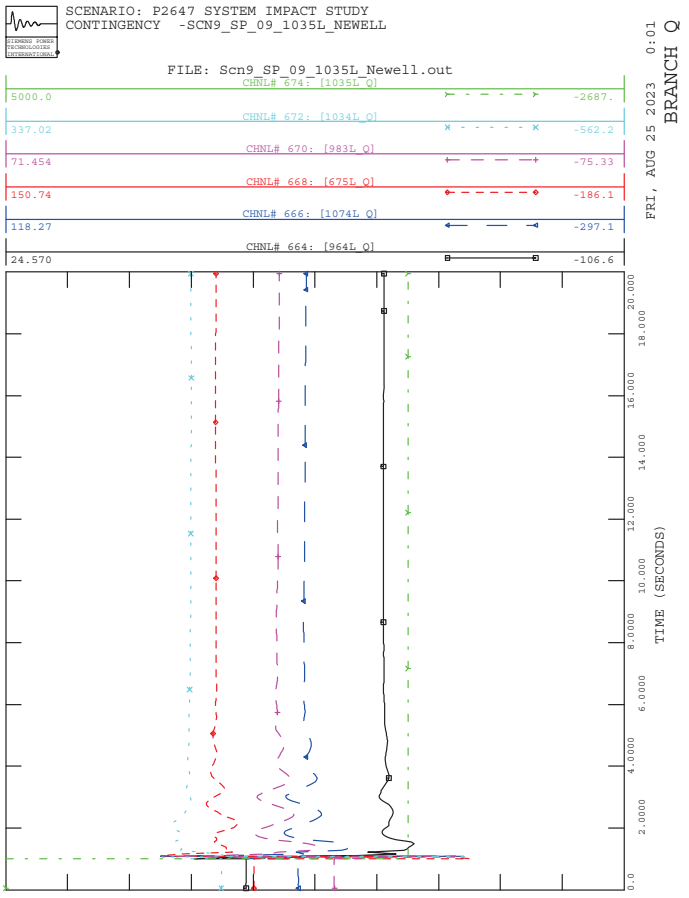

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1]
1.5908
0.55960
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1]
1.3286
-0.2000
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15]
0.92370
-0.1162
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2]
2.6467
0.31850
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1]
3.1250
0.77760
CHNL# 215: [POWR 667[CANCARB9 13.800]1]
0.87810
-0.1916
FRI, AUG 25 2023 0:01
ACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

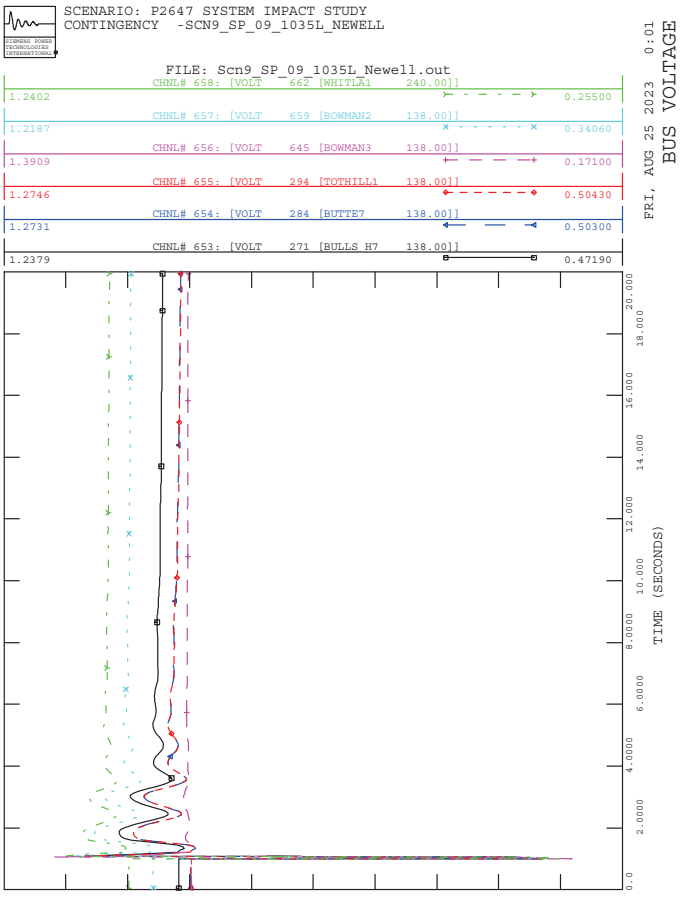

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.3241
0.56470
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1177
-0.1000
CHNL# 543: [ETRM 1715[CMH15_LV 13.800]15]
1.1605
0.78510
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2664
0.62770
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2494
0.64270
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1696
0.67800
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

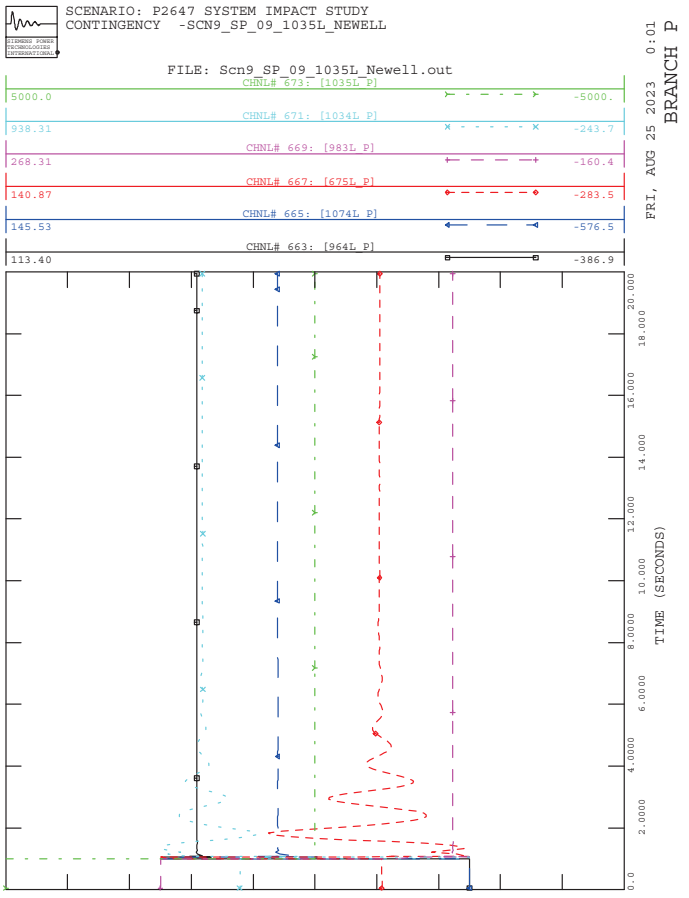

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15]
144.62
-7.598
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2]
90.486
-45.10
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1]
95.042
-39.75
CHNL# 1: [ANGL 667[CANCARB9 13.800]1]
156.14
-3.691
FRI, AUG 25 2023 0:01
ROTOR ANGLE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.0766
-0.4912
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.59990
-0.5000
CHNL# 329: [VARS 1715[CMH15_LV 13.800]15]
1.0986
-0.4882
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
7.4643
-4.569
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
7.7832
-4.690
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.0932
-0.6767
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.1995
0.46510
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.3103
0.02140
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.2736
0.50350
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2180
0.22160
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 674: [1035L Q]
5000.0
-2687.
CHNL# 672: [1034L Q]
337.02
-562.2
CHNL# 670: [983L Q]
71.454
-75.33
CHNL# 668: [675L Q]
150.74
-186.1
CHNL# 666: [1074L Q]
118.27
-297.1
CHNL# 664: [964L Q]
24.570
-106.6
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.2402
0.25500
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2187
0.34060
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.3909
0.17100
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.2746
0.50430
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.2731
0.50300
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.2379
0.47190
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL
FILE: Scn9_SP_09_1035L_Newell.out
CHNL# 673: [1035L P]
5000.0
-5000.
CHNL# 671: [1034L P]
938.31
-243.7
CHNL# 669: [983L P]
268.31
-160.4
CHNL# 667: [675L P]
140.87
-283.5
CHNL# 665: [1074L P]
145.53
-576.5
CHNL# 663: [964L P]
113.40
-386.9
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL

FILE: Scn9_SP_09_1035L_Newell.out

FRI, AUG 25 2023 0:01

BRANCH Q

CHNL# 680: [600L Q] 67.540 -64.76
CHNL# 678: [880L Q] 152.04 -77.73
CHNL# 676: [676L Q] 69.696 -185.1

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON

FILE: Scn9_SP_10_1035L_Bowmanton.out

FRI, AUG 25 2023 0:01

ACTIVE POWER

CHNL# 223: [POWR 2294[TOTHILL2 0.6900]G1] 1.4031 0.09790
CHNL# 241: [POWR 60990[SHAMROC5 0.6500]G1] 1.3286 -0.2000
CHNL# 222: [POWR 1715[CMH15_LV 13.800]15] 1.0590 -0.0188
CHNL# 258: [POWR 1487[SHEER 29 19.000]G2] 2.7394 0.79970
CHNL# 257: [POWR 1482[SHEER 1 19.000]G1] 3.2101 1.3159
CHNL# 215: [POWR 667[CANCARB9 13.800]1] 1.0874 -0.0413

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_09_1035L_NEWELL

FILE: Scn9_SP_09_1035L_Newell.out

FRI, AUG 25 2023 0:01

BRANCH P

CHNL# 679: [600L P] -12.98 -166.5
CHNL# 677: [880L P] 190.45 33.698
CHNL# 675: [676L P] 94.911 -374.4

TIME (SECONDS)

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON

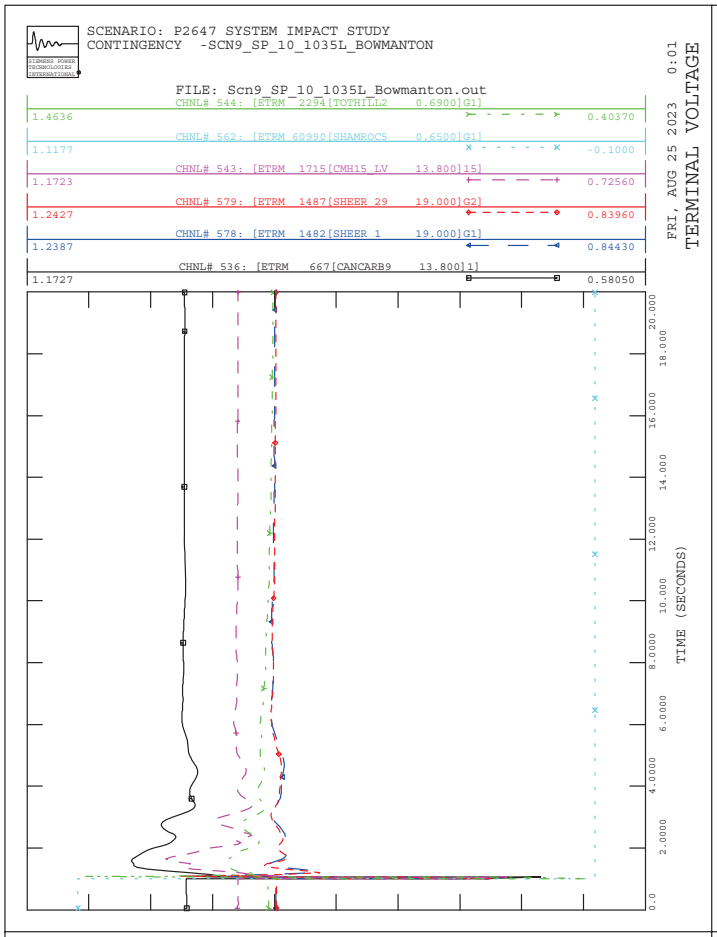
FILE: Scn9_SP_10_1035L_Bowmanton.out

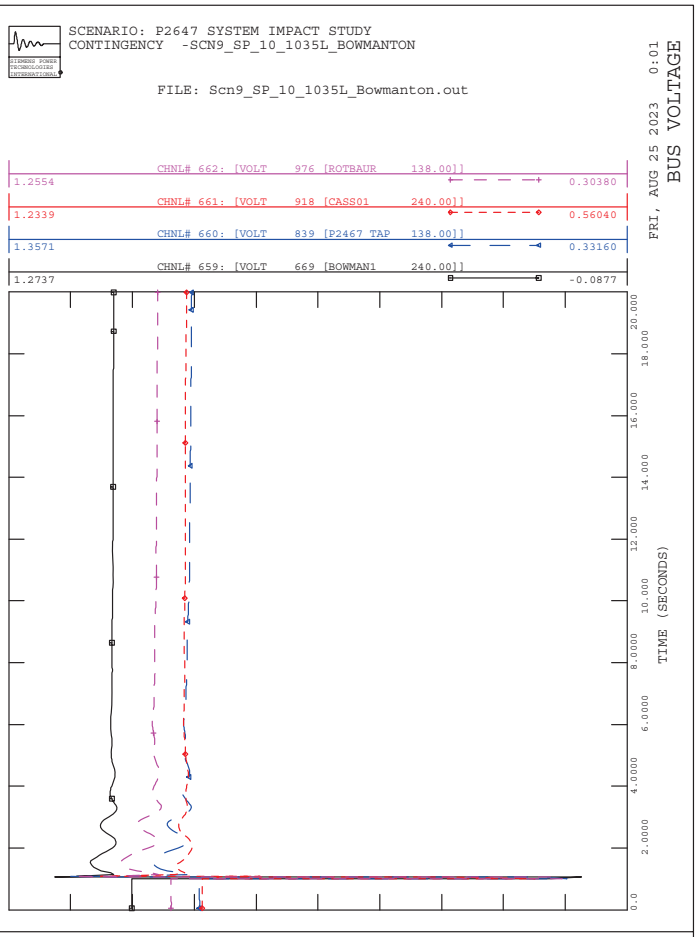
FRI, AUG 25 2023 0:01

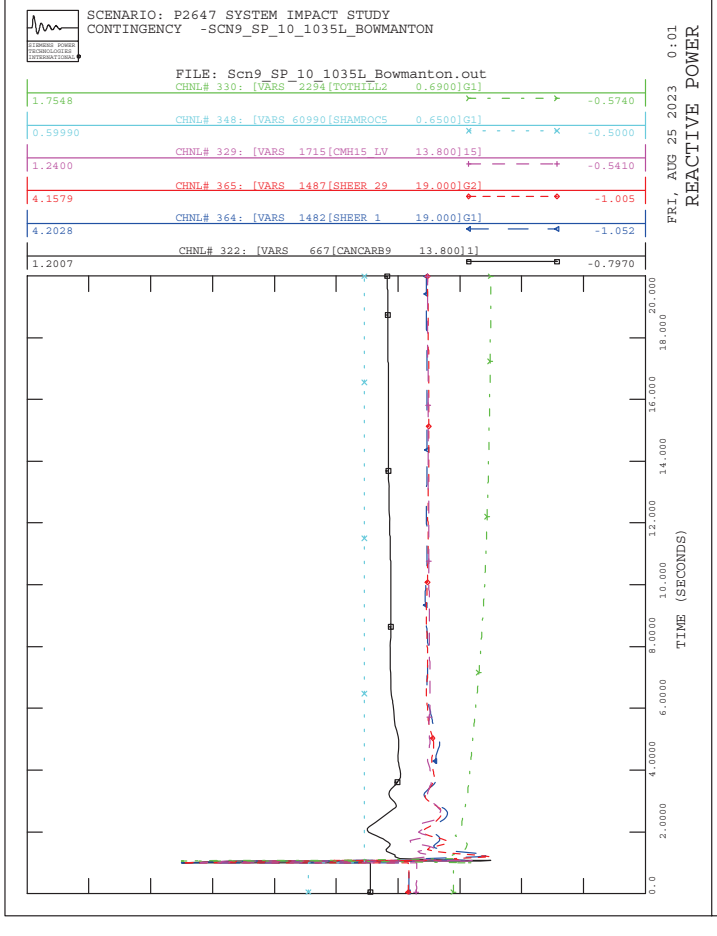
ROTOR ANGLE

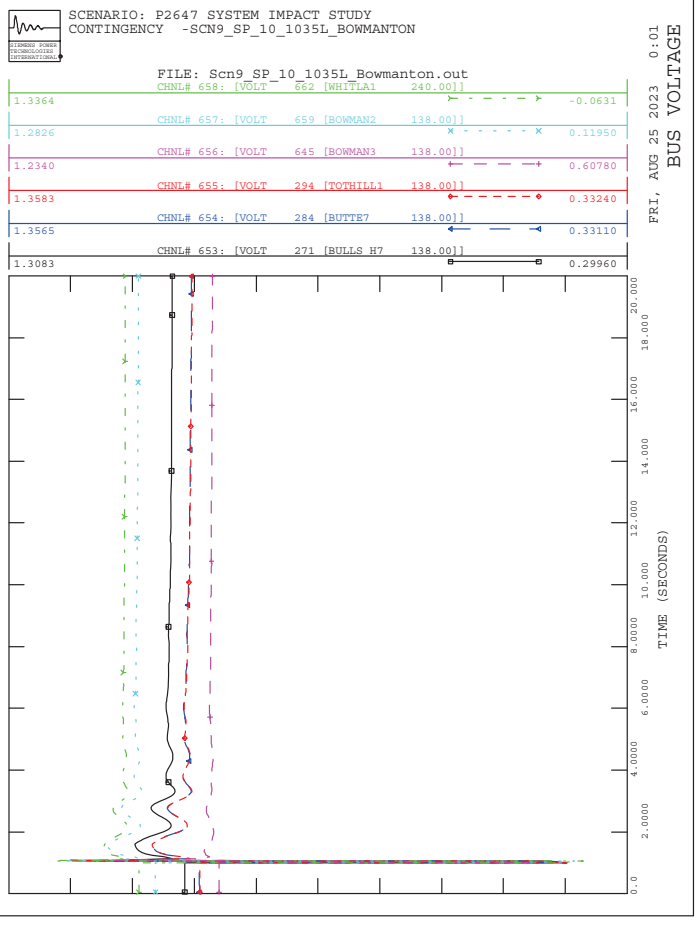
CHNL# 8: [ANGL 1715[CMH15_LV 13.800]15] 129.12 -9.077
CHNL# 44: [ANGL 1487[SHEER 29 19.000]G2] 72.191 -41.85
CHNL# 43: [ANGL 1482[SHEER 1 19.000]G1] 76.709 -36.68
CHNL# 1: [ANGL 667[CANCARB9 13.800]1] 133.68 -4.803

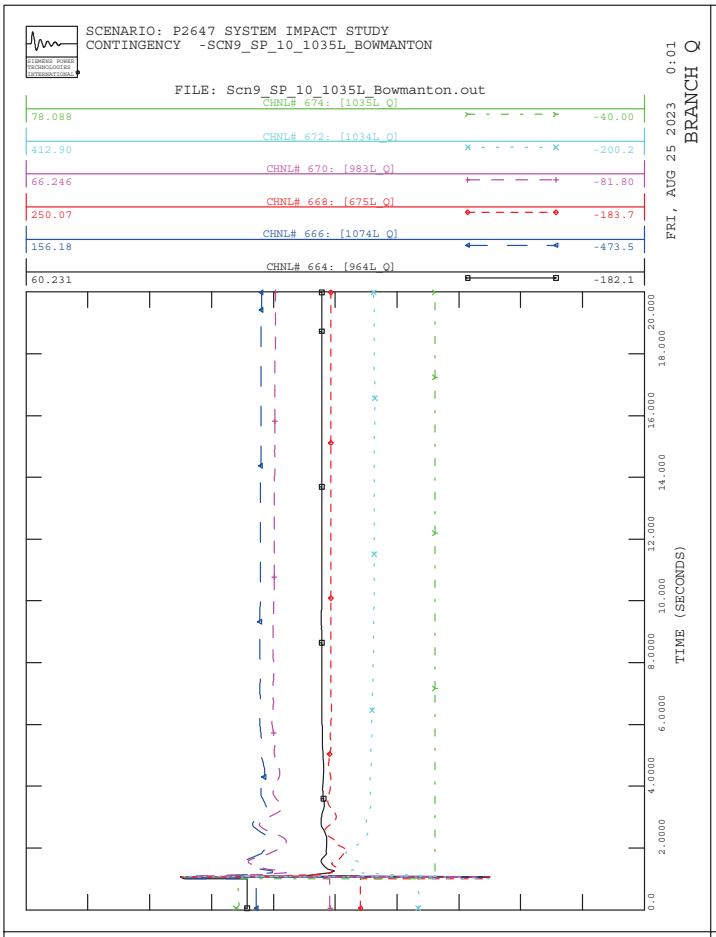
TIME (SECONDS)

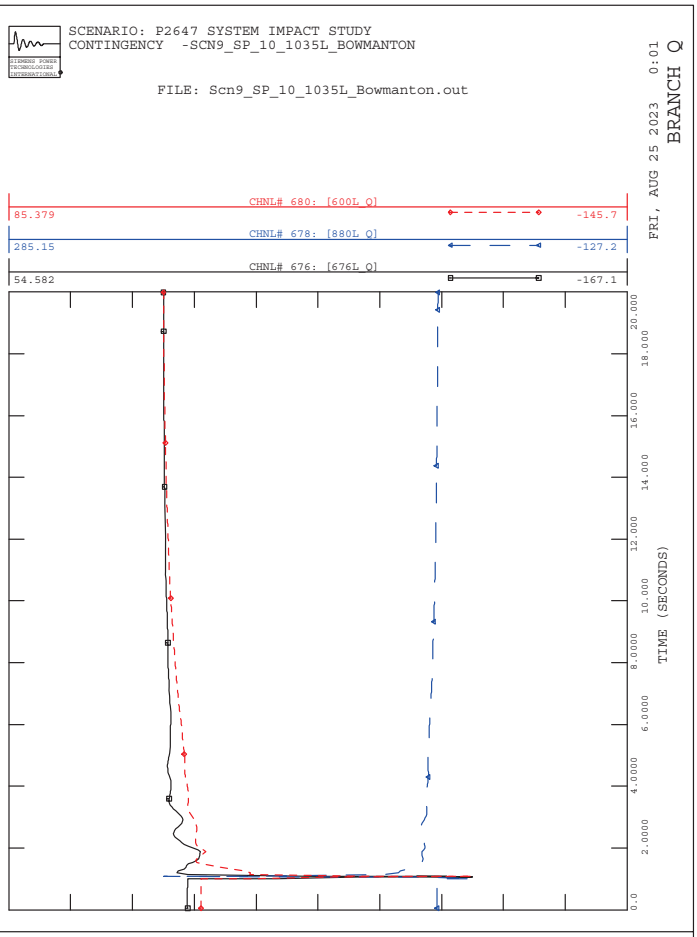

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 544: [ETRM 2294[TOTHILL2 0.6900]G1]
1.4636
0.40370
CHNL# 562: [ETRM 60990[SHAMROC5 0.6500]G1]
1.1177
-0.1000
CHNL# 543: [ETRM 1715[CMH15 LV 13.800]15]
1.1723
0.72560
CHNL# 579: [ETRM 1487[SHEER 29 19.000]G2]
1.2427
0.83960
CHNL# 578: [ETRM 1482[SHEER 1 19.000]G1]
1.2387
0.84430
CHNL# 536: [ETRM 667[CANCARB9 13.800]1]
1.1727
0.58050
FRI, AUG 25 2023 0:01
TERMINAL VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

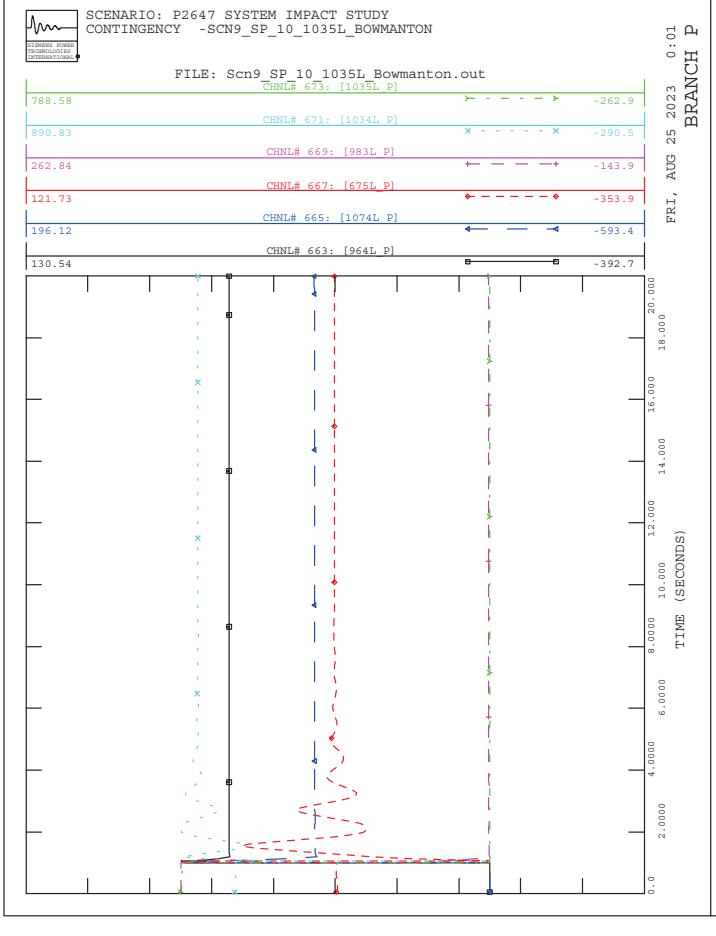

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 662: [VOLT 976 [ROTBAUR 138.00]]
1.2554
0.30380
CHNL# 661: [VOLT 918 [CASS01 240.00]]
1.2339
0.56040
CHNL# 660: [VOLT 839 [P2467 TAP 138.00]]
1.3571
0.33160
CHNL# 659: [VOLT 669 [BOWMAN1 240.00]]
1.2737
-0.0877
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000

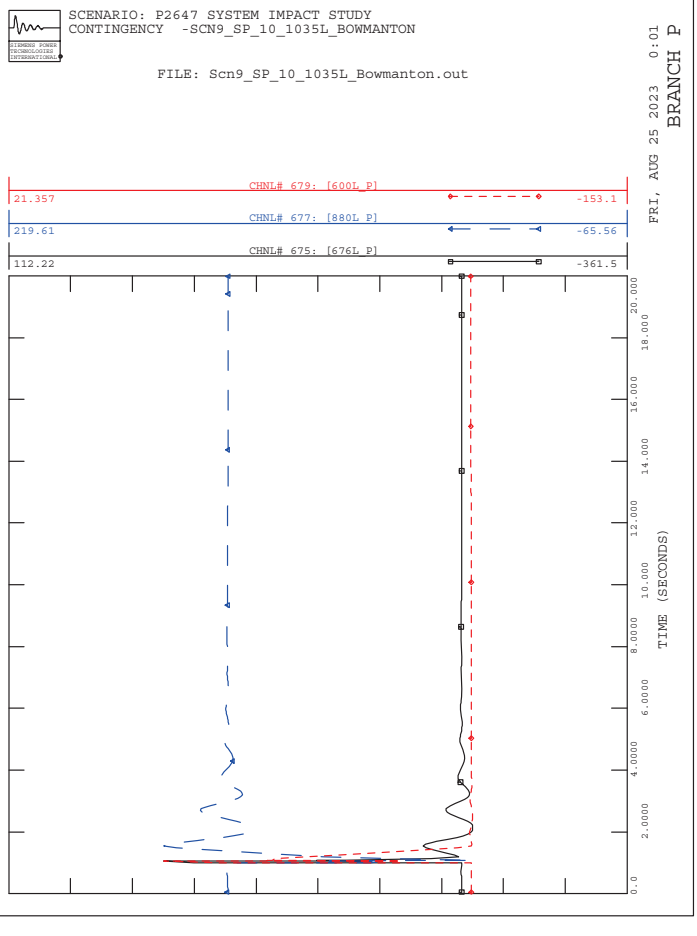

SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 330: [VARS 2294[TOTHILL2 0.6900]G1]
1.7548
-0.5740
CHNL# 348: [VARS 60990[SHAMROC5 0.6500]G1]
0.59990
-0.5000
CHNL# 329: [VARS 1715[CMH15 LV 13.800]15]
1.2400
-0.5410
CHNL# 365: [VARS 1487[SHEER 29 19.000]G2]
4.1579
-1.005
CHNL# 364: [VARS 1482[SHEER 1 19.000]G1]
4.2028
-1.052
CHNL# 322: [VARS 667[CANCARB9 13.800]1]
1.2007
-0.7970
FRI, AUG 25 2023 0:01
REACTIVE POWER
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 658: [VOLT 662 [WHITLA1 240.00]]
1.3364
-0.0631
CHNL# 657: [VOLT 659 [BOWMAN2 138.00]]
1.2826
0.11950
CHNL# 656: [VOLT 645 [BOWMAN3 138.00]]
1.2340
0.60780
CHNL# 655: [VOLT 294 [TOTHILL1 138.00]]
1.3583
0.33240
CHNL# 654: [VOLT 284 [BUTTE7 138.00]]
1.3565
0.33110
CHNL# 653: [VOLT 271 [BULLS H7 138.00]]
1.3083
0.29960
FRI, AUG 25 2023 0:01
BUS VOLTAGE
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 674: [1035L Q]
78.088
-40.00
CHNL# 672: [1034L Q]
412.90
-200.2
CHNL# 670: [983L Q]
66.246
-81.80
CHNL# 668: [675L Q]
250.07
-183.7
CHNL# 666: [1074L Q]
156.18
-473.5
CHNL# 664: [964L Q]
60.231
-182.1
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 680: [600L Q]
85.379
-145.7
CHNL# 678: [880L Q]
285.15
-127.2
CHNL# 676: [676L Q]
54.582
-167.1
FRI, AUG 25 2023 0:01
BRANCH Q
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 673: [1035L P]
788.58
-262.9
CHNL# 671: [1034L P]
890.83
-290.5
CHNL# 669: [983L P]
262.84
-143.9
CHNL# 667: [675L P]
121.73
-353.9
CHNL# 665: [1074L P]
196.12
-593.4
CHNL# 663: [964L P]
130.54
-392.7
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000


SCENARIO: P2647 SYSTEM IMPACT STUDY
CONTINGENCY -SCN9_SP_10_1035L_BOWMANTON
FILE: Scn9_SP_10_1035L_Bowmanton.out
CHNL# 679: [600L P]
21.357
-153.1
CHNL# 677: [880L P]
219.61
-65.56
CHNL# 675: [676L P]
112.22
-361.5
FRI, AUG 25 2023 0:01
BRANCH P
TIME (SECONDS)
0.0
2.0000
4.0000
6.0000
8.0000
10.000
12.000
14.000
16.000
18.000
20.000