Engineering Connection Assessment

P2611 Oyen 1 Solar Project Connection

UK Solar East Ltd.

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Role	Name	Date	Signature
Prepared	Omid Ghoreishi, P. Eng.		Omid Ghoreishi -- P. Eng. - APEGA Digitally signed by Omid Ghoreishi -- P. Eng. - APEGA Date: 2026.03.12 22:23:15 -06'00'
Reviewed	Yasaman Mozafari Jovein, P. Eng.		Yasaman Mozafari Jovein -- P. Eng. - APEGA Digitally signed by Yasaman Mozafari Jovein -- P. Eng. - APEGA Date: 2026.03.13 09:34:57 -06'00'
Approved	Peyman Ahmadi, P. Eng.		Peyman Ahmadi -- P. Eng. - APEGA Digitally signed by Peyman Ahmadi -- P. Eng. - APEGA Date: 2026.03.13 14:37:19 -06'00'

PROFESSIONAL ENGINEER ALBERTA
YASAMAN MOZAFARI JOVEIN
ID: 210390
March 13 2026

PERMIT TO PRACTICE
INDEPENDENT SYSTEM OPERATOR
RM SIGNATURE: Ahmadi
RM APEGA ID #: 196963
DATE: 2026-03-13
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.

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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

UK Solar East (Market Participant) has submitted a request for system access service to the Alberta Electric System Operator (AESO) to connect its approved Oyen 1 Solar Project[1] (Facility) to the AIES. The Facility includes a proposed collector substation, to be designated the Fair Acres 1162S substation.

The Market Participant's request includes: a request for new system access service in the area, with a Rate STS, *Supply Transmission Service*, contract capacity of 268 MW and a Rate DTS, *Demand Transmission Service*, contract capacity of 1 MW; and a request for transmission development (collectively, the Project).

The scheduled in-service date (ISD) for the Project is August 1, 2028.

[1] Decision 29307-D01-2026, Oyen 1 and Oyen 2 Solar Projects.

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 of Hanna (Area 42), which is part of the AESO's Central Planning Region. Hanna (Area 42) is surrounded by the planning areas of Red Deer (Area 35), Alliance/Battle River (Area 36), Provost (Area 37), Empress (Area 48), and Sheerness (Area 43).

From a transmission system perspective, Hanna (Area 42) consists of 72 kV, 138/144 kV, and 240 kV transmission systems. Hanna (Area 42) is connected to Red Deer (Area 35) through a 240 kV transmission line; Alliance/Battle River (Area 36) through two 240 kV transmission lines; Provost (Area 37) through a 240 kV transmission line and a 138/144 kV transmission line; Empress (Area 48) through a 138/144 kV line, and the Sheerness area (Area 43) through a 240 kV transmission line and two 144 kV transmission lines.

Existing constraints in the Central 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 Sheerness (Area 43), Hanna (Area 42), Lloydminster (Area 13), Wainwright (Area 32), Vegreville (Area 56), Provost (Area 37) and Alliance/Battle River (Area 36), including the tie lines connecting these planning areas to the rest of the AIES.

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 three transmission alternatives to meet the Market Participant's request for system access service, as detailed in Section 3.2.

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 – In-and-out connection to the 240 kV transmission line 9L46

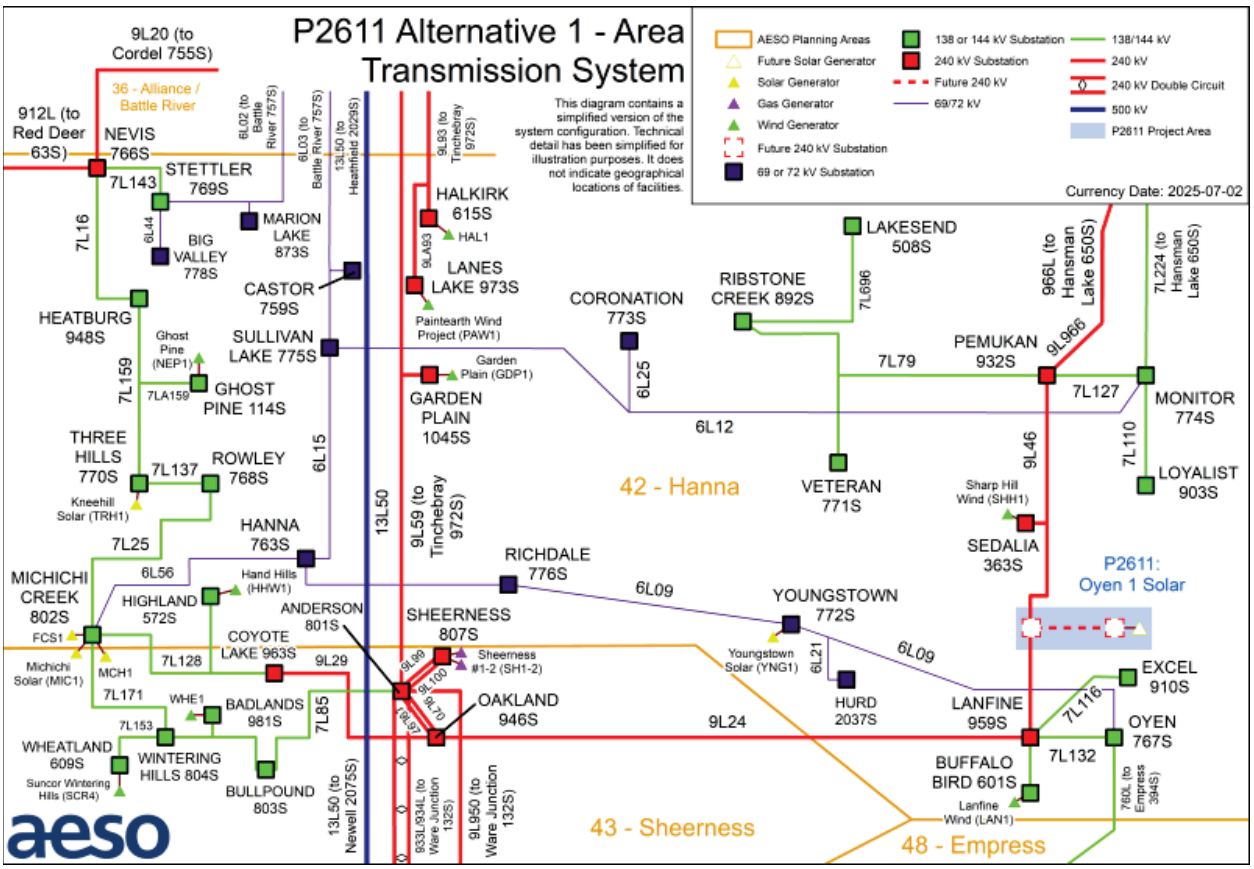
This alternative includes the following developments:

- Add one 240 kV switching substation, including three 240 kV circuit breakers connected to the existing 240 kV transmission line 9L46 (between Pemukan 932S and Lanfine 959S substations) using an in-and-out configuration[2];
- Add one 240 kV circuit, approximately 2 km in length, to connect the Facility to the switching substation; and
- Add or modify associated equipment as required for the above transmission developments.

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

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

Figure 3-1: Connection Alternative 1



Alternative 2 – Radial 240 kV connection to the Lanfine 959S substation

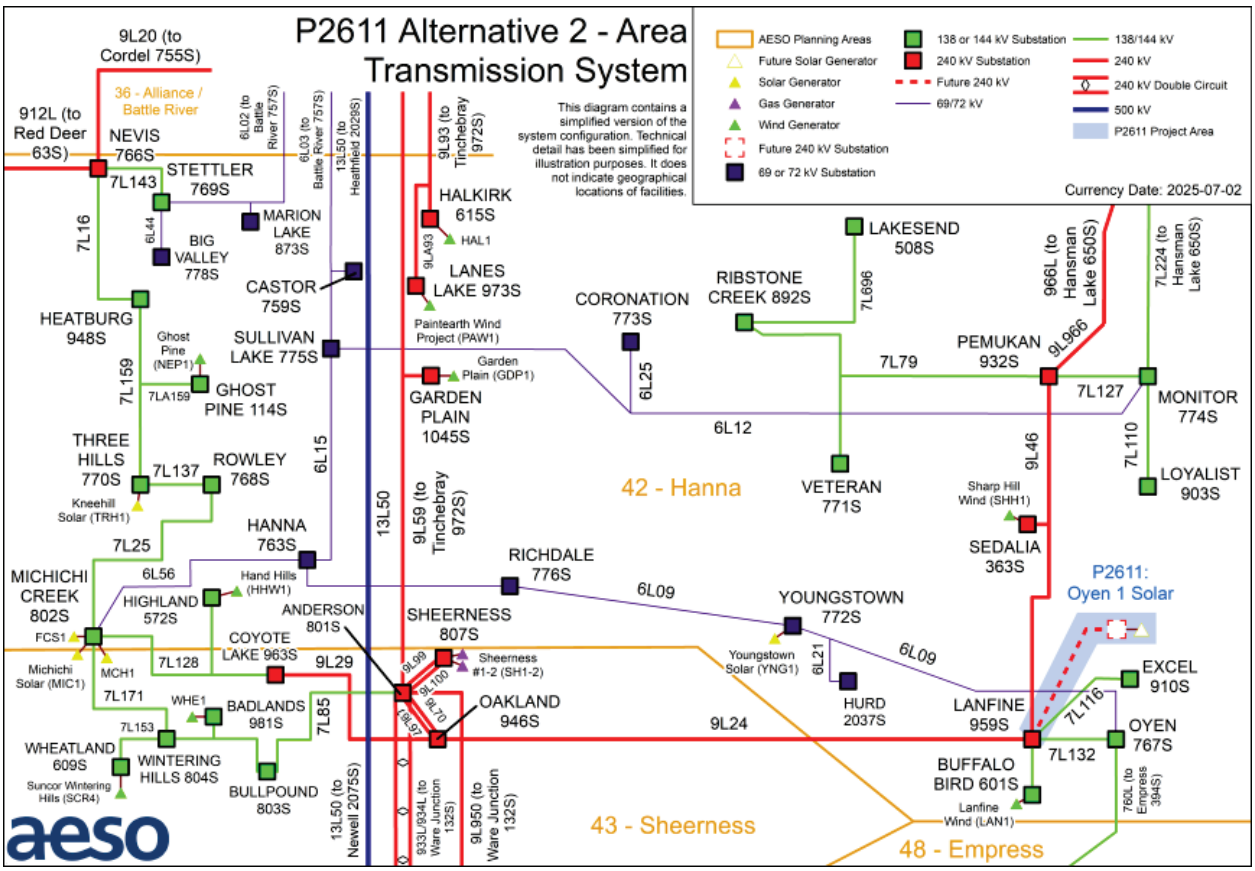
This alternative includes the following developments:

- Add one 240 kV circuit, approximately 9 km in length[3], to connect the Facility to the existing Lanfine 959S substation using a radial configuration;
- Modify the existing Lanfine 959S substation, including adding two 240 kV circuit breakers; and
- Add or modify associated equipment as required for the above transmission developments.

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

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

Figure 3-2: Connection Alternative 2



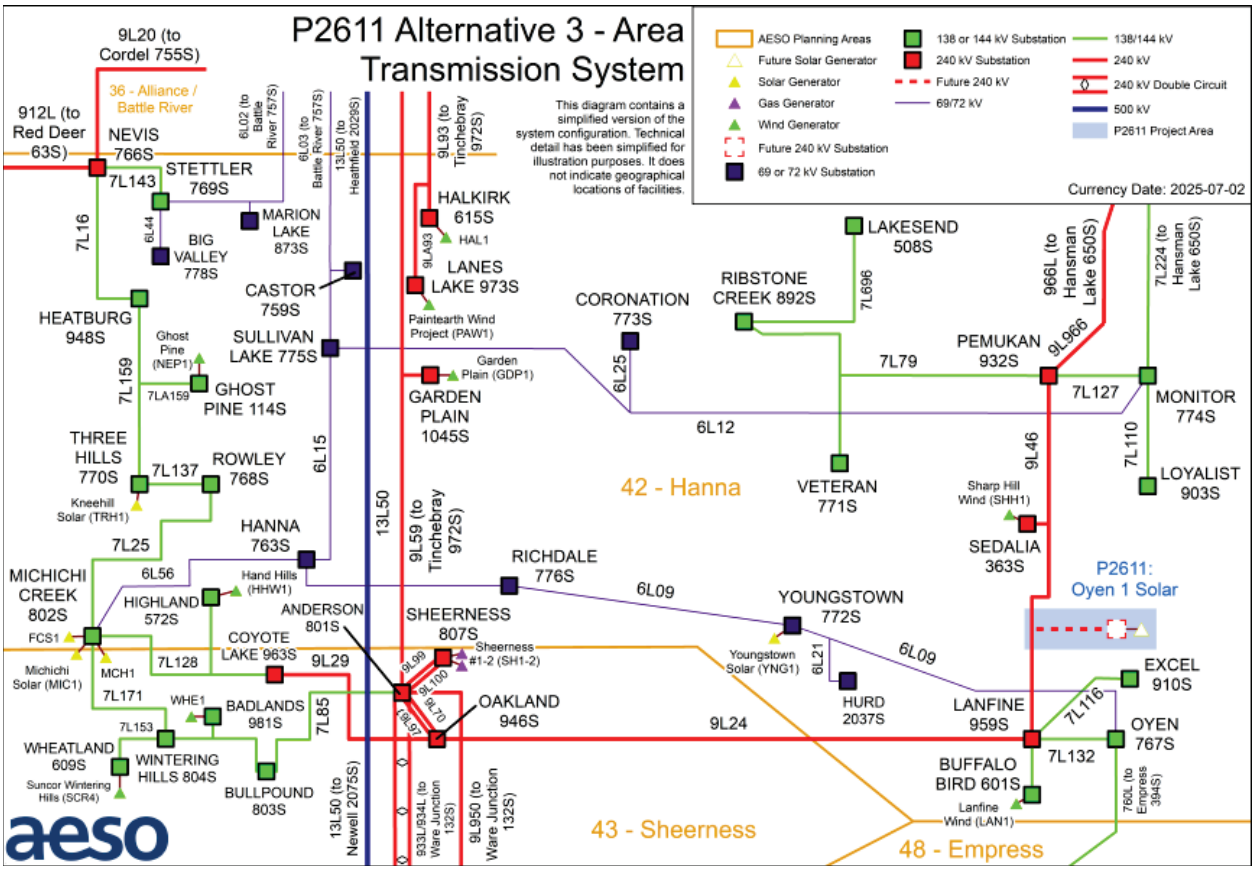
Alternative 3 – T-tap connection to the 240 kV transmission line 9L46

This alternative includes the following developments:

- Add one 240 kV circuit, approximately 2 km in length[4], to connect the Facility to the existing 240 kV transmission line 9L46 (between Pemukan 932S and Lanfine 959S substations) using a T-tap configuration; and
- Add or modify associated equipment as required for the above transmission developments.

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

Figure 3-3: Connection Alternative 3



[4] Exact line length to be determined by the TFO

3.3 Additional Information Provided by the TFO

To support the AESO's alternative selection decision, the TFO provided cost information and an environment and land use assessment for Alternatives 1 and 2. The TFO estimated the cost of Alternative 1 to be approximately $29 million (+50%/-30%) and the cost of Alternative 2 to be approximately $20 million (+20%/-10%).[5] From an environment and land use perspective, the TFO concluded that *"Both alternatives have similar environmental and land use constraints. The hummocky terrain and wetland-rich nature of the project area may pose challenges for siting of a switching substation for Alternative 1. The increased line length of Alternative 2 may increase the risk of wildlife interactions during construction and avian collisions during operations; however these impacts may be mitigated through construction timing and the installation of deterrents (bird diverters)*."[6]

3.4 Connection Alternatives Selected for Further Study

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

3.5 Connection Alternatives Not Selected for Further Study

With the existing generator Sharp Hills Wind (SHH1) and two in-flight projects (P2758 UK Solar West and P2707 Sounding Creek Solar Battery) connecting to 9L46, Alternative 1 would lead to a potential new local Category B violation on 9L46 beyond the emergency rating of 9L46, which would require an additional RAS and significant generation curtailment. Alternative 1 was ruled out because it involves higher costs than Alternative 2 and inferior technical performance compared to Alternative 2.

Regarding Alternative 3, since SHH1 is already connected to 9L46 in a T-tap configuration, an additional T-tap to 9L46 would lead to exceeding the most severe single contingency (MSSC) under the Category A condition. Therefore, Alternative 3 is ruled out.

[5] See Appendix B of Needs Identification Document.

[6] See Appendix D of Needs Identification Document.

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 study, the scheduled ISD for the Project was March 15, 2027. Therefore, the studies were performed using high generation scenarios for 2028 Summer Light (SL), 2028 Summer Peak (SP), and 2028 Winter Peak (WP). Transient studies were also performed for the 2028 SL, 2028 SP, and 2028 WP post-Project scenarios. After completion of the studies, the ISD of the Project was changed from March 15, 2027, to August 1, 2028. 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.

Stage 1 of the approved Central East Transfer-out Transmission (CETO) project[7] was included in all studied scenarios reported herein.

Short-circuit studies were performed using the 2028 WP pre-Project and post-Project scenarios, as well as the 2033 WP scenario.

Table 4-1 lists the study scenarios. Post-Project scenarios reflect the requested Rate STS contract capacity of 268 MW at the Fair Acres 1162S 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	2028 Summer Peak (2028 SP)	High Generation (HG)	2028 SP Pre-Project	0	0
2	2028 Summer Light (2028 SL)		2028 SL Pre-Project	0	0
3	2028 Winter Peak (2028 WP)		2028 WP Pre-Project	0	0
Post-Project					
4	2028 SP	HG	2028 SP Post -Project	0	268
5	2028 SL		2028 SL Post -Project	0	268
6	2028 WP		2028 WP Post -Project	0	268
7	2033 WP	All study area generation in-service	2033 WP Post-Project- HG	0	268

[7] Decision 25469-D01-2021, Alberta Electric System Operator, Needs Identification Document Application, *Central East Transfer-out Transmission Development*.

The Market participant originally requested an STS of 400 MW, which was assessed for power flow studies as described in Section 4.2.1 below. The AESO determined that the STS reduction would not have material impact on the connection alternative selection, the mitigation measures and the conclusions of this report.

The AESO Planning Region load forecasts used for the connection studies were based on the *AESO's 2023 Long-term Outlook* (2023 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 A1.[8]

Power flow studies were performed for the 2028 Summer Light, 2028 Summer Peak, and 2028 Winter Peak pre-Project scenarios, and for the 2028 Summer Light, 2028 Summer Peak, and 2028 Winter Peak post-Project scenarios listed in Table 4-1 above.

Note: The power flow studies are based on the Market Participant's initial 400 MW STS request. The Market Participant reduced its requested STS to 268 MW; however, the Power Flow study results presented herein are for an STS of 400 MW.

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 the 2028 Summer Light, 2028 Summer Peak, and 2028 Winter Peak post-Project scenarios listed in Table 4-1 above for a 268 MW STS.

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 2028 Winter Peak pre-Project scenario and for the 2028 Winter Peak and 2033 Winter Peak post-Project scenarios listed in Table 4-1 above for a 268 MW STS.

[8] 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 A1 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 A1.

4.3 Mitigation Measure Development and Evaluation

As explained in Section 6 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 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.

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 Category A Reliability Criteria Violations, Project Impact and Mitigation Measures- All Scenarios

Scenario	Type of Reliability Criteria Violation Pre-Project	Type of Reliability Criteria Violation Post-Project	Details of Violation	Project Impact	Pre-Project Mitigation Measures	Post-Project Mitigation Measures
2029 Summer Peak	Thermal - above emergency rating	Thermal - above emergency rating	7L760 (Oyen 767S - RESC Big Sky Tap)	Materially increased violation	Real-time operational practices (RTOP)	RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	7L760 (RESC Big Sky Tap - Blindloss 914S Tap)	Materially increased violation	RTOP	RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	760L (Blindloss 914S Tap - Amoco Empress 163S)	Materially increased violation	RTOP	RTOP
	Thermal - above normal rating	Thermal - above emergency rating	7L132 (Lanfine 959S - Oyen 767S)	Materially increased violation	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating	749AL (P2460 ABO Fox Meadow Tap-point - Killarney Lake 267S)	Marginally increased violation	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating	715L (715AL Tap - Hansman Lake 650S)	Marginally decreased violation	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating	715AL (P2540 Rising Sun Solar Tap - 715AL Tap)	Marginally decreased violation	RTOP	RTOP
	None	Thermal - above normal rating	472L (472AL Sunken Lake - Hughenden 213S)	New violation	None	RTOP
	None	Thermal - above normal rating	472L (Metiskow 648S - 472AL Sunken Lake)	New violation	None	RTOP
2029 Summer Light	None	Thermal - above normal rating	7L132 (Lanfine 959S - Oyen 767S)	New violation	None	RTOP
	None	Thermal - above emergency rating	7L760 (Oyen 767S - RESC Big Sky Tap)	New violation	None	RTOP
	None	Thermal - above emergency rating	7L760 (RESC Big Sky Tap - Blindloss 914S Tap)	New violation	None	RTOP
	None	Thermal - above emergency rating	760L (Blindloss 914S Tap - Amoco Empress 163S)	New violation	None	RTOP
2028 Winter Peak	Thermal - above normal rating	Thermal - above normal rating	749AL (P2460 ABO Fox Meadow Tap-point - Killarney Lake 267S)	Marginally increased violation	RTOP	RTOP
	None	Thermal - above emergency rating	9L62 (Tinchebray 972S - Gaetz 87S)	New violation	None	RTOP, CETO Phase II

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%)

5.2 Pre-Project Study Results

5.2.1 Category A Conditions

As shown in table 5-1, with the inclusion of additional projects planning to connect in the Central region, the pre-Project power flow studies identified several thermal criteria violations under Category A condition (i.e. all elements in service) in Summer Peak, Summer Light, and Winter Peak scenarios.

Category A thermal criteria violations were observed on the 138/144 kV transmission lines 749AL, 7L760/760L, 7L132, 715L, and 715AL.

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 identified several thermal criteria violations under Category B conditions (i.e., loss of a single system element); see Attachment A for details.

5.3 Post-Project Study Results

The post-project power flow studies were completed for the original 400 MW requested STS. Reducing the STS to 268 MW will result in a less stressed system condition, reducing the magnitude of thermal criteria violations observed under Category A and B conditions,

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 in Summer Peak, Summer Light, and Winter Peak scenarios. All of the Category A thermal criteria violations observed in the pre-Project scenarios, including violations on the 138/144 kV transmission lines 749AL, 7L760/760L, 7L132, 715L, and 715AL were observed after the connection of the Project. New violations on 138 kV transmission line 472L and on the 240 kV transmission line 9L62 were also observed.

A summary of thermal criteria violations observed under N-0 system conditions in the Summer Peak scenarios are shown in Table 5-2, the Summer Light scenarios are shown in Table 5-3, and the Winter Peak scenarios are shown in Table 5-4.

Table 5-2: Thermal Criteria violations under N-0 Condition in the SP scenarios

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	
7L760 (Oyen767S - RESC Big Sky Tap)	110.2	122.7	133.01	120.7	167.39	151.9	31.2
7L760 (RESC Big Sky Tap - Blindloss 914S Tap)	110.2	122.7	131.91	119.7	166.51	151.1	31.4

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	
760L (Blindloss 914S Tap - Amoco Empress 163S)	110.2	122.7	123.42	112.0	157.92	143.3	31.3
7L132 (Lanfine 959S - Oyen 767S)	112.1	138.0	131.04	116.9	169.05	150.8	33.9
749AL (P2460 ABO Fox Meadow Tap-point - Killarney Lake 267S)	120.9	133.0	125.98	104.2	128.03	105.9	1.7
715L (715AL Tap - Hansman Lake 650S)	98	135.0	118.29	120.7	115.93	118.3	-2.4
715AL (P2540 Rising Sun Solar Tap - 715AL Tap)	98	138.0	118.29	120.7	115.93	118.3	-2.4
472L (472AL Sunken Lake - Hughenden 213S)	84	125.0	42.6	50.1	92.74	110.4	60.3
472L (Metiskow 648S - 472AL Sunken Lake)	121	133.0	108.1	89.4	124.99	103.3	13.9

Table 5-3: Thermal Criteria violations under N-0 Condition in the SL scenarios

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	
7L132 (Lanfine 959S - Oyen 767S)	112.1	138.0	92.9	82.0	130.37	116.3	34.3
7L760 (Oyen 767S - RESC Big Sky Tap)	110.2	122.7	93.7	85.0	128.16	116.3	31.3
7L760 (RESC Big Sky Tap - Blindloss 914S Tap)	110.2	122.7	92.5	84.0	127.17	115.4	31.4
760L (Blindloss 914S Tap - Amoco Empress 163S)	110.2	122.7	90.7	82.3	125.41	113.8	31.5

Table 5-4: Thermal Criteria violations under N-0 Condition in the WP scenarios

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	
749AL (P2460 ABO Fox Meadow Tap-point - Killarney Lake 267S)	148.0	163.0	155.10	104.8	158.66	107.2	2.4
9L62 (Tinchebray 972S - Gaetz 87S)	831.4	831.4	752.7	90.5	848.86	102.1	11.6

Tables 5-2 to 5-4 indicate that the project has material impacts on N-0 thermal criteria violations in the Study Area following the inclusion of the Project and additional projects planning to connect in the Central region, including on transmission lines 7L760/760L, 7L132, 472L, 749AL and 9L62. All of these violations, with the exception of 9L62, are still present with the reduction in STS from 400MW to 268 MW.

Post-Project short-circuit fault levels were not significantly higher than pre-Project levels and were found to be within the typical capabilities of the nearby facilities.

5.3.2 Category B Conditions

Post-Project studies identified a number of thermal criteria violations under Category B conditions. Following the connection of the Project, most of the thermal criteria violations observed in the pre-Project scenarios were exacerbated, and new thermal criteria violations were observed.

The results showed a transient instability violation under one contingency condition.

5.4 Mitigation Measures

This section discusses the AESO's proposed mitigation measures to address the system performance issues that were identified pre-Project and post-Project scenarios.

5.4.1 Pre-Project

The Category A thermal reliability criteria violations observed on the 138/144 kV transmission lines 7L760/760L, 7L132, 749AL, 715L, and 715AL can be managed by applying Section 302.1 of the ISO rules, *Real-Time Transmission Constraint Management* (TCM Rule) to curtail generation.

Prior to connection of the Project, most of the observed Category B thermal criteria violations can be managed using real-time operational practices (RTOPs). The remaining thermal criteria violations can be mitigated by using the existing RASs 134, 200, 203, 204, and planned RASs 213 and 238. The second

stage of the approved CETO project[9] is expected to mitigate some of the thermal criteria violations on the 240 kV transmission line 9L62 observed under Category B conditions.

5.4.2 Post-Project

While the mitigations specified below were developed based on the power flow study results for the original 400 MW STS request, the AESO determined that the reduction in STS to 268 MW will have no material impact on the mitigations identified for Category B violations described below.

The Category A thermal reliability criteria violations observed on the 138/144 kV transmission lines 7L760/760L, 7L132, 749AL, 715L, 715AL, and 472L can be managed by applying the TCM Rule to curtail generation. The need for system developments to address these thermal criteria violations will be assessed according to the forthcoming Optimal Transmission Planning (OTP) framework.[10]

The second stage of the approved CETO project,[11] which has a scheduled ISD of June 2026 and is prior to the Project's scheduled ISD, is expected to mitigate some of the thermal criteria violations on the 240 kV transmission line 9L62 observed under Category A and B conditions.

Following the connection of the Project, most of the observed Category B thermal criteria violations can be mitigated using RTOPs. The remaining thermal criteria violations can be mitigated using existing RASs 134, 200, 203, planned RASs 213 and 238, modification of RASs 201 and 204 by including the Project in the RAS logic, and RTOPs, alone or in combination, as appropriate. Also, new RAS 241 will be used to mitigate the transient stability violation observed under Category B.

The total amount of generation tied to modified RAS 201 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.

5.4.3 Post-Project Mitigation Study Results

Under Category B conditions, all of the observed Reliability Criteria violations requiring RAS were mitigated. The remaining violations are mitigated by RTOP.

[9] Decision 25469-D01-2021, Alberta Electric System Operator, Needs Identification Document Application, Central East Transfer-out Transmission Development.

[10] More information about Optimal Transmission Planning (OTP) is available on the AESO Engage website.

[11] Decision 25469-D01-2021, Alberta Electric System Operator, Needs Identification Document Application, Central East Transfer-out Transmission Development.

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 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 criteria violations were observed under these credible worst-case load and generation forecast conditions. The probability of Category A thermal criteria violations materializing is highly dependent upon the production profile of the Facility and other generation facilities in the area.

The Category A violations will be mitigated through the use of real-time operational practices, which include applying the TCM Rule to curtail generation as required. The need for system developments to address Category A violations will be assessed according to the forthcoming Optimal Transmission Planning (OTP) framework.

The thermal criteria and transient stability violations observed under Category B conditions can be mitigated by using existing RASs 134, 200, 203, planned RASs 213 and 238, modified RASs 201 and 204, new RAS 241 and RTOPs, alone or in combination, as appropriate.

The total amount of generation tied to RAS 201 exceeds the MSSC limit of 466 MW. Pre-contingency generation curtailment under the Category A condition may be required using real-time operational practices to prevent generation curtailment by RAS action above the MSSC level. 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 one 240 kV circuit to connect the Facility to the existing Lanfine 959S substation in a radial configuration and modifying the Lanfine 959S substation, including adding two 240 kV circuit breakers. The new 240 kV circuit connecting the Facility to Lanfine 959S substation should have a minimum capacity of 480 MVA to meet the Market Participant's requested STS contract capacity and the AESO's minimum capacity guidelines for 240 kV circuits.

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

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					
2028 Summer Peak	None	Thermal - above normal rating	701L (North Hoden 395S - Strome 223S)	7L65 (Vegrevile 709S - Grizzly Bear 708S Tap)	New violation	None	Real-time operational practices (RTOP)
	Thermal - above normal rating	Thermal - above emergency rating	885L (Hansman Lake 650S - Metiskow 648S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	Materially increased violation	RTOP	Planned RAS 213
	Thermal - above normal rating	Thermal - above normal rating	748L (Hayter 277S - Killarney Lake 267S)	715L (Hansman Lake 650S - 715AL TAP)	No impact	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	Thermal - above normal rating	Thermal - above normal rating	Killarney Lake 267S Transformer	715L (Hansman Lake 650S - 715AL TAP)	No impact	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	Thermal - above emergency rating	Thermal - above emergency rating	7L159 (Ghost Pine 114S - Heatburg 948S)	7L128 (Coyote Lake 963S - Hand Hills Tap)	Marginally decreased violation	RAS 203	RAS 203
	Thermal - above normal rating	Thermal - above normal rating	7L42 (Lloydminister 716S - Hill 751S)	715L (Hansman Lake 650S - 715AL TAP)	No impact	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	None	Thermal - above normal rating	9L27 (Cordel 755S - Paintearth 863S)	472L (Metiskow 648S - Sunken Lake 221S Tap)	New violation	None	RTOP
	None	Thermal - above normal rating		7L60 (Oyen 767S - RESC Big Sky Solar)	New violation		
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	Thermal - above normal rating	Thermal - above normal rating	Nevis 766S 240/138 kV TF	7L128 (Coyote Lake 963S - Hand Hills Tap)	Marginally decreased violation	RTOP	RTOP
	None	Thermal - above normal rating	9L20 (Nevis 766S - Cordel 755S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	7L16 (Heatburg 948S - Nevis 766S)	7L128 (Coyote Lake 963S - Hand Hills Tap)	Marginally decreased violation	RAS 203	RAS 203
	None	Thermal - above normal rating	953L (Nilrem 574S - Cordel 755S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	Thermal - above normal rating	Thermal - above normal rating	7L137 (Rowley 768S - Three Hills 770S)	7L128 (Coyote Lake 963S - Hand Hills Tap)	Marginally decreased violation	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating	7L25 (Michichi Creek 802S - Rowley 768S)	7L128 (Coyote Lake 963S - Hand Hills Tap)	Marginally decreased violation	RTOP	RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	9L29 (Oakland 946S - Coyote Lake 963S)	7L159 (Ghost Pine 114S - Heatburg 948S)	Materially increased violation	RAS 134, RAS 200	RAS 134, RAS 200
	Thermal - above emergency rating	Thermal - above emergency rating		7L16 (Heatburg 948S - Nevis 766S)	Materially increased violation		
	Thermal - above normal rating	Thermal - above normal rating		7L85 (Anderson 801S - Bullpound 803S)	Materially decreased violation		
	Thermal - above emergency rating	Thermal - above normal rating		7L85 (Parker - Bullpound 803S)	Materially decreased violation		
	Thermal - above emergency rating	Thermal - above emergency rating		801S (Anderson 801S Transformer T1)	Materially decreased violation		
	Thermal - above normal rating	None	801S (Anderson 801S Transformer T1)	7L171 (Michichi Creek 802S - Wintering Hills 804S)	Violation removed	RAS 203	RAS 203
	Thermal - above emergency rating	Thermal - above emergency rating		7L128 (Coyote Lake 963S - Hand Hills Tap)	Materially decreased violation		
	Thermal - above emergency rating	Thermal - above emergency rating	Coyote Lake 963S - 901 Transformer	7L159 (Ghost Pine 114S - Heatburg 948S)	Materially increased violation	RAS 134, RAS 200	RAS 134, RAS 200
	Thermal - above emergency rating	Thermal - above emergency rating		7L16 (Heatburg 948S - Nevis 766S)	Materially increased violation		
	Thermal - above normal rating	Thermal - above normal rating		7L85 (Anderson 801S - Bullpound 803S)	Materially decreased violation		
	Thermal - above emergency rating	Thermal - above normal rating		7L85 (Parker - Bullpound 803S)	Materially decreased violation		
	Thermal - above emergency rating	Thermal - above emergency rating		801S (Anderson 801S Transformer T1)	Materially decreased violation		
	None	Thermal - above normal rating	912L (Nevis 766S - Red Deer 63S)	174L (Bardo 197S - North Holden 395S)	New violation	RTOP	RTOP, CETO Phase II
	Thermal - above normal rating	Thermal - above normal rating		7L128 (Coyote Lake 963S - Hand Hills Tap)	Marginally decreased violation		
	None	Thermal - above emergency rating		9L62 (Gaetz - 972S Tinchebray)	New violation		
	None	Thermal - above normal rating		7L60 (Oyen 767S - RESC Big Sky Solar)	New violation		
	None	Thermal - above emergency rating	9L62 (Gaetz - 972S Tinchebray)	174L (Bardo 197S - North Holden 395S)	New violation	RTOP, CETO Phase II	RTOP, CETO Phase II
	None	Thermal - above normal rating		701L (North Hoden 395S - Strome 223S)	New violation		
	None	Thermal - above normal rating		7L65 (Vegrevile 709S - Grizzly Bear 708S Tap)	New violation		
	Thermal - above normal rating	Thermal - above emergency rating		912L (Nevis 766S - Red Deer 63S)	Materially increased violation		
	Thermal - above normal rating	Thermal - above normal rating		9L20 (Nevis 766S - Cordel 755S)	Materially increased violation		
	None	Thermal - above normal rating		7L60 (Oyen 767S - RESC Big Sky Solar)	New violation		
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L933 (Anderson 801S - Ware Junction 132S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L934 (Anderson 801S - Ware Junction 132S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L950 (Anderson 801S - Ware Junction 132S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	Thermal - above emergency rating	Thermal - above emergency rating	749L (Metiskow 648S - Edgerton 899S)	398L (Provost 545S - Hayter 277S)	No impact	RTOP	RTOP

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 emergency rating	Thermal - above emergency rating		715L (Provost 545S - Rising Sun Solar Tap)	No impact		
	Thermal - above emergency rating	Thermal - above emergency rating		715L (Hansman Lake 650S - 715AL TAP)	No impact		
	Thermal - above emergency rating	Thermal - above emergency rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	Thermal - above normal rating	Thermal - above normal rating	Edgerton 899S Transformer	715L (Hansman Lake 650S - 715AL TAP)	No impact	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	Thermal - above normal rating	Thermal - above normal rating	7L749 (Edgerton 899S - Lloydminster 716S)	715L (Hansman Lake 650S - 715AL TAP)	No impact	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	Thermal - above emergency rating	Thermal - above emergency rating	715L (Provost 545S - Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	No impact	Planned RAS 213	Planned RAS 213
	Thermal - above normal rating	Thermal - above normal rating	1047L (Hansman Lake 650S - Nilrem 574S)	703L (Hardisty - HRT Express 329S Tap)	Materially increased violation	Planned RAS 238	Planned RAS 238
	Thermal - above emergency rating	Thermal - above emergency rating		472L (Metiskow 648S - Sunken Lake 221S Tap)	Materially increased violation		
	None	Thermal - above normal rating		703L (Hughenden 213S - HRT Express 329S Tap)	New violation		
	None	Thermal - above emergency rating		472L (Hughenden 213S - Sunken Lake 221S Tap)	New violation		
	None	Thermal - above normal rating	701L (Battle River 757S - Strome 223S)	7L65 (Vegrevile 709S - Grizzly Bear 708S Tap)	New violation	None	RTOP
	None	Thermal - above emergency rating	9L24 (Lanfine 959S - Oakland 946S)	422L (Metiskow 648S - Sunken Lake 221S Tap	New violation	RTOP	Planned RAS 238, Modified RAS 204
	None	Thermal - above normal rating		7L128 (Coyote Lake 963S - Hand Hills Tap)	New violation		
	Thermal - above normal rating	Thermal - above emergency rating		7L60 (Oyen 767S - RESC Big Sky Solar)	Materially increased violation		
	Thermal - above normal rating	Thermal - above emergency rating		7L132 (Oyen 767S - Lanfine 959S)	Materially increased violation		
2028 Summer Light	None	Thermal - above normal rating	9L27 (Cordel 755S - Paintearth 863S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L20 (Nevis 766S - Cordel 755S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above emergency rating	953L (Nilrem 574S - Cordel 755S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating		7L60 (Oyen 767S - RESC Big Sky Solar)	New violation		
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	912L (Nevis 766S - Red Deer 63S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L62 (Gaetz - 972S Tinchebray)	174L (Bardo 197S - North Holden 395S)	New violation	RTOP, CETO Phase II	RTOP, CETO Phase II
	None	Thermal - above emergency rating		912L (Nevis 766S - Red Deer 63S)	New violation		
	Thermal - above normal rating	Thermal - above emergency rating		9L20 (Nevis 766S - Cordel 755S)	New violation		
	None	Thermal - above emergency rating		7L60 (Oyen 767S - RESC Big Sky Solar)	New violation		
	None	Thermal - above emergency rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L933 (Anderson 801S - Ware Junction 132S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L934 (Anderson 801S - Ware Junction 132S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L950 (Anderson 801S - Ware Junction 132S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	Thermal - above emergency rating	Thermal - above emergency rating	749L (Metiskow 648S - Edgerton 899S)	715L (Hansman Lake 650S - 715AL TAP)	No impact	RTOP	RTOP
	Thermal - above emergency rating	Thermal - above emergency rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	Thermal - above normal rating	Thermal - above normal rating	Edgerton 899S Transformer	715L (Hansman Lake 650S - 715AL TAP)	No impact	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating		715L (715AL TAP - Rising Sun Solar TAP)	No impact		
	None	Thermal - above normal rating	1047L (Hansman Lake 650S - Nilrem 574S)	703L (Hardisty - HRT Express 329S Tap)	New violation	None	Planned RAS 238
	None	Thermal - above emergency rating		472L (Metiskow 648S - Sunken Lake 221S Tap)	New violation		
	None	Thermal - above normal rating		703L (Hughenden 213S - HRT Express 329S Tap)	New violation		
	None	Thermal - above emergency rating		472L (Hughenden 213S - Sunken Lake 221S Tap)	New violation		
	None	Thermal - above normal rating	966L (Hansman Lake 650S - Pemukan 932S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	None	Thermal - above normal rating		7L132 (Oyen 767S - Lanfine 959S)	New violation		
	None	Thermal - above normal rating	9L16 (Tinchebray 972S - Cordel 755S)	7L60 (Oyen 767S - RESC Big Sky Solar)	New violation	None	RTOP
	Thermal - above emergency rating	Thermal - above emergency rating	9L24 (Lanfine 959S - Oakland 946S)	7L60 (Oyen 767S - RESC Big Sky Solar)	Materially increased violation	RAS 204	Modified RAS 204
	Thermal - above emergency rating	Thermal - above emergency rating		7L132 (Oyen 767S - Lanfine 959S)	Materially increased violation		
2028 Winter Peak	None	Thermal - above normal rating	701L (North Hoden 395S - Strome 223S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above emergency rating		9L62 (Gaetz - 972S Tinchebray)	New violation		
	None	Thermal - above normal rating	702L (Hardisty 377S - Sedgewick 37S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP

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 emergency rating	885L (Hansman Lake 650S - Metiskow 648S)	749AL (P2460 ABO Fox Meadows - 749AL TAP)	Materially increased violation	RTOP	Planned RAS 213
	None	Thermal - above normal rating	702L (Sedgewick 137S - Battle River 757S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating	7L130 (Vermilion 710S - Kits Coty 705S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating	7L14 (Kits Coty 705S - Hill 751S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating	7L42 (Lloydminster 716S - Hill 751SS)	703L (Hardisty - HRT Express 329S Tap)	New violation	None	RTOP
	None	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	New violation		
	Thermal - above normal rating	Thermal - above normal rating	9L27 (Cordel 755S - Paintearth 863SS)	703L (Hardisty - HRT Express 329S Tap)	Materially increased violation	RTOP	RTOP
	Thermal - above normal rating	Thermal - above normal rating		472L (Metiskow 648S - Sunken Lake 221S Tap)	Materially increased violation		
	None	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	New violation		
	None	Thermal - above normal rating	9L20 (Nevis 766S - Cordel 755S)	704L (Wainwright 51S - Tucuman 478S)	New violation	RTOP, CETO Phase II	RTOP, CETO Phase II
	None	Thermal - above emergency rating		7L16 (Heatburg 948S - Nevis 766S)	New violation		
	Thermal - above emergency rating	Thermal - above emergency rating		9L62 (Gaetz - 972S Tinchebray)	Materially increased violation		
	None	Thermal - above normal rating	953L (Nilrem 574S - Cordel 755S)	408(Jarrow 252S - Wainwright 51S)	New violation	RTOP	RTOP
	None	Thermal - above normal rating		702L (Hardisty 377S - Sedgewick k 37S)	New violation		
	Thermal - above normal rating	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	Materially increased violation		
	None	Thermal - above emergency rating	9L29 (Oakland 946S - Coyote Lake 963S)	7L16 (Heatburg 948S - Nevis 766S)	New violation	None	RTOP
	None	Thermal - above emergency rating	9L70 (Anderson 801S - Oakland 946S)	9L97 (Anderson 801S - Oakland 946S)	New violation	None	RTOP. This violation will be removed once the line is upgraded as part of P2464 Sunnynook Solar Connection Project.
	None	Thermal - above emergency rating	9L97 (Anderson 801S - Oakland 946S)	9L70 (Anderson 801S - Oakland 946S)	New violation	None	RTOP. This violation will be removed once the line is upgraded as part of P2464 Sunnynook Solar Connection Project.
	Thermal - above emergency rating	Thermal - above emergency rating	7L171 (Michichi Creek 802S - Wintering Hills 804S)	801S (Anderson 801S Transformer T1)	No impact	RAS 200	RAS 200
	None	Thermal - above normal rating	801S (Anderson 801S Transformer T1)	7L171 (Michichi Creek 802S - Wintering Hills 804S)	New violation	None	RTOP
	None	Thermal - above emergency rating	9L80 (Battle River 757S - Cordel 755S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above emergency rating	174L (Bardo 197S - North Holden 395S)	9L62 (Gaetz - 972S Tinchebray)	New violation	None	RTOP, CETO Phase II
	None	Thermal - above emergency rating	Coyote Lake 963S - 901 Transformer	7L16 (Heatburg 948S - Nevis 766S)	New violation	None	RTOP
	None	Thermal - above normal rating	912L (Nevis 766S - Red Deer 63S)	174L (Bardo 197S - North Holden 395S)	New violation	RTOP, CETO Phase II	RTOP, CETO Phase II
	None	Thermal - above normal rating		701L (North Hoden 395S - Strome 223S)	New violation		
	None	Thermal - above normal rating		704L (Wainwright 51S - Tucuman 478S)	New violation		
	Thermal - above emergency rating	Thermal - above emergency rating		9L62 (Gaetz - 972S Tinchebray)	Materially increased violation		
	Thermal - above emergency rating	Thermal - above emergency rating	9L62 (Gaetz - 972S Tinchebray)	174L (Bardo 197S - North Holden 395S)	Materially increased violation	RAS 134, CETO Phase II	RAS 134, CETO Phase II
	Thermal - above normal rating	Thermal - above emergency rating		701L (North Hoden 395S - Strome 223S)	Materially increased violation		
	None	Thermal - above normal rating		701L (Strome 223S - Heisler Tap)	New violation		
	None	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	New violation		
	Thermal - above emergency rating	Thermal - above emergency rating		912L (Nevis 766S - Red Deer 63S)	Materially increased violation		
	Thermal - above emergency rating	Thermal - above emergency rating		9L20 (Nevis 766S - Cordel 755S)	Materially increased violation		
	None	Thermal - above normal rating	966L (Hansman Lake 650S - Pemukan 932S)	7L224 (Hansman Lake 650S - Monitor 774S)	New violation	None	Modified RAS 201
	None	Thermal - above emergency rating		7L127 (Monitor 774S - Pemukan 932S)	New violation		
	None	Thermal - above emergency rating	Battle River 757S 3 Winding Transformer	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating	749L (Metiskow 648S - Edgerton 899S)	703L (Hardisty - HRT Express 329S Tap)	New violation	RTOP	RTOP
	None	Thermal - above normal rating		472L (Metiskow 648S - Sunken Lake 221S Tap)	New violation		
	Thermal - above emergency rating	Thermal - above emergency rating		715L (Hansman Lake 650S - 715AL TAP)	Marginally increased violation		
	Thermal - above emergency rating	Thermal - above emergency rating		715L (715AL TAP - Rising Sun Solar TAP)	Marginally increased violation		
	Thermal - above emergency rating	Thermal - above emergency rating		715L (Provost 545S - Rising Sun Solar Tap)	Materially increased violation		
	Thermal - above emergency rating	Thermal - above emergency rating		398L (Provost 545S - Hayter 277S)	Materially increased violation		
	Thermal - above normal rating	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	Materially increased violation		
	None	Thermal - above normal rating	7L749 (Edgerton 899S - Lloydminster 716S)	703L (Hardisty - HRT Express 329S Tap)	New violation	RTOP	RTOP
	None	Thermal - above normal rating		472L (Metiskow 648S - Sunken Lake 221S Tap)	New violation		
	Thermal - above normal rating	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	Materially increased violation		
	None	Thermal - above normal rating	Edgerton 899S Transformer	472L (Metiskow 648S - Sunken Lake 221S Tap)	New violation	None	RTOP

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					
	None	Thermal - above normal rating		703L (Hardisty - HRT Express 329S Tap)	New violation		
	None	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	New violation		
	Thermal - above normal rating	Thermal - above emergency rating	715L (Provost 545S - Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	Materially increased violation	RTOP	Planned RAS 213
	Thermal - above emergency rating	Thermal - above emergency rating	1047L (Hansman Lake 650S - Nilrem 574S)	703L (Hardisty - HRT Express 329S Tap)	Materially increased violation	Planned RAS 238	Planned RAS 238
	Thermal - above emergency rating	Thermal - above emergency rating		472L (Metiskow 648S - Sunken Lake 221S Tap)	Materially increased violation		
	Thermal - above normal rating	Thermal - above emergency rating		703L (Hughenden 213S - HRT Express 329S Tap)	Materially increased violation		
	Thermal - above normal rating	Thermal - above emergency rating		472L (Hughenden 213S - Sunken Lake 221S Tap)	Materially increased violation		
	None	Thermal - above normal rating	701L (Battle River 757S - Strome 223S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP, CETO Phase II
	None	Thermal - above emergency rating		9L62 (Gaetz - 972S Tinchebray)	New violation		
	None	Thermal - above normal rating	7L65 (Vegrevile 709S - Vermilion 710S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating	948L (Paintearth 863S - Hansman Lake 650S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating		703L (Hardisty - HRT Express 329S Tap)	New violation		
	None	Thermal - above normal rating	9L24 (Lanfine 959S - Oakland 946S)	703L (Hardisty - HRT Express 329S Tap)	New violation	RTOP	Planned RAS 238, Modified RAS 204, New RAS 241
	None	Thermal - above emergency rating		472L (Metiskow 648S - Sunken Lake 221S Tap)	New violation		
	None	Thermal - above emergency rating		704L (Wainwright 51S - Tucuman 478S)	New violation		
	None	Thermal - above emergency rating		966L (Hansman Lake 650S - Pemukan 932S)	New violation		
	None	Thermal - above emergency rating		6L09 (Hanna 763S - Rochdale 776S)	New violation		
	None	Thermal - above emergency rating		9L62 (Gaetz - 972S Tinchebray)	New violation		
	None	Thermal - above emergency rating		7L60 (Oyen 767S - RESC Big Sky Solar)	New violation		
	Thermal - above normal rating	Thermal - above emergency rating		7L132 (Oyen 767S - Lanfine 959S)	Materially increased violation		
	None	Thermal - above emergency rating		Oyen 767S - 701 Transformer	New violation		
	None	Thermal - above emergency rating		6L09 (Oyen 767S - Youngstown Express 2037S Tap)	New violation		
	None	Thermal - above emergency rating		Oyen 767S - 701 Transformer	New violation		
	None	Thermal - above emergency rating		6L09 (Youngstown 772S - Rochdale 776S)	New violation		
	None	Thermal - above emergency rating		6L09 (Youngstown 772S - Youngstown Express 2037S Tap)	New violation		
	None	Transient – system instability		System instability	New violation		
	None	Thermal - above normal rating	769L (Hardisty 377S - Rosyth 296S)	704L (Wainwright 51S - Tucuman 478S)	New violation	None	RTOP
	None	Thermal - above normal rating	7L92 (Vilna 777S - Watt Lake 956S)	174L (Bardo 197S - North Holden 395S)	New violation	None	RTOP
	None	Thermal - above normal rating	9L59 (Tinchebray 972S - Anderson 801S)	703L (Hardisty - HRT Express 329S Tap)	New violation	None	RTOP

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%).
- RASs 134, 200 and 203 are existing RASs.
- RASs 213 and 238 are planned RASs proposed under the planned project P2460 ABO Fox Meadows Wind.
- Modified RAS 201 and Modified RAS 204 mean that the existing RASs 201 and 204 have been modified to add the Project to their logic.
- The New RAS 241 is a new RAS that is being added under this Project.

Attachment B:
Engineering Connection Assessment Results

Engineering Connection Assessment: Study Results

P2611 UK Solar East

UK Solar East Ltd.

Date: October 14, 2025

Version: V1

Role	Name	Date	Signature
Prepared	Akashdeep Gill, Engineer-In-Training	2025-10-14	
Reviewed	Osaid Abdullah, Engineer-In-Training	2025-10-14	
Approved	Yani Jazayeri, P. Eng.	2025-10-14	

PROFESSIONAL ENGINEER ALBERTA
POUYAN JAZAYERI

Oct 20, 2025
Member #74277

PERMIT TO PRACTICE
HARDLINE ENGINEERING LTD.
Signature
Date 2025-10-20 ID#69556
PERMIT NUMBER: P 14024
The Association of Professional Engineers and Geoscientists of Alberta

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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

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1 Introduction

This report presents the results of the engineering studies that were completed by Hardline Engineering 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.

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.

2.1.1 Scenario 1: 2028 Summer Peak High Generation Pre Project.

Category A Conditions

Thermal criteria violations were observed under Category A conditions in the 2028 SP pre-project & post-project scenario. Hence, Category A curtailments were conducted prior to the Category B studies. The most effective generators were scaled down to mitigate overloads.

Updated generation dispatch values for Scenario 1 are shown in the table below:

Generator Name	From (MW)	To (MW)
LAN 1	137.6	0
Oyen MPC Wind	250	20
Fox Meadows	106.2	95
Sharp Hill Wind	287.7	250
Cache Rising Sun MPC	97.5	74
Total Curtailed Generation (MW)	440	

Thermal criteria violations under Category A conditions prior to and after generation curtailment for Scenario 1 are shown in Table 2-1 below:

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

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Pre-Project Results (Pre-Curtailment)		Pre-Project Results (Post-Curtailment)	
		Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]
715L (715AL to Hansman Lake 650S)	98	118.29	120.7	95.7	97.6

715AL (Rising Sun Solar TAP to 715AL Tap)	98	118.29	120.7	95.7	97.6
7L760 (Oyen767S to RESC Big sky Tap)	110.20	133.01	120.7	68.4	62.1
7L760 (RESC Big Sky Tap to Bindloss 914S Tap)	110.20	131.91	119.7	67.4	61.1
760L (Bindloss 914S Tap to Amoco Empress 163S)	110.20	123.42	112	58.5	53.1
7L132 (Lanfine 959S to Oyen 767S)	112.1	131.05	116.9	61.7	55.9
749AL (ABO Fox Meadow to Killarney Lake 267S)	120.9	125.98	104.2	116.4	96.2

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Category B Conditions

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

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

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings[a] (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[b] (MVA)	% Loading[c]
885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows to 749 AL Tap)	120.9	133.0	130.5	107.9
748L (Hayter 277S to Killarney Lake 267S)	715L (Hansman Lake 650S to 715AL Tap)	98.0	135.0	117.9	120.3
	715L (715AL Tap to Rising Sun Solar Tap)	98.0	138.0	117.9	120.3
Killarney Lake 267S Transformer	715L (Hansman Lake 650S to 715AL Tap)	98.0	135.0	117.9	120.3
	715L (715AL Tap to Rising Sun Solar Tap)	98.0	138.0	117.9	120.3
7L159 (Ghost Pine 114S to Heatburg 948S)	7L128 (Coyote Lake 963S to Hand Hills Tap)	162.9	186.9	199.7	122.6
7L42 (Lloydminster	715L (Hansman Lake 650S to 715AL Tap)	98.0	135.0	102.3	104.4

716S to Hill 751S)	715L (715AL Tap to Rising Sun Solar Tap)	98.0	138.0	102.3	104.4
Nevis 766S 240/138 kV TF	7L128 (Coyote Lake 963S to Hand Hills Tap)	162.9	186.9	175.3	107.6
7L16 (Heatburg 948S to Nevis 766S)	7L128 (Coyote Lake 963S to Hand Hills Tap)	162.9	186.9	198.2	121.7
7L137 (Rowley 768S to Three Hills 770S)	7L128 (Coyote Lake 963S to Hand Hills Tap)	162.9	186.9	170.4	104.6
7L25 (Michichi Creek 802S to Rowley 768S)	7L128 (Coyote Lake 963S to Hand Hills Tap)	162.9	186.9	171.9	105.5
9L29 (Oakland 946S to Coyote Lake 963S)	7L159 (Ghost Pine 114S to Heatburg 948S)	107.3	118.8	125.7	117.1
	7L16 (Heatburg 948S to Nevis 766S)	107.3	119.8	123.1	114.7
	7L85 (Anderson 801S to Bullpound 803S)	139.0	165.8	157.2	113.1
	7L85 (Parker to Bullpound 803S)	138.0	157.2	164.3	119.0
	801S (Anderson 801S Transformer T1)	125.0	125.0	169.2	135.3
801S (Anderson 801S Transformer T1)	7L128 (Coyote Lake 963S to Hand Hills Tap)	162.9	186.9	206.0	126.5
	7L171 (Michichi Creek 802S to Wintering Hills 804S)	107.3	121.7	113.2	105.5
Coyote Lake 963S – 901 Transformer	7L159 (Ghost Pine 114S to Heatburg 948S)	107.3	118.8	125.6	117.1
	7L16 (Heatburg 948S to Nevis 766S)	107.3	119.8	123.1	114.7
	7L85 (Anderson 801S to Bullpound 803S)	139.0	165.8	157.3	113.2
	7L85 (Parker to Bullpound 803S)	138.0	157.2	164.3	119.1
	801S (Anderson 801S Transformer T1)	125.0	125.0	169.4	135.5
912L (Nevis 766S to Red Deer 63S)	7L128 (Coyote Lake 963S to Hand Hills Tap)	162.9	186.9	168.1	103.2
9L62 (Gaetz to 972S Tinchebray)	912L (Nevis 766S to Red Deer 63S)	507.0	608.0	586.0	115.6
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	515.5	120.2
749L (Metiskow 468S to Edgerton 899S)	398L (Provost 545S to Hayter 277S)	120	132	155.3	129.4
	715L (Provost 545S to Rising Sun Solar Tap)	98	108	145.5	148.5
	715L (Hansman Lake 650S to 715AL Tap)	98.0	135.0	198.7	202.8

	715L (715AL Tap to Rising Sun Solar Tap)	98.0	138.0	198.8	202.9
Edgerton 899S Transformer	715L (Hansman Lake 650S to 715AL Tap)	98.0	135.0	107.6	109.8
	715L (715AL Tap to Rising Sun Solar Tap)	98.0	138.0	107.6	109.8
7L749 (Edgerton 899S to Lloydminster 716S)	715L (Hansman Lake 650S to 715AL Tap)	98.0	135.0	106.5	108.7
	715L (715AL Tap to Rising Sun Solar Tap)	98.0	138.0	106.5	108.7
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows to 749AL Tap)	120.9	133.0	144.0	119.1
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	133.0	96.4	100.4
	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	134.2	110.9
9L24 (Lanfine 959S to Oakland 946S)	7L760 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	115.0	104.4
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	113.1	100.9

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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 POD bus voltage deviations were observed.

2.1.2 Scenario 2: 2028 Summer Light High Generation Pre-Project.

Category A Conditions

No thermal criteria violations were observed under Category A conditions for Scenario 2.

Category B Conditions

Thermal criteria violations were observed under certain Category B conditions as shown in Table 2-3.

Table 2-3: Thermal Criteria Violations under Category B Conditions for Scenario 2

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings[a] (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[b] (MVA)	% Loading[c]
9L62 (Gaetz to 972S Tinchebray)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	478.8	111.6
749L (Metiskow 468S to Edgerton 899S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	147.1	150.1
	715L (715AL Tap to Rising Sun Solar Tap)	98.0	108.0	147.3	150.3
Edgerton 899S Transformer	715L (Hansman Lake 650S to 715AL Tap)	98.0	135.0	98.3	100.3
	715L (715AL Tap to Rising Sun Solar Tap)	98.0	108.0	98.4	100.4
9L24 (Lanfine 959S to Oakland 946S)	7L760 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	144.3	130.9
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	146.5	130.7

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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 POD bus voltage deviations were observed.

Scenario 3: 2028 Winter Peak High Generation Pre-Project.

Category A Conditions

Thermal criteria violations were observed under Category A conditions in the 2028 WP pre-project & post-project scenario. Hence, Category A curtailments were conducted prior to the Category B studies. The most effective generators were scaled down to mitigate overloads.

Updated generation dispatch values for Scenario 3 are shown in the table below:

Generator Name	From (MW)	To (MW)
Fox Meadows	128.5	108
Halkirk (HAL 1)	143.2	120
Total Curtailed Generation (MW)	43.7	

Thermal criteria violations under Category A conditions prior to and after generation curtailment for Scenario 3 are shown in Table 2-4 below:

Table 2-4: Thermal Criteria Violations under Category A Conditions for Scenario 3

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Pre-Project Results (Pre-Curtailment)		Pre-Project Results (Post-Curtailment)	
		Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]
749AL (ABO Fox Meadow to Killarney Lake 267S)	148	155.10	104.8	130.8	88.4

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Category B Conditions

Thermal criteria violations were observed under certain Category B conditions as shown in Table 2-5 below.

Table 2-5: Thermal Criteria Violations under Category B Conditions for Scenario 3

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings[a] (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[b] (MVA)	% Loading[c]
885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows to 749AL Tap)	148.0	163.0	152.9	103.0
9L27 (Cordel 755S to Paintearth 863S)	703L (Hardisty to HRT Express 329 S Tap)	96.0	143.0	98.9	103.1
9L20 (Nevis 766S to Cordel 755S)	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	959.2	115.4

953L (Nilrem 574S to Cordel 755S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	83.2	105.3
7L171 (Michichi Creek 802S to Wintering Hills 804S)	801S (Anderson 801S Transformer T1)	125.0	125.0	149.0	119.6
912L (Nevis 766S to Red Deer 63S)	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	1029.0	123.8
9L62 (Gaetz to 972S Tinchebray)	174L (North Holden 395S to Bardo 197S)	85	99	105.7	124.4
	701L (North Hoden 395S to Strome 223S)	146.0	161.0	151.5	103.7
	912L (Nevis 766S to Red Deer 63S)	624.0	624.0	857.7	137.4
	9L20 (Nevis 766S to Cordel 755S)	540.0	540.0	756.3	140.1
7L749 (Edgerton 899S to Lloydminster 716S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	81.5	103.2
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	148.0	163.0	160.7	108.6
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	144.2	150.2
	472L (Metiskow 468S to Sunken Lake 221S Tap)	150.0	165.0	188.9	125.9
	703L (Hughenden 213S to HRT Express 329S Tap)	145.0	160.0	149.9	103.4
	472L (Hughenden 213S to Sunken Lake 221S Tap)	150.0	165.0	154.0	102.7
9L24 (Lanfine 959S to Oakland 946S)	7L132 (Oyen 767S to Lanfine 959S)	140.9	171.5	148.9	105.7
749L (Metiskow 468S to Edgerton 899S)	715L (Hansman to 715AL TAP)	131.9	145.1	193.5	146.7
	715L (715AL TAP to Rising Sun Solar TAP)	131.9	145.1	193.8	146.9
	715L (Provost 545S to Rising Sun Solar Tap)	98	108	123.2	125.7
	398L (Provost 545S to Hayter 277S)	120	132	146.9	122.4
Edgerton 899S Transformer	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	83.1	105.2

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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 POD bus voltage deviations were observed.

2.1.4 Sensitivity Scenario 8: 2028 Summer Peak High Generation Pre-Project.

Category A Condition

Thermal criteria violations were observed under Category A conditions in the 2028 SP pre-project & post-project sensitivity scenario. Hence, Category A curtailments were conducted prior to the Category B studies. The most effective generators were scaled down to mitigate overloads.

Updated generation dispatch values for Scenario 8 are shown in the table below:

Generator Name	**From (MW)**	**To (MW)**
LAN 1	137.6	0
Oyen MPC Wind	250	0
Fox Meadows	106.2	85
Sharp Hill Wind	287.7	140
Cache Rising Sun MPC	97.5	72
Battle River#4	31	0
Battle River#5	94.8	0
NEP1	76	0
Halkirk 2	140.7	130
Paint Earth	190	0
HAL 1	140.6	0
Total Curtailed Generation (MW)	1125.1	

Thermal criteria violations under Category A conditions prior to and after generation curtailment for Scenario 8 are shown in Table 2-6 below:

Table 2-6: Thermal Criteria Violations under Category A Conditions for Scenario 8

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Pre-Project Results (Pre-Curtailment)		Pre-Project Results (Post-Curtailment)	
		Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]
9L20 (Cordel 755S to Nevis 766S)	429	599.31	139.7	319.4	74.5
7L760 (Oyen767S to RESC Big Sky Tap)	110.2	146.57	133	53.5	48.6
912L (Nevis 766S to Red Deer 63S)	507	676.34	133.4	341.4	67.3
7L760 (RESC Big Sky to Blindloss 914S Tap)	110.2	145.57	132.1	52.4	47.6
760L (Blindloss 914S Tap to Amoco Empress 163S)	110.2	136.98	124.3	43.5	39.5
7L132 (Lanfine 959S to Oyen 767S)	112.1	143.94	128.4	48.4	43.2
715AL (Rising Sun Solar Tap to 715AL Tap)	98	116.23	118.6	93.9	95.9
715L (715AL Tap to Hansman Lake 650S)	98	116.23	118.6	93.9	95.9
174L (North Holden 395S to Bardo 197S)	121	142.66	117.9	91	75.2
749AL (ABO Fox Meadow to Killarney Lake 267S)	120.9	127.67	105.6	107.1	88.5

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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

Category B Conditions

Thermal criteria violations were observed under certain Category B conditions as shown in Table 2-7.

Table 2-7: Thermal Criteria Violations under Category B Conditions for Scenario 8

Contingency (System Element Lost)	Violation Location Details	Thermal Ratings[a] (MVA)		Pre-Project Results	
		Normal Rating	Emergency Rating	Power Flow[b] (MVA)	% Loading[c]
748L (Hayter 277S to Killarney Lake 267S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	116.0	118.4
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	116.0	118.4
7L42 (Lloydminster 716S to Hill 751S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	98.3	100.3
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	98.3	100.3
9L20 (Nevis 766S to Cordel 755S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	132.8	109.8
7L137 (Rowley 768S to Three Hills 770S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	166.6	102.2
7L25 (Michichi Creek 802S to Rowley 768S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	168.1	103.2
9L29 (Oakland 946S to Coyote Lake 963S)	7L85 (7LA85 TAP to Bullpound 803S Tap)	138	157.2	140.62	101.9
	801S (Anderson 801S Transformer T1)	125.0	125.0	143.7	115.0
801S (Anderson 801S Transformer T1)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	175.1	107.5
Coyote Lake 963S - 901 Transformer	7L85 (7LA85 TAP to Bullpound 803S Tap)	138	157.2	140.6	101.9
	801S (Anderson 801S Transformer T1)	125.0	125.0	143.9	115.1
912L (Nevis 766S to Red Deer 63S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	144.7	119.6
749L (Metiskow 468S to Edgerton 899S)	398L (Provost 545S to Hayter 277S)	120	132	146.0	121.7
	715L (Provost 545S to Rising Sun Solar Tap)	98	108	136.3	139.1
	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	188.7	192.5
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	188.8	192.7
Edgerton 899S Transformer	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	103.4	105.5
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	103.4	105.5

7L749 (Edgerton 899S to Lloydminster 716S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	102.4	104.5
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	102.4	104.5
Killarney Lake 267S Transformer	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	116.0	118.4
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	116.0	118.3
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	135.0	111.6
1047L (Hansman Lake 650S to Nilrem 574S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	123.5	102.0

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

3 Post-Project Study Results

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

As described in Section 2 of Attachment A1, the post-Project studies were performed using Alternative 2 which is connecting radially to Lanfine 959S Substation.

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 4: 2028 Summer Peak High Generation Post-Project

Category A Conditions

Thermal criteria violations were observed under Category A conditions in the 2028 SP post-Project scenario. Hence, Category A curtailments were conducted prior to the Category B studies. The most effective generators were scaled down to mitigate overloads.

Updated generation dispatch values for Scenario 4 are shown in the table below:

Generator Name	From (MW)	To (MW)
LAN 1	137.6	0
Oyen MPC Wind	250	20
Fox Meadows	106.2	95
Sharp Hill Wind	287.7	250
Cache Rising Sun MPC	97.5	74
Total Curtailed Generation (MW)	440	

Thermal criteria violations were observed Category A conditions. Thermal criteria violations under Category A conditions prior to generation curtailment for Scenario 4 and its corresponding pre-Project scenario (Scenario 1) are shown in Table 3-1 below:

Table 3-1: Thermal Criteria Violations under Category A Conditions for Scenario 4

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Emergency Rating (MVA)[a]	Pre-Project Results (Pre-Curtailment)		Post-Project Results (Pre-Curtailment)		% Loading Difference (Post-Pre)
			Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]	
7L760 (Oyen767S to RESC Big Sky Tap)	110.2	122.7	133.01	120.7	167.39	151.9	31.2
7L760 (RESC Big Sky Tap to Bindloss 914S Tap)	110.2	122.7	131.91	119.7	166.51	151.1	31.4
760L (Bindloss 914S Tap to Amoco Empress 163Sv)	110.2	122.7	123.42	112.0	157.92	143.3	31.3
7L132 (Lanfine 959S to Oyen 767S)	112.1	138.0	131.04	116.9	169.05	150.8	33.9
749AL (ABO Fox Meadow to Killarney Lake 267S)	120.9	133.0	125.98	104.2	128.03	105.9	1.7
715L (715AL Tap to Hansman Lake 650S)	98	135.0	118.29	120.7	115.93	118.3	-2.4
472L (472AL Sunken Lake to Hughenden 213S)	84	125.0	42.6	50.1	92.74	110.4	60.3
715AL (Rising Sun Solar Tap to 715AL Tap)	98	138.0	118.29	120.7	115.93	118.3	-2.4
472L (Metiskow 468S to 472AL Sunken Lake)	121	133.0	108.1	89.4	124.99	103.3	13.9

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Thermal criteria violations under Category A conditions prior to and after generation curtailment for Scenario 4 are shown in Table 3-2 below:

Table 3-2: Post-Project Thermal Criteria Violations Under Category A Conditions for Scenario 4

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Post-Project Results (Pre-Curtailment)		Post-Project Results (Post-Curtailment)	
		Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]
7L760 (Oyen 767S to RESC Big Sky Tap)	110.2	133.01	120.7	167.39	151.9
7L760 (RESC Big Sky Tap to Bindloss 914S Tap)	110.2	131.91	119.7	166.51	151.1
760L (Bindloss 914S Tap to Amoco Empress 163S)	110.2	123.42	112.0	157.92	143.3
7L132 (Lanfine 959S to Oyen 767S)	112.1	131.04	116.9	169.05	150.8
749AL (ABO Fox Meadow to Killarney Lake 267S)	120.9	125.98	104.2	128.03	105.9
715L (715AL Tap to Hansman Lake 650S)	98	118.29	120.7	115.93	118.3
472L (472AL Sunken Lake to Hughenden 213S)	84	42.6	50.1	92.74	110.4
715AL (Rising Sun Solar Tap to 715AL Tap)	98	118.29	120.7	115.93	118.3
472L (Metiskow 468S to 472AL Sunken Lake)	121	108.1	89.4	124.99	103.3

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Category B Conditions

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

Table 3-3: 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	
701L (North Hoden 395S to Strome 223S)	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	89.2	81.6	113.7	104.1	22.5
885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	130.5	107.9	134.9	111.6	3.7
748L (Hayter 277S to Killarney Lake 267S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	117.9	120.3	117.6	120.0	-0.3
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	117.9	120.3	117.7	120.1	-0.2
Killarney Lake 267S Transformer	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	117.9	120.3	117.6	120.0	-0.3
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	117.9	120.3	117.7	120.1	-0.2
7L159 (Ghost Pine 114S to Heatburg 948S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	199.7	122.6	196.5	120.7	-1.9
7L42 (Lloydminister 716S to Hill 751S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	102.3	104.4	102.2	104.3	-0.1
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	108.0	102.3	104.4	102.2	104.3	-0.1
9L27 (Cordel 755S to Paintearth 863S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	109.7	90.6	129.6	107.1	16.5
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	74.8	67.8	115.3	104.6	36.8

	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	69.7	62.1	113.6	101.4	39.3
Nevis 766S 240/138 kV TF	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	175.3	107.6	171.3	105.2	-2.4
9L20 (Nevis 766S to Cordel 755S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	73.6	66.8	113.4	102.9	36.1
7L16 (Heatburg 948S to Nevis 766S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	198.2	121.7	195.1	119.7	-2
953L (Nilrem 574S to Cordel 755S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	72.3	65.6	112.9	102.5	36.9
7L137 (Rowley 768S to Three Hills 770S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	170.4	104.6	167.1	102.6	-2
7L25 (Michichi Creek 802S to Rowley 768S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	171.9	105.5	168.7	103.5	-2
9L29 (Oakland 946S to Coyote Lake 963S)	7L159 (Ghost Pine 114S to Heatburg 948S)	107.3	118.8	125.7	117.1	129.8	120.9	3.8
	7L16 (Heatburg 948S to Nevis 766S)	107.3	119.8	123.1	114.7	127.2	118.5	3.8
	7L85 (Anderson 801S to Bullpound 803S)	139.0	165.8	157.2	113.1	148.7	107.0	-6.1
	7L85 (Parker to Bullpound 803S)	138.0	157.2	164.3	119.0	155.8	112.9	-6.1
	801S (Anderson 801S Transformer T1)	125.0	125.0	169.2	135.3	158.5	126.8	-8.5
801S (Anderson 801S Transformer T1)	7L171 (Michichi Creek 802S to Wintering Hills 804S)	107.3	121.7	113.2	105.5	106.2	99.0	-6.5
	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	206.0	126.5	194.9	119.7	-6.8

Coyote Lake 963S - 901 Transformer	7L159 (Ghost Pine 114S to Heatburg 948S)	107.3	118.8	125.6	117.1	129.8	120.9	3.8
	7L16 (Heatburg 948S to Nevis 766S)	107.3	119.8	123.1	114.7	127.2	118.5	3.8
	7L85 (Anderson 801S to Bullpound 803S)	139.0	165.8	157.3	113.2	148.7	107.0	-6.2
	7L85 (Parker to Bullpound 803S)	138.0	157.2	164.3	119.1	155.8	112.9	-6.2
	801S (Anderson 801S Transformer T1)	125.0	125.0	169.4	135.5	158.7	127.0	-8.5
912L (Nevis 766S to Red Deer 63S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	94.9	78.4	128.7	106.4	28
	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	168.1	103.2	163.6	100.4	-2.8
	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	702.0	84.4	840.9	101.1	16.7
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	75.3	68.4	115.7	105.0	36.6
9L62 (Gaetz to 972S Tinchebray)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	113.1	93.4	150.4	124.3	30.9
	701L (North Hoden 395S to Strome 223S)	119.0	131.0	105.2	88.4	122.9	103.3	14.9
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	85.2	77.9	110.2	100.9	23
	912L (Nevis 766S to Red Deer 63S)	507.0	608.0	586.0	115.6	703.8	138.8	23.2
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	515.5	120.2	620.4	144.6	24.4
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	79.3	72.0	120.6	109.4	37.4
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	73.0	65.2	117.5	104.8	39.6

9L933 (Anderson 801S to Ware Junction 132S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	77.1	70.0	117.7	106.8	36.8
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	71.0	63.3	114.7	102.3	39
9L934 (Anderson 801S to Ware Junction 132S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	77.1	70.0	117.7	106.8	36.8
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	71.0	63.3	114.7	102.3	39
9L950 (Anderson 801S to Ware Junction 132S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	77.1	69.9	117.6	106.7	36.8
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	70.9	63.3	114.7	102.3	39
749L (Metiskow 468S to Edgerton 899S)	398L (Provost 545S to Hayter 277S)	120	132	155.3	129.4	155.0	129.2	-0.2
	715L (Provost 545S to Rising Sun Solar Tap)	98.0	108	145.5	148.5	145.3	148.3	-0.2
	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	198.7	202.8	198.5	202.6	-0.2
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	198.8	202.9	198.6	202.7	-0.2
Edgerton 899S Transformer	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	107.6	109.8	107.4	109.6	-0.2
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	107.6	109.8	107.4	109.6	-0.2
7L749 (Edgerton 899S to Lloydminster 716S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	106.5	108.7	106.4	108.5	-0.2
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	108.0	106.5	108.7	106.4	108.5	-0.2
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	144.0	119.1	143.7	118.8	-0.3

1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	133.0	96.4	100.4	126.4	131.7	31.3
	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	134.2	110.9	165.7	137.0	26.1
	703L (Hughenden 213S to HRT Express 329S Tap)	121.0	133.0	99.3	82.0	129.4	106.9	24.9
	472L (Hughenden 213S to Sunken Lake 221S Tap)	121.0	133.0	102.9	85.0	133.1	110.0	25
701L (Battle River 757S to Strome 223S)	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	91.4	83.6	115.9	106.0	22.4
9L24 (Lanfine 959S to Oakland 946S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	104.5	86.4	135.0	111.6	25.2
	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	159.7	98.1	163.0	100.0	1.9
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	115.0	104.4	211.2	191.6	87.2
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	113.1	100.9	217.3	193.8	92.9

Voltage Criteria Violations

No voltage criteria violations were observed under Category B conditions.

POD Bus Voltage Deviations

No POD bus voltage deviations were observed.

3.1.2 Scenario 5: 2028 Summer Light High Generation Post-Project

Category A Conditions

Thermal criteria violations were observed under Category A conditions in the 2028 SL post-Project scenario. Hence, Category A curtailments were conducted prior to the Category B studies. The most effective generators were scaled down to mitigate overloads.

Updated generation dispatch values for Scenario 5 are shown in the table below:

Generator Name	From (MW)	To (MW)
LAN 1	103	0
Oyen MPC Wind	192	165
Total Curtailed Generation (MW)	130.0	

Thermal criteria violations were observed Category A conditions. Thermal criteria violations under Category A conditions prior to generation curtailment for Scenario 5 and its corresponding pre-Project scenario (Scenario 2) are shown in Table 3-4 below:

Table 3-4: Thermal Criteria Violations under Category A Conditions for Scenario 5

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Emergency Rating (MVA)[a]	Pre-Project Results (Pre-Curtailment)		Post-Project Results (Pre-Curtailment)		% Loading Difference (Post-Pre)
			Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]	
7L132 (Lanfine 959S to Oyen 767S)	112.1	138.0	92.9	82.0	130.37	116.3	34.3
7L760 (Oyen 767S to RESC Big Sky Tap)	110.2	122.7	93.7	85.0	128.16	116.3	31.3
7L760 (RESC Big Sky Tap to Bindloss 914S Tap)	110.2	122.7	92.5	84.0	127.17	115.4	31.4
760L (Bindloss 914S Tap to Amoco Empress 163S)	110.2	122.7	90.7	82.3	125.41	113.8	31.5

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Thermal criteria violations under Category A conditions prior to and after generation curtailment for Scenario 5 are shown in Table 3-5 below:

Table 3-5: Post-Project Thermal Criteria Violations Under Category A Conditions for Scenario 5

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Post-Project Results (Pre-Curtailment)		Post-Project Results (Post-Curtailment)	
		Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]
7L132 (Lanfine 959S to Oyen 767S)	112.1	130.37	116.3	107.3	96
7L760 (Oyen 767S to RESC Big Sky Tap)	110.2	128.16	116.3	107.3	97.7
7L760 (RESC Big Sky Tap to Bindloss 914S Tap)	110.2	127.17	115.4	106.5	96.9
760L (Bindloss 914S Tap to Amoco Empress 163S)	110.2	125.41	113.8	105.0	95.5

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Category B Conditions

Thermal criteria violations were observed under certain Category B conditions as shown in Table 3-6.

Table 3-6: Thermal Criteria Violations under Category B Conditions for Scenario 5

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	
9L27 (Cordel 755S to Paintearth 863S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	79.5	72.2	116.0	105.2	33
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	76.6	68.3	116.8	104.2	35.9
9L20 (Nevis 766S to Cordel 755S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	78.3	71.0	113.9	103.4	32.4

	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	75.1	67.0	114.4	102.0	35
953L (Nilrem 574S to Cordel 755S)	704L (Wainwright 51S to Tucuman 478S)	75.0	83.0	65.1	86.8	84.5	112.7	25.9
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	78.9	71.6	115.2	104.5	32.9
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	75.8	67.6	115.8	103.3	35.7
912L (Nevis 766S to Red Deer 63S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	79.2	71.8	115.1	104.5	32.7
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	74.5	66.4	113.7	101.4	35
9L62 (Gaetz to 972S Tinchebray)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	98.9	81.7	122.0	100.9	19.2
	912L (Nevis 766S to Red Deer 63S)	507.0	608.0	501.9	99.0	621.3	122.6	23.6
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	478.8	111.6	582.3	135.7	24.1
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	82.7	75.1	119.7	108.6	33.5
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	78.7	70.2	119.1	106.3	36.1
9L933 (Anderson 801S to Ware Junction 132S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	81.8	74.2	117.6	106.7	32.5
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	77.9	69.5	117.2	104.5	35
9L934 (Anderson 801S to Ware Junction 132S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	81.8	74.2	117.6	106.7	32.5
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	77.9	69.5	117.2	104.5	35

9L950 (Anderson 801S to Ware Junction 132S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	81.7	74.2	117.5	106.7	32.5
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	77.8	69.4	117.2	104.5	35.1
749L (Metiskow 468S to Edgerton 899S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	147.1	150.1	147.0	150.0	-0.1
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	108.0	147.3	150.3	147.1	150.1	-0.2
Edgerton 899S Transformer	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	98.3	100.3	98.3	100.3	0
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	108.0	98.4	100.4	98.3	100.3	-0.1
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	133.0	89.8	93.6	122.8	127.9	34.3
	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	111.6	92.3	145.8	120.5	28.2
	703L (Hughenden 213S to HRT Express 329S Tap)	121.0	133.0	92.5	76.5	125.6	103.8	27.3
	472L (Hughenden 213S to Sunken Lake 221S Tap)	121.0	133.0	102.4	84.6	136.1	112.4	27.8
966L (Hansman Lake 650S to Pemukan 932S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	70.3	63.8	112.5	102.1	38.3
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	66.4	59.2	113.1	100.9	41.7
9L16 (Tinchebray 972S to Cordel 755S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	76.3	69.2	112.1	101.8	32.6
9L24 (Lanfine 959S to	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	144.3	130.9	230.6	209.3	78.4

Oakland 946S)	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	146.5	130.7	240.7	214.7	84

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Scenario 6: 2028 Winter Peak High Generation Post-Project

Category A Conditions

Thermal criteria violations were observed under Category A conditions in the 2028 WP post-Project scenario. Hence, Category A curtailments were conducted prior to the Category B studies. The most effective generators were scaled down to mitigate overloads.

Updated generation dispatch values for Scenario 6 are shown in the table below:

Generator Name	**From (MW)**	**To (MW)**
Fox Meadows	128.5	108
Halkirk (HAL 1)	143.2	120
Total Curtailed Generation (MW)	43.7	

Thermal criteria violations were observed Category A conditions. Thermal criteria violations under Category A conditions prior to generation curtailment for Scenario 6 and its corresponding pre-Project scenario (Scenario 3) are shown in Table 3-7 below:

Table 3-7: Thermal Criteria Violations under Category A Conditions for Scenario 6

Violation Location Details	**Seasonal Continuous Rating (MVA)[a]**	**Emergency Rating (MVA)[a]**	**Pre-Project Results (Pre-Curtailment)**		**Post-Project Results (Pre-Curtailment)**		**% Loading Difference (Post-Pre)**
			Power Flow[b] (MVA)	**% Loading[c]**	**Power Flow[b] (MVA)**	**% Loading[c]**	
749AL (ABO Fox Meadows to Killarney Lake 267S)	148.0	163.0	155.10	104.8	158.66	107.2	2.4
9L62 (Tinchebray 972S to Gaetz 87S)	831.4	831.4	752.7	90.5	848.86	102.1	11.6

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

[b] Power flow (MVA) is current expressed as MVA (i.e., S = √3 x V_{base} x I_{actual})

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

Thermal criteria violations under Category A conditions prior to and after generation curtailment for Scenario 6 are shown in Table 3-8 below:

Table 3-8: Post-Project Thermal Criteria Violations Under Category A Conditions for Scenario 6

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Post-Project Results (Pre-Curtailment)		Post-Project Results (Post-Curtailment)	
		Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]
749AL (ABO Fox Meadows to Killarney Lake 267S)	148.0	158.66	107.2	143.00	96.6
9L62 (Tinchebray 972S to Gaetz 87S)	831.4	848.86	102.2	806.00	96.9

Notes:
[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.
[b] Power flow (MVA) is current expressed as MVA (i.e., S = √3 x V_{base} x I_{actual})
[c] Reported as a percentage of the power flow (in MVA, i.e., S = √3 x V_{base} x I_{actual}) relative to the transmission line's Normal Rating (also in MVA), as shown in Attachment A1.

Category B Conditions

Thermal criteria violations were observed under certain Category B conditions as shown in Table 3-9.

Table 3-9: Thermal Criteria Violations under Category B Conditions for Scenario 6.

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	
701L (North Hoden 395S to Strome 223S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	63.5	80.3	80.5	101.9	21.6
	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	767.5	92.3	848.4	102.0	9.7
702L (Hardisty 377S to Sedgewick k 37S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	67.0	84.8	84.7	107.3	22.5

885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows – 749AL TAP)	148.0	163.0	152.9	103.3	171.5	115.9	12.6
702L (Sedgewick 137S to Battle River 757S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	65.6	83.0	83.3	105.5	22.4
7L130 (Vermilion 710S to Kits Coty 705S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	64.0	81.0	84.2	106.6	25.6
7L14 (Kits Coty 705S to Hill 751S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	65.1	82.4	85.3	108.0	25.6
7L42 (Lloydminster 716S to Hill 751SS)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	85.6	89.1	104.3	108.7	19.5
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	75.3	95.4	95.6	121.0	25.7
9L27 (Cordel 755S to Paintearth 863S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	98.9	103.1	118.8	123.7	20.7
	472L (Metiskow 468S to Sunken Lake 221S Tap)	150.0	165.0	142.9	95.3	162.8	108.5	13.2
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	72.0	91.1	90.5	114.5	23.4
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	67.4	85.3	84.6	107.1	21.9
	7L16 (Heatburg	127.5	127.5	124.5	97.7	135.5	106.3	8.6

9L20 (Nevis 766S to Cordel 755S)	948S to Nevis 766S)							
	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	959.2	115.4	1058.8	127.3	12.0
953L (Nilrem 574S to Cordel 755S)	408(Jarrow 252S to Wainwright 51S)	87.0	96.0	66.5	76.5	87.7	100.8	24.3
	702L (Hardisty 377S to Sedgewick k 37S)	91.0	100.0	77.3	84.9	95.9	105.4	20.5
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	83.2	105.3	104.9	132.8	27.5
9L29 (Oakland 946S to Coyote Lake 963S)	7L16 (Heatburg 948S to Nevis 766S)	127.5	127.5	126.2	99.0	130.6	102.5	3.5
7L171 (Michichi Creek 802S to Wintering Hills 804S)	801S (Anderson 801S Transformer T1)	125.0	125.0	149.5	119.6	148.7	119.0	-0.6
801S (Anderson 801S Transformer T1)	7L171 (Michichi Creek 802S to Wintering Hills 804S)	140.9	143.8	140.6	99.8	141.1	100.1	0.3
9L80 (Battle River 757S to Cordel 755S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	71.8	90.9	92.4	117.0	26.1
174L (Bardo 197S to North Holden 395S)	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	768.0	92.4	845.0	101.6	9.3
Coyote Lake 963S - 901 Transformer	7L16 (Heatburg 948S to Nevis 766S)	127.5	127.5	126.2	99.0	130.6	102.5	3.5
912L (Nevis 766S to Red Deer 63S)	174L (Bardo 197S to North Holden 395S)	149.0	164.0	138.1	103.8	156.1	117.4	13.6
	701L (North Hoden 395S to Strome 223S)	146.0	161.0	125.0	85.6	153.4	105.1	19.5
	704L (Wainwright 51S to	79.0	87.0	68.3	86.5	85.9	108.7	22.3

	Tucuman 478S)							
	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	1029.3	123.8	1140.7	137.2	13.4
9L62 (Gaetz to 972S Tinchebray)	174L (Bardo 197S to North Holden 395S	149.0	164.0	165.4	124.4	185.2	139.2	14.9
	701L (North Hoden 395S to Strome 223S)	146.0	161.0	151.5	103.7	182.3	124.9	21.1
	701L (Strome 223S to Heisler Tap)	191.0	213.0	163.2	85.5	194.6	101.9	16.4
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	78.1	98.9	97.1	122.9	24.0
	912L (Nevis 766S to Red Deer 63S)	624.0	624.0	857.7	137.4	956.7	153.3	15.9
	9L20 (Nevis 766S to Cordel 755S)	540.0	540.0	756.3	140.1	842.2	156.0	15.9
966L (Hansman Lake 650S to Pemukan 932S)	7L224 (Hansman Lake 650S to Monitor 774S)	143.8	163.9	121.6	84.6	201.5	140.1	55.5
	7L127 (Monitor 774S to Pemukan 932S)	182.1	243.4	151.4	83.2	236.0	129.6	46.4
Battle River 757S Transformer	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	71.2	90.1	91.8	116.2	26.1
749L (Metiskow 468S to Edgerton 899S)	703L (Hardisty to HRT Express 329S Tap)	96	143	90.5	94.3	108.7	113.2	18.9
	472L (Metiskow 468S to Sunken Lake 221S Tap)	150	165	132.8	88.5	151.2	100.8	12.3
	715L (Hansman to 715AL TAP)	131.9	145.1	193.5	146.7	194.6	147.5	0.8

	715L (715AL TAP to Rising Sun Solar TAP)	131.9	145.1	193.8	146.9	194.8	147.7	0.8
	715L (Provost 545S to Rising Sun Solar Tap)	98	108	123.2	125.7	177.4	134.5	8.8
	398L (Provost 545S to Hayter 277S)	120	132	146.9	122.4	155.0	129.2	6.8
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	83.1	105.2	103.6	131.2	26.0
7L749 (Edgerton 899S to Lloydminster 716S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	91.3	95.1	110.0	114.6	19.5
	472L (Metiskow 468S to Sunken Lake 221S Tap)	150.0	165.0	134.0	89.3	152.7	101.8	12.5
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	81.5	103.2	101.8	128.9	25.7
Edgerton 899S Transformer	472L (Metiskow 468S to Sunken Lake 221S Tap)	150	165	135.6	90.4	154.6	102.9	12.5
	703L (Hardisty to HRT Express 329S Tap)	96	143	92.8	96.7	111.6	116.2	19.5
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	76.2	96.5	96.4	122.1	25.7
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	148.0	163.0	160.7	108.6	175.7	118.7	10.1
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	144.2	150.2	176.7	184.0	33.8

	472L (Metiskow 468S to Sunken Lake 221S Tap)	150.0	165.0	188.9	125.9	222.1	148.1	22.2
	703L (Hughenden 213S to HRT Express 329S Tap)	145.0	160.0	149.9	103.4	182.4	125.8	22.4
	472L (Hughenden 213S to Sunken Lake 221S Tap)	150.0	165.0	154.0	102.7	186.5	124.3	21.6
701L (Battle River 757S to Strome 223S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	63.7	80.6	80.8	102.2	21.6
	9L62 (Gaetz to 972 Tinchebray)	831.4	831.4	772.0	92.9	853.1	102.6	9.8
7L65 (Vegrevile 709S to Vermilion 710S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	70.5	89.2	85.0	107.5	18.4
948L (Paintearth 863S to Hansman Lake 650S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	63.9	80.9	79.4	100.5	19.6
	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	79.6	82.9	99.3	103.5	20.5
9L24 (Lanfine 959S to Oakland 946S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	94.4	98.4	122.7	127.8	29.5
	472L (Metiskow 468S to Sunken Lake 221S Tap)	150.0	165.0	138.0	92.0	166.2	110.8	18.8
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	70.0	88.6	92.1	116.6	28.0
	966L (Hansman Lake 650S to	442.0	442.0	345.8	78.2	561.7	127.1	48.9

	Pemukan 932S)							
	6L09 (Hanna 763S to Rochdale 776S)	23.0	23.0	16.5	71.8	25.2	109.8	38.0
	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	754.9	90.8	831.8	100.1	9.3
	7L60 (Oyen 767S to RESC Big Sky Solar)	146.6	167.7	131.3	89.6	224.5	153.2	63.6
	7L132 (Oyen 767S to Lanfine 959S)	140.9	171.5	148.9	105.7	250.7	177.9	72.2
	Oyen 767S - 701 Transformer	25.0	25.0	19.1	76.2	27.7	110.9	34.7
	6L09 (Oyen 767S to Youngstown Express 2037S Tap)	23.0	23.0	19.9	86.7	28.6	124.5	37.8
	Oyen 767S - 701 Transformer	25.0	0.0	21.8	87.1	31.1	124.3	37.2
	6L09 (Youngstown 772S to Rochdale 776S)	24.0	24.0	17.1	71.1	25.8	107.4	36.3
	6L09 (Youngstown 772S to Youngstown Express 2037S Tap)	24.0	24.0	17.6	73.4	26.2	109.2	35.9
769L (Hardisty 377S to Rosyth 296S)	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	63.9	80.8	80.2	101.5	20.6
7L92 (Vilna 777S to Watt Lake 956S)	174L (Bardo 197S to North Holden 395S)	149.0	164.0	127.3	95.7	149.2	112.2	16.5
9L59 (Tinchebray 972S to Anderson 801S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	80.4	83.7	97.4	101.5	17.8
9L70 (Anderson 801S to Oakland 946S)	9L97 (Anderson 801S to Oakland 946S)	499.0	499.0	369.0	73.9	543.8	109.0	35.1

9L97 (Anderson 801S to Oakland 946S)	9L70 (Anderson 801S to Oakland 946S)	499.0	499.0	369.0	73.9	543.8	109.0	35.1

Voltage Criteria Violations

No voltage criteria violations were observed under Category B conditions.

POD Bus Voltage Deviations

No POD bus voltage deviations were observed.

3.1.4 Sensitivity Scenario 9: 2028 Summer Peak High Generation Post-Project

Category A Condition

Thermal criteria violations were observed under Category A conditions in the 2028 SP post-project sensitivity scenario. Hence, Category A curtailments were conducted prior to the Category B studies. The most effective generators were scaled down to mitigate overloads.

Updated generation dispatch values for Scenario 9 are shown in the table below:

Generator Name	**From (MW)**	**To (MW)**
LAN 1	137.6	0
Oyen MPC Wind	250	0
Fox Meadows	106.2	85
Sharp Hill Wind	287.7	140
Cache Rising Sun MPC	97.5	72
Battle River#4	31	0
Battle River#5	94.8	0
NEP1	76	0
Halkirk 2	140.7	130
Paint Earth	190	0
HAL 1	140.6	0
Total Curtailed Generation (MW)	1125.1	

Thermal criteria violations were observed Category A conditions. Thermal criteria violations under Category A conditions prior to generation curtailment for Scenario 9 and its corresponding pre-Project scenario (Scenario 4) are shown in Table 3-10 below:

Table 3-10: Thermal Criteria Violations under Category A Conditions for Scenario 9

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Emergency Rating (MVA)[a]	Pre-Project Results (Pre-Curtailment)		Post-Project Results (Pre-Curtailment)		% Loading Difference (Post-Pre)
			Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]	
7L760 (Oyen767S to RESC Big sky Tap)	110.2	122.7	146.57	133.0	184.59	167.5	34.5
7L760 (RESC Big sky Tap to Bindloss 914S Tap)	110.2	122.7	145.57	132.1	183.70	166.7	34.6
760L (Bindloss 914S Tap to Amoco Empress 163S)	110.2	122.7	136.98	124.3	175.11	158.9	34.6
7L132 (Lanfine 959S to Oyen 767S)	112.1	138	143.94	128.4	185.19	165.2	36.8
9L20 (Cordel 755S to Nevis 766S)	429	624	599.31	139.7	700.99	163.4	23.7
912L (Nevis 766S to Red Deer 63S)	507	608	676.34	133.4	792.95	156.4	23
174L (North Holden 395S to Bardo 197S)	121	133	142.66	117.9	165.04	136.4	18.5
715L (715AL TAP to Hansman Lake 650S)	98	135	116.23	118.6	113.58	115.9	-2.7
701L (North Holden 395S to Strome 223S)	119	131	69.7	58.5	136.97	115.1	45.4
715AL (Rising Sun Solar TAP to 715AL TAP)	98	138	116.23	118.6	113.09	115.4	-3.2
7L65 (Vegrevile 709S to Grizzly Bear 708S)	109.3	121.7	91.6	83.8	119.25	109.1	25.3
749AL (ABO Fox Meadow to Killarney Lake 267 S)	120.9	133	127.67	105.6	129.97	107.5	1.9
730L (Bardo 197S to Kingman Tap)	86.1	95	63.5	73.8	91.95	106.8	33.0
472L (Hughenden 213S to Sunken Lake 472ALTAP)	84	125	76	90.5	85.51	101.8	11.3
701L (Strome 223S to Heisler Tap)	141.8	159.1	77.5	54.5	145.06	102.3	47.8

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Thermal criteria violations under Category A conditions prior to and after generation curtailment for Scenario 9 are shown in Table 3-11 below:

Table 3-11: Post-Project Thermal Criteria Violations Under Category A Conditions for Scenario 9

Violation Location Details	Seasonal Continuous Rating (MVA)[a]	Post-Project Results (Pre-Curtailment)		Post-Project Results (Post-Curtailment)	
		Power Flow[b] (MVA)	% Loading[c]	Power Flow[b] (MVA)	% Loading[c]
7L760 (Oyen767S to RESC Big sky Tap)	110.2	184.59	167.5	90.6	82.3
7L760 (RESC Big sky Tap to Bindloss 914S Tap)	110.2	183.70	166.7	89.7	81.4
760L (Bindloss 914S Tap to Amoco Empress 163S)	110.2	175.11	158.9	79.5	72.1
7L132 (Lanfine 959S to Oyen 767S)	112.1	185.19	165.2	88.9	79.3
9L20 (Cordel 755S to Nevis 766S)	429	700.99	163.4	417	97.2
912L (Nevis 766S to Red Deer 63S)	507	792.95	156.4	453.3	89.4
174L (North Holden 395S to Bardo 197S)	121	165.04	136.4	112	92.5
715L (715AL TAP to Hansman Lake 650S)	98	113.58	115.9	91	93.1
701L (North Holden 395S to Strome 223S)	119	136.97	115.1	84.2	70.8
715AL (Rising Sun Solar TAP to 715AL TAP)	98	113.09	115.4	91.3	93.1
7L65 (Vegrevile 709S to Grizzly Bear 708S)	109.3	119.25	109.1	96.3	88.1
749AL (ABO Fox Meadow to Killarney Lake 267 S)	120.9	129.97	107.5	109.4	90.5
730L (Bardo 197S to Kingman Tap)	86.1	91.95	106.8	69.6	80.9
472L (Hughenden 213S to Sunken Lake 472ALTAP)	84	85.51	101.8	69	82.1
701L (Strome 223S to Heisler Tap)	141.8	145.06	102.3	92.1	64.9

Notes:

[a] The facility ratings shown in Attachment A1 have been adjusted from a [72/144] kV voltage base to a [69/138] kV voltage base, as is used by the power system network analysis tool.

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

[c] 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.

Category B Conditions

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

Table 3-12: Thermal Criteria Violations under Category B Conditions for Scenario 9

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	
701L (North Hoden 395S to Strome 223S)	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	102.0	93.3	120.2	110.0	16.7
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	343.0	79.9	449.6	104.8	24.9
885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	118.7	98.2	127.2	105.2	7.0
748L (Hayter 277S to Killarney Lake 267S)	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	116.0	118.4	116.0	118.4	0.0
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	116.0	118.4	116.0	118.4	0.0
7L159 (Ghost Pine 114S to Heatburg 948S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	337.6	78.7	440.6	102.7	24.0
7L117 (Vermilion 710S to Irish Creek 706S)	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	89.8	82.1	110.2	100.9	18.7
7L42 (Lloydminster 716S to Hill 751S	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	98.3	100.3	98.3	100.3	0.0
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	108.0	98.3	100.3	98.3	100.3	0.0
9L27 (Cordel 755S to Paintearth 863S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	102.6	84.8	122.4	101.1	16.3
Nevis 766S 240/138 kV TF	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	334.0	77.8	440.1	102.6	24.7

9L20 (Nevis 766S to Cordel 755S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	132.8	109.8	165.7	137.0	27.2
	701L (North Hoden 395S to Strome 223S)	119.0	131.0	102.8	86.4	139.0	116.8	30.4
	701L (Strome 223S to Heisler Tap)	141.8	159.1	110.6	78.0	147.0	103.7	25.6
	7L701 (Battle River 757S to Heisler 764S Tap)	141.8	159.1	114.1	80.4	149.6	105.5	25.1
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	100.3	91.8	116.5	106.6	14.8
	7L137 (Rowley 768S to Three Hills 770S)	108.3	120.8	96.4	89.0	119.2	110.1	21.1
	7L25 (Michichi Creek 802S to Rowley 768S)	109.3	122.7	98.7	90.4	121.4	111.2	20.8
7L16 (Heatburg 948S to Nevis 766S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	336.3	78.4	439.3	102.4	24.0
7L137 (Rowley 768S to Three Hills 770S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	166.6	102.2	165.9	101.8	-0.4
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	348.3	81.2	451.5	105.2	24.0
7L25 (Michichi Creek 802S to Rowley 768S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	168.1	103.2	167.5	102.8	-0.4
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	349.4	81.4	452.5	105.5	24.0
	7L137 (Rowley 768S to	108.3	120.8	105.7	97.6	114.3	105.6	7.9

9L29 (Oakland 946S to Coyote Lake 963S)	Three Hills 770S)							
	7L25 (Michichi Creek 802S to Rowley 768S)	109.3	122.7	108.1	98.9	116.6	106.7	7.8
	801S (Anderson 801S Transformer T1)	125.0	125.0	143.7	115.0	136.6	109.3	-5.7
801S (Anderson 801S Transformer T1)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	175.1	107.5	166.0	101.9	-5.6
9L80 (Battle River 757S to Cordel 755S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	342.2	79.8	445.2	103.8	24.0
174L (Bardo 197S to North Holden 395S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	350.0	81.6	454.8	106.0	24.4
7L794 (Whitby Lake 819S to Lac La Biche 157S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	99.4	82.2	123.6	102.1	20.0
Coyote Lake 963S - 901 Transformer	7L137 (Rowley 768S to Three Hills 770S)	108.3	120.8	105.7	97.6	114.3	105.5	7.9
	7L25 (Michichi Creek 802S to Rowley 768S)	109.3	122.7	108.1	98.9	116.6	106.7	7.8
	801S (Anderson 801S Transformer T1)	125.0	125.0	143.9	115.1	136.8	109.4	-5.7
912L (Nevis 766S to Red Deer 63S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	144.7	119.6	182.0	150.5	30.8
	701L (North Hoden 395S to Strome 223S)	119.0	131.0	115.8	97.3	157.0	132.0	34.7
	701L (Strome 223S to Heisler Tap)	141.8	159.1	123.6	87.2	165.1	116.4	29.3
	7L701 (Battle River 757S to	141.8	159.1	116.1	81.9	153.1	108.0	26.1

	Heisler 764S Tap)							
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	103.7	94.9	121.2	110.9	16.0
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	70.7	64.2	114.2	103.6	39.4
9L933 (Anderson 801S to Ware Junction 132S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	331.9	77.4	432.4	100.8	23.4
9L934 (Anderson 801S to Ware Junction 132S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	331.9	77.4	432.4	100.8	23.4
9L950 (Anderson 801S to Ware Junction 132S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	331.8	77.3	432.4	100.8	23.4
Battle River 757S Transformer	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	343.2	80.0	446.1	104.0	24.0
749L (Metiskow 468S to Edgerton 899S)	398L (Provost 545S to Hayter 277S)	120	132	146.0	121.7	146.0	121.7	0.0
	715L (Provost 545S to Rising Sun Solar Tap)	98	108.0	136.3	139.1	136.3	139.1	0.0
	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	188.7	192.6	188.7	192.5	-0.1
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	188.9	192.8	188.8	192.7	-0.1
Edgerton 899S Transformer	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	103.5	105.6	103.4	105.5	-0.1
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	103.5	105.6	103.4	105.5	-0.1
7L749 (Edgerton 899S to	715L (Hans Hansman Lake 650S	98.0	135.0	102.4	104.5	102.4	104.5	0.0

Lloydminster 716S)	man to 715AL TAP)							
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	108.0	102.4	104.5	102.4	104.5	0.0
Killarney Lake 267S Transformer	715L (Hansman Lake 650S to 715AL TAP)	98.0	135.0	116.0	118.4	116.0	118.4	0.0
	715L (715AL TAP to Rising Sun Solar TAP)	98.0	138.0	116.0	118.3	116.0	118.4	0.1
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	135.0	111.6	134.6	111.3	-0.4
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	133.0	86.4	90.0	116.5	121.3	31.3
	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	123.5	102.0	155.6	128.6	26.5
	472L (Hughenden 213S to Sunken Lake 221S Tap)	121.0	133.0	92.9	76.8	123.1	101.8	25.0
701L (Battle River 757S to Strome 223S)	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	104.3	95.5	122.5	112.1	16.6
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	346.6	80.8	453.2	105.7	24.9
9L24 (Lanfine 959S to Oakland 946S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	93.8	77.5	124.1	102.6	25.0
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	335.3	78.1	459.9	107.2	29.0
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	82.5	74.8	176.3	160.0	85.1

	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	79.6	71.0	181.6	162.0	90.9
769L (Hardisty 377S to Rosyth 296S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	332.2	77.4	429.8	100.2	22.8
7L159 (Three Hills 770S to Heatburg 948S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	337.6	78.7	440.6	102.7	24.0
7L92 (Vilna 777S to Watt Lake 956S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	103.2	85.3	130.0	107.4	22.1
925L (Red Deer 63S to Janet 74S)	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	330.5	77.0	429.2	100.1	23.0

3.2 Transient Stability Studies

The Genesee #3 in Wabamun (Area 40) was used as the reference for the studies.

Transient stability studies were performed for Scenario 4 - 2028 SP Post-Project, Scenario 5 - 2028 SL Post-Project and Scenario 6 - 2028 WP Post-Project, as described in the P2611 Engineering Connection Assessment Study Scope. Results are summarized in Tables 1, 2 and 3. Instability was observed under 9L24 contingency during Winter Peak scenario. A transfer trip scheme is required to trip the P2611 generators under the 9L24 contingency. AESO has a New 9L24 Dynamic RAS for 9L24 contingency which trips P2611 when 9L24 is out of service. The transient plots are provided in Attachment A4, with the post-RAS plot shown at the end, demonstrating system stability following RAS operation.

Studies were conducted by considering several variables, including rotor angle, bus voltages and active and reactive power output for the key generators and transmission elements in Study Area as listed below.

Machines: (P and Q for renewables machines, P, Q and Angle for traditional machines)

P2611 – Universal Kraft MPC Solar East, EDPR Sharp Hills Wind Farm, Halkirk (HAL1), Cache Rising Sun MPC Solar, Eastervale Solar Battery, Dolcy Solar Battery, CP Rolling Hills MPC Wind, Garden Plain (GDP1), Hand Hills (HHW1), Sheerness and Battle River.

Buses: (Voltage)

240 kV:

Lanfine 959S, Oakland 946S, Pemukan 932s, Hansman Lake 221s, Cordel 755s.

138 kV:

Lanfine 959S

Branches: (P and Q flow)

924L (Oakland 946S to Lanfine 959S), 9L29 (Oakland 946S to Coyote Lake 963S), 9L46 (Lanfine 959S to Pemukan 932S), 9L59 (Anderson 801S to Tinchebray 972S), 9L966 (Pemukan 932S to Hansman Lake 650S) and 7L132 (Lanfine 959S to Oyen 767S).

Table 3-13: Transient Stability Study Results under Category B Conditions for Scenario 4

Studied Contingency	Fault Description and Location	Results
9L24 (Oakland 946S to Lanfine 959S)	3-phase fault on 9L24 at Oakland 946S	Stable
	3-phase fault on 9L24 at Lanfine 959S	Stable
9L29 (Oakland 946S to Coyote Lake 963S)	3-phase fault on 9L29 at Oakland 946S	Stable
	3-phase fault on 9L29 at Coyote Lake 963S	Stable
9L46 (Lanfine 959S to Pemukan 932S)	3-phase fault on 9L46 at Lanfine 959s	Stable
	3-phase fault on 9L46 at Pemukan 932s	Stable
9L59 (Anderson 801S to Tinchebray 972S)	3-phase fault on 9L59 at Anderson 801S	Stable
	3-phase fault on 9L59 at Tinchebray 972S	Stable
9L966 (Pemukan 932S to Hansman Lake 650S)	3-phase fault on 9L966 at Pemukan 932S	Stable
	3-phase fault on 9L966 at Hansman Lake 650S	Stable
760L (Oyen 767S to Amoco Empress 163S)	3-phase fault on 760L at Oyen 767S	Stable
	3-phase fault on 760L at Amoco Empress 163S	Stable
7L132 (Lanfine 959S to Oyen 767S)	3-phase fault on 7L132 at Lanfine 959S	Stable
	3-phase fault on 7L132 at Oyen 767S	Stable
7L116 (Lanfine 959S to Excel 910S)	3-phase fault on 7L116 at Lanfine 959S	Stable
	3-phase fault on 7L116 at Excel 910S	Stable

Table 3-14: Transient Stability Study Results under Category B Conditions for Scenario 5

Studied Contingency	Fault Description and Location	Results
9L24 (Oakland 946S to Lanfine 959S)	3-phase fault on 9L24 at Oakland 946S	Stable
	3-phase fault on 9L24 at Lanfine 959S	Stable
9L29 (Oakland 946S to Coyote Lake 963S)	3-phase fault on 9L29 at Oakland 946S	Stable
	3-phase fault on 9L29 at Coyote Lake 963S	Stable
9L46 (Lanfine 959S to Pemukan 932S)	3-phase fault on 9L46 at Lanfine 959s	Stable
	3-phase fault on 9L46 at Pemukan 932s	Stable
9L59 (Anderson 801S to Tinchebray 972S)	3-phase fault on 9L59 at Anderson 801S	Stable
	3-phase fault on 9L59 at Tinchebray 972S	Stable
9L966 (Pemukan 932S to Hansman Lake 650S)	3-phase fault on 9L966 at Pemukan 932S	Stable
	3-phase fault on 9L966 at Hansman Lake 650S	Stable
760L (Oyen 767S to Amoco Empress 163S)	3-phase fault on 760L at Oyen 767S	Stable
	3-phase fault on 760L at Amoco Empress 163S	Stable
7L132 (Lanfine 959S to Oyen 767S)	3-phase fault on 7L132 at Lanfine 959S	Stable
	3-phase fault on 7L132 at Oyen 767S	Stable
7L116 (Lanfine 959S to Excel 910S)	3-phase fault on 7L116 at Lanfine 959S	Stable
	3-phase fault on 7L116 at Excel 910S	Stable

Table 3-15: Transient Stability Study Results under Category B Conditions for Scenario 6

Studied Contingency	Fault Description and Location	Results
9L24 (Oakland 946S to Lanfine 959S)	3-phase fault on 9L24 at Oakland 946S	Unstable
	3-phase fault on 9L24 at Lanfine 959S	Unstable
9L29 (Oakland 946S to Coyote Lake 963S)	3-phase fault on 9L29 at Oakland 946S	Stable
	3-phase fault on 9L29 at Coyote Lake 963S	Stable
9L46 (Lanfine 959S to Pemukan 932S)	3-phase fault on 9L46 at Lanfine 959s	Stable
	3-phase fault on 9L46 at Pemukan 932s	Stable
9L59 (Anderson 801S to Tinchebray 972S)	3-phase fault on 9L59 at Anderson 801S	Stable
	3-phase fault on 9L59 at Tinchebray 972S	Stable
9L966 (Pemukan 932S to Hansman Lake 650S)	3-phase fault on 9L966 at Pemukan 932S	Stable
	3-phase fault on 9L966 at Hansman Lake 650S	Stable
760L (Oyen 767S to Amoco Empress 163S)	3-phase fault on 760L at Oyen 767S	Stable
	3-phase fault on 760L at Amoco Empress 163S	Stable
7L132 (Lanfine 959S to Oyen 767S)	3-phase fault on 7L132 at Lanfine 959S	Stable
	3-phase fault on 7L132 at Oyen 767S	Stable
7L116 (Lanfine 959S to Excel 910S)	3-phase fault on 7L116 at Lanfine 959S	Stable
	3-phase fault on 7L116 at Excel 910S	Stable

4 Short Circuit Studies

4.1 Pre-Project Results

4.1.1 Scenario 3: 2028 Winter Peak High Generation Post-Project

Pre-Project short-circuit current levels for Scenario 3 are provided in Table 4-1[1].

Table 4-1: Pre-Project Short-Circuit Current Levels for Scenario 3

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)
Excel 910S	138	145.1	6.161	0.013268 + j0.075083	6.315	0.012839 + j0.066139
Hansman Lake 650s	240	256.8	6.454	0.009828 + j0.040086	7.585	0.003007 + j0.019402
	138	143.7	8.973	0.013220 + j0.048386	9.738	0.004095 + j0.034402
Monitor 774S	138	149.0	6.389	0.018145 + j0.071925	7.341	0.006147 + j0.040258
Lanfine 959S	240	257.0	6.346	0.007642 + j0.042693	6.194	0.007760 + j0.041730
	138	145.2	7.06	0.010729 + j0.065730	7.989	0.004399 + j0.039885
Oakland 946S	240	258.8	13.559	0.003071 + j0.020568	14.001	0.003555 + j0.017219
Oyen 767S	138	145.5	5.96	0.016741 + j0.077319	5.687	0.019920 + j0.085083
Pemukan 932S	240	252.2	5.663	0.010135 + j0.045714	5.804	0.006560 + j0.037885
	138	149.9	6.49	0.017287 + j0.071028	7.696	0.003922 + j0.033954
Ware Junction 132S	240	254.0	14.776	0.003556 + j0.019071	14.738	0.003093 + j0.017489

[1] 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 Post-Project Results

4.2.1 Scenario 6: 2028 Winter Peak High Generation Post-Project

Post-Project short-circuit current levels for Scenario 6 are provided in Table 4-2.

Table 4-2: Post-Project Short-Circuit Current Levels for Scenario 6

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)
Excel910S	138	143.3	6.15	0.013587 + j0.075562	6.463	0.012736 + j0.060915
Hansman Lake650S	240	256.8	6.209	0.010779 + j0.041538	7.339	0.003008 + j0.019395
	138	140.9	8.618	0.014164 + j0.049247	9.389	0.004098 + j0.034408
Monitor774S	138	149.8	6.257	0.018969 + j0.072853	7.21	0.006128 + j0.040130
Lanfine959S	240	257.0	6.26	0.008019 + j0.043385	6.813	0.007704 + j0.028173
	138	145.5	7.04	0.011048 + j0.066210	8.216	0.004296 + j0.034661
Oakland946S	240	257.0	13.4	0.003145 + j0.020690	13.856	0.003555 + j0.017216
Oyen767S	138	143.5	5.95	0.017029 + j0.077727	5.767	0.019950 + j0.081542
Pemukan932S	240	251.2	5.514	0.010801 + j0.046656	5.698	0.006509 + j0.037526
	138	148.9	6.357	0.018106 + j0.071961	7.558	0.003900 + j0.033814
Ware Junction132S	240	252.3	14.613	0.003617 + j0.019162	14.592	0.003094 + j0.017492
Fair Acres1162S	240	258.1	5.447	0.008831 + j0.050162	5.963	0.011473 + j0.031813

4.2.2 Scenario 7: 2033 Winter Peak High Generation Post-Project

Post-Project short-circuit current levels for Scenario 7 are provided in Table 4-3.

Table 4-3: Post-Project Short-Circuit Current Levels for Scenario 7

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)
Excel 910S	138	142.7	5.79	0.013055 + j0.074928	6.09	0.012660 + j0.060551
Hansman Lake 650s	240	256.8	5.99	0.011354 + j0.041963	7.17	0.002992 + j0.019241
	138	142	7.91	0.016032 + j0.052679	8.92	0.004089 + j0.033921
Monitor 774S	138	149.8	6.01	0.019601 + j0.074048	6.99	0.006128 + j0.040082
Lanfine 959S	240	257.0	5.95	0.007812 + j0.043391	6.52	0.007628 + j0.027802

	138	142.8	6.64	0.010506 + j0.065591	7.77	0.004220 + j0.034297
Oakland 946S	240	259.4	12.90	0.002781 + j0.020508	13.45	0.003484 + j0.016868
Oyen 767S	138	142.8	5.56	0.016478 + j0.077577	5.39	0.020256 + j0.081840
Pemukan 932S	240	253.5	5.33	0.011139 + j0.047169	5.55	0.006505 + j0.037488
	138	150.0	6.11	0.018714 + j0.073101	7.33	0.003901 + j0.033778
Ware Junction 132S	240	260.6	14.08	0.003100 + j0.019048	14.12	0.003133 + j0.017601
Fair Acres 1162S	240	257.3	5.16	0.008625 + j0.050172	5.70	0.011315 + j0.031057

5.0 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 134	174L (Bardo 197S to North Holden 395S)	9L62 (Gaetz to 972S Tinchebray)
	701L (North Hoden 395S to Strome 223S)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	
	912L (Nevis 766S to Red Deer 63S)	
	9L20 (Nevis 766S to Cordel 755S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	
	7L159 (Ghost Pine 114S to Heatburg 948S)	9L29 (Oakland 946S to Coyote Lake 963S)
	7L16 (Heatburg 948S to Nevis 766S)	
	7L85 (Anderson 801S to Bullpound 803S)	
	7L85 (Parker to Bullpound 803S)	
	7L159 (Ghost Pine 114S to Heatburg 948S)	Coyote Lake 963S - 901 Transformer
	7L16 (Heatburg 948S to Nevis 766S)	
	7L85 (Anderson 801S to Bullpound 803S)	
	7L85 (Parker to Bullpound 803S)	
Existing RAS 200	801S (Anderson 801S Transformer T1)	9L29 (Oakland 946S to Coyote Lake 963S)
	801S (Anderson 801S Transformer T1)	Coyote Lake 963S - 901 Transformer
	801S (Anderson 801S Transformer T1)	7L171 (Michichi Creek 802S to Wintering Hills 804S)
	7L137 (Rowley 768S to Three Hills 770S)	9L29 (Oakland 946S to Coyote Lake 963S)

	7L25 (Michichi Creek 802S to Rowley 768S)	
	801S (Anderson 801S Transformer T1)	
	7L137 (Rowley 768S to Three Hills 770S)	Coyote Lake 963S - 901 Transformer
	7L25 (Michichi Creek 802S to Rowley 768S)	
	801S (Anderson 801S Transformer T1)	
Existing RAS 204	7L60 (Oyen 767S to RESC Big Sky Solar)	9L24 (Lanfine 959S to Oakland 946S)
Existing RAS 203	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L159 (Ghost Pine 114S to Heatburg 948S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L16 (Heatburg 948S to Nevis 766S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	801S (Anderson 801S Transformer T1)
Planned RAS 213	749AL (P2460 ABO Fox Meadows - 749LA TAP)	885L (Hansman Lake 650S to Metiskow 468S)
	749AL (P2460 ABO Fox Meadows - 749LA TAP)	715L (Provost 545S to Hansman Lake 650S)
	749AL (P2460 ABO Fox Meadows - 749LA TAP)	885L (Hansman Lake 650S to Metiskow 468S)
	749AL (P2460 ABO Fox Meadows - 749LA TAP)	715L (Provost 545S to Hansman Lake 650S)
	749AL (P2460 ABO Fox Meadows - 749LA TAP)	885L (Hansman Lake 650S to Metiskow 468S)
	749AL (P2460 ABO Fox Meadows - 749LA TAP)	715L (Provost 545S to Hansman Lake 650S)
Planned RAS 238	703L (Hardisty to HRT Express 329S Tap)	1047L (Hansman Lake 650S to Nilrem 574S)
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	703L (Hughenden 213S to HRT Express 329S Tap)	
	472L (Hughenden 213S to Sunken Lake 221S Tap)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	9L24 (Lanfine 959S to Oakland 946S)
	472L (Metiskow 468S to Sunken Lake 221S Tap)	1047L (Hansman Lake 650S to Nilrem 574S)

	472L (Hughenden 213S to Sunken Lake 221S Tap)	
	703L (Hardisty to HRT Express 329S Tap)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	703L (Hughenden 213S to HRT Express 329S Tap)	
	472L (Hughenden 213S to Sunken Lake 221S Tap)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	9L24 (Lanfine 959S to Oakland 946S)
	703L (Hardisty to HRT Express 329S Tap)	1047L (Hansman Lake 650S to Nilrem 574S)
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	472L (Hughenden 213S to Sunken Lake 221S Tap)	
RTOP	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (North Hoden 395S to Strome 223S)
	715L (Hansman Lake 650S to 715AL TAP)	748L (Hayter 277S to Killarney Lake 267S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S to 715AL TAP)	Killarney Lake 267S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S to 715AL TAP)	7L42 (Lloydminster 716S to Hill 751S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	9L27 (Cordel 755S to Paintearth 863S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	
	7L128 (Coyote Lake 963S To Hand Hills Tap)	Nevis 766S 240/138 kV TF
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L20 (Nevis 766S to Cordel 755S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	953L (Nilrem 574S to Cordel 755S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L137 (Rowley 768S to Three Hills 770S)

	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L25 (Michichi Creek 802S to Rowley 768S)
	174L (Bardo 197S to North Holden 395S)	912L (Nevis 766S to Red Deer 63S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	
	9L62 (Gaetz to 972S Tinchebray)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L933 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L934 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L950 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	715L (Hansman Lake 650Sto 715AL TAP)	749L (Metiskow 468S to Edgerton 899S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S to 715AL TAP)	Edgerton 899S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S to 715AL TAP)	7L749 (Edgerton 899S to Lloydminster 716S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (Battle River 757S to Strome 223S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L27 (Cordel 755S to Paintearth 863S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L20 (Nevis 766S to Cordel 755S)
	7L132 (Oyen 767S to Lanfine 959S)	
	704L (Wainwright 51S to Tucuman 478S)	953L (Nilrem 574S to Cordel 755S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	

	7L60 (Oyen 767S to RESC Big Sky Solar)	912L (Nevis 766S to Red Deer 63S)
	7L132 (Oyen 767S to Lanfine 959S)	
	174L (Bardo 197S to North Holden 395S)	9L62 (Gaetz to 972S Tinchebray)
	912L (Nevis 766S to Red Deer 63S)	
	9L20 (Nevis 766S to Cordel 755S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L933 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L934 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L950 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	715L (Hansman Lake 650S to 715AL TAP)	749L (Metiskow 468S to Edgerton 899S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S to 715AL TAP)	Edgerton 899S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	703L (Hardisty to HRT Express 329S Tap)	1047L (Hansman Lake 650S to Nilrem 574S)
	703L (Hughenden 213S to HRT Express 329S Tap)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	966L (Hansman Lake 650S to Pemukan 932S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L16 (Tinchebray 972S to Cordel 755S)
	704L (Wainwright 51S to Tucuman 478S)	701L (North Hoden 395S to Strome 223S)
	9L62 (Gaetz to 972S Tinchebray)	
	704L (Wainwright 51S to Tucuman 478S)	702L (Hardisty 377S to Sedgewick 37S)
	704L (Wainwright 51S to Tucuman 478S)	702L (Sedgewick 137S to Battle River 757S)

	174L (Bardo 197S to North Holden 395S)	7LA92 (Watt Lake 956S to Vegrevile 709S)
	174L (Bardo 197S to North Holden 395S)	7L117 (Vermilion 710S to Irish Creek 706S)
	704L (Wainwright 51S to Tucuman 478S)	7L130 (Vermilion 710S to Kitscoty 705S)
	704L (Wainwright 51S to Tucuman 478S)	7L14 (Kitscoty 705S to Hill 751S)
	703L (Hardisty to HRT Express 329S Tap)	7L42 (Lloydminster 716S to Hill 751S)
	704L (Wainwright 51S to Tucuman 478S)	
	703L (Hardisty to HRT Express 329S Tap)	9L27 (Cordel 755S to Paintearth 863S)
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	704L (Wainwright 51S to Tucuman 478S)	
	174L (Bardo 197S to North Holden 395S)	9L20 (Nevis 766S to Cordel 755S)
	704L (Wainwright 51S to Tucuman 478S)	
	7L16 (Heatburg 948S to Nevis 766S)	
	9L62 (Gaetz to 972S Tinchebray)	
	408 (Jarrow 252S to Wainwright 51S)	953L (Nilrem 574S to Cordel 755S)
	702L (Hardisty 377S to Sedgewick 37S)	
	704L (Wainwright 51S to Tucuman 478S)	
	7L16 (Heatburg 948S to Nevis 766S)	9L29 (Oakland 946S to Coyote Lake 963S)
	7L171 (Michichi Creek 802S to Wintering Hills 804S)	801S (Anderson 801S Transformer T1)
	704L (Wainwright 51S to Tucuman 478S)	9L80 (Battle River 757S to Cordel 755S)
	9L62 (Gaetz to 972S Tinchebray)	174L (Bardo 197S to North Holden 395S)
	174L (Bardo 197S to North Holden 395S)	7L794 (Whitby lake 819S to Lac La Biche 157S)
	7L16 (Heatburg 948S to Nevis 766S)	Coyote Lake 963S - 901 Transformer
	174L (Bardo 197S to North Holden 395S)	912L (Nevis 766S to Red Deer 63S)
	701L (North Hoden 395S to Strome 223S)	

	704L (Wainwright 51S to Tucuman 478S)	
	9L62 (Gaetz to 972S Tinchebray)	
	704L (Wainwright 51S to Tucuman 478S)	Battle River 757S Transformer
	704L (Wainwright 51S to Tucuman 478S)	749L (Metiskow 468S to Edgerton 899S)
	703L (Hardisty to HRT Express 329S Tap)	7L749 (Edgerton 899S to Lloydminster 716S)
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	704L (Wainwright 51S to Tucuman 478S)	
	704L (Wainwright 51S to Tucuman 478S)	Edgerton 899S Transformer
	704L (Wainwright 51S to Tucuman 478S)	Killarney Lake 267S Transformer
	704L (Wainwright 51S to Tucuman 478S)	701L (Battle River 757S to Strome 223S)
	9L62 (Gaetz to 972S Tinchebray)	
	704L (Wainwright 51S to Tucuman 478S)	7L65 (Vegrevile 709S to Vermilion 710S)
	703L (Hardisty to HRT Express 329S Tap)	948L (Paintearth 863S to Hansman Lake 650S)
	704L (Wainwright 51S to Tucuman 478S)	769L (Hardisty 377S to Rosyth 296S)
	174L (Bardo 197S to North Holden 395S)	7L92 (Vilna 777S to Watt Lake 956S)
	703L (Hardisty to HRT Express 329S Tap)	9L59 (Tinchebray 972S to Anderson 801S)
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (North Hoden 395S to Strome 223S)
	9L20 (Nevis 766S to Cordel 755S)	701L (North Hoden 395S to Strome 223S)
	715L (Hansman Lake 650S to 715AL TAP)	748L (Hayter 277S to Killarney Lake 267S)
	715L (715AL TAP to Rising Sun Solar TAP)	748L (Hayter 277S to Killarney Lake 267S)
	9L20 (Nevis 766S to Cordel 755S)	7L159 (Ghost Pine 114S to Heatburg 948S)
	174L (Bardo 197S to North Holden 395S)	7L92 (Whitby lake 819S to Vilna 777S)
	174L (Bardo 197S to North Holden 395S)	7LA92 (Watt Lake 956S to Vegrevile 709S)

	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	7L117 (Vermilion 710S to Irish Creek 706S)
	715L (Hansman Lake 650S to 715AL TAP)	7L42 (Lloydminster 716S to Hill 751S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	9L27 (Cordel 755S to Paintearth 863S)
	9L20 (Nevis 766S to Cordel 755S)	Nevis 766S 240/138 kV TF
	9L20 (Nevis 766S to Cordel 755S)	7L16 (Heatburg 948S to Nevis 766S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L137 (Rowley 768S to Three Hills 770S)
	9L20 (Nevis 766S to Cordel 755S)	
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L25 (Michichi Creek 802S to Rowley 768S)
	9L20 (Nevis 766S to Cordel 755S)	
	7L128 (Coyote Lake 963S To Hand Hills Tap)	801S (Anderson 801S Transformer T1)
	9L20 (Nevis 766S to Cordel 755S)	9L80 (Battle River 757S to Cordel 755S)
	9L20 (Nevis 766S to Cordel 755S)	174L (Bardo 197S to North Holden 395S)
	174L (Bardo 197S to North Holden 395S)	7L794 (Whitby lake 819S to Lac La Biche 157S)
	9L20 (Nevis 766S to Cordel 755S)	9L933 (Anderson 801S to Ware Junction 132S)
	9L20 (Nevis 766S to Cordel 755S)	9L934 (Anderson 801S to Ware Junction 132S)
	9L20 (Nevis 766S to Cordel 755S)	9L950 (Anderson 801S to Ware Junction 132S)
	9L20 (Nevis 766S to Cordel 755S)	Battle River 757S Transformer
	715L (Hansman Lake 650S to 715AL TAP)	749L (Metiskow 468S to Edgerton 899S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S to 715AL TAP)	Edgerton 899S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S to 715AL TAP)	7L749 (Edgerton 899S to Lloydminster 716S)
	715L (715AL TAP to Rising Sun Solar TAP)	

	715L (Hansman Lake 650S to 715AL TAP)	Killarney Lake 267S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (Battle River 757S to Strome 223S)
	9L20 (Nevis 766S to Cordel 755S)	
	9L20 (Nevis 766S to Cordel 755S)	769L (Hardisty 377S to Rosyth 296S)
	9L20 (Nevis 766S to Cordel 755S)	7L159 (Three Hills 770S to Heatburg 948S)
	174L (Bardo 197S to North Holden 395S)	7L92 (Vilna 777S to Watt Lake 956S)
	9L20 (Nevis 766S to Cordel 755S)	925L (Red Deer 63S to Janet 74S)

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
Modified RAS 204	7L128 (Coyote Lake 963S To Hand Hills Tap)	9L24 (Lanfine 959S to Oakland 946S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	
	703L (Hardisty to HRT Express 329S Tap)	
	704L (Wainwright 51S to Tucuman 478S)	
	966L (Hansman Lake 650S to Pemukan 932S)	
	6L09 (Hanna 763S to Richdale 776S)	
	9L62 (Gaetz to 972S Tinchebray)	
	Oyen 767S - 701 Transformer	
	6L09 (Oyen 767S to Youngstown Express 2037S Tap)	
	6L09 (Youngstown 772S to Richdale 776S)	
	6L09 (Youngstown 772S to Youngstown Express 2037S Tap)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	9L20 (Nevis 766S to Cordel 755S)	

RAS 134	174L (Bardo 197S to North Holden 395S)	9L62 (Gaetz to 972S Tinchebray)
	701L (North Hoden 395S to Strome 223S)	
	701L (Strome 223S to Heisler Tap)	
	704L (Wainwright 51S to Tucuman 478S)	
	912L (Nevis 766S to Red Deer 63S)	
	9L20 (Nevis 766S to Cordel 755S)	
	174L (Bardo 197S to North Holden 395S)	9L20 (Nevis 766S to Cordel 755S)
	701L (North Hoden 395S to Strome 223S)	
	701L (Strome 223S to Heisler Tap)	
	7L701 (Battle River 757S to Heisler 764S Tap)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	
	7L137 (Rowley 768S to Three Hills 770S)	
	7L25 (Michichi Creek 802S to Rowley 768S)	
	174L (Bardo 197S to North Holden 395S)	912L (Nevis 766S to Red Deer 63S)
	701L (North Hoden 395S to Strome 223S)	
	701L (Strome 223S to Heisler Tap)	
	7L701 (Battle River 757S to Heisler 764S Tap)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	
Existing RAS 134	7L159 (Ghost Pine 114S to Heatburg 948S)	9L29 (Oakland 946S to Coyote Lake 963S)
	7L16 (Heatburg 948S to Nevis 766S)	
	7L85 (Anderson 801S to Bullpound 803S)	
	7L85 (Parker to Bullpound 803S)	
	7L159 (Ghost Pine 114S to Heatburg 948S)	Coyote Lake 963S - 901 Transformer
	7L16 (Heatburg 948S to Nevis 766S)	
	7L85 (Anderson 801S to Bullpound 803S)	

	7L85 (Parker to Bullpound 803S)	
	174L (Bardo 197S to North Holden 395S)	9L62 (Gaetz to 972S Tinchebray)
	701L (North Hoden 395S to Strome 223S)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	
	912L (Nevis 766S to Red Deer 63S)	
	9L20 (Nevis 766S to Cordel 755S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	
Existing RAS 200	801S (Anderson 801S Transformer T1)	9L29 (Oakland 946S to Coyote Lake 963S)
	801S (Anderson 801S Transformer T1)	Coyote Lake 963S - 901 Transformer
	801S (Anderson 801S Transformer T1)	7L171 (Michichi Creek 802S to Wintering Hills 804S)
	7L137 (Rowley 768S to Three Hills 770S)	9L29 (Oakland 946S to Coyote Lake 963S)
	7L25 (Michichi Creek 802S to Rowley 768S)	
	7L137 (Rowley 768S to Three Hills 770S)	Coyote Lake 963S - 901 Transformer
	7L25 (Michichi Creek 802S to Rowley 768S)	
Modified RAS 201	7L224 (Hansman Lake 650S to Monitor 774S)	966L (Hansman Lake 650S to Pemukan 932S)
	7L127 (Monitor 774S to Pemukan 932S)	966L (Hansman Lake 650S to Pemukan 932S)
Existing RAS 203	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L159 (Ghost Pine 114S to Heatburg 948S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L16 (Heatburg 948S to Nevis 766S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	801S (Anderson 801S Transformer T1)
Planned RAS 213	749AL (P2460 ABO Fox Meadows - 749LA TAP)	885L (Hansman Lake 650S to Metiskow 468S)
	749AL (P2460 ABO Fox Meadows - 749LA TAP)	715L (Provost 545S to Hansman Lake 650S)

Planned RAS 238	703L (Hardisty to HRT Express 329S Tap)	1047L (Hansman Lake 650S to Nilrem 574S)
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	703L (Hughenden 213S to HRT Express 329S Tap)	
	472L (Hughenden 213S to Sunken Lake 221S Tap)	
New RAS 241	9L24 (Oakland 946S to Lanfine 959S)	P2611 UK Solar East
RTOP	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (North Hoden 395S to Strome 223S)
	715L (Hansman Lake 650S Hansman to 715AL TAP)	748L (Hayter 277S to Killarney Lake 267S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	Killarney Lake 267S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	7L42 (Lloydminster 716S to Hill 751S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	9L27 (Cordel 755S to Paintearth 863S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	
	7L128 (Coyote Lake 963S To Hand Hills Tap)	Nevis 766S 240/138 kV TF
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L20 (Nevis 766S to Cordel 755S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	953L (Nilrem 574S to Cordel 755S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L137 (Rowley 768S to Three Hills 770S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L25 (Michichi Creek 802S to Rowley 768S)
	174L (Bardo 197S to North Holden 395S)	912L (Nevis 766S to Red Deer 63S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	
	9L62 (Gaetz to 972S Tinchebray)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	

	7L60 (Oyen 767S to RESC Big Sky Solar)	9L933 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L934 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L950 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	749L (Metiskow 468S to Edgerton 899S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	Edgerton 899S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	7L749 (Edgerton 899S to Lloydminster 716S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (Battle River 757S to Strome 223S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L27 (Cordel 755S to Paintearth 863S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L20 (Nevis 766S to Cordel 755S)
	7L132 (Oyen 767S to Lanfine 959S)	
	704L (Wainwright 51S to Tucuman 478S)	953L (Nilrem 574S to Cordel 755S)
	7L60 (Oyen 767S to RESC Big Sky Solar)	
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	912L (Nevis 766S to Red Deer 63S)
	7L132 (Oyen 767S to Lanfine 959S)	
	174L (Bardo 197S to North Holden 395S)	9L62 (Gaetz to 972S Tinchebray)
	912L (Nevis 766S to Red Deer 63S)	
	9L20 (Nevis 766S to Cordel 755S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	

	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L933 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L934 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L950 (Anderson 801S to Ware Junction 132S)
	7L132 (Oyen 767S to Lanfine 959S)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	749L (Metiskow 468S to Edgerton 899S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	Edgerton 899S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	703L (Hardisty to HRT Express 329S Tap)	1047L (Hansman Lake 650S to Nilrem 574S)
	703L (Hughenden 213S to HRT Express 329S Tap)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	966L (Hansman Lake 650S to Pemukan 932S)
	7L132 (Oyen 767S to Lanfine 959S)	
	7L60 (Oyen 767S to RESC Big Sky Solar)	9L16 (Tinchebray 972S to Cordel 755S)
	704L (Wainwright 51S to Tucuman 478S)	701L (North Hoden 395S to Strome 223S)
	9L62 (Gaetz to 972S Tinchebray)	
	704L (Wainwright 51S to Tucuman 478S)	702L (Hardisty 377S to Sedgewick 37S)
	704L (Wainwright 51S to Tucuman 478S)	702L (Sedgewick 137S to Battle River 757S)
	174L (Bardo 197S to North Holden 395S)	7LA92 (Watt Lake 956S to Vegrevile 709S)
	174L (Bardo 197S to North Holden 395S)	7L117 (Vermilion 710S to Irish Creek 706S)
	704L (Wainwright 51S to Tucuman 478S)	7L130 (Vermilion 710S to Kitscoty 705S)
	704L (Wainwright 51S to Tucuman 478S)	7L14 (Kitscoty 705S to Hill 751S)
	703L (Hardisty to HRT Express 329S Tap)	7L42 (Lloydminster 716S to Hill 751S)

	704L (Wainwright 51S to Tucuman 478S)	
	703L (Hardisty to HRT Express 329S Tap)	9L27 (Cordel 755S to Paintearth 863S)
	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	704L (Wainwright 51S to Tucuman 478S)	
	174L (Bardo 197S to North Holden 395S)	9L20 (Nevis 766S to Cordel 755S)
	704L (Wainwright 51S to Tucuman 478S)	
	7L16 (Heatburg 948S to Nevis 766S)	
	9L62 (Gaetz to 972S Tinchebray)	
	408(Jarrow 252S to Wainwright 51S)	953L (Nilrem 574S to Cordel 755S)
	702L (Hardisty 377S to Sedgewick 37S)	
	704L (Wainwright 51S to Tucuman 478S)	
	7L16 (Heatburg 948S to Nevis 766S)	9L29 (Oakland 946S to Coyote Lake 963S)
	7L171 (Michichi Creek 802S to Wintering Hills 804S)	801S (Anderson 801S Transformer T1)
	704L (Wainwright 51S to Tucuman 478S)	9L80 (Battle River 757S to Cordel 755S)
	9L62 (Gaetz to 972S Tinchebray)	174L (Bardo 197S to North Holden 395S)
	174L (Bardo 197S to North Holden 395S)	7L794 (Whitby lake 819S to Lac La Biche 157S)
	7L16 (Heatburg 948S to Nevis 766S)	Coyote Lake 963S - 901 Transformer
	174L (Bardo 197S to North Holden 395S)	912L (Nevis 766S to Red Deer 63S)
	701L (North Hoden 395S to Strome 223S)	
	704L (Wainwright 51S to Tucuman 478S)	
	9L62 (Gaetz to 972S Tinchebray)	
	704L (Wainwright 51S to Tucuman 478S)	Battle River 757S Transformer
	704L (Wainwright 51S to Tucuman 478S)	749L (Metiskow 468S to Edgerton 899S)
	703L (Hardisty to HRT Express 329S Tap)	7L749 (Edgerton 899S to Lloydminster 716S)

	472L (Metiskow 468S to Sunken Lake 221S Tap)	
	704L (Wainwright 51S to Tucuman 478S)	
	704L (Wainwright 51S to Tucuman 478S)	Edgerton 899S Transformer
	704L (Wainwright 51S to Tucuman 478S)	Killarney Lake 267S Transformer
	704L (Wainwright 51S to Tucuman 478S)	701L (Battle River 757S to Strome 223S)
	9L62 (Gaetz to 972S Tinchebray)	
	704L (Wainwright 51S to Tucuman 478S)	7L65 (Vegrevile 709S to Vermilion 710S)
	703L (Hardisty to HRT Express 329S Tap)	948L (Paintearth 863S to Hansman Lake 650S)
	704L (Wainwright 51S to Tucuman 478S)	769L (Hardisty 377S to Rosyth 296S)
	174L (Bardo 197S to North Holden 395S)	7L92 (Vilna 777S to Watt Lake 956S)
	703L (Hardisty to HRT Express 329S Tap)	9L59 (Tinchebray 972S to Anderson 801S)
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (North Hoden 395S to Strome 223S)
	9L20 (Nevis 766S to Cordel 755S)	701L (North Hoden 395S to Strome 223S)
	715L (Hansman Lake 650S Hansman to 715AL TAP)	748L (Hayter 277S to Killarney Lake 267S)
	715L (715AL TAP to Rising Sun Solar TAP)	748L (Hayter 277S to Killarney Lake 267S)
	9L20 (Nevis 766S to Cordel 755S)	7L159 (Ghost Pine 114S to Heatburg 948S)
	174L (Bardo 197S to North Holden 395S)	7L92 (Whitby lake 819S to Vilna 777S)
	174L (Bardo 197S to North Holden 395S)	7LA92 (Watt Lake 956S to Vegrevile 709S)
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	7L117 (Vermilion 710S to Irish Creek 706S)
	715L (Hansman Lake 650S Hansman to 715AL TAP)	7L42 (Lloydminster 716S to Hill 751S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	472L (Metiskow 468S to Sunken Lake 221S Tap)	9L27 (Cordel 755S to Paintearth 863S)
	9L20 (Nevis 766S to Cordel 755S)	Nevis 766S 240/138 kV TF

	9L20 (Nevis 766S to Cordel 755S)	7L16 (Heatburg 948S to Nevis 766S)
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L137 (Rowley 768S to Three Hills 770S)
	9L20 (Nevis 766S to Cordel 755S)	
	7L128 (Coyote Lake 963S To Hand Hills Tap)	7L25 (Michichi Creek 802S to Rowley 768S)
	9L20 (Nevis 766S to Cordel 755S)	
	7L128 (Coyote Lake 963S To Hand Hills Tap)	801S (Anderson 801S Transformer T1)
	9L20 (Nevis 766S to Cordel 755S)	9L80 (Battle River 757S to Cordel 755S)
	9L20 (Nevis 766S to Cordel 755S)	174L (Bardo 197S to North Holden 395S)
	174L (Bardo 197S to North Holden 395S)	7L794 (Whitby lake 819S to Lac La Biche 157S)
	9L20 (Nevis 766S to Cordel 755S)	9L933 (Anderson 801S to Ware Junction 132S)
	9L20 (Nevis 766S to Cordel 755S)	9L934 (Anderson 801S to Ware Junction 132S)
	9L20 (Nevis 766S to Cordel 755S)	9L950 (Anderson 801S to Ware Junction 132S)
	9L20 (Nevis 766S to Cordel 755S)	Battle River 3 Winding Transformer
	715L (Hansman Lake 650S Hansman to 715AL TAP)	749L (Metiskow 468S to Edgerton 899S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	Edgerton 899S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	7L749 (Edgerton 899S to Lloydminster 716S)
	715L (715AL TAP to Rising Sun Solar TAP)	
	715L (Hansman Lake 650S Hansman to 715AL TAP)	Killarney Lake 267S Transformer
	715L (715AL TAP to Rising Sun Solar TAP)	
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	701L (Battle River 757S to Strome 223S)
	9L20 (Nevis 766S to Cordel 755S)	
	9L20 (Nevis 766S to Cordel 755S)	769L (Hardisty 377S to Rosyth 296S)

	9L20 (Nevis 766S to Cordel 755S)	7L159 (Three Hills 770S to Heatburg 948S)
	174L (Bardo 197S to North Holden 395S)	7L92 (Vilna 777S to Watt Lake 956S)
	9L20 (Nevis 766S to Cordel 755S)	925L (Red Deer 63S to Janet 74S)

Notes:

[a] Refers to the violations that only occurred in sensitivity analysis.

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 Scenarios 5,6,7 & 9 using Alternative 2 and the RASs described in the previous section.

The post-mitigation power flow diagrams for selected Category B conditions are provided in Attachment 6. 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.

Transient Instability was observed under 9L24 contingency during Winter Peak scenario. A transfer trip scheme is required to trip the P2611 generators under the 9L24 contingency. AESO has a New 9L24 Dynamic RAS 241 for 9L24 contingency which trips P2611 when 9L24 is out of service. The transient plots are provided in Attachment A4, with the post-RAS plot shown at the end, demonstrating system stability following RAS operation

5.3.1 Scenario 4: Post-Project 2028 High Generation Summer Light

Category B Conditions

Thermal violations observed under certain Category B conditions in the post-Project studies were mitigated by RASs as shown in Table 5-3.

Table 5-3: Post-RAS Power Flow Study Results for Scenario 4

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Seasonal Continuous Rating (MVA)	Short-term (Emergency) Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Power Flow (MVA)	% Loading	Power Flow (MVA)	% Loading
1047L (Hansman Lake 650S to Nilrem 574S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	145.8	120.5	114.22	94.4

1047L (Hansman Lake 650S to Nilrem 574S)	472L (Hughenden 213S to Sunken Lake 221S Tap)	121.0	133.0	136.1	112.4	104.79	86.6
9L24 (Lanfine 959S to Oakland 946S)	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	230.6	209.3	98.30	89.2
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	240.7	214.7	97.30	86.8

5.3.2 Scenario 5: Post-Project 2028 High Generation Summer Peak

Category B Conditions

The thermal violations observed under certain Category B conditions in the post-Project studies were mitigated by RASs as shown in Table 5-4.

After RAS actions were complete, real-time operational practices are required to fully alleviate certain thermal criteria violations observed on 174L (Bardo 197S to North Holden 395), 9L20 (Nevis 766S to Cordel 755S), (472L (Metiskow 468S to Sunken Lake 221S Tap) and 7L60 (Oyen 767S to RESC Big Sky Solar)..

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

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Seasonal Continuous Rating (MVA)	Short-term (Emergency) Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Power Flow (MVA)	% Loading	Power Flow (MVA)	% Loading
885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	134.9	111.6	65.29	54.0
7L159 (Ghost Pine 114S to Heatburg 948S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	196.5	120.7	103.44	63.5
7L16 (Heatburg 948S to Nevis 766S)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	195.1	119.7	101.98	62.6
9L29 (Oakland 946S to Coyote Lake 963S)	7L159 (Ghost Pine 114S to Heatburg 948S)	107.3	118.8	129.8	120.9	69.64	64.9

	7L16 (Heatburg 948S to Nevis 766S)	107.3	119.8	127.2	118.5	67.28	62.7
	7L85 (Anderson 801S to Bullpound 803S)	139.0	165.8	148.7	107.0	35.72	25.7
	7L85 (Parker to Bullpound 803S)	138.0	157.2	155.8	112.9	42.37	30.7
	801S (Anderson 801S Transformer T1)	125.0	125.0	158.5	126.8	100.63	80.5
801S (Anderson 801S Transformer T1)	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	194.9	119.7	101.49	62.3
Coyote Lake 963S - 901 Transformer	7L159 (Ghost Pine 114S to Heatburg 948S)	107.3	118.8	129.8	120.9	69.75	65.0
	7L16 (Heatburg 948S to Nevis 766S)	107.3	119.8	127.2	118.5	67.28	62.7
	7L85 (Anderson 801S to Bullpound 803S)	139.0	165.8	148.7	107.0	35.72	25.7
	7L85 (Parker to Bullpound 803S)	138.0	157.2	155.8	112.9	42.50	30.8
	801S (Anderson 801S Transformer T1)	125.0	125.0	158.7	127.0	100.75	80.6
9L62 (Gaetz to 972S Tinchebray)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	150.4	124.3	121.48	100.4[a]
	701L (North Hoden 395S to Strome 223S)	119.0	131.0	122.9	103.3	93.30	78.4
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	110.2	100.9	98.92	90.5

	912L (Nevis 766S to Red Deer 63S)	507.0	608.0	703.8	138.8	493.82	97.4
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	620.4	144.6	457.74	106.7[a]
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	120.6	109.4	106.12	96.3
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	117.5	104.8	107.17	95.6
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	143.7	118.8	46.79	38.7
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	133.0	126.4	131.7	90.82	94.6
1047L (Hansman Lake 650S to Nilrem 574S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	165.7	137.0	129.11	106.7[a]
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hughenden 213S to HRT Express 329S Tap)	121.0	133.0	129.4	106.9	93.78	77.5
1047L (Hansman Lake 650S to Nilrem 574S)	472L (Hughenden 213S to Sunken Lake 221S Tap)	121.0	133.0	133.1	110.0	97.41	80.5
9L24 (Lanfine 959S to Oakland 946S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	135.0	111.6	119.31	98.6
	7L128 (Coyote Lake 963S To Hand Hills Tap)	162.9	186.9	163.0	100.0	157.52	96.7
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	211.2	191.6	111.96	101.6[a]
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	217.3	193.8	109.63	97.8

Notes:
[a] Overloads remaining after RAS action are mitigated by real-time operational practices.

5.3.3 Scenario 6: Post-Project 2028 High Generation Winter Peak

Category B Conditions

The thermal violations observed under certain Category B conditions in the post-Project studies were mitigated by RASs as shown in Table 5-.

After RAS actions were complete, real-time operational practices are required to fully alleviate certain thermal criteria violations observed on 703L (Hardisty to HRT Express 329S Tap), 472L (Metiskow 468S to Sunken Lake 221S Tap), 703L (Hughenden 213S to HRT Express 329S Tap), 472L (Hughenden 213S to Sunken Lake 221S Tap).

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

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Seasonal Continuous Rating (MVA)	Short-term (Emergency) Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Power Flow (MVA)	% Loading	Power Flow (MVA)	% Loading
885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	148.0	163.0	171.5	115.9	82.88	56.0
7L171 (Michichi Creek 802S to Wintering Hills 804S)	801S (Anderson 801S Transformer T1)	125.0	125.0	148.7	119.0	76.13	60.9
9L62 (Gaetz to 972S Tinchebray)	174L (Bardo 197S to North Holden 395S)	149.0	164.0	185.2	139.2	147.36	98.9
	701L (North Hoden 395S to Strome 223S)	146.0	161.0	182.3	124.9	127.17	87.1
	701L (Strome 223S to Heisler Tap)	191.0	213.0	194.6	101.9	138.67	72.6
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	97.1	122.9	71.26	90.2
	912L (Nevis 766S to Red Deer 63S)	624.0	624.0	956.7	153.3	586.56	94.0
	9L20 (Nevis 766S to Cordel 755S)	540.0	540.0	842.2	156.0	522.72	96.8

966L (Hansman Lake 650S to Pemukan 932S)	7L224 (Hansman Lake 650S to Monitor 774S)	143.8	163.9	201.5	140.1	126.40	87.9
	7L127 (Monitor 774S to Pemukan 932S)	182.1	243.4	236.0	129.6	156.24	85.8
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	148.0	163.0	175.7	118.7	52.69	35.6
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	176.7	184.0	142.08	148.0[a]
	472L (Metiskow 468S to Sunken Lake 221S Tap)	150.0	165.0	222.1	148.1	186.75	124.5[a]
	703L (Hughenden 213S to HRT Express 329S Tap)	145.0	160.0	182.4	125.8	147.90	102.0[a]
	472L (Hughenden 213S to Sunken Lake 221S Tap)	150.0	165.0	186.5	124.3	151.95	101.3[a]
9L24 (Lanfine 959S to Oakland 946S)	703L (Hardisty to HRT Express 329S Tap)	96.0	143.0	122.7	127.8	77.95	81.2
	472L (Metiskow 468S to Sunken Lake 221S Tap)	150.0	165.0	166.2	110.8	148.05	98.7
	704L (Wainwright 51S to Tucuman 478S)	79.0	87.0	92.1	116.6	68.57	86.8
	966L (Hansman Lake 650S to Pemukan 932S)	442.0	442.0	561.7	127.1	220.56	49.9
	6L09 (Hanna 763S to Richdale 776S)	23.0	23.0	25.2	109.8	11.25	48.9
	9L62 (Gaetz to 972S Tinchebray)	831.4	831.4	831.8	100.1	679.25	81.7
	7L60 (Oyen 767S to RESC Big Sky Solar)	146.6	167.7	224.5	153.2	69.49	47.4

	7L132 (Oyen 767S to Lanfine 959S)	140.9	171.5	250.7	177.9	82.14	58.3
	Oyen 767S - 701 Transformer	25.0	0.0	27.7	110.9	13.90	55.6
	6L09 (Oyen 767S to Youngstown Express 2037S Tap)	23.0	23.0	28.6	124.5	14.77	64.2
	Oyen 767S - 701 Transformer	25.0	0.0	31.1	124.3	16.08	64.3
	6L09 (Youngstown 772S to Richdale 776S)	24.0	24.0	25.8	107.4	11.83	49.3
	6L09 (Youngstown 772S to Youngstown Express 2037S Tap)	24.0	24.0	26.2	109.2	12.60	52.5

Notes:

[a] Overloads remaining after RAS action are mitigated by real-time operational practices, including pre-contingency curtailment.

5.3.4 Sensitivity Scenario 9: Post-Project 2028 High Generation Summer Peak

Category B Conditions

The thermal violations observed under certain Category B conditions in the post-Project studies were mitigated by RASs as shown in Table 5-.

After RAS actions were complete, real-time operational practices are required to fully alleviate certain thermal criteria violations observed on 174L (Bardo 197S to North Holden 395S), 472L (Metiskow 468S to Sunken Lake 221S Tap)

Table 5-6: Post-RAS Power Flow Study Results for Scenario 9

Contingency (System Element Lost)	Details of Violation (Violation Observed On)	Seasonal Continuous Rating (MVA)	Short-term (Emergency) Rating (MVA)	Post-Project Results		Post-RAS Action Results	
				Power Flow (MVA)	% Loading	Power Flow (MVA)	% Loading
885L (Hansman Lake 650S to Metiskow 468S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	127.2	105.2	64.44	53.3

9L20 (Nevis 766S to Cordel 755S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	165.7	137.0	126.45	104.5[a]
	701L (North Hoden 395S to Strome 223S)	119.0	131.0	139.0	116.8	99.96	84.0
	701L (Strome 223S to Heisler Tap)	141.8	159.1	147.0	103.7	107.77	76.0
	7L701 (Battle River 757S to Heisler 764S Tap)	141.8	159.1	149.6	105.5	110.75	78.1
	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	116.5	106.6	99.79	91.3
	7L137 (Rowley 768S to Three Hills 770S)	108.3	120.8	119.2	110.1	58.05	53.6
	7L25 (Michichi Creek 802S to Rowley 768S)	109.3	122.7	121.4	111.2	60.33	55.2
9L29 (Oakland 946S to Coyote Lake 963S)	7L137 (Rowley 768S to Three Hills 770S)	108.3	120.8	114.3	105.6	71.26	65.8
	7L25 (Michichi Creek 802S to Rowley 768S)	109.3	122.7	116.6	106.7	73.56	67.3
	801S (Anderson 801S Transformer T1)	125.0	125.0	136.6	109.3	76.13	60.9
Coyote Lake 963S - 901 Transformer	7L137 (Rowley 768S to Three Hills 770S)	108.3	120.8	114.3	105.5	71.15	65.7
	7L25 (Michichi Creek 802S to Rowley 768S)	109.3	122.7	116.6	106.7	73.56	67.3
	801S (Anderson 801S Transformer T1)	125.0	125.0	136.8	109.4	76.25	61.0
912L (Nevis 766S to Red Deer 63S)	174L (Bardo 197S to North Holden 395S)	121.0	133.0	182.0	150.5	136.49	112.8[a]
	701L (North Hoden 395S to Strome 223S)	119.0	131.0	157.0	132.0	110.91	93.2
	701L (Strome 223S to Heisler Tap)	141.8	159.1	165.1	116.4	118.83	83.8
	7L701 (Battle River 757S to Heisler 764S Tap)	141.8	159.1	153.1	108.0	111.60	78.7

	7L65 (Vegrevile 709S to Grizzly Bear 708S Tap)	109.3	121.7	121.2	110.9	102.74	94.0
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	114.2	103.6	85.52	77.6
715L (Provost 545S to Hansman Lake 650S)	749AL (P2460 ABO Fox Meadows - 749LA TAP)	120.9	133.0	134.6	111.3	47.03	38.9
1047L (Hansman Lake 650S to Nilrem 574S)	703L (Hardisty to HRT Express 329S Tap)	96.0	133.0	116.5	121.3	84.48	88.0
	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	155.6	128.6	122.33	101.1[a]
	472L (Hughenden 213S to Sunken Lake 221S Tap)	121.0	133.0	123.1	101.8	90.99	75.2
9L24 (Lanfine 959S to Oakland 946S)	472L (Metiskow 468S to Sunken Lake 221S Tap)	121.0	133.0	124.1	102.6	94.26	77.9
	9L20 (Nevis 766S to Cordel 755S)	429.0	624.0	459.9	107.2	303.30	70.7
	7L60 (Oyen 767S to RESC Big Sky Solar)	110.2	122.7	176.3	160.0	77.47	70.3
	7L132 (Oyen 767S to Lanfine 959S)	112.1	138.0	181.6	162.0	74.77	66.7

Notes:
[a] Overloads remaining after RAS action are mitigated by real-time operational practices, including pre-contingency curtailment.

Constraint Effective Factor Studies

Constraint effective factor studies were conducted for all post-Project scenarios. The constraint effective factors were calculated for all Category A and Category B conditions when the loading 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 A7.

Attachment A1
Engineering Connection Assessment: Study Scope

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Study Scope

P2611 UK Solar East

UK Solar East Ltd.

Date: Feb. 21, 2025

Version: V2

Classification: Public

Company Name	Name and Credentials	Date	Signature
Hardline Engineering Ltd.	Osaid Abdullah	2/27/2025	Signed by: Osaid Abdullah
AESO	Omid Ghoreishi, P. Eng.	3/9/2025	Signed by: Omid Ghoreishi
ATCO	Vik Gautam	2/24/2025	Signed by:
UK Solar East Ltd.	Jose Santos	2/27/2025	Signed by: Jose Santos E632CC36A2F84AC...
	Ajay Mann	3/10/2025	Signed by: Ajay Mann A8E7669B46754A8...

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Attachment A: Transmission Planning Criteria – Basis and Assumptions

1 Introduction

This Study Scope provides an overview of the engineering studies to be completed by Hardline Engineering 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

Project overview is provided in Table 1-1.

Table 1-1: Project Overview

Market Participant	Type of Project	In-service Date (ISD)
UK solar East Ltd.	Connection	March 15, 2027

Load and generation components of the Project are listed in Table 1-2.

Table 1-2: Project Load and Generation Details

Project Component		Description
Generation	Generation type	Solar
	Existing Rate STS, *Supply Transmission Service,* contract capacity	0 MW
	Requested Rate STS	268 MW
	Number and size of generating units	Not Available
	Maximum authorized real power (MARP)	268 MW
	Maximum capability (MC)	268 MW
	Reactive power capability	0.95 pf absorbing
		0.9 pf producing
	Future generation expansion plans	No
Load	Existing Rate DTS, *Demand Transmission Service,* contract capacity	0 MW
	Requested Rate DTS	1 MW
	Type	Station service
	Motors (number and size)	None
	Power factor	0.9 pf

Project Component		Description
	Future load 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 Existing System Overview

1.2.1 Study Area

Geographically, the Project is located in the AESO planning area of Hanna, Area 42.

The Study Area consists of the AESO planning areas of Sheerness (Area 43), Hanna (Area 42), Lloydminster (Area 13), Wainwright (Area 32), Vegreville (Area 56), Provost (Area 37), Battle River (Area 36), 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.

1.2.2 Existing Constraints

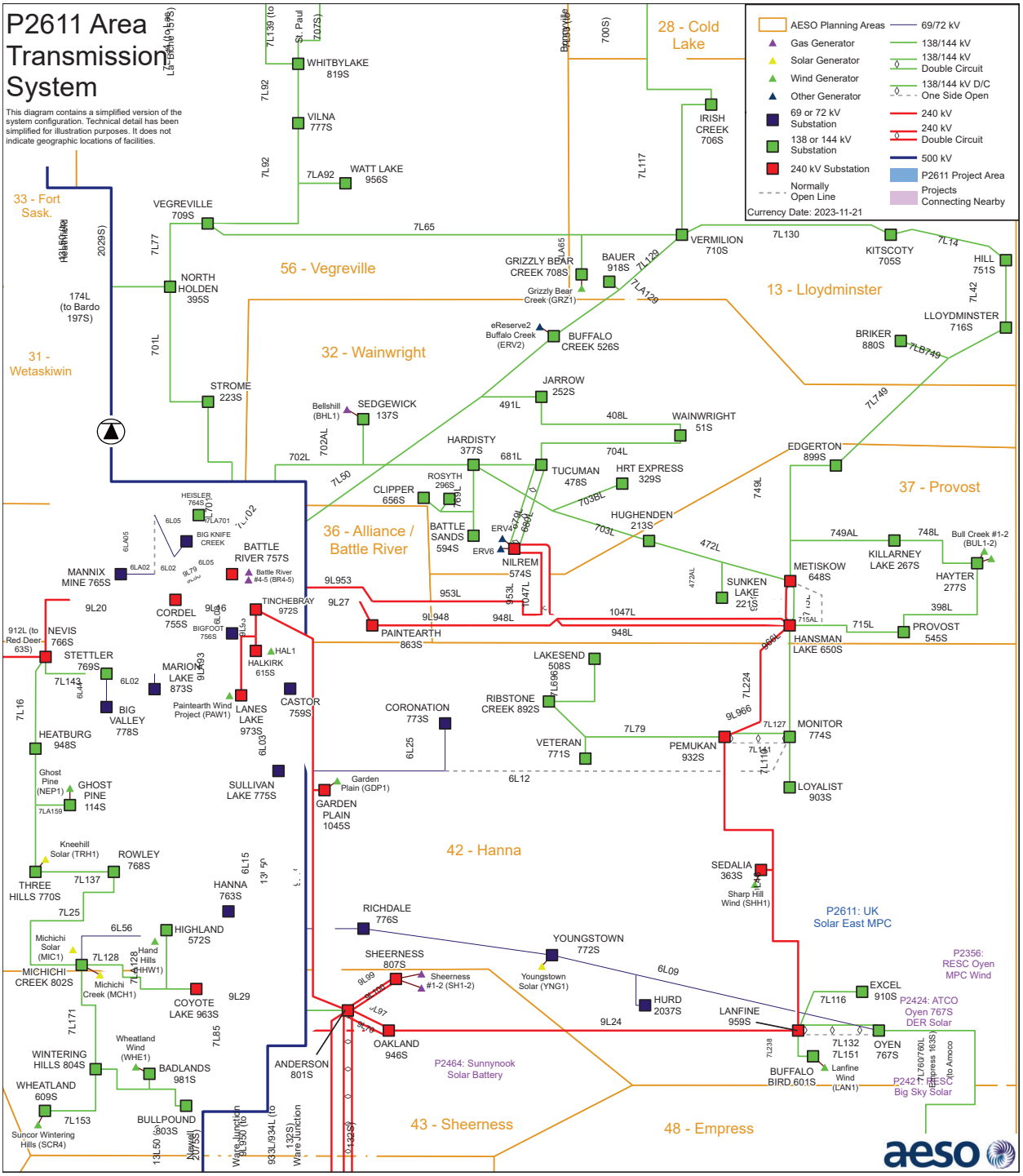
Existing constraints in the Study Area are managed in accordance with the procedures set out in Section 302.1 of the ISO rules, *Real Time Transmission Constraint Management* (TCM Rule).

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 134 Logic #1: 174L and 701L Overload Mitigation Scheme at North Holden
- RAS 134 Logic #2: 7L50 Overload Mitigation Scheme at Buffalo Creek substation
- RAS 134 Logic #3: 7L159 Overload Mitigation Scheme
- RAS 151: 223S Strome Low Voltage Mitigation
- RAS 159: 936S Norberg Under Voltage Mitigation
- RAS 199: 7L159 Overload Mitigation Scheme at Heatburg 948S
- RAS 200: 801T Overload Mitigation Scheme at Anderson 801S
- RAS 201: 7L224 Overload Mitigation Scheme at Monitor 774S
- RAS 202: 7L171 Overload Mitigation Scheme at Wintering Hills 804S
- RAS 203: 7L128 Overload Mitigation Scheme at Michichi Creek 802S or Coyote Lake 963S

Figure 1-1: Transmission System in the Study Area



2 Connection Alternative to be Studied

The following alternative is to be studied:

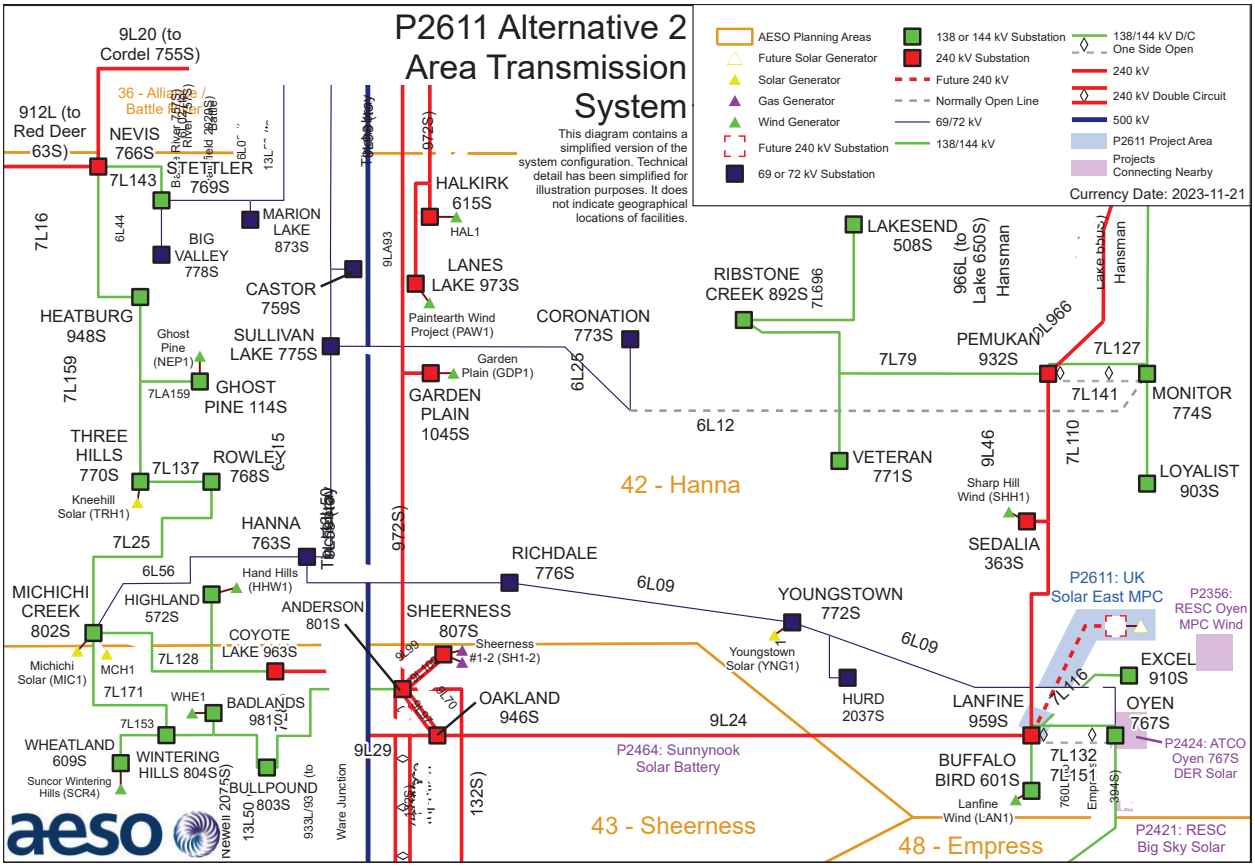
2.1 Alternative 2 – Radial 240kV Connection to Lanfine 959S

This alternative included the following developments:

- Add one 240 kV transmission circuit, approximately 8 km in length[1], to connect the Facility to the existing substation Lanfine 959S;
- Modify the existing substation Lanfine 959S, including adding one 240kV circuit breaker;
- Add or modify associated equipment as required for the above transmission developments.

The proposed connection configuration is shown in Figure 2-1

Figure 2-1: Connection Alternative 2



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

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 and Category C5 conditions: 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*;
- Section 502.5 of the ISO rules *Generating Unit Technical Requirements*;
- Section 502.6 of the ISO rules *Generating Unit 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	2028 Summer Peak (2028 SP)	High Generation (HG)	2028 SP Pre-Project	0	0
2	2028 Summer Light (2028 SL)		2028 SL Pre-Project	0	0
3	2028 Winter Peak (2028 WP)		2028 WP Pre-Project	0	0
Post-Project					
4	2028 SP	HG	2028 SP Post -Project	0	268
5	2028 SL		2028 SL Post -Project	0	268
6	2028 WP		2028 WP Post -Project	0	268
7	2033 WP	All study area generation in-service	2033 WP Post-Project- HG	0	268
Pre-Project – Sensitivity – Without CETO (ph1)					
8	2028 SP	HG	2028 SP Pre-Project	0	0
Post-Project – Sensitivity – Without CETO (ph1)					
9	2028 SP	HG	2028 SP Post -Project	0	268

4.2 Assumptions

4.2.1 System Project Assumptions

Table 4-2 lists the system transmission projects that will be included in the studies.

Table 4-2: Planned System Transmission Projects that may be Included in the Studies

AESO Project No.	Project Name/Description	Scheduled ISD	AUC NID Decision No.
CETO (ph1)[1]	Central East Transfer-out Transmission Development	2026	25469-D01-2021

[1] The CETO Transmission Development phase 1 is considered in the study. Phase 1 includes one 240-kilovolt (kV) circuit between the Tinchebray 972S and Gaetz 87S substations.

4.2.2 Load Assumptions

Load forecast to be used for the studies is shown in Table 4-3 and is a forecast for the AESO Central Cluster based on the AESO's 2023 Long-term Outlook (2023 LTO).

Table 4-3: Forecast Load in Central Cluster

AESO Planning Region Name	Forecast Peak Load by Year/Season (MW)		
	2028 SP	2028 SL	2028 WP
Central Planning Region[1]	1,848	1,736	2,081
AIES	11,106	9,709	11,534

Note:
[1] The Central Region comprises the following AESO planning areas: Lloydminster (Area 13), Cold Lake (Area 28), Hinton/Edson (Area 29), Drayton Valley (Area 30), Wainwright (Area 32), Abraham Lake (Area 34), Red Deer (Area 35), Alliance/Battle River (Area 36), Provost (Area 37), Caroline (Area 38), Didsbury (Area 39), Hanna (Area 42) and Vegreville (Area 56).

4.2.3 Generation Assumptions

The generation forecast to be used for the studies is based on the 2023 LTO with modifications to incorporate the latest forecast intelligence. The generation assumptions for the studies will assume high Central generation dispatch for STS studies.

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

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		
					2028 SP	2028 SL	2028 WP
Battle River #4 (BR4)	4	1496	155	36	31	31	31
Battle River #5 (BR5)	G5	1497	385	36	94.8	94.8	94.8
Sheerness #1 (SH1)	G1	1482	400	43	140	140	140
Sheerness #2 (SH2)	G2	1487	390	43	140	140	140

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

The wind and solar generation facilities will be dispatched to yield the credible worst-case generation dispatches for the Central Cluster. Pre- and post-Project dispatch levels for the existing and planned[2] wind and solar generation facilities for the Southeast Cluster are shown in Table 4-5 and Table 4-6.

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

Project Name	AESO Planning Area No.	Bus No.	MC (MW)	2028 SP	2028 SL	2028 WP
Fortis Bull Creek Phases 1 and 2 (BUL1 & BUL2)	37	550003	29	10	2.9	10.2
		550004		11	5	13.7
Garden Plain (GDP1)	42	565002	130	130	85.3	130
Ghost Pine (NEP1)	42	2621	82	15	3.6	14.8
		2622		15	3.6	14.8
		2623		11	2.7	11.1
		2624		15	3.6	14.8
		2625		19	4.5	18.5
Grizzly Bear Creek (GRZ1)	13	67308	152	45	29.9	45
Halkirk (HAL1)	42	66435	150	69	53.9	70.2
		67435		72	56.1	73
Hand Hills (HHW1)	42	560045	145	115	57.1	92
Lanfine Wind (LAN1)	42	60996	151	138	103	145
EDPR Sharp Hills Wind Farm	42	60831	248.4	196	121.5	195.6
		60832		92	57.2	92.1
Paintearth Wind Power / Paintearth Wind Power Phase 2	42	61418	99	99	99	99
		62418	99	91	46.9	91
Lone Pine MPC Wind	42	561103	466	212	158.9	233
		561104		212	158.9	233
RESC Oyen MPC Wind	42	560032	250	250	192	250
Capital Power Halkirk 2 Wind	36	60467	150	141	110	143.2
ABO Fox Meadows Wind	37	560039	150	106	47	128.5
CP Rolling Hills MPC Wind	37	560235	190	135	59.5	162.7
BluEarth Prairie Yarrow MPC Wind	37	560273	222	53	23.5	64.2

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

[2] Planned generation refers to the projects which met have met the AESO's project inclusion criteria.

Table 4-6: Dispatch Conditions for Existing and Planned Solar Generation Facilities

Project Name	AESO Planning Area No.	Bus No.	MC (MW)	2028 SP	2028 SL	2028 WP
Empress Solar Park (EMP1)	39	4366	21	18	17.7	9.7
		4266		13	12.8	7
Innisfail (INF1)	39	557120	22	8	7.7	6.2
Kneehill Solar (TRH1)	42	19433	25	0	0	0
		552433				
Michichi Creek (MCH1)	42	557448	13.5	11	0	5.9
Michichi Solar (MIC1)	42	554448	25	25	25	10.9
Youngstown Solar (YNG1)	42	19476	6	5	4.8	2.6
ATCO Michichi DER Solar	42	552448	75	19	22	16.4
		553448		22	22	16.4
		552450		16	11.3	0
ATCO Vilna 777S DER Solar	56	19357	5	0	0	0
RESC Big Sky Solar	56	560051	140	0	0	60.2
ATCO Oyen 767S DER Solar	42	19474	15	12	12.1	6.5
FortisAlberta Metiskow 648S DER Solar	37	557074	22.5	11	18.4	8.7
Phoenix MPC Solar	35	560362	299	72	119.7	56.6
		560365		72	119.7	56.6
Cache Rising Sun MPC Solar	37	562046	125	98	97.7	53.7
Kneehill MPC Solar	42	560106	450	176	175.9	96.7
		560103		176	175.9	96.7
Dolcy Solar Battery	37	567158	200	32	53.4	25.2
		567157		32	53.4	25.2
		567156		32	53.4	25.2
Eastervale Solar Battery	37	564092	300	48	80.1	37.9
		563092		48	80.1	37.9
		562092		48	80.1	37.9
Fortis Aura Provost DER Solar	37	4086	22.5	11	18	8.5
Sundre 575S DER Solar	38	4107	14.6	12	12.1	6.5
Mannix MPC Solar Battery	36	566011	59	0	0	0
Harvest Sky MPC Solar Battery	42	566013	15	0	0	0
		566014		0	0	0
Springbrook MPC Solar	35	568204	300	73	120.1	56.8
		568207		73	120.1	56.8

FortisAlberta Killarney Lake 267S DER Solar/Battery Storage	37	4219	22.5	11	18	8.5
FortisAlberta Joffre 535S DER Solar 1	35	2886	25	0	0	0
FortisAlberta Joffre 535S DER Solar 2	35	2383	22	0	0	0
Fortis Moon Lake DER Solar	30	4028	18.4	9	14.7	7

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

4.2.4 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 4-7.

Table 4-7: Intertie Flows for all Study Scenarios

Scenario Name	Import (-) / Export (+) (MW) by Intertie		
	AB-BC	AB-SK	MATL
2028 SL	+868	0	+186
2028 SP	+851	+150	+186
2028 WP	+1091	+151	+186

4.2.5 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.

4.2.6 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-. Only those contingencies shown in Table 4- 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 4-8: Protection Fault Clearing Times

Contingency (System Element Lost)	Fault Location	Clearing Times (Cycles)	
		Near End	Far End
9L24 Oakland 946S to Lanfine 959S	Oakland 946S	5	6
9L24 Oakland 946S to Lanfine 959S	Lanfine 959S	5	6
9L29 Oakland 946S to Coyote Lake 963S	Oakland 946S	5	6
9L29 Oakland 946S to Coyote Lake 963S	Coyote Lake 963S	5	6
9L46 Lanfine 959S to Pemukan 932S	Lanfine 959S	5	6
9L46 Lanfine 959S to Pemukan 932S	Pemukan 932S	5	6
9L59 From Anderson 801S to Tinchebray 972S	Anderson 801S	5	6
9L59 From Anderson 801S to Tinchebray 972S	Tinchebray 972S	5	6
9L966 From Pemukan 932S to Hansman Lake 650S	Pemukan 932S	5	6
9L966 From Pemukan 932S to Hansman Lake 650S	Hansman Lake 650S	5	6
760L From Oyen 767S to Amoco Empress 163S	Oyen 767S	6	7
760L From Oyen 767S to Amoco Empress 163S	Amoco Empress 163S	6	8
7L132 From Lanfine 959S to Oyen 767S	Lanfine 959S	6	8
7L132 From Lanfine 959S to Oyen 767S	Oyen 767S	6	8
7L116 From Lanfine 959S to Excel 910S	Lanfine 959S	6	24
7L116 From Lanfine 959S to Excel 910S	Excel 910S	6	24

4.2.7 Project Dynamic Data

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

4.2.8 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	2028 SP	X	X			X*	X*			
2	2028 SL	X	X			X*	X*			
3	2028 WP	X	X			X*	X*			X
Post-Project										
4	2028 SP	X	X			X	X			
5	2028 SL	X	X			X	X			
6	2028 WP	X	X			X	X			X
7	2033 WP									X
Pre-Project-Sensitivity										
8	2028 SP	X	X							
Post-Project-Sensitivity										
9	2028 SP	X	X							

* Pre-project transient stability and voltage stability studies will be Only required if post-project studies identify potential performance 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 conditions in the Study Area.

5.3 Transient Stability Studies

Genesee 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 as applicable, and active and reactive power output for the generating units in the study area. 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 4-8.

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:

- Excel 910S
- Hansman Lake 650S
- Monitor 774S
- Lanfine 959S
- Oakland 946S
- Oyen 767S
- Pemukan 932S
- Ware Junction 132S
- P2611 Facility

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[3] 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.

[3] 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 (2023 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

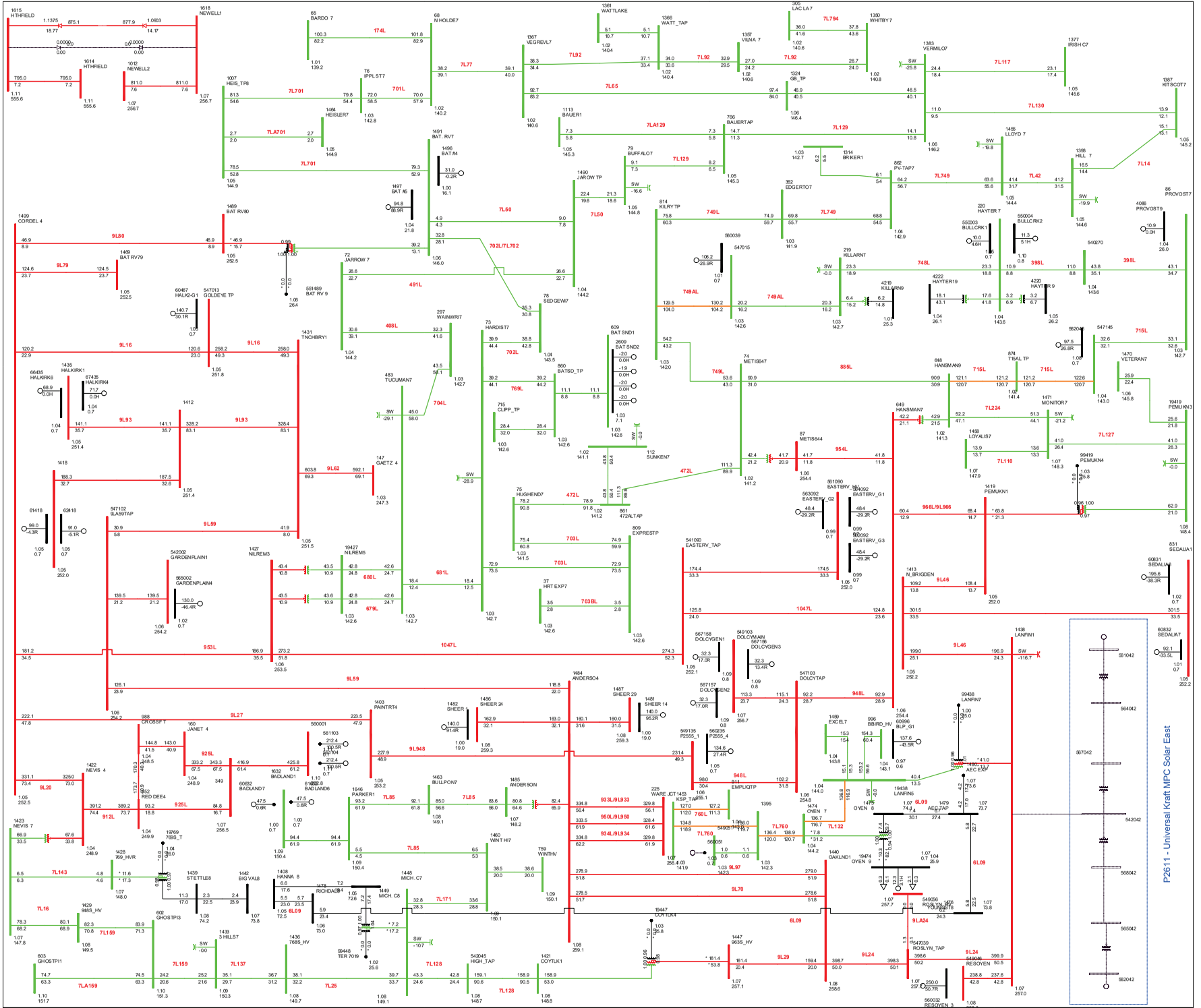
Table 2-4: Stuck Breaker Clearing Times for Lines

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

Attachment A2
Pre-Project Power Flow Diagrams



P2611 - Universal Kraft MPC Solar East

BC Import: -865.5 MW

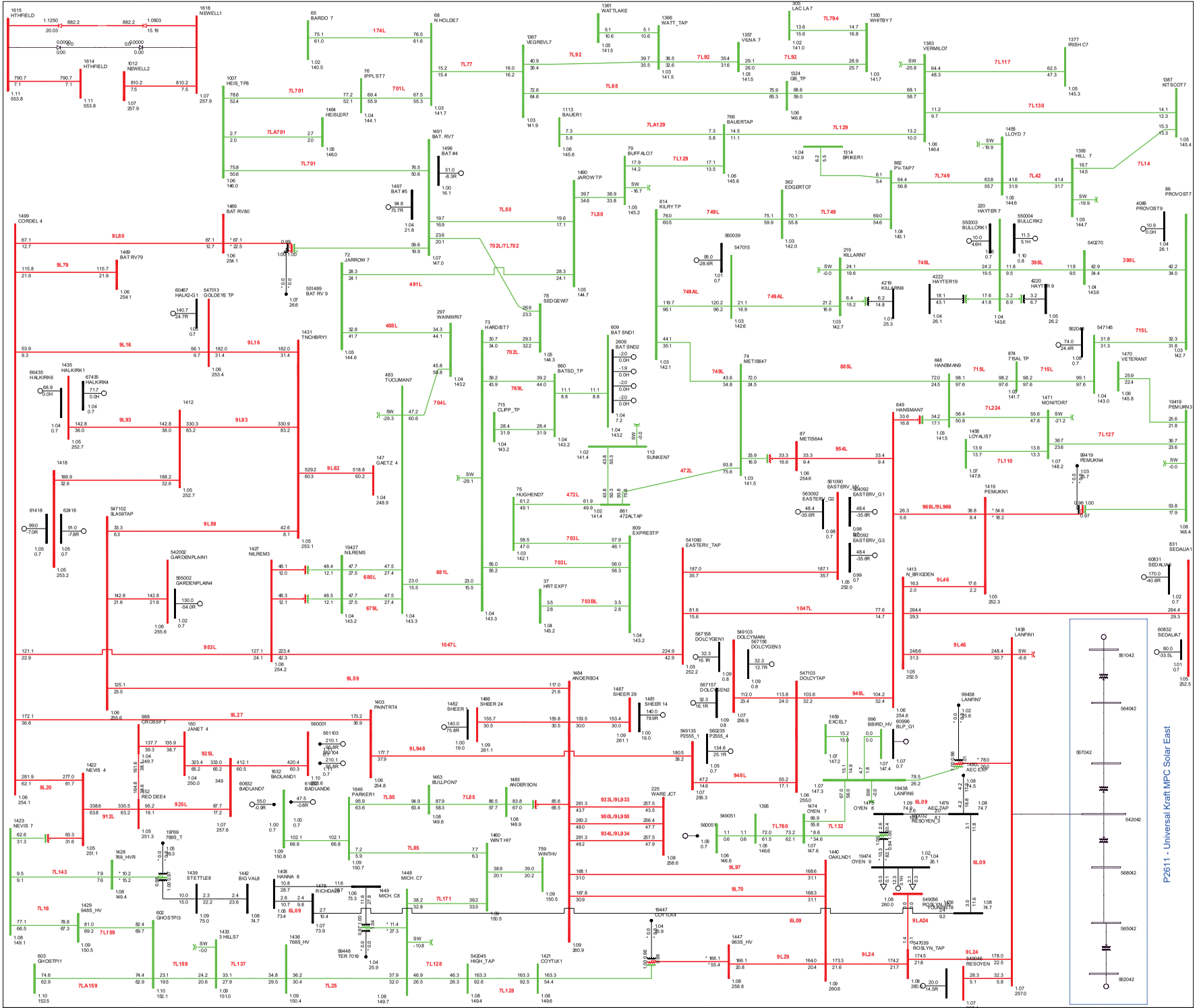
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE A-1-1: SCN1-SP-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
THU, OCT 02 2025 14:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.4 MW

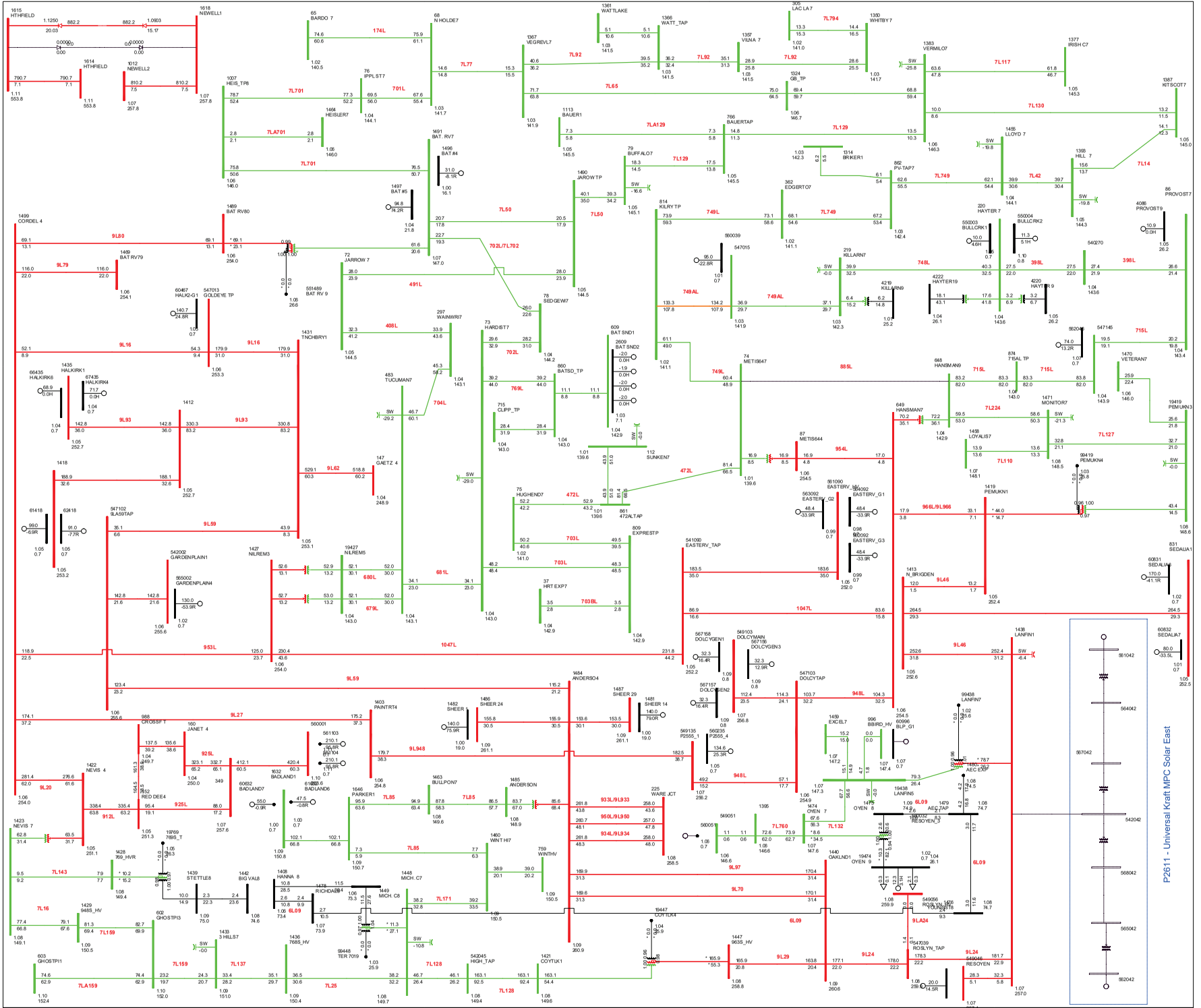
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE A-1-1: SCN1-SP-PRE.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 21:09

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.6 MW

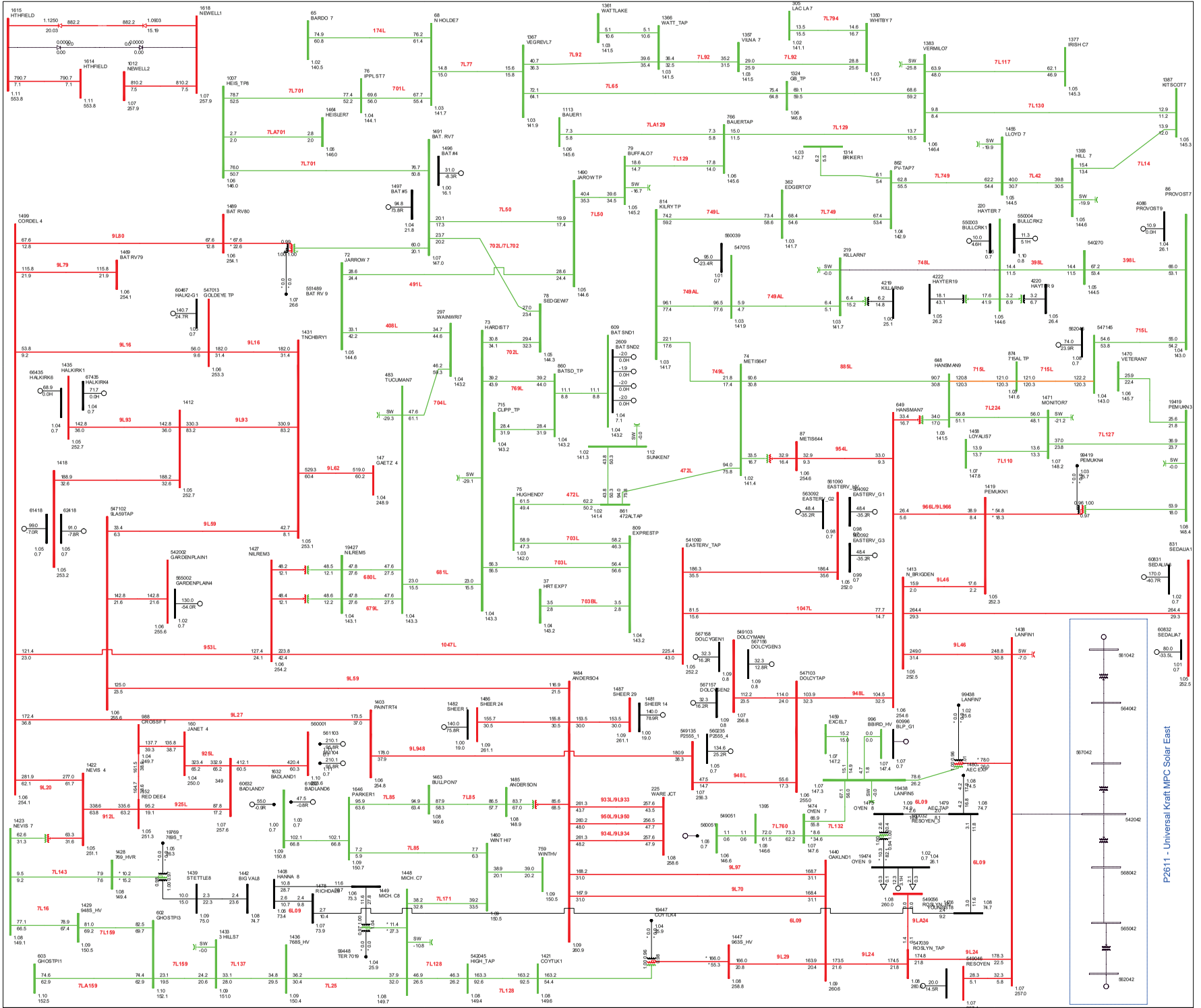
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-1: SCN1-SP-PRE.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
SUN, SEP 07 2025 21:10

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.0 MW

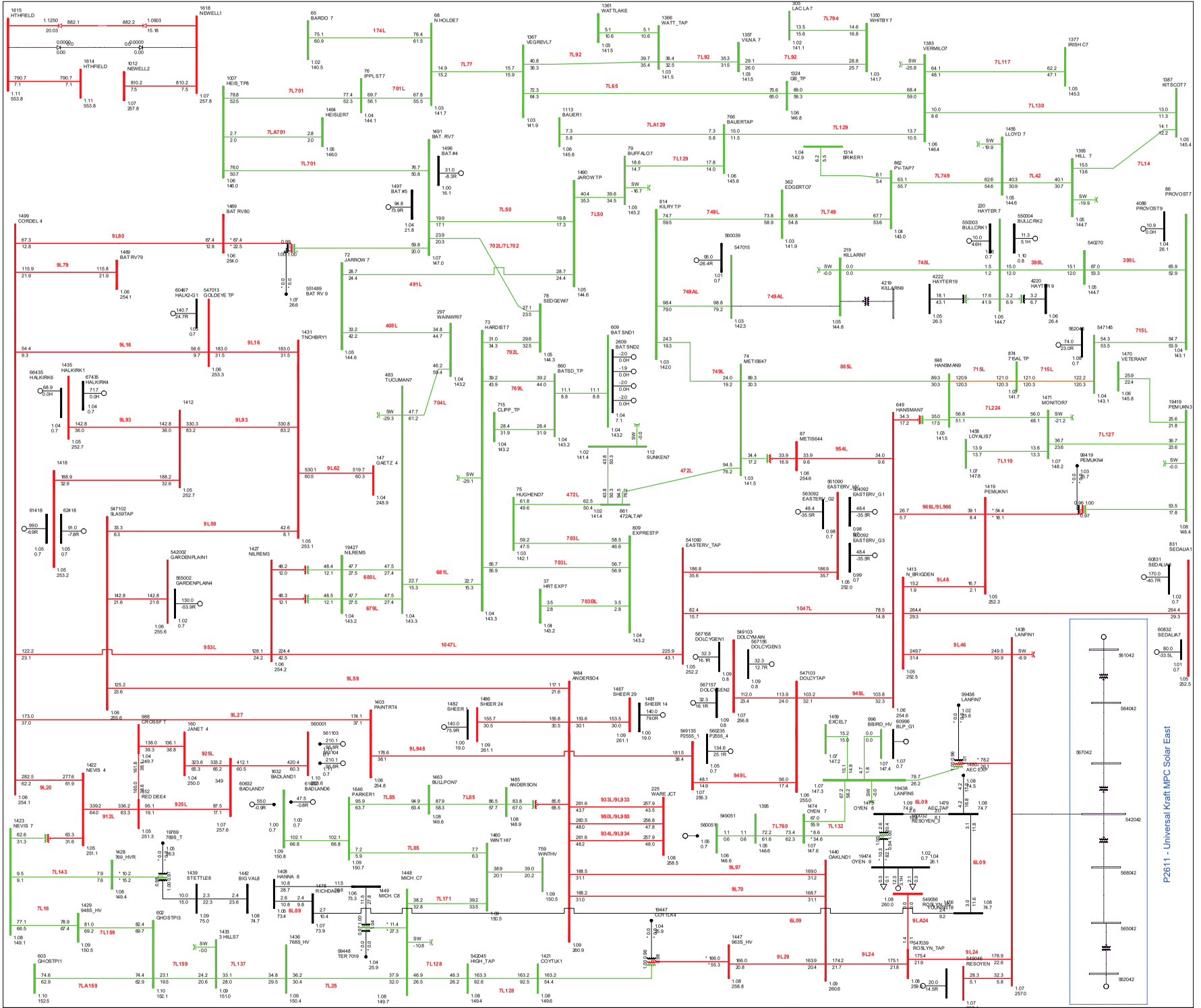
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-2: SCN1-SP-PRE.SAV
CATEGORY B - 748L (HAYTER 277S TO KILLARNEY LAKE 267S)
SUN, SEP 07 2025 21:10

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -860.4 MW

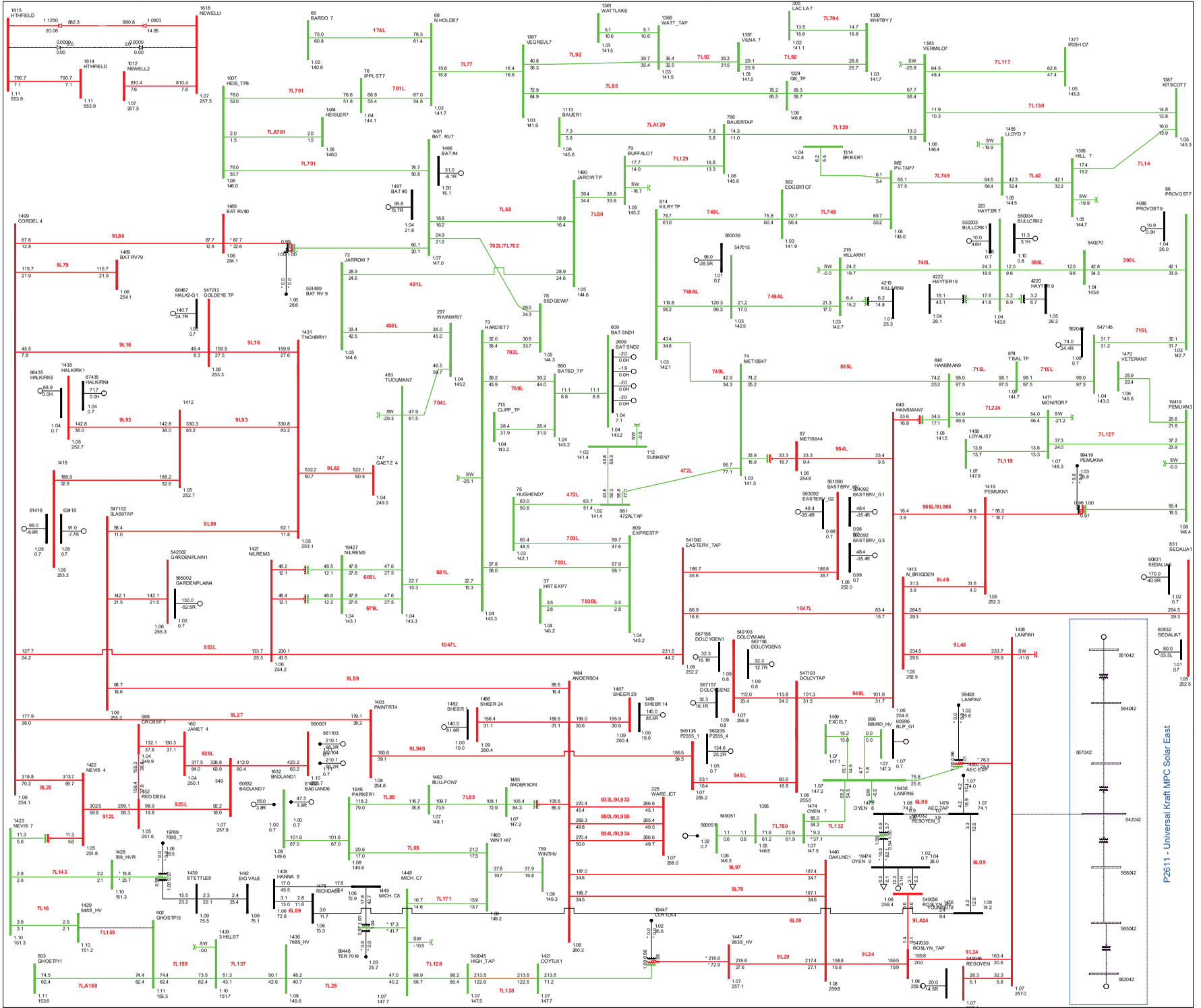
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-3: SCN1-SP-PRE.SAV
CATEGORY B - KILLARNEY LAKE 267S TRANSFORMER
FRI, SEP 12 2025 17:11
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -852.8 MW

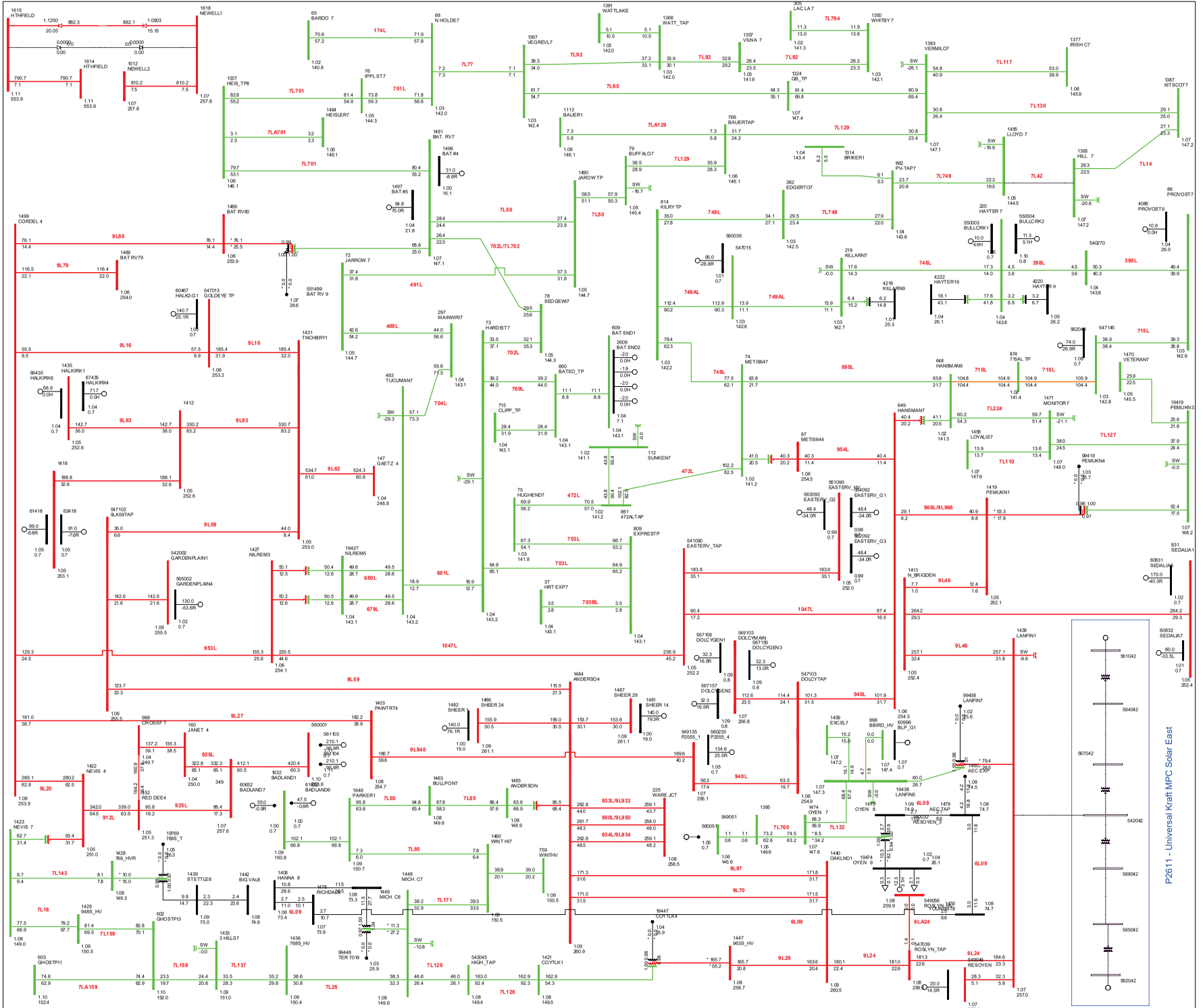
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-1-4: SCN1-SP-PRE.SAV
CATEGORY B - 7L159 (GHOST PINE 114S TO HEATBURG 948S)
SUN, SEP 07 2025 21:11
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.5 MW

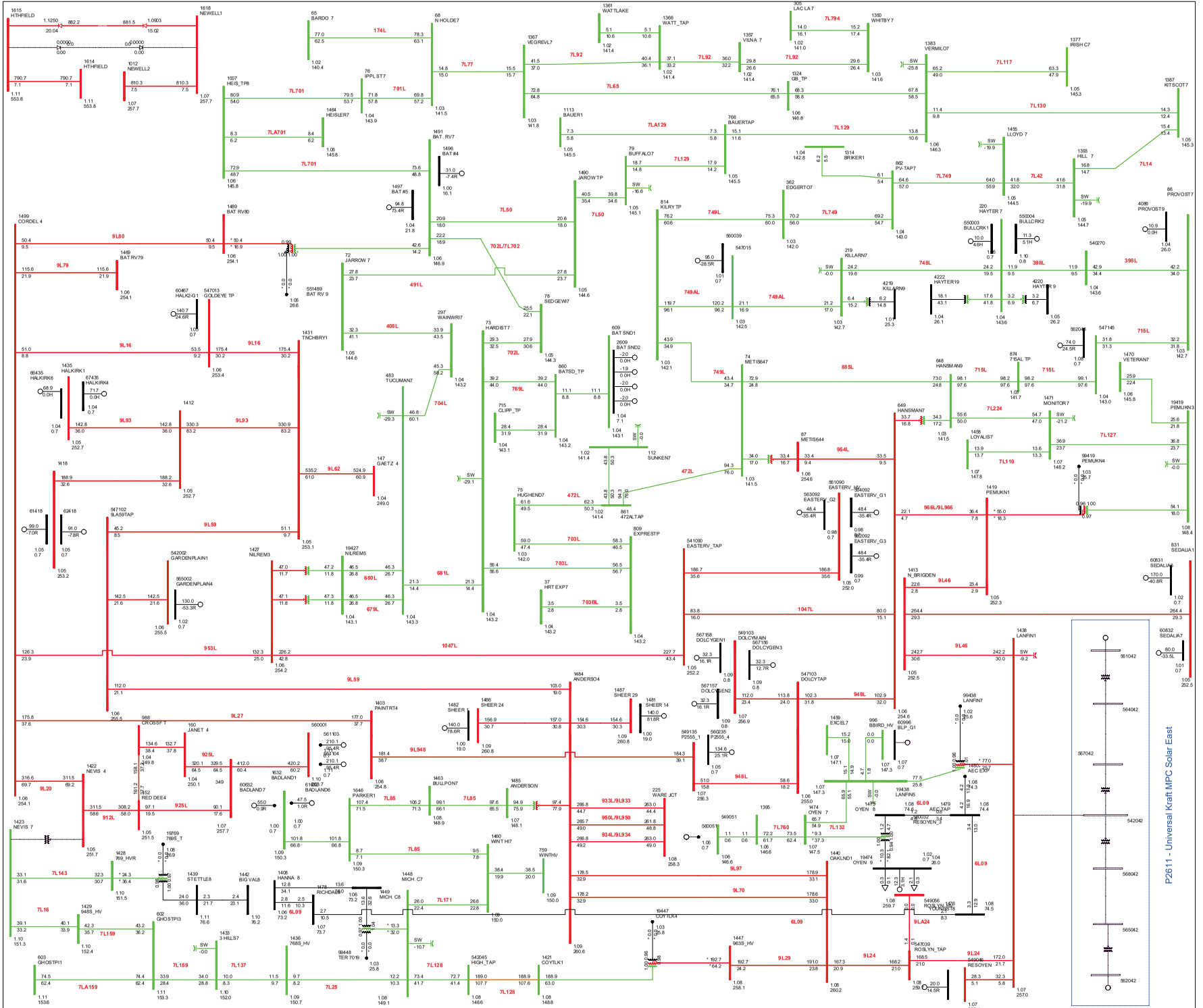
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-5: SCN1-SP-PRE.SAV
CATEGORY B - 7L42 (LLOYDMINSTER 716S TO HILL 751S)
SUN, SEP 07 2025 21:11
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -857.1 MW

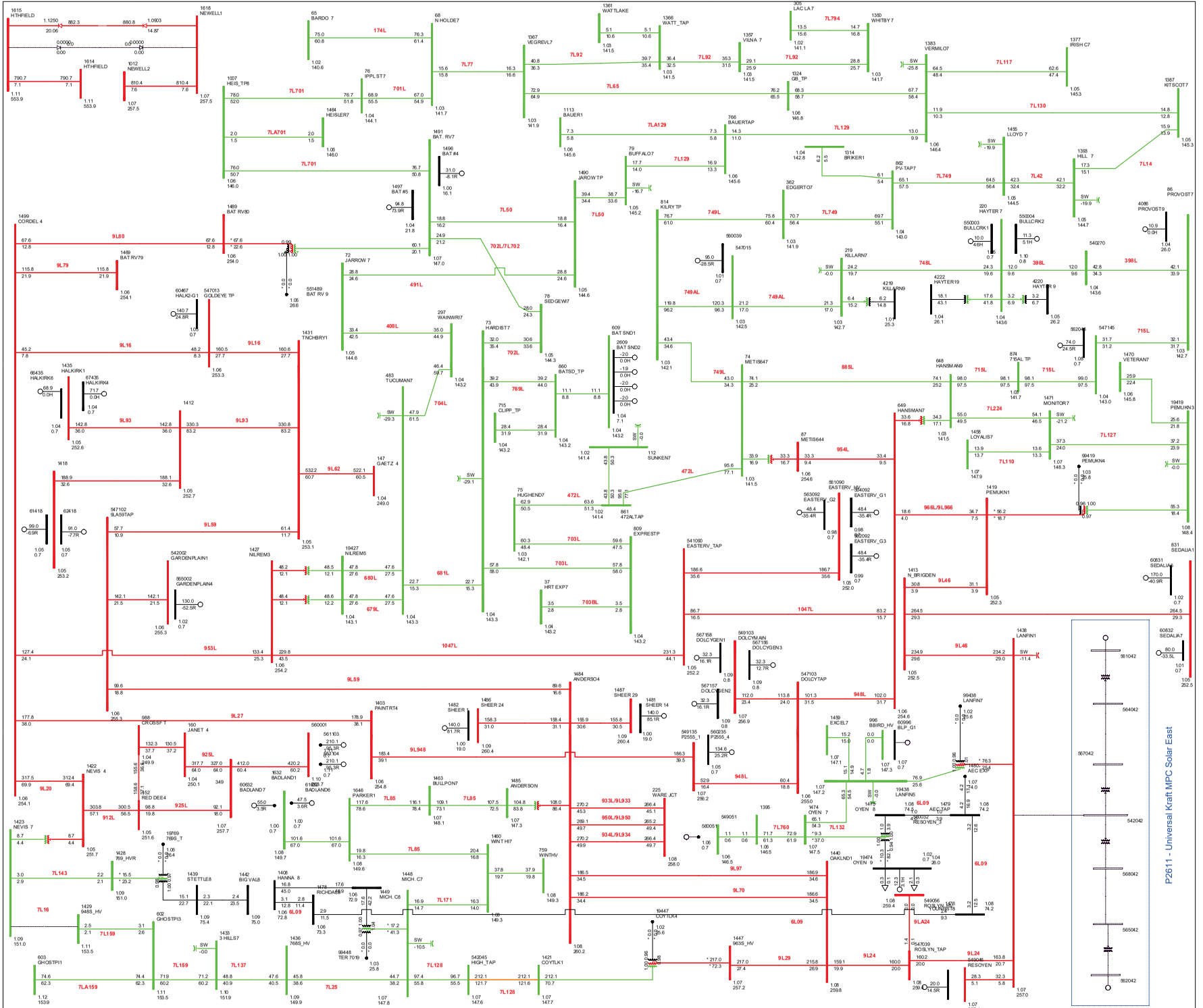
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-6: SCN1-SP-PRE.SAV
CATEGORY B - NEVIS 240/138 KV TF
SUN, SEP 07 2025 21:12
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -853.4 MW

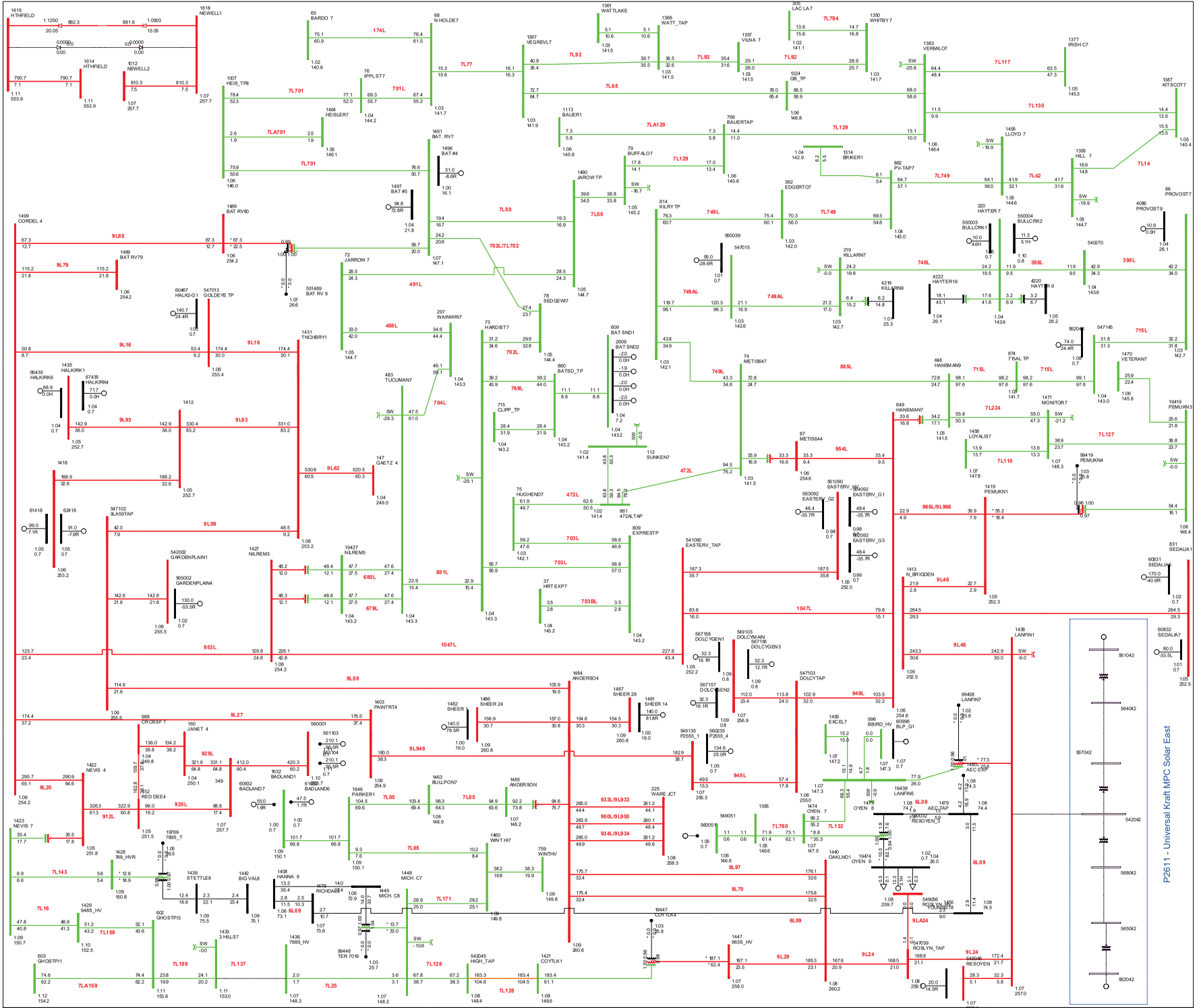
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-7: SCN1-SP-PRE.SAV
CATEGORY B - 7L16 (HEATBURG 948S TO NEVIS 766S)
SUN, SEP 07 2025 21:12
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -859.2 MW

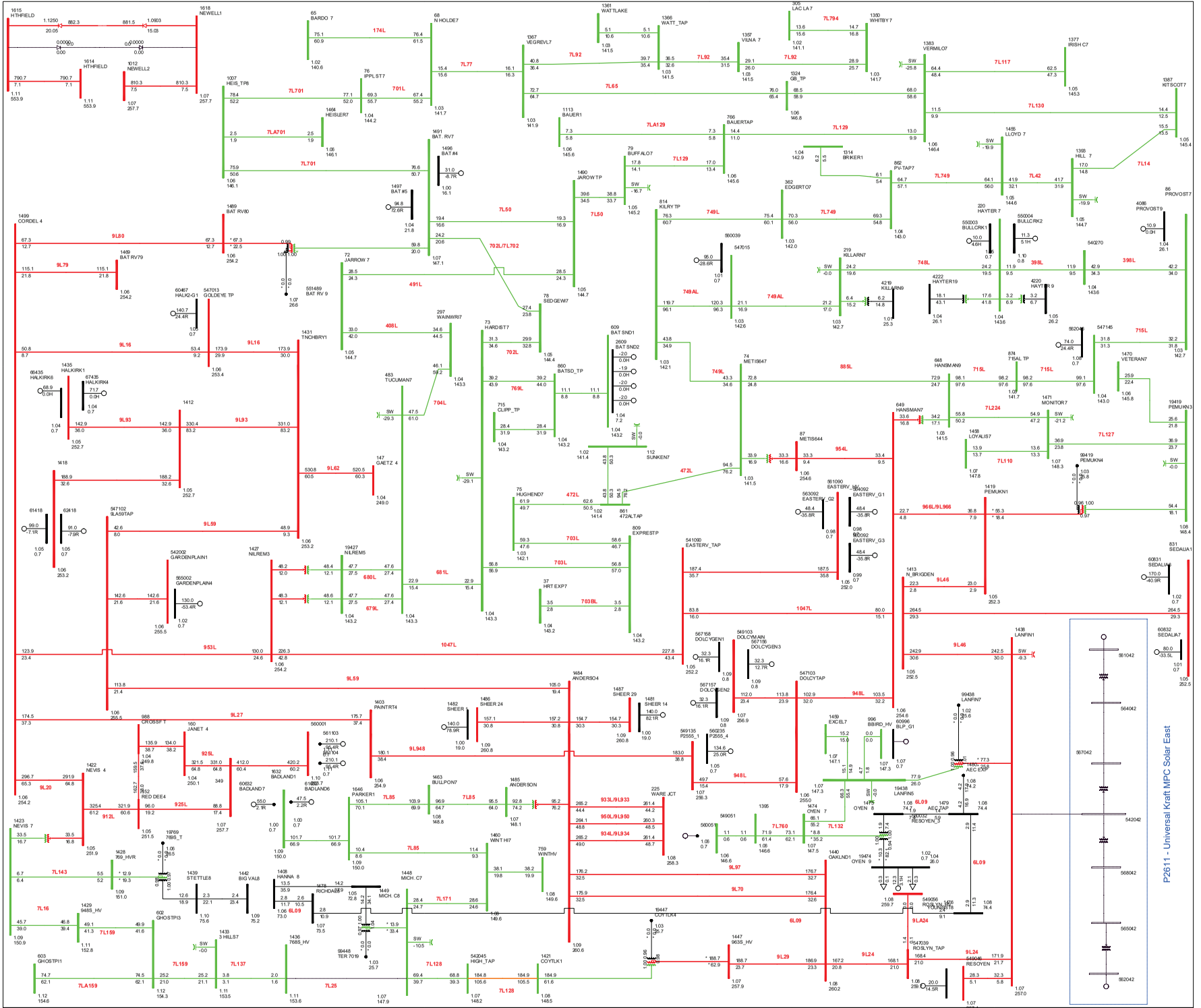
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-8: SCN1-SP-PRE.SAV
CATEGORY B - 7L137 (ROWLEY 768S TO THREE HILLS 770S)
SUN, SEP 07 2025 21:12
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -859.1 MW

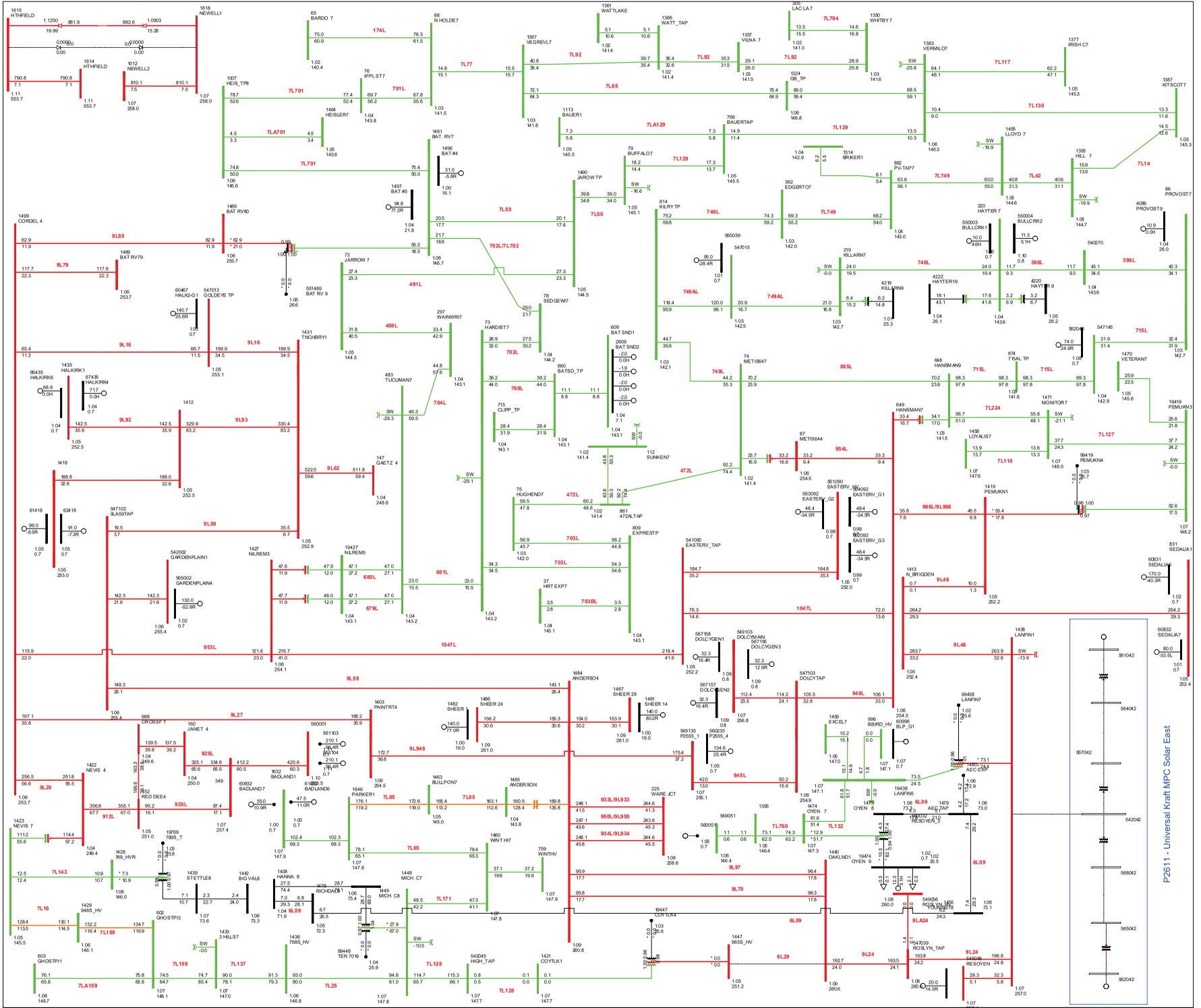
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-9: SCN1-SP-PRE.SAV
CATEGORY B - 7L25 (MICHICHI CREEK 802S TO ROWLEY 768S)
SUN, SEP 07 2025 21:12
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -831.7 MW

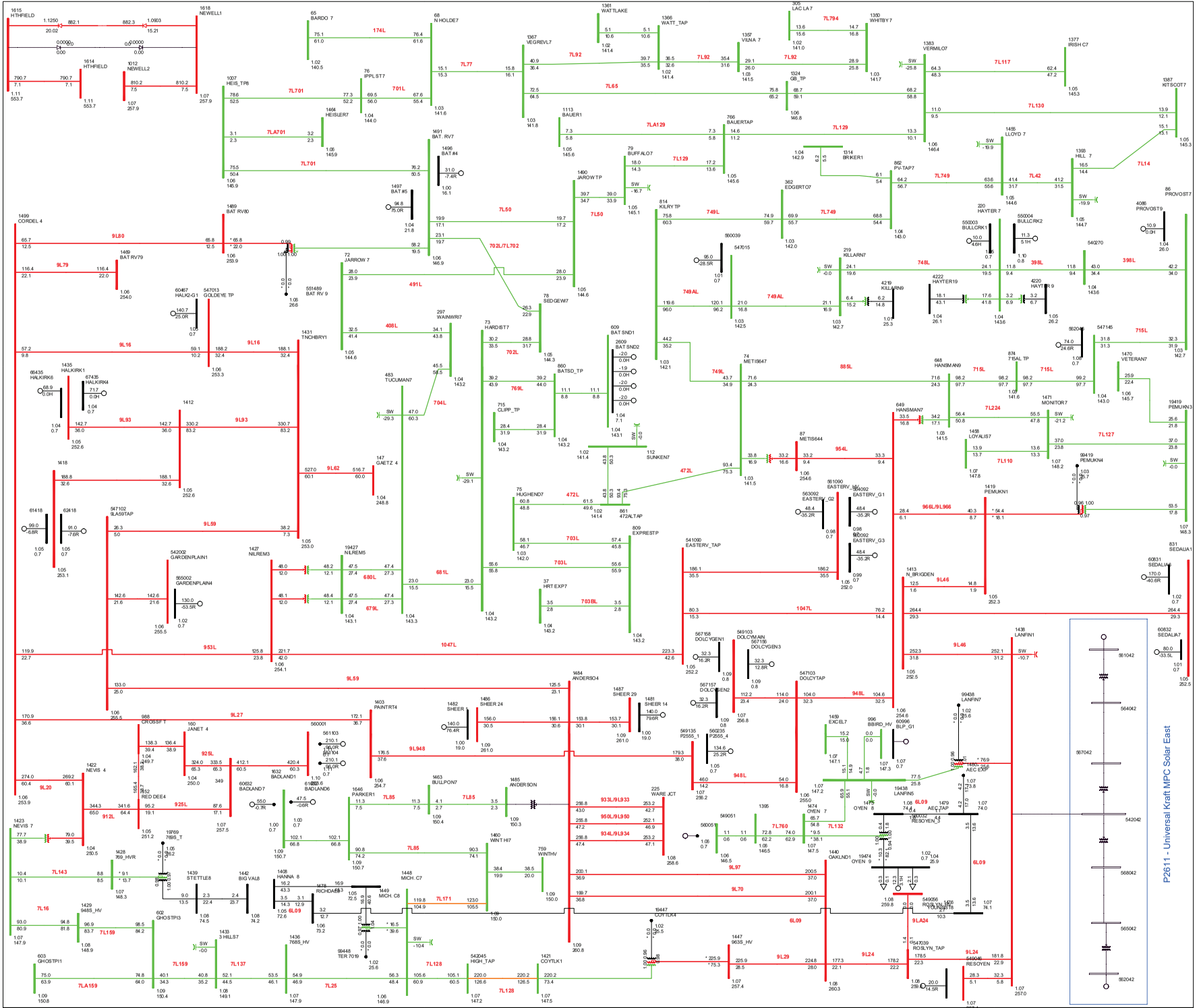
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-10: SCN1-SP-PRE.SAV
CATEGORY B - 9L29 (OAKLAND 946S TO COYOTE LAKE 963S)
SUN, SEP 07 2025 21:13
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -849.7 MW

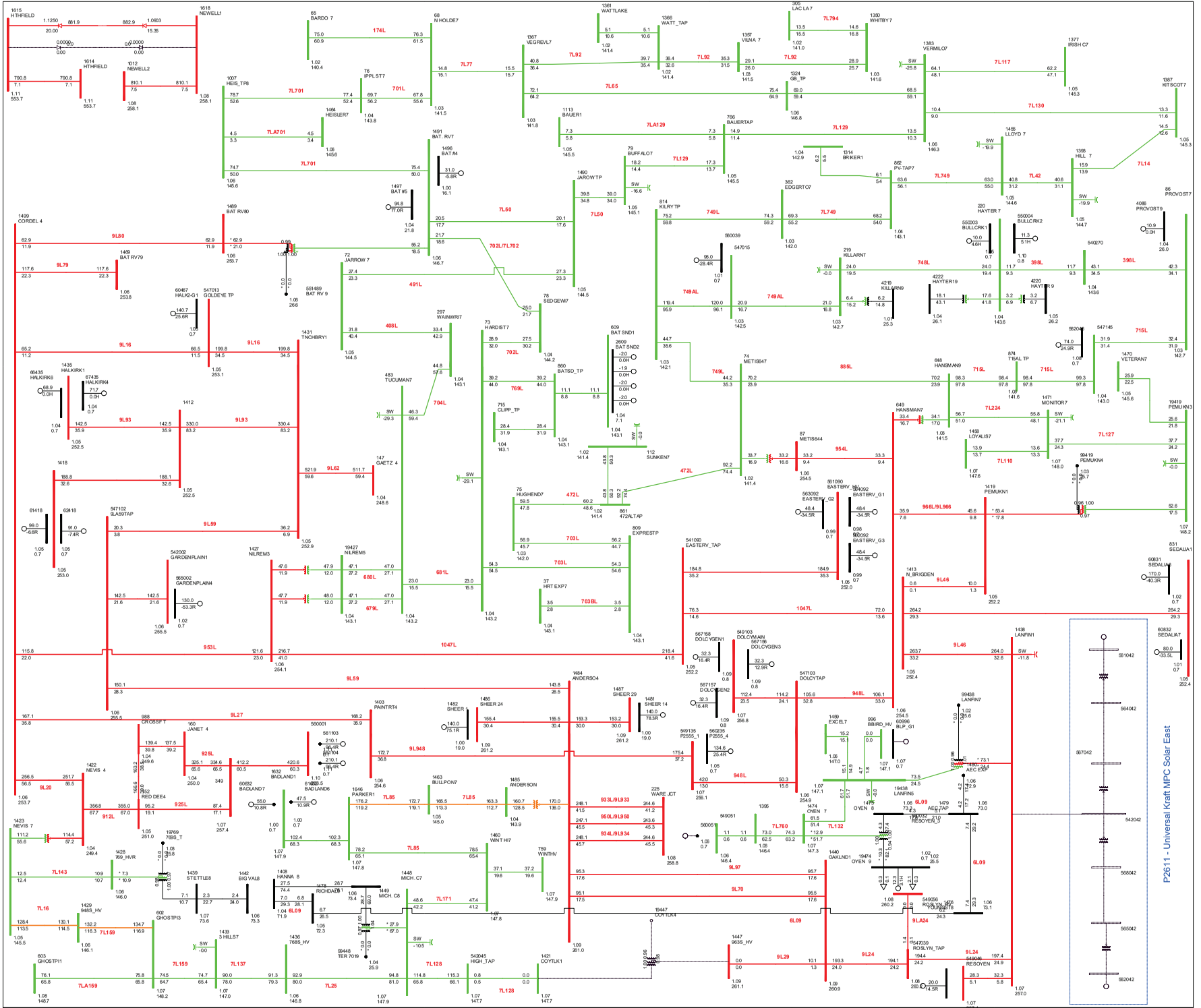
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-11: SCN1-SP-PRE.SAV
CATEGORY B - 801S (ANDERSON 801S TRANSFORMER T1)
SUN, SEP 07 2025 21:13
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -831.8 MW

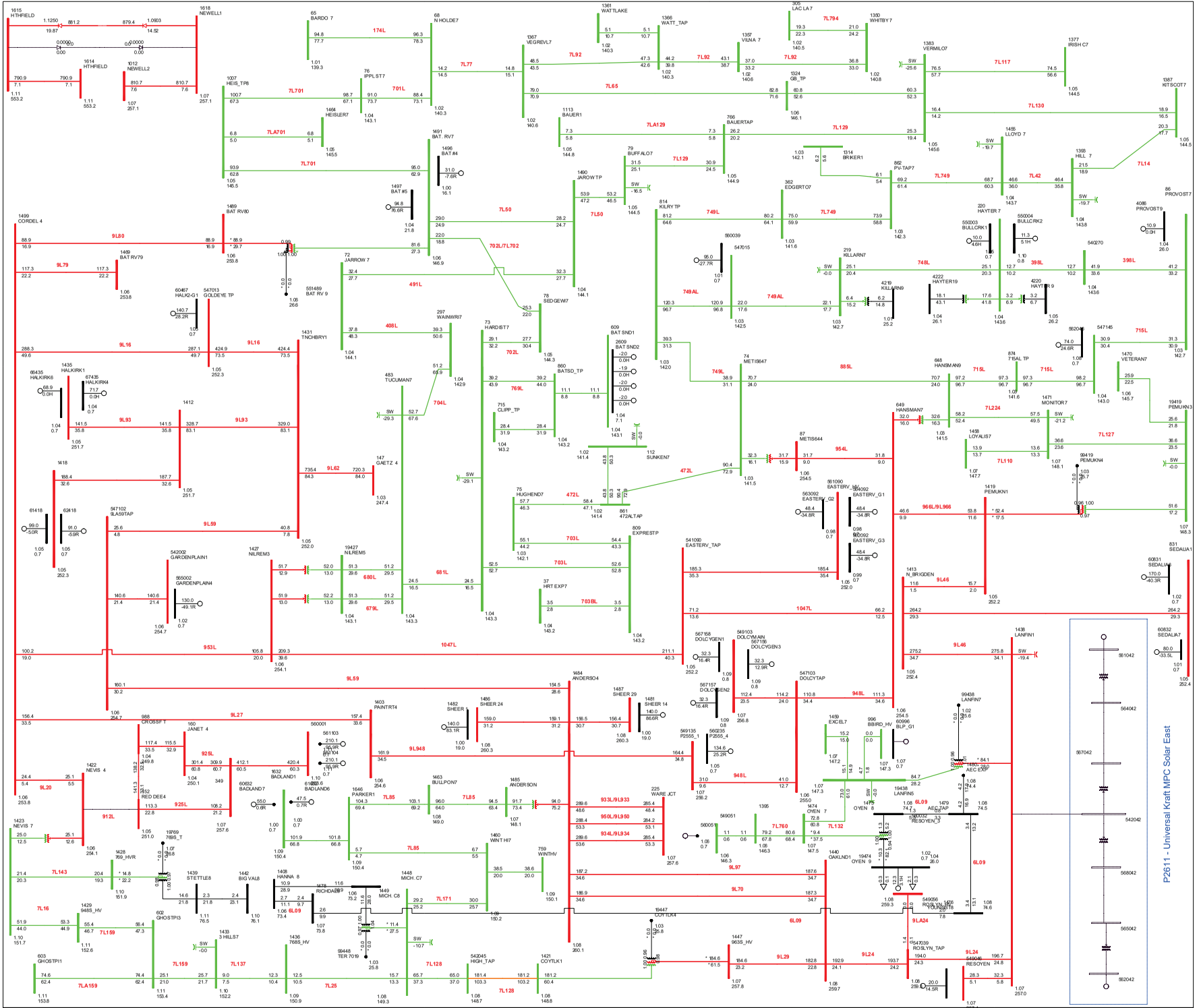
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-12: SCN1-SP-PRE.SAV
CATEGORY B - COYOTE LAKE 963S – 901 TRANSFORMER
SUN, SEP 07 2025 21:13
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -837.4 MW

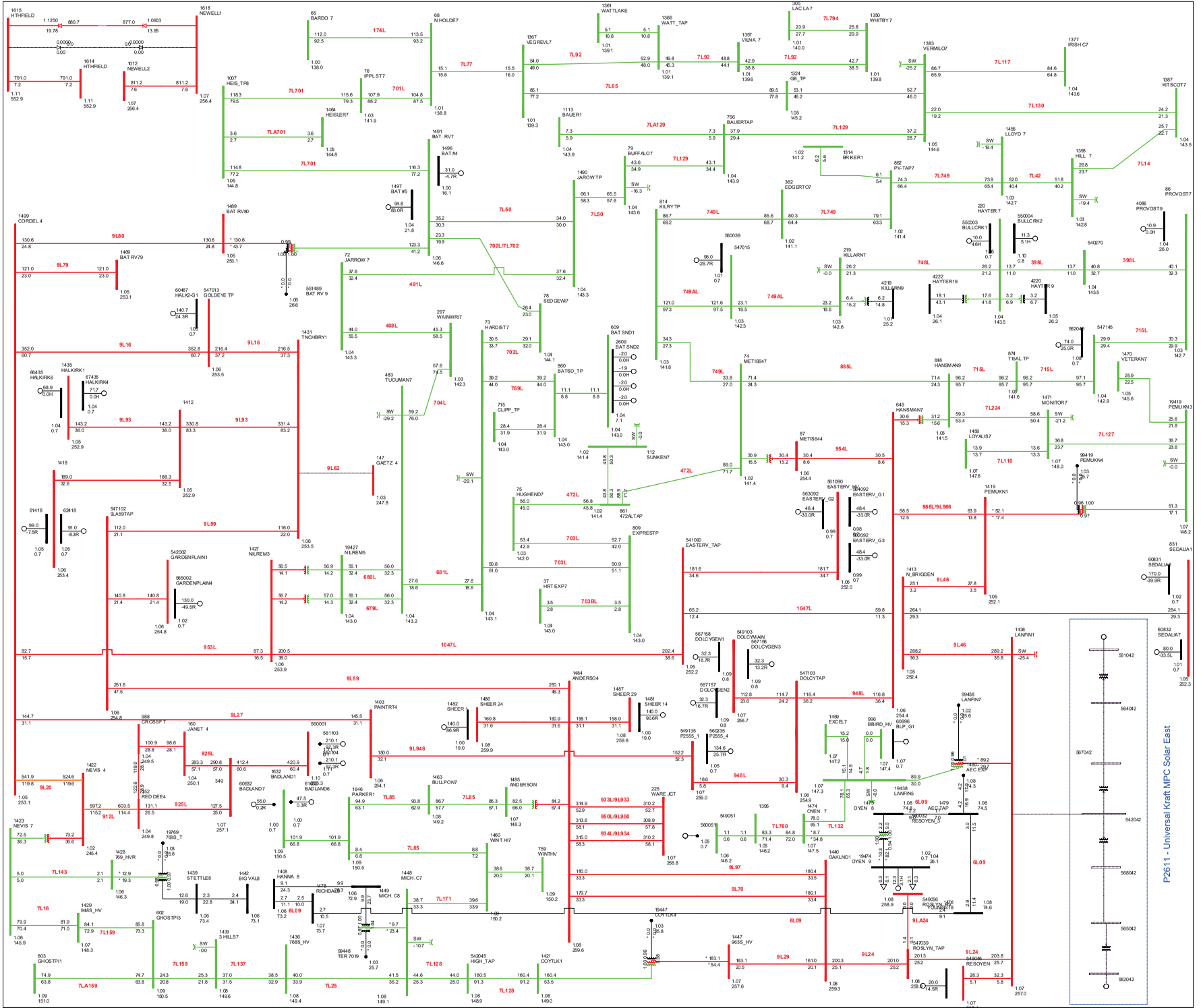
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-1-13: SCN1-SP-PRE.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
SUN, SEP 07 2025 21:14
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -802.8 MW

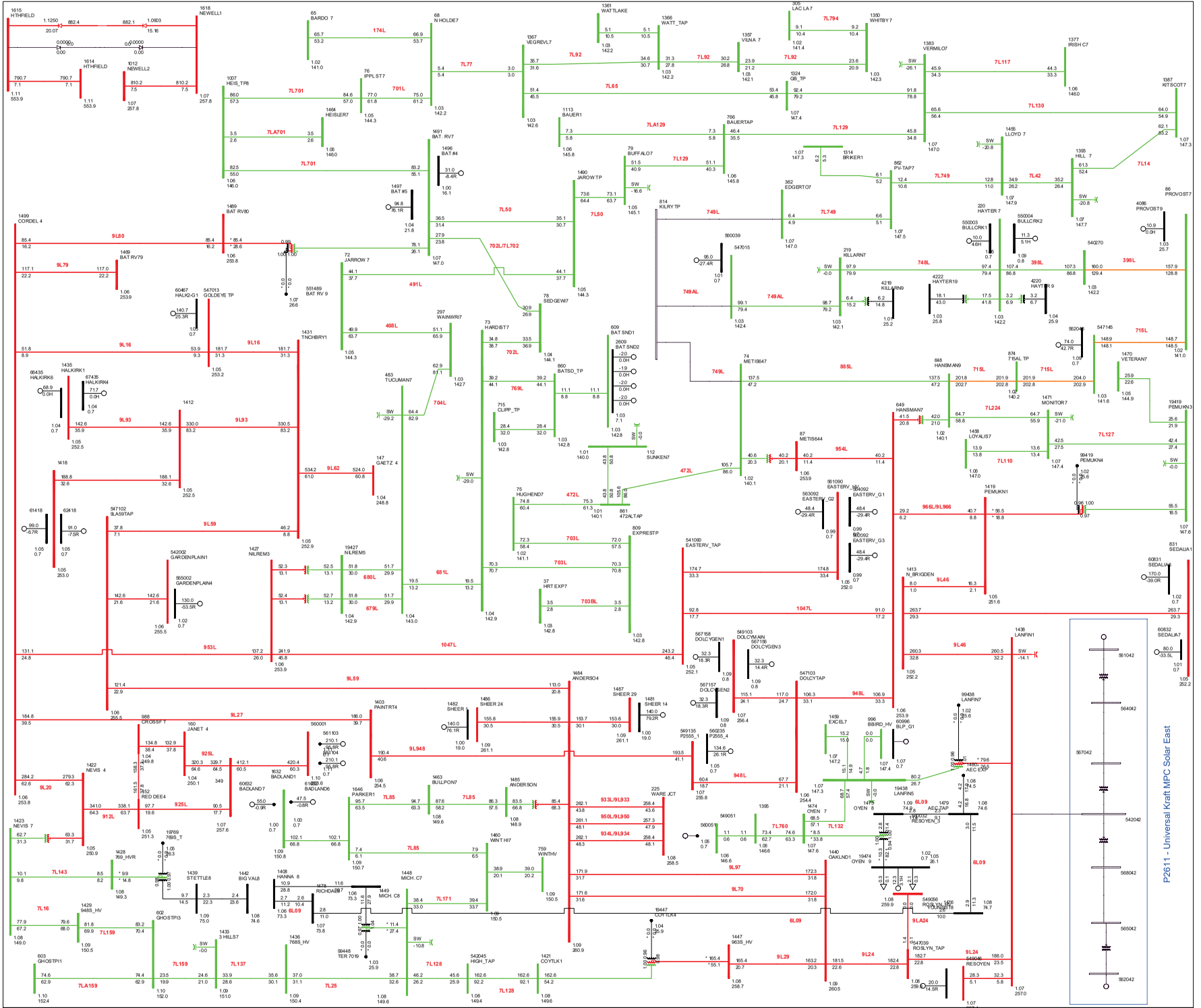
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-1-14: SCN1-SP-PRE.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
SUN, SEP 07 2025 21:14
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -842.3 MW

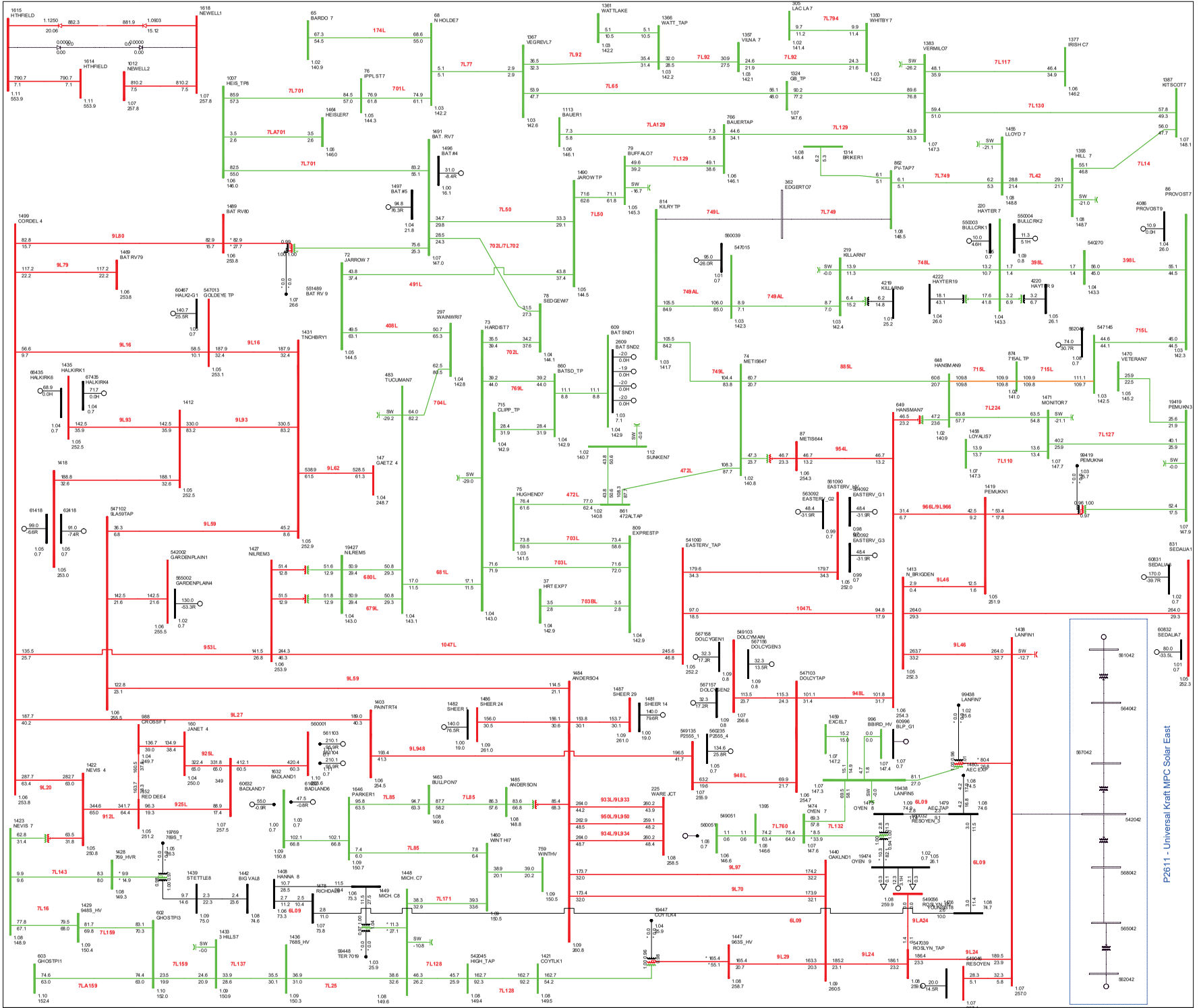
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-15: SCN1-SP-PRE.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
SUN, SEP 07 2025 21:14
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.7 MW

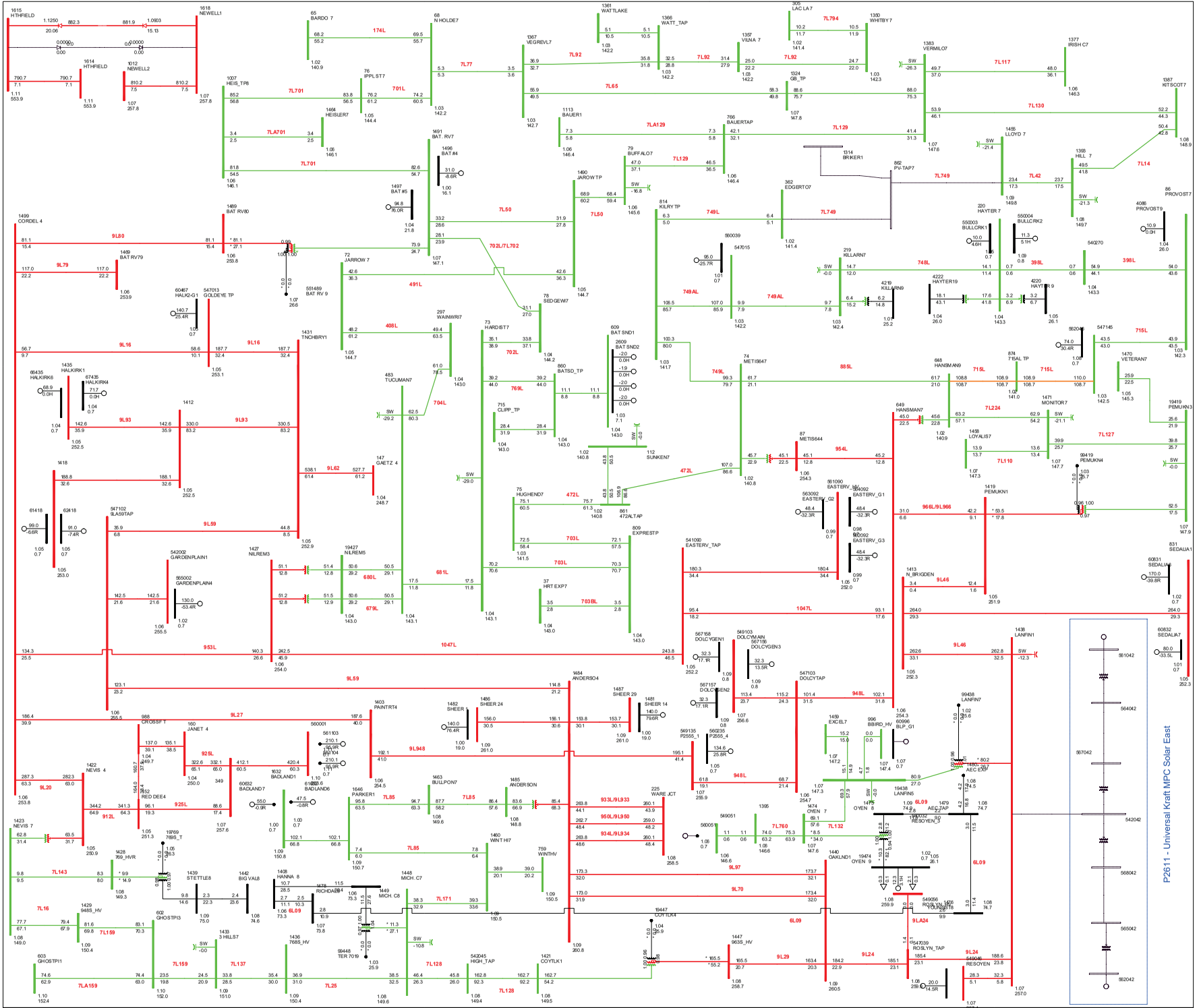
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-16: SCN1-SP-PRE.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
SUN, SEP 07 2025 21:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -859.9 MW

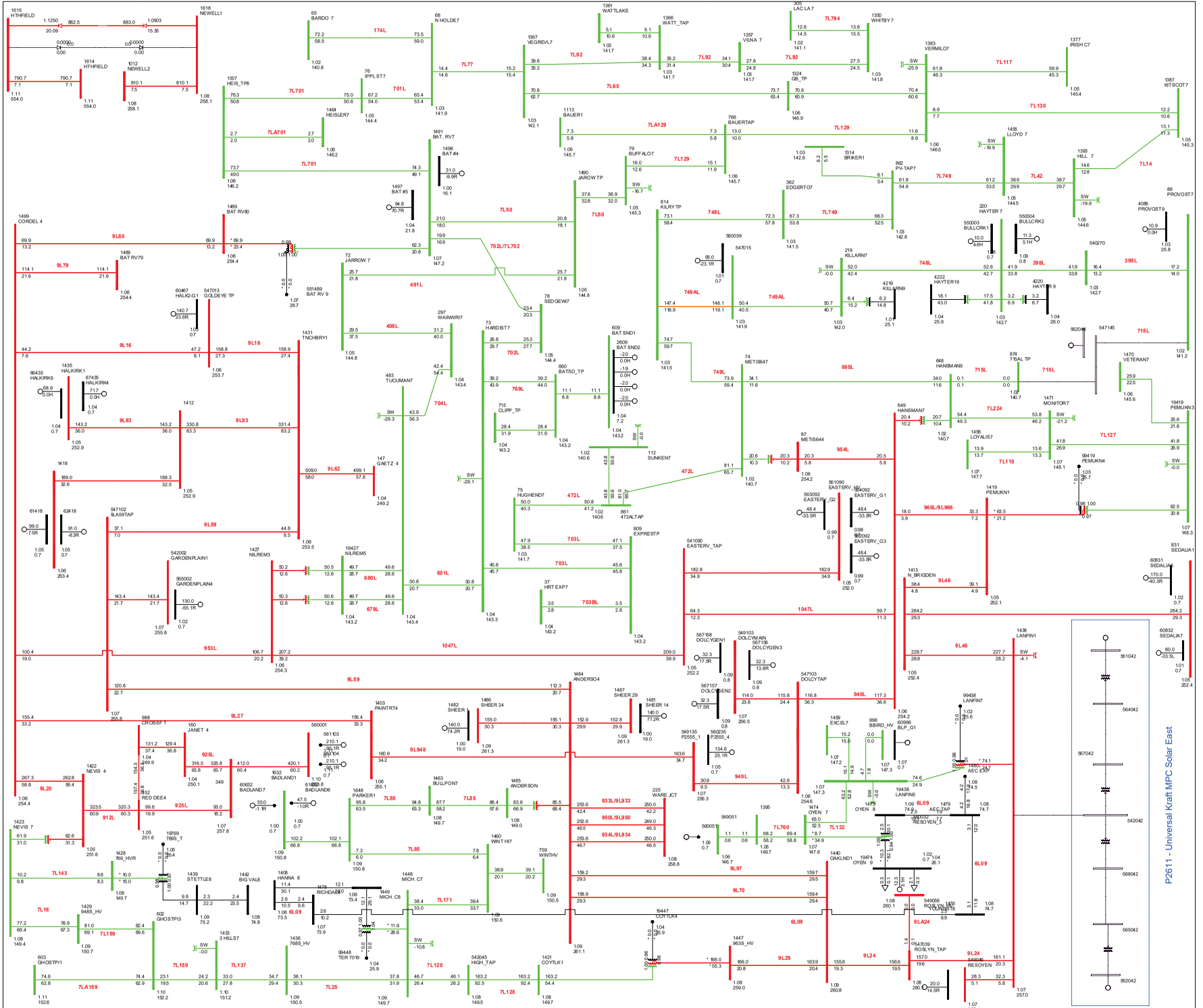
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-17: SCN1-SP-PRE.SAV
CATEGORY B - 7L749 (EDGERTON 899S TO LLOYDMINSTER 716S)
SUN, SEP 07 2025 21:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -800.7 MW

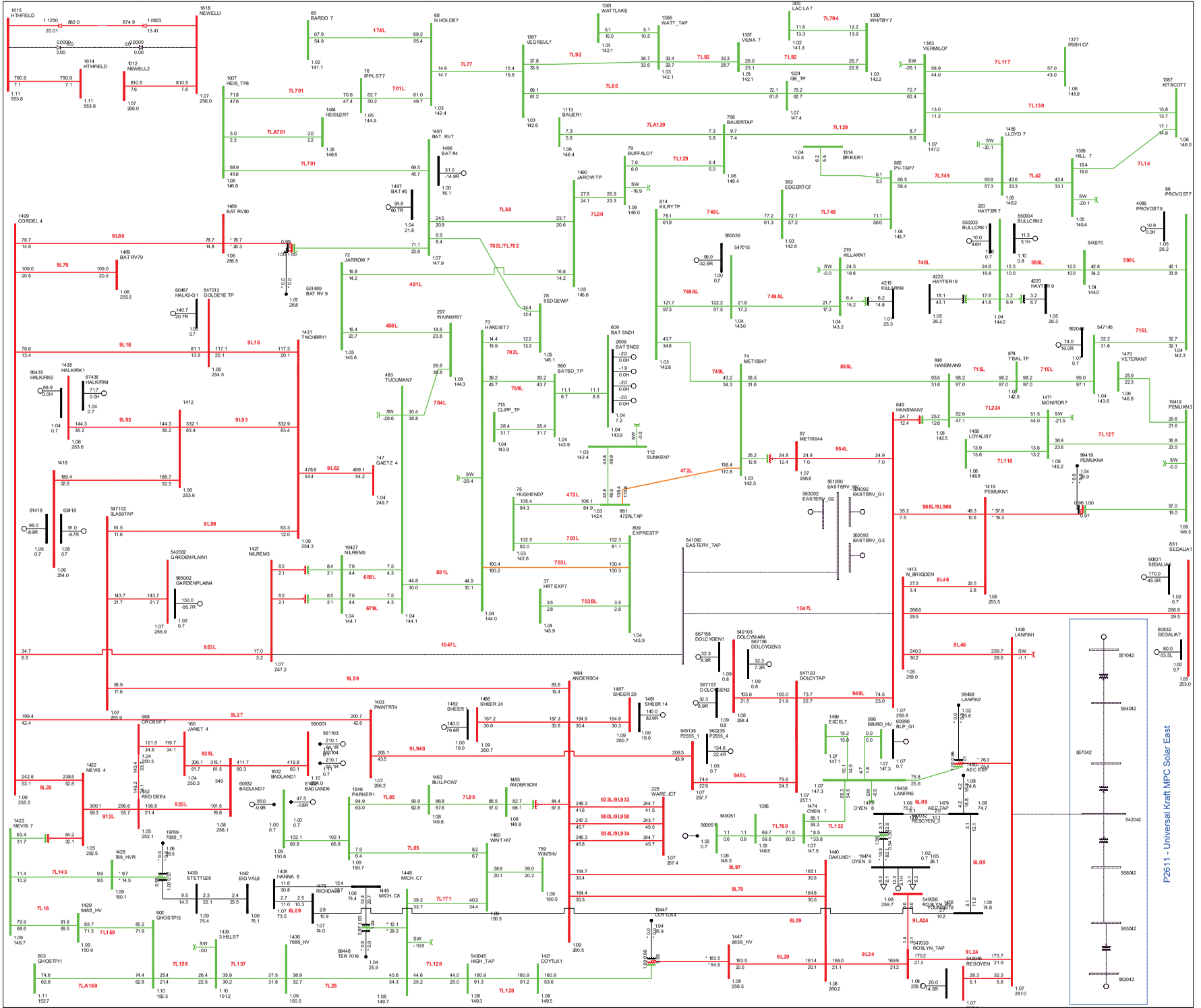
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-18: SCN1-SP-PRE.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
SUN, SEP 07 2025 21:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -729.7 MW

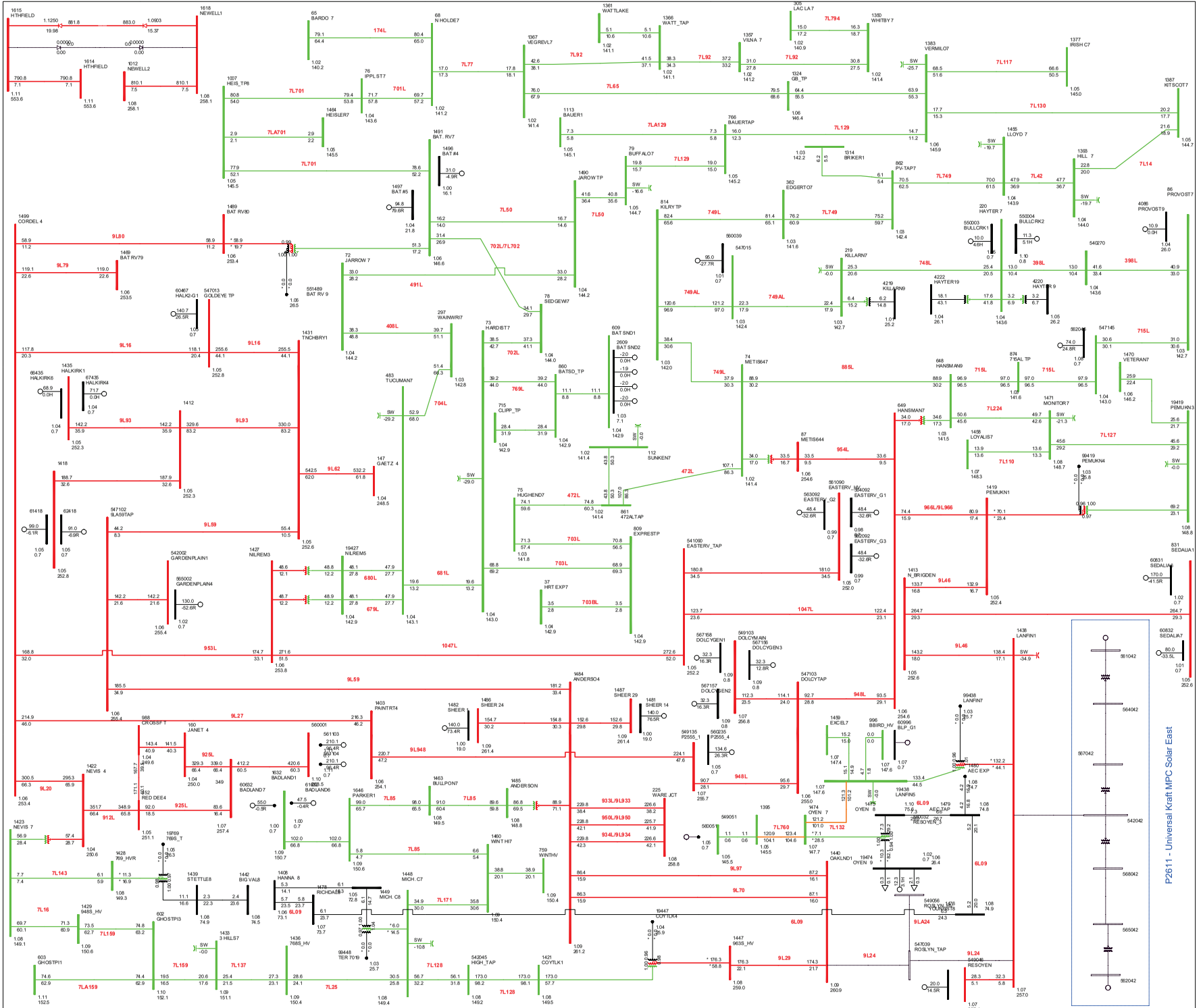
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-19: SCN1-SP-PRE.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
SUN, SEP 07 2025 21:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -843.2 MW

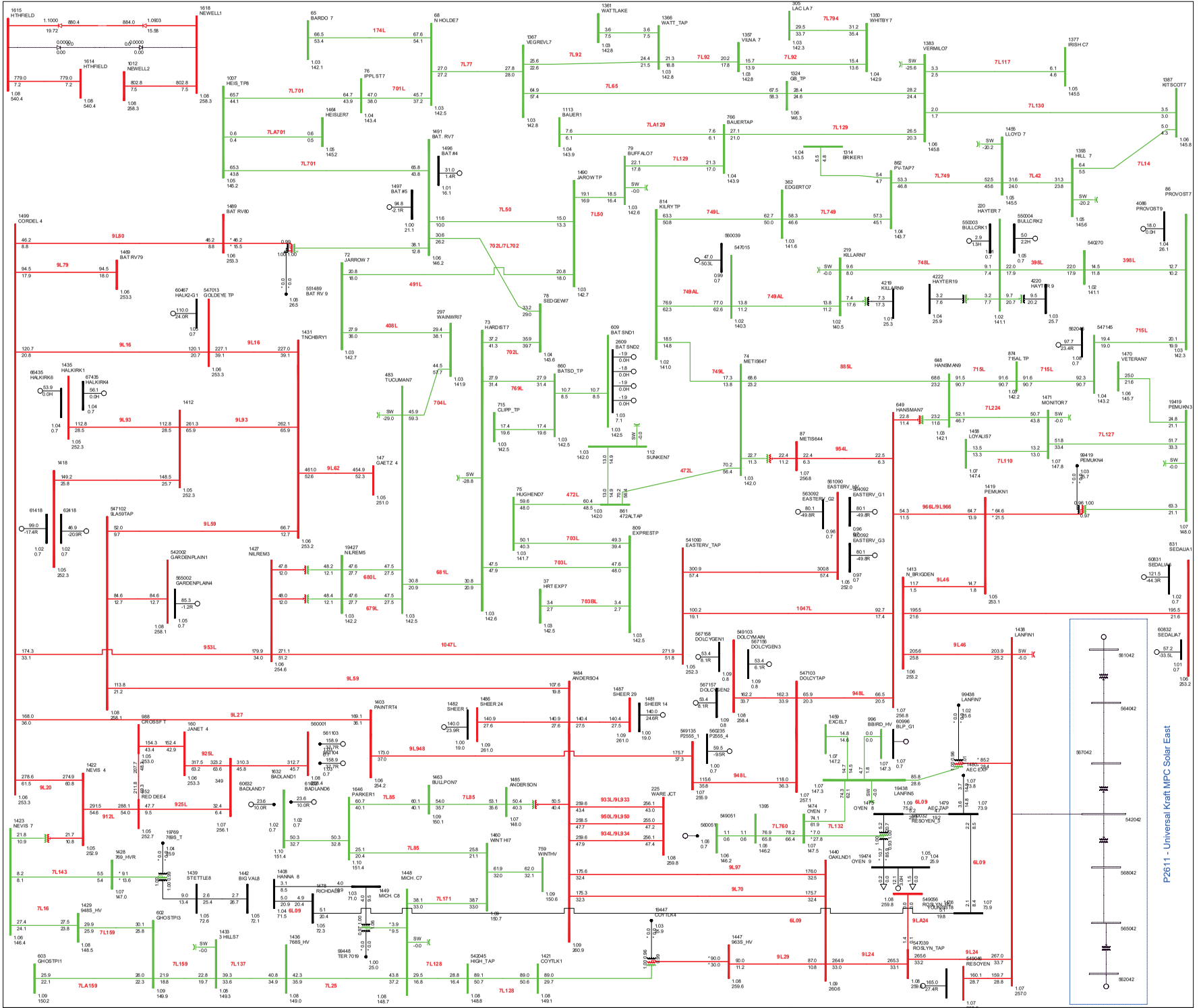
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-1-20: SCN1-SP-PRE.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
SUN, SEP 07 2025 21:16
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -860.9 MW

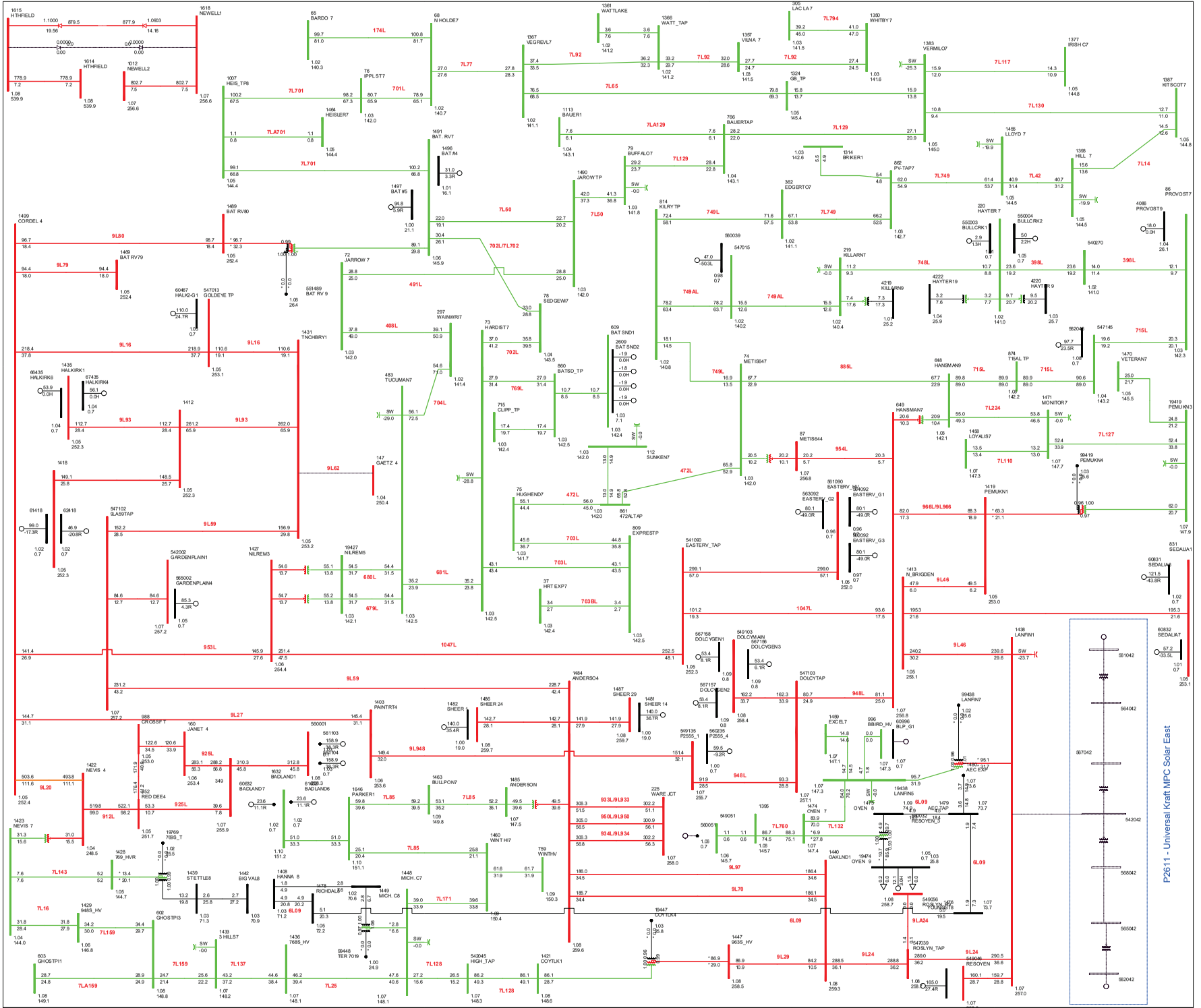
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE A-2-1: SCN2-SL-PRE.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 21:17
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -819.6 MW

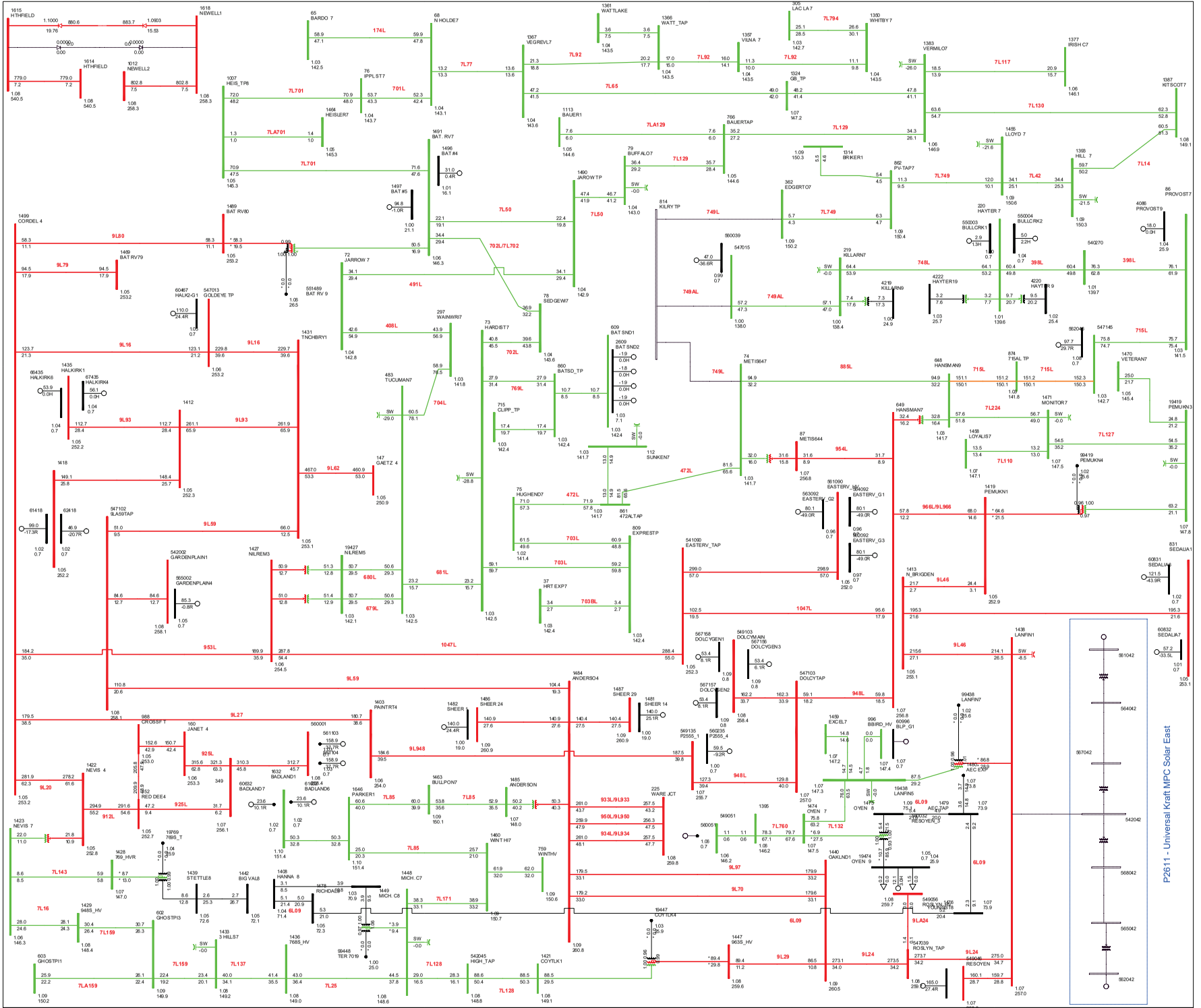
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-2-1: SCN2-SL-PRE.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
SUN, SEP 07 2025 21:18
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -853.8 MW

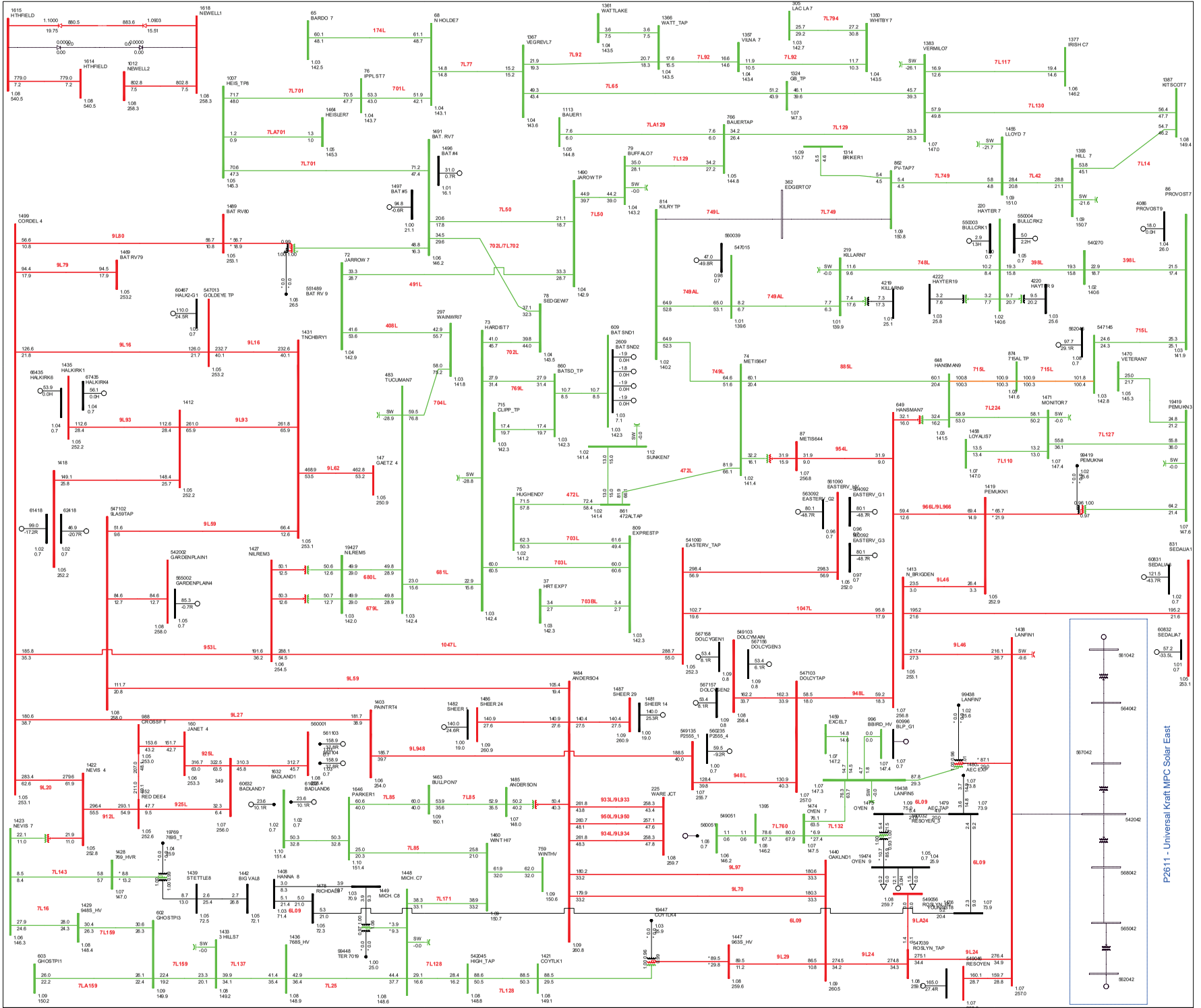
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-2-2: SCN2-SL-PRE.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
SUN, SEP 07 2025 21:18
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -861.8 MW

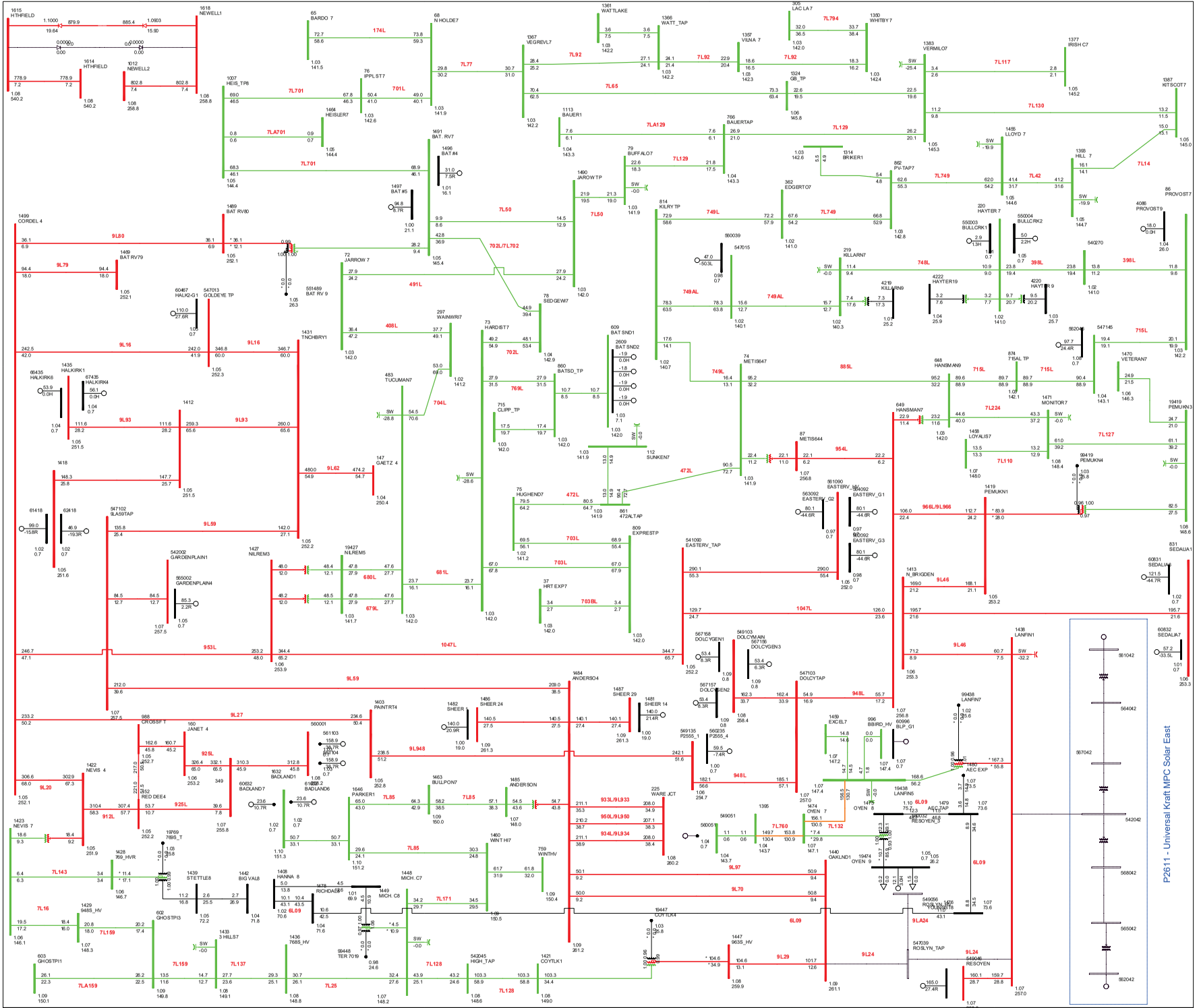
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-2-3: SCN2-SL-PRE.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
SUN, SEP 07 2025 21:19
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -830.8 MW

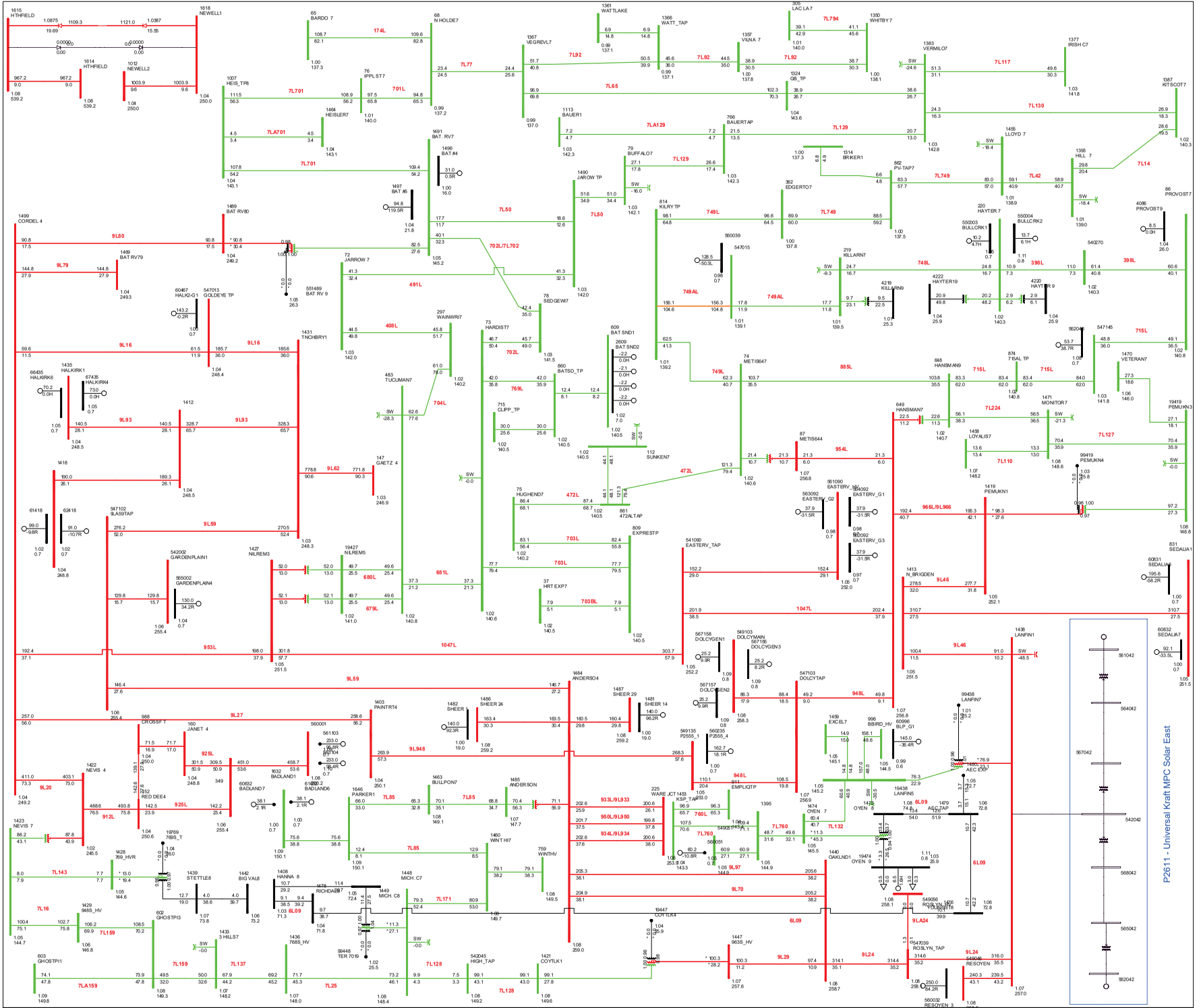
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-2-4: SCN2-SL-PRE.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
SUN, SEP 07 2025 21:19
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1069.3 MW

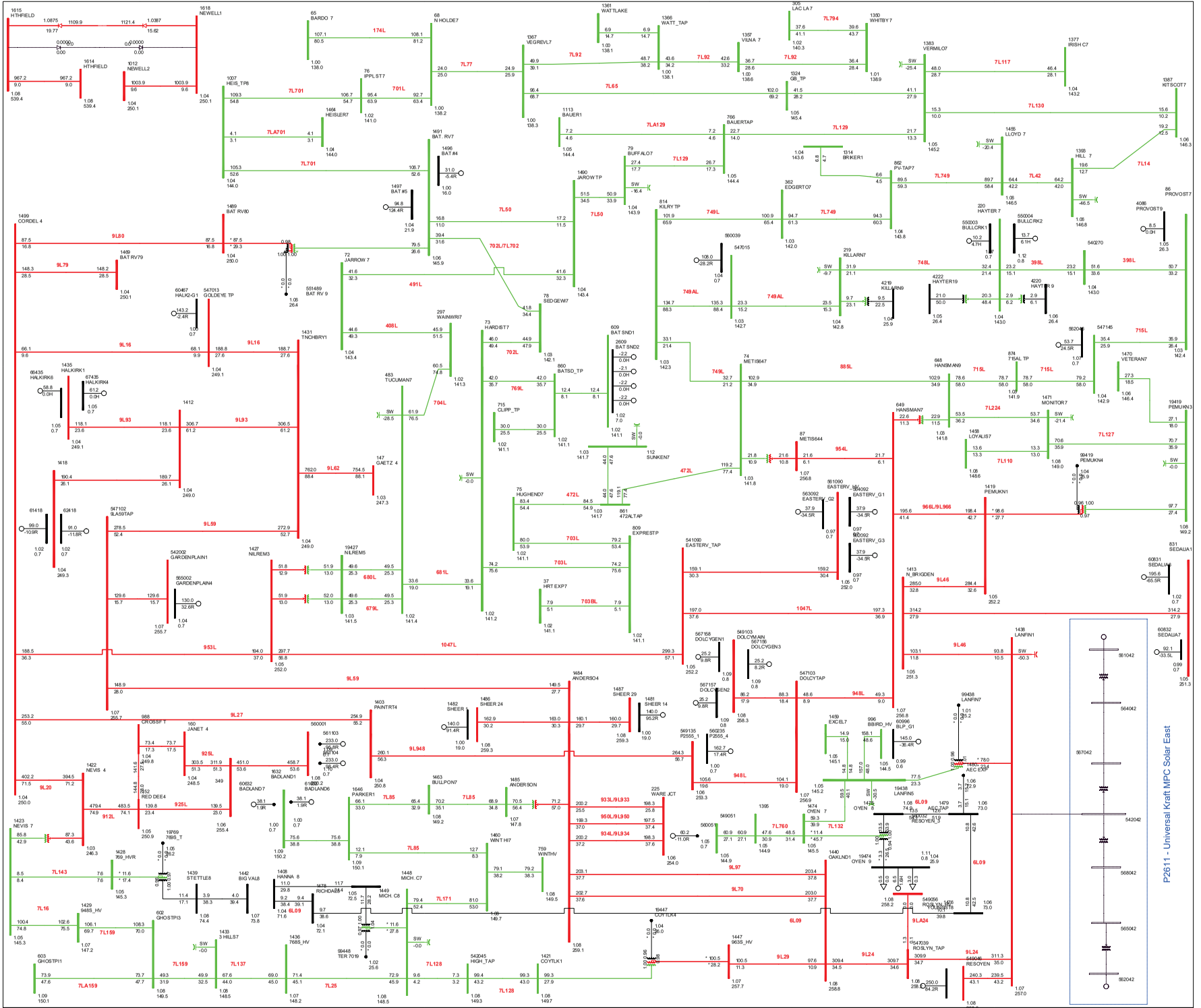
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE A-3-1: SCN3-WP-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
THU, OCT 02 2025 14:17
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1081.3 MW

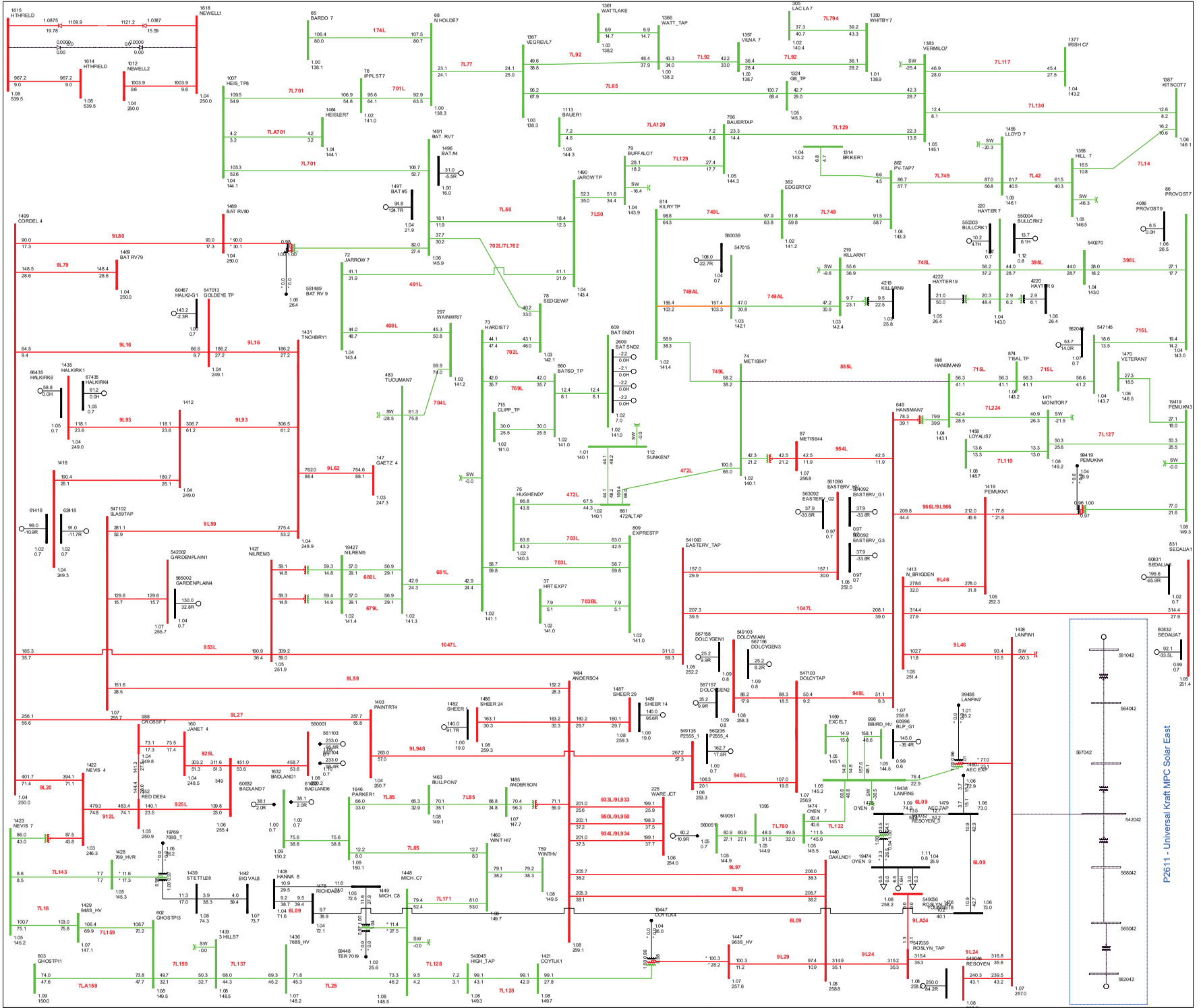
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE A-3-1: SCN3-WP-PRE.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 21:22
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1082.0 MW

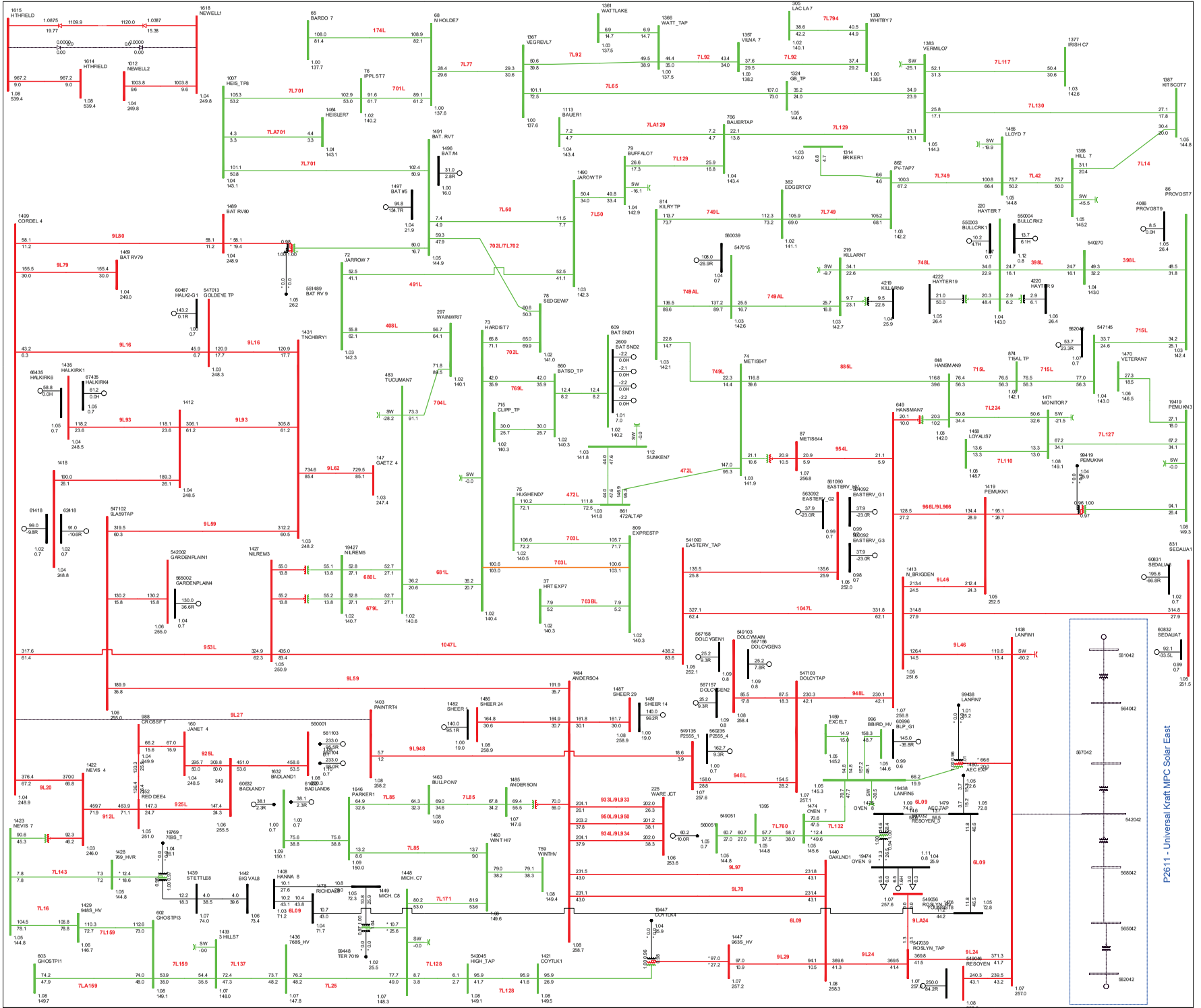
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-1: SCN3-WP-PRE.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
SUN, SEP 07 2025 21:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1059.1 MW

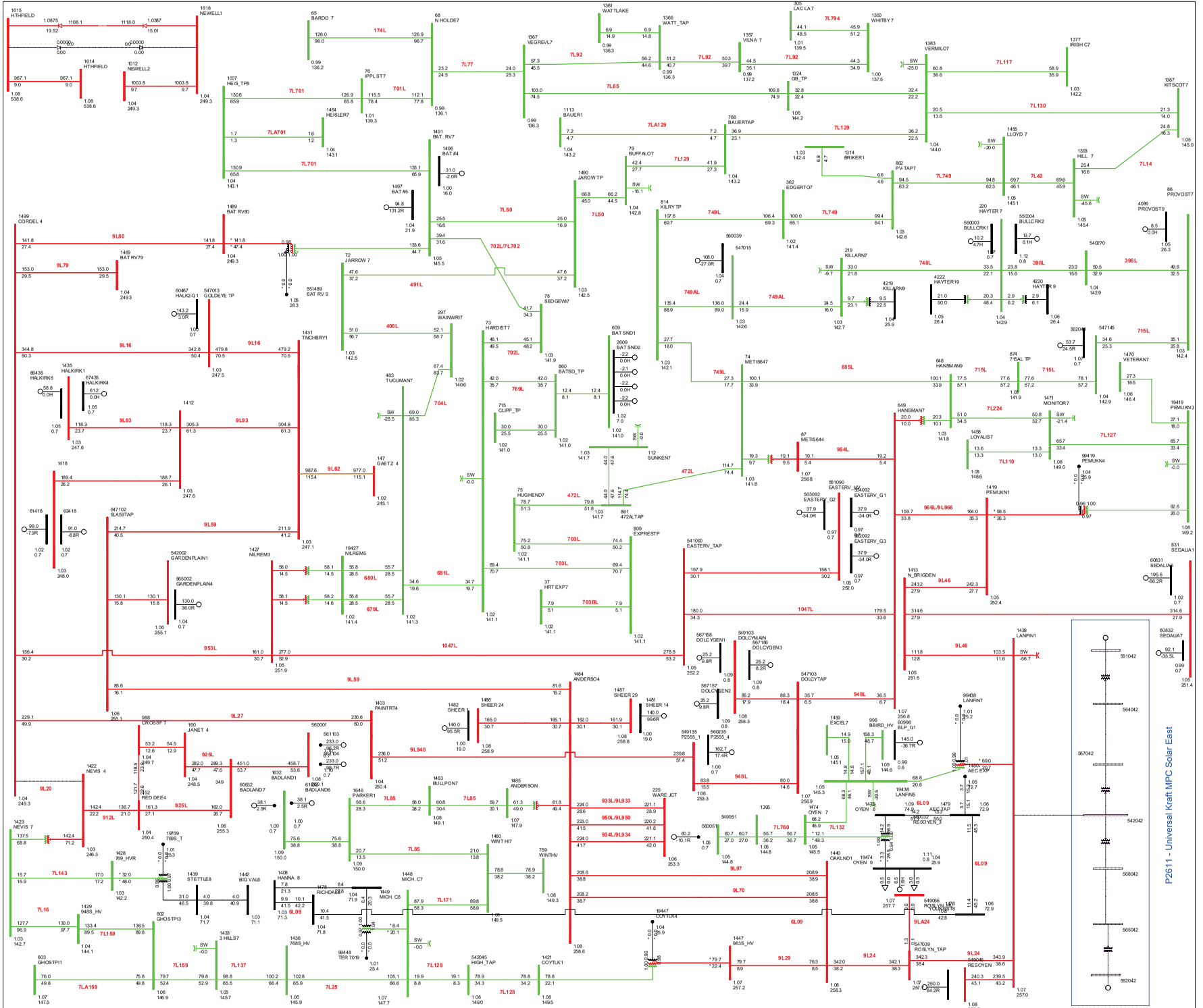
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-2: SCN3-WP-PRE.SAV
CATEGORY B - 9L27 (CORDEL 755S TO PAINTEARTH 863S)
SUN, SEP 07 2025 21:24
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1042.2 MW

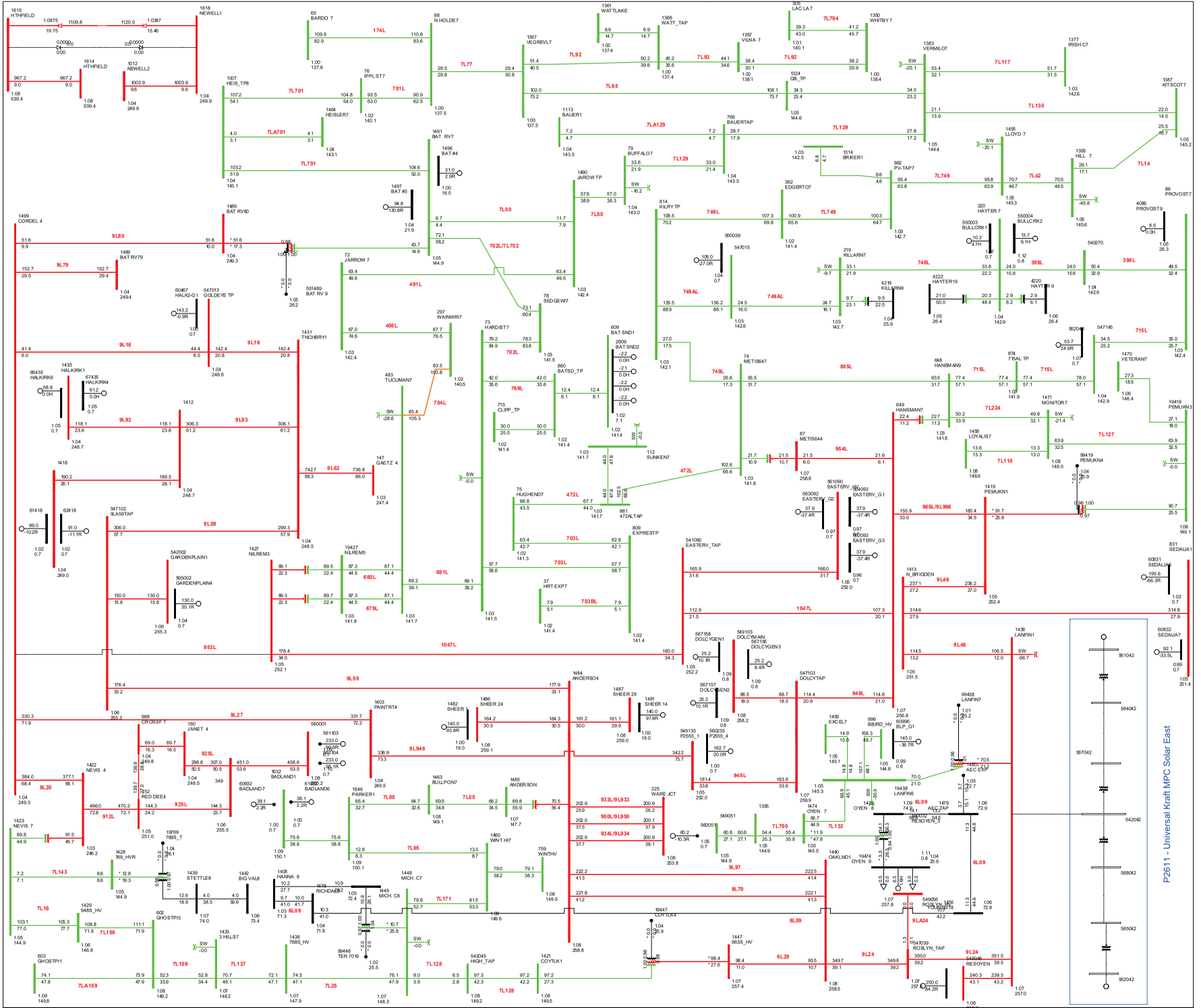
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-3: SCN3-WP-PRE.SAV
CATEGORY B - 9L20 (NEVIS 766S TO CORDEL 755S)
SUN, SEP 07 2025 21:24
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1069.7 MW

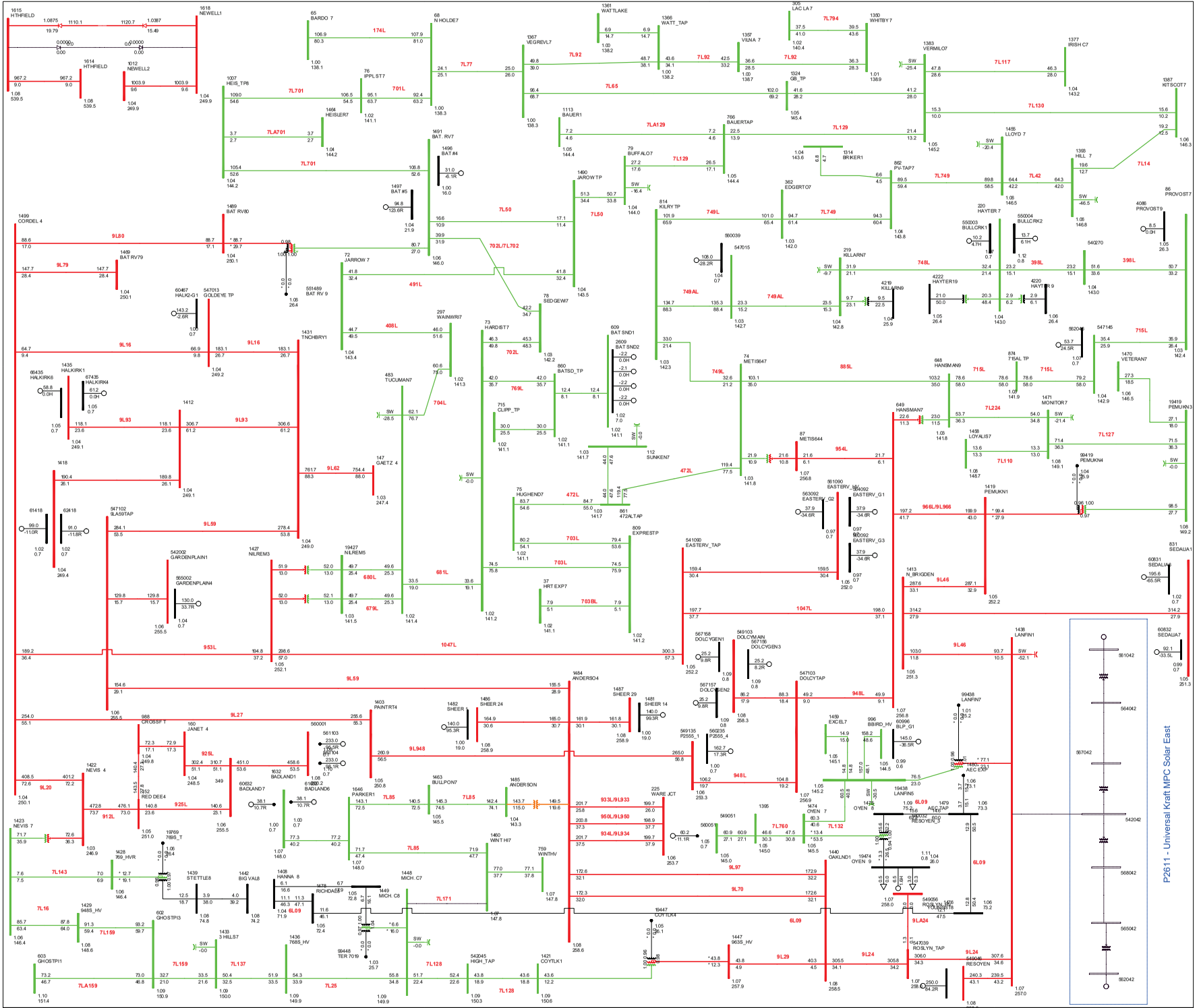
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-4: SCN3-WP-PRE.SAV
CATEGORY B - 953L (NILREM 574S TO CORDEL 755S)
SUN, SEP 07 2025 21:24
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1079.4 MW

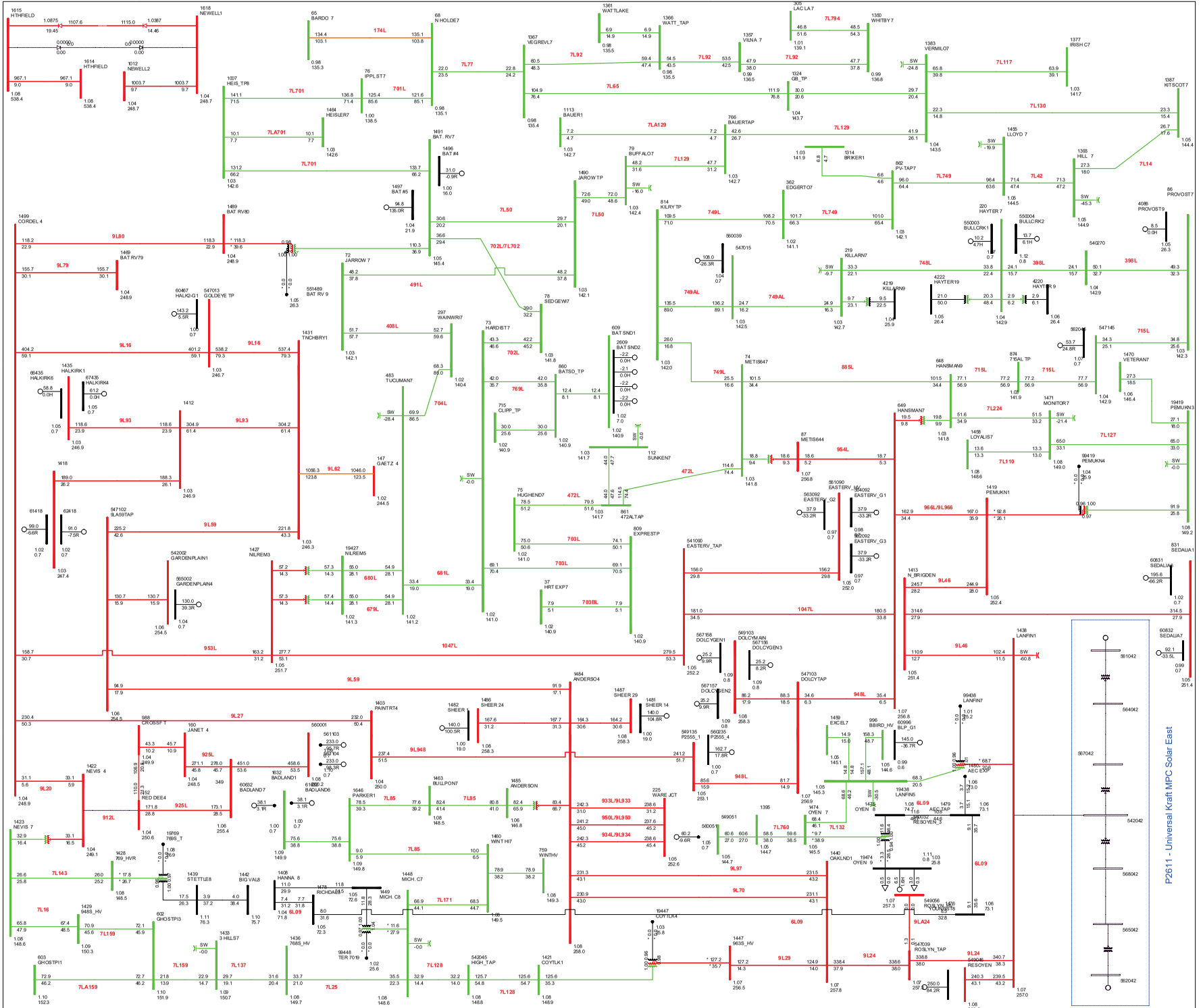
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-5: SCN3-WP-PRE.SAV
CATEGORY B - 7L171 (MICHICHI CREEK 802S TO WINTERING HILLS 8
SUN, SEP 07 2025 21:24
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1034.5 MW

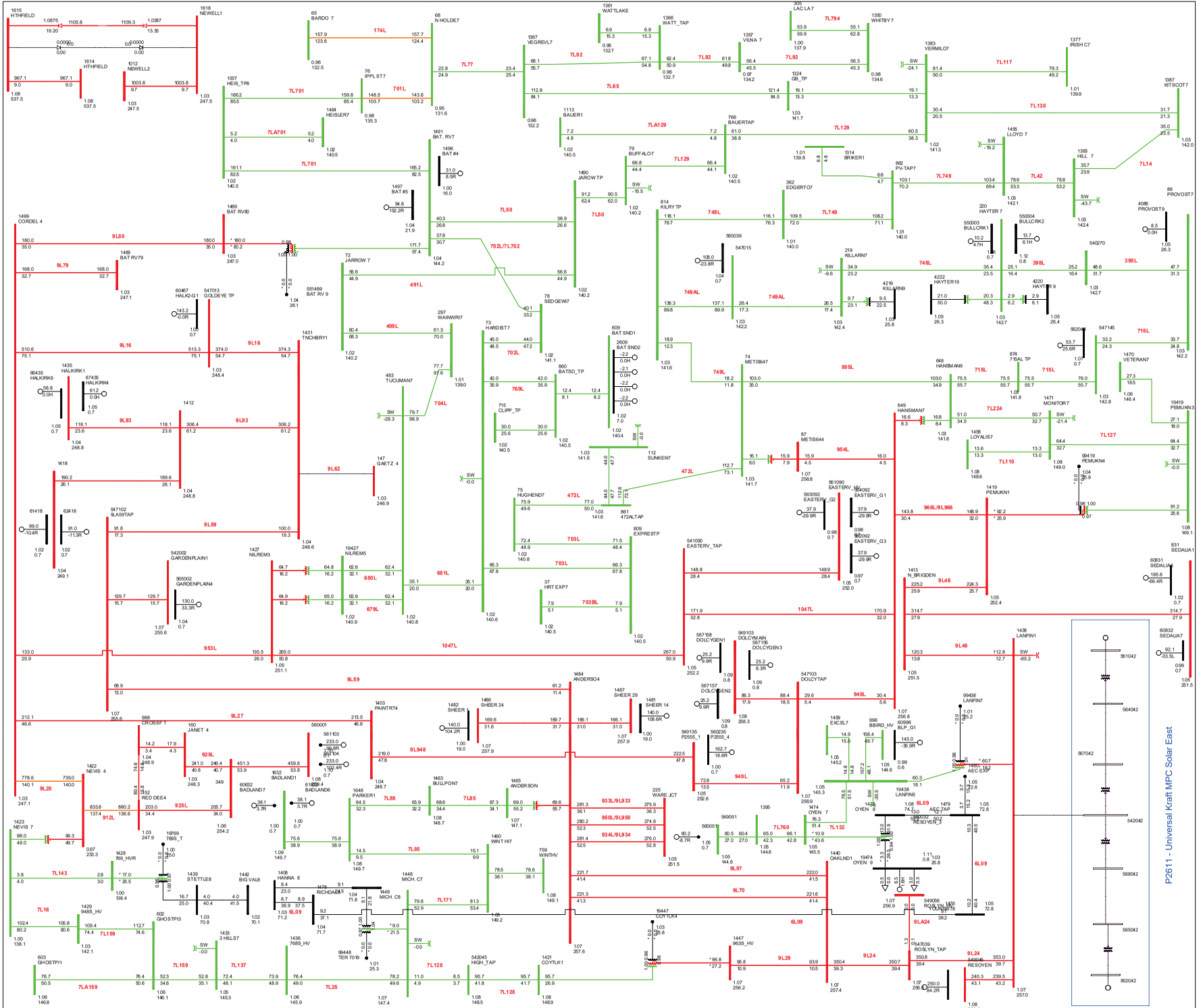
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-3-6: SCN3-WP-PRE.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
SUN, SEP 07 2025 21:25
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -951.7 MW

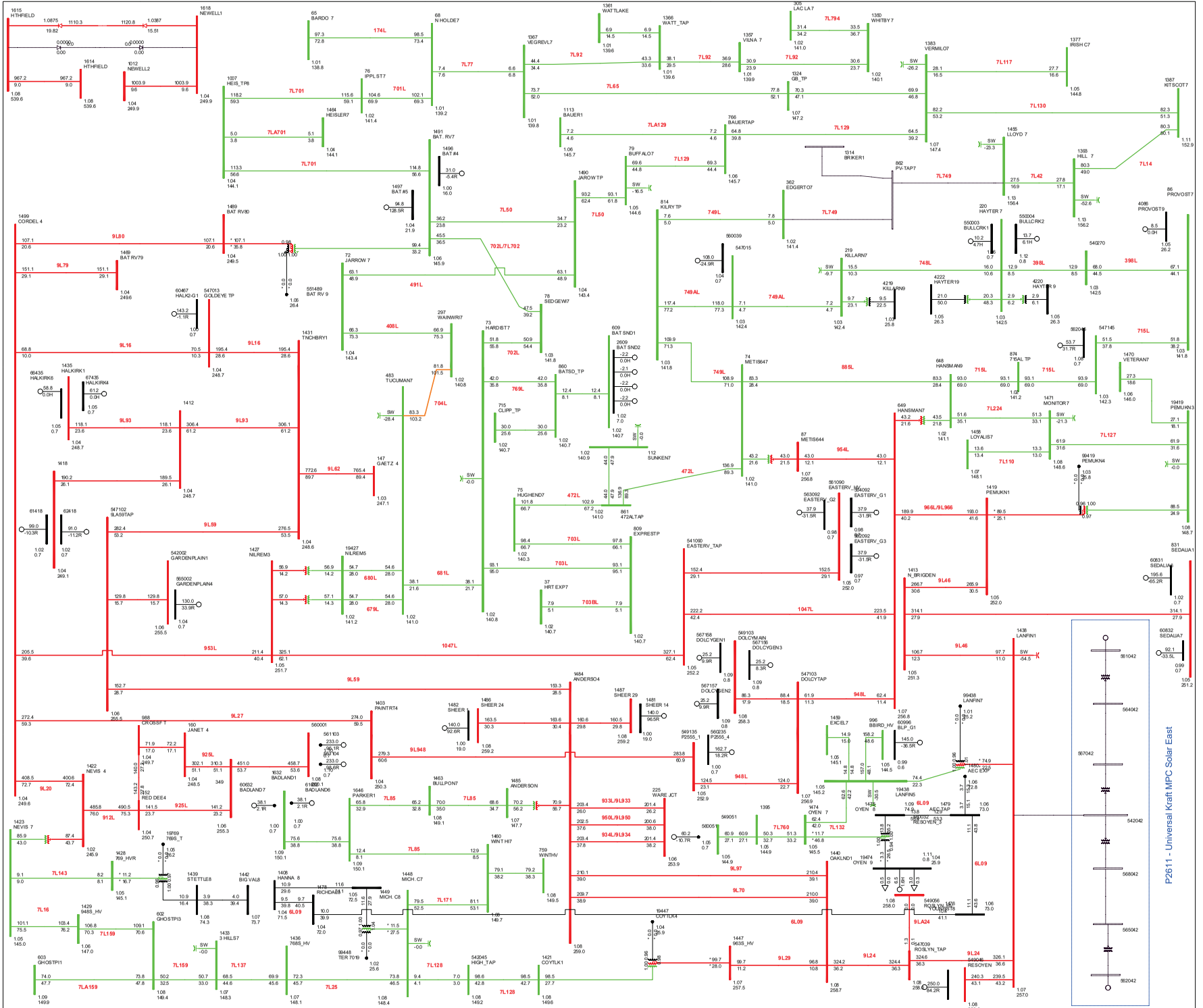
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-3-7: SCN3-WP-PRE.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
SUN, SEP 07 2025 21:25
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1079.3 MW

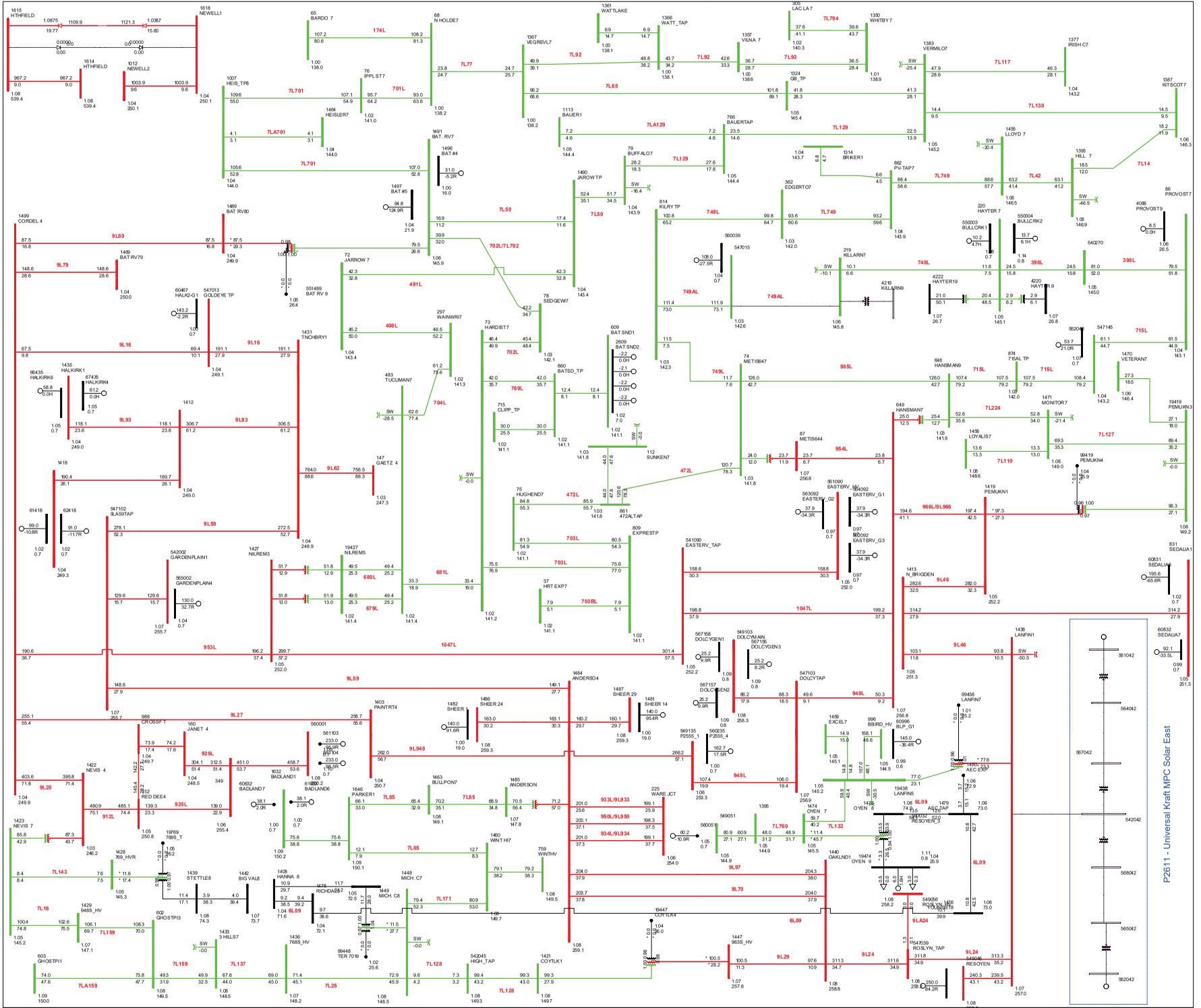
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-8: SCN3-WP-PRE.SAV
CATEGORY B - 7L749 (EDGERTON 899S TO LLOYDMINSTER 716S)
SUN, SEP 07 2025 21:25
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1086.1 MW

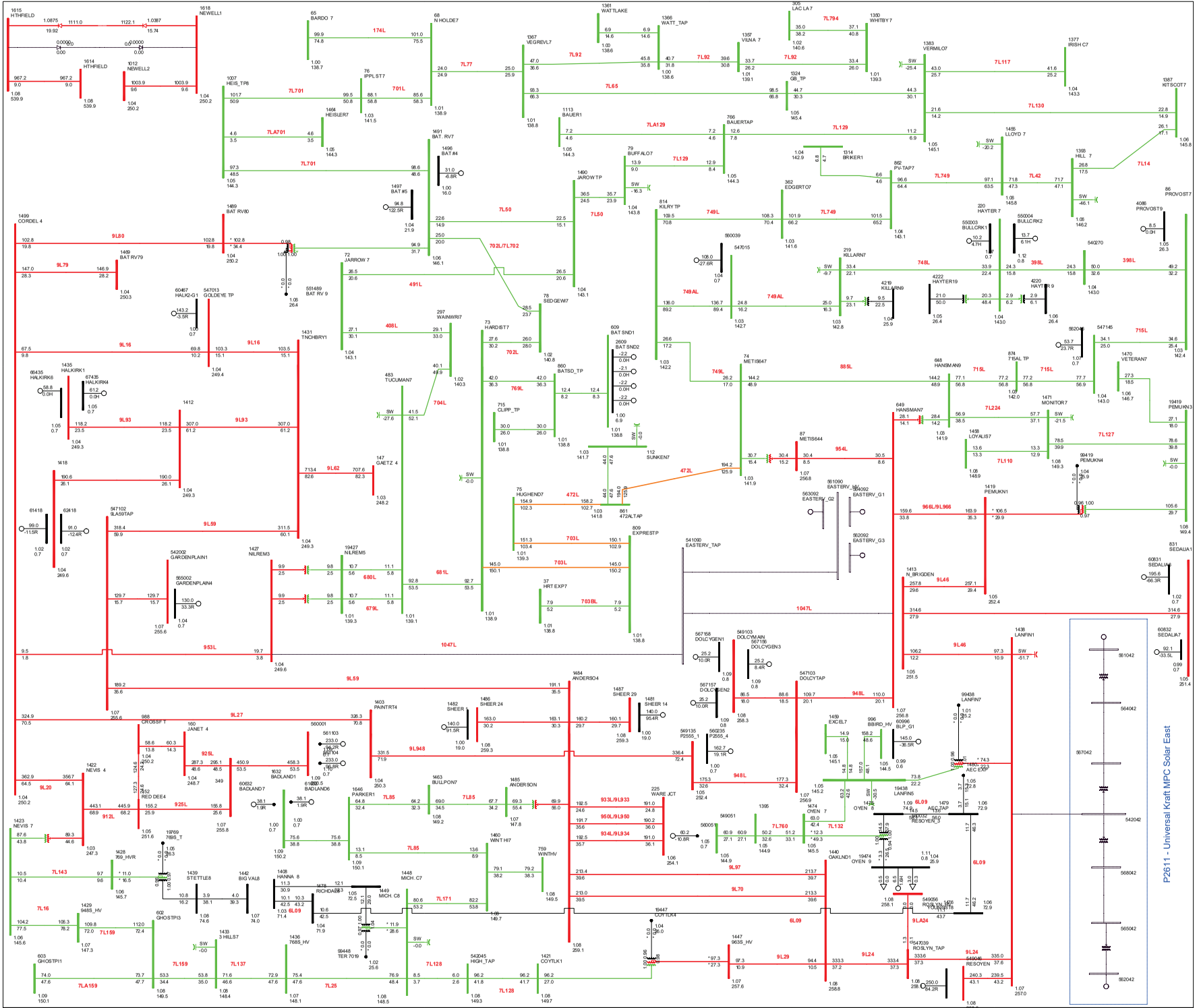
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-9: SCN3-WP-PRE.SAV
CATEGORY B - KILLARNEY LAKE 267S TRANSFORMER
SUN, SEP 07 2025 21:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -985.1 MW

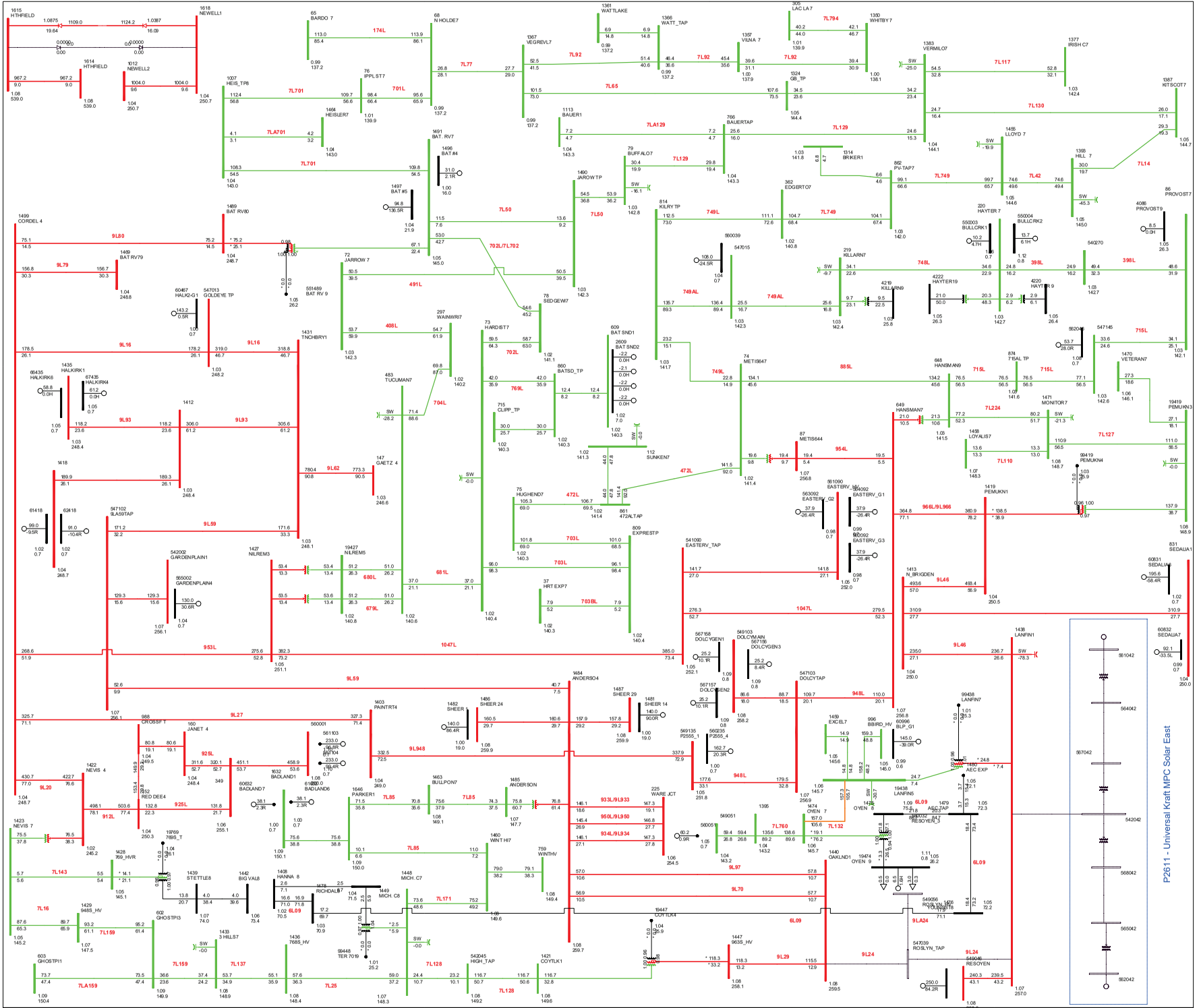
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-10: SCN3-WP-PRE.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
SUN, SEP 07 2025 21:26
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1045.9 MW

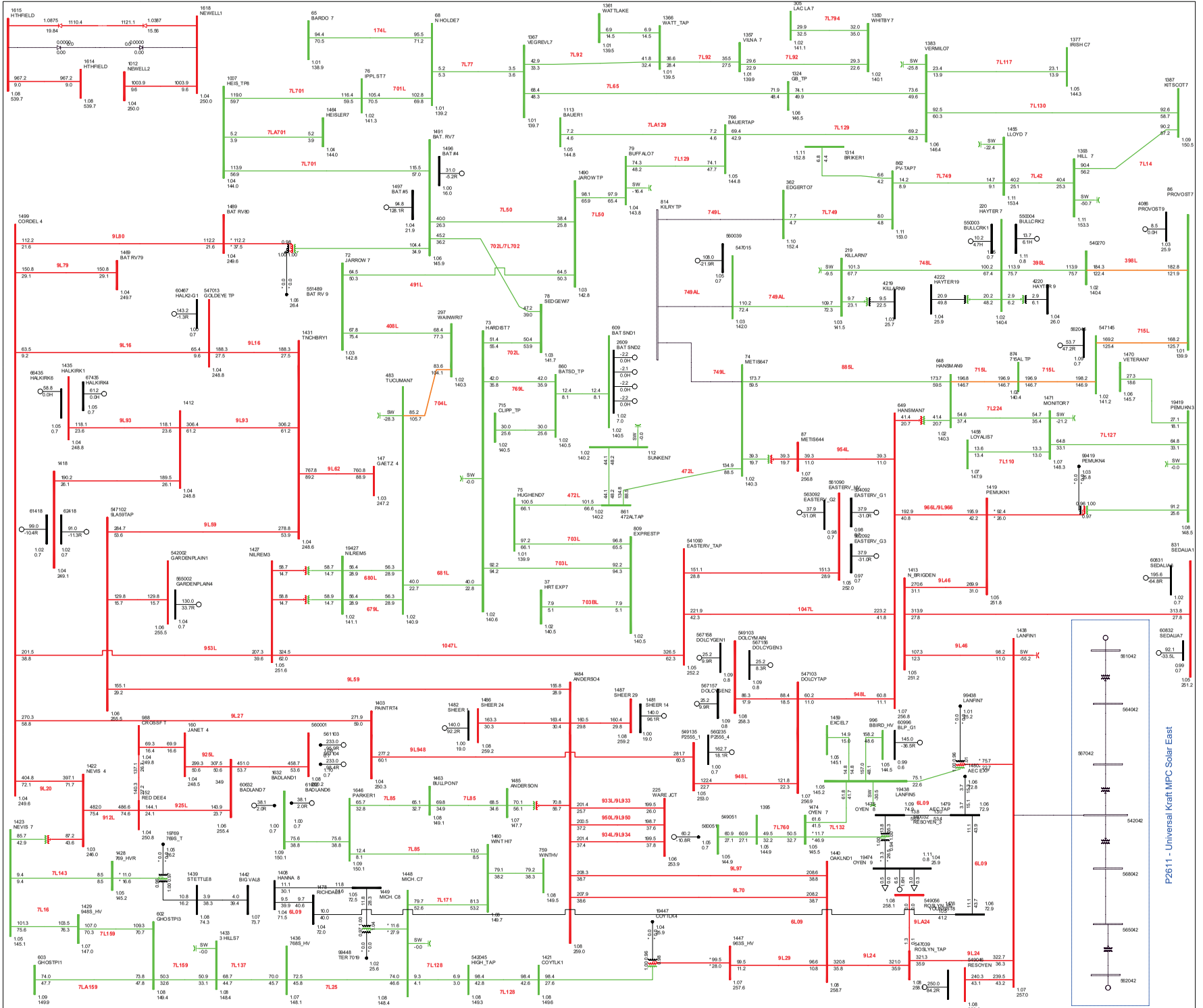
Sask Import: 151.1 MW

MATL: 186.8 MW

FIGURE B-3-11: SCN3-WP-PRE.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
SUN, SEP 07 2025 21:26
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1059.7 MW

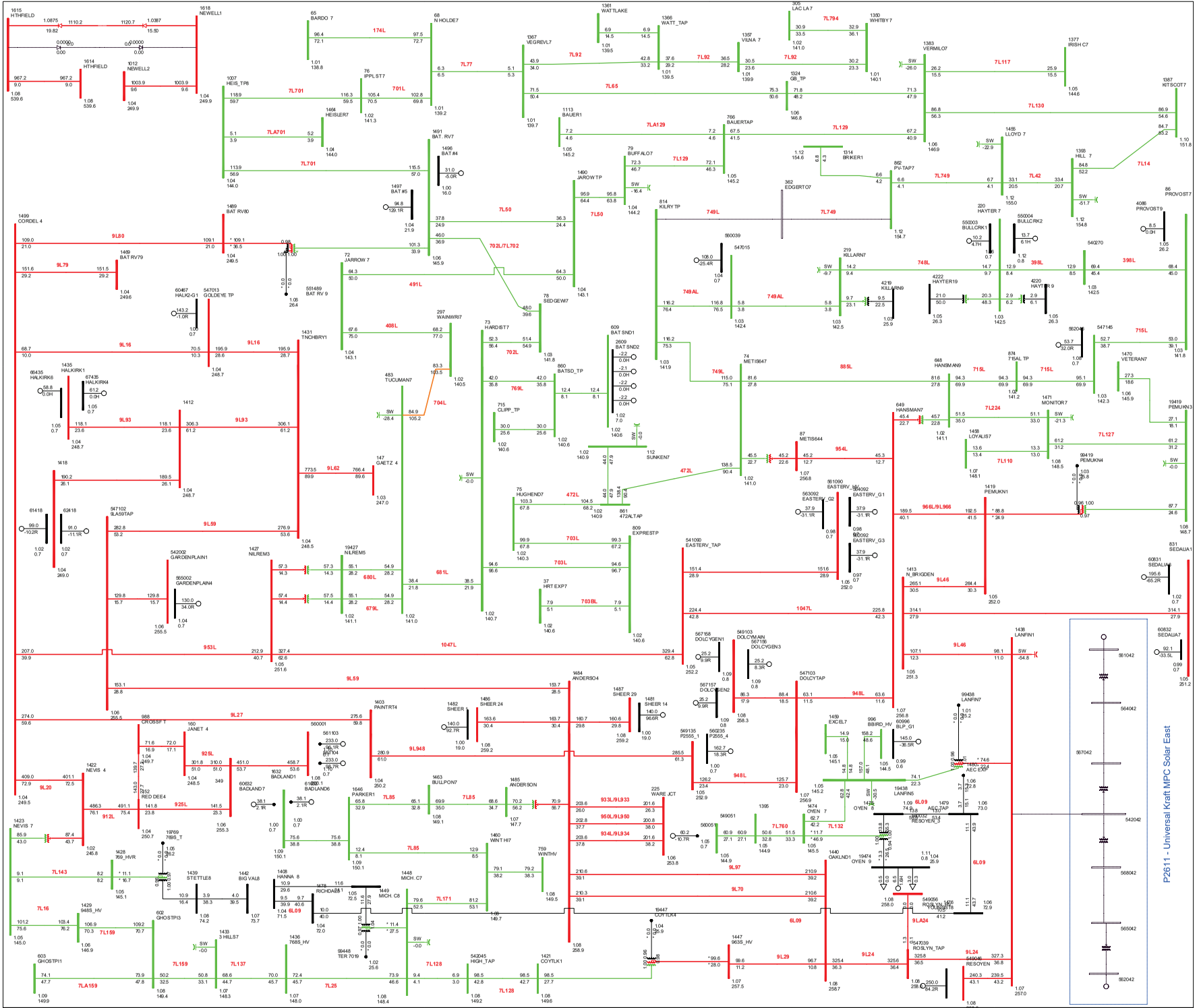
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-12: SCN3-WP-PRE.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
FRI, SEP 12 2025 17:41
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1078.2 MW

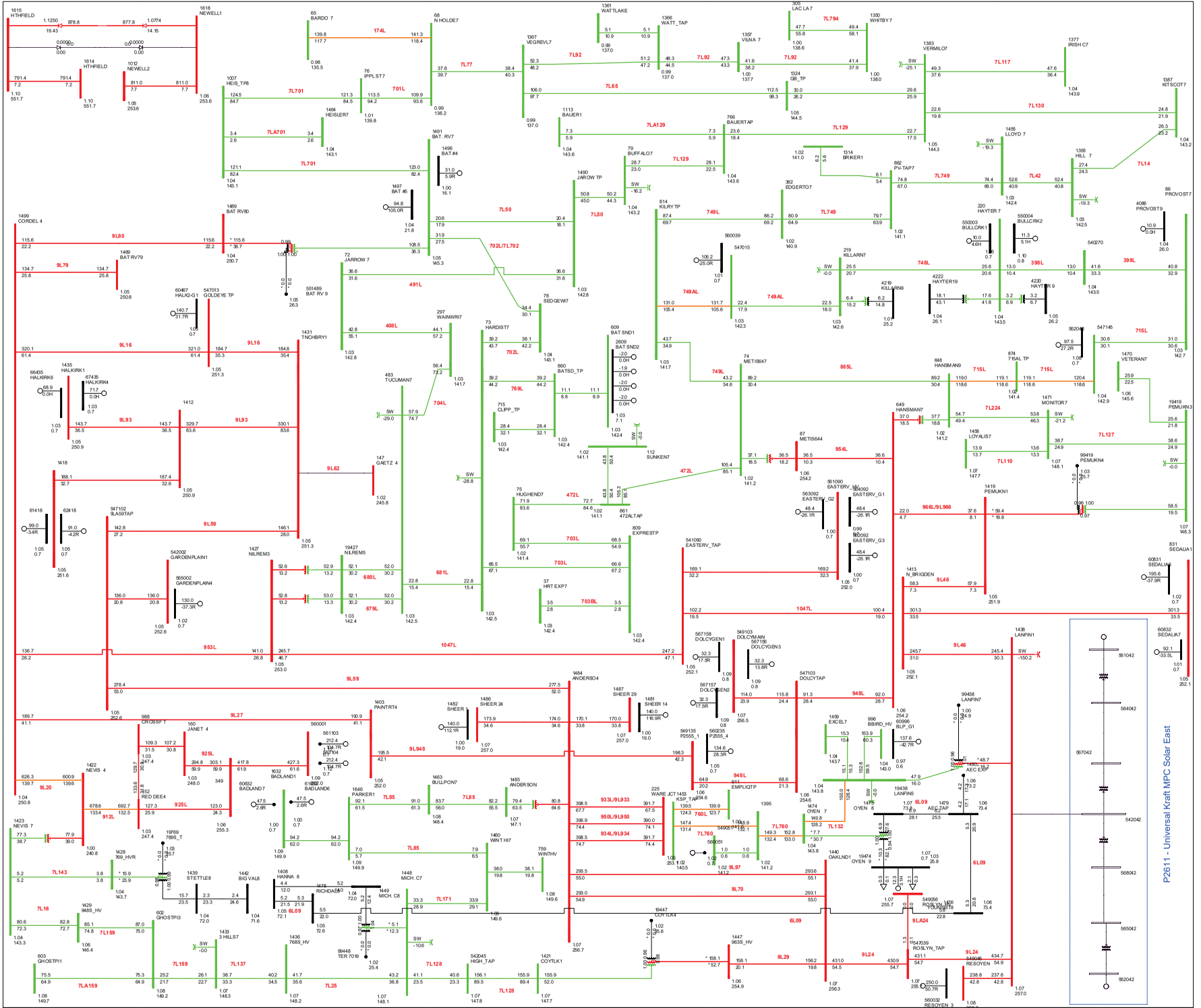
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-3-13: SCN3-WP-PRE.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
FRI, SEP 12 2025 17:42
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -849.7 MW

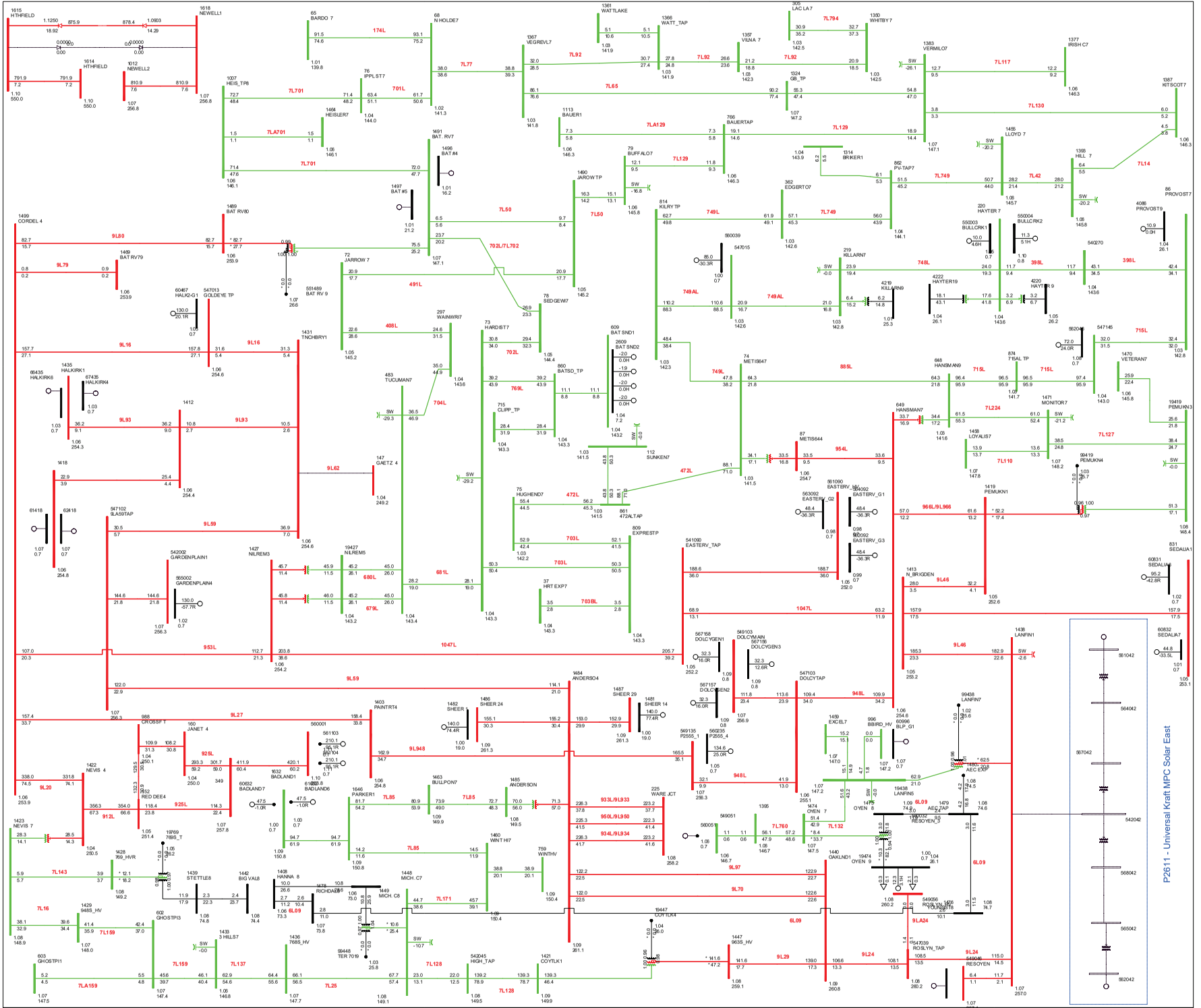
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE A-8-1: SCN8-SP-SEN-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
THU, OCT 02 2025 14:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -837.5 MW

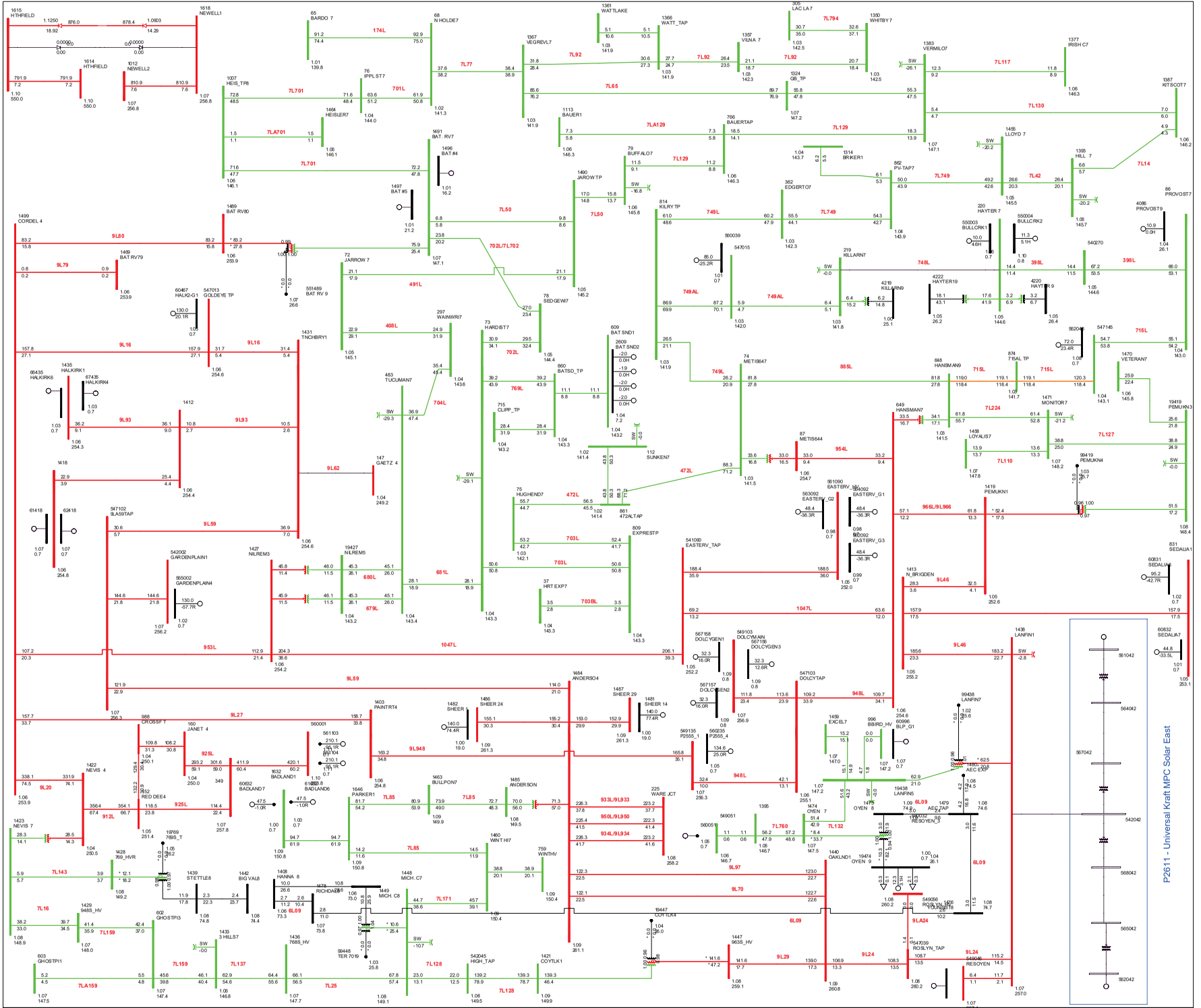
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE A-8-1: SCN8-SP-SEN-PRE.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 22:01
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -837.1 MW

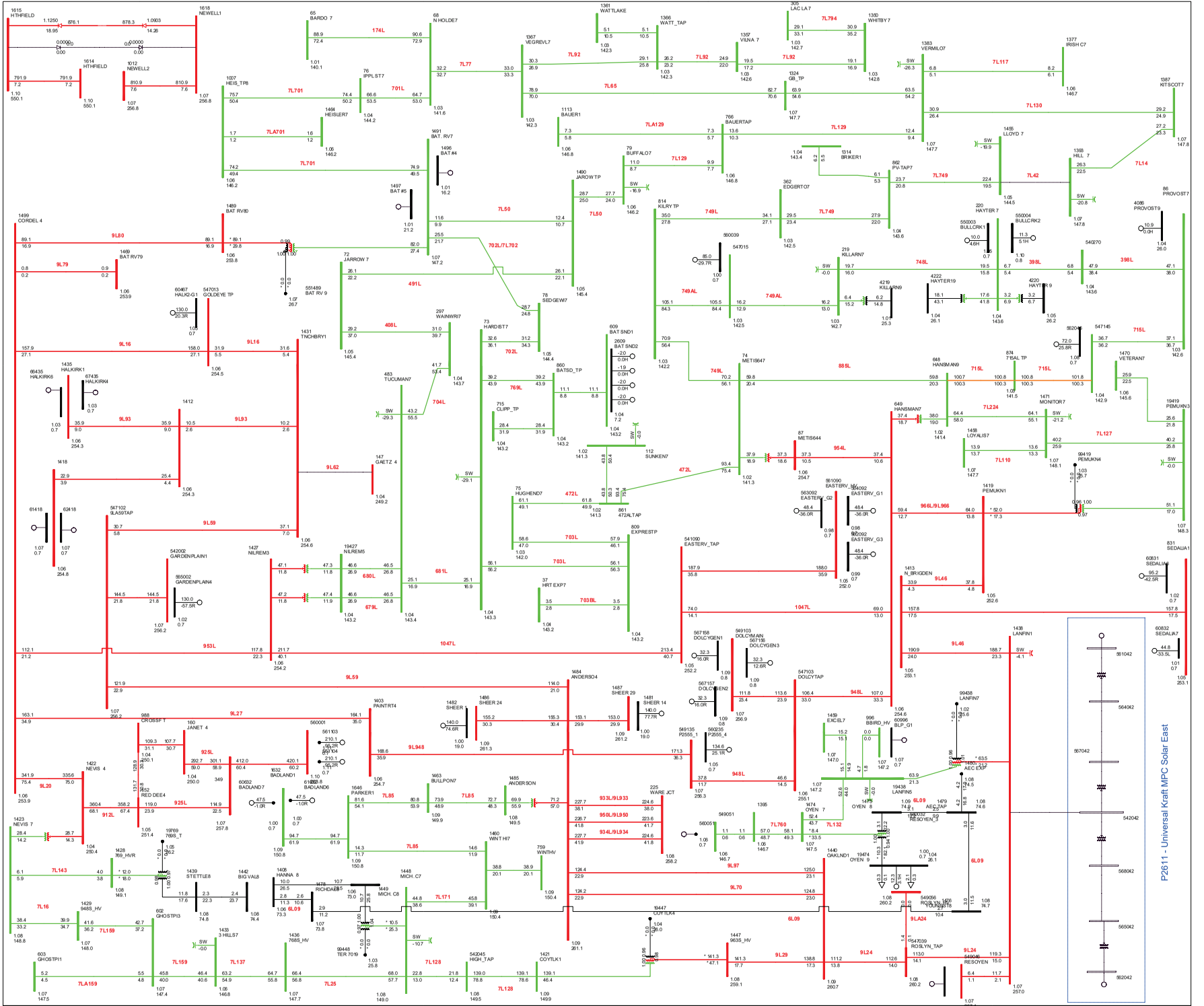
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-1: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 748L (HAYTER 277S TO KILLARNEY LAKE 267S)
SUN, SEP 07 2025 22:02
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -837.9 MW

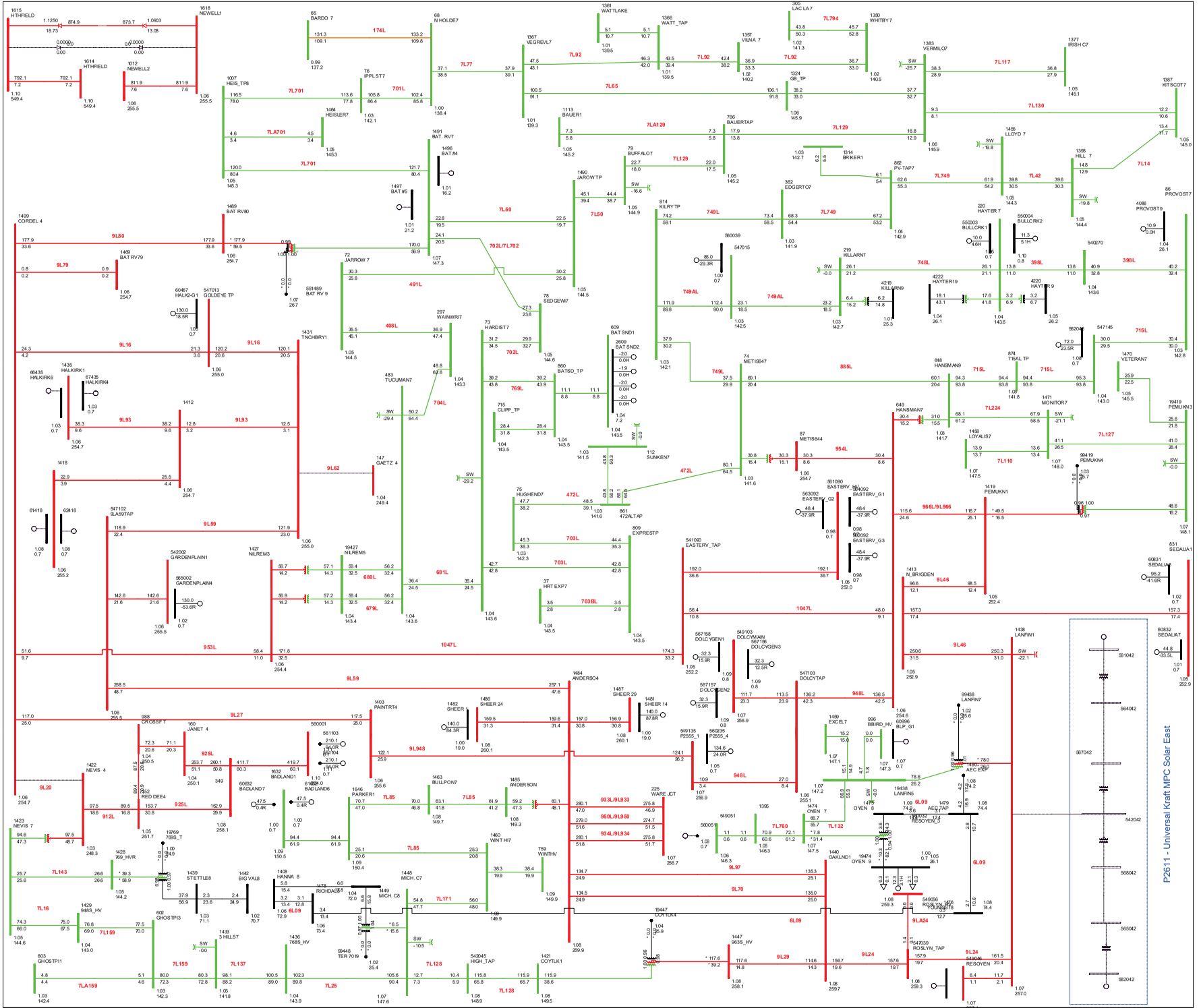
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-2: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 7L42 (LLOYDMINSTER 716S TO HILL 751S)
SUN, SEP 07 2025 22:02
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -798.0 MW

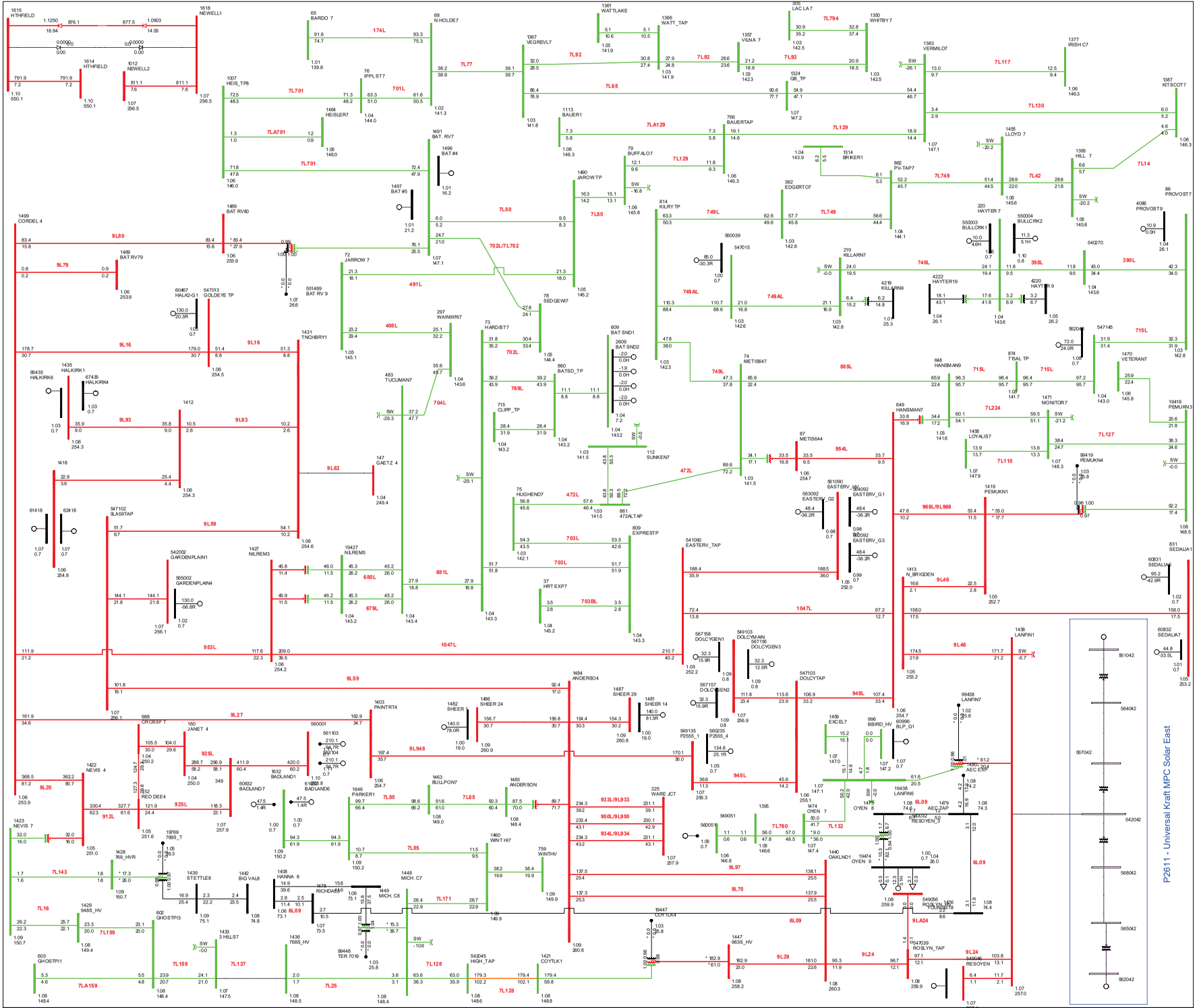
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-3: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 9L20 (NEVIS 766S TO CORDEL 755S)
SUN, SEP 07 2025 22:02
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -835.9 MW

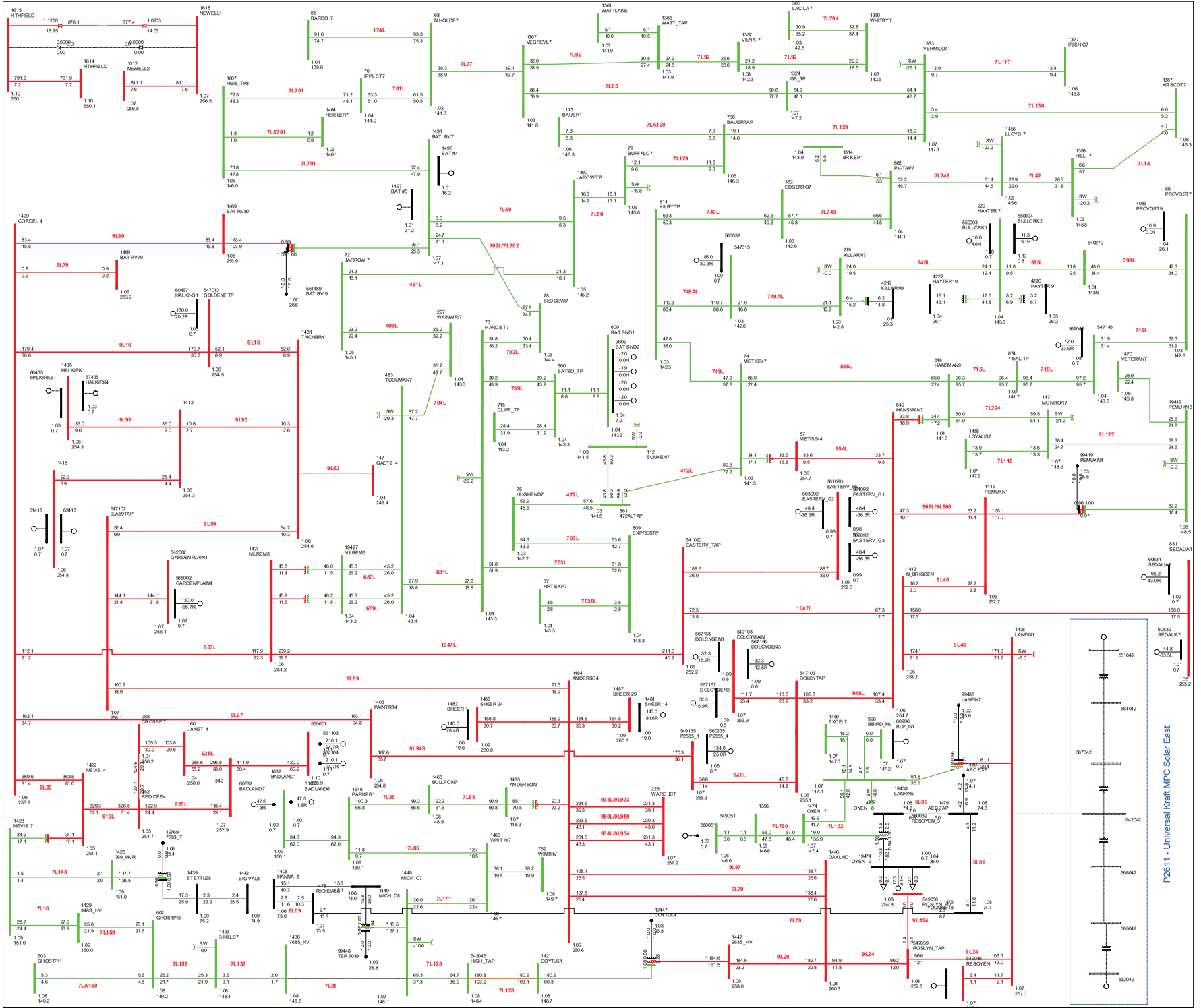
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-4: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 7L137 (ROWLEY 768S TO THREE HILLS 770S)
SUN, SEP 07 2025 22:02
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -835.5 MW

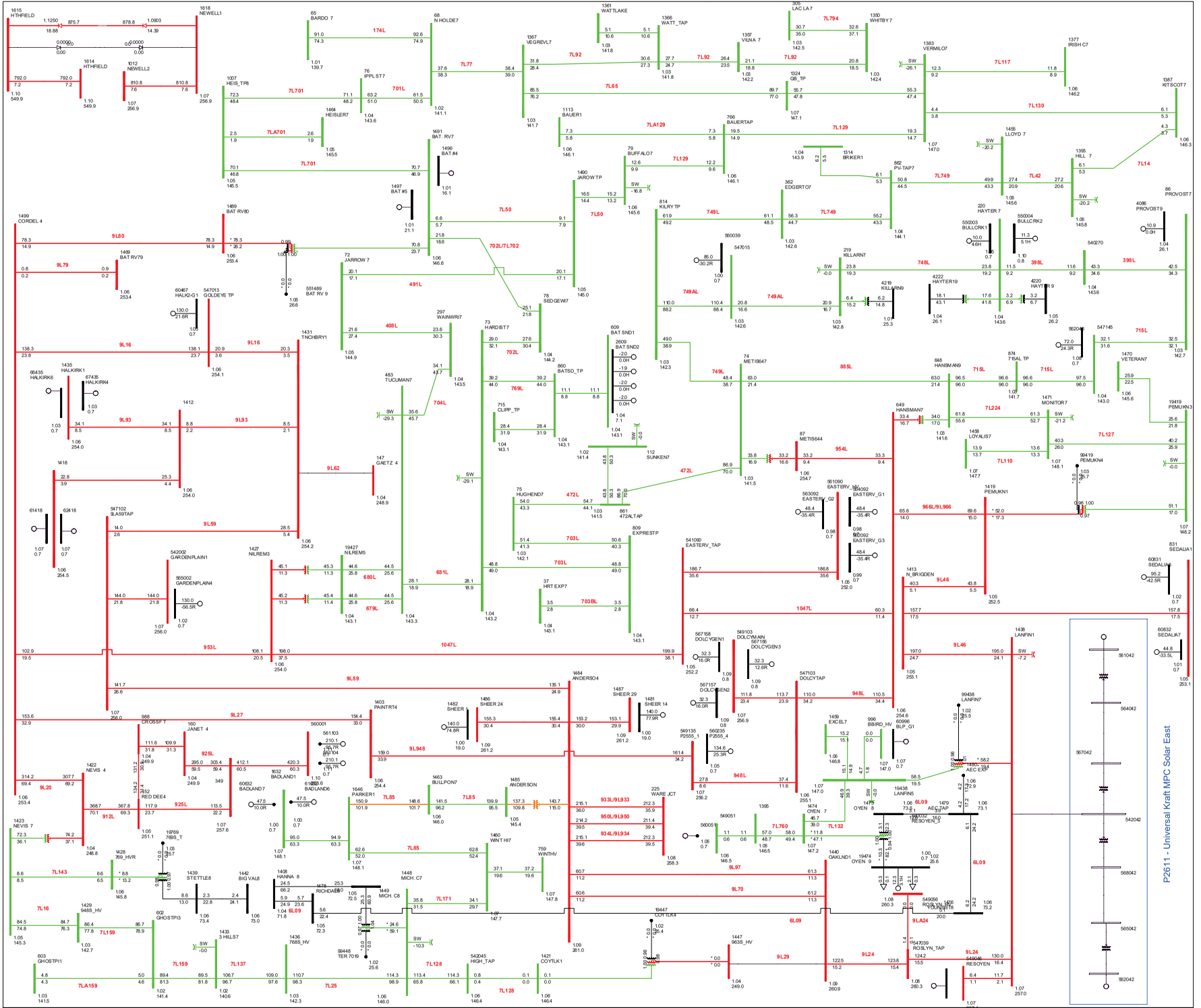
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-5: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 7L25 (MICHICHI CREEK 802S TO ROWLEY 768S)
SUN, SEP 07 2025 22:03
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -816.8 MW

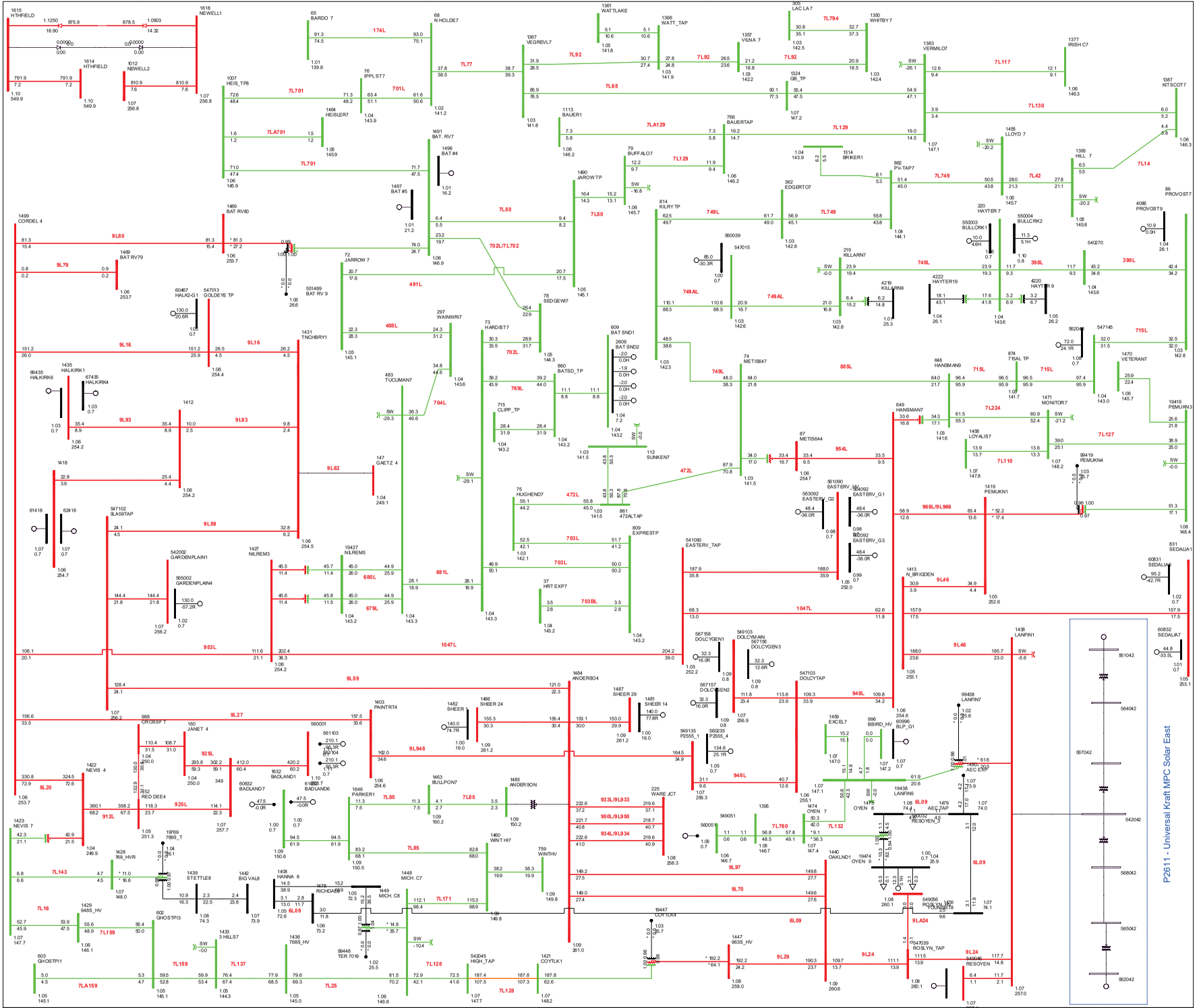
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-6: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 9L29 (OAKLAND 946S TO COYOTE LAKE 963S)
SUN, SEP 07 2025 22:03
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -830.7 MW

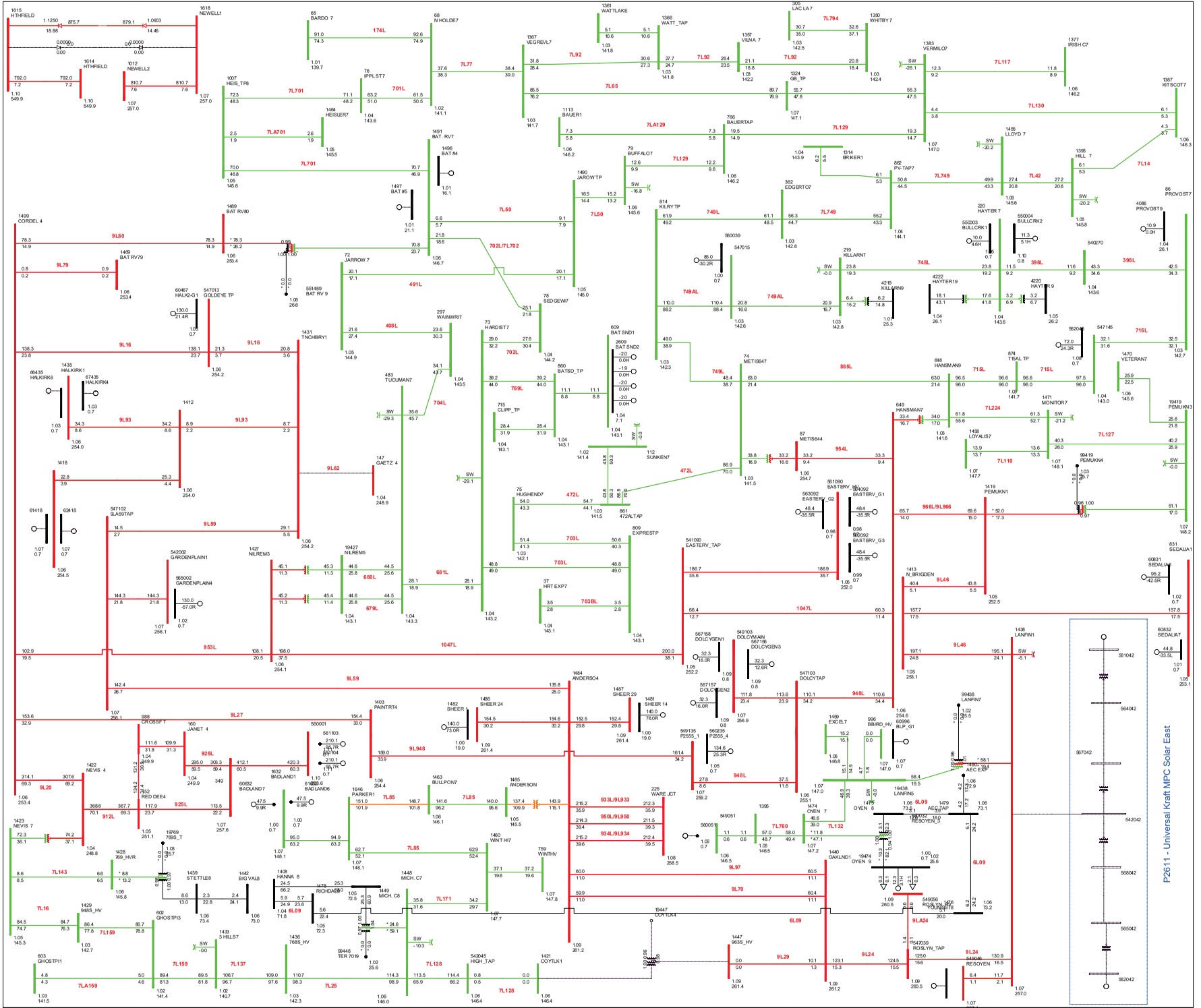
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-7: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 801S (ANDERSON 801S TRANSFORMER T1)
SUN, SEP 07 2025 22:03
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -816.8 MW

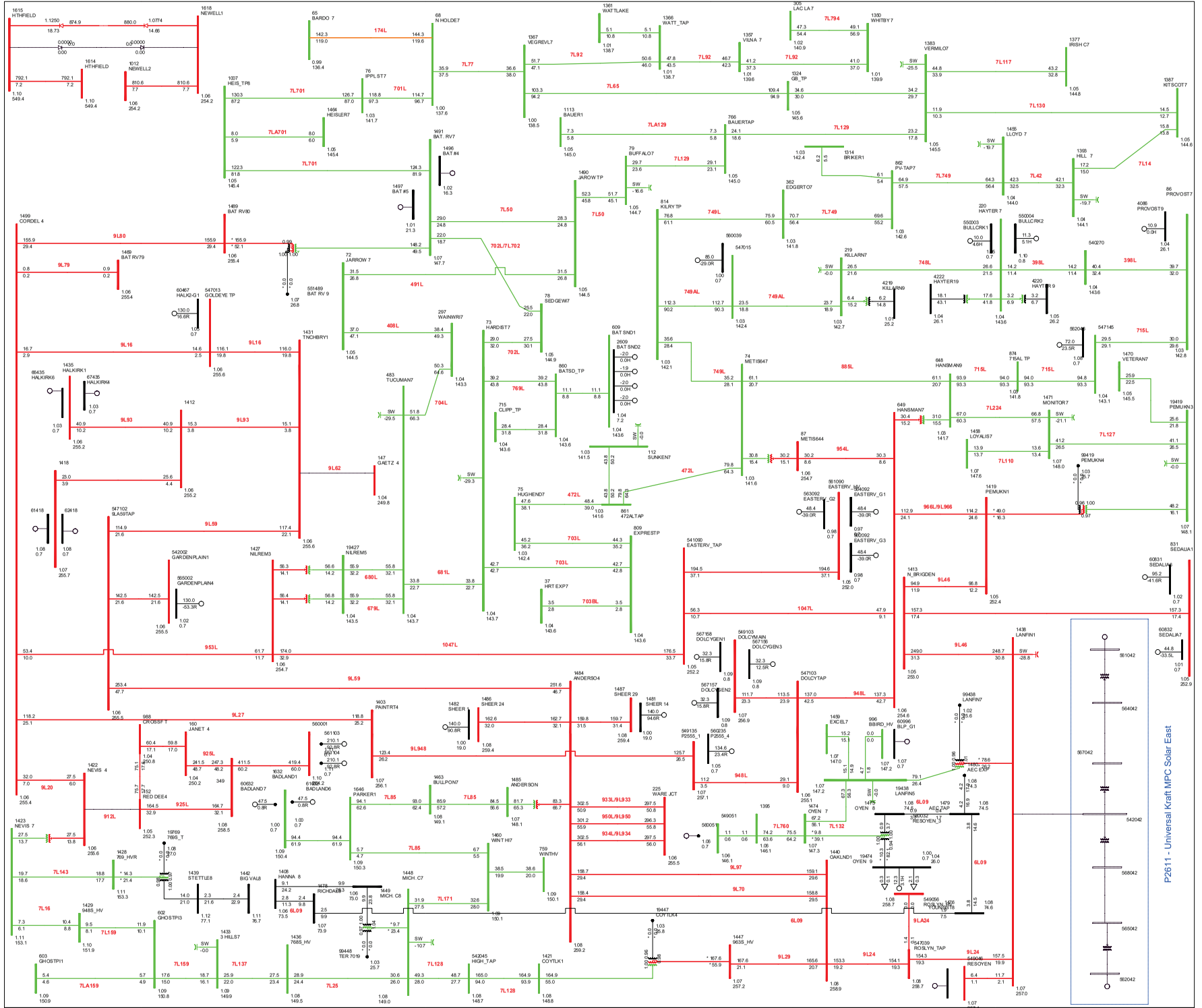
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-8: SCN8-SP-SEN-PRE.SAV
CATEGORY B - COYOTE LAKE 963S – 901 TRANSFORMER
SUN, SEP 07 2025 22:04
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -796.9 MW

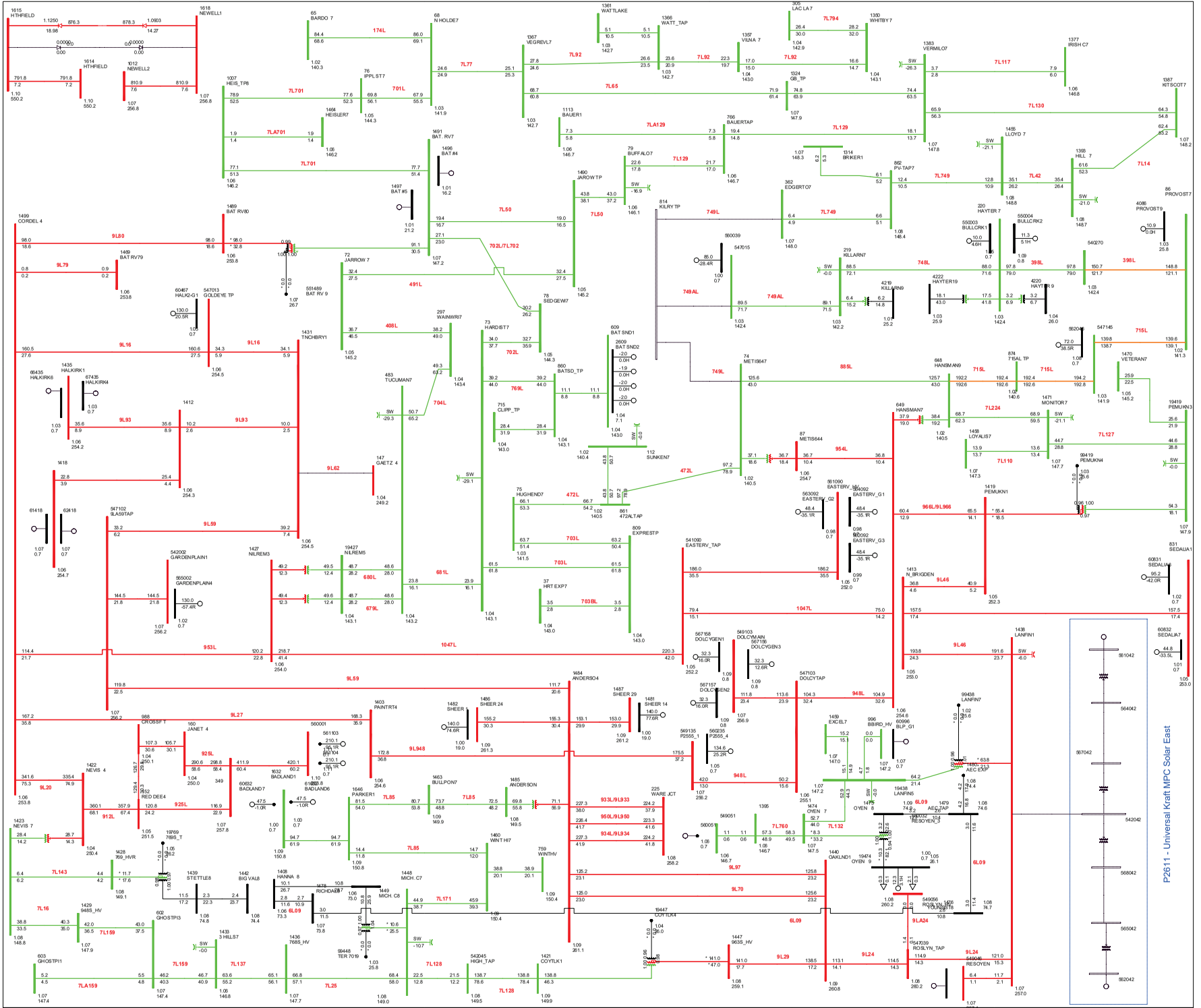
Sask Import: 150.9 MW

MATL: 187.0 MW

FIGURE B-8-9: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
SUN, SEP 07 2025 22:04
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -824.7 MW

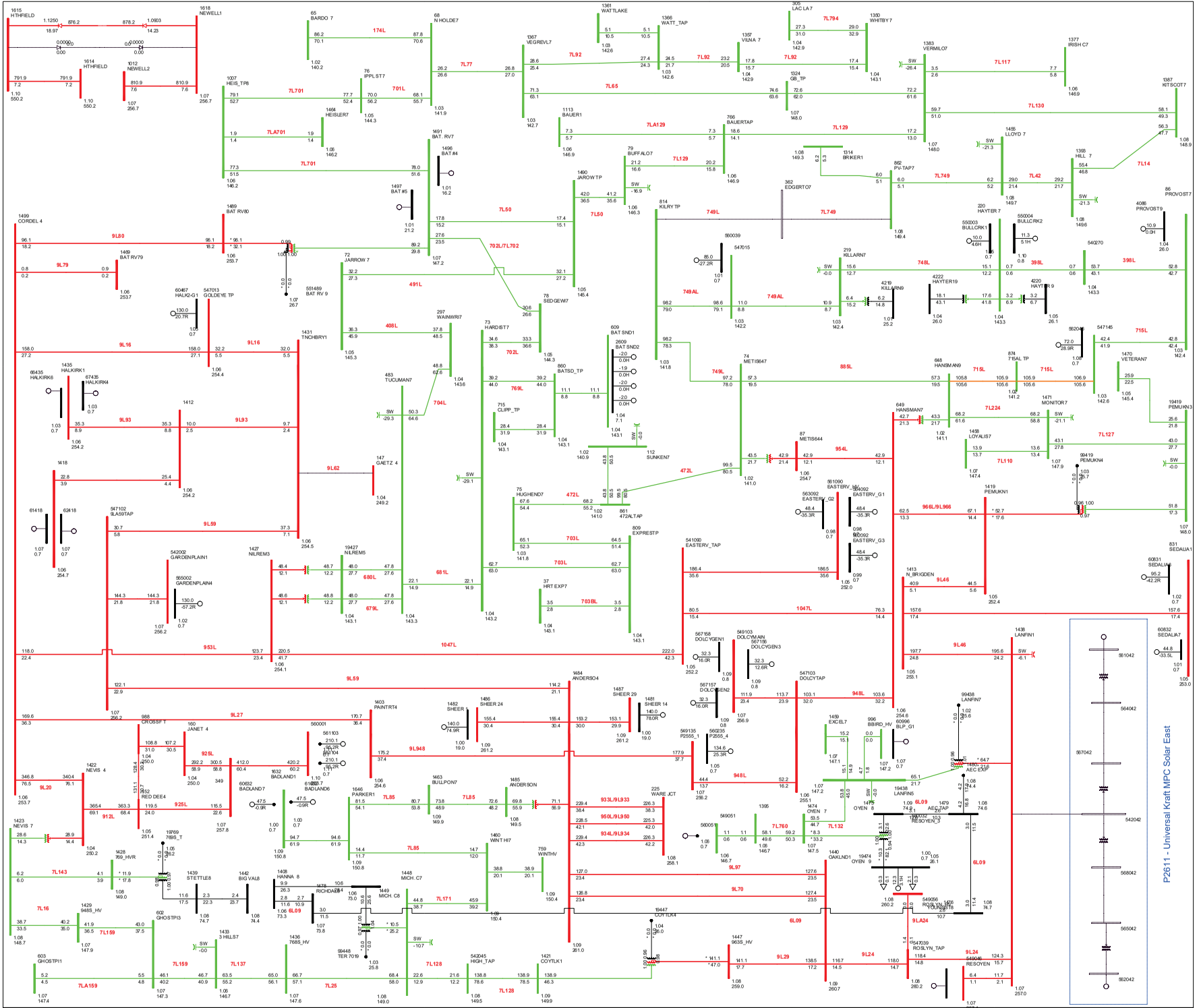
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-10: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
SUN, SEP 07 2025 22:04
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -839.4 MW

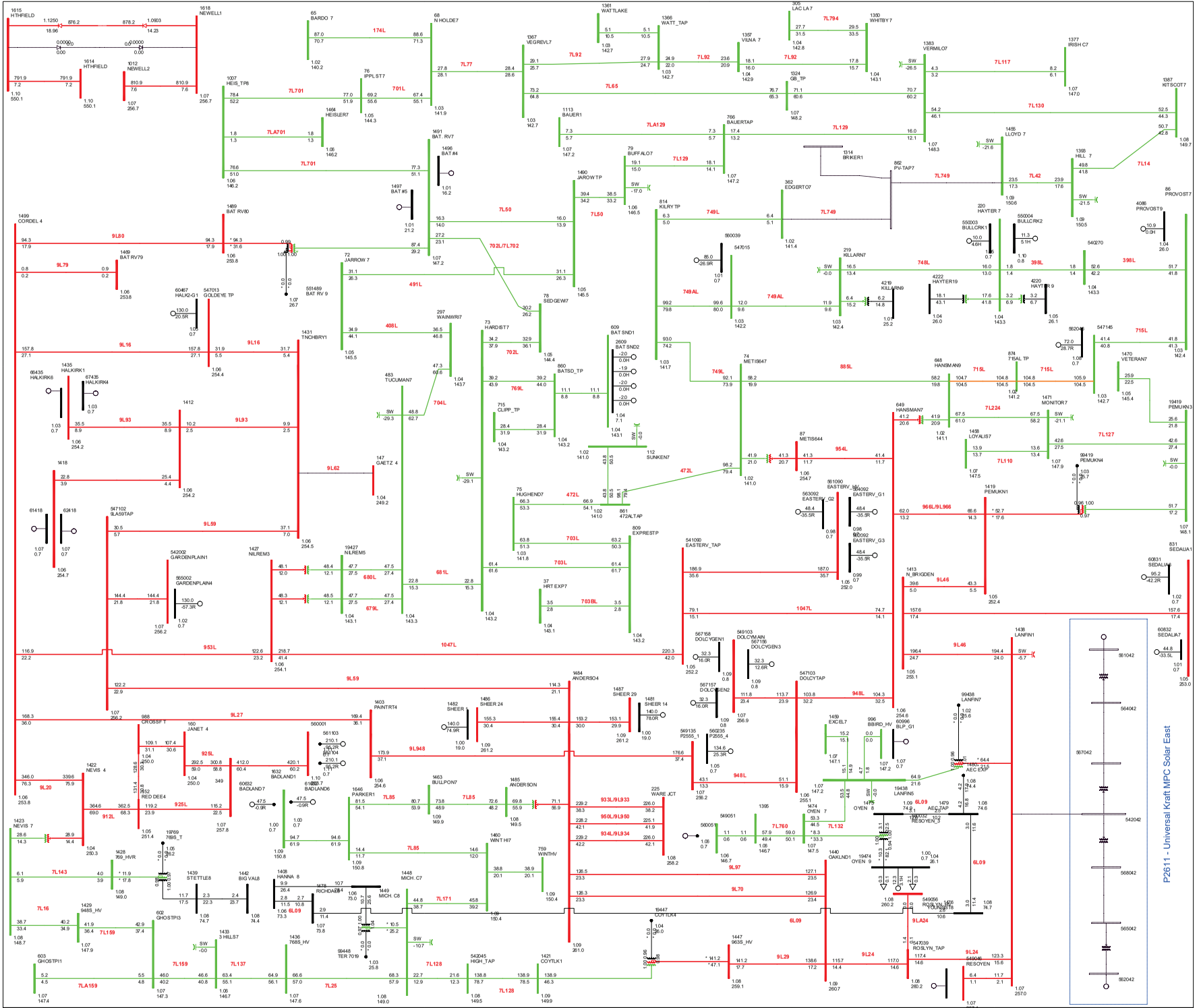
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-11: SCN8-SP-SEN-PRE.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
SUN, SEP 07 2025 22:05
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -840.2 MW

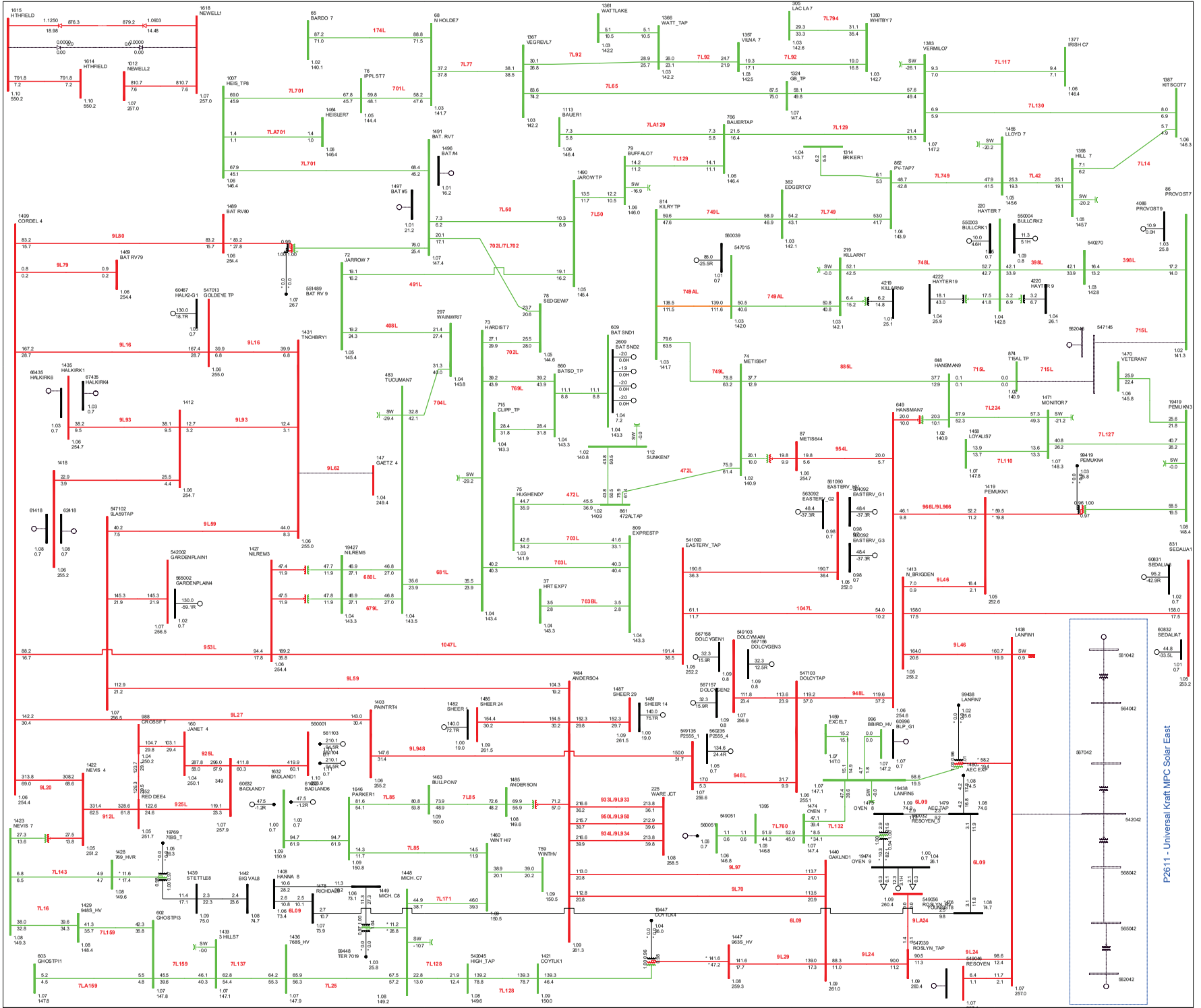
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-12: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 7L749 (EDGERTON 899S TO LLOYDMINSTER 716S)
SUN, SEP 07 2025 22:05
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -781.0 MW

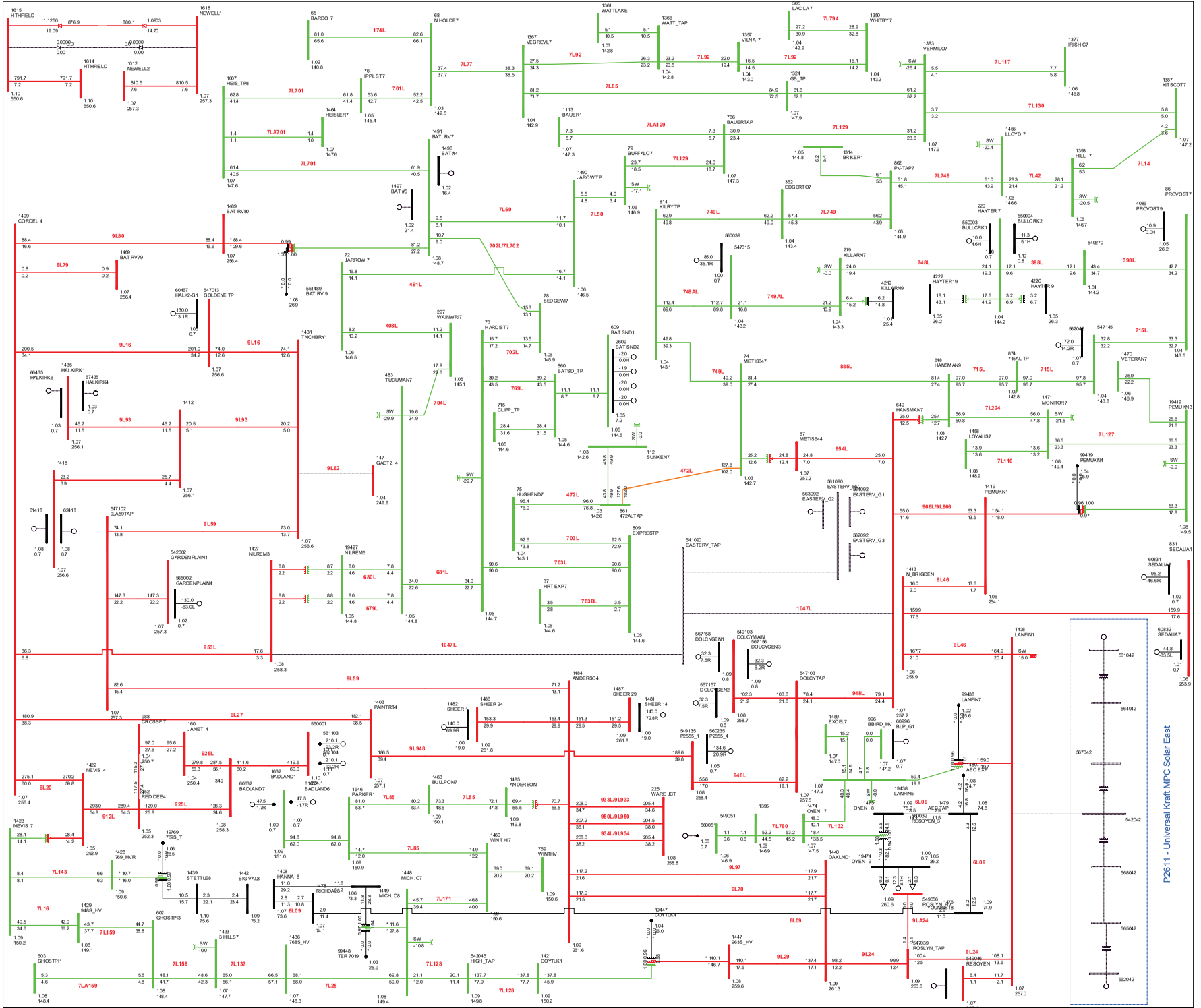
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-13: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
SUN, SEP 07 2025 22:05
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -717.4 MW

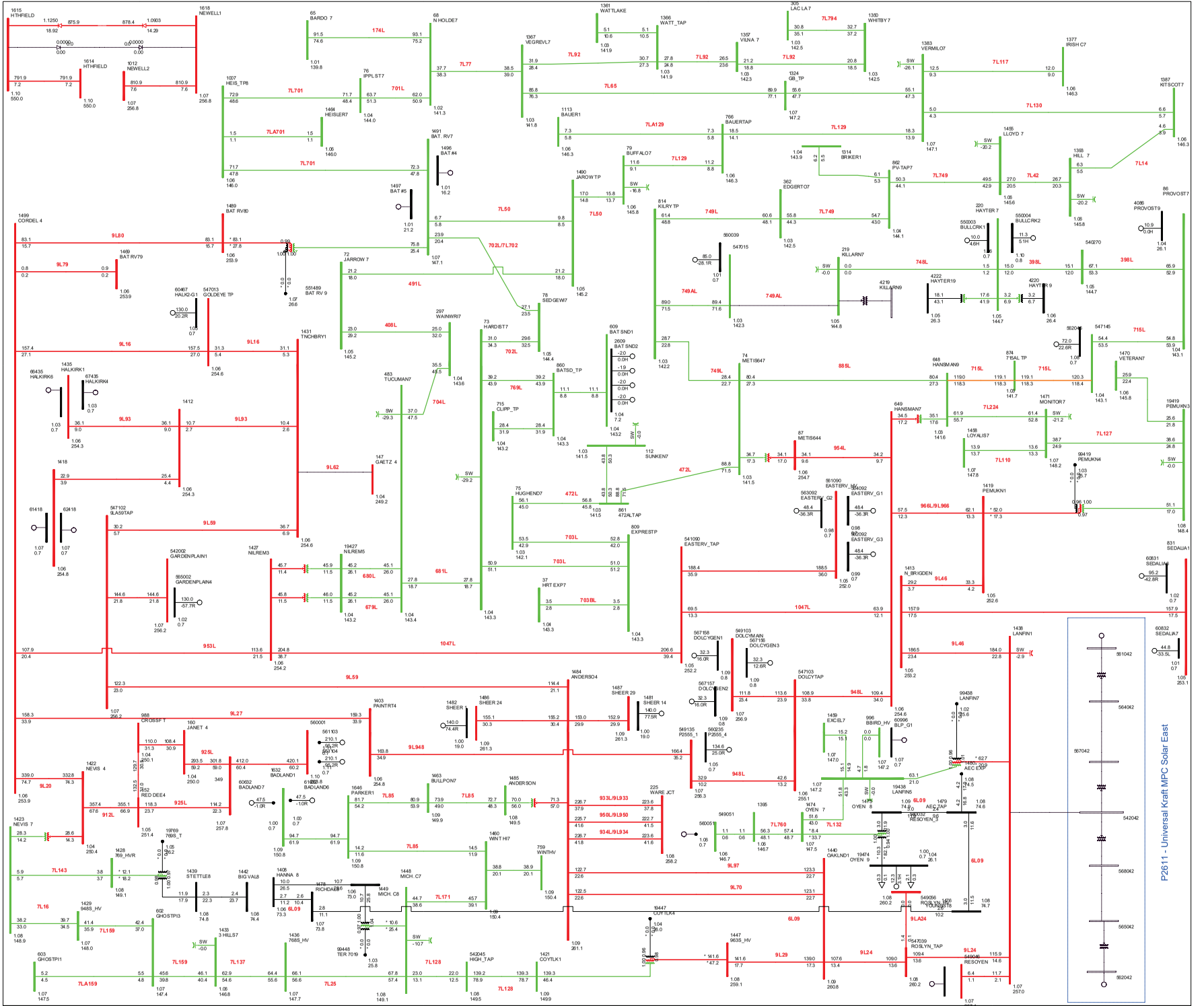
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-8-14: SCN8-SP-SEN-PRE.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
SUN, SEP 07 2025 22:06
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -839.5 MW

Sask Import: 150.9 MW

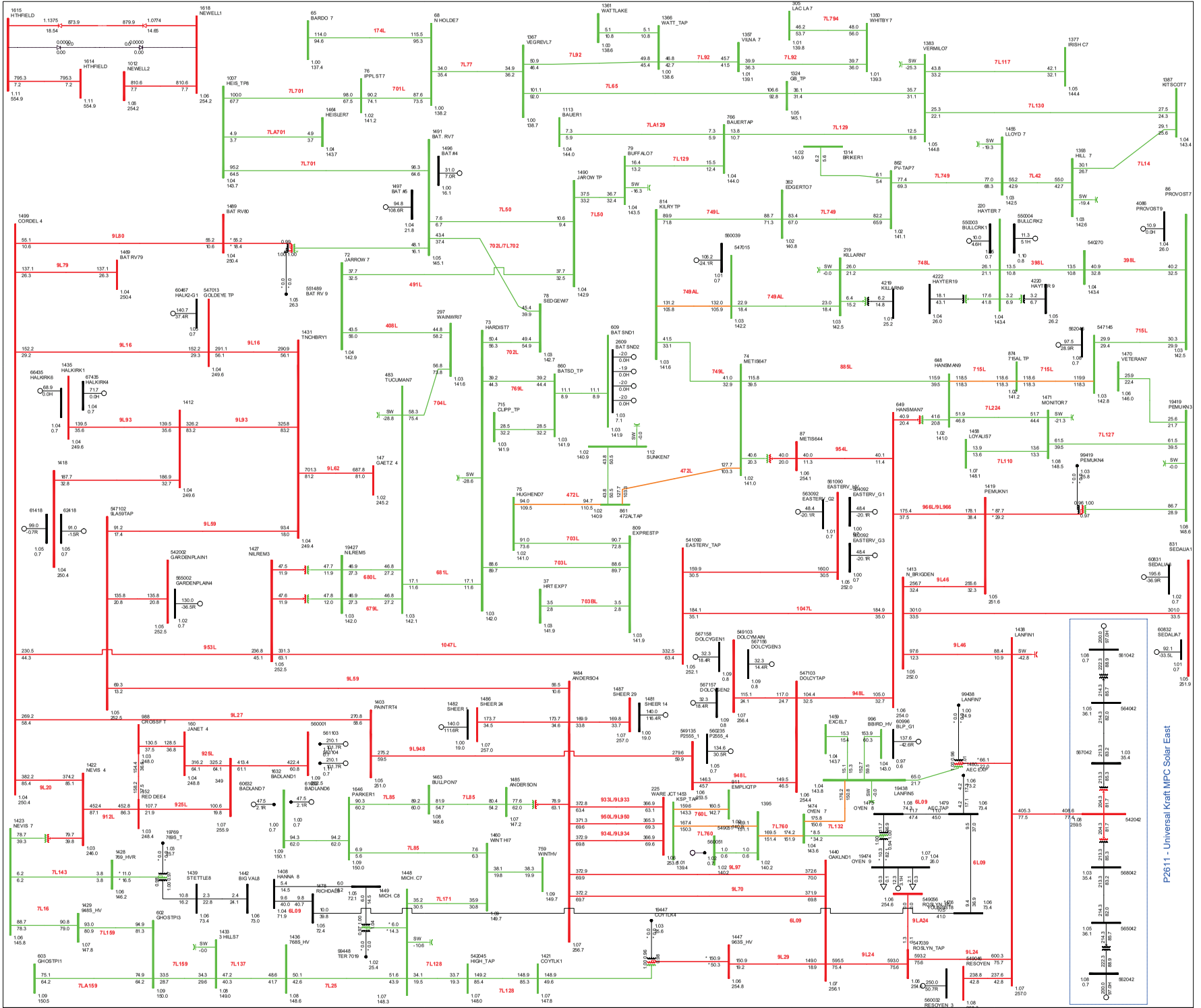
MATL: 186.9 MW

FIGURE B-8-15: SCN8-SP-SEN-PRE.SAV
CATEGORY B - KILLARNEY LAKE 267S TRANSFORMER
FRI, SEP 12 2025 17:30
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

Attachment A3
Post-Project Power Flow Diagrams



P2611 - Universal Kraft MPC Solar East

BC Import: -864.1 MW

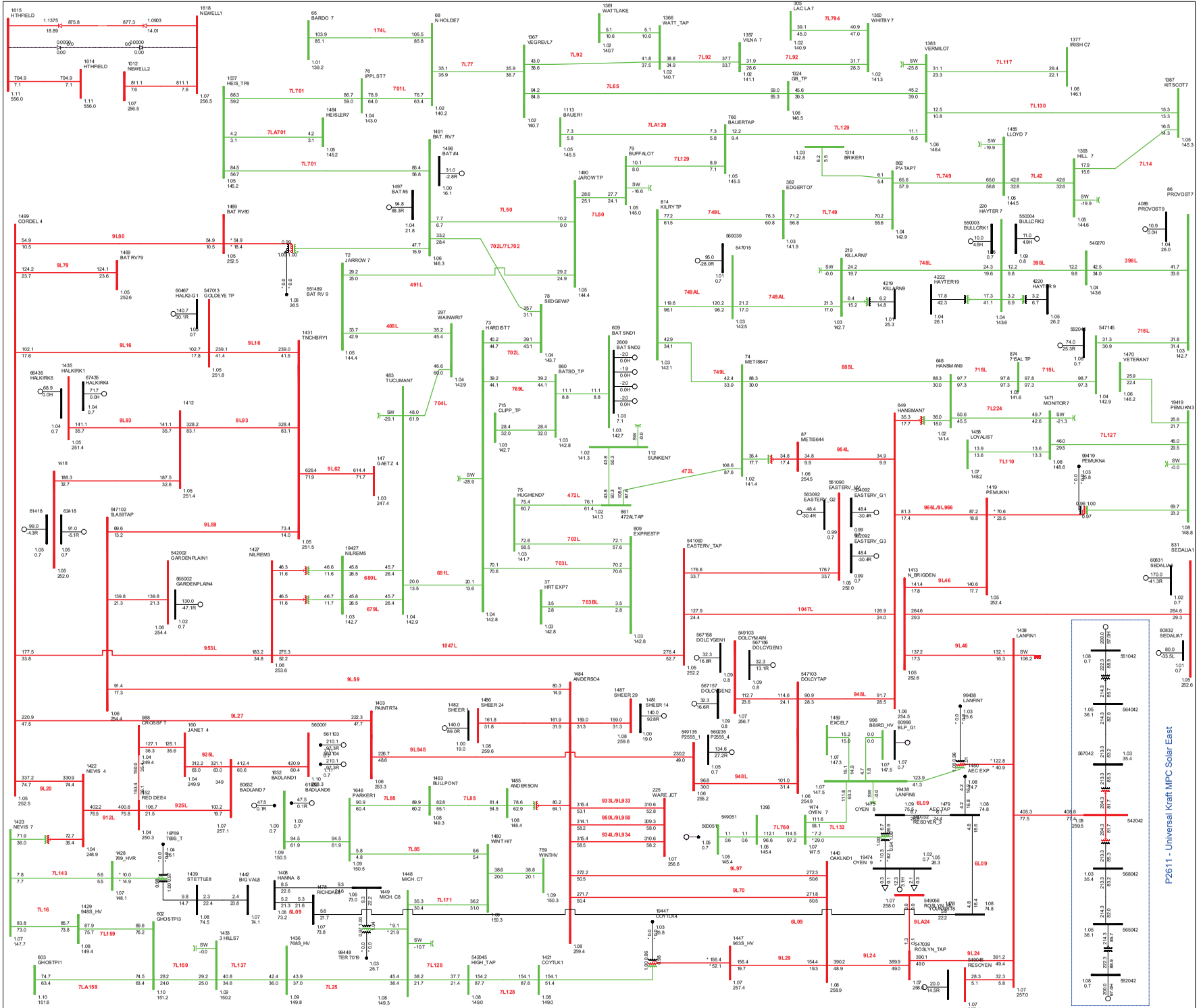
Sask Import: 151.0 MW

MATL: 186.9 MW

FIGURE A-4-1: SCN4-SP-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
THU, OCT 02 2025 14:18
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -860.5 MW

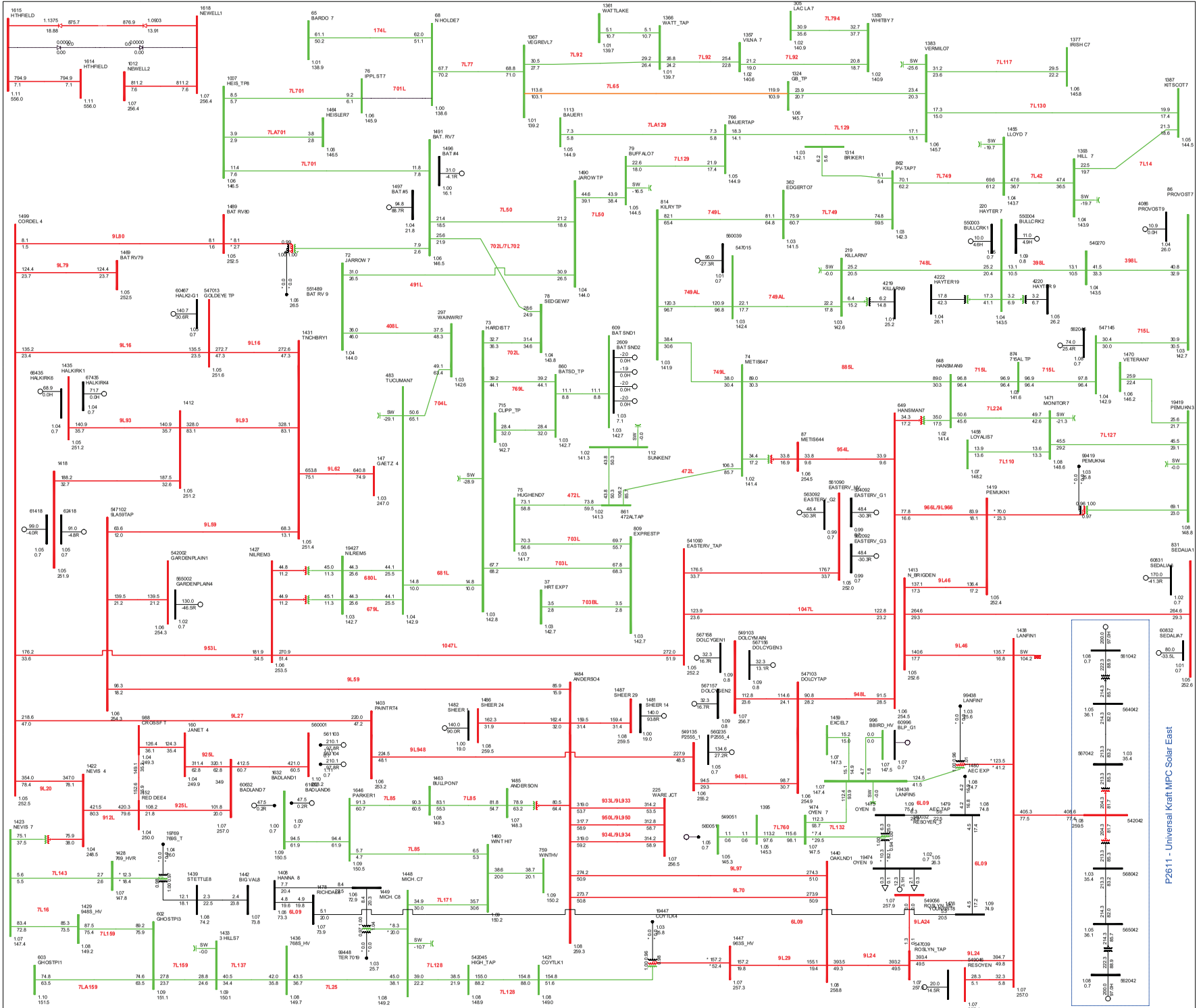
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE A-4-1: SCN4-SP-POST.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 21:29
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -859.3 MW

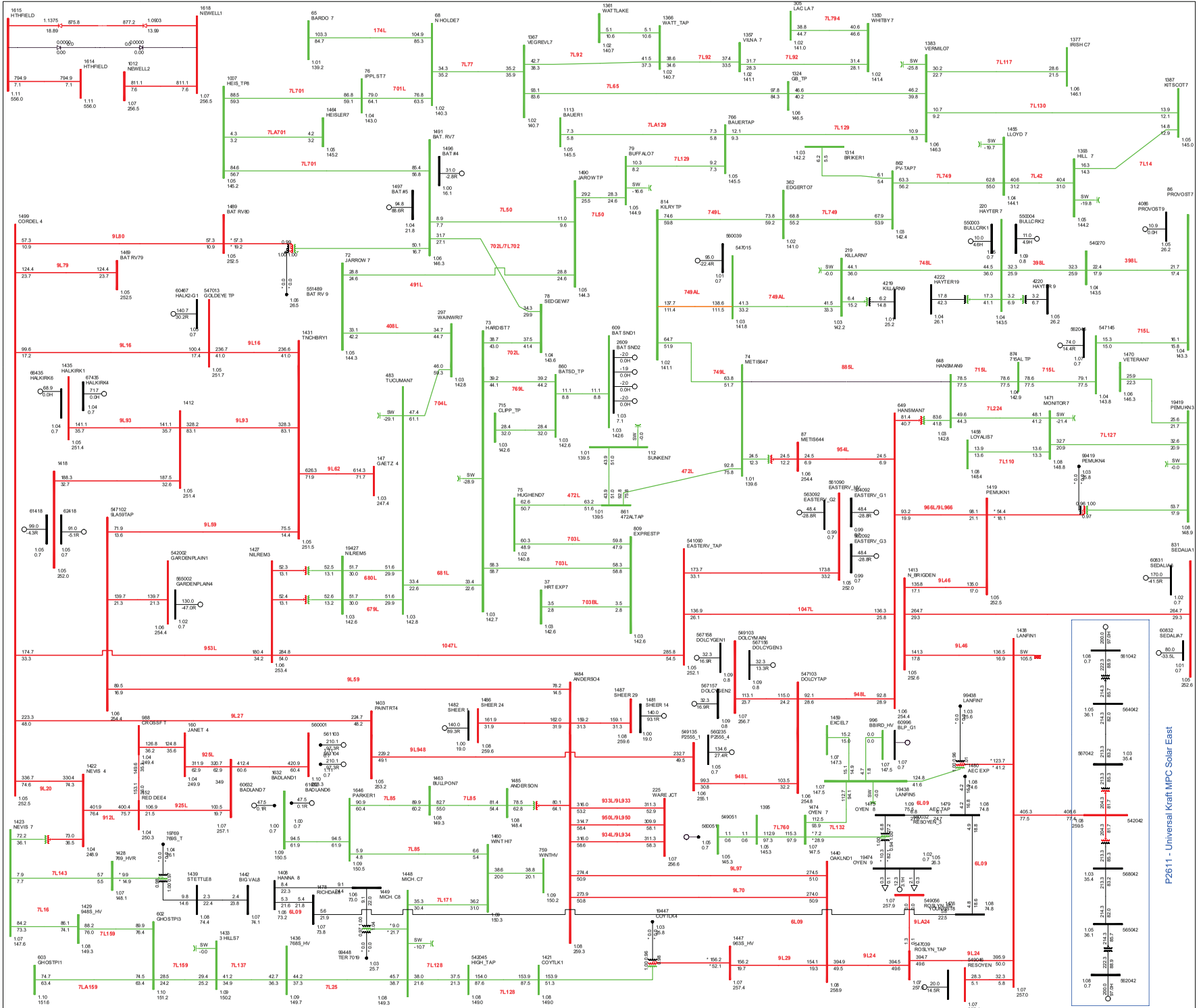
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-1: SCN4-SP-POST.SAV
CATEGORY B - 701L (NORTH HODEN 395S TO STROME 223S)
SUN, SEP 07 2025 21:30
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -861.0 MW

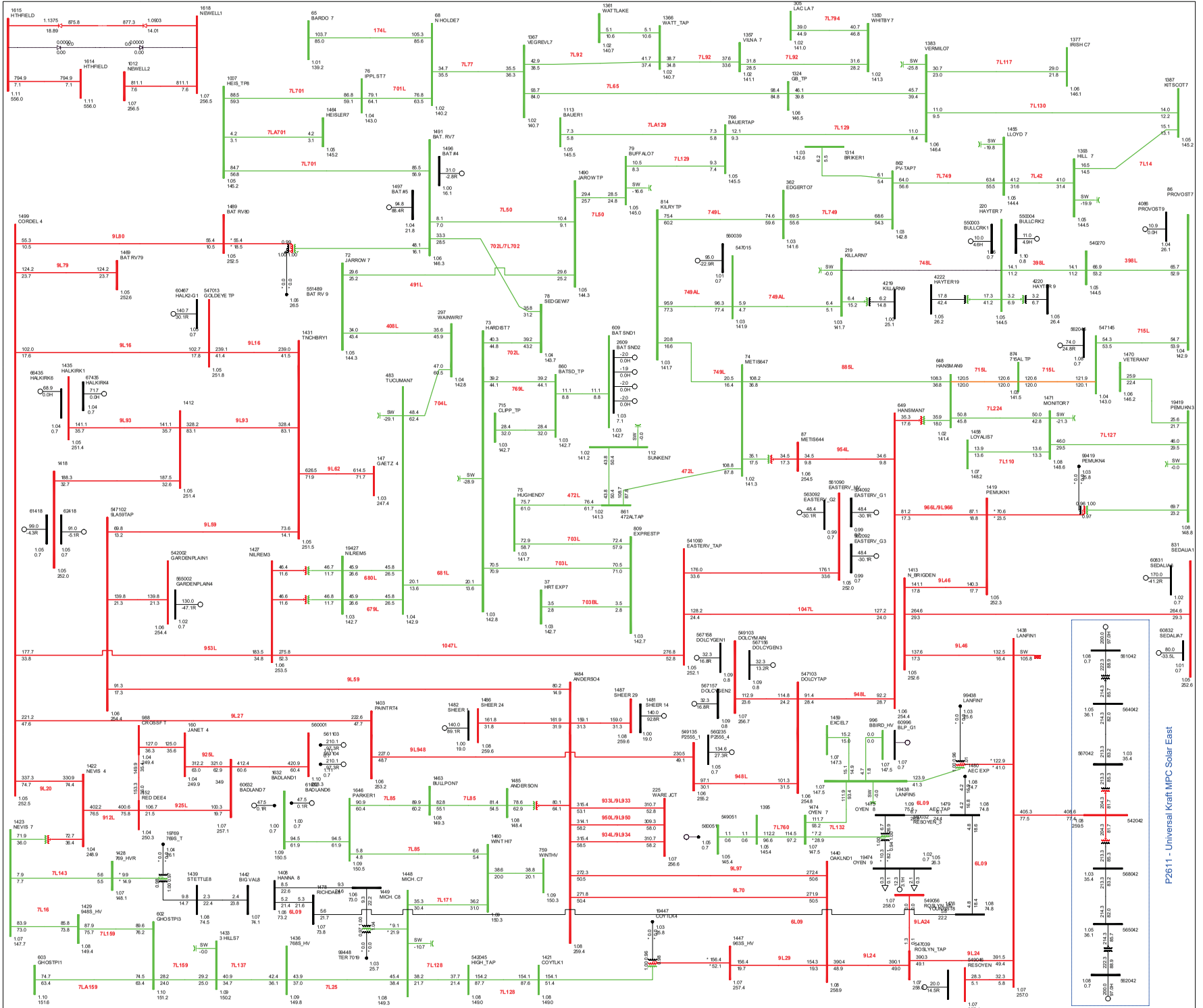
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-2: SCN4-SP-POST.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
SUN, SEP 07 2025 21:30
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -860.2 MW

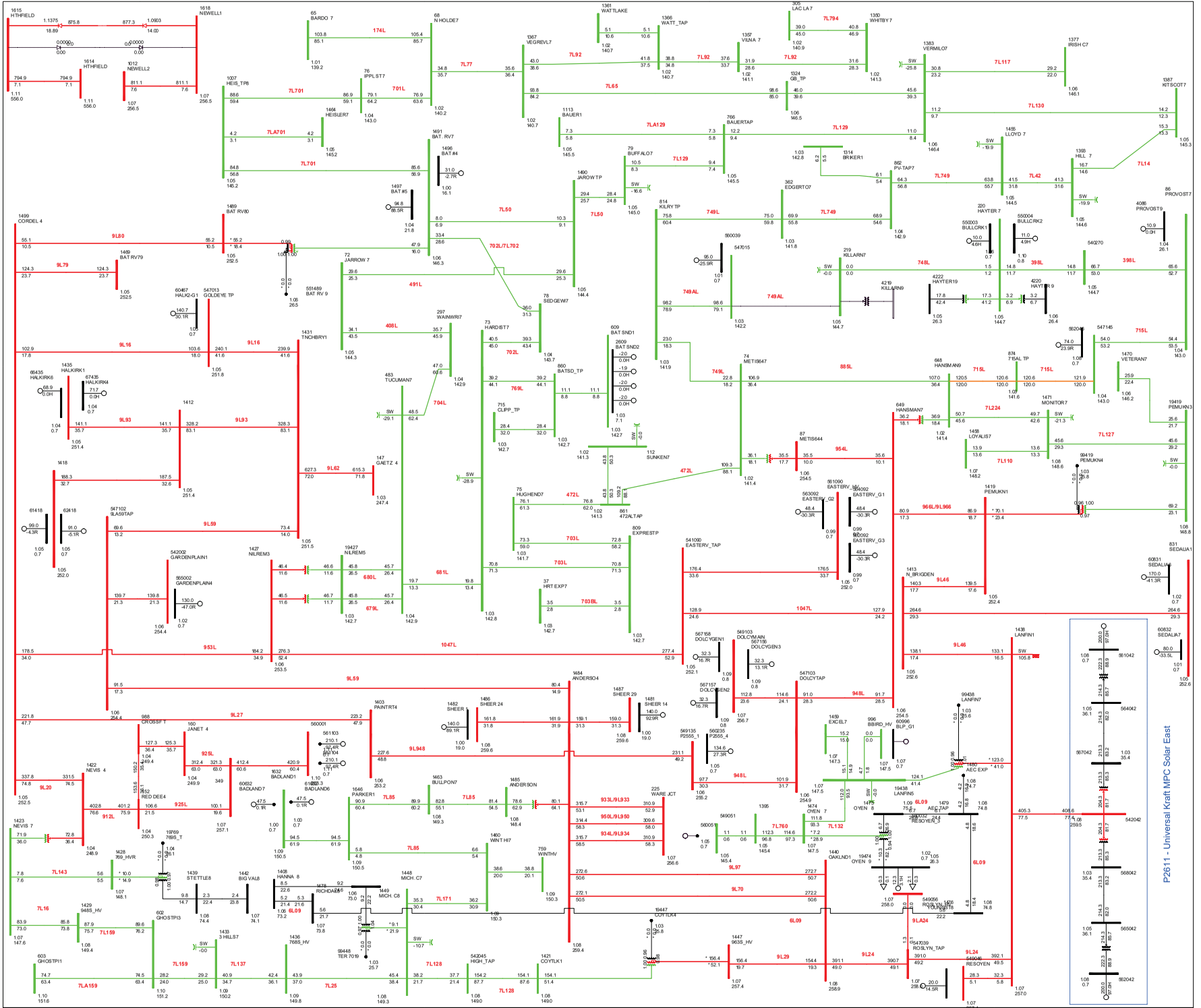
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-3: SCN4-SP-POST.SAV
CATEGORY B - 748L (HAYTER 277S TO KILLARNEY LAKE 267S)
SUN, SEP 07 2025 21:30
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -862.5 MW

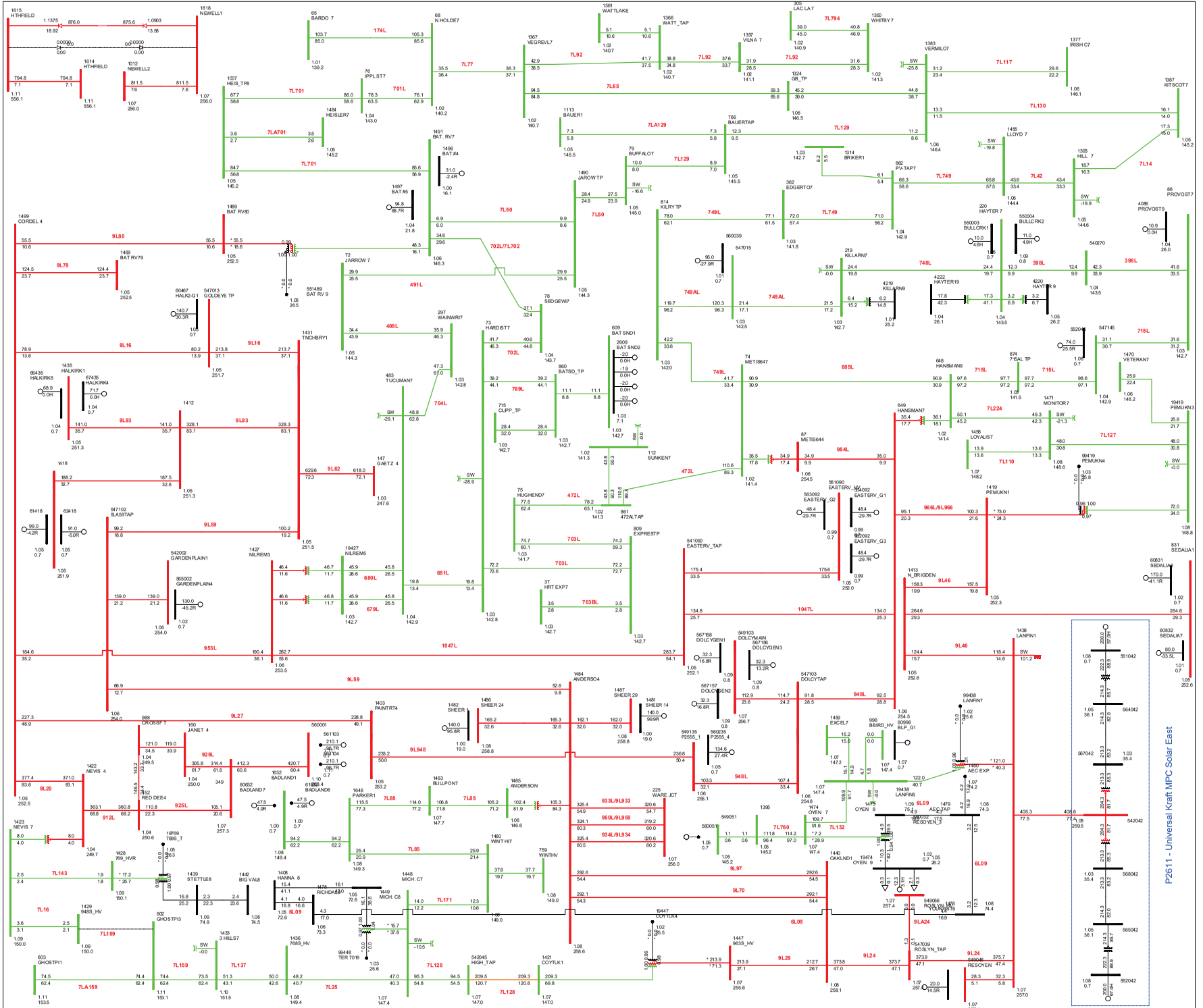
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-4: SCN4-SP-POST.SAV
CATEGORY B - KILLARNEY LAKE 267S TRANSFORMER
SUN, SEP 07 2025 21:29
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -854.4 MW

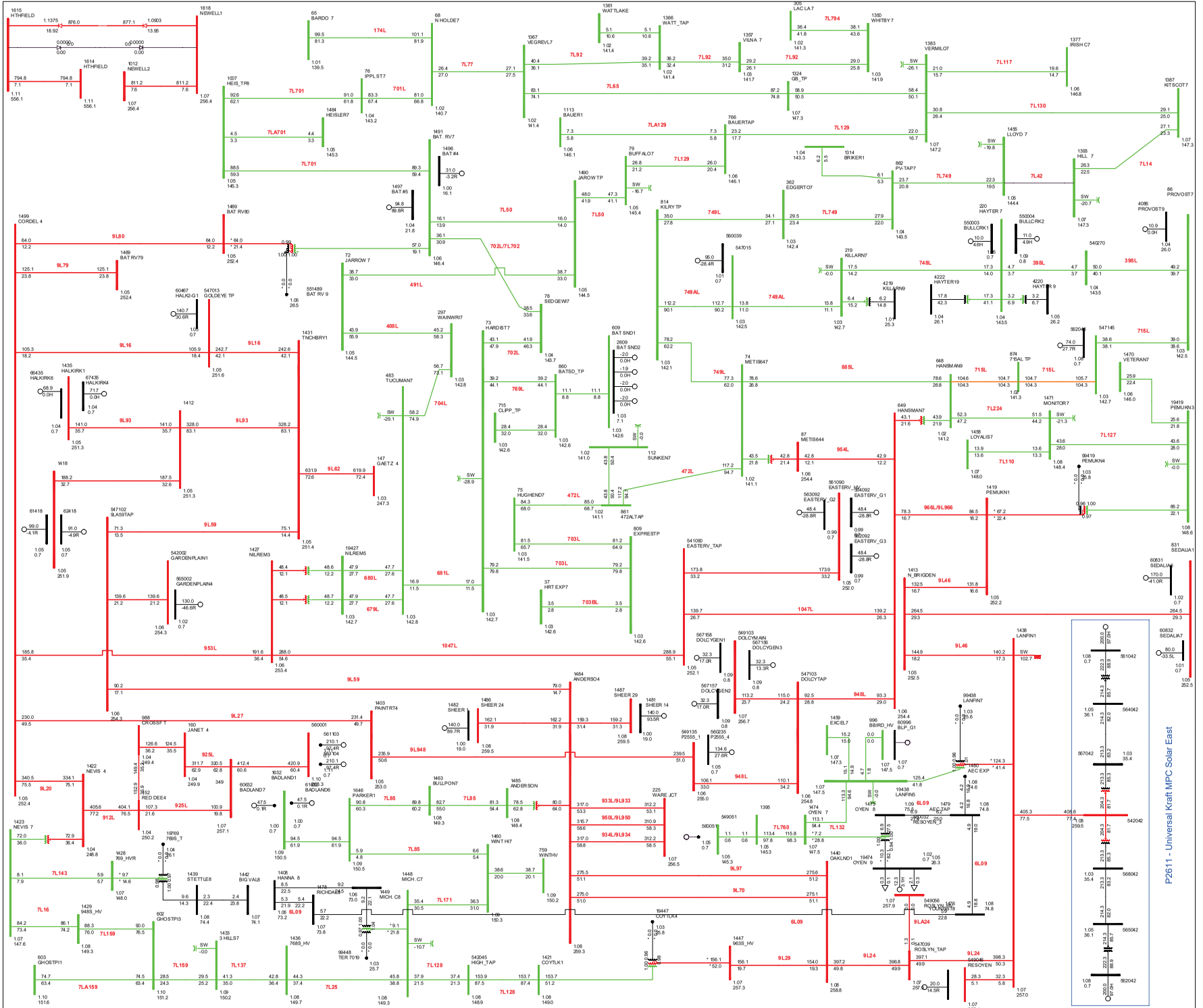
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-5: SCN4-SP-POST.SAV
CATEGORY B - 7L159 (GHOST PINE 114S TO HEATBURG 948S)
SUN, SEP 07 2025 21:31
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -861.1 MW

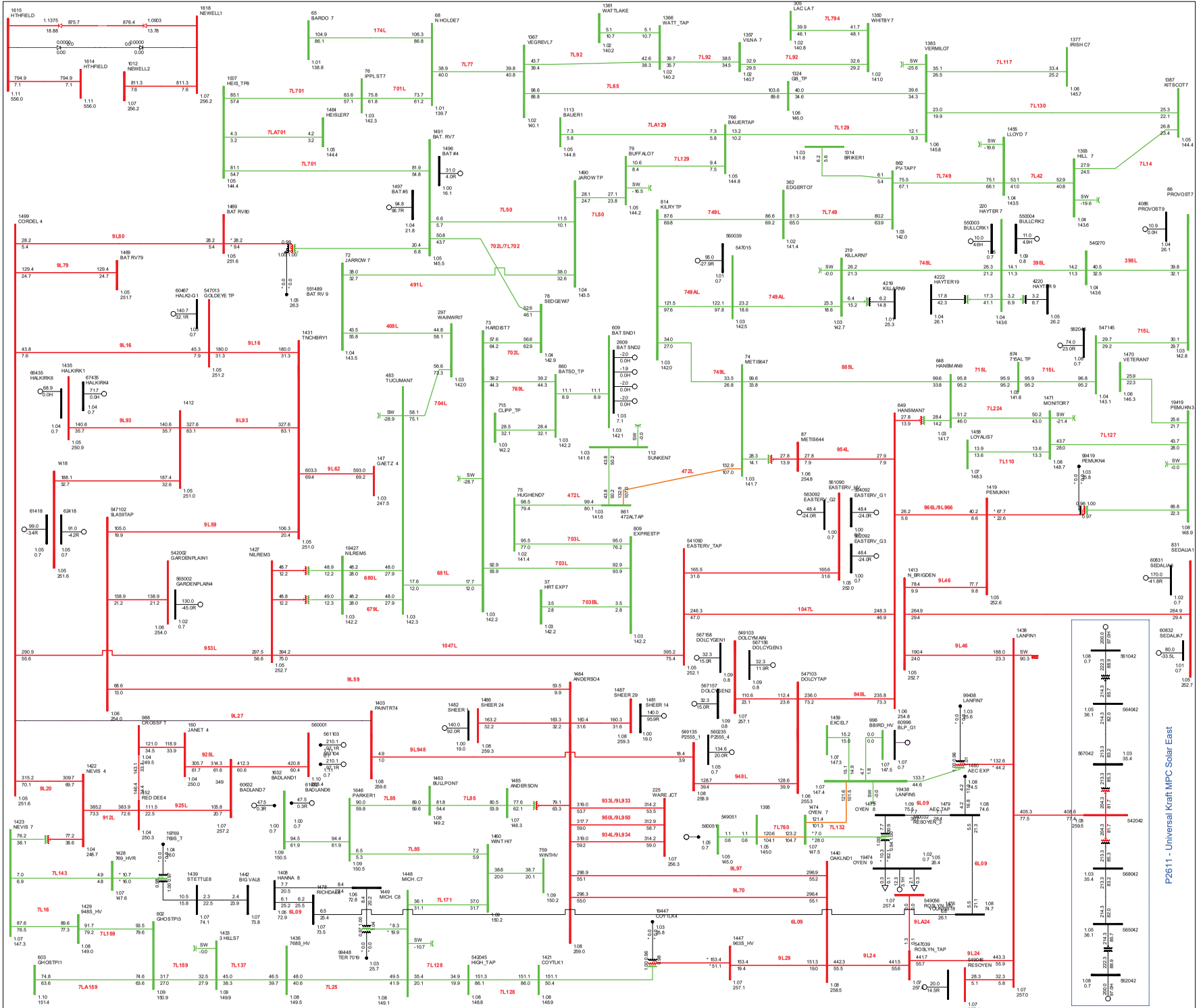
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-6: SCN4-SP-POST.SAV
CATEGORY B - 7L42 (LLOYDMINSTER 716S TO HILL 751S)
SUN, SEP 07 2025 21:31
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -844.1 MW

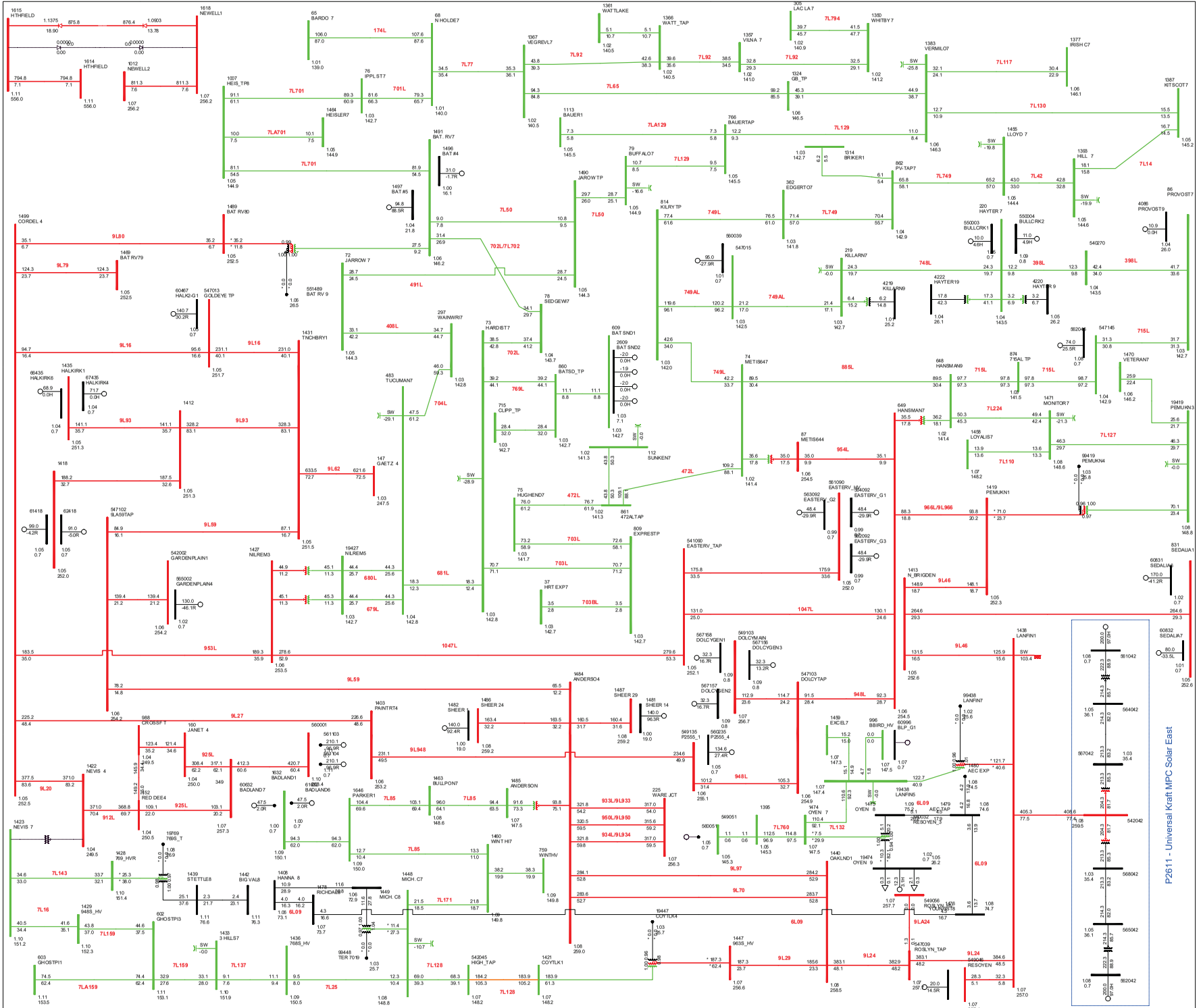
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-7: SCN4-SP-POST.SAV
CATEGORY B - 9L27 (CORDEL 755S TO PAINTEARTH 863S)
SUN, SEP 07 2025 21:32
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -859.0 MW

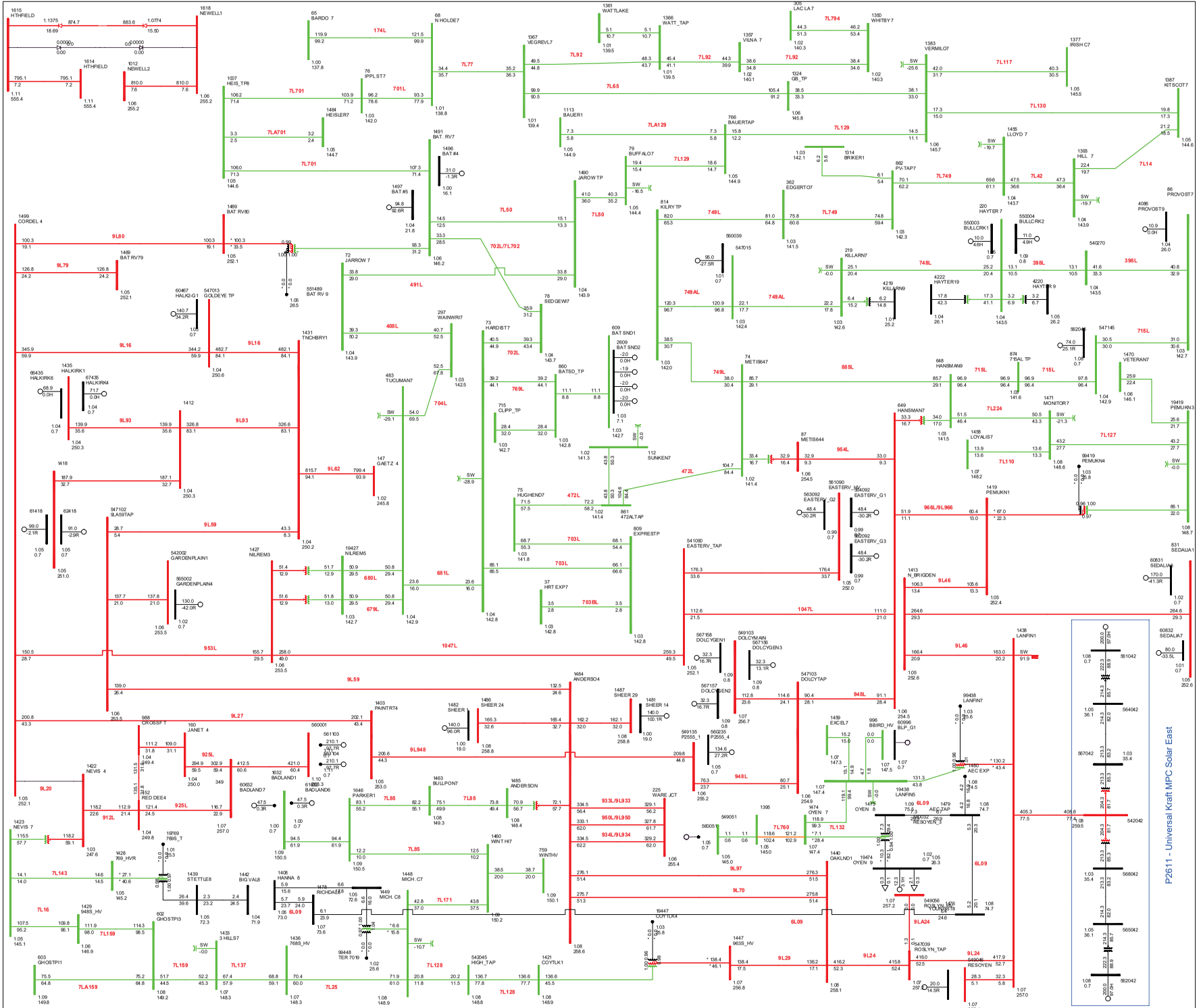
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-8: SCN4-SP-POST.SAV
CATEGORY B - NEVIS 240/138 KV TF
SUN, SEP 07 2025 21:32
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -835.5 MW

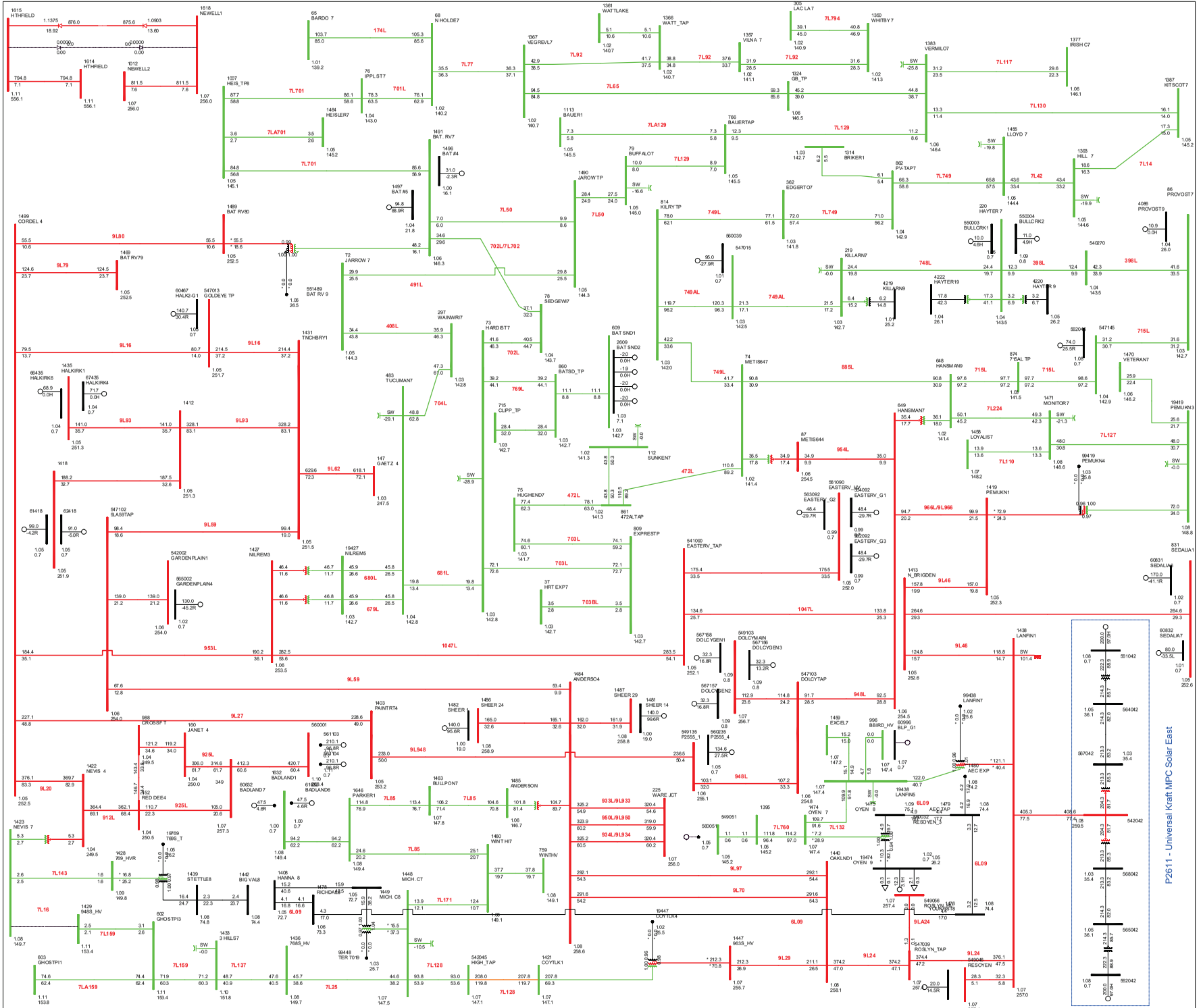
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-9: SCN4-SP-POST.SAV
CATEGORY B - 9L20 (NEVIS 766S TO CORDEL 755S)
SUN, SEP 07 2025 21:32
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -855.0 MW

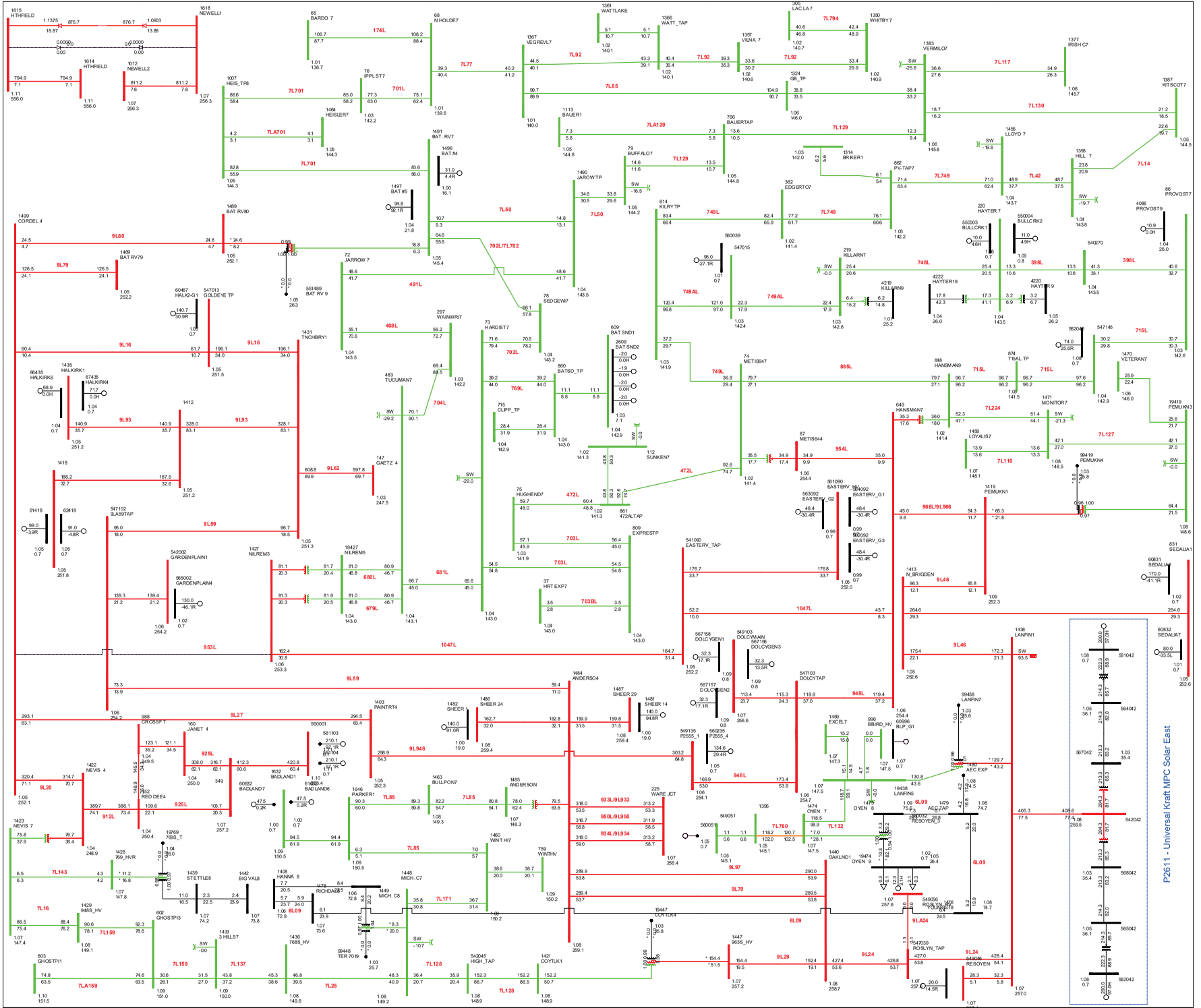
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-10: SCN4-SP-POST.SAV
CATEGORY B - 7L16 (HEATBURG 948S TO NEVIS 766S)
SUN, SEP 07 2025 21:32
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -851.5 MW

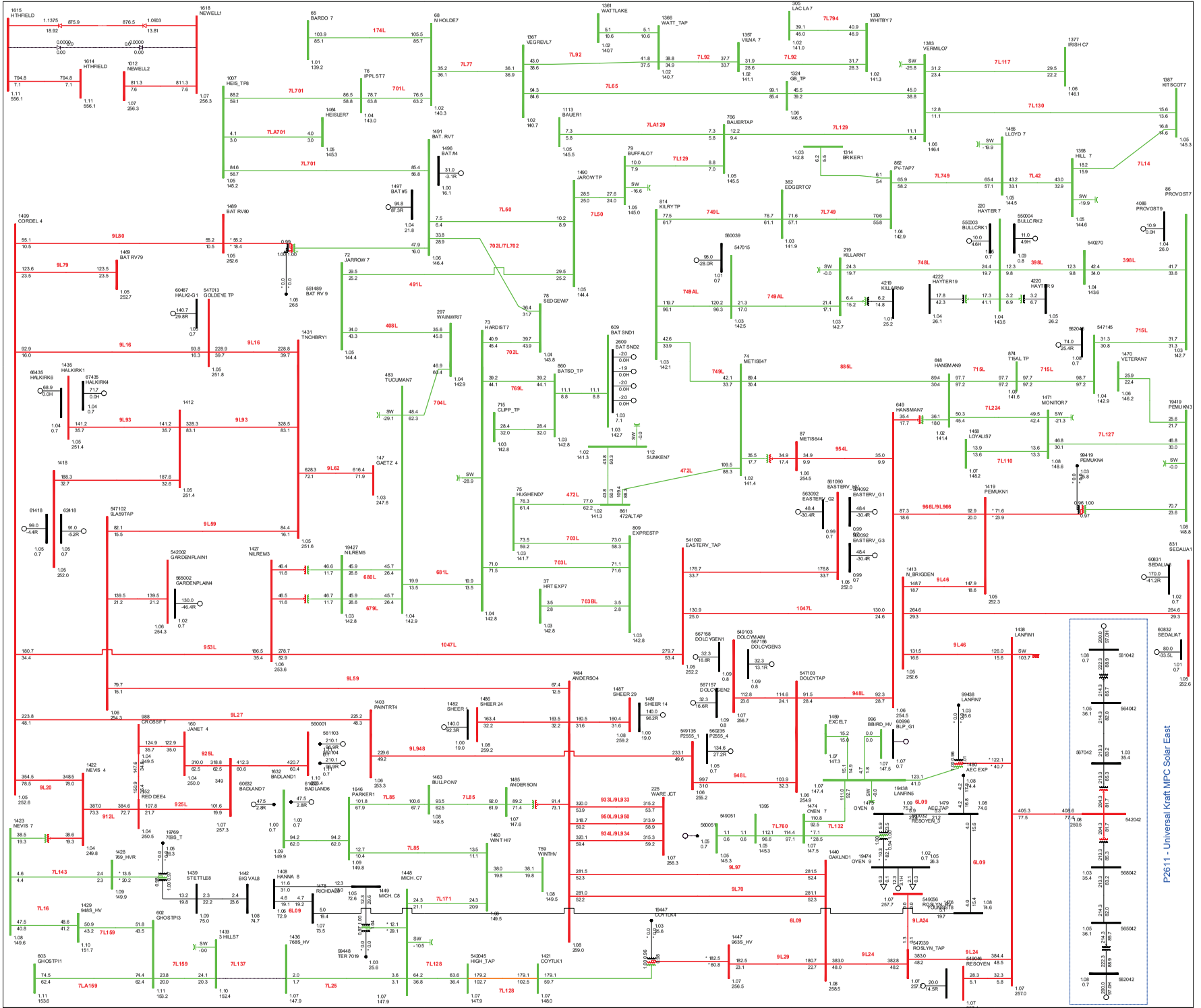
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-11: SCN4-SP-POST.SAV
CATEGORY B - 953L (NILREM 574S TO CORDEL 755S)
SUN, SEP 07 2025 21:33
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -861.5 MW

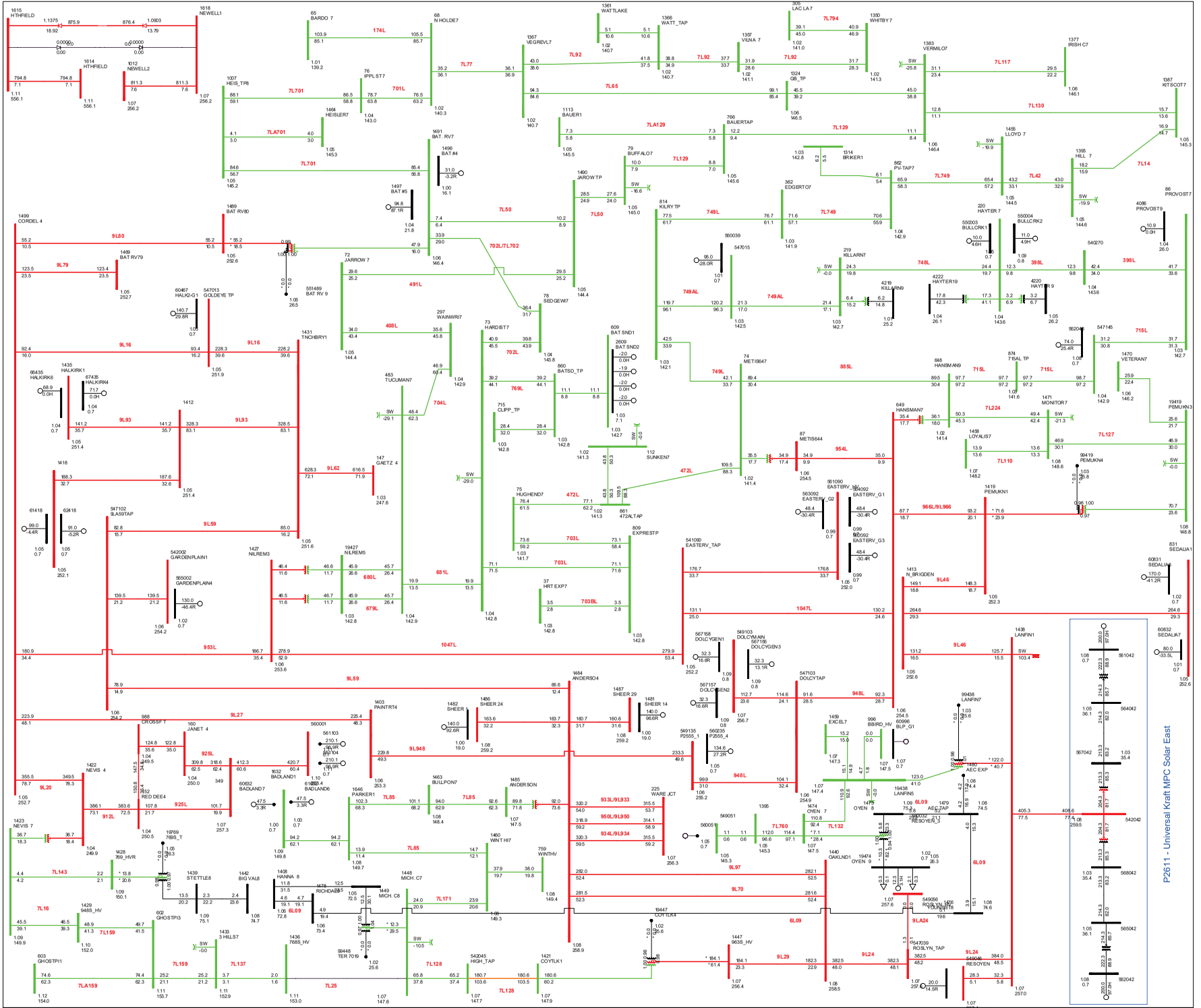
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-12: SCN4-SP-POST.SAV
CATEGORY B - 7L137 (ROWLEY 768S TO THREE HILLS 770S)
SUN, SEP 07 2025 21:33
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -861.4 MW

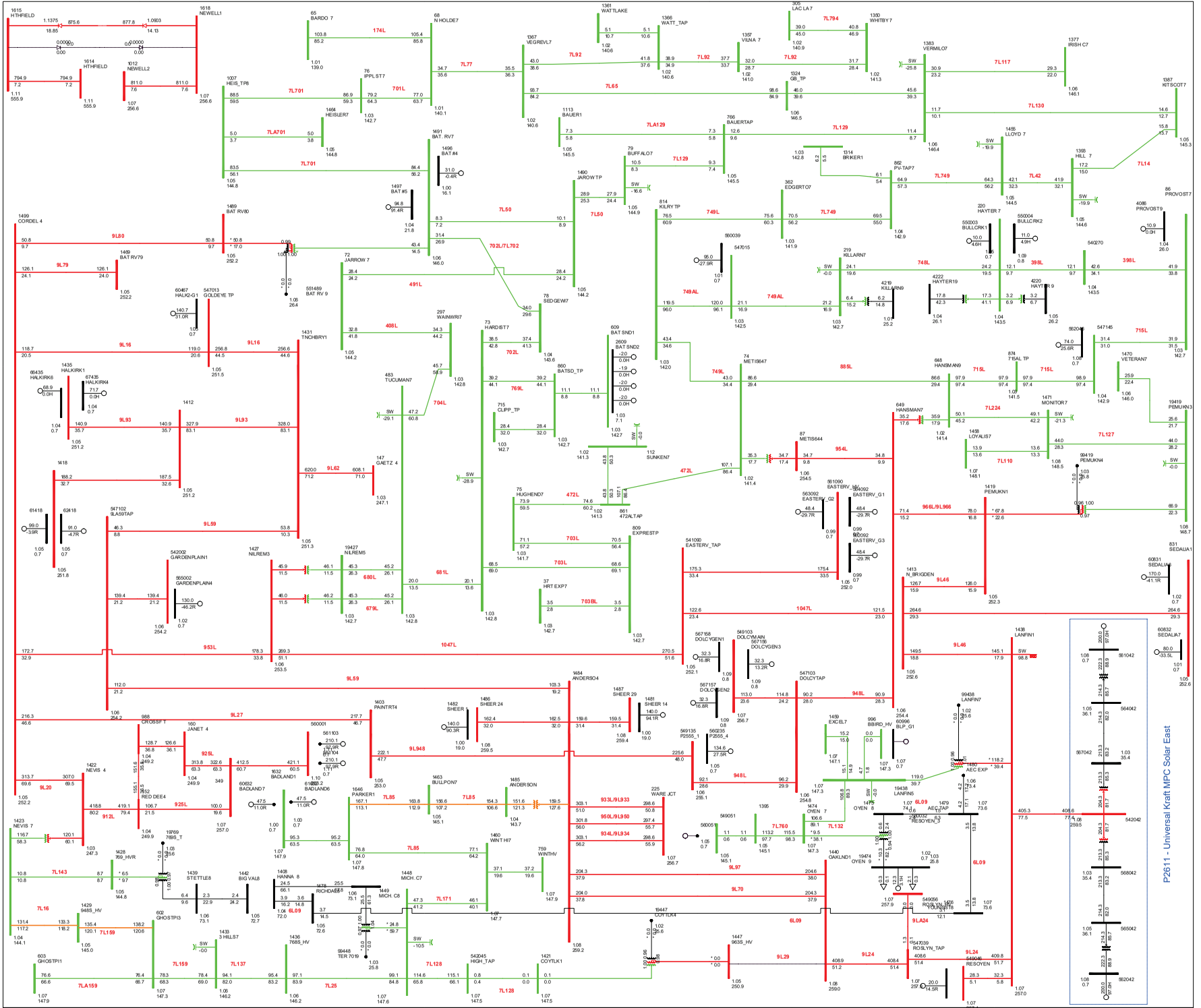
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-13: SCN4-SP-POST.SAV
CATEGORY B - 7L25 (MICHICHI CREEK 802S TO ROWLEY 768S)
SUN, SEP 07 2025 21:33
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -836.1 MW

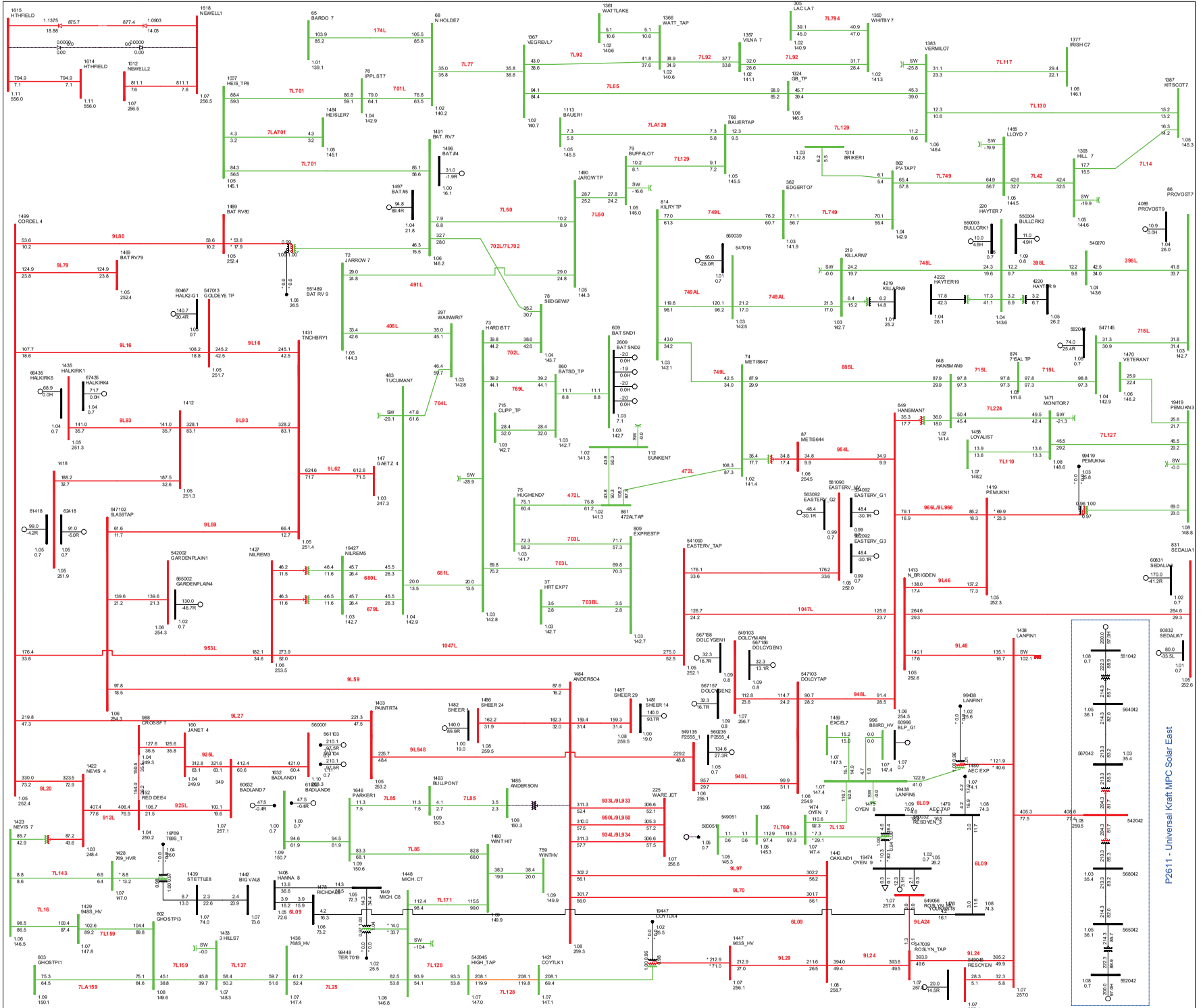
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-14: SCN4-SP-POST.SAV
CATEGORY B - 9L29 (OAKLAND 946S TO COYOTE LAKE 963S)
SUN, SEP 07 2025 21:34
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -852.7 MW

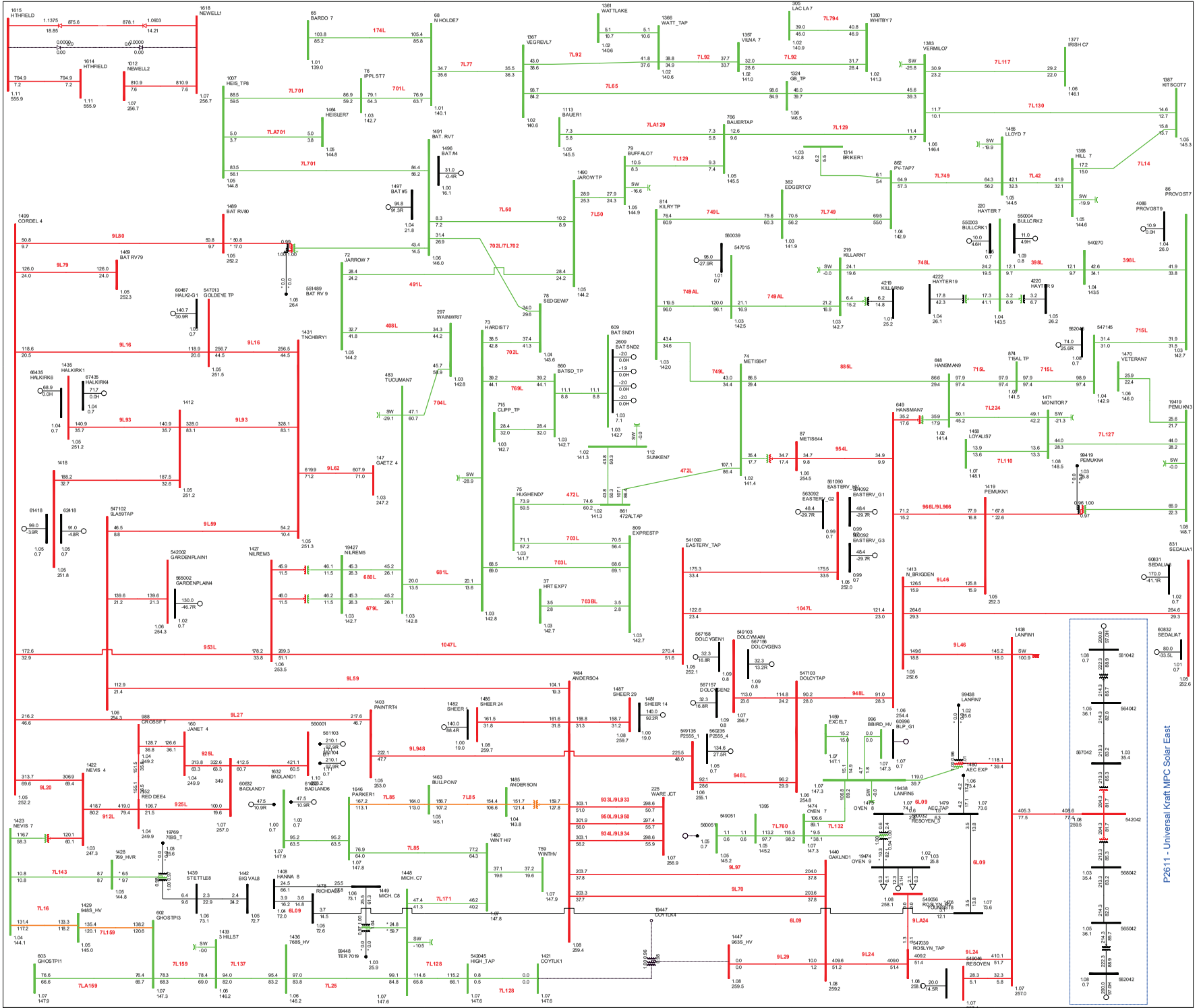
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-15: SCN4-SP-POST.SAV
CATEGORY B - 801S (ANDERSON 801S TRANSFORMER T1)
SUN, SEP 07 2025 21:34
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -836.2 MW

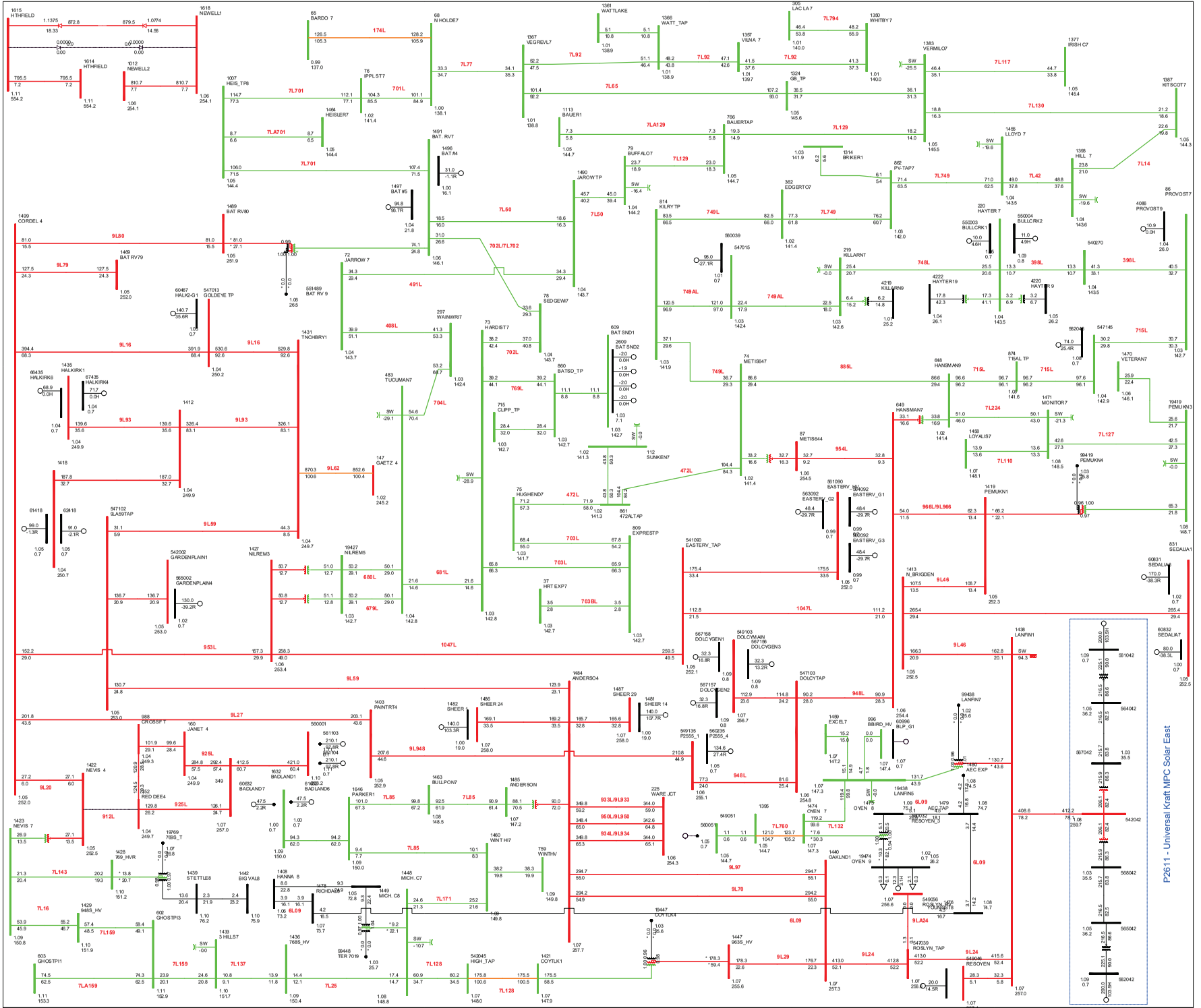
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-16: SCN4-SP-POST.SAV
CATEGORY B - COYOTE LAKE 963S – 901 TRANSFORMER
SUN, SEP 07 2025 21:34
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -815.3 MW

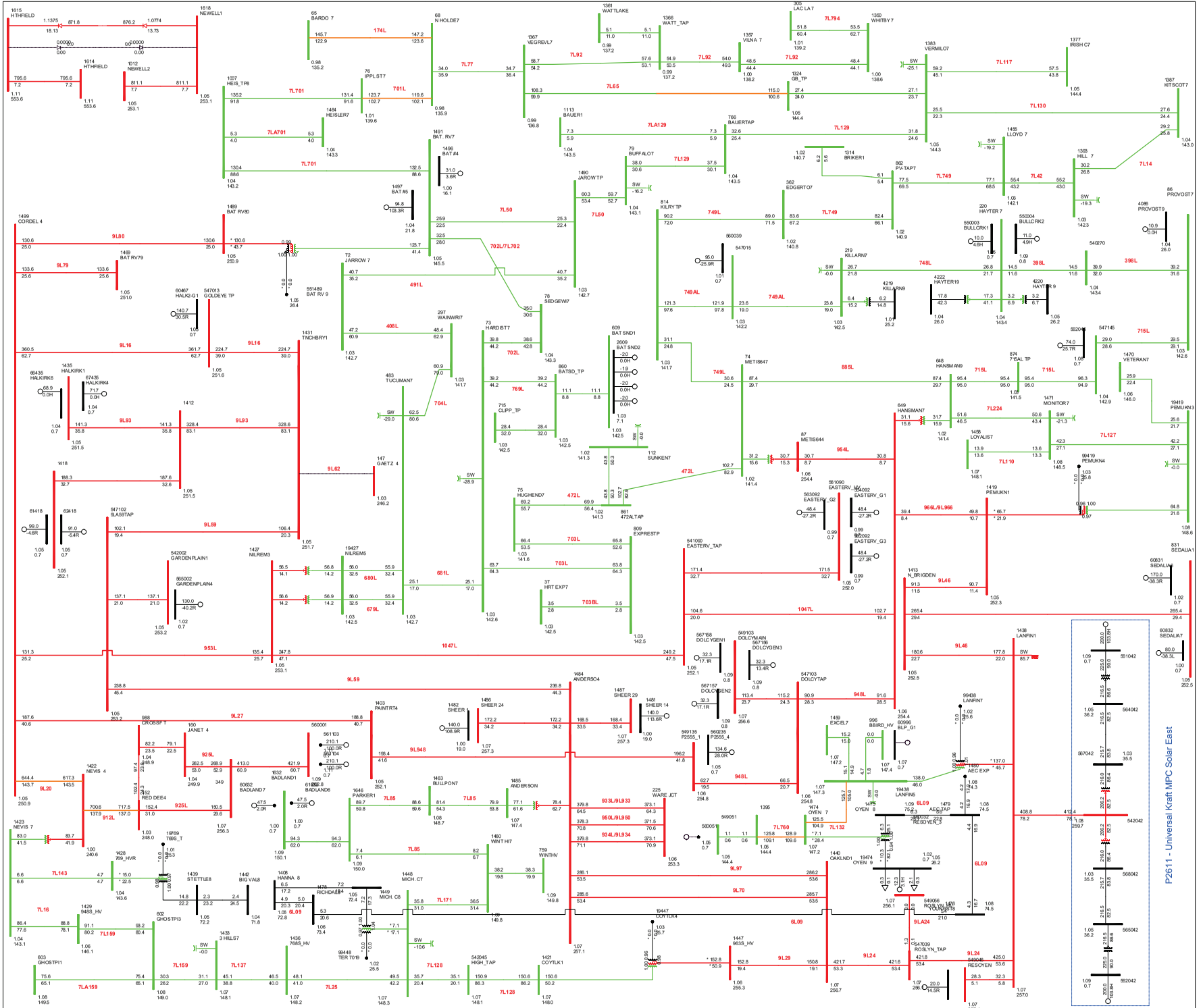
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-17: SCN4-SP-POST.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
SUN, SEP 07 2025 21:35
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -765.8 MW

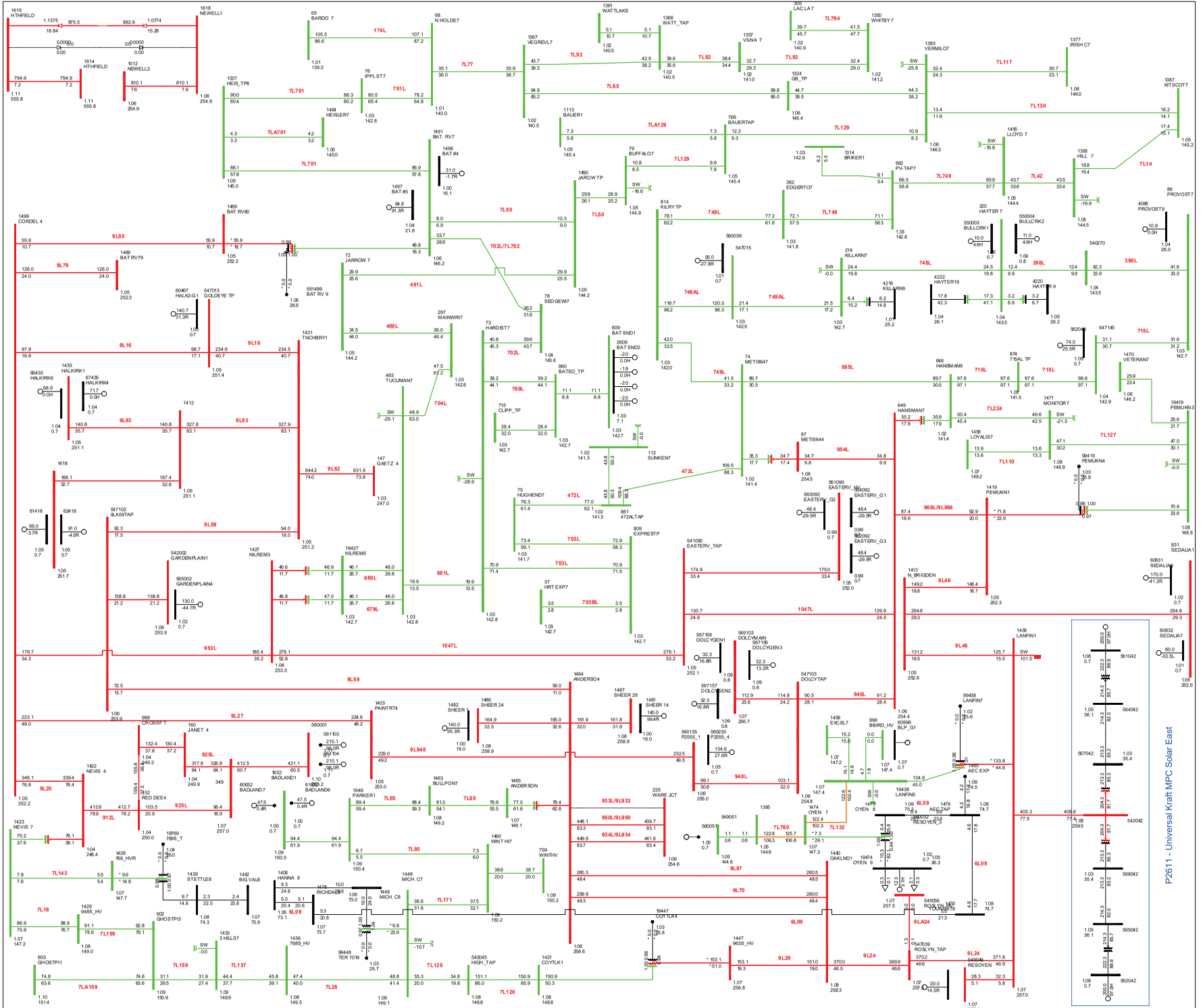
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-18: SCN4-SP-POST.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
SUN, SEP 07 2025 21:35
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -850.0 MW

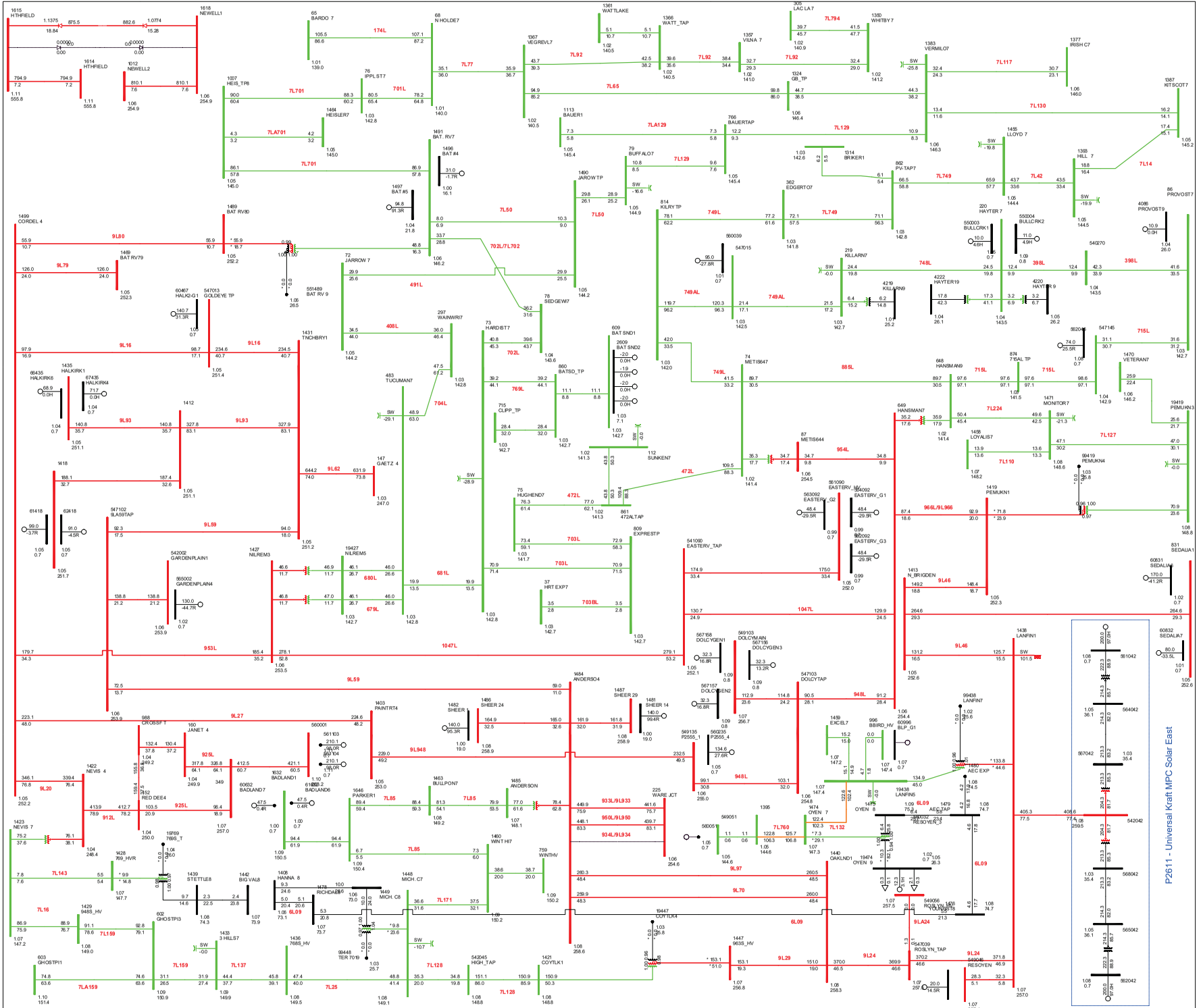
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-19: SCN4-SP-POST.SAV
CATEGORY B - 9L933 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 21:35
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -850.0 MW

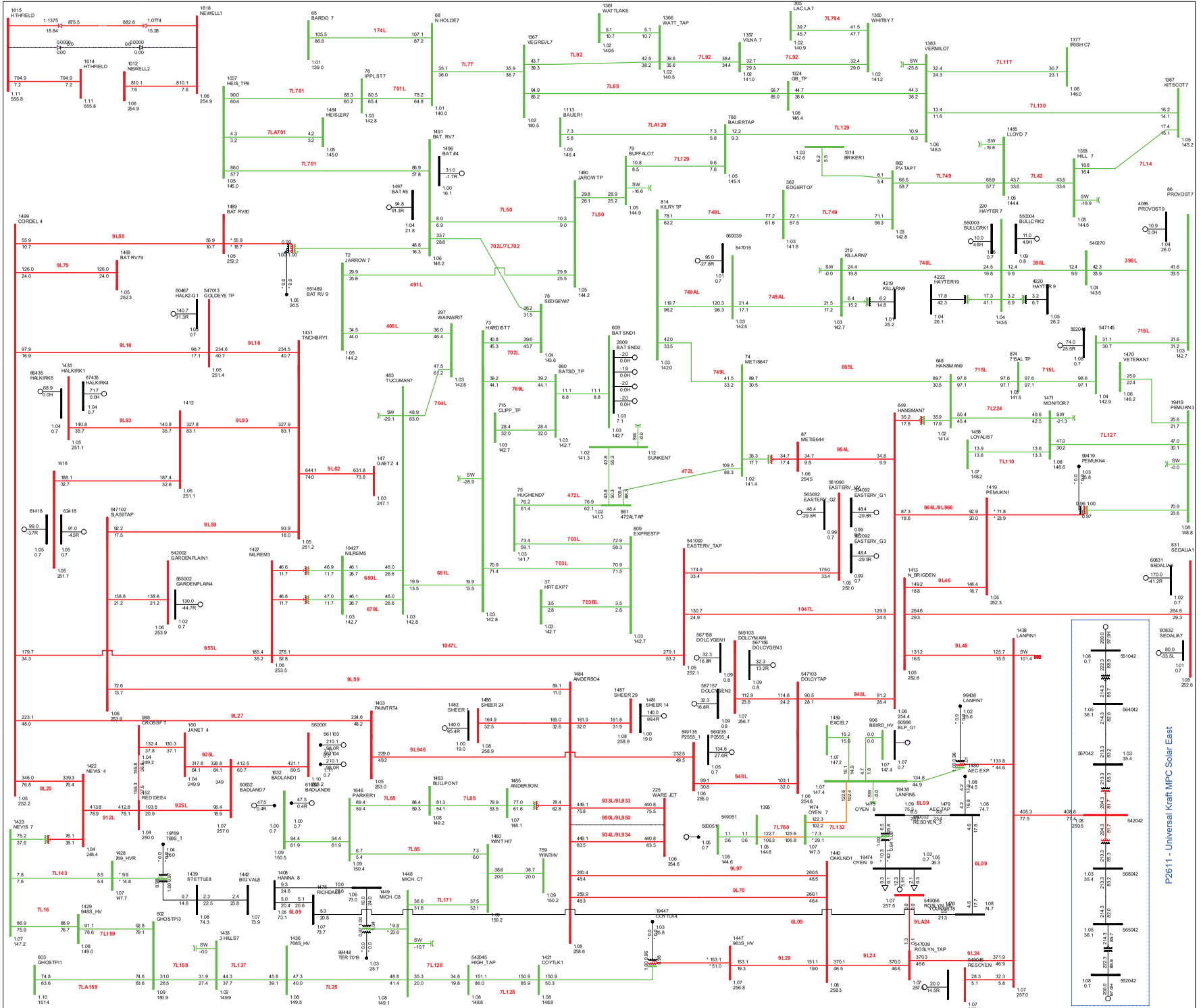
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-20: SCN4-SP-POST.SAV
CATEGORY B - 9L934 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 21:36
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -850.0 MW

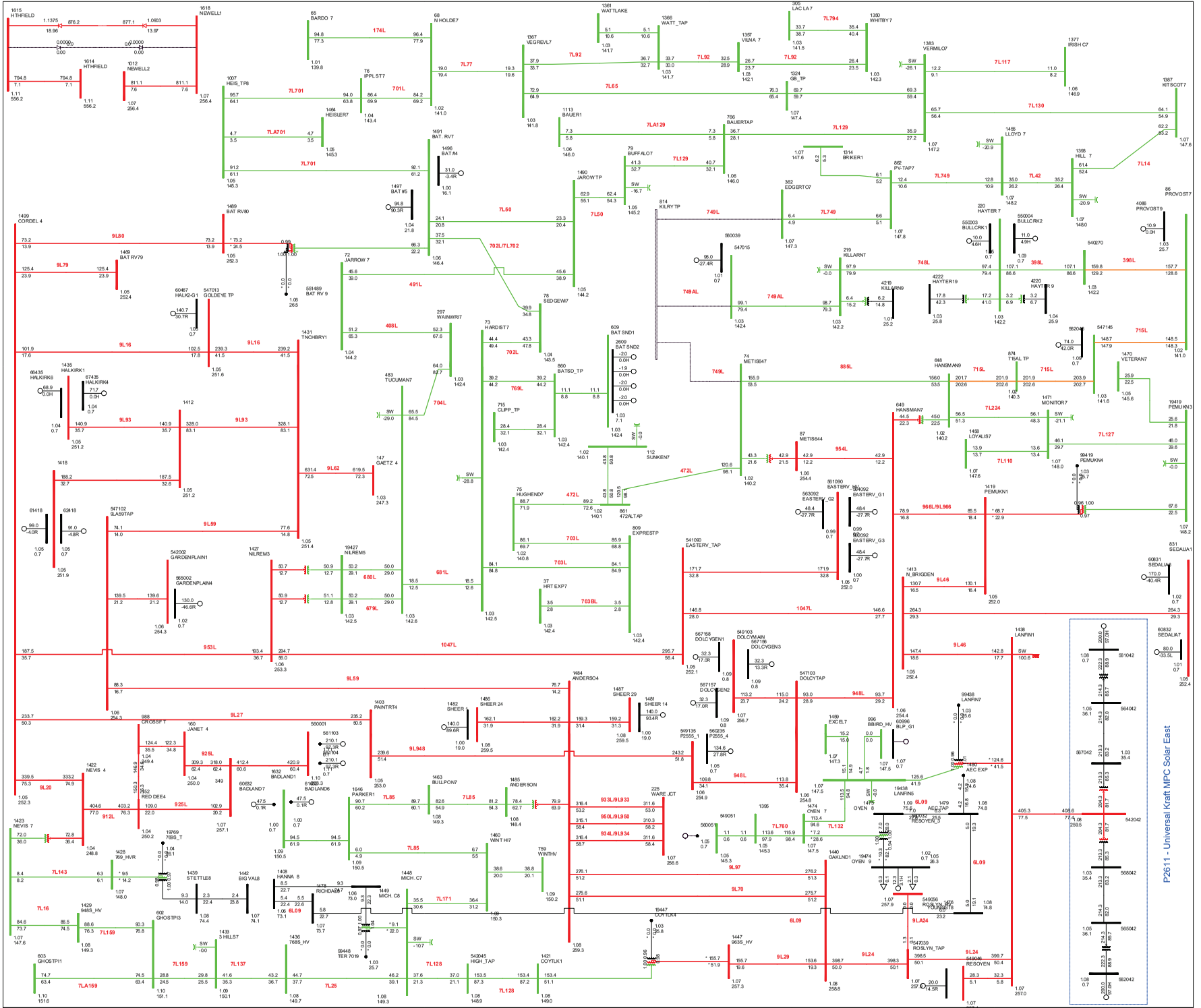
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-21: SCN4-SP-POST.SAV
CATEGORY B - 9L950 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 21:36
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -846.0 MW

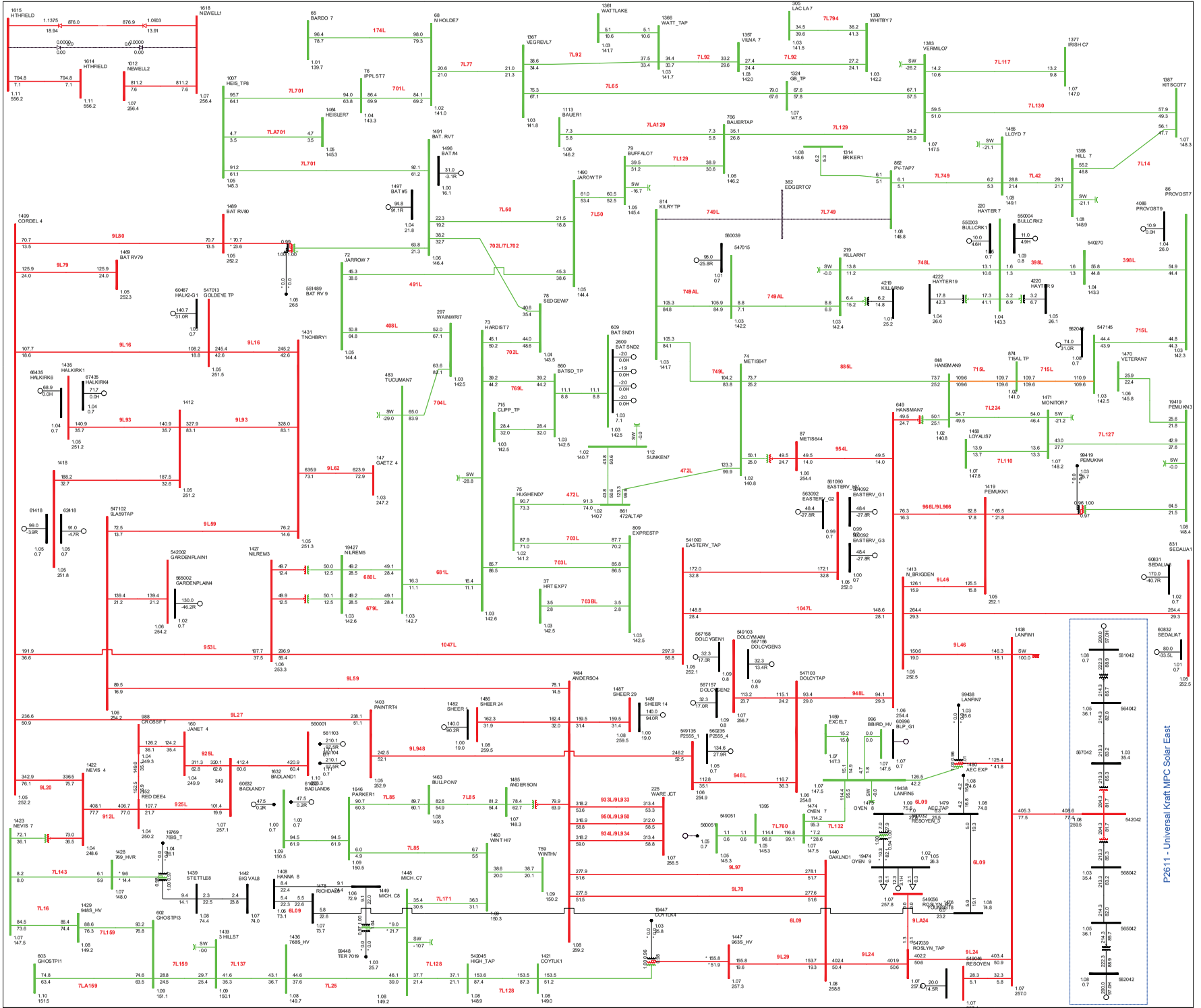
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-22: SCN4-SP-POST.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
SUN, SEP 07 2025 21:36
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -861.5 MW

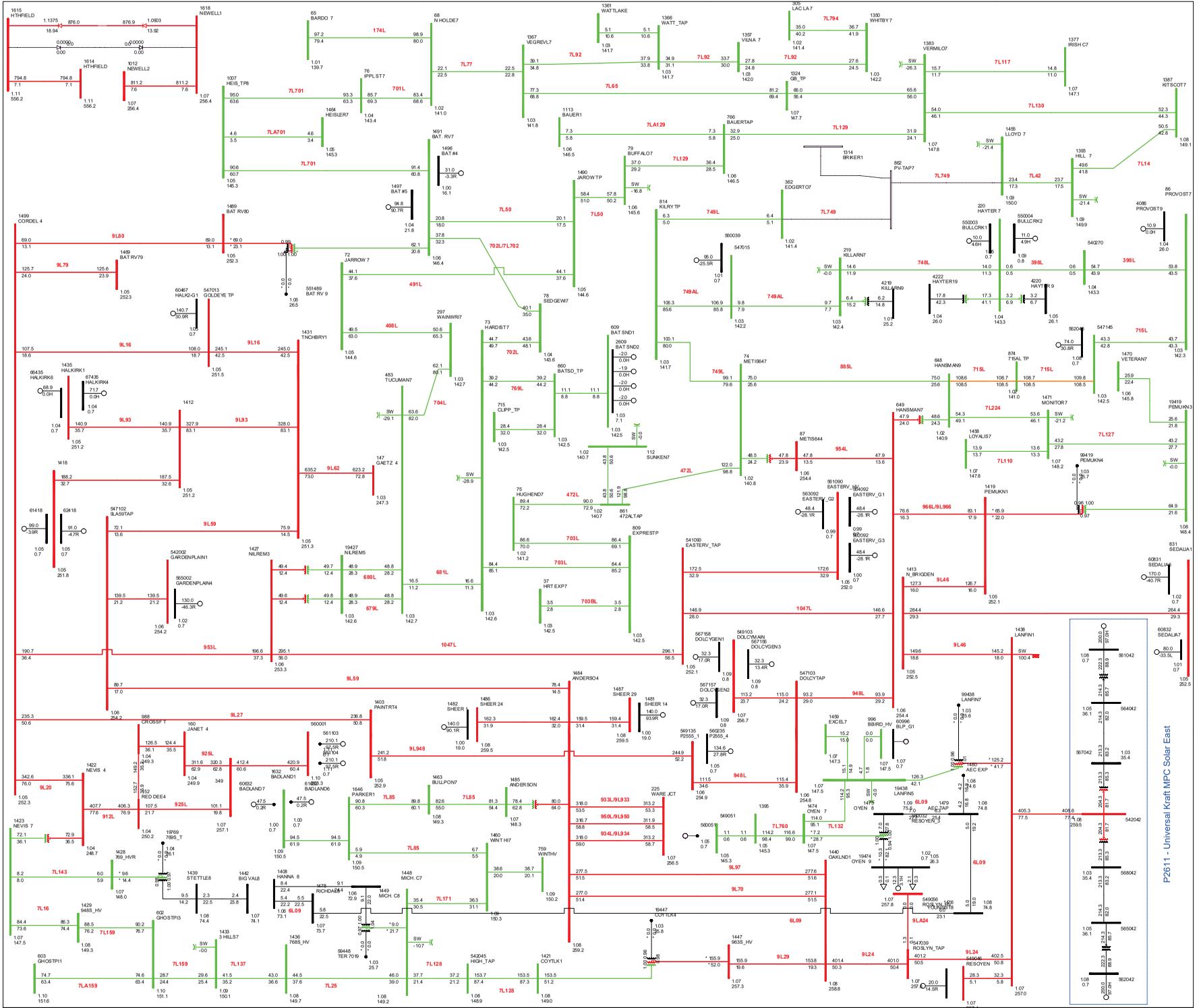
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-23: SCN4-SP-POST.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
SUN, SEP 07 2025 21:36
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -862.6 MW

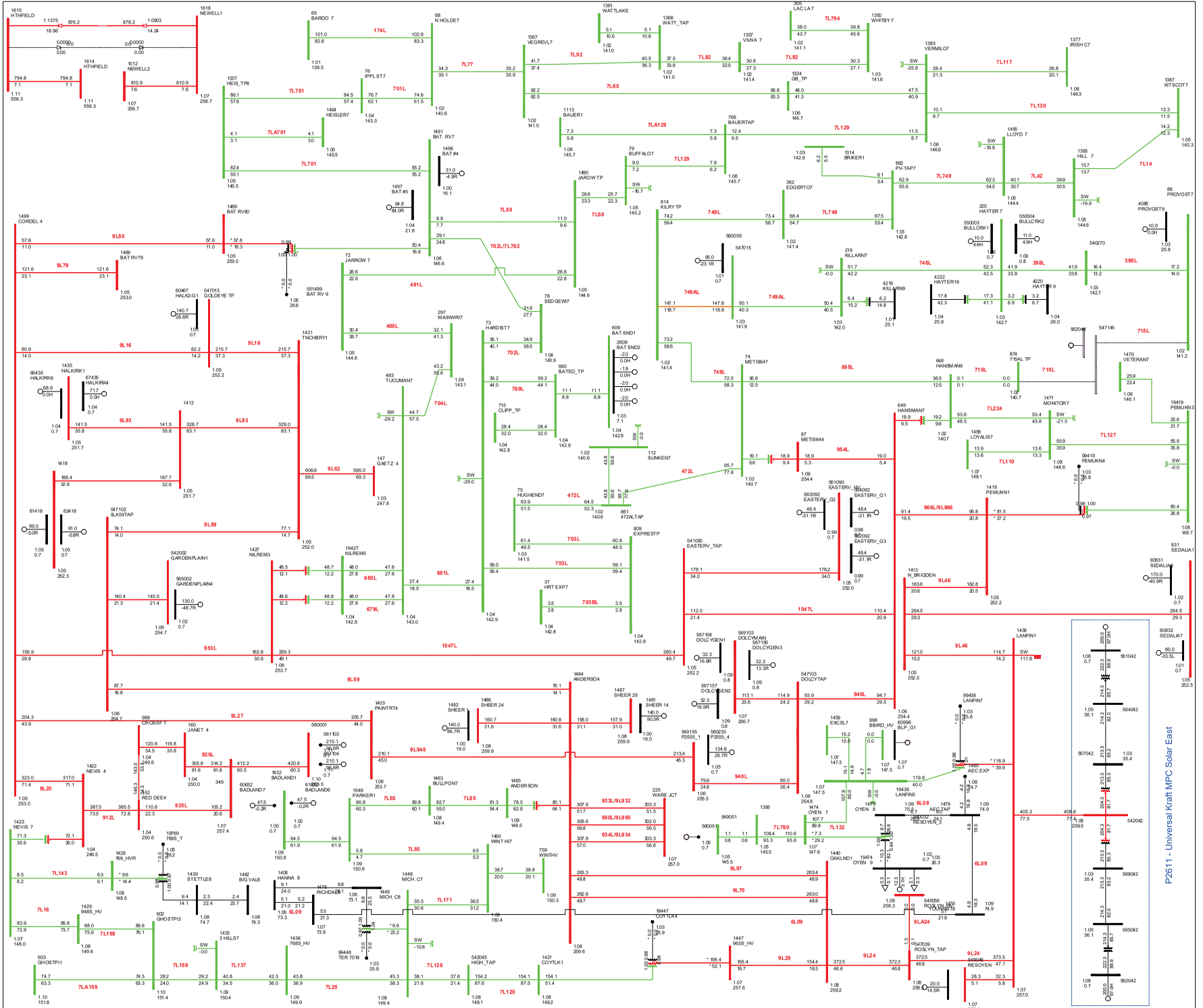
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-24: SCN4-SP-POST.SAV
CATEGORY B - 7L749 (EDGERTON 899S TO LLOYDMINSTER 716S)
SUN, SEP 07 2025 21:37
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -805.5 MW

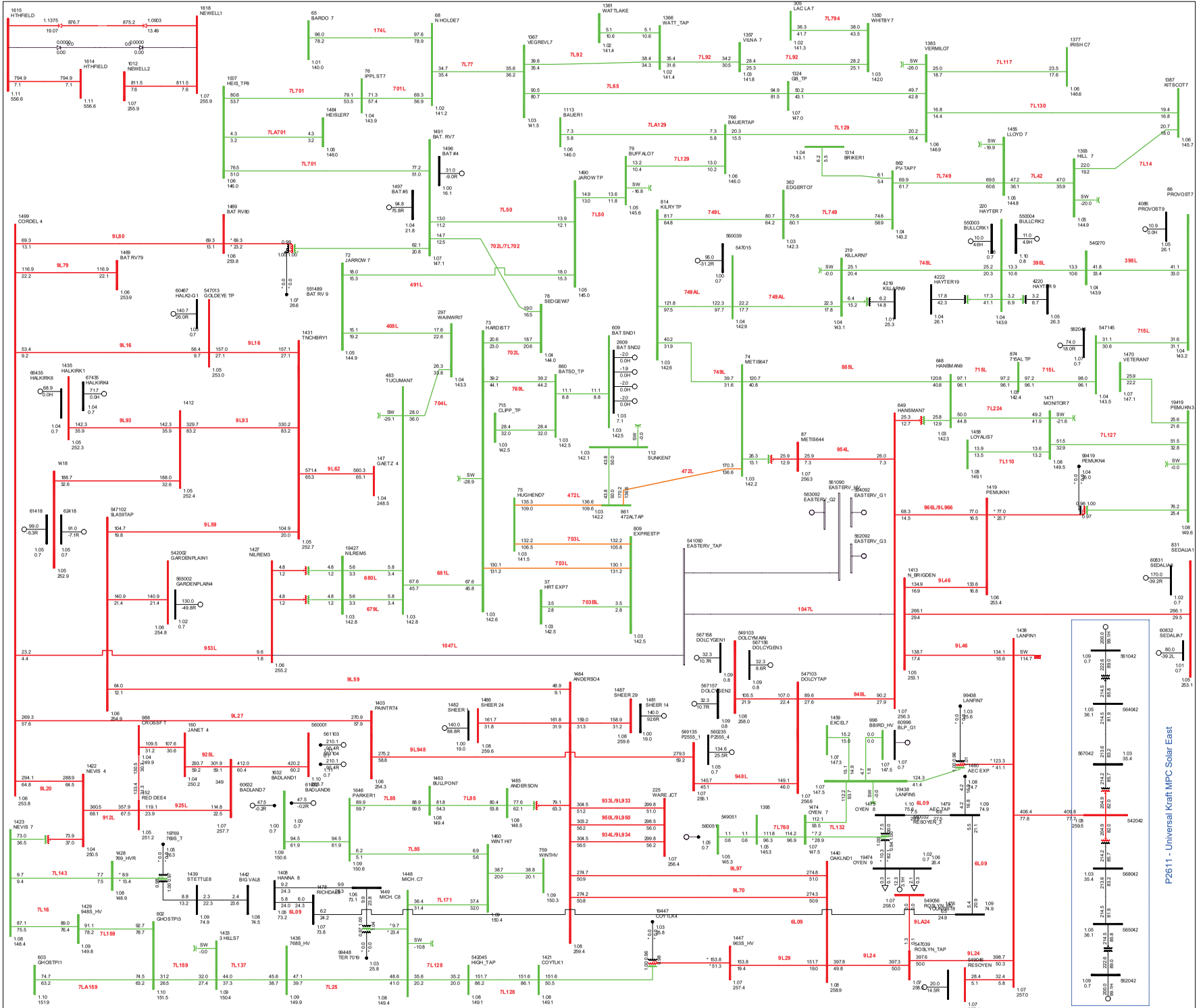
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-25: SCN4-SP-POST.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
SUN, SEP 07 2025 21:37
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -726.8 MW

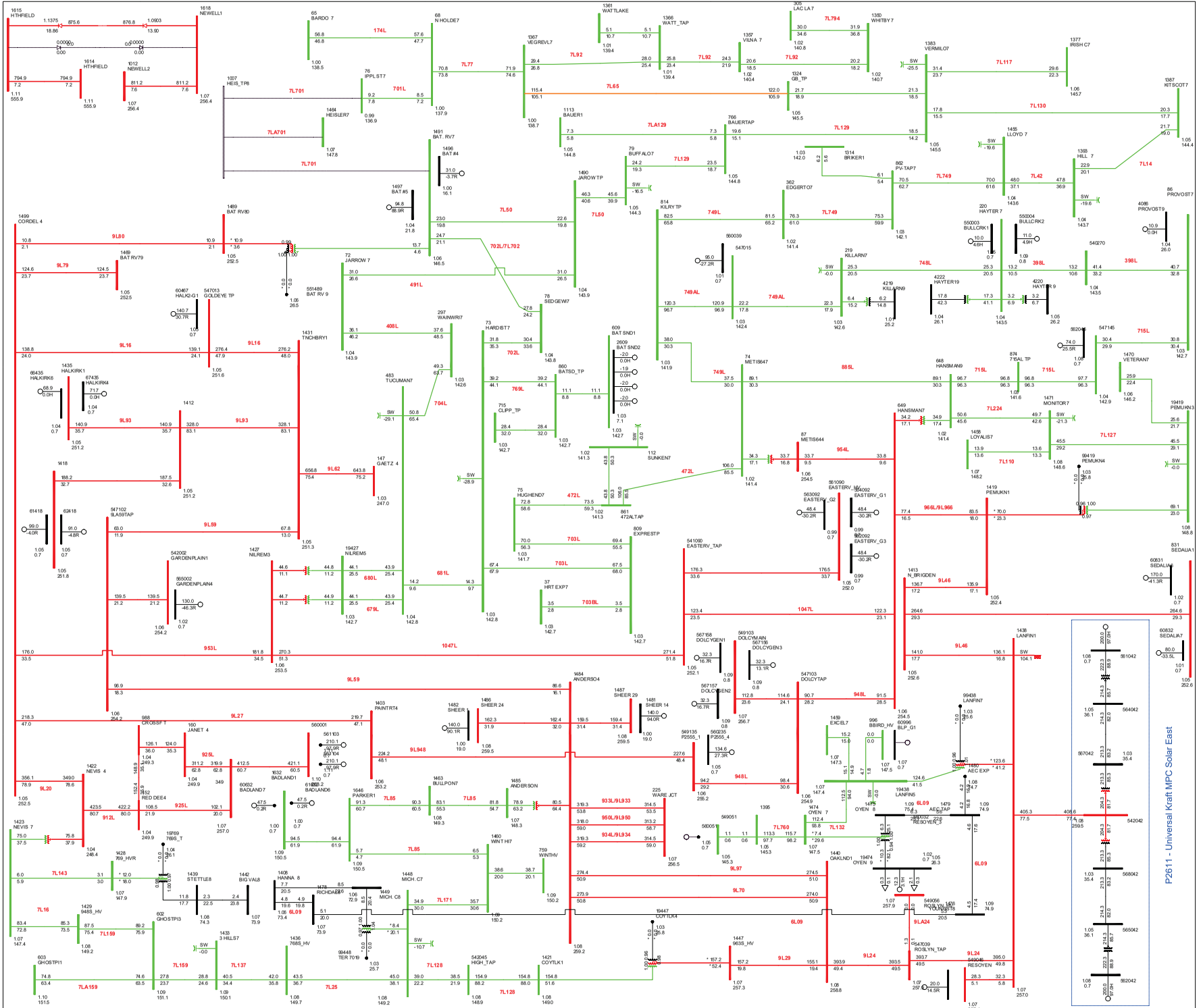
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-26: SCN4-SP-POST.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
SUN, SEP 07 2025 21:37
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.0 MW

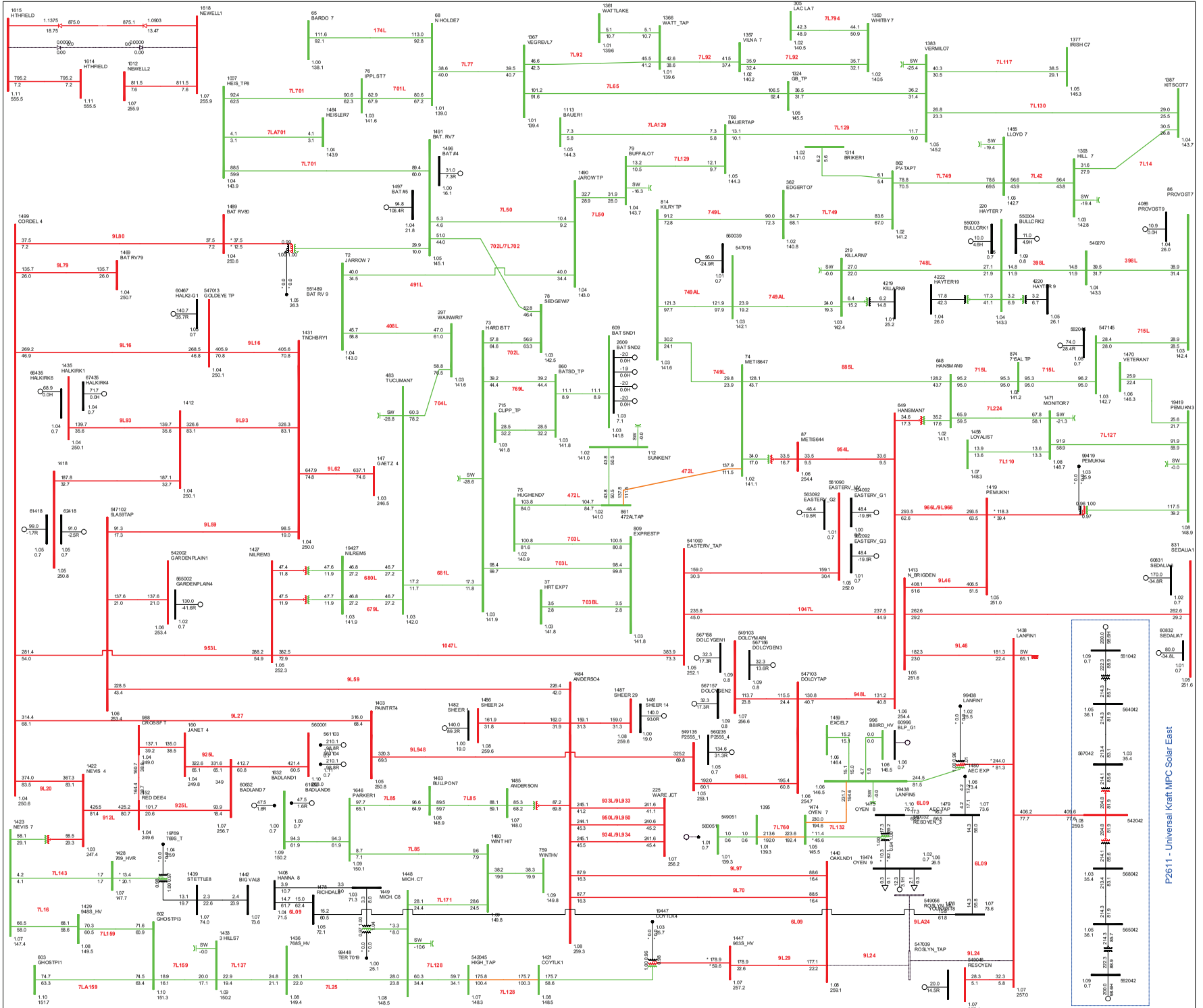
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-27: SCN4-SP-POST.SAV
CATEGORY B - 701L (BATTLE RIVER 757S TO STROME 223S)
SUN, SEP 07 2025 21:38
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -784.8 MW

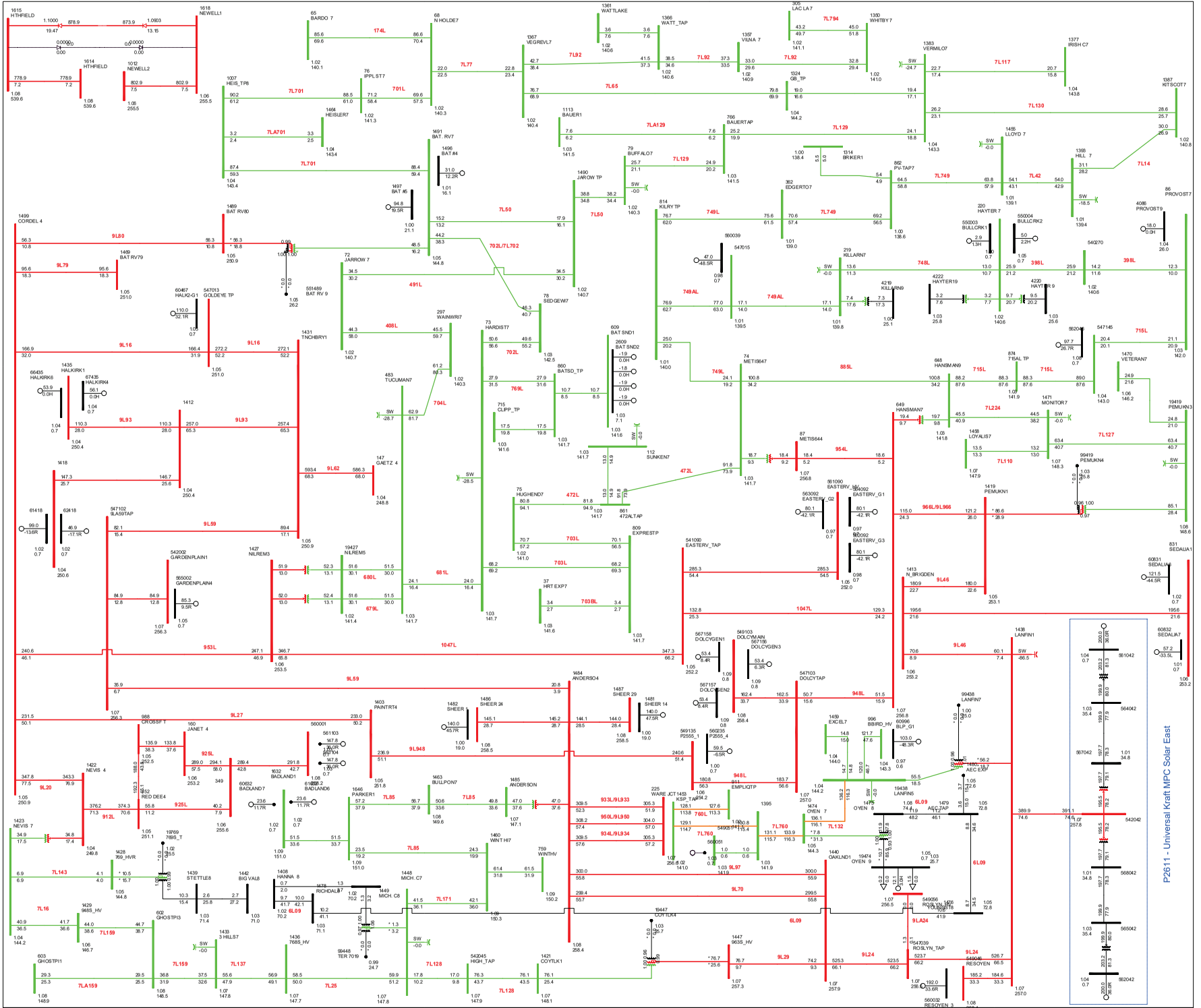
Sask Import: 151.0 MW

MATL: 186.9 MW

FIGURE B-4-28: SCN4-SP-POST.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
SUN, SEP 07 2025 21:38
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -865.9 MW

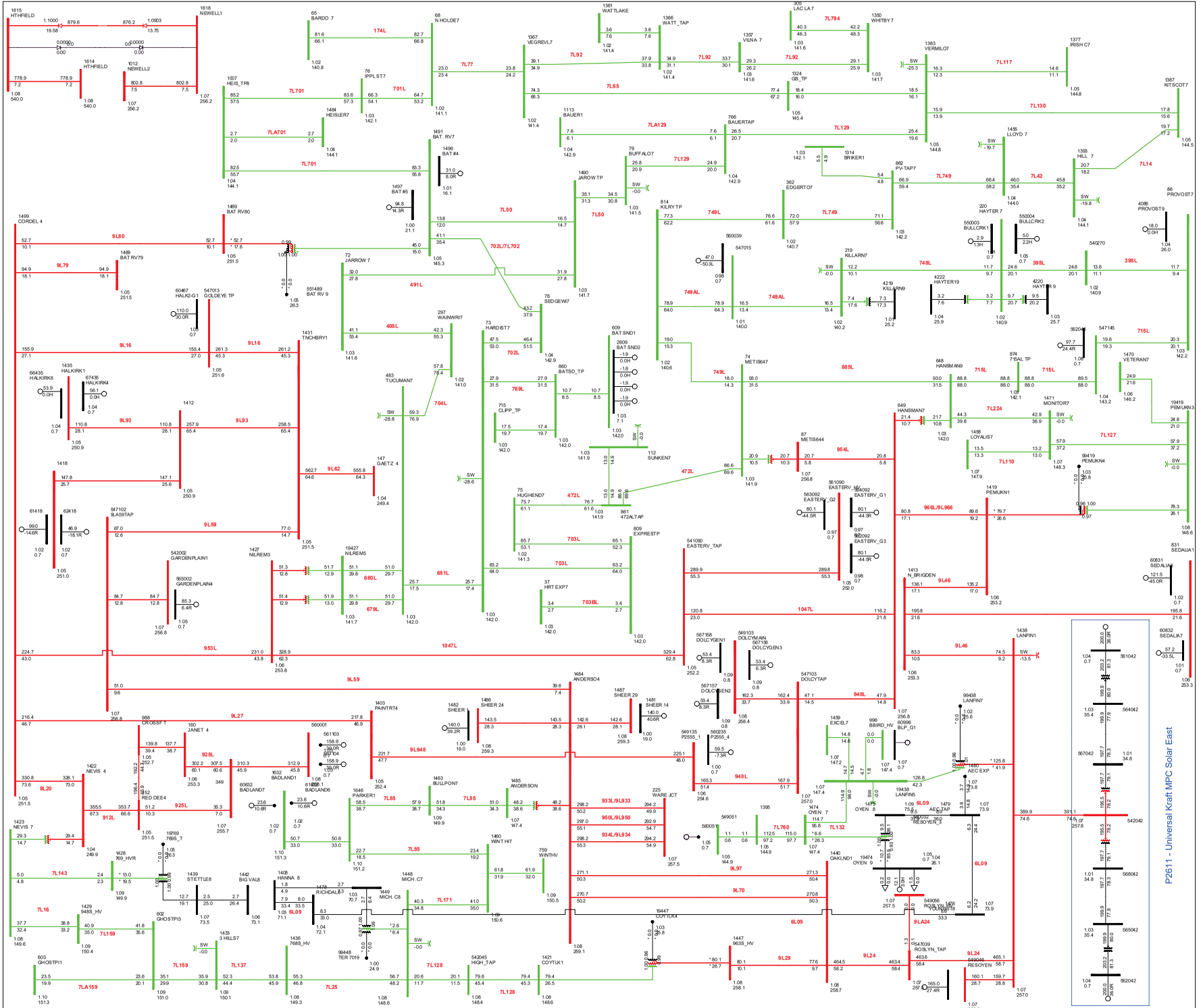
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE A-5-1: SCN5-SL-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
THU, OCT 02 2025 14:21
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -867.7 MW

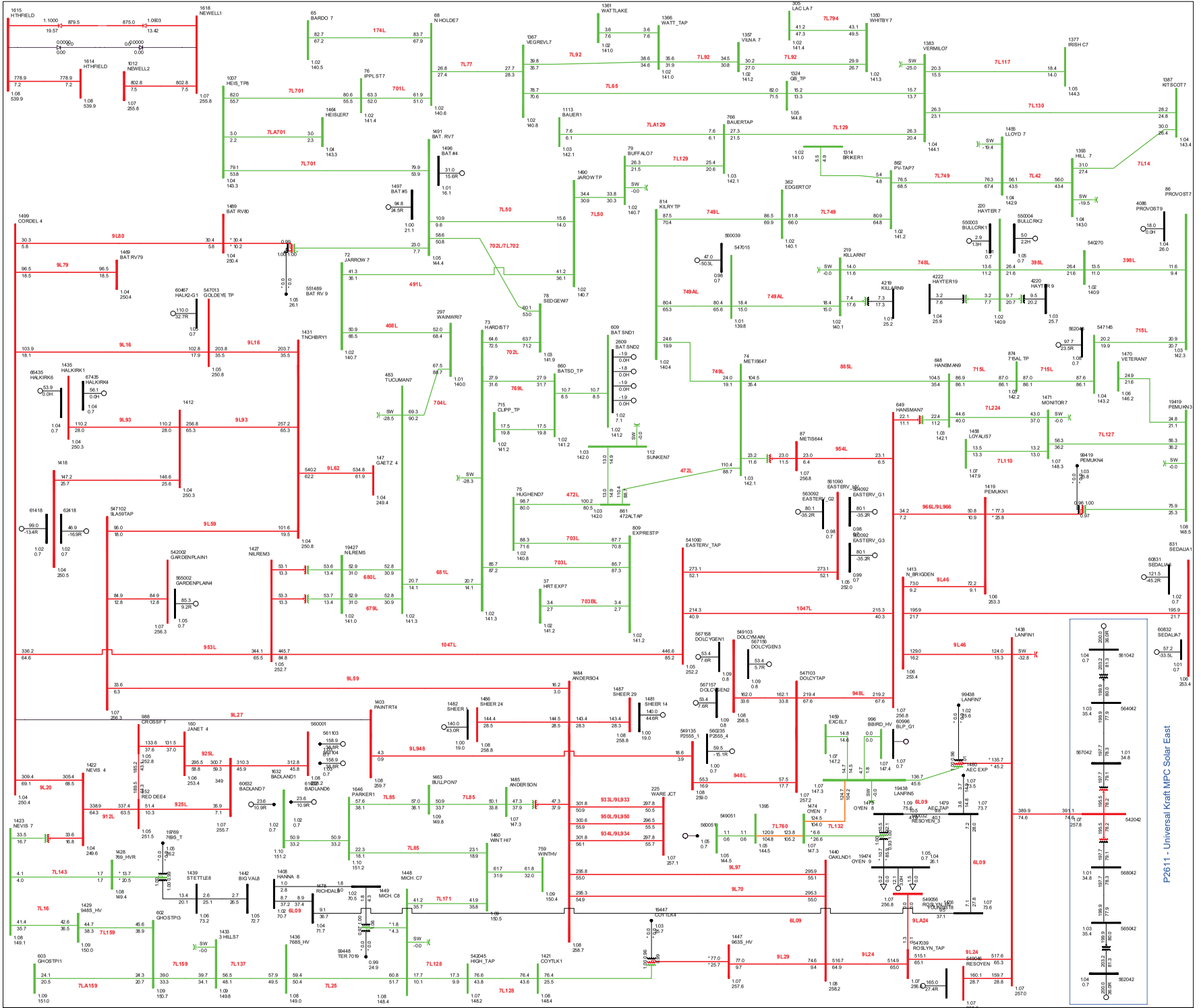
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE A-5-1: SCN5-SL-POST.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 21:39

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -851.0 MW

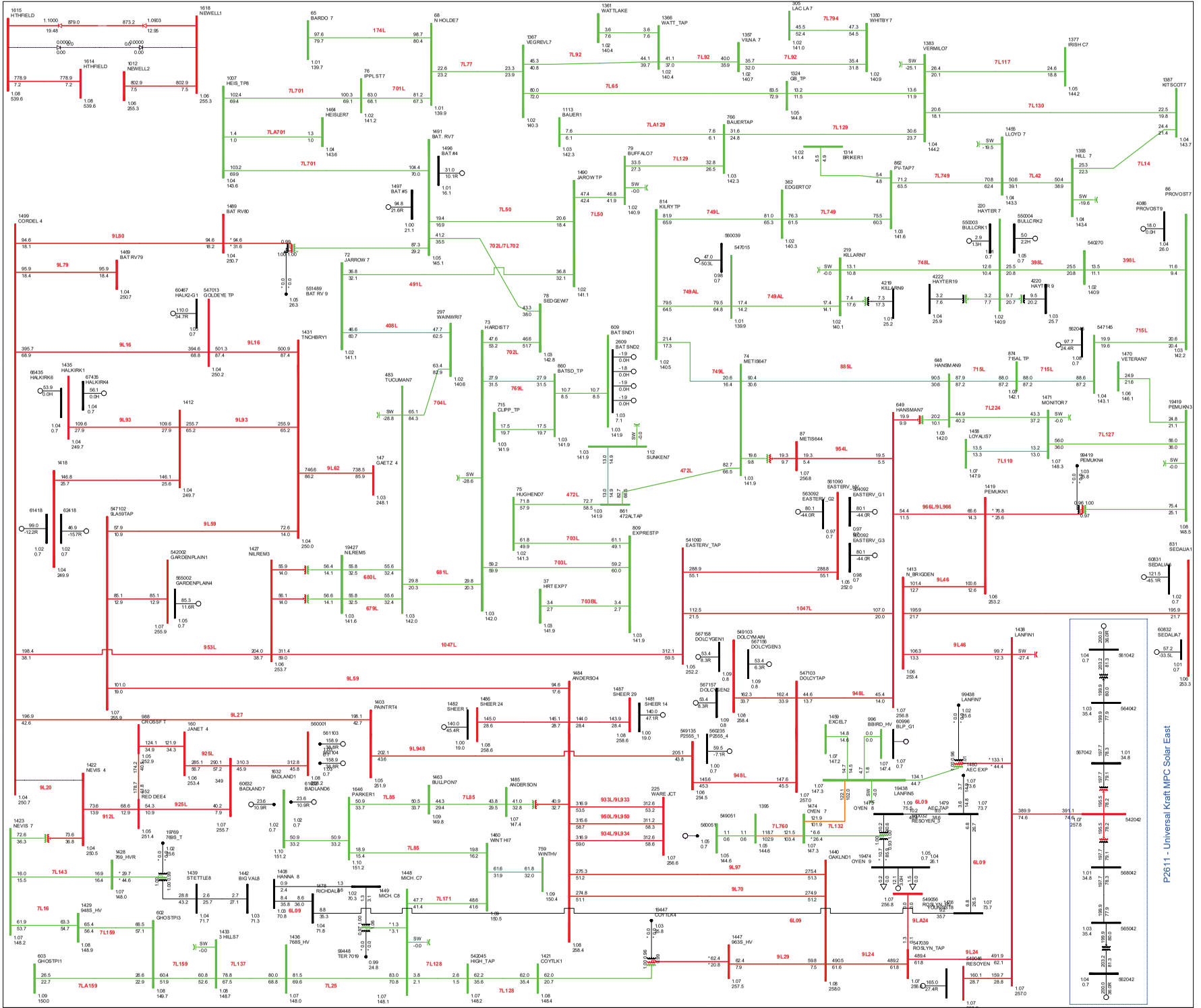
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-1: SCN5-SL-POST.SAV
CATEGORY B - 9L27 (CORDEL 755S TO PAINTEARTH 863S)
SUN, SEP 07 2025 21:39
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -844.0 MW

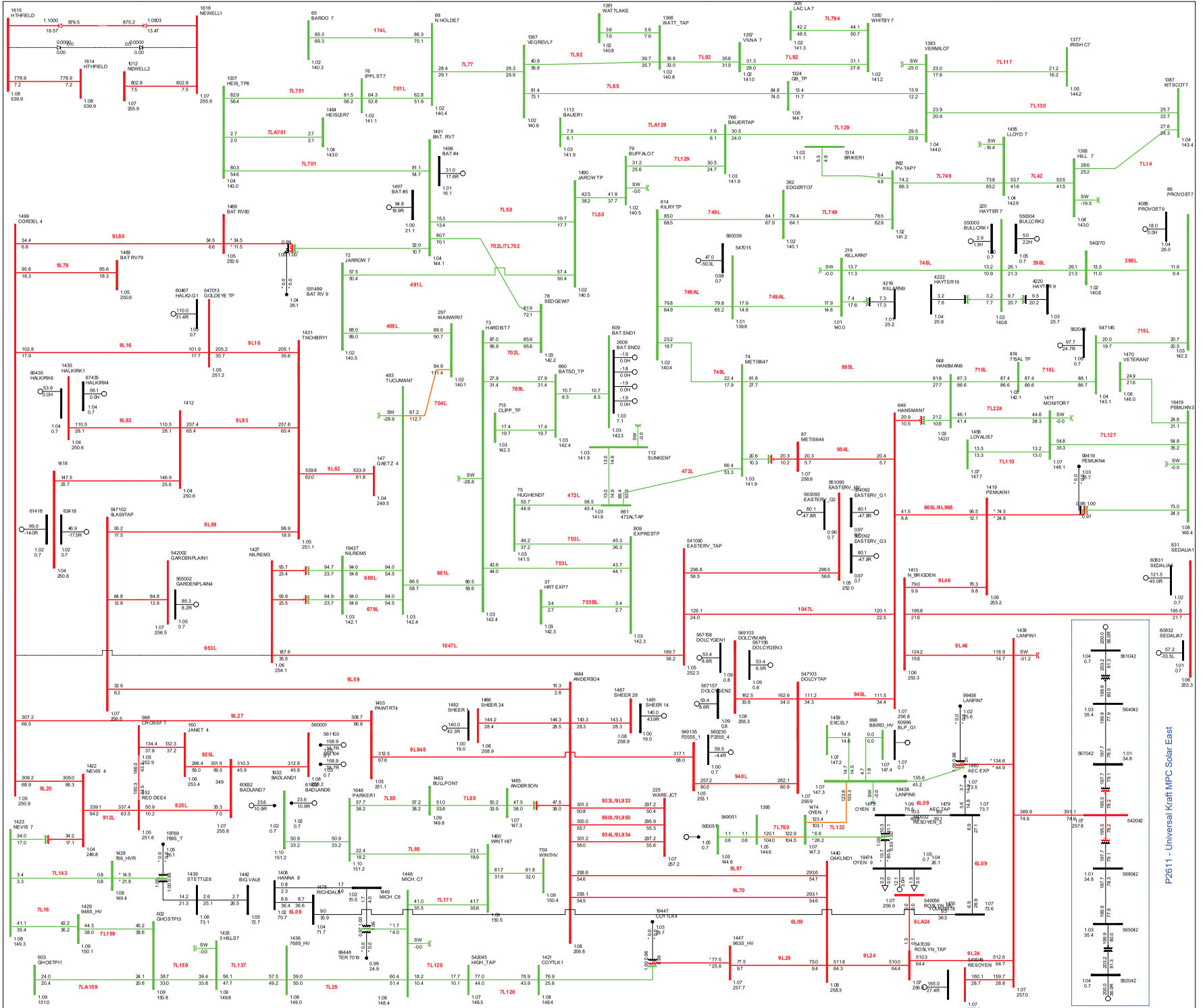
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-2: SCN5-SL-POST.SAV
CATEGORY B - 9L20 (NEVIS 766S TO CORDEL 755S)
SUN, SEP 07 2025 21:40
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -853.7 MW

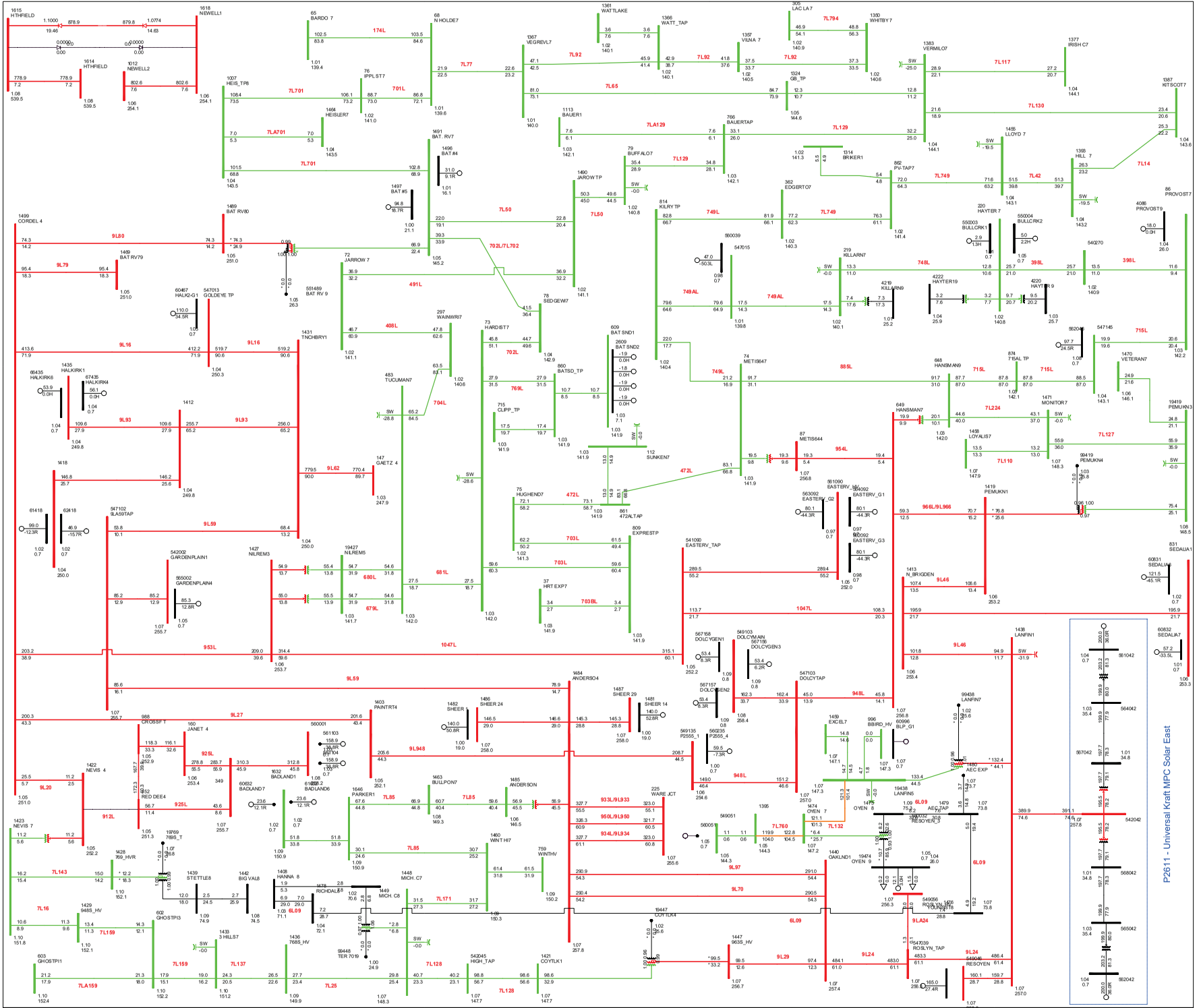
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-3: SCN5-SL-POST.SAV
CATEGORY B - 953L (NILREM 574S TO CORDEL 755S)
SUN, SEP 07 2025 21:40
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -843.0 MW

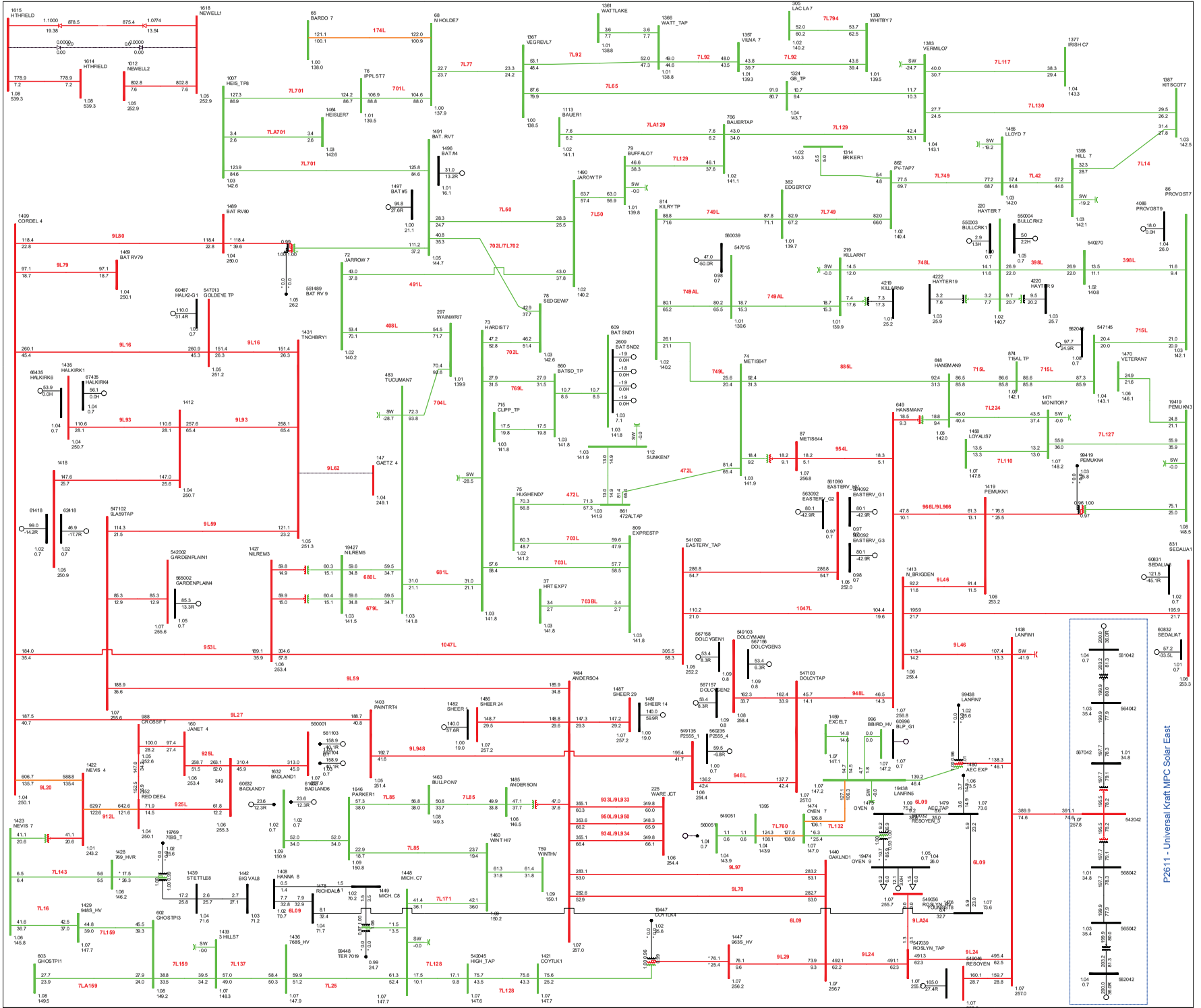
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-4: SCN5-SL-POST.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
SUN, SEP 07 2025 21:40
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -800.1 MW

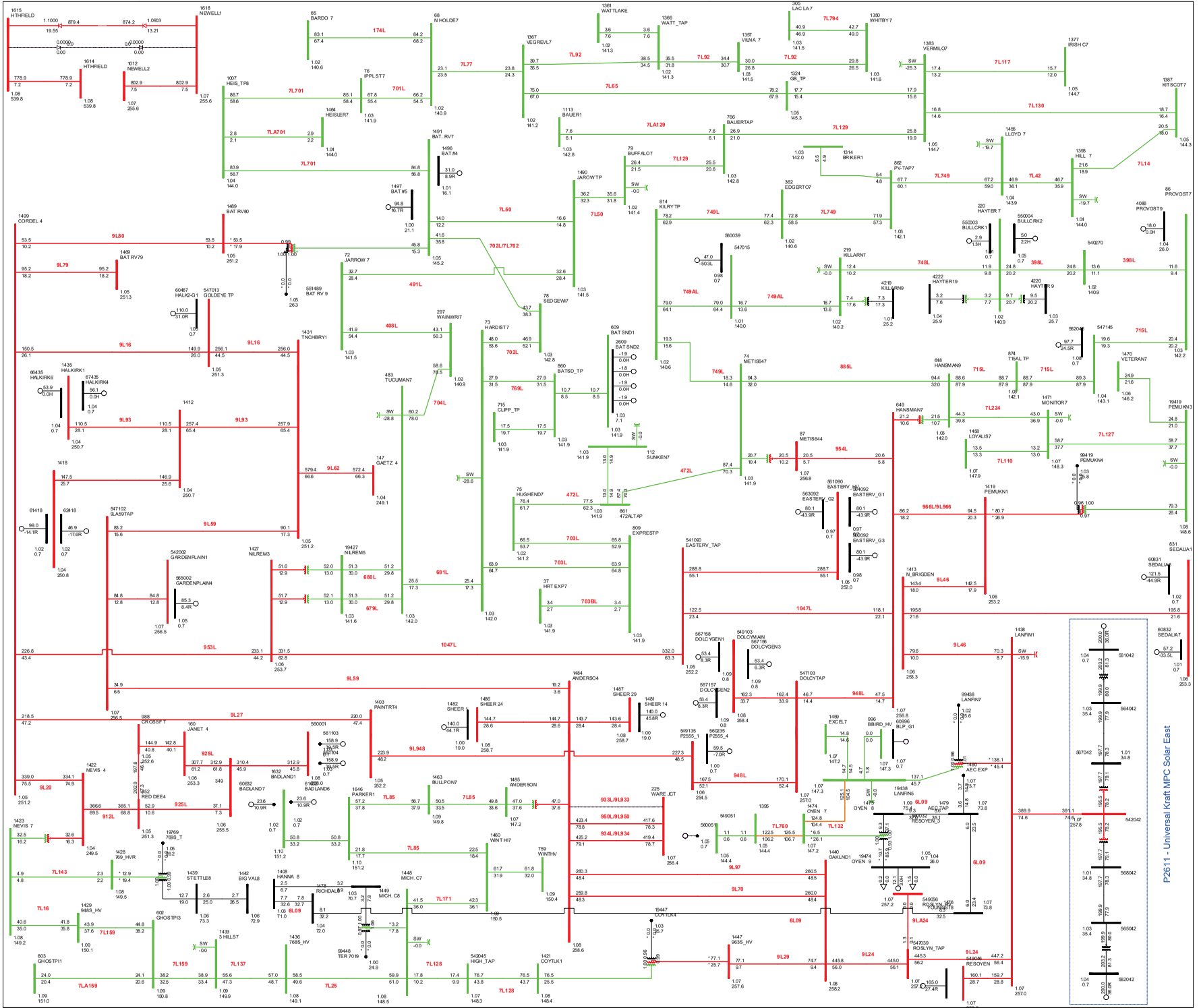
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-5: SCN5-SL-POST.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
SUN, SEP 07 2025 21:41
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.5 MW

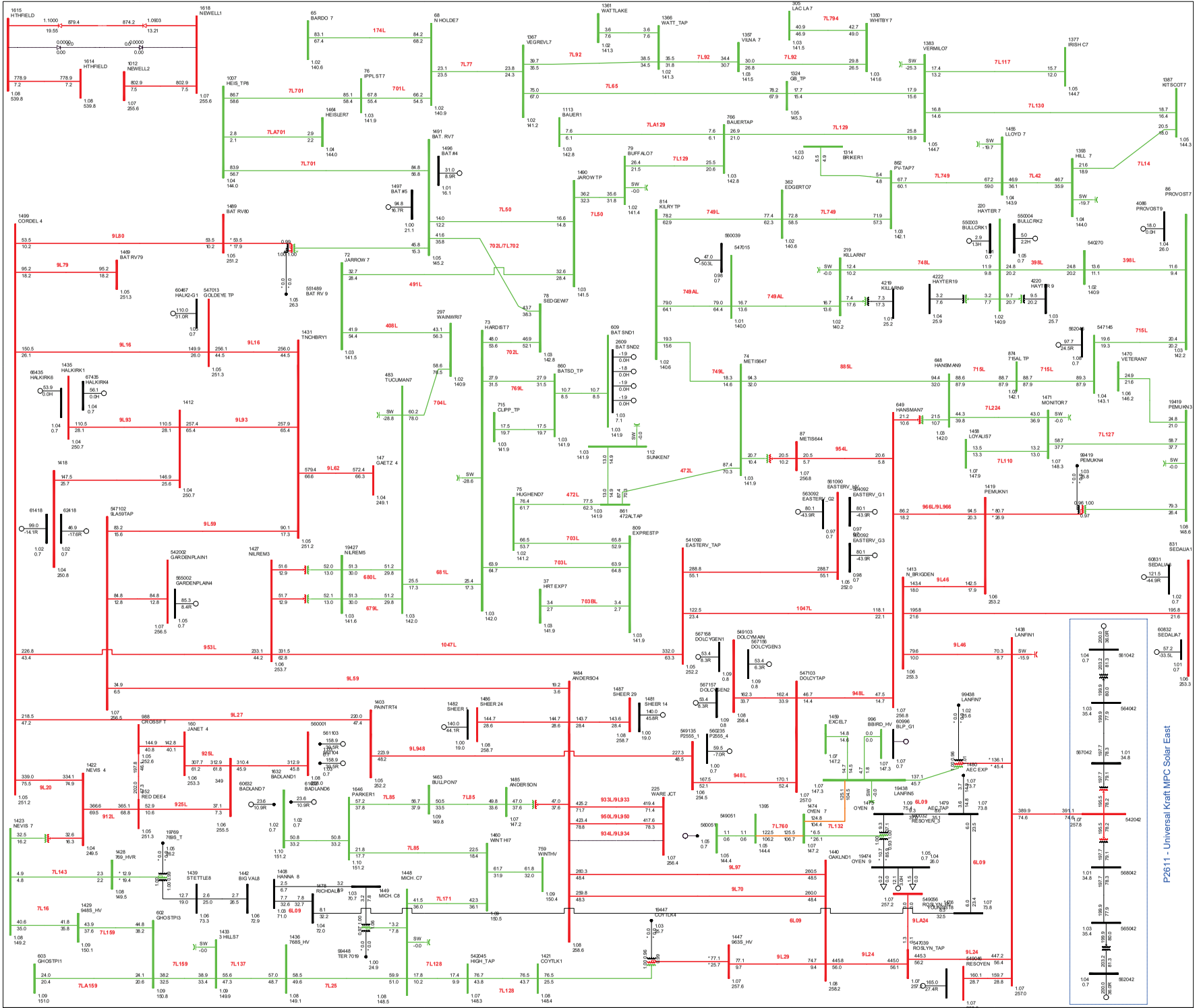
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-6: SCN5-SL-POST.SAV
CATEGORY B - 9L933 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 21:41
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.5 MW

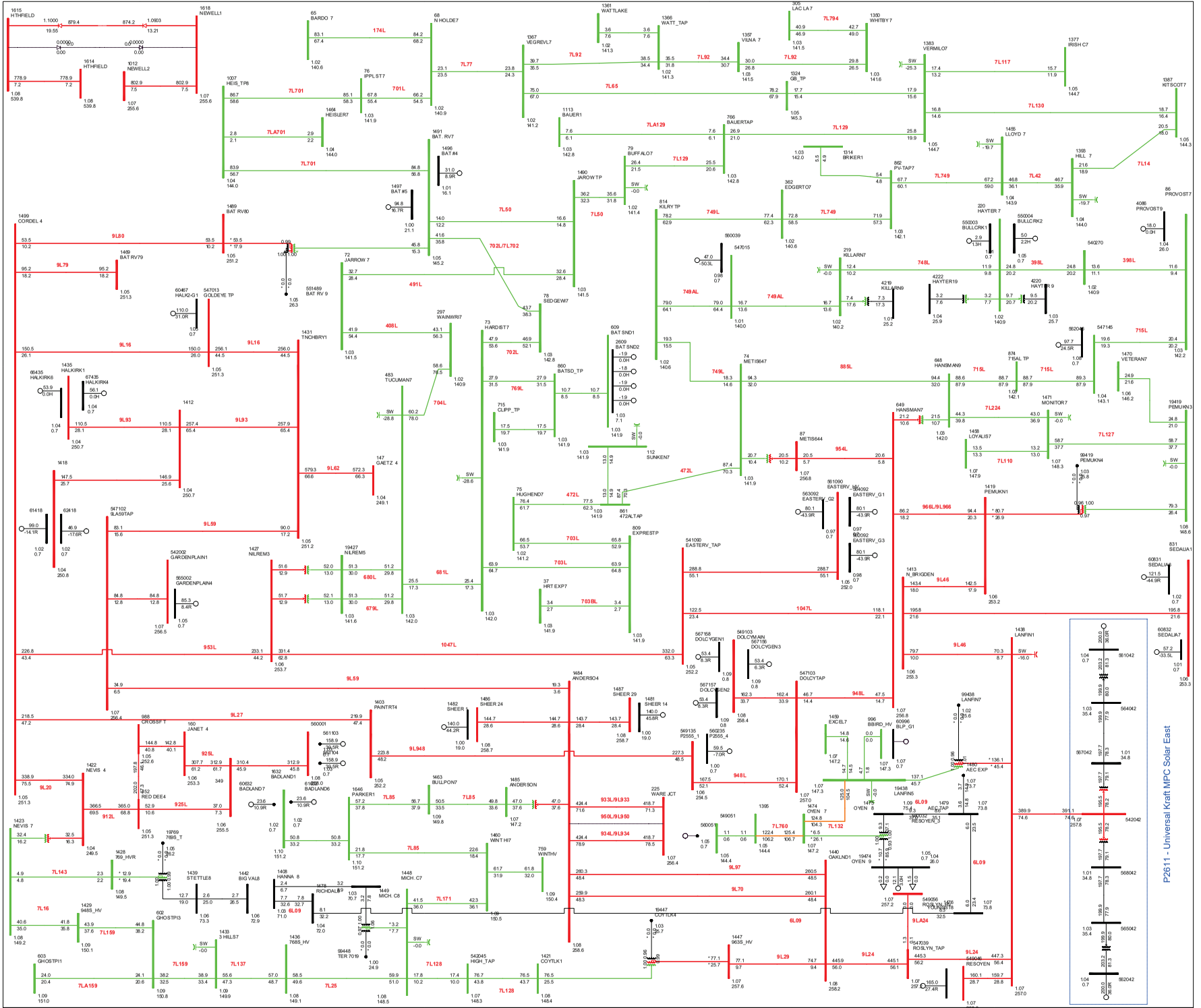
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-7: SCN5-SL-POST.SAV
CATEGORY B - 9L934 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 21:41
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -858.5 MW

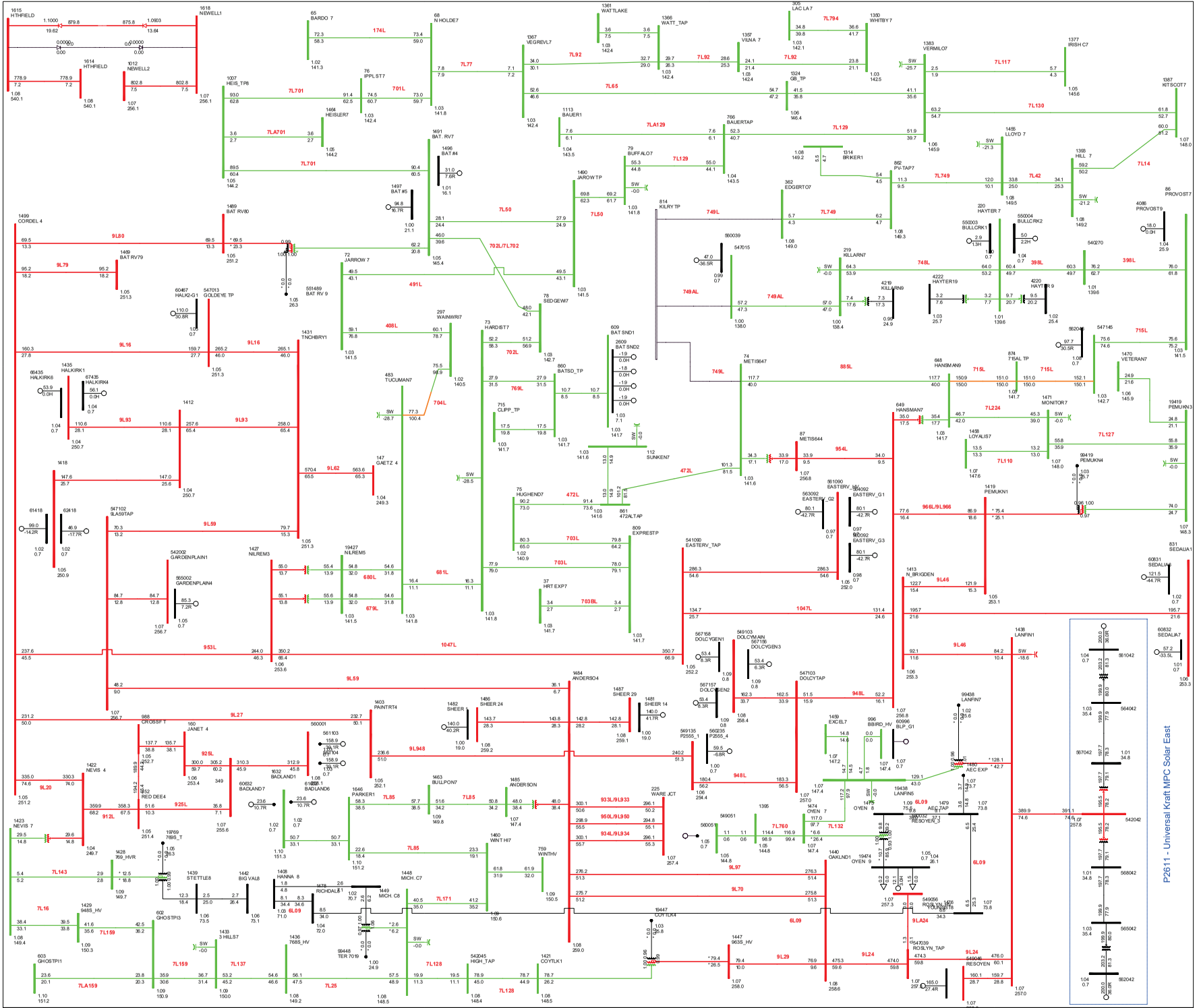
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-8: SCN5-SL-POST.SAV
CATEGORY B - 9L950 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 21:42
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -859.6 MW

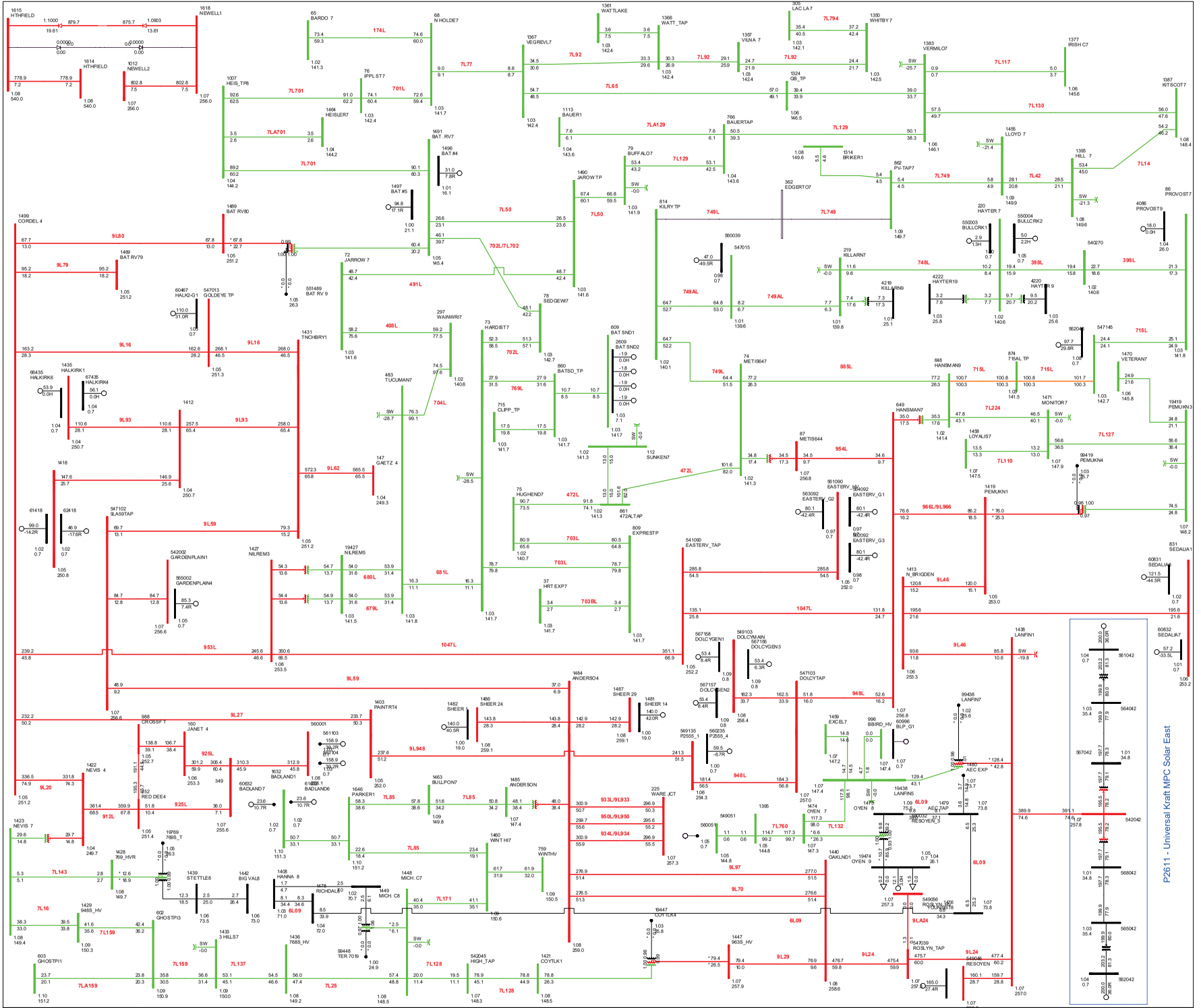
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-9: SCN5-SL-POST.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
SUN, SEP 07 2025 21:42
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -867.4 MW

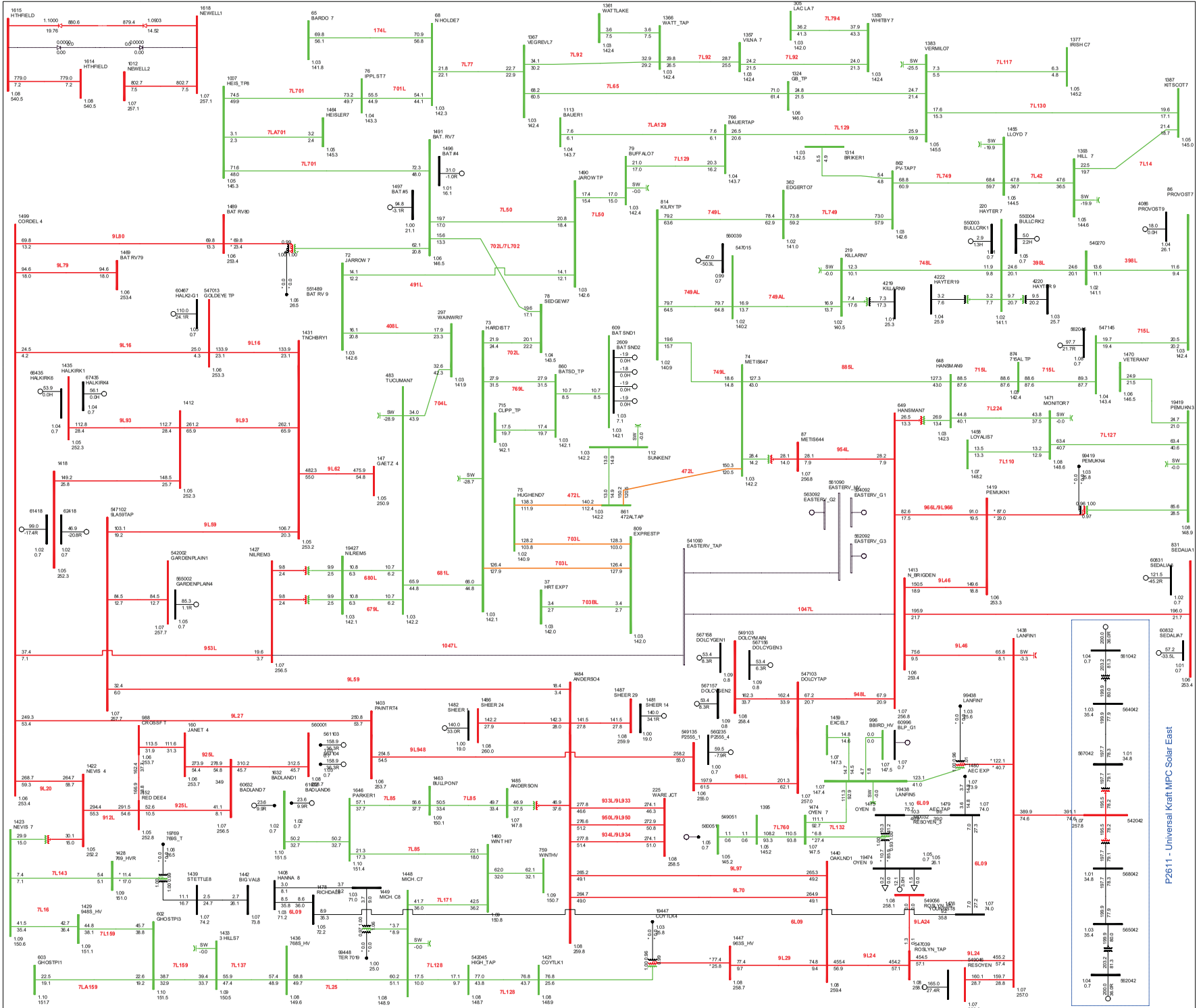
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-10: SCN5-SL-POST.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
SUN, SEP 07 2025 21:42
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -677.1 MW

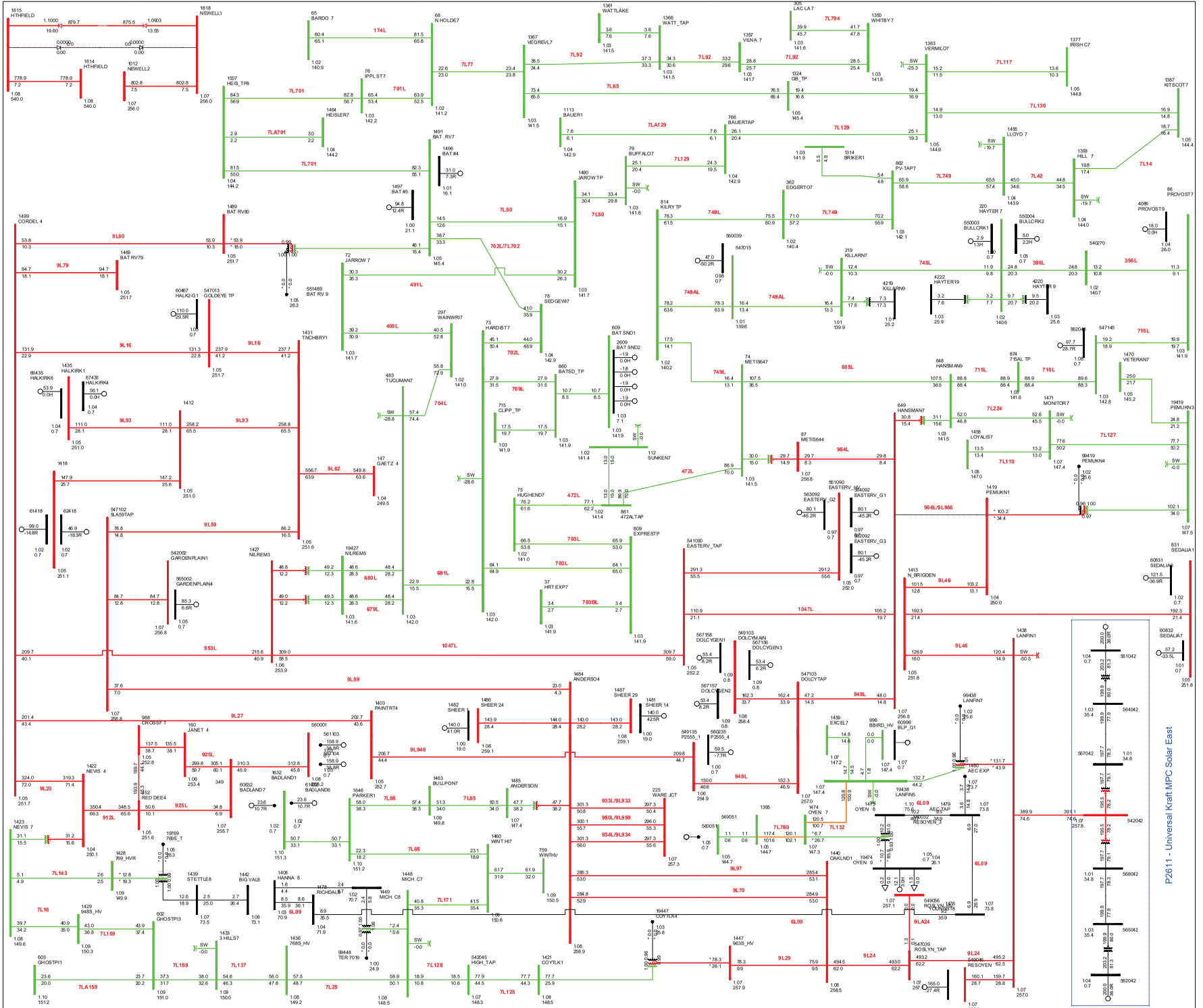
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-5-11: SCN5-SL-POST.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
SUN, SEP 07 2025 21:42
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -867.5 MW

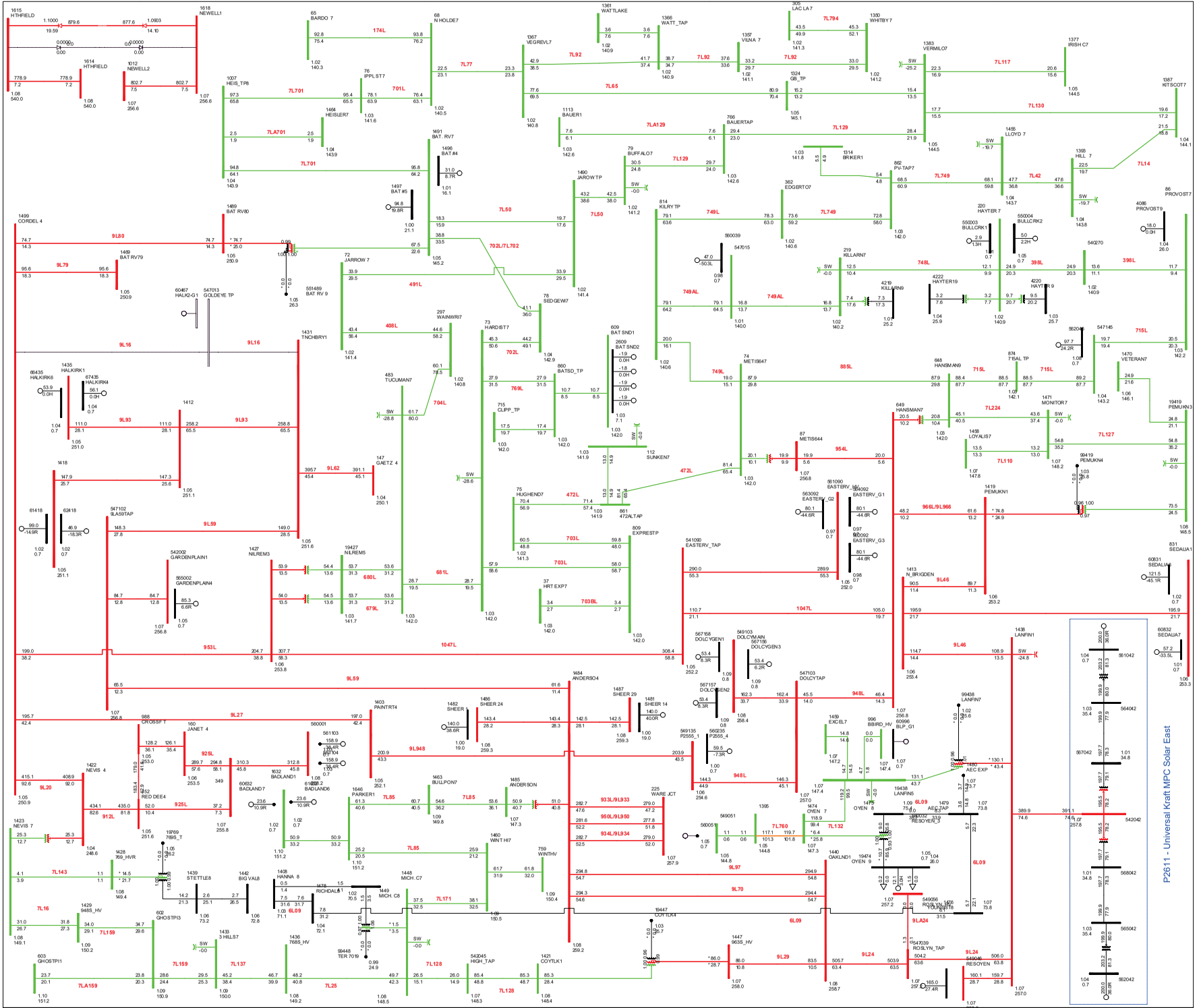
Sask Import: 0.1 MW

MATL: 186.7 MW

FIGURE B-5-12: SCN5-SL-POST.SAV
CATEGORY B - 966L (HANSMAN LAKE 650S TO PEMUKAN 932S)
SUN, SEP 07 2025 21:43
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -771.7 MW

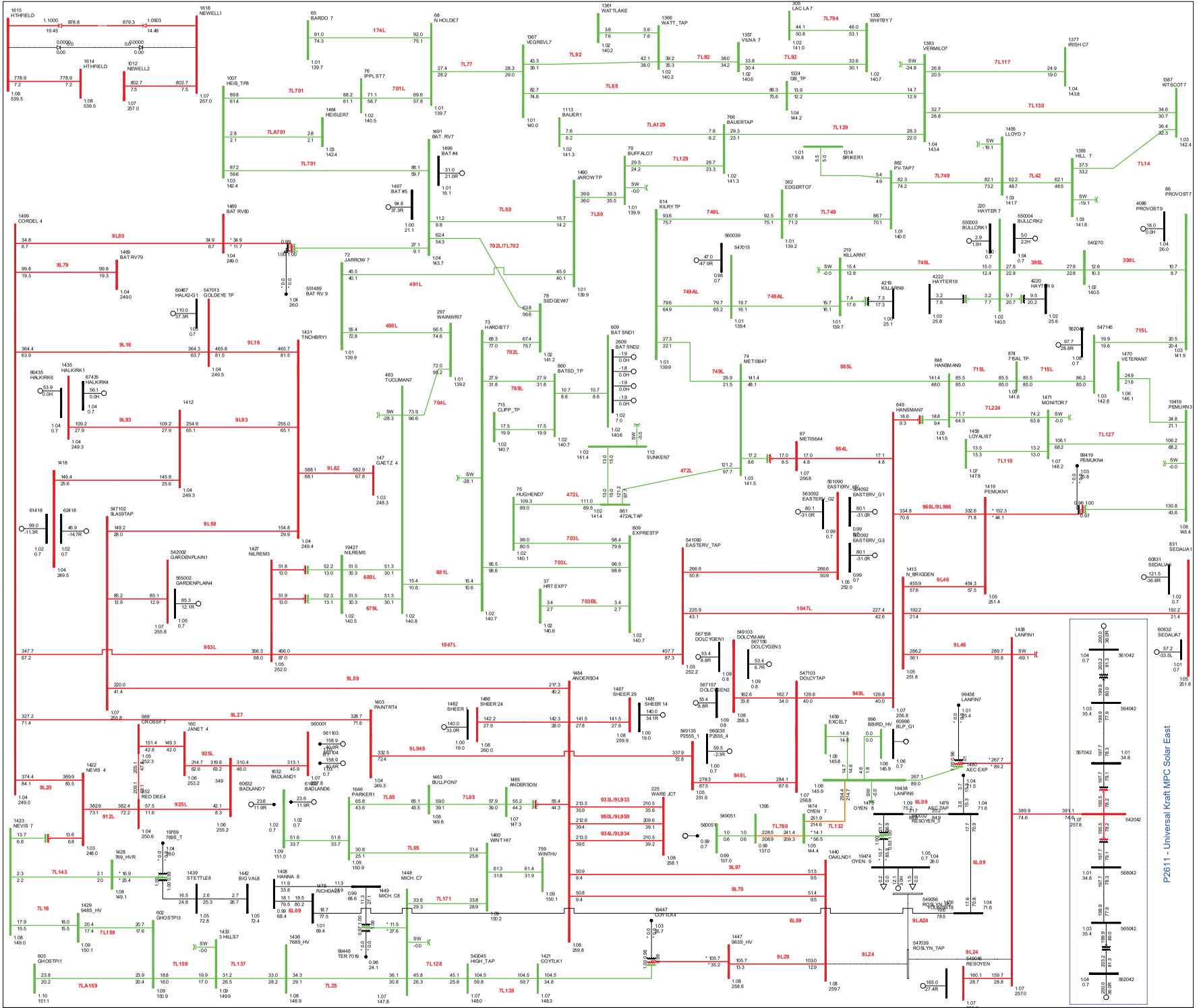
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-5-13: SCN5-SL-POST.SAV
CATEGORY B - 9L16 (TINCHEBRAY 972S TO CORDEL 755S)
SUN, SEP 07 2025 21:43
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -785.1 MW

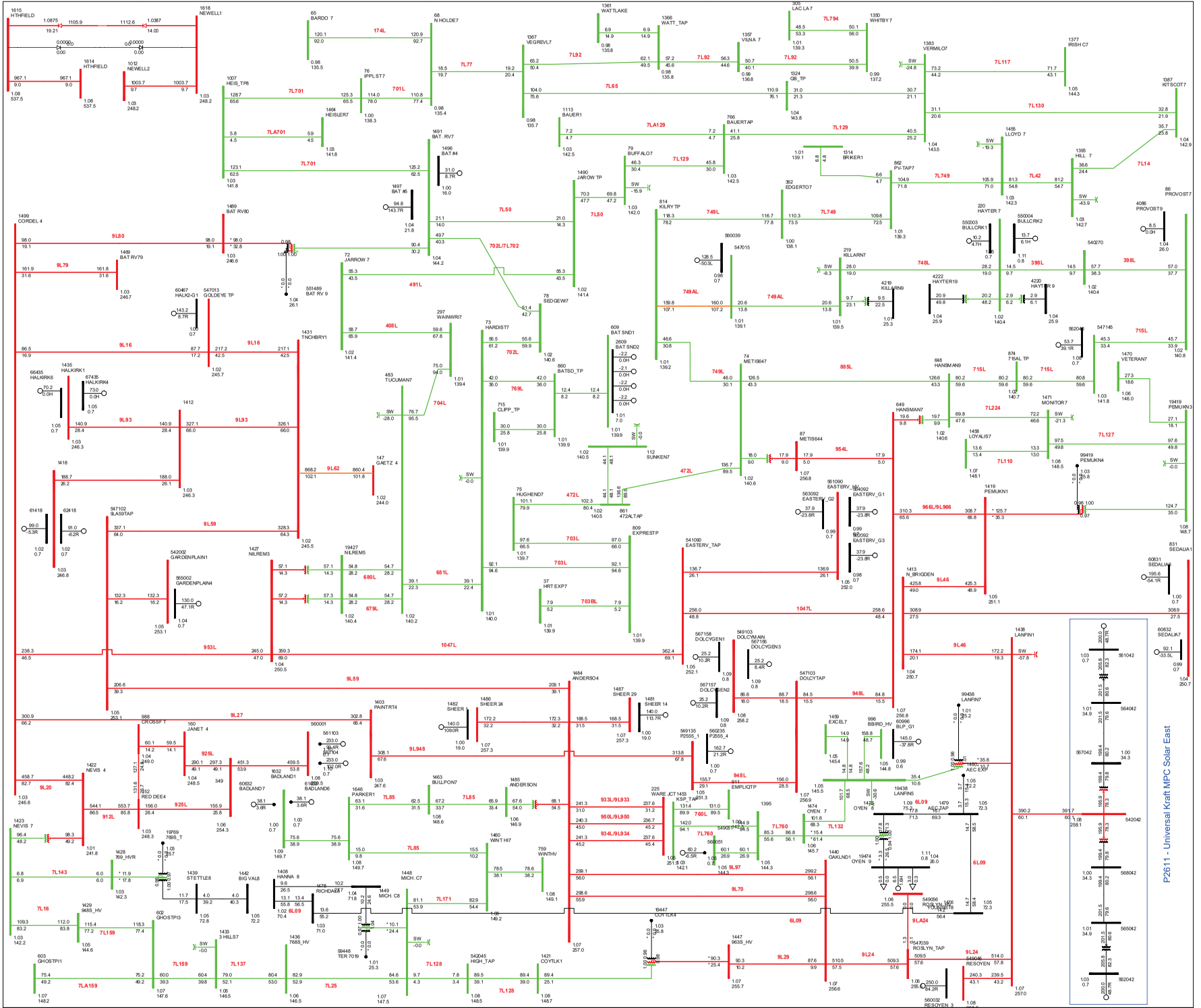
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-5-14: SCN5-SL-POST.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
SUN, SEP 07 2025 21:43
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1082.0 MW

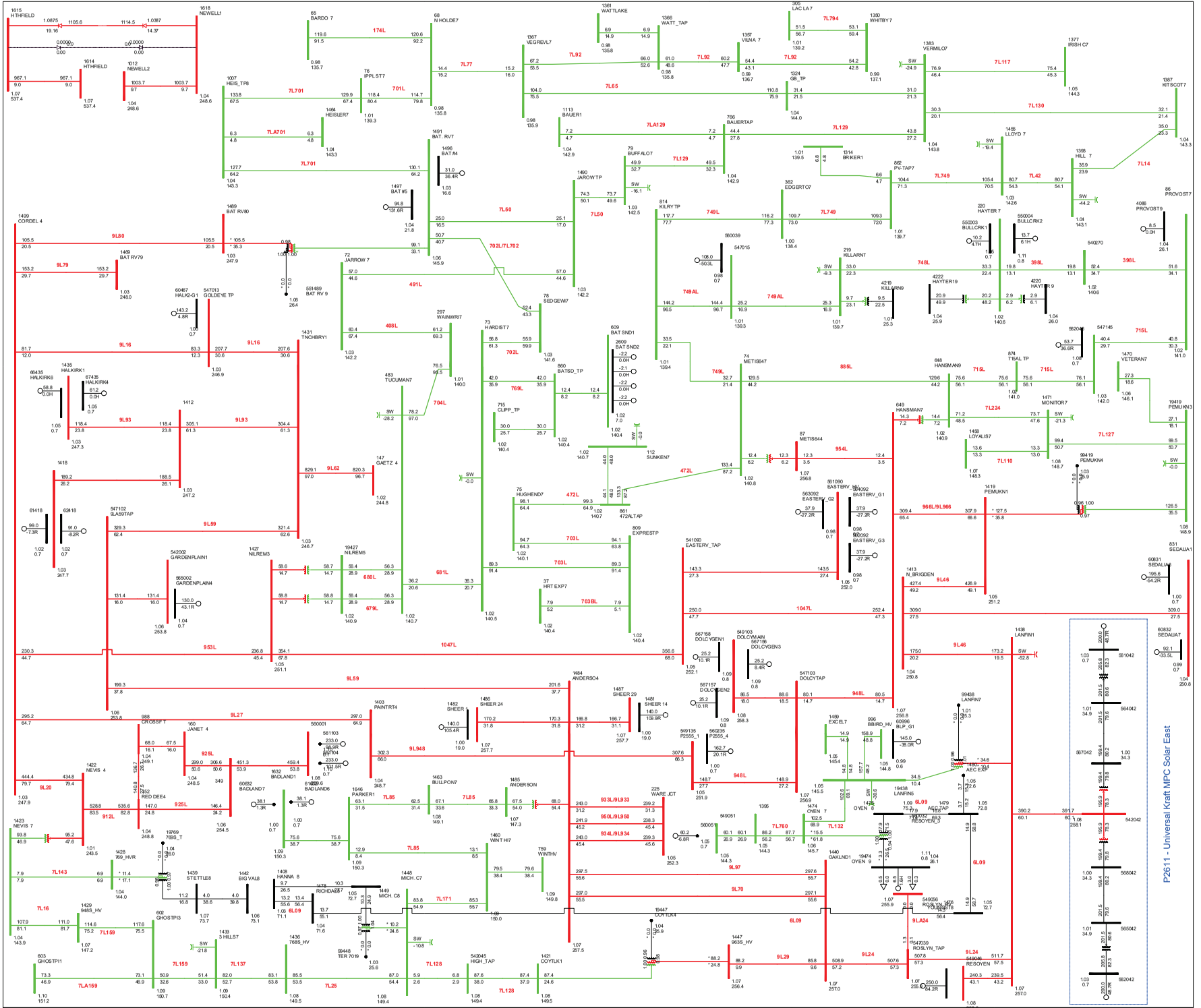
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE A-6-1: SCN6-WP-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
THU, OCT 02 2025 14:22
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1086.1 MW

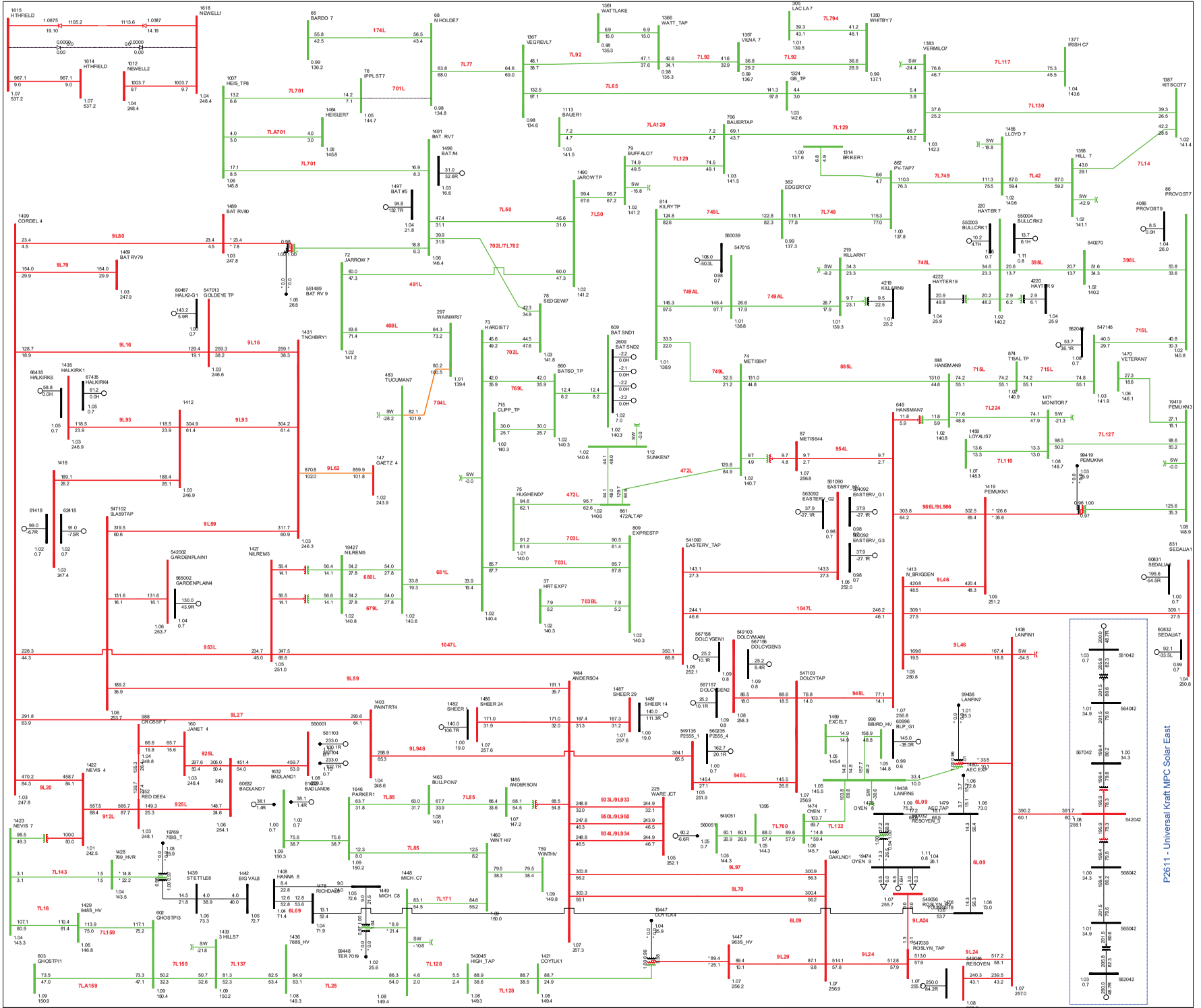
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE A-6-1: SCN6-WP-POST.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 21:48
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1080.9 MW

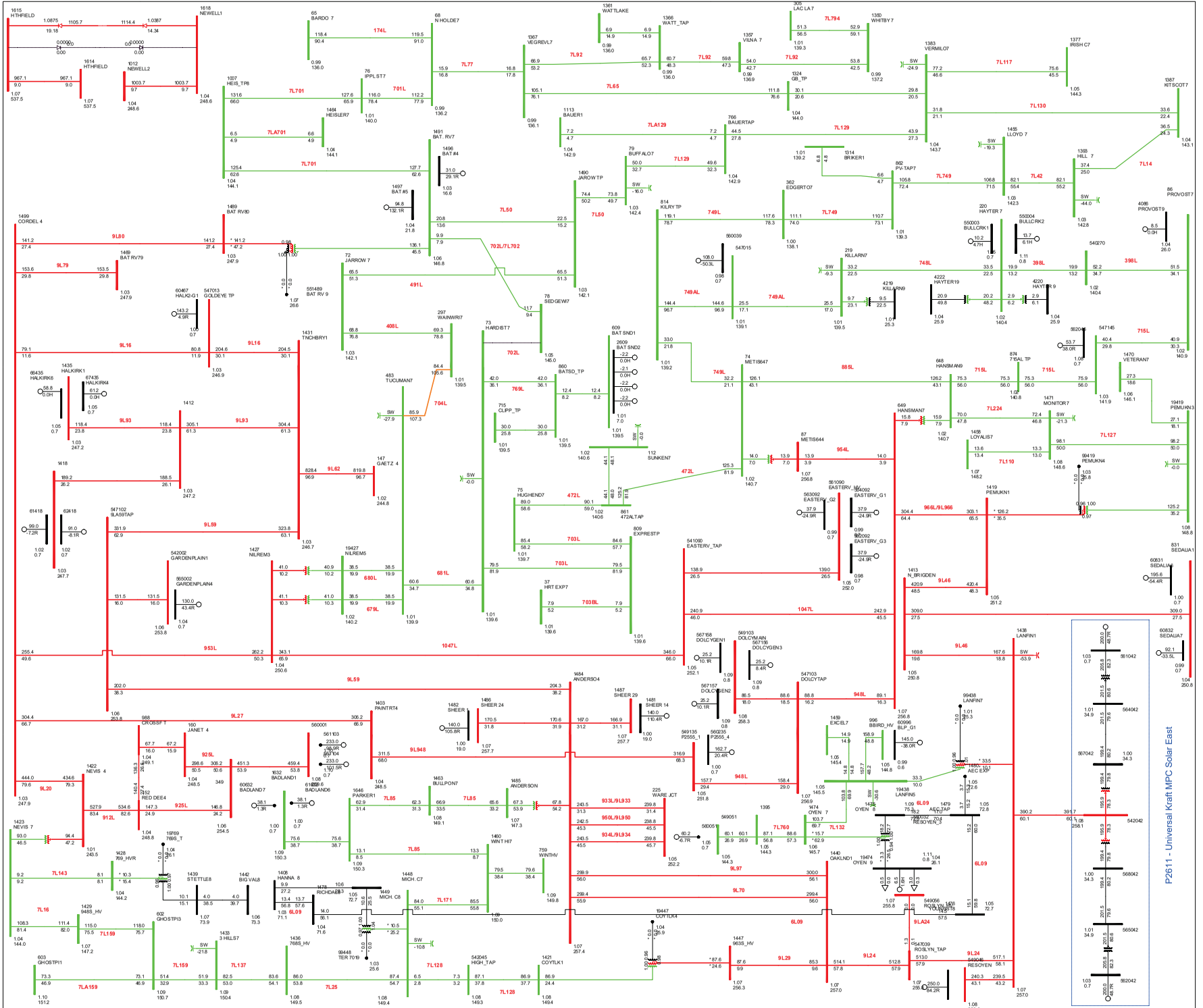
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-1: SCN6-WP-POST.SAV
CATEGORY B - 701L (NORTH HODEN 395S TO STROME 223S)
SUN, SEP 07 2025 21:49
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1086.0 MW

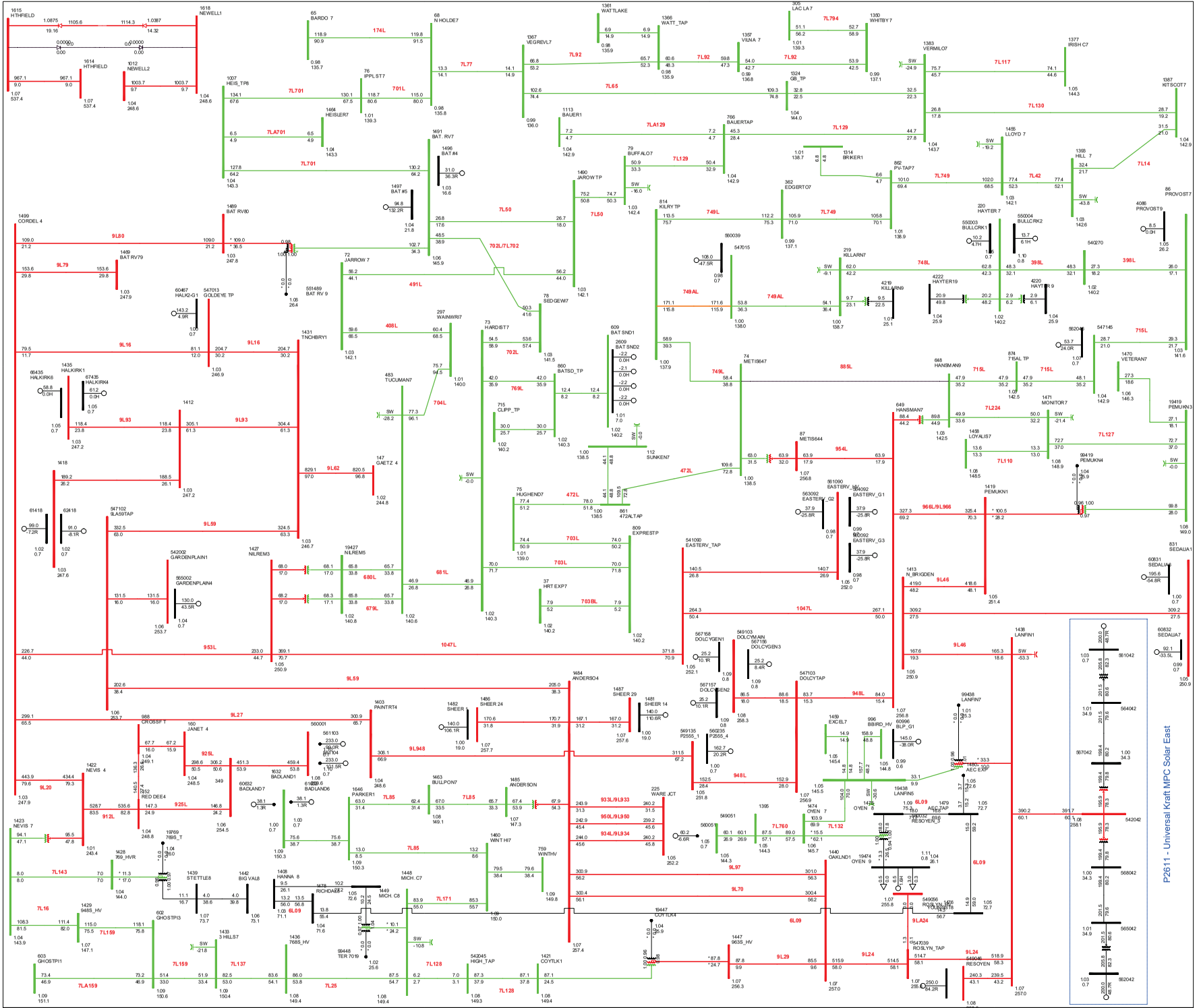
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-2: SCN6-WP-POST.SAV
CATEGORY B - 702L (HARDISTY 377S TO SEDGEWICK 137S)
SUN, SEP 07 2025 21:50
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1087.0 MW

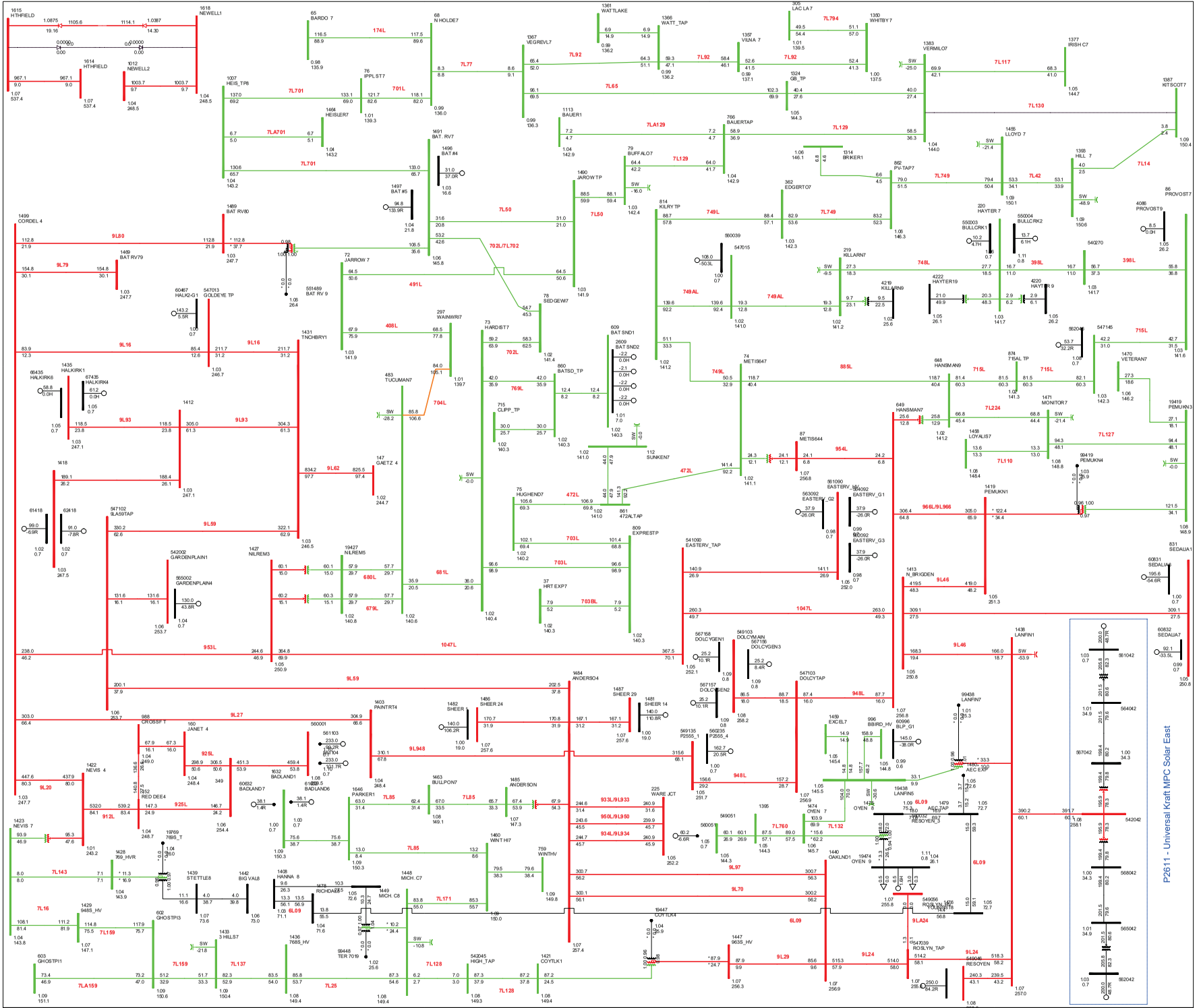
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-3: SCN6-WP-POST.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
SUN, SEP 07 2025 21:50
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1088.4 MW

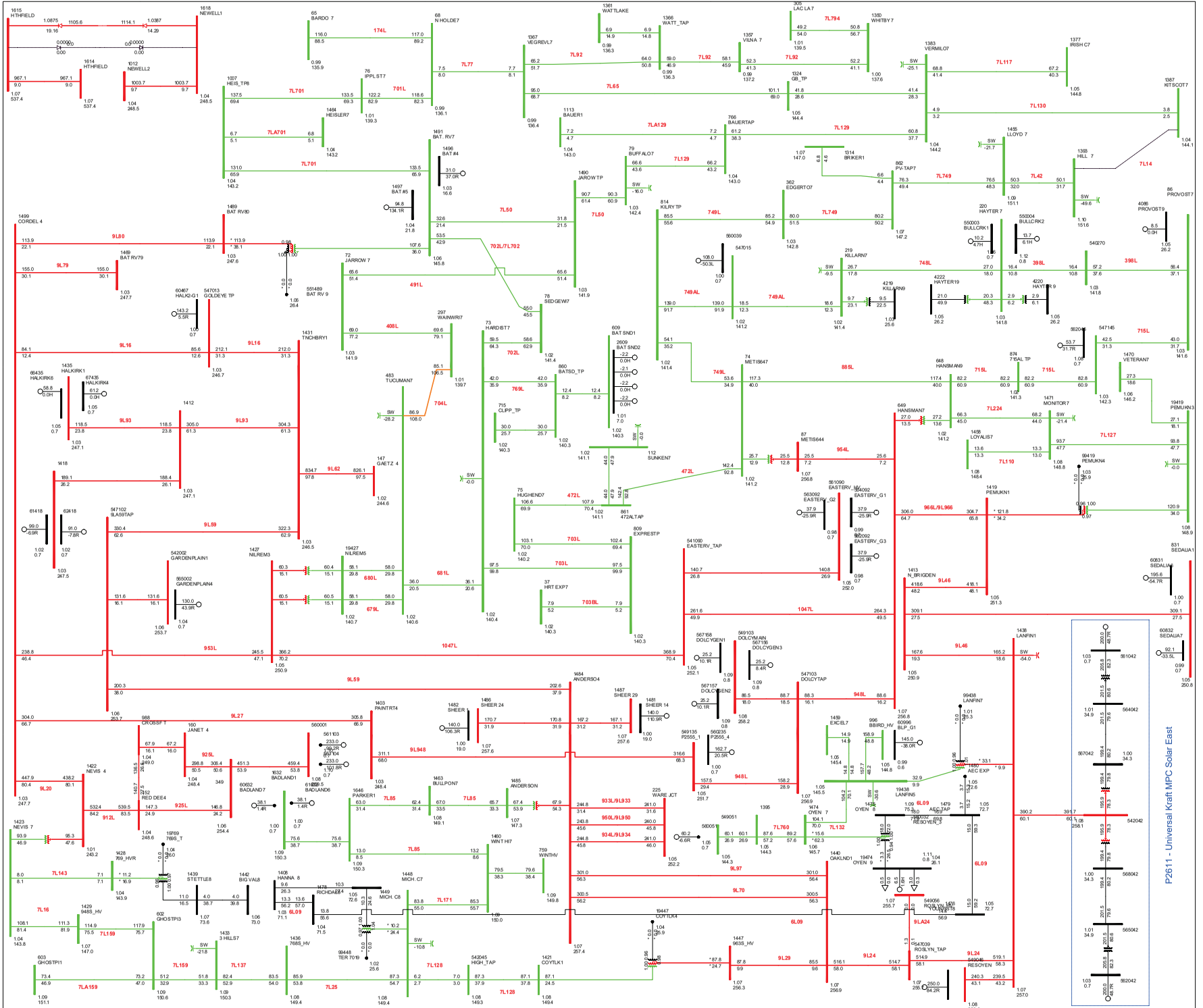
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-4: SCN6-WP-POST.SAV
CATEGORY B - 7L130 (VERMILION 710S TO KITS COTY 705S)
SUN, SEP 07 2025 21:50
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1088.3 MW

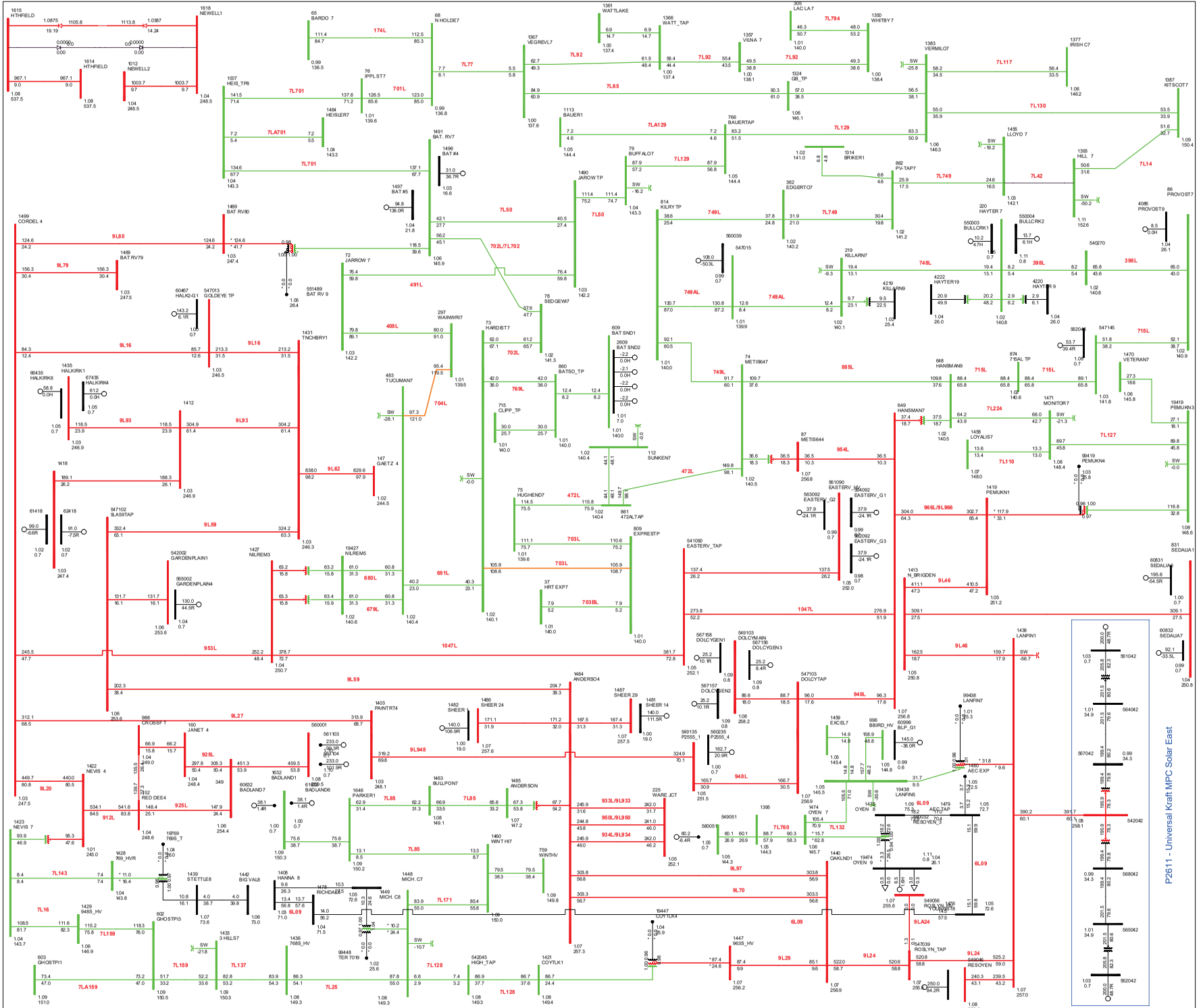
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-5: SCN6-WP-POST.SAV
CATEGORY B - 7L14 (KITS COTY 705S TO HILL 751S)
SUN, SEP 07 2025 21:51
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1084.6 MW

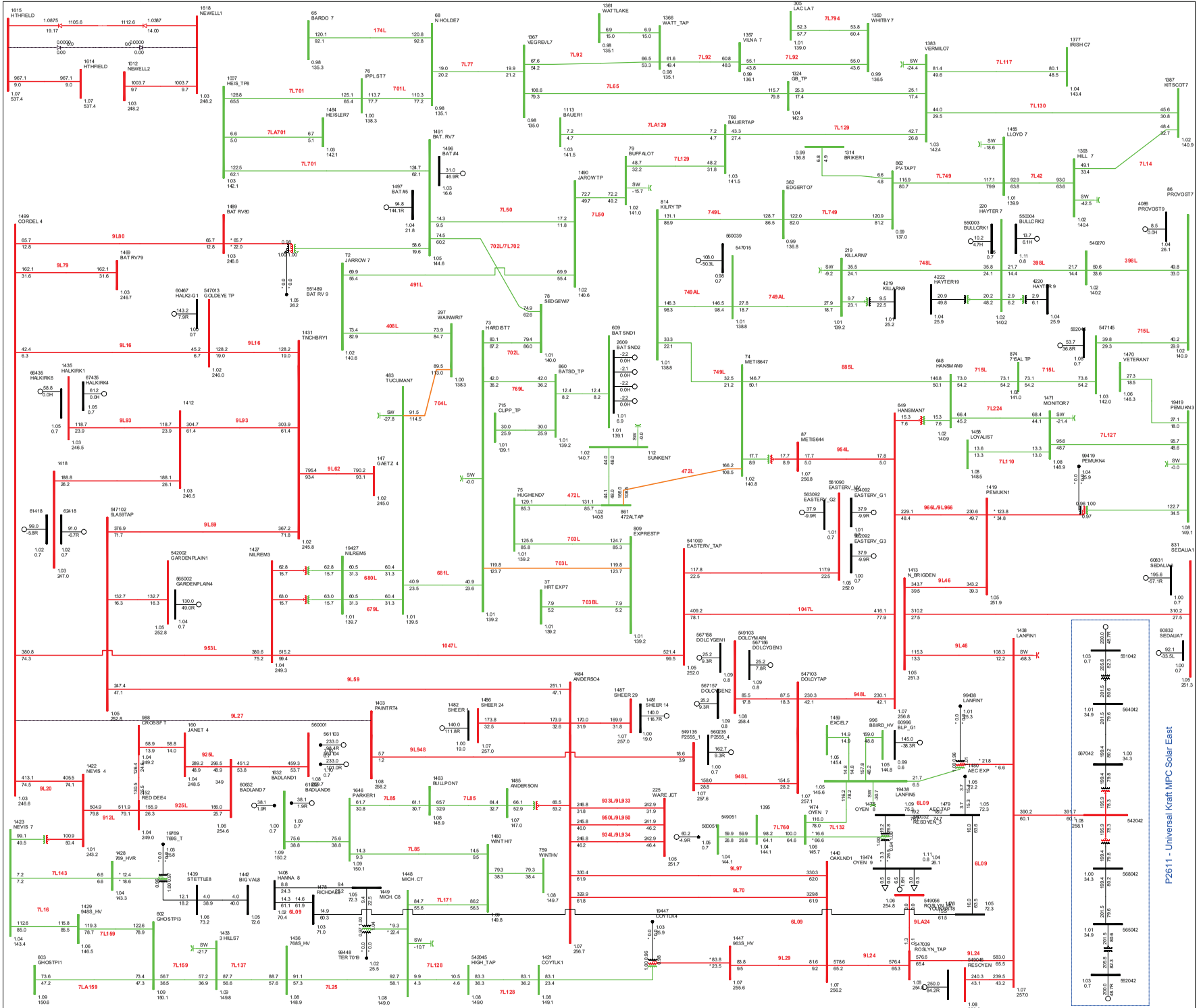
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-6: SCN6-WP-POST.SAV
CATEGORY B - 7L42 (LLOYDMINSTER 716S TO HILL 751S)
SUN, SEP 07 2025 21:51
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1054.5 MW

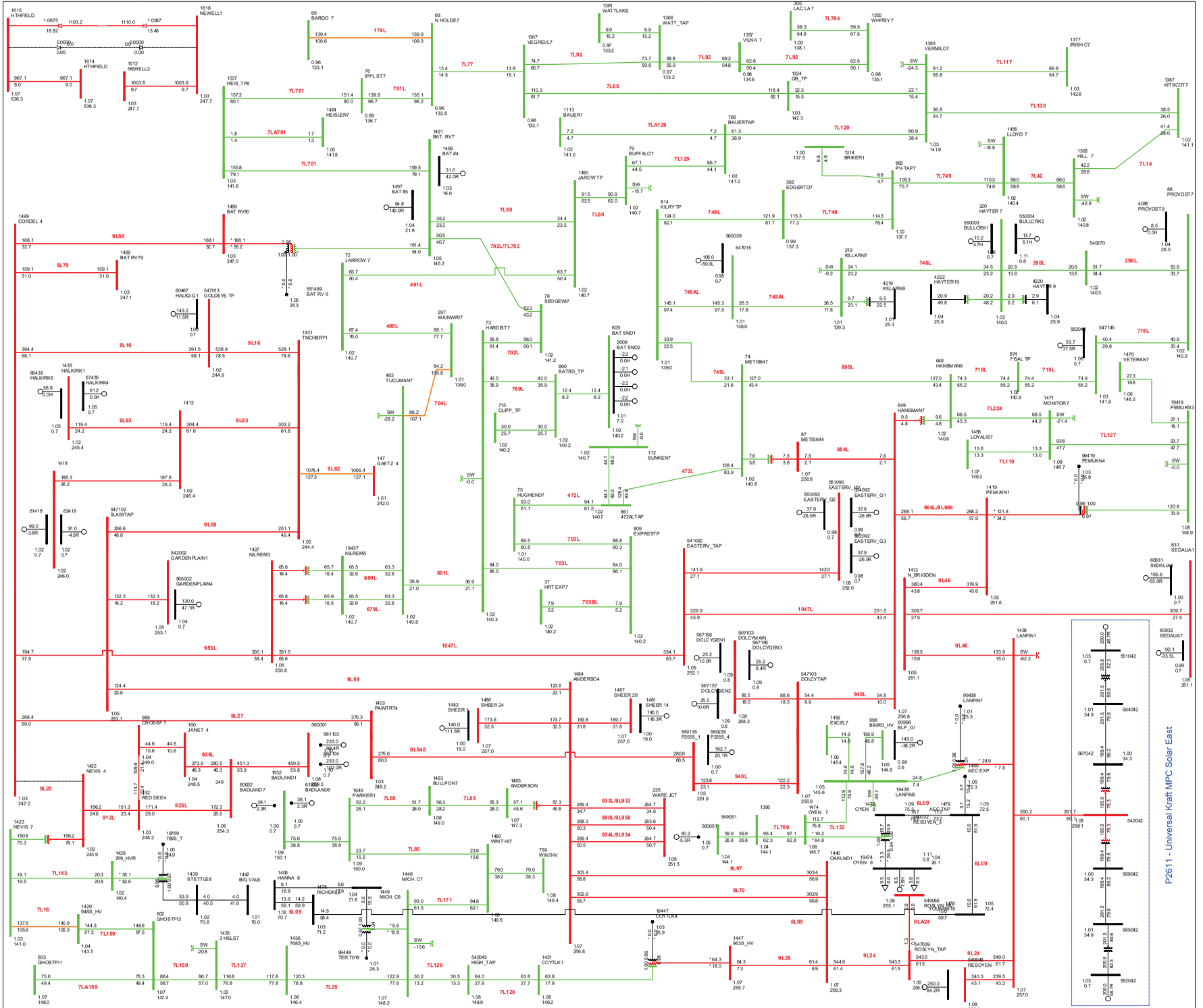
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-7: SCN6-WP-POST.SAV
CATEGORY B - 9L27 (CORDEL 755S TO PAINTEARTH 863S)
SUN, SEP 07 2025 21:51
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1033.5 MW

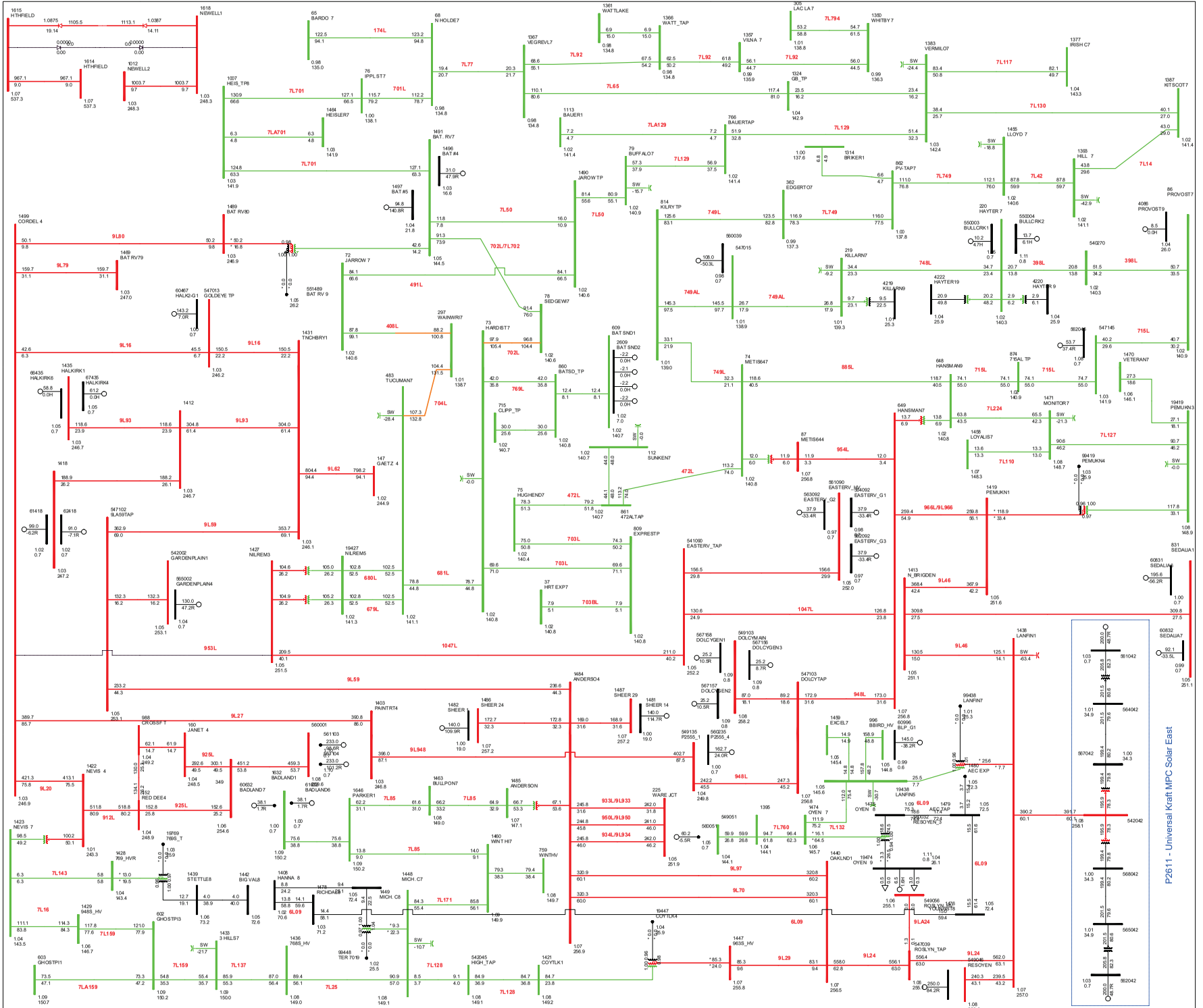
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-8: SCN6-WP-POST.SAV
CATEGORY B - 9L20 (NEVIS 766S TO CORDEL 755S)
SUN, SEP 07 2025 21:52
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1067.4 MW

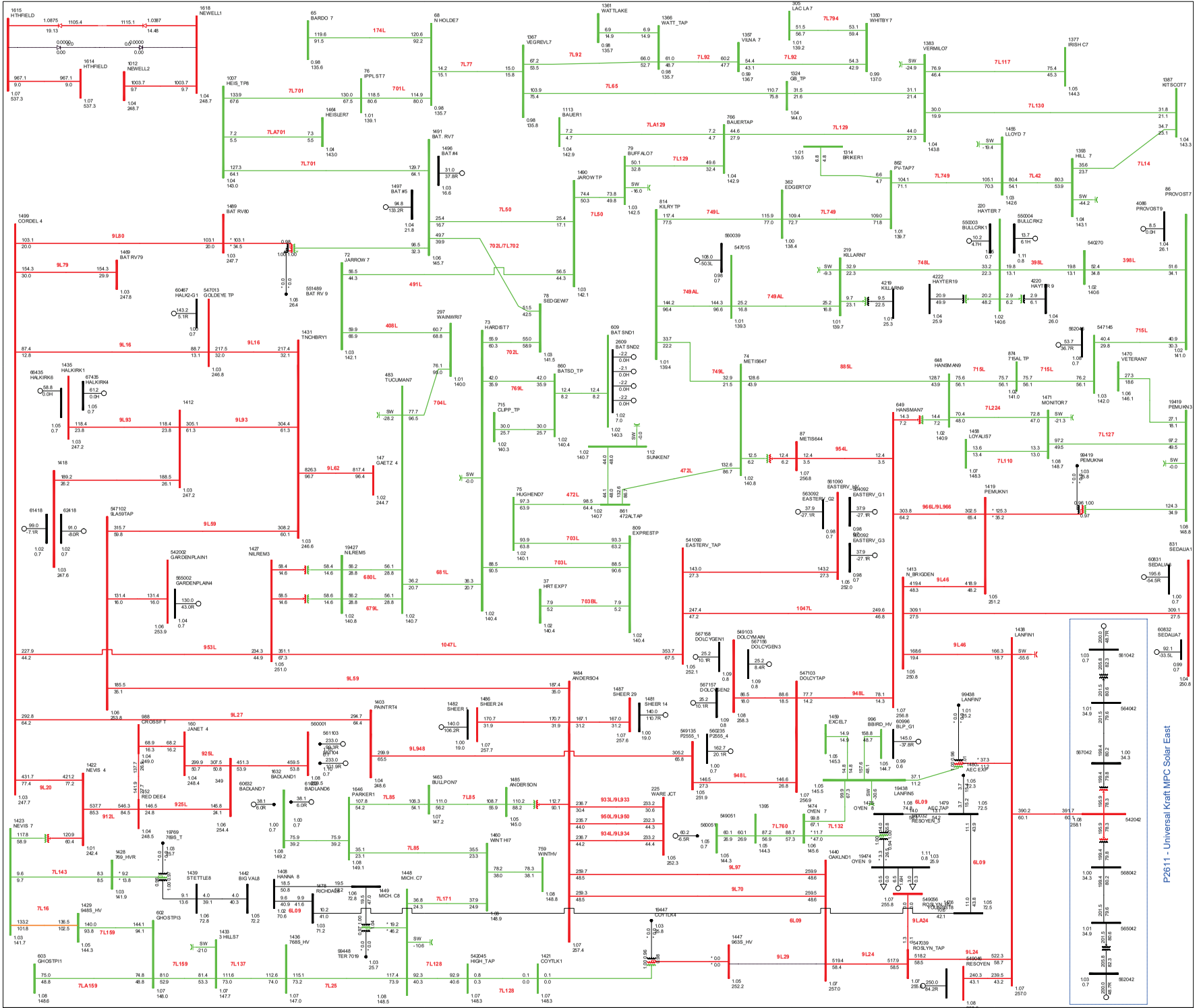
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-9: SCN6-WP-POST.SAV
CATEGORY B - 953L (NILREM 574S TO CORDEL 755S)
SUN, SEP 07 2025 21:52
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1076.6 MW

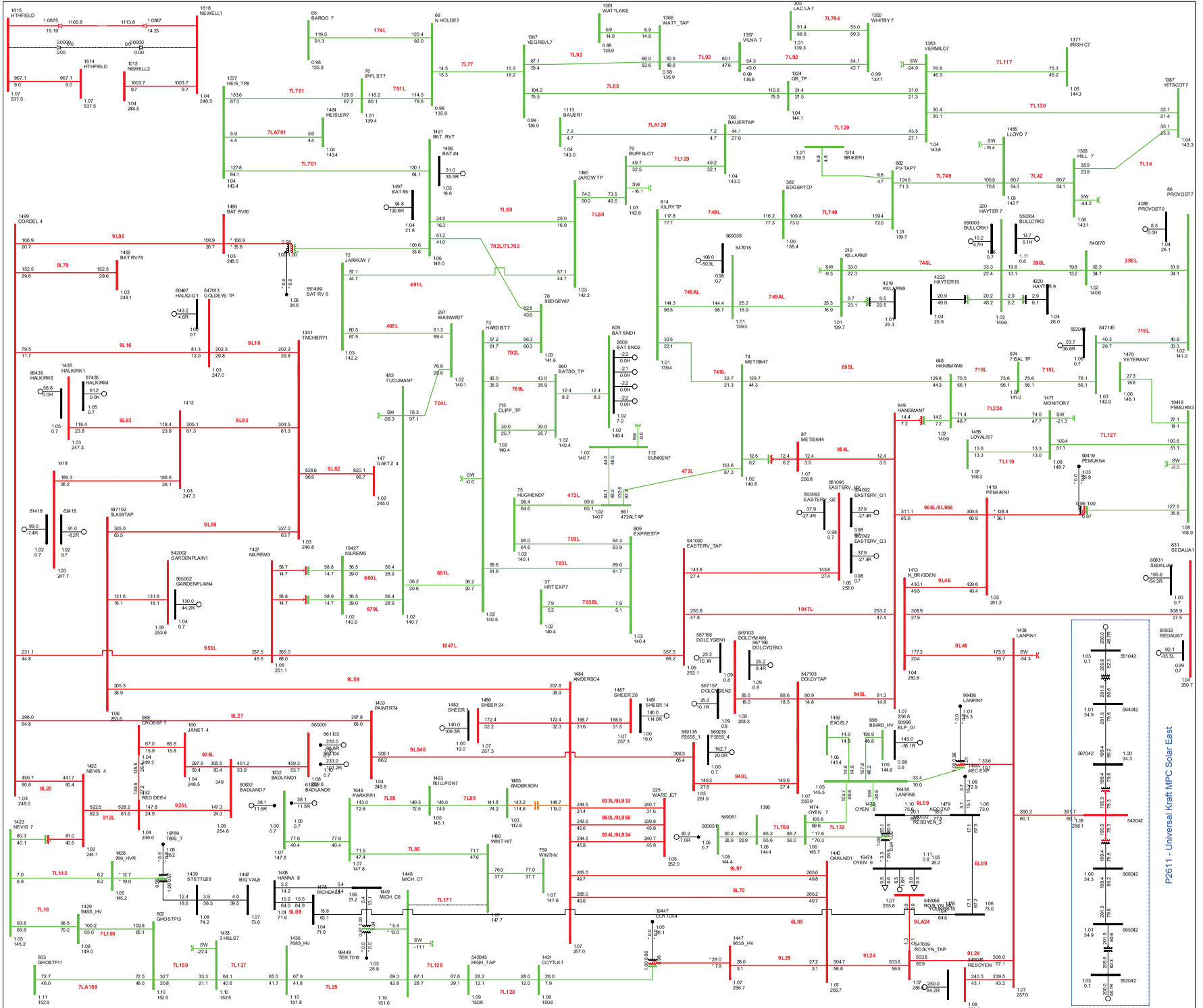
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-10: SCN6-WP-POST.SAV
CATEGORY B - 9L29 (OAKLAND 946S TO COYOTE LAKE 963S)
SUN, SEP 07 2025 21:52
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1084.3 MW

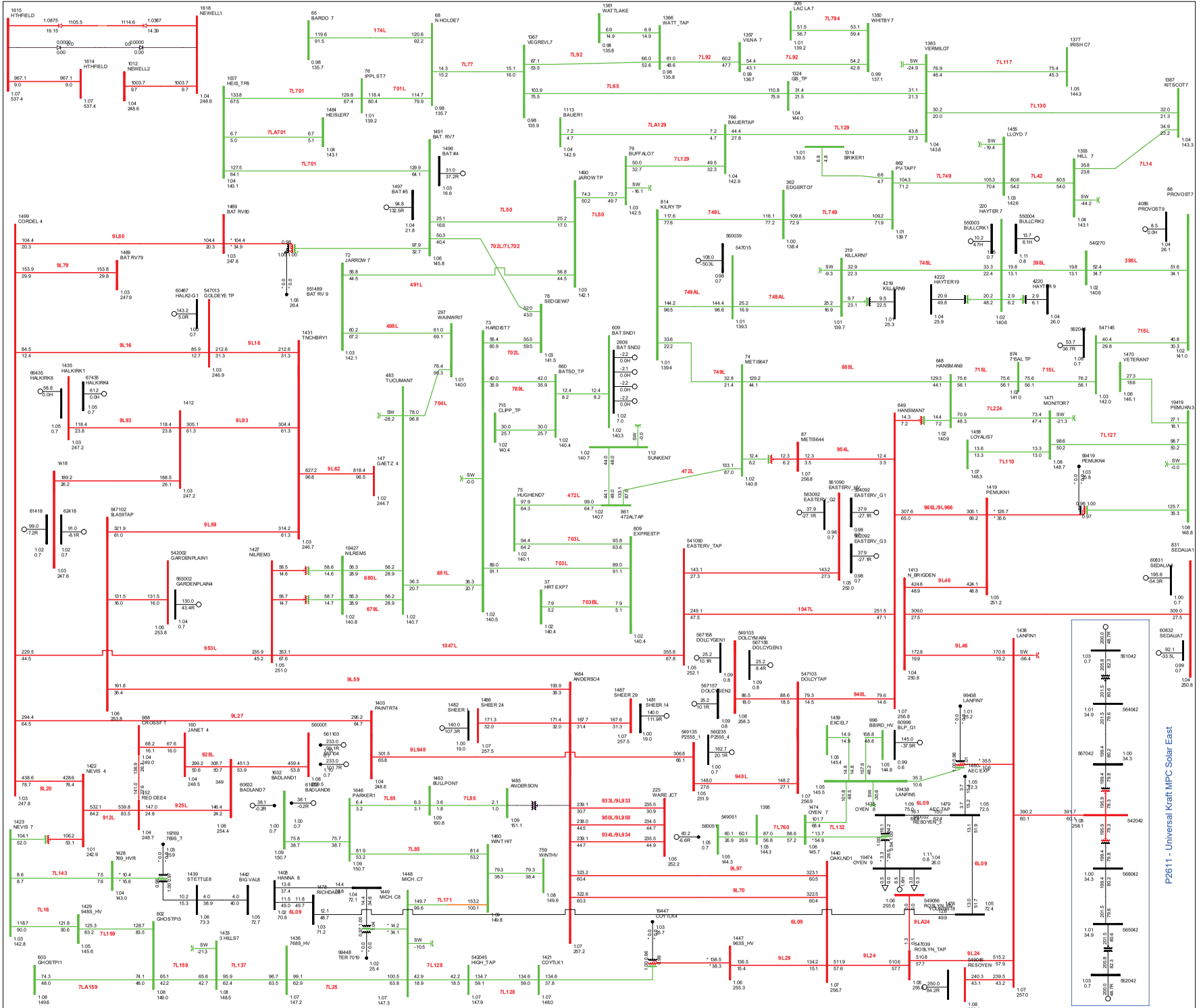
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-11: SCN6-WP-POST.SAV
CATEGORY B - 7L171 (MICHICHI CREEK 802S TO WINTERING HILLS 8
SUN, SEP 07 2025 21:52
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1078.6 MW

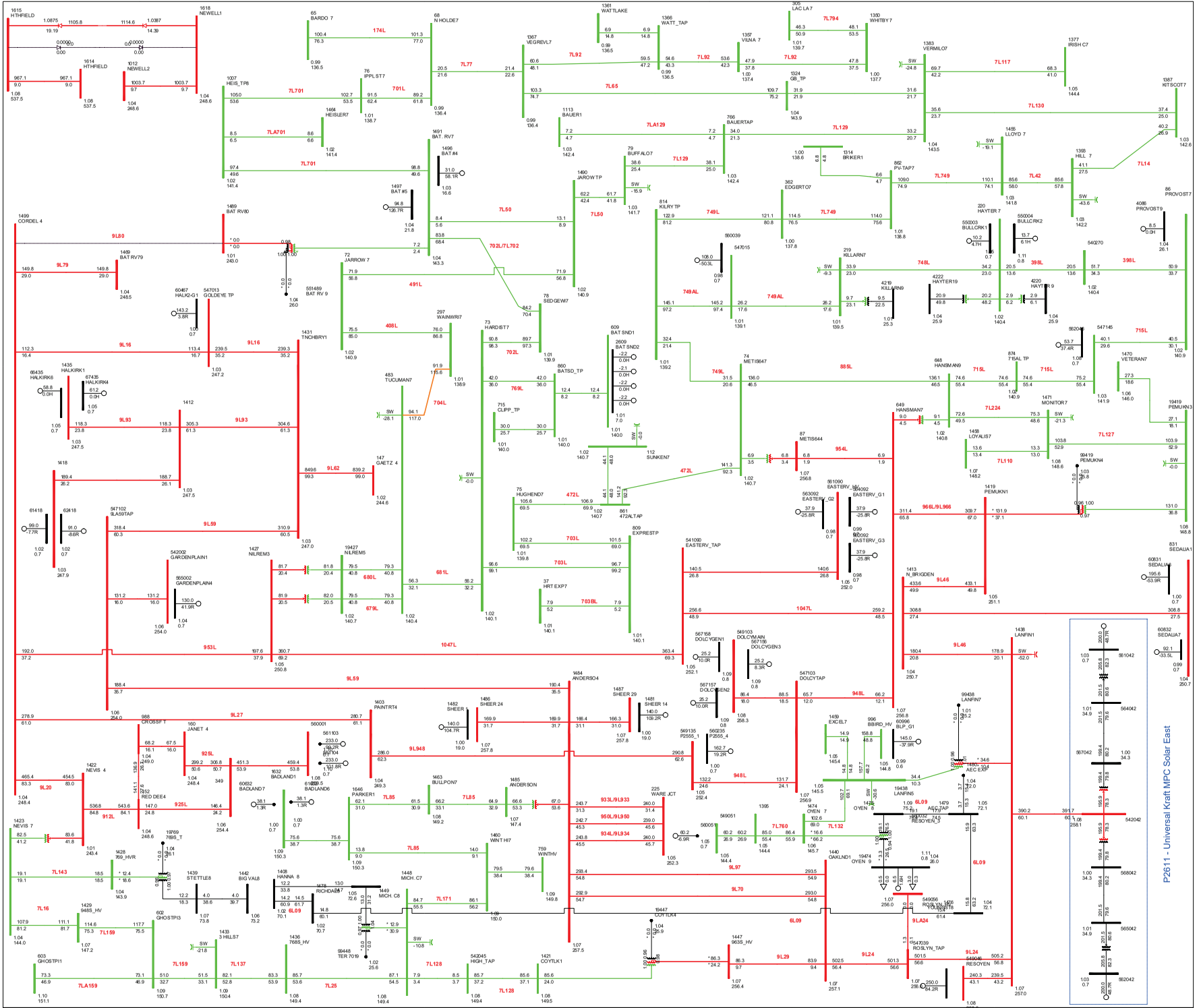
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-12: SCN6-WP-POST.SAV
CATEGORY B - 801S (ANDERSON 801S TRANSFORMER T1)
SUN, SEP 07 2025 21:53
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1084.1 MW

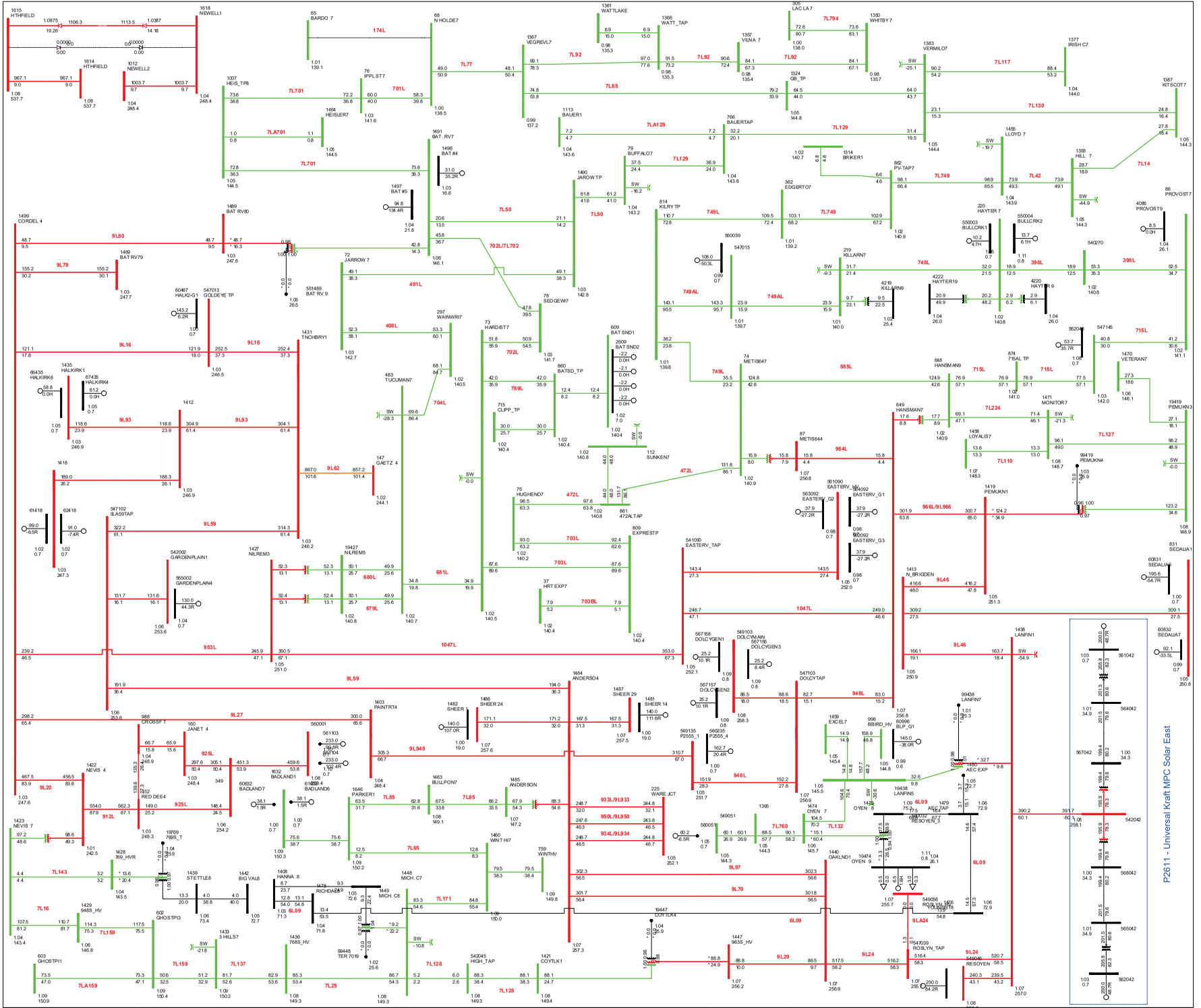
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-13: SCN6-WP-POST.SAV
CATEGORY B - 9L80 (BATTLE RIVER 757S TO CORDEL 755S)
SUN, SEP 07 2025 21:53
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1085.0 MW

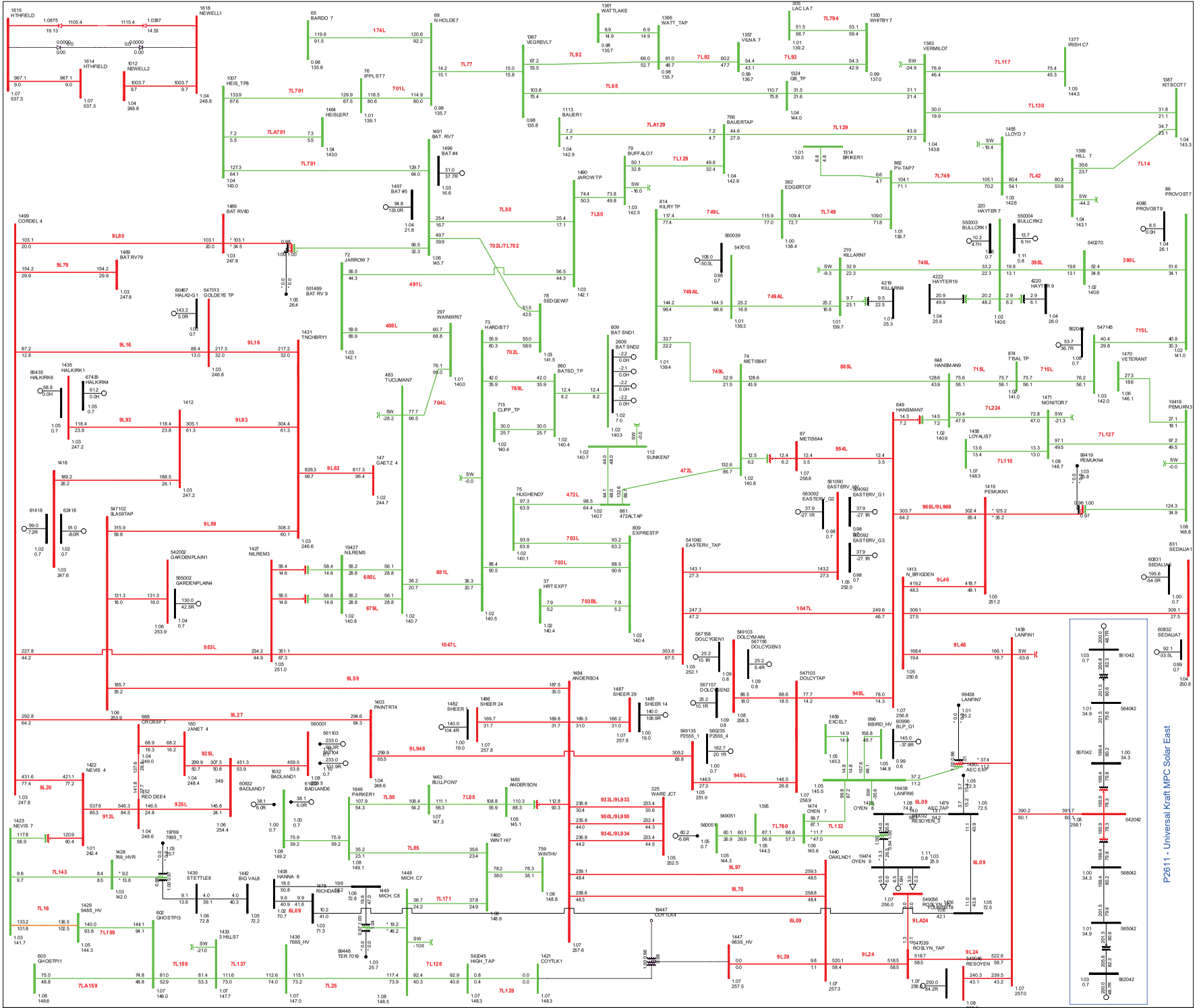
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-14: SCN6-WP-POST.SAV
CATEGORY B - 174L (BARDO 197S TO NORTH HOLDEN 395S)
SUN, SEP 07 2025 21:53
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1076.8 MW

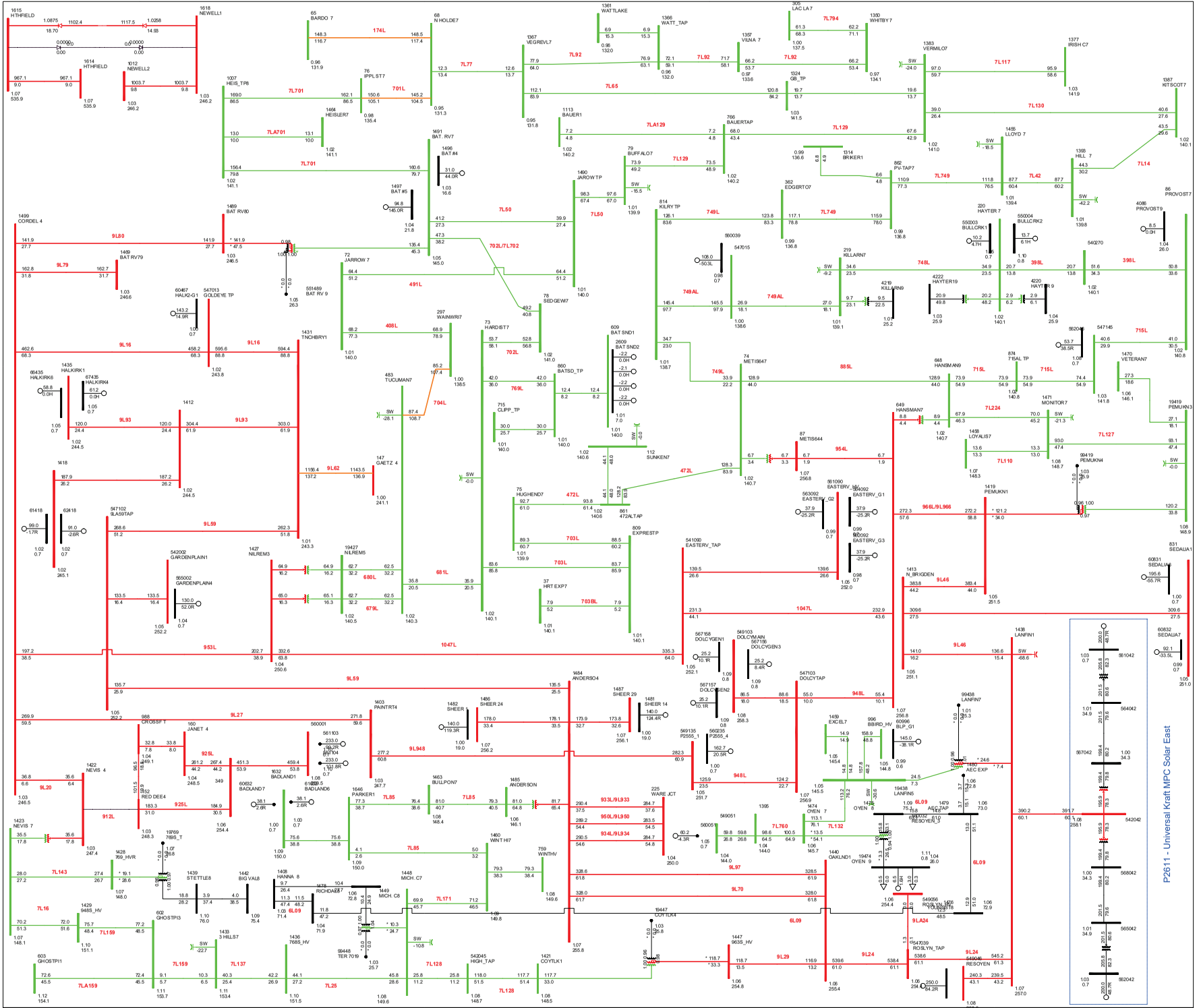
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-15: SCN6-WP-POST.SAV
CATEGORY B - COYOTE LAKE 963S – 901 TRANSFORMER
SUN, SEP 07 2025 21:54
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1020.2 MW

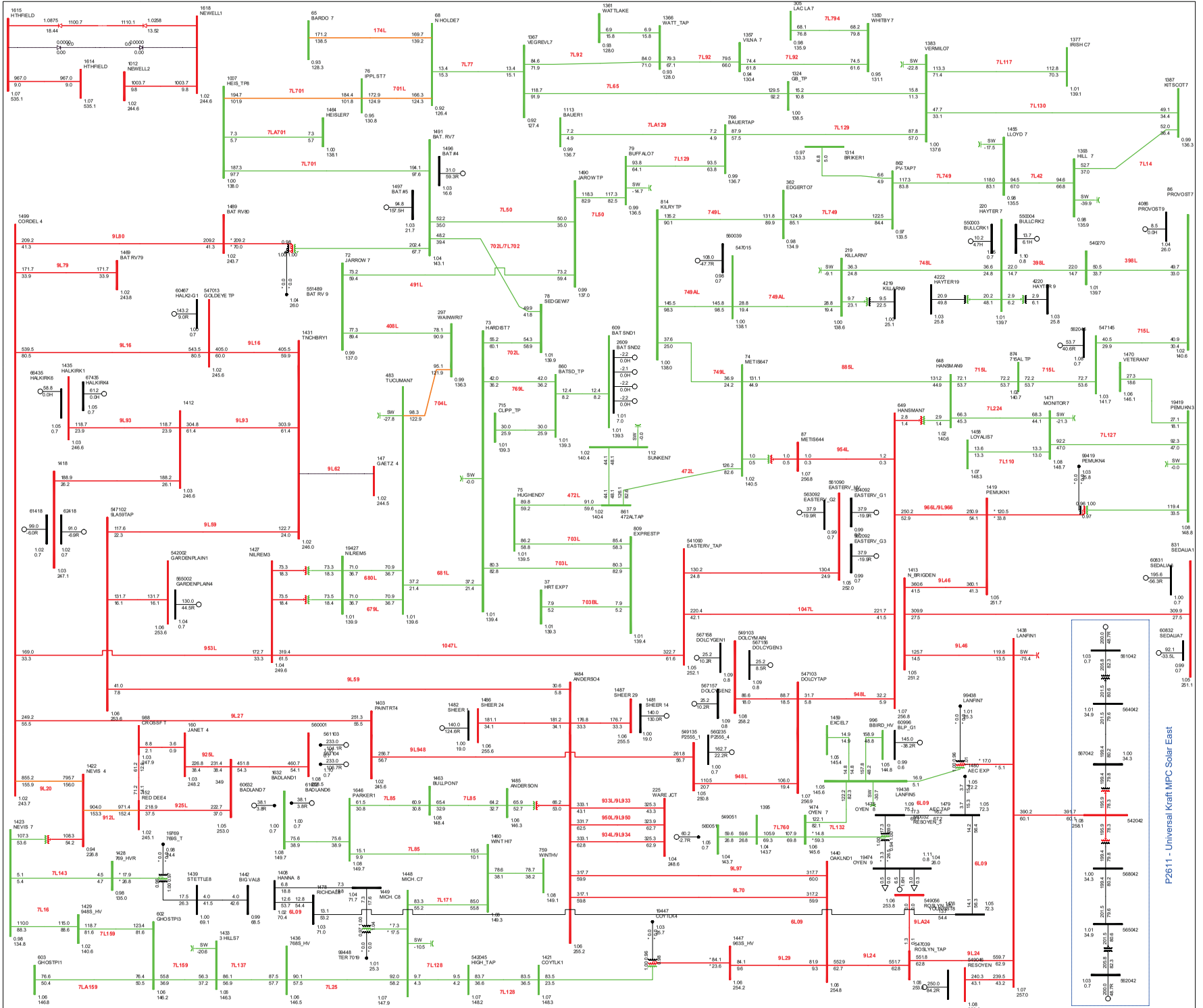
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-16: SCN6-WP-POST.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
SUN, SEP 07 2025 21:54
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -913.8 MW

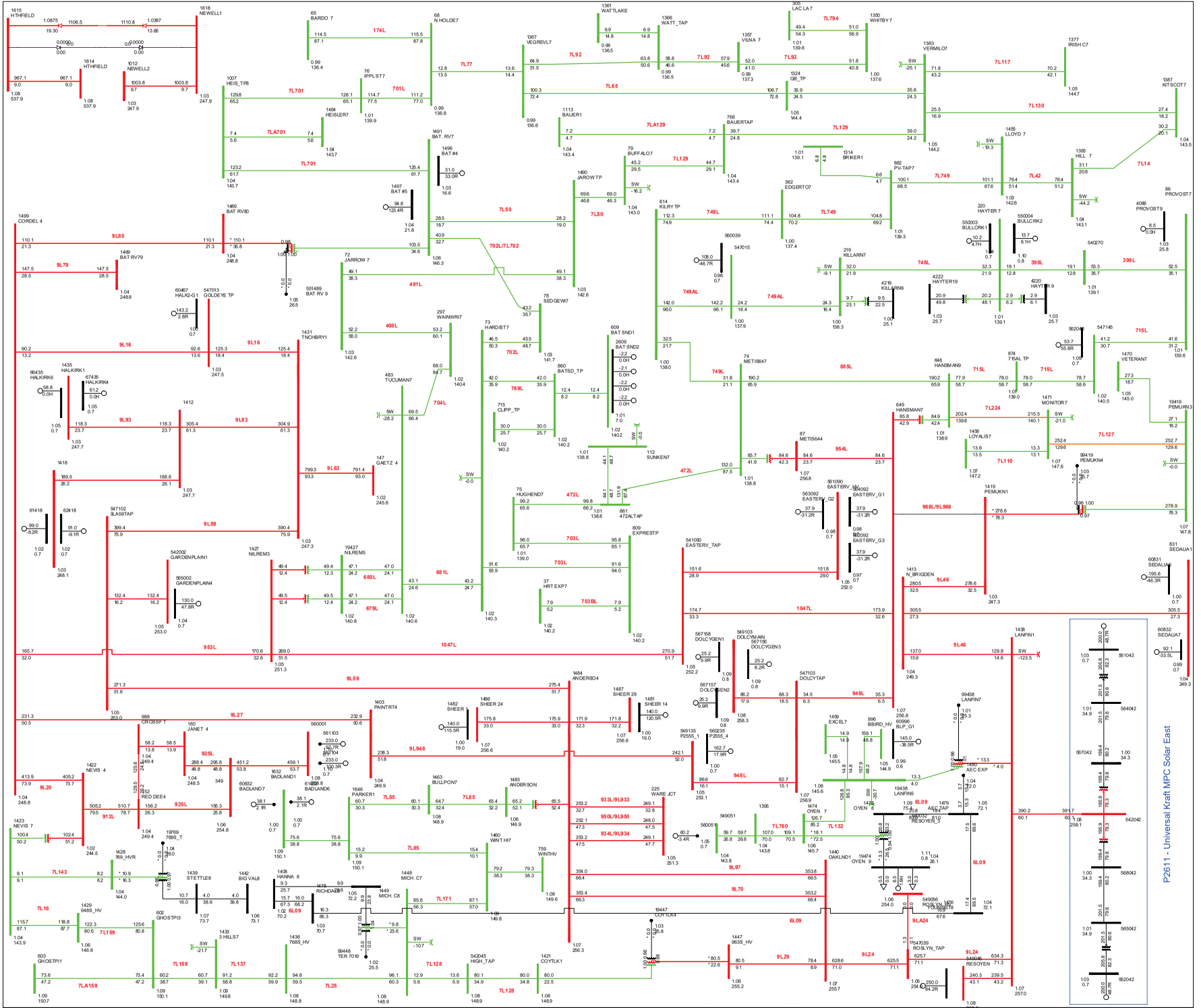
Sask Import: 151.1 MW

MATL: 187.0 MW

FIGURE B-6-17: SCN6-WP-POST.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
SUN, SEP 07 2025 21:54
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1069.3 MW

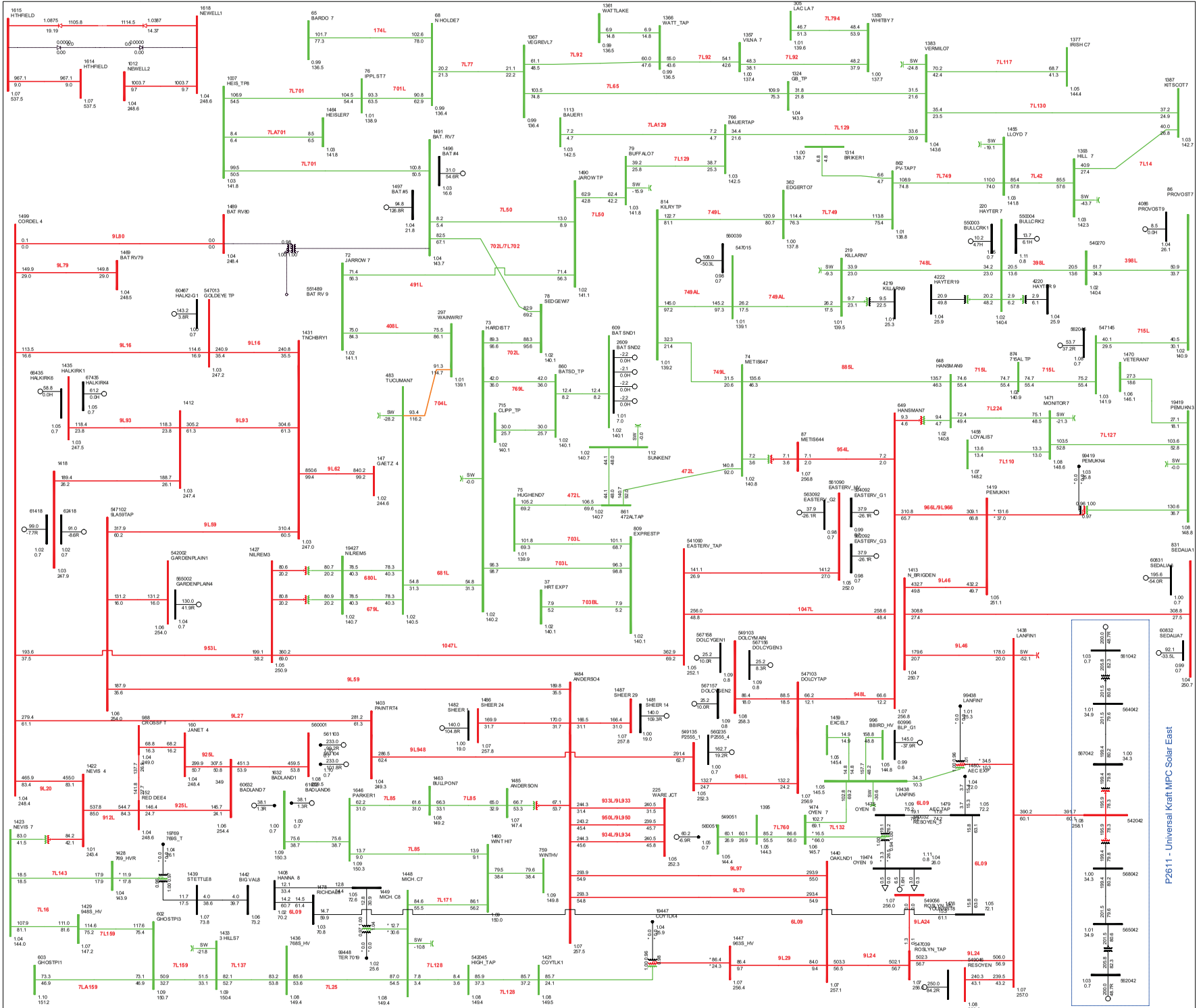
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-18: SCN6-WP-POST.SAV
CATEGORY B - 966L (HANSMAN LAKE 650S TO PEMUKAN 932S)
SUN, SEP 07 2025 21:55
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1088.9 MW

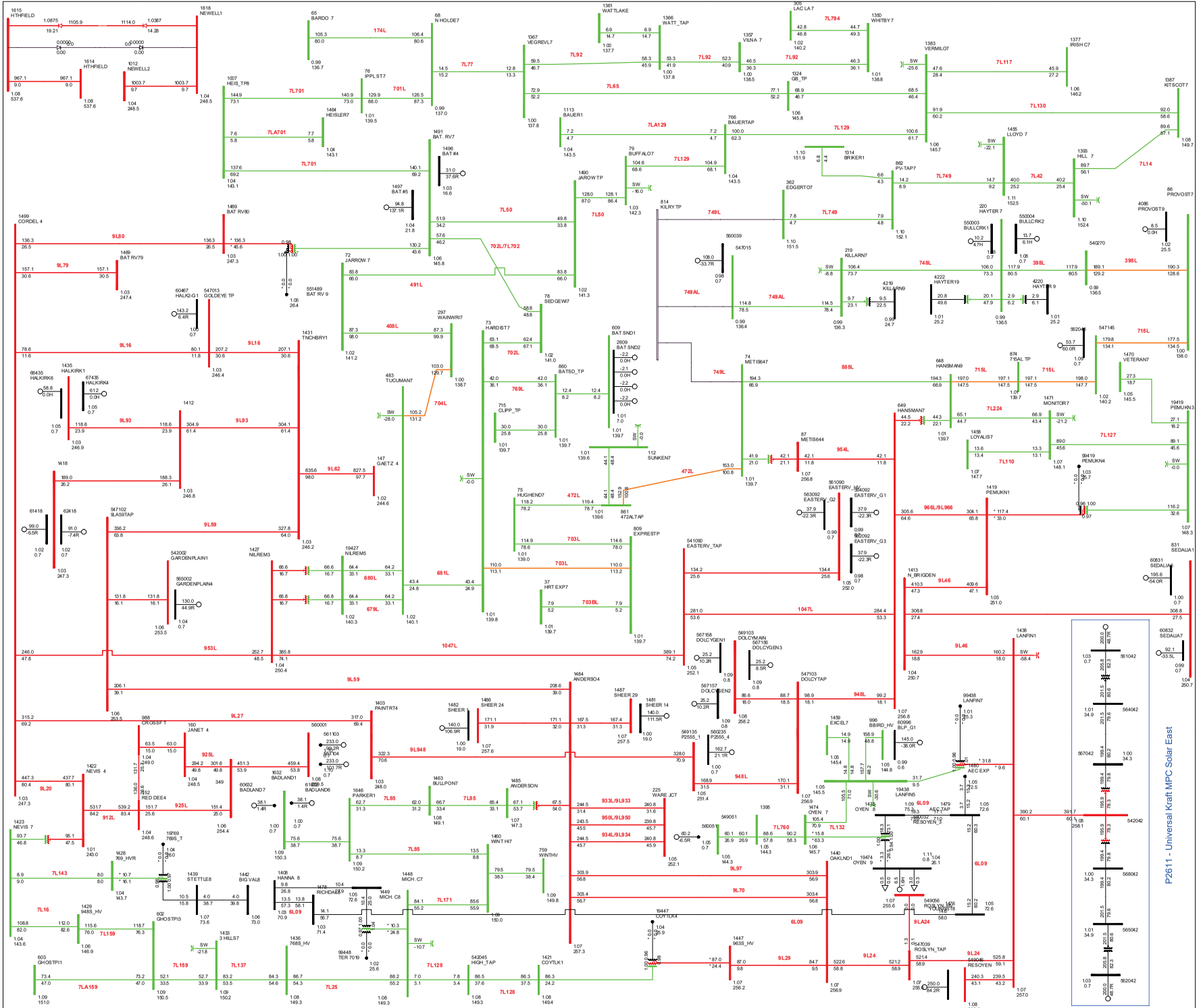
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-19: SCN6-WP-POST.SAV
CATEGORY B - BATTLE RIVER 3 WINDING TRANSFORMER
SUN, SEP 07 2025 21:55
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1061.9 MW

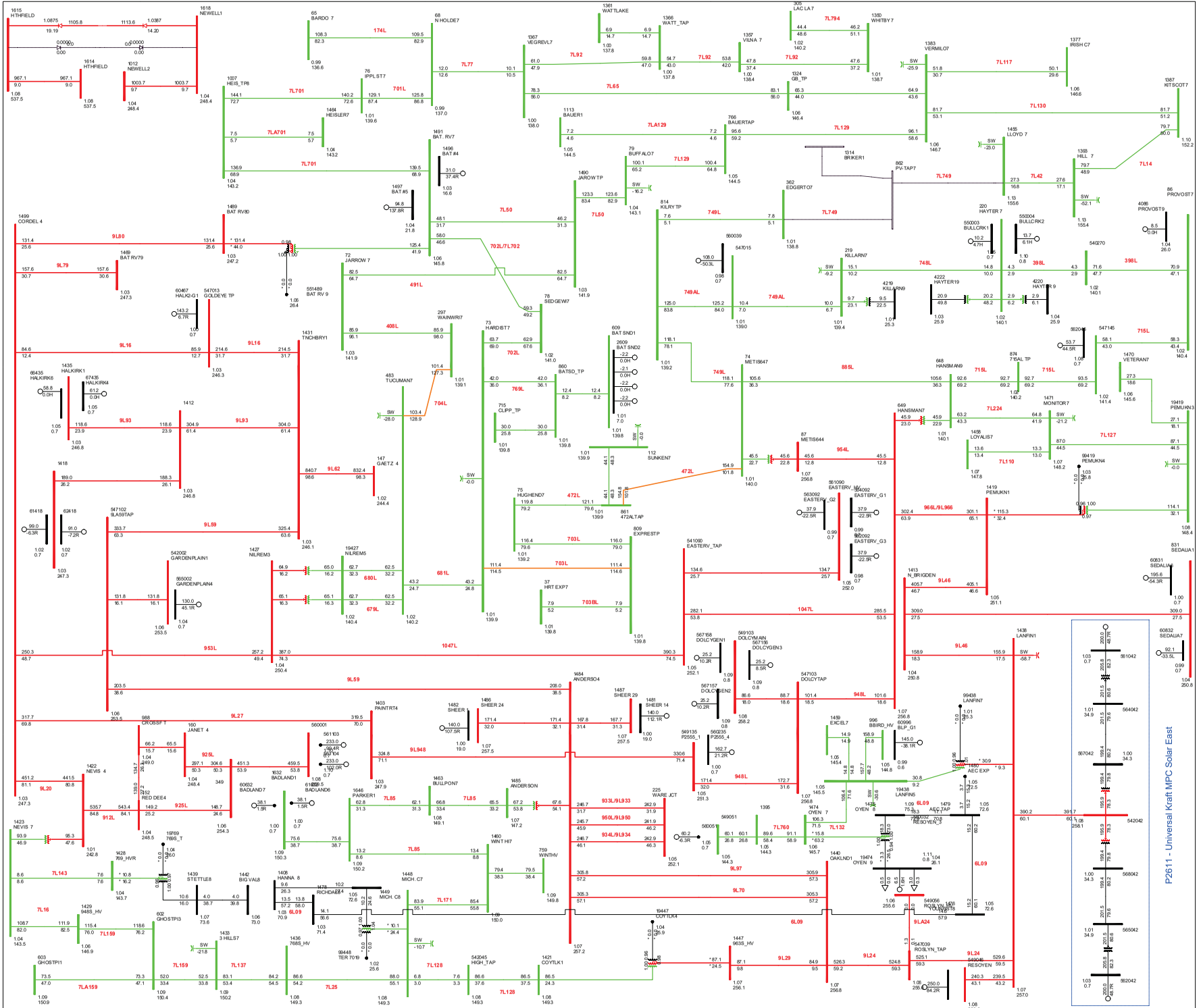
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-20: SCN6-WP-POST.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
SUN, SEP 07 2025 21:55
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1082.1 MW

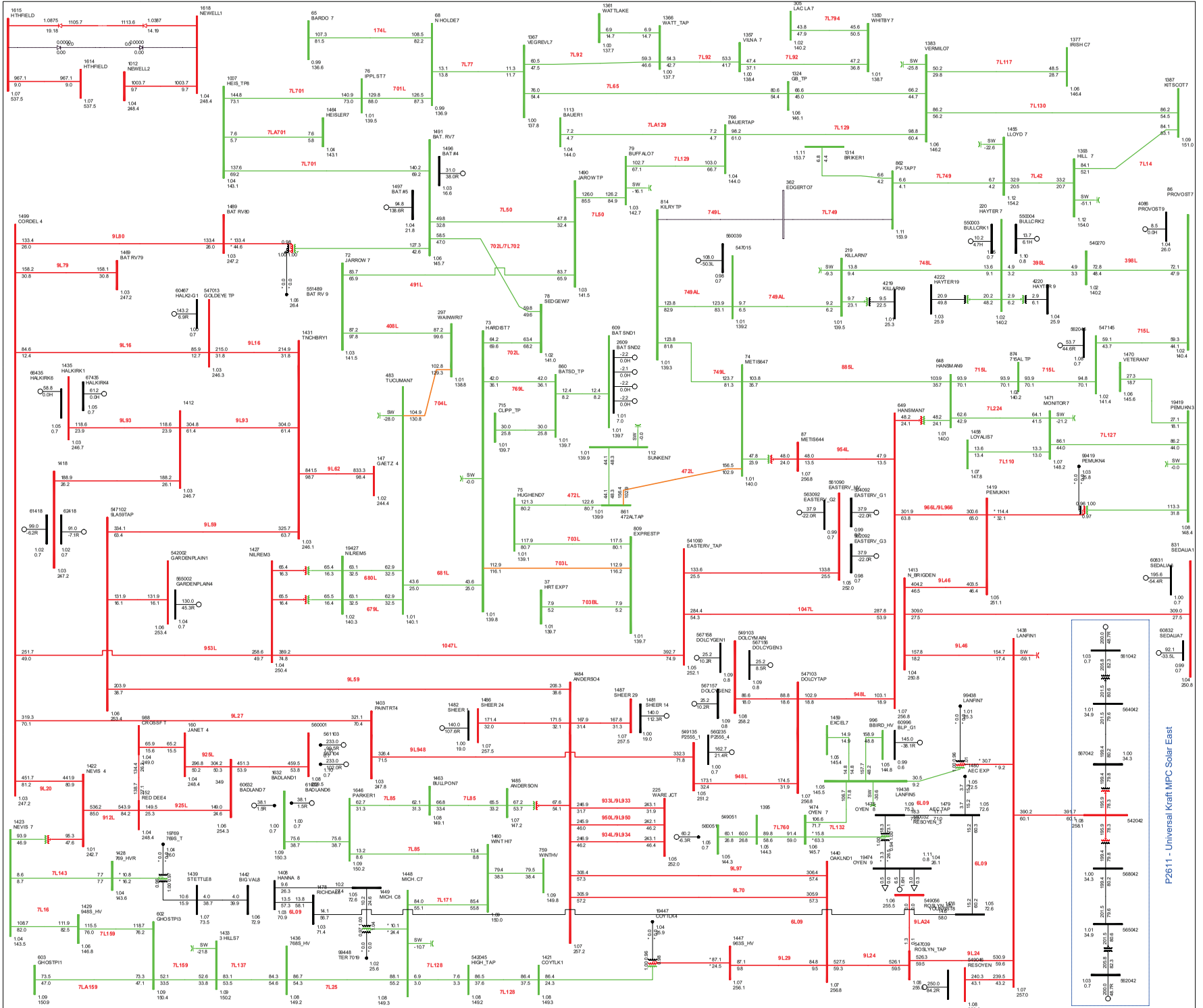
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-21: SCN6-WP-POST.SAV
CATEGORY B - 7L749 (EDGERTON 899S TO LLOYDMINSTER 716S)
SUN, SEP 07 2025 21:55
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1080.5 MW

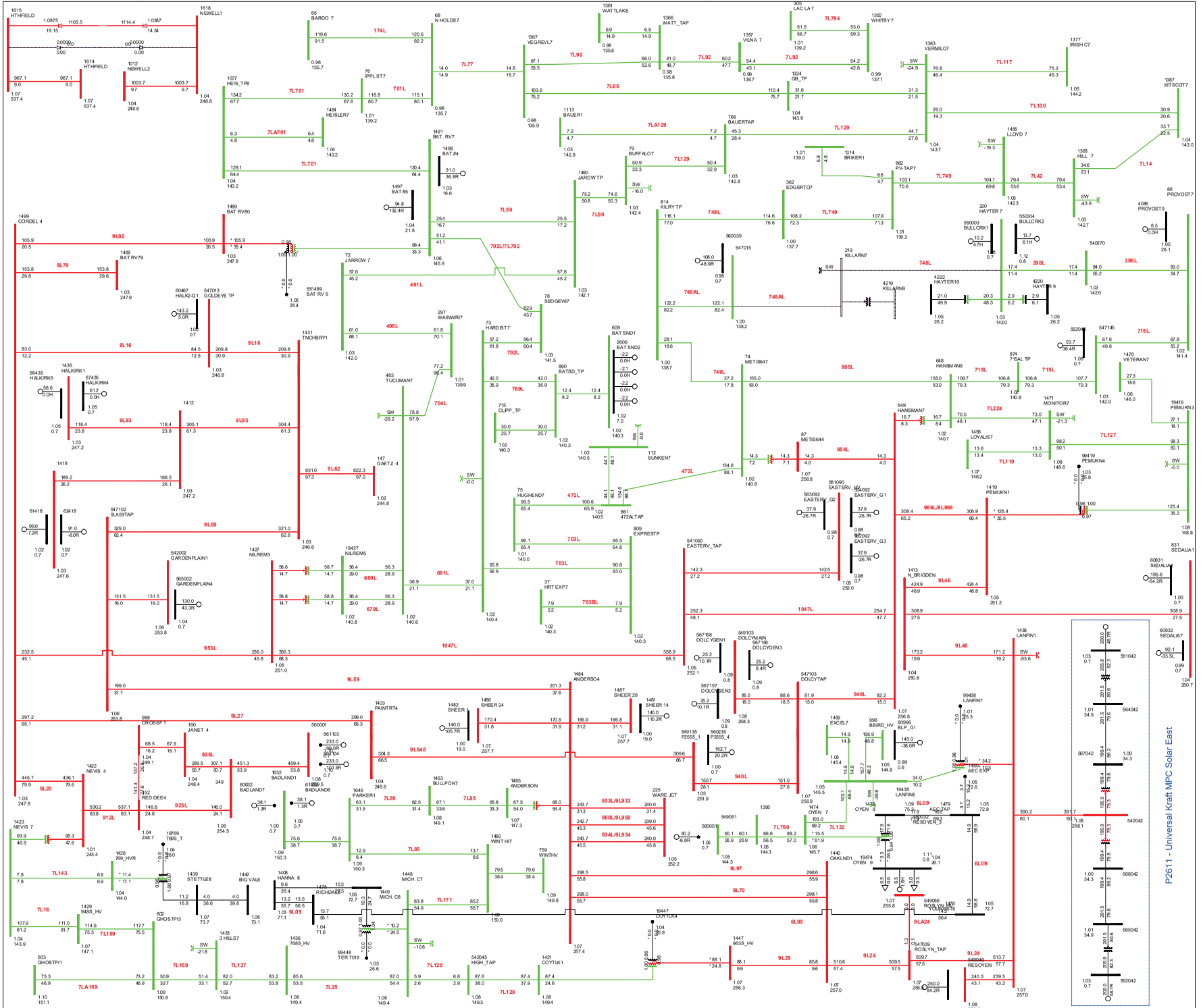
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-22: SCN6-WP-POST.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
SUN, SEP 07 2025 21:56
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1090.1 MW

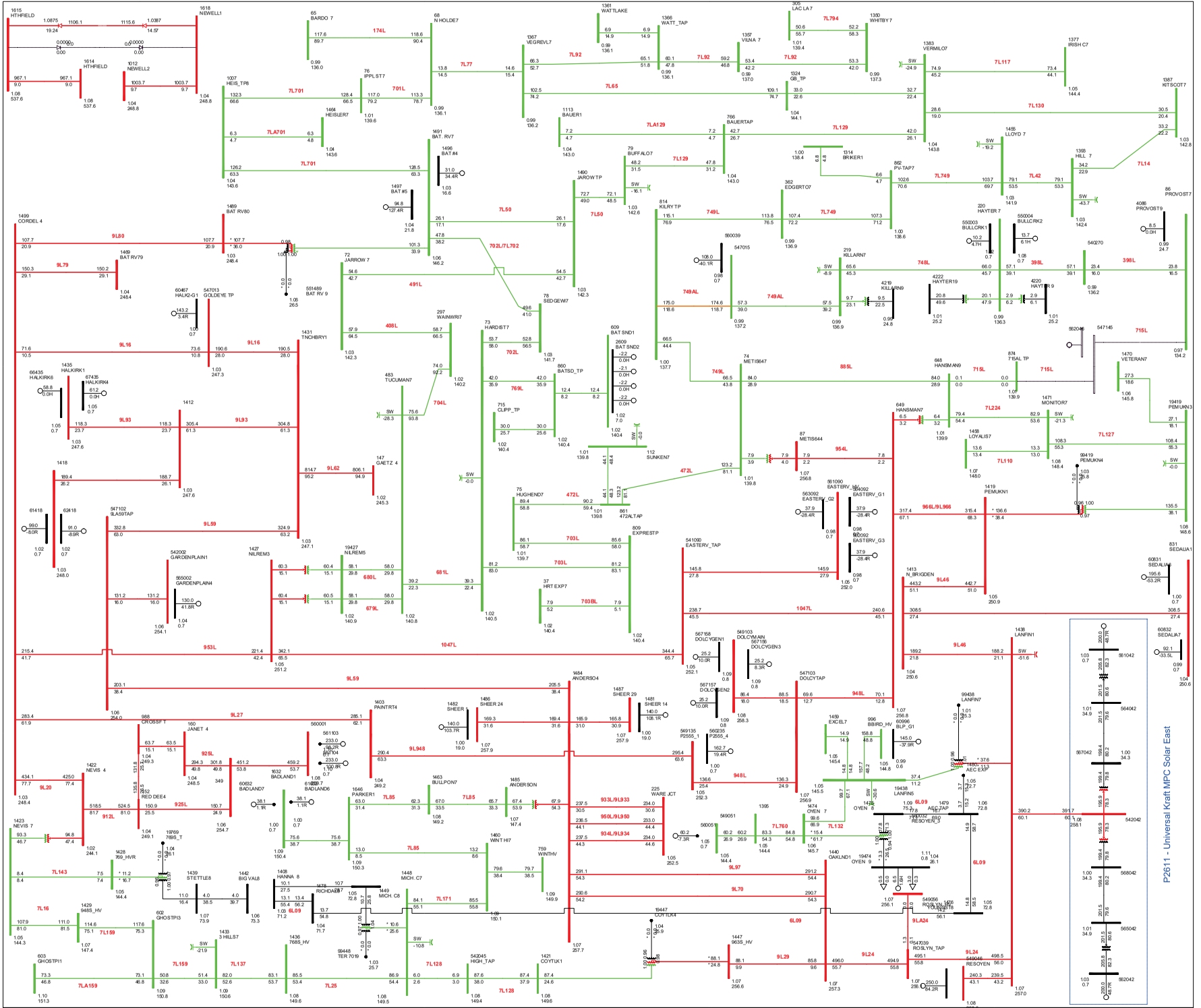
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-23: SCN6-WP-POST.SAV
CATEGORY B - KILLARNEY LAKE 267S TRANSFORMER
SUN, SEP 07 2025 21:56
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1050.2 MW

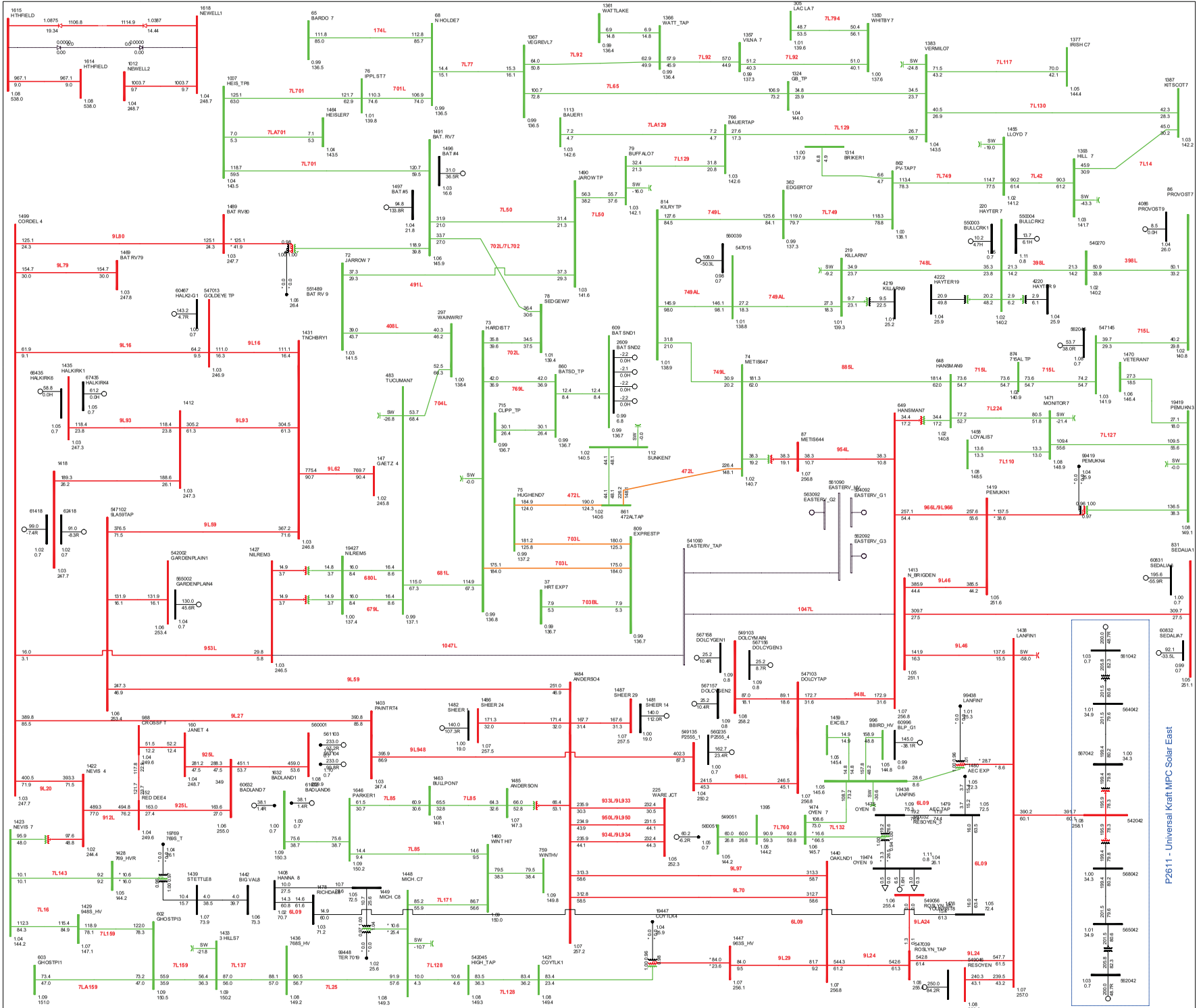
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-24: SCN6-WP-POST.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
SUN, SEP 07 2025 21:56
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -986.0 MW

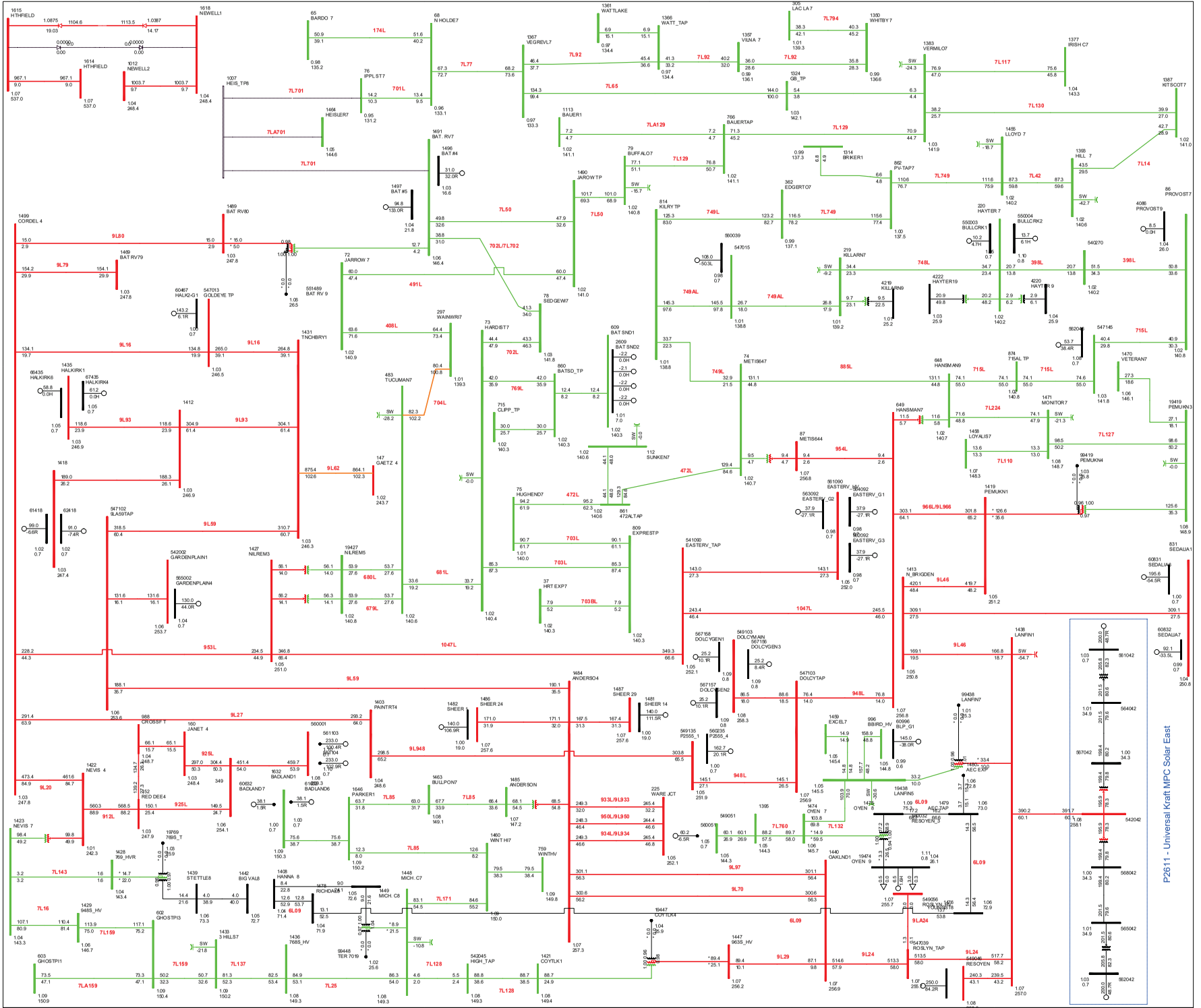
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-25: SCN6-WP-POST.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
SUN, SEP 07 2025 21:57
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1077.4 MW

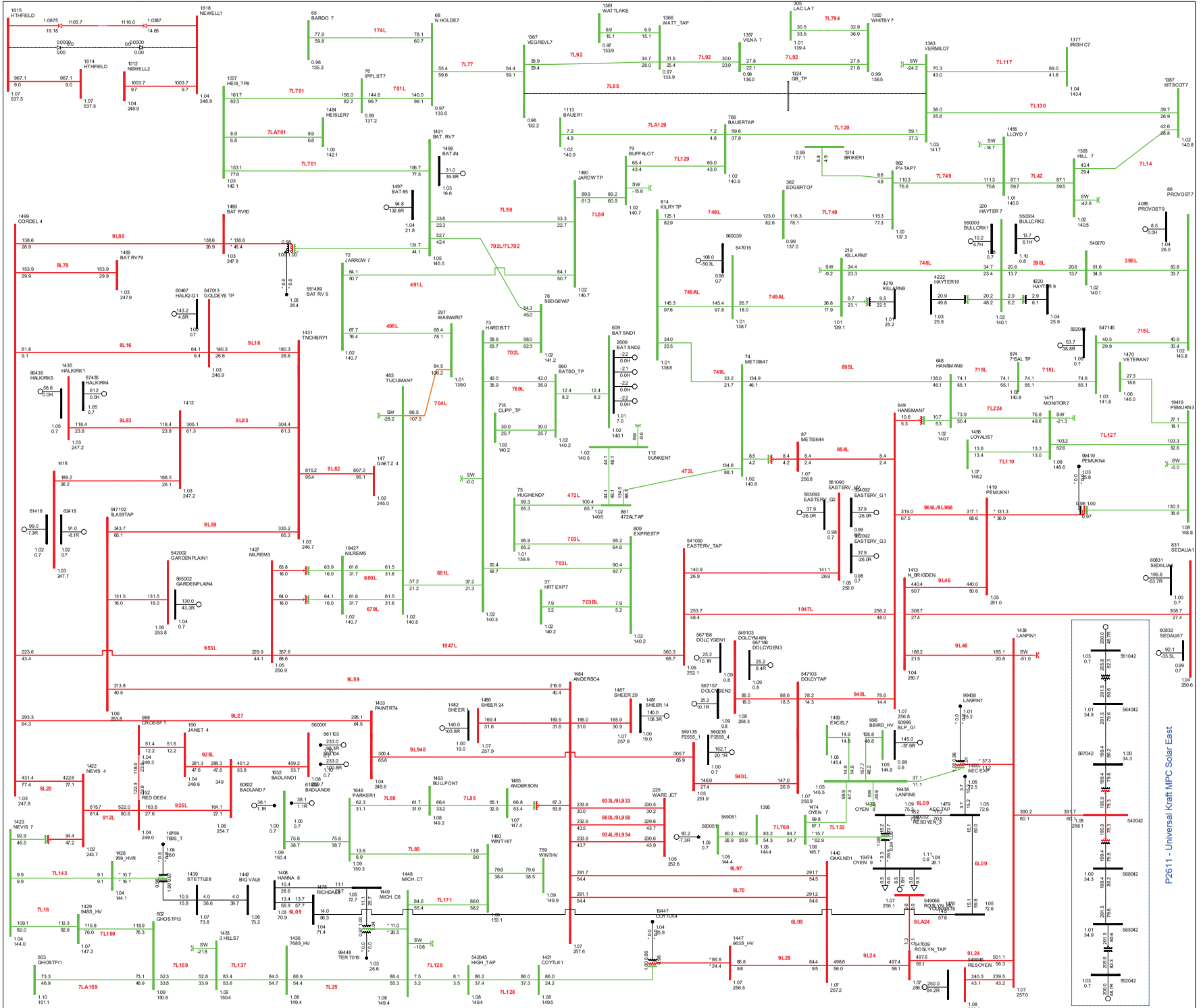
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-26: SCN6-WP-POST.SAV
CATEGORY B - 701L (BATTLE RIVER 757S TO STROME 223S)
SUN, SEP 07 2025 21:57
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -966.5 MW

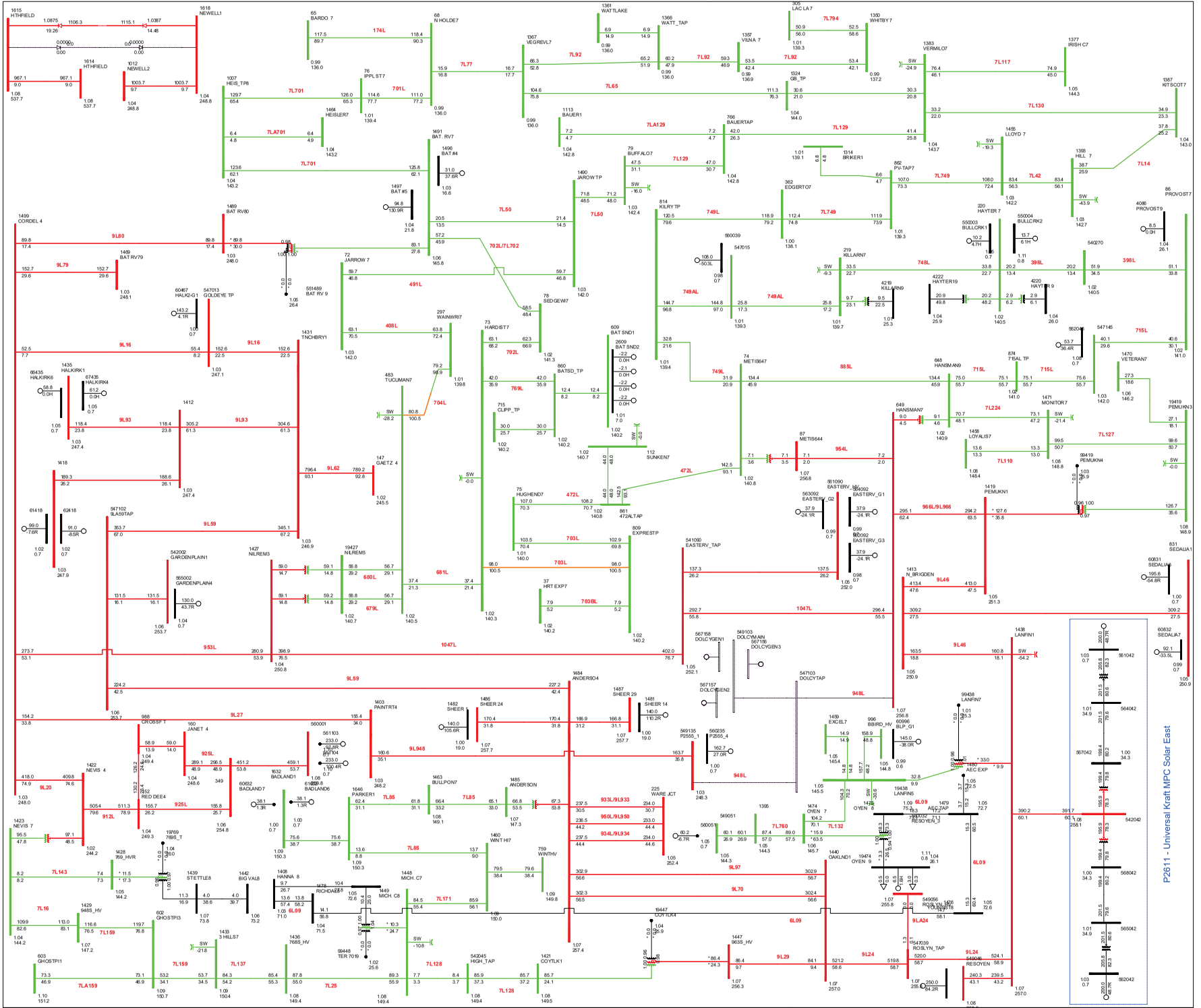
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-27: SCN6-WP-POST.SAV
CATEGORY B - 7L65 (VEGREVILE 709S TO VERMILION 710S)
SUN, SEP 07 2025 21:57
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1027.7 MW

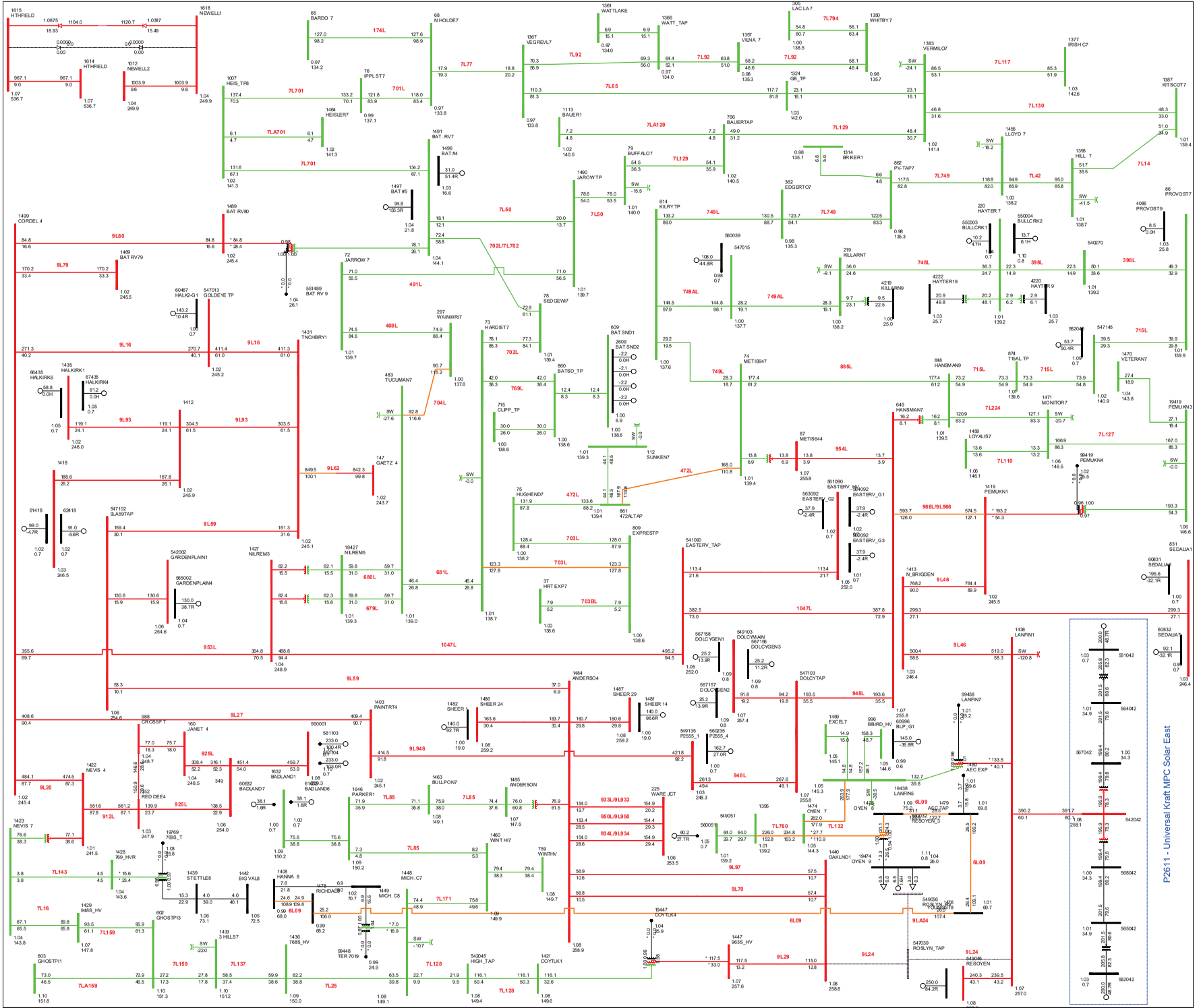
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-28: SCN6-WP-POST.SAV
CATEGORY B - 948L (PAINTEARTH 863S TO HANSMAN LAKE 650S)
SUN, SEP 07 2025 21:58
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -996.5 MW

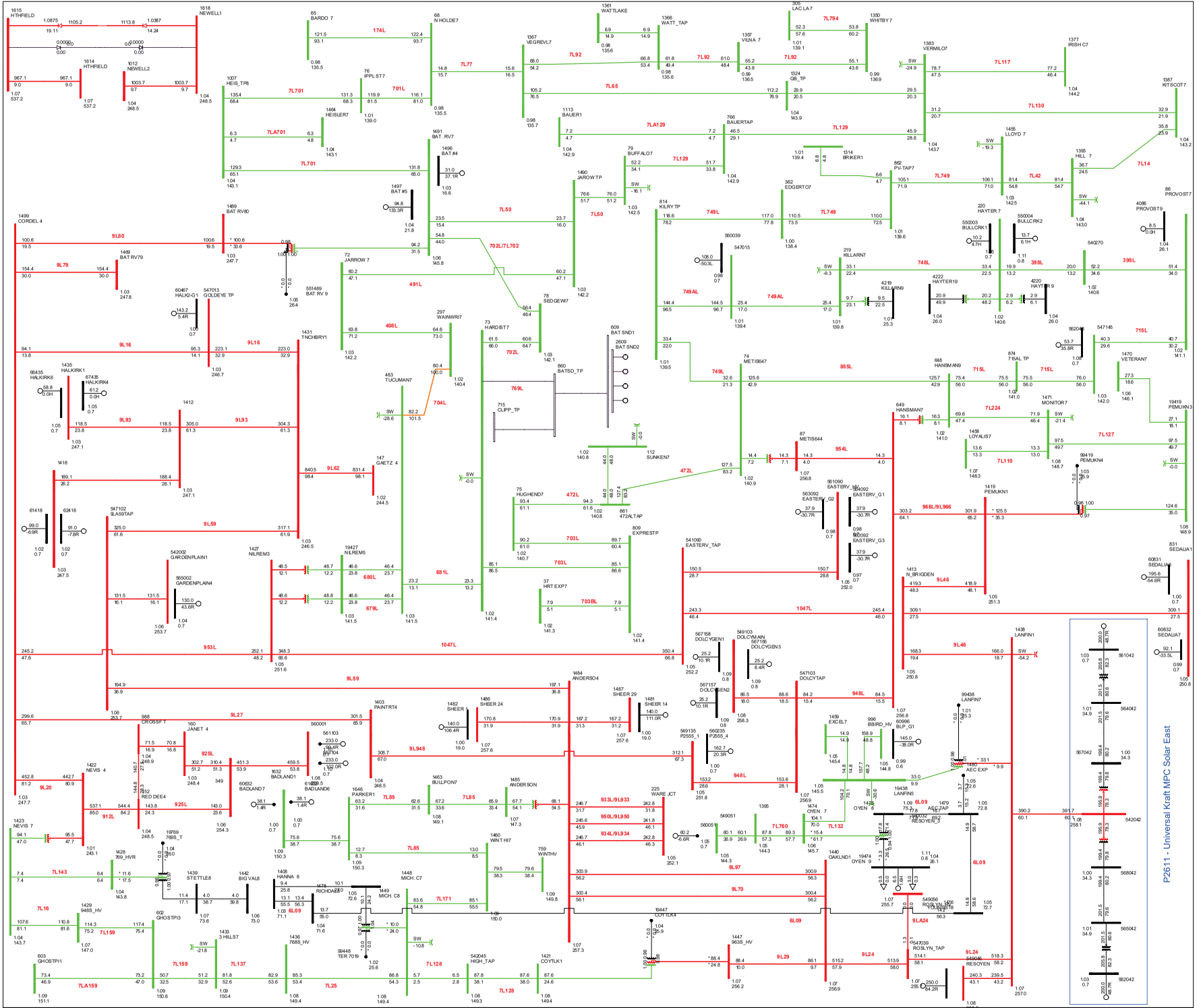
Sask Import: 151.1 MW

MATL: 186.8 MW

FIGURE B-6-29: SCN6-WP-POST.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
SUN, SEP 07 2025 21:58
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1113.0 MW

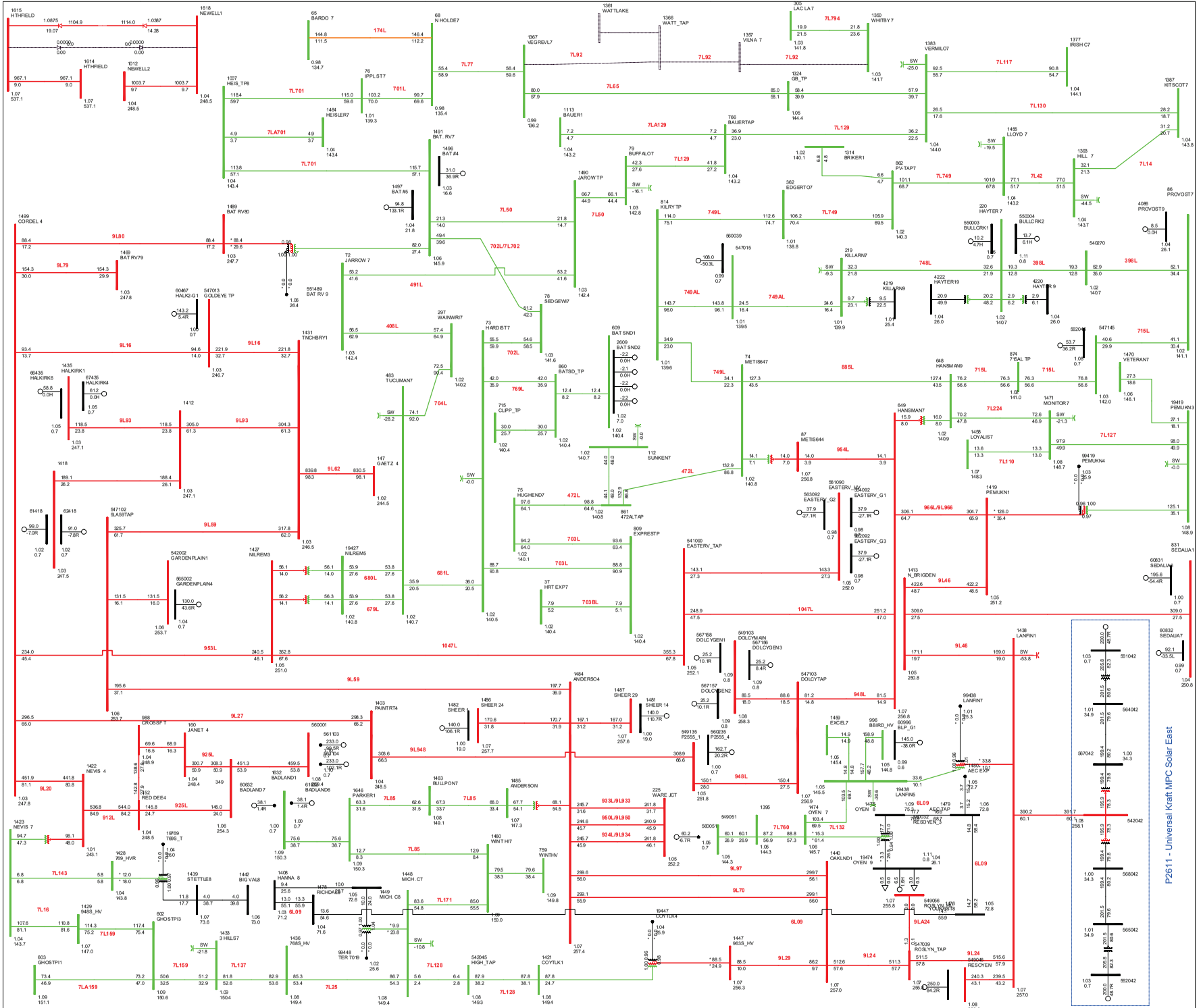
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-30: SCN6-WP-POST.SAV
CATEGORY B - 769L (HARDISTY 377S TO ROSYTH 296S)
SUN, SEP 07 2025 21:58
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1097.9 MW

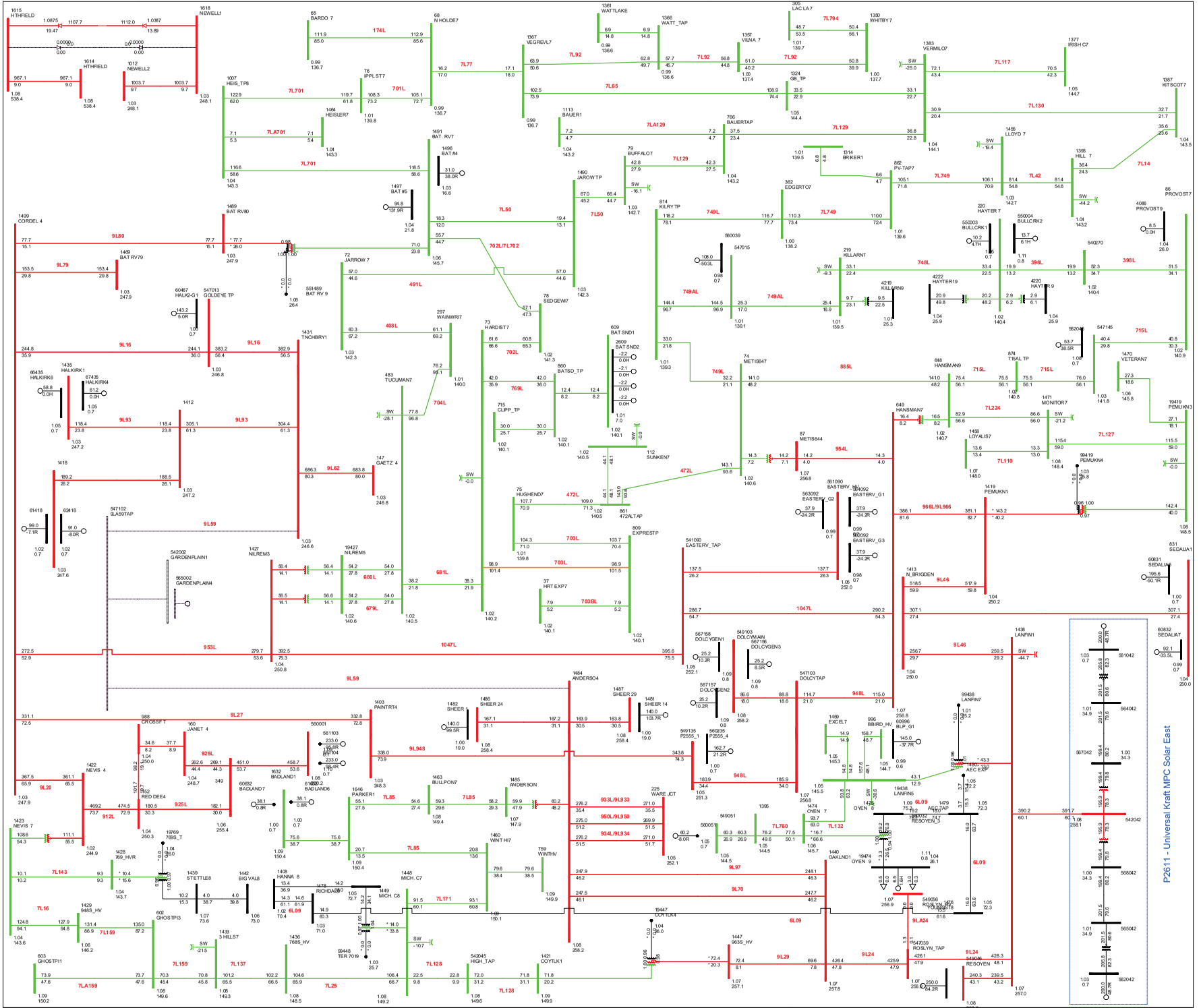
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-31: SCN6-WP-POST.SAV
CATEGORY B - 7L92 (VEGREVILLE 709S TO WHITBYLAKE 819S)
SUN, SEP 07 2025 21:58
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -973.4 MW

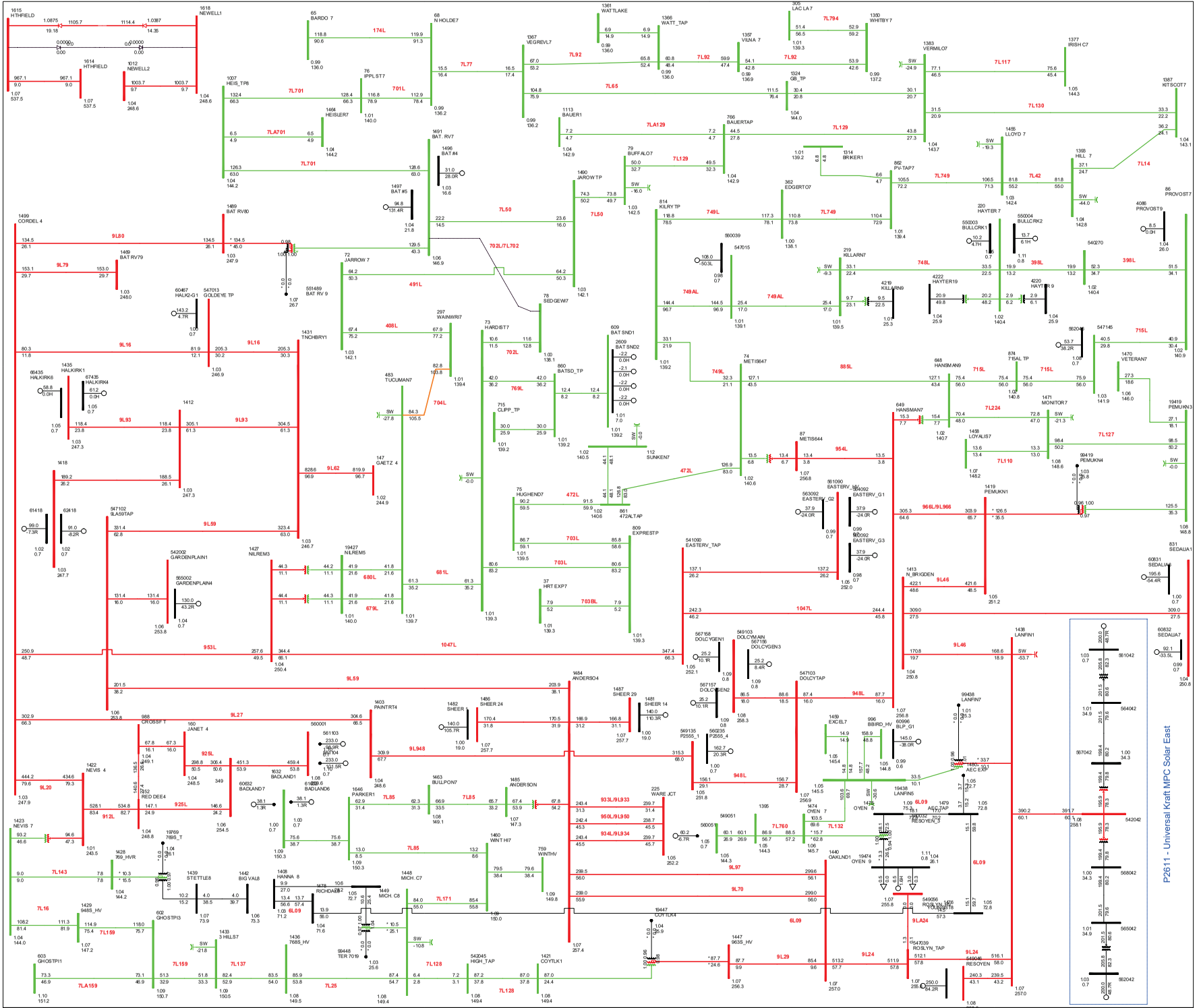
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-32: SCN6-WP-POST.SAV
CATEGORY B - 9L59 (TINCHEBRAY 972S TO ANDERSON 801S)
SUN, SEP 07 2025 21:59
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1086.6 MW

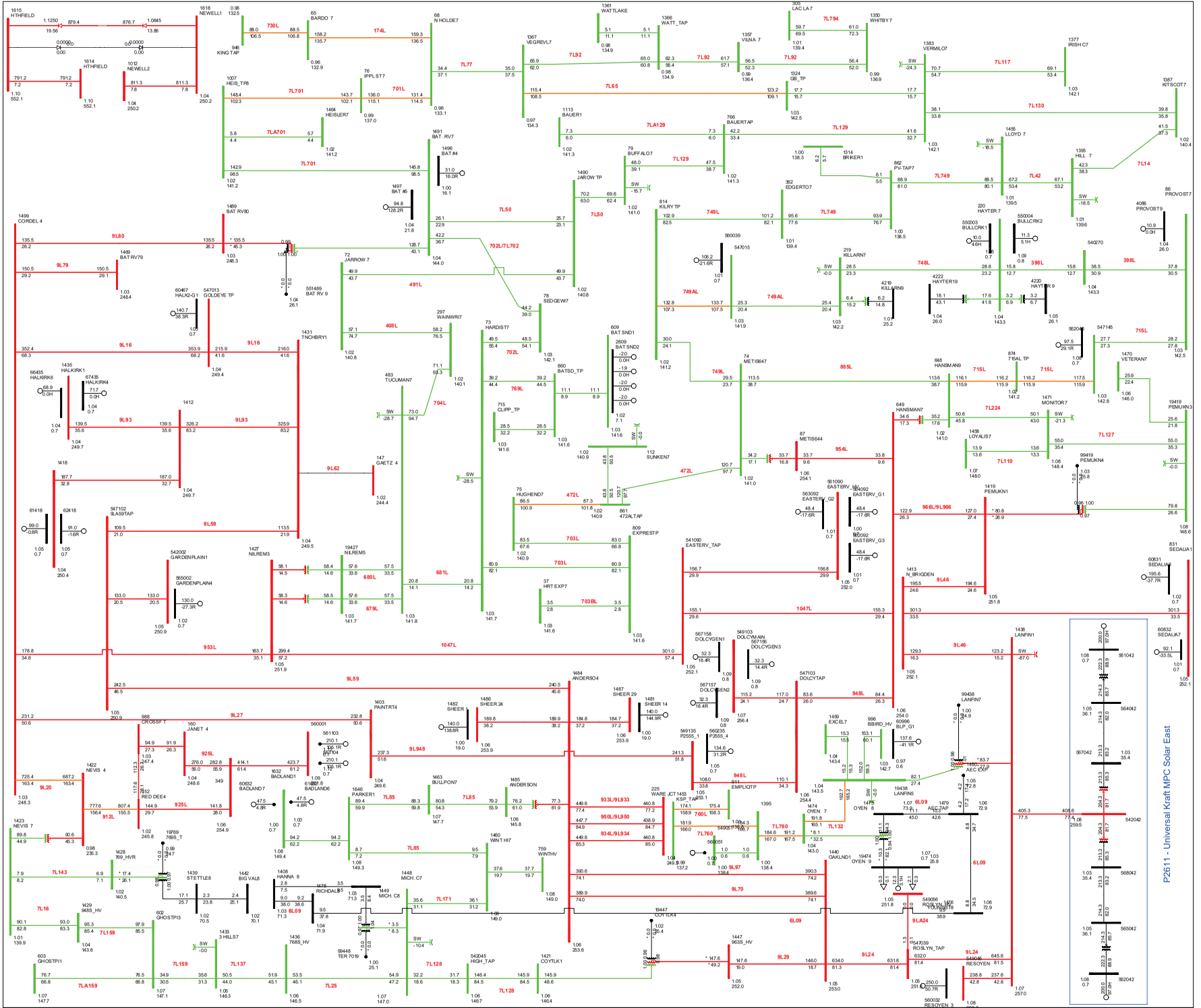
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-33: SCN6-WP-POST.SAV
CATEGORY B - 702L (SEDGEWICK 137S TO BATTLE RIVER 757S)
FRI, SEP 12 2025 18:10
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -869.4 MW

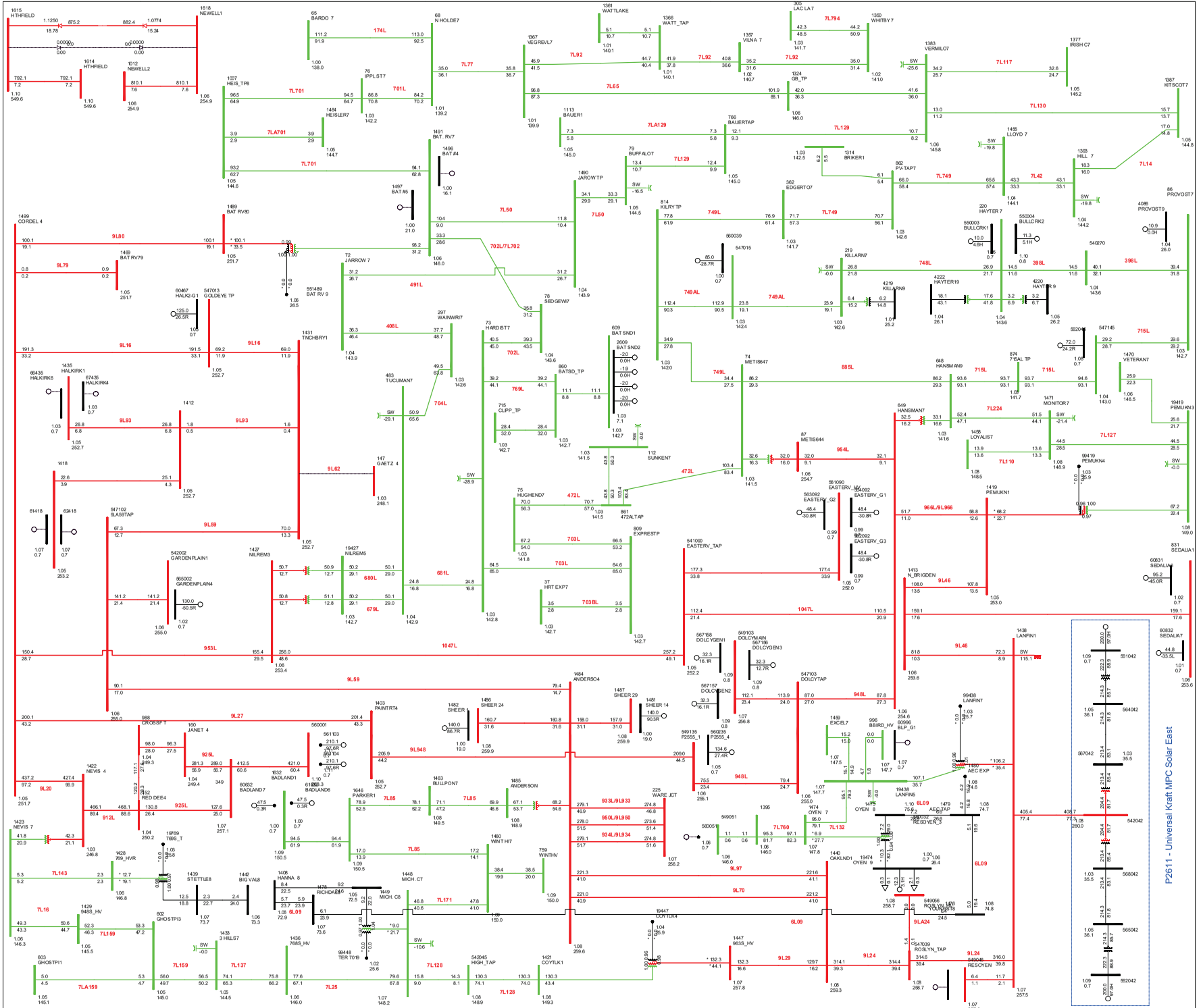
Sask Import: 151.0 MW

MATL: 187.0 MW

FIGURE A-9-1: SCN9-SP-SEN-PRE-CURTAILMENT.SAV
CATEGORY A - NO CONTINGENCY
THU, OCT 02 2025 14:29
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -911.1 MW

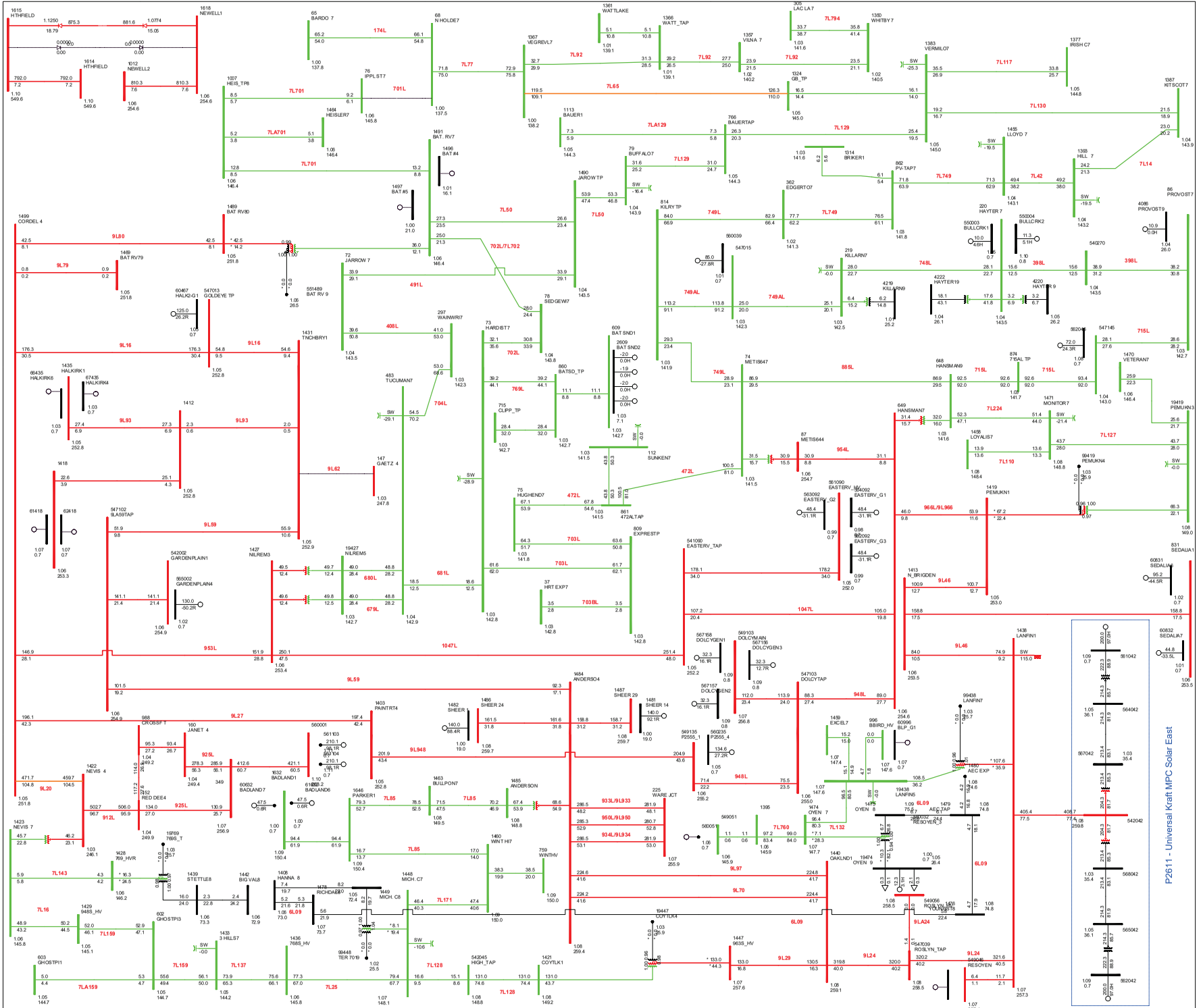
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE A-9-1: SCN9-SP-SEN-POST.SAV
CATEGORY A - NO CONTINGENCY
SUN, SEP 07 2025 22:12
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -908.1 MW

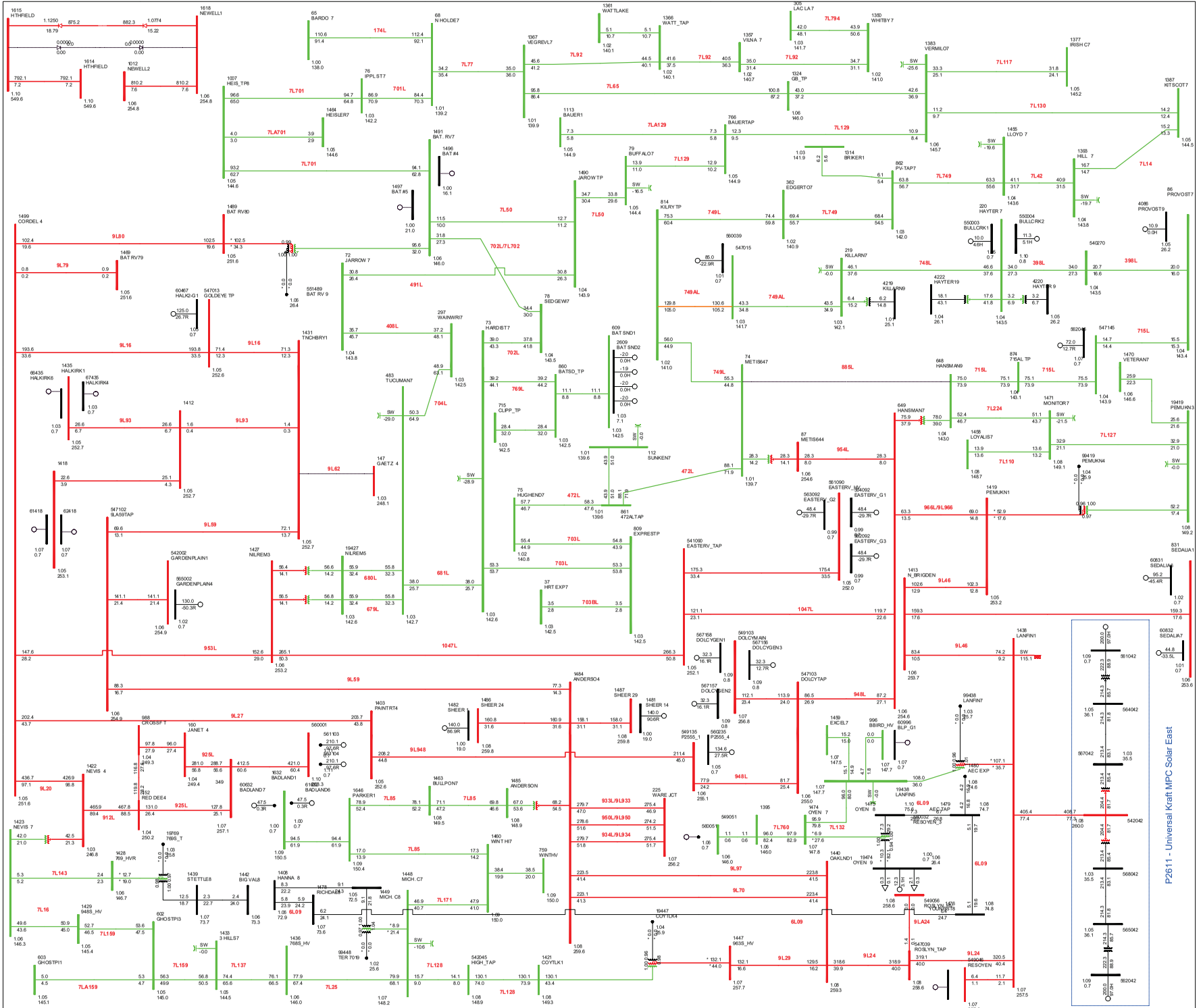
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-1: SCN9-SP-SEN-POST.SAV
CATEGORY B - 701L (NORTH HODEN 395S TO STROME 223S)
SUN, SEP 07 2025 22:13
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -911.5 MW

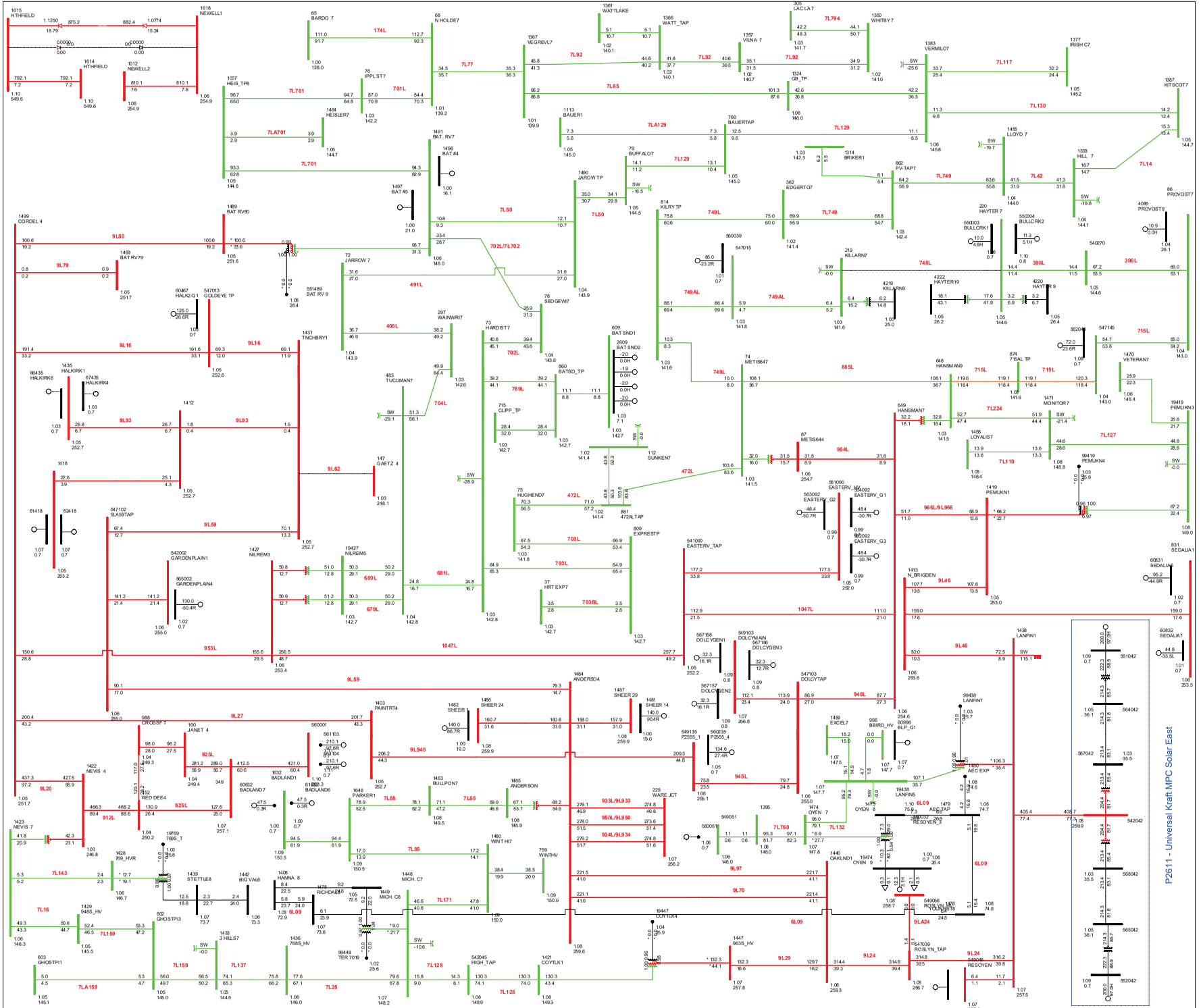
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-2: SCN9-SP-SEN-POST.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
SUN, SEP 07 2025 22:14
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -910.7 MW

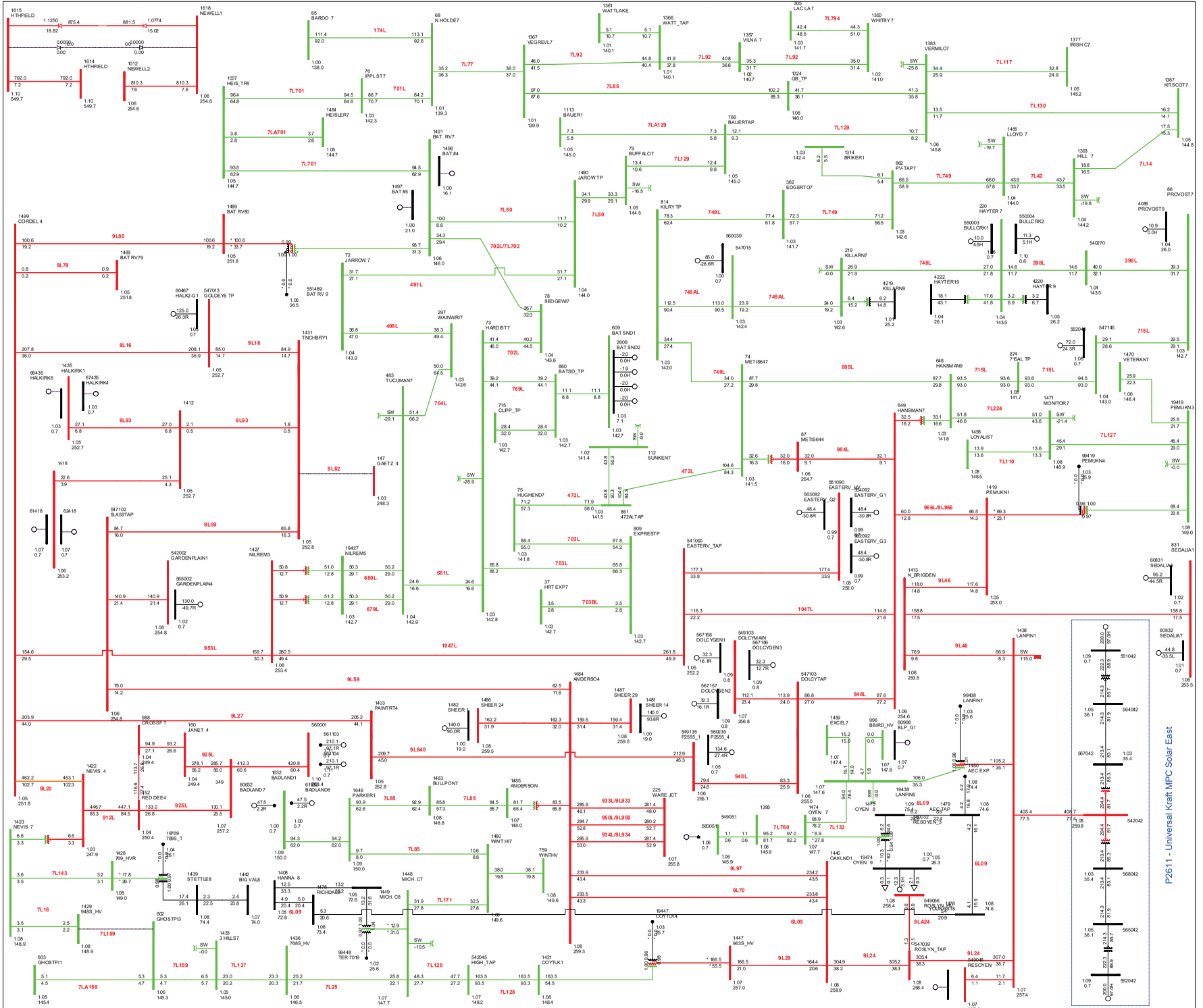
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-3: SCN9-SP-SEN-POST.SAV
CATEGORY B - 748L (HAYTER 277S TO KILLARNEY LAKE 267S)
SUN, SEP 07 2025 22:14
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -912.0 MW

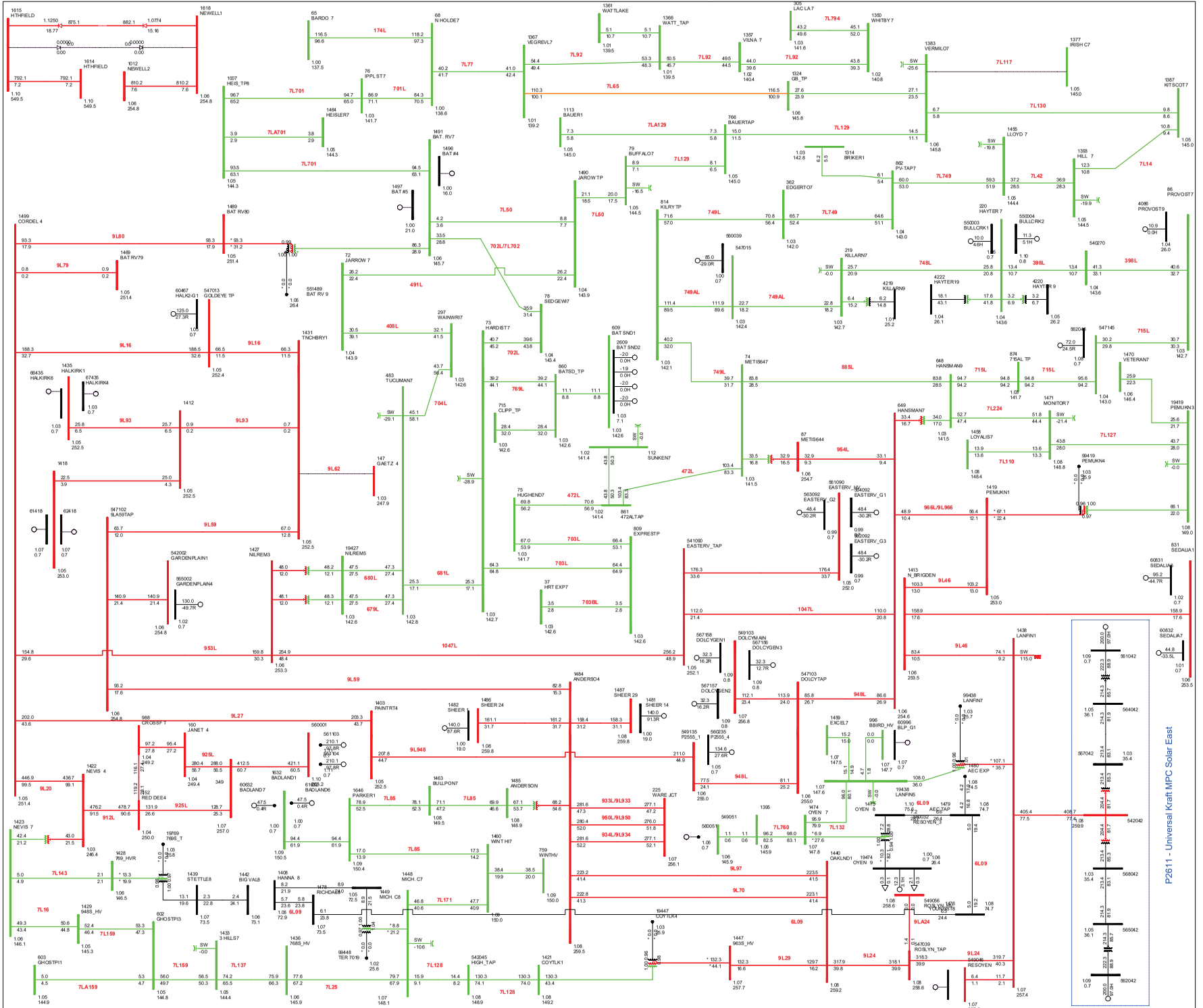
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-4: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L159 (GHOST PINE 114S TO HEATBURG 948S)
SUN, SEP 07 2025 22:14
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -910.2 MW

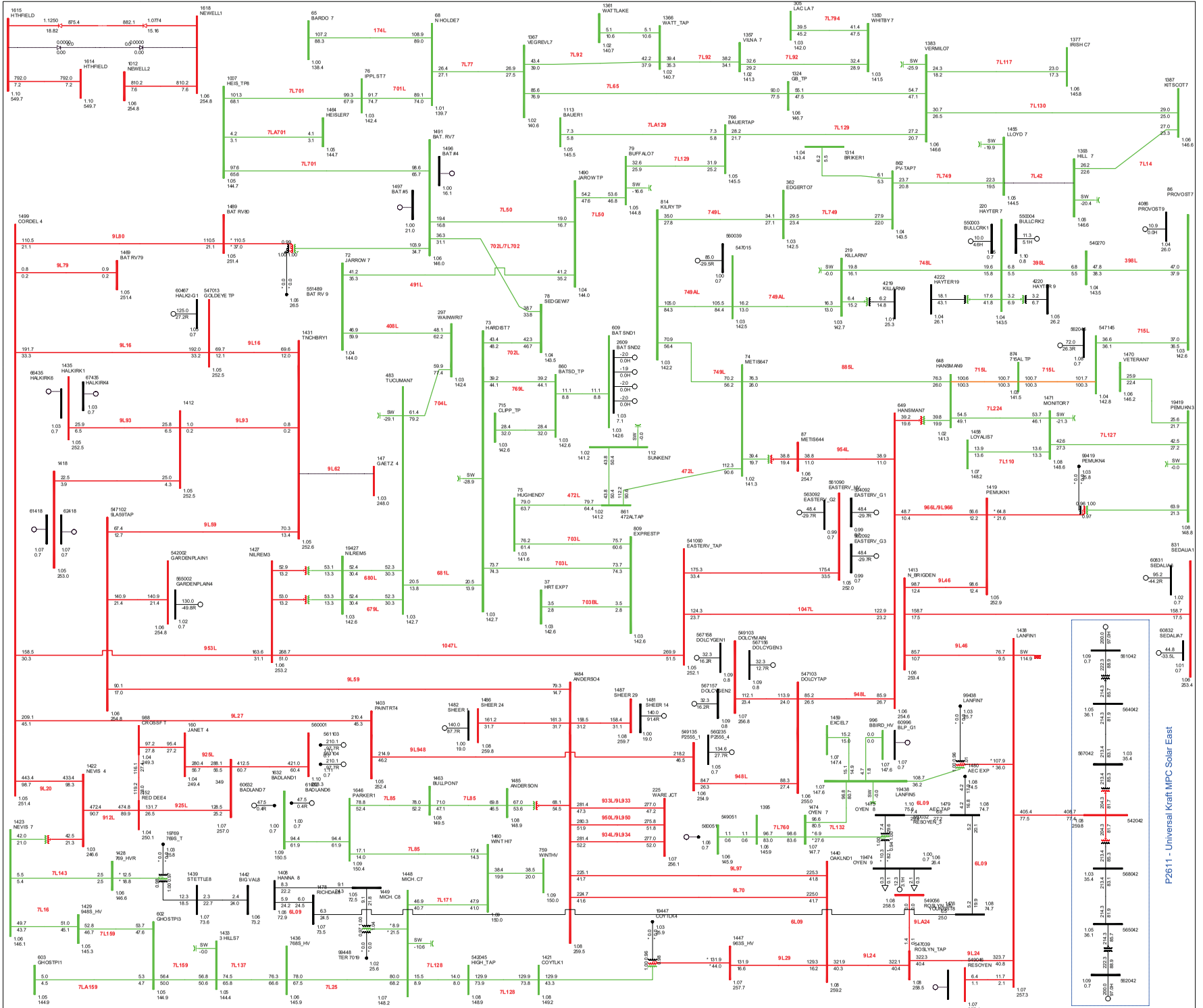
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-5: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L117 (VERMILION 710S TO IRISH CREEK 706S)
SUN, SEP 07 2025 22:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -911.5 MW

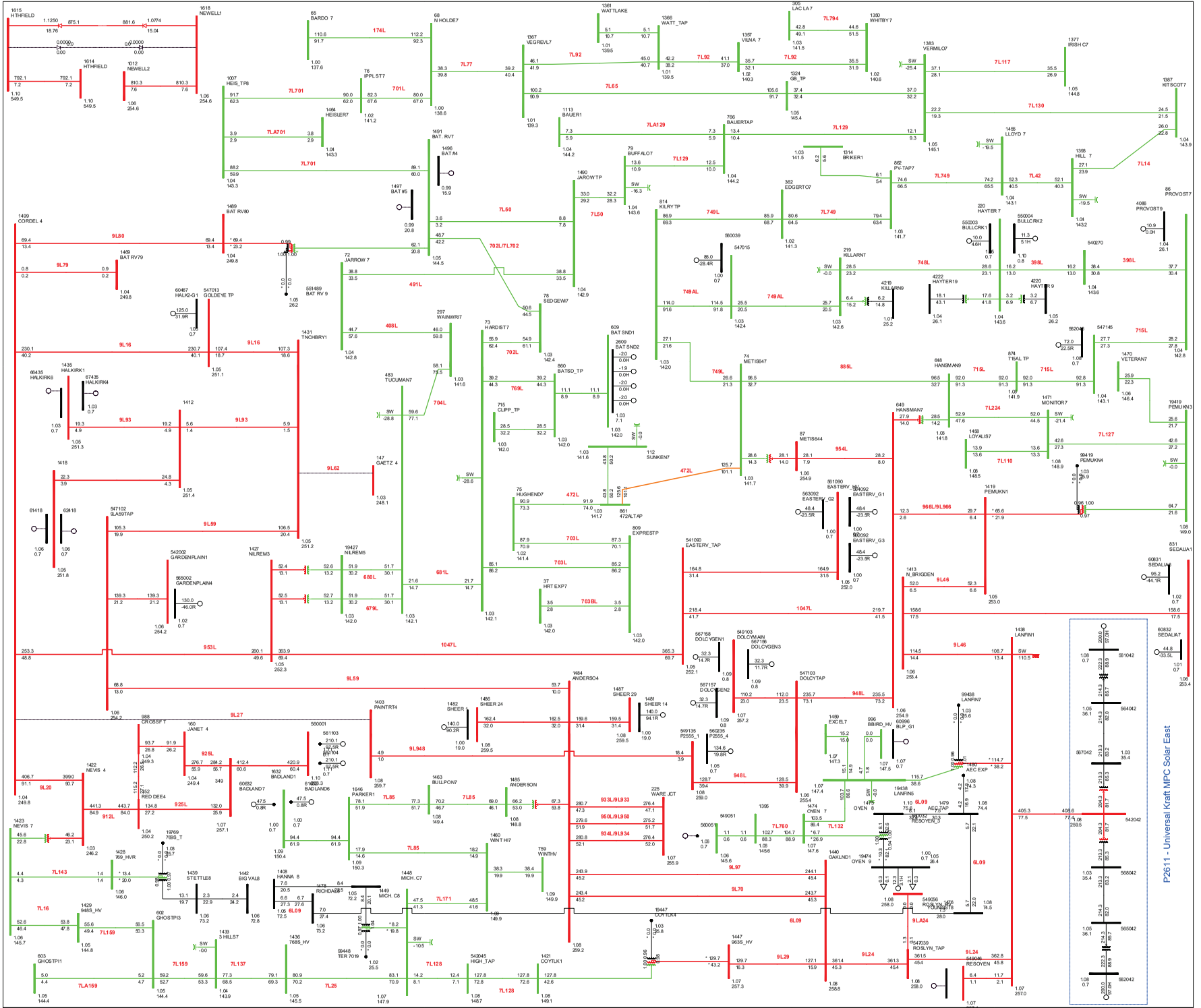
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-6: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L42 (LLOYDMINSTER 716S TO HILL 751S)
SUN, SEP 07 2025 22:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -897.5 MW

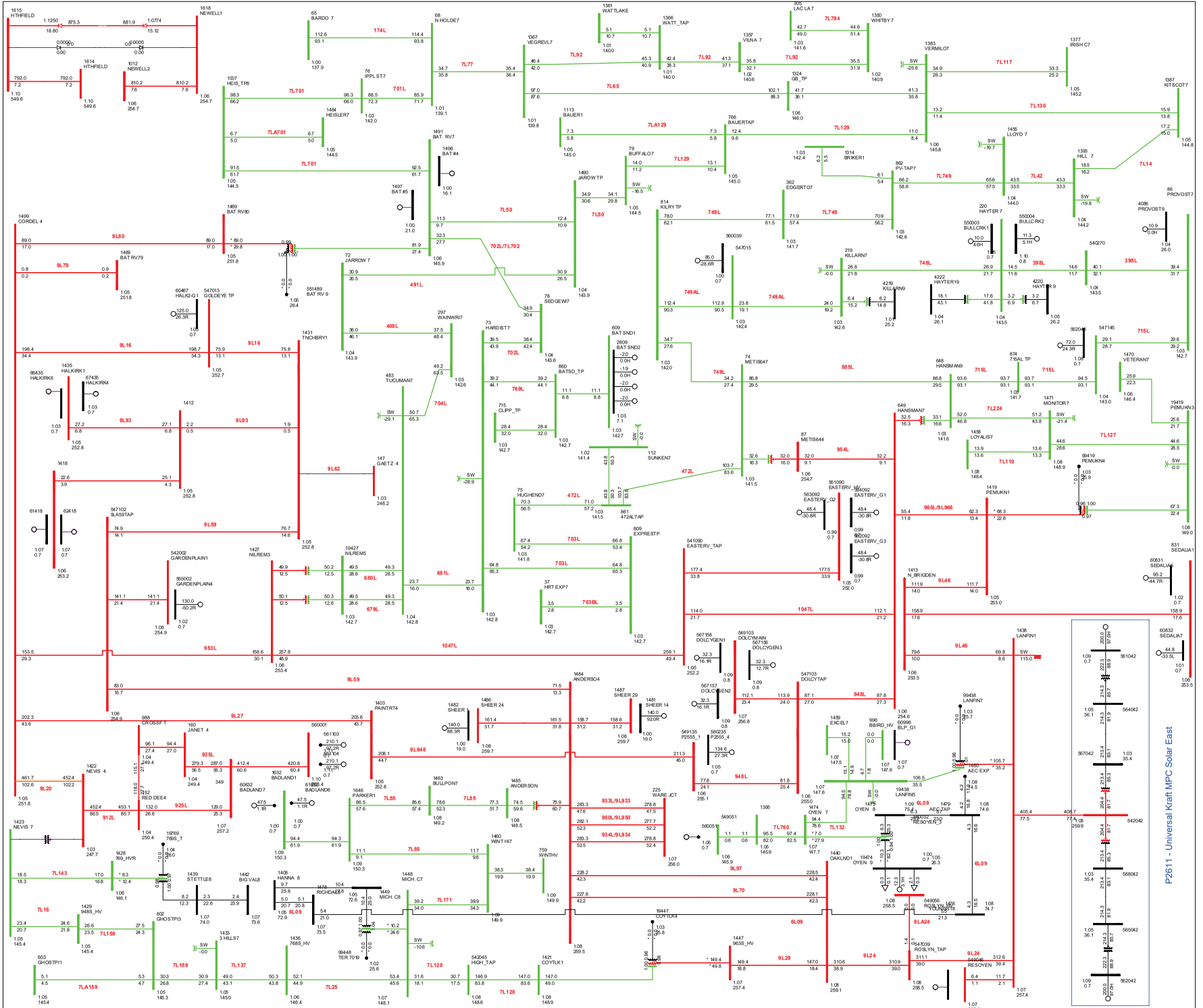
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-7: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L27 (CORDEL 755S TO PAINTEARTH 863S)
SUN, SEP 07 2025 22:15
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -912.4 MW

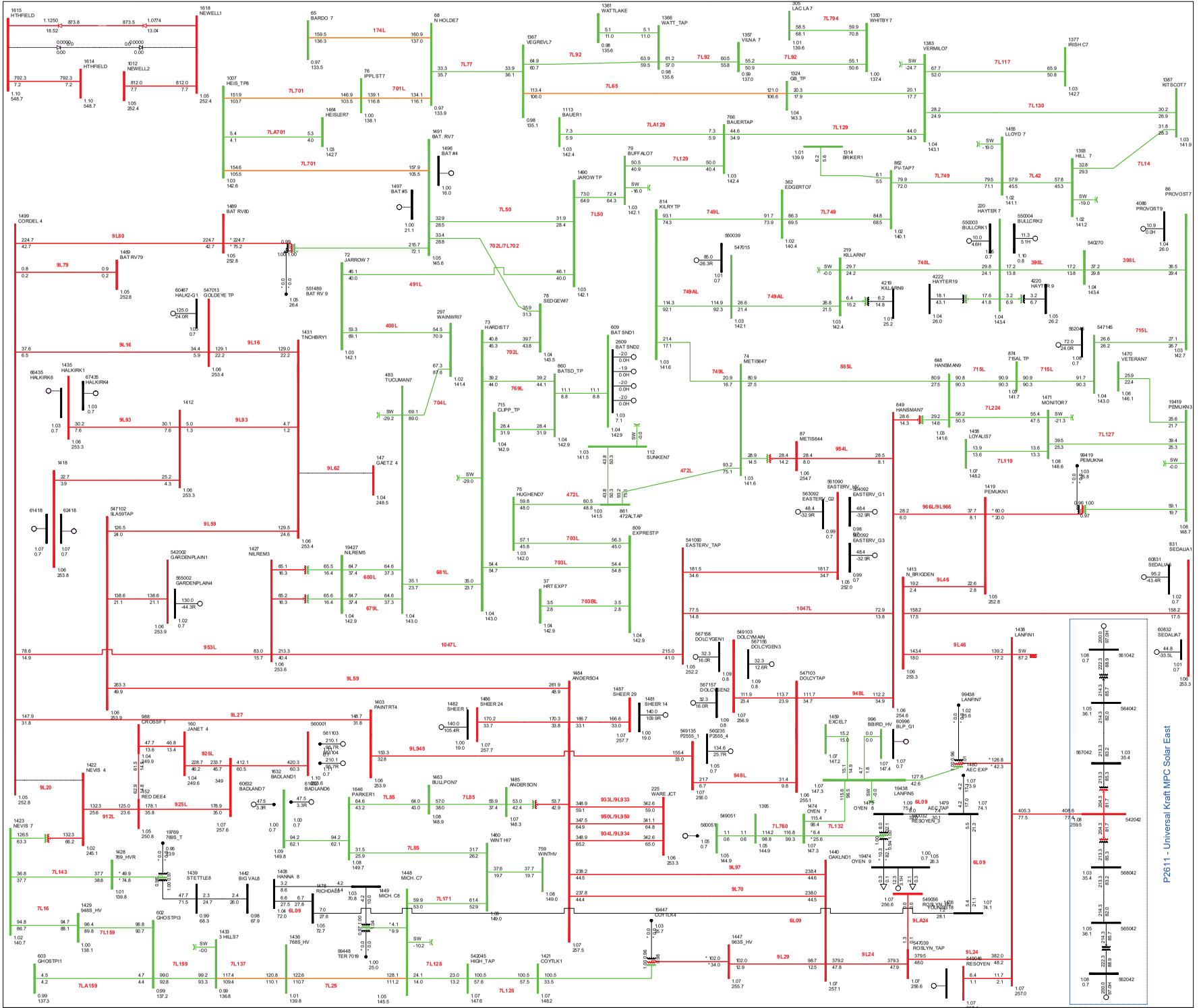
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-8: SCN9-SP-SEN-POST.SAV
CATEGORY B - NEVIS 240/138 KV TF
SUN, SEP 07 2025 22:16
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -839.7 MW

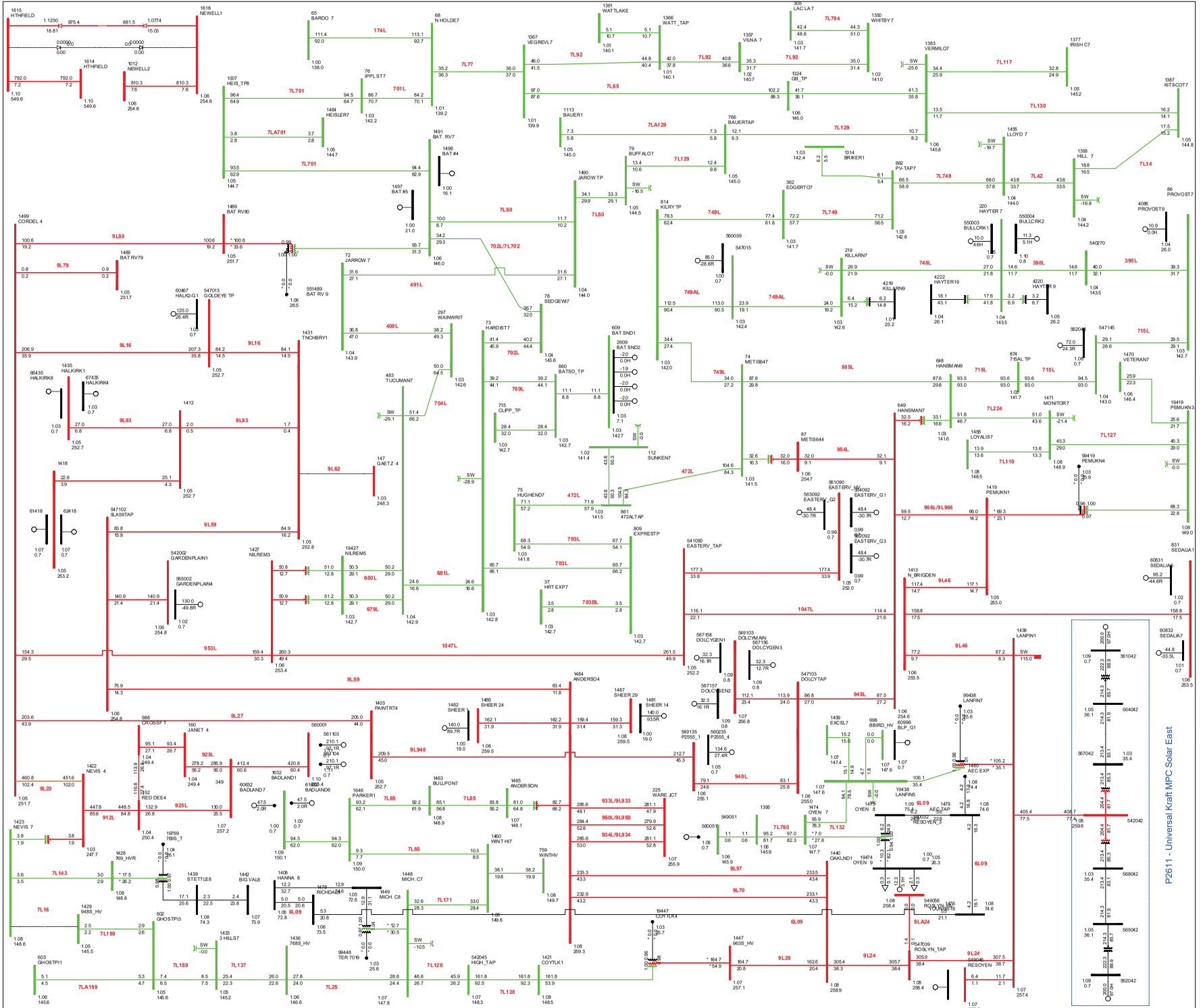
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-9: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L20 (NEVIS 766S TO CORDEL 755S)
SUN, SEP 07 2025 22:16
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -912.2 MW

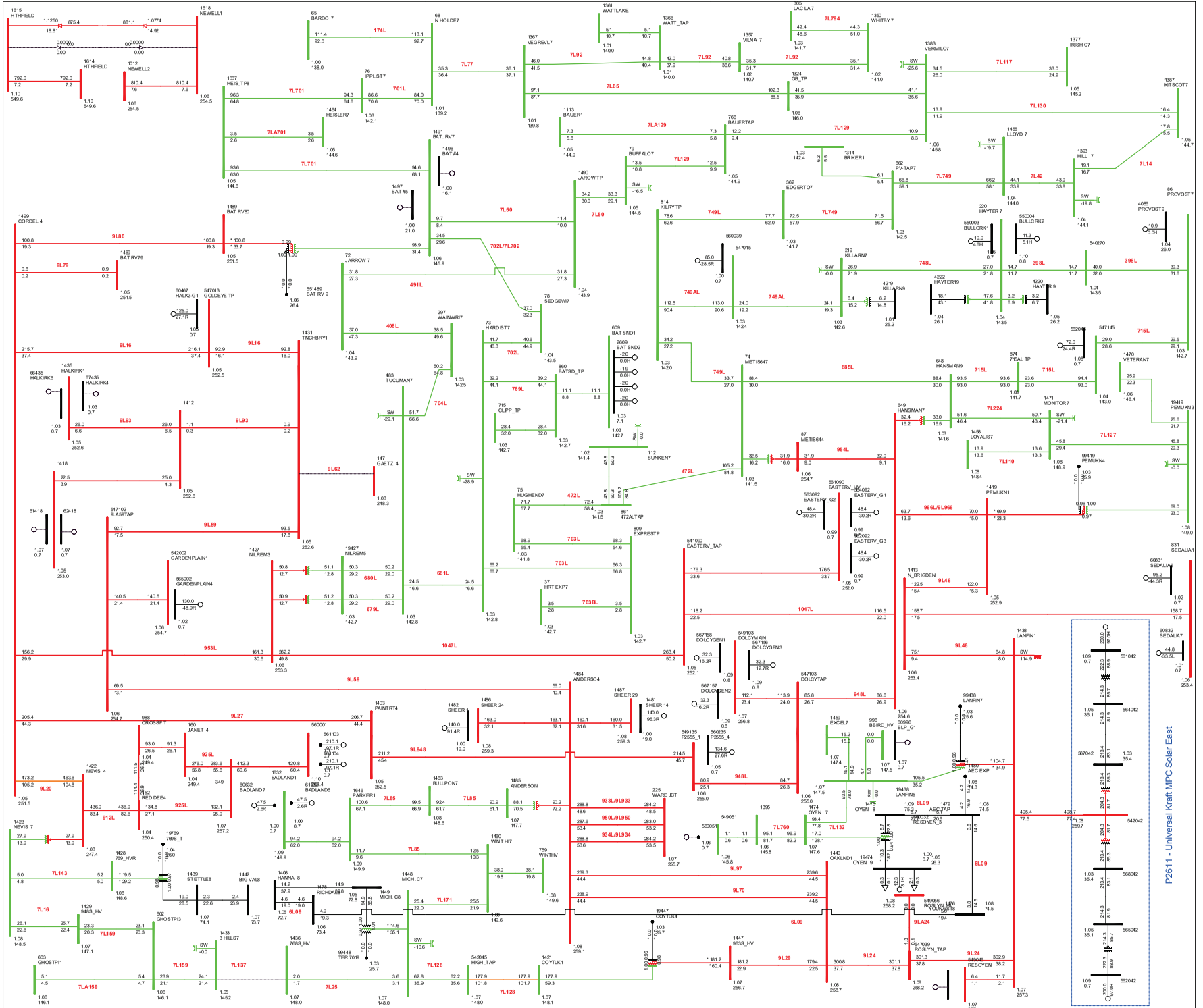
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-10: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L16 (HEATBURG 948S TO NEVIS 766S)
SUN, SEP 07 2025 22:16
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -908.9 MW

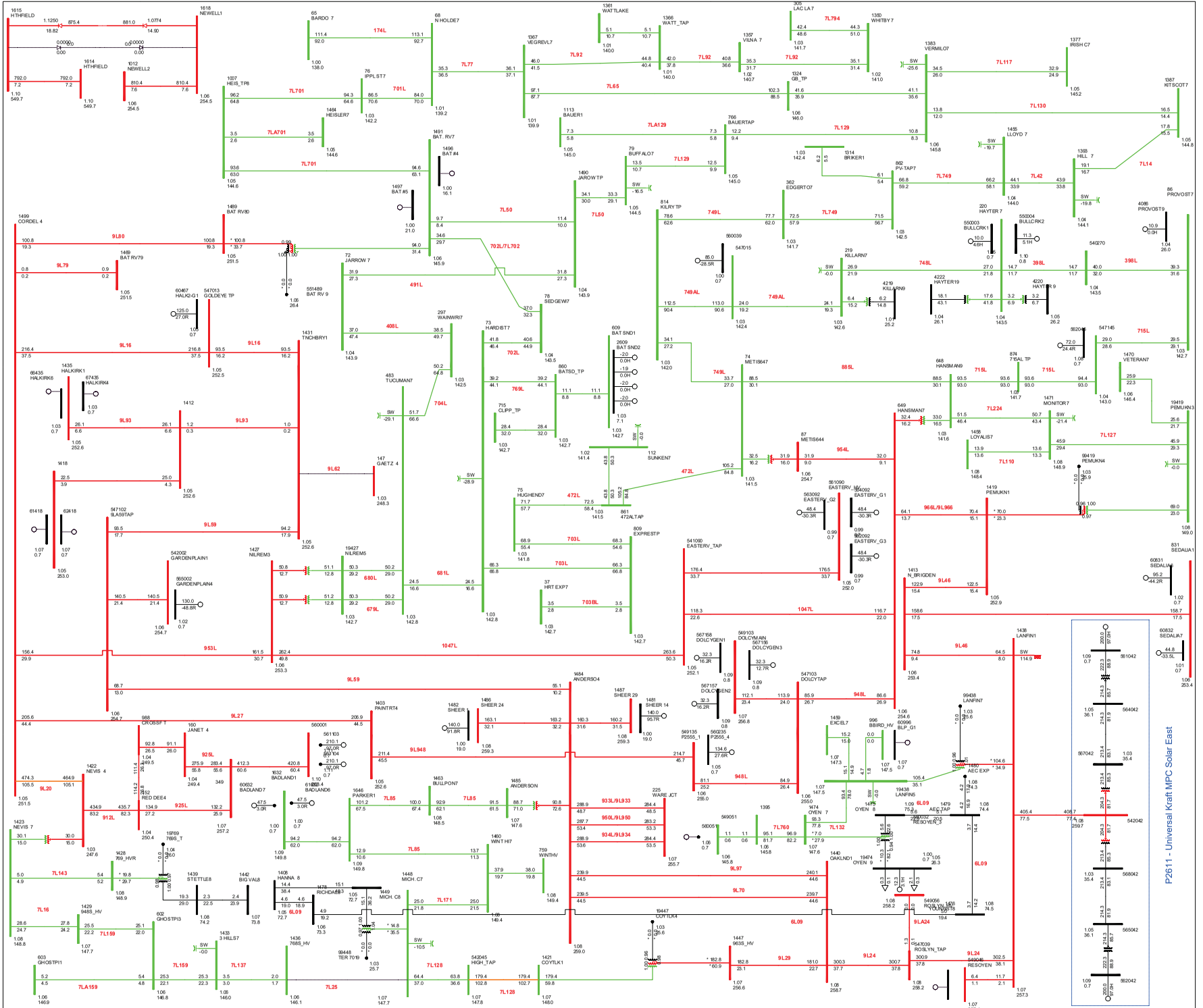
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-11: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L137 (ROWLEY 768S TO THREE HILLS 770S)
SUN, SEP 07 2025 22:17
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -908.5 MW

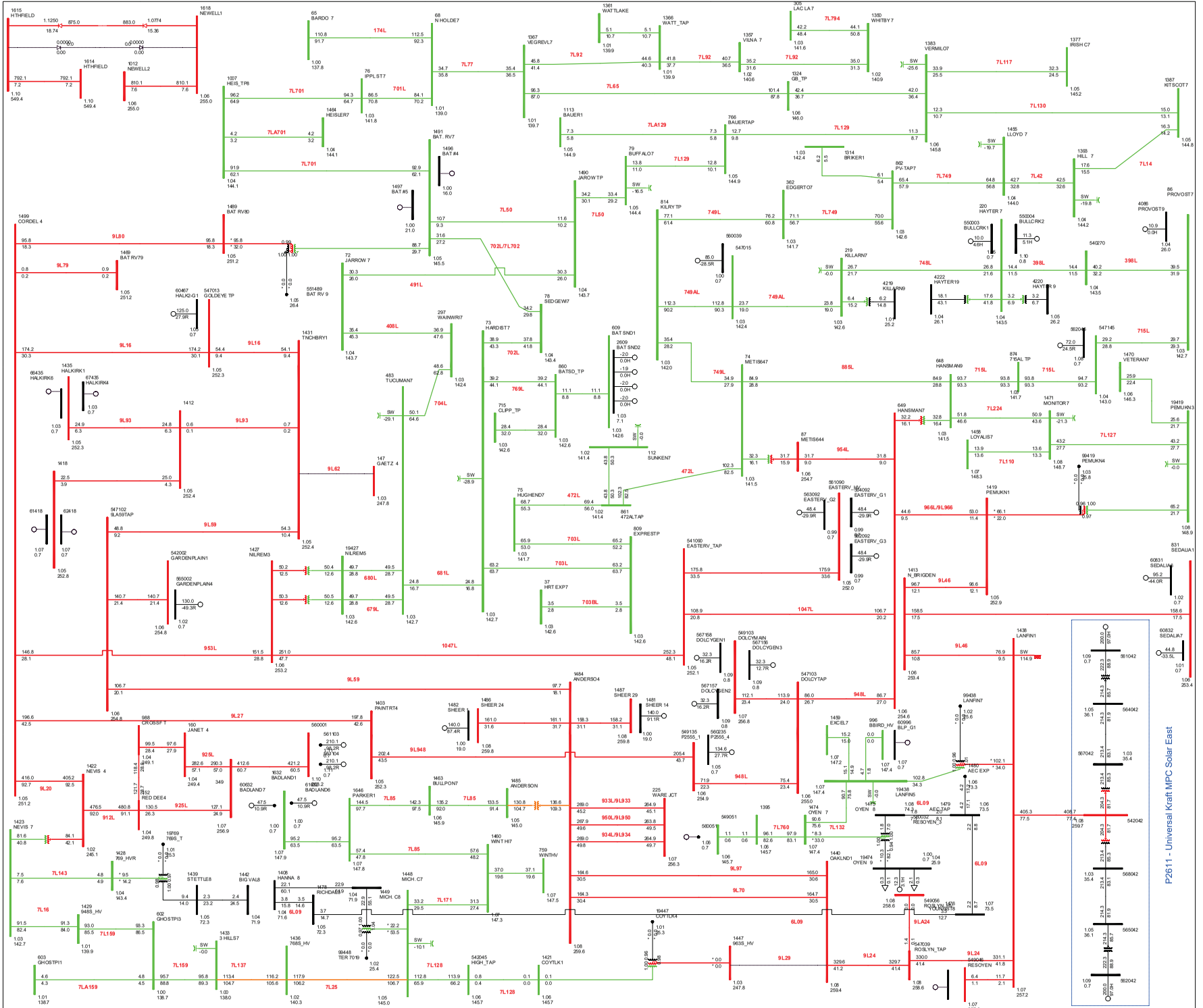
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-12: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L25 (MICHICHI CREEK 802S TO ROWLEY 768S)
SUN, SEP 07 2025 22:17
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -892.2 MW

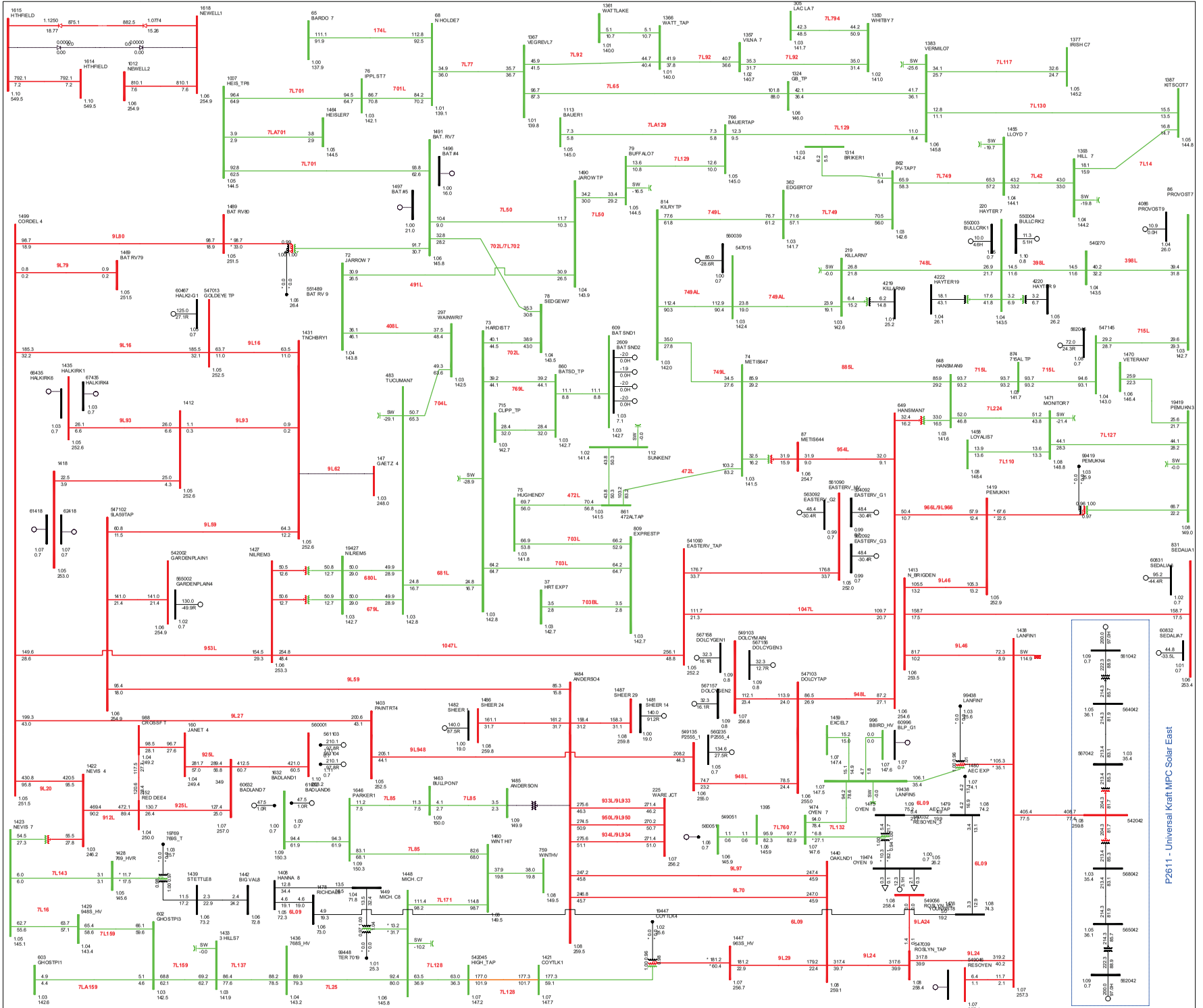
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-13: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L29 (OAKLAND 946S TO COYOTE LAKE 963S)
SUN, SEP 07 2025 22:17
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -904.6 MW

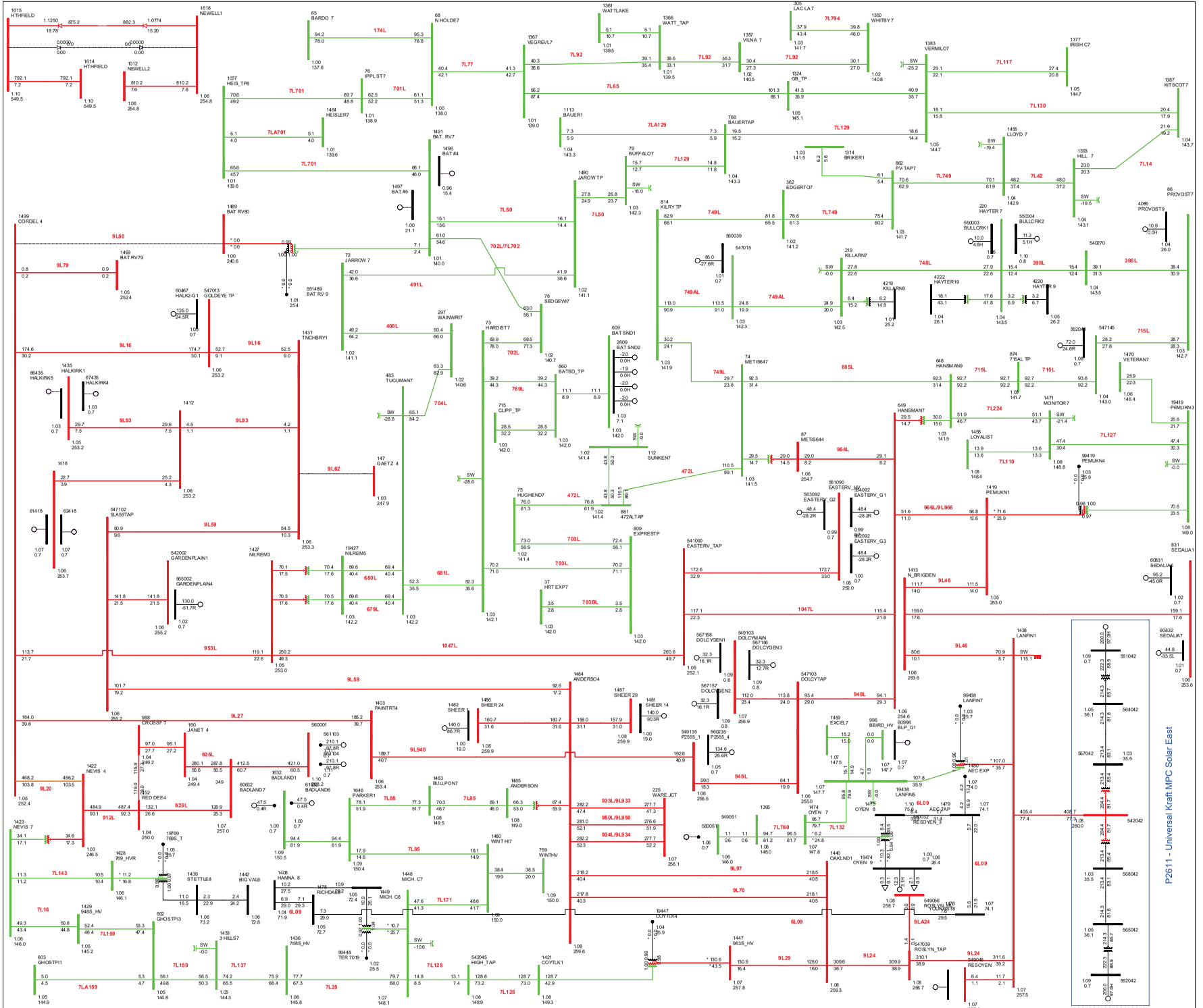
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-14: SCN9-SP-SEN-POST.SAV
CATEGORY B - 801S (ANDERSON 801S TRANSFORMER T1)
SUN, SEP 07 2025 22:17
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -908.5 MW

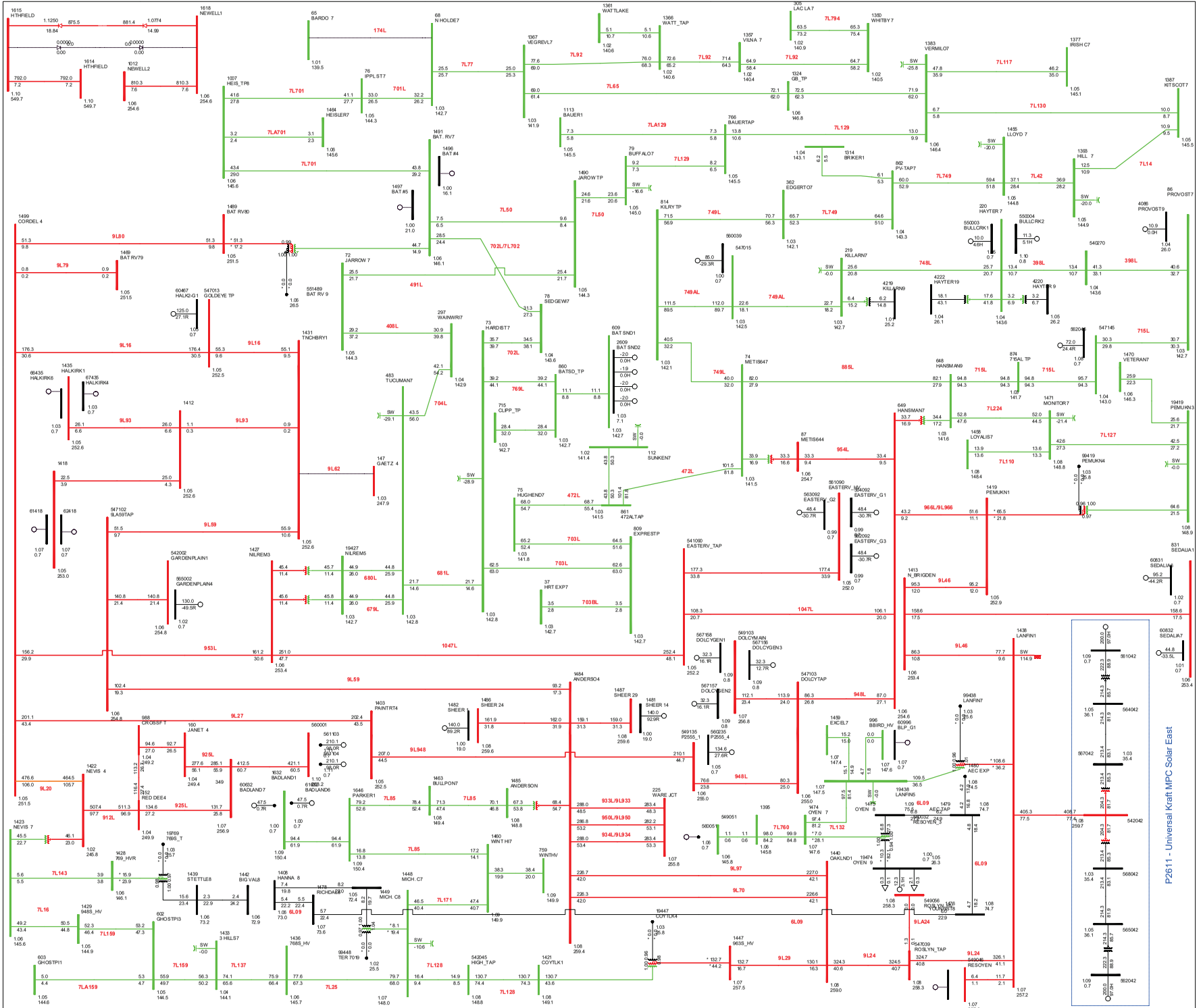
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-15: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L80 (BATTLE RIVER 757S TO CORDEL 755S)
SUN, SEP 07 2025 22:18
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -909.4 MW

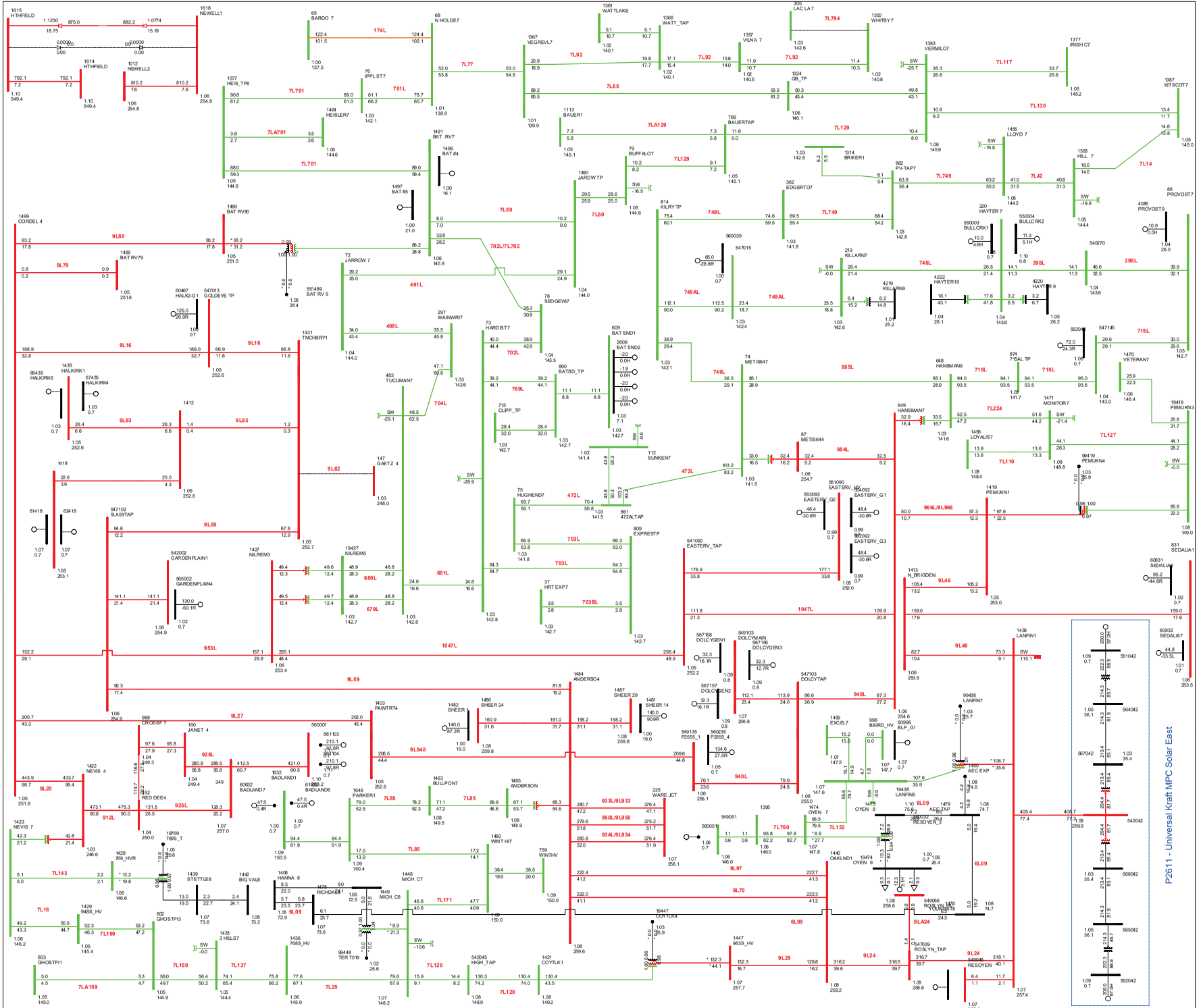
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-16: SCN9-SP-SEN-POST.SAV
CATEGORY B - 174L (BARDO 197S TO NORTH HOLDEN 395S)
SUN, SEP 07 2025 22:18
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -910.6 MW

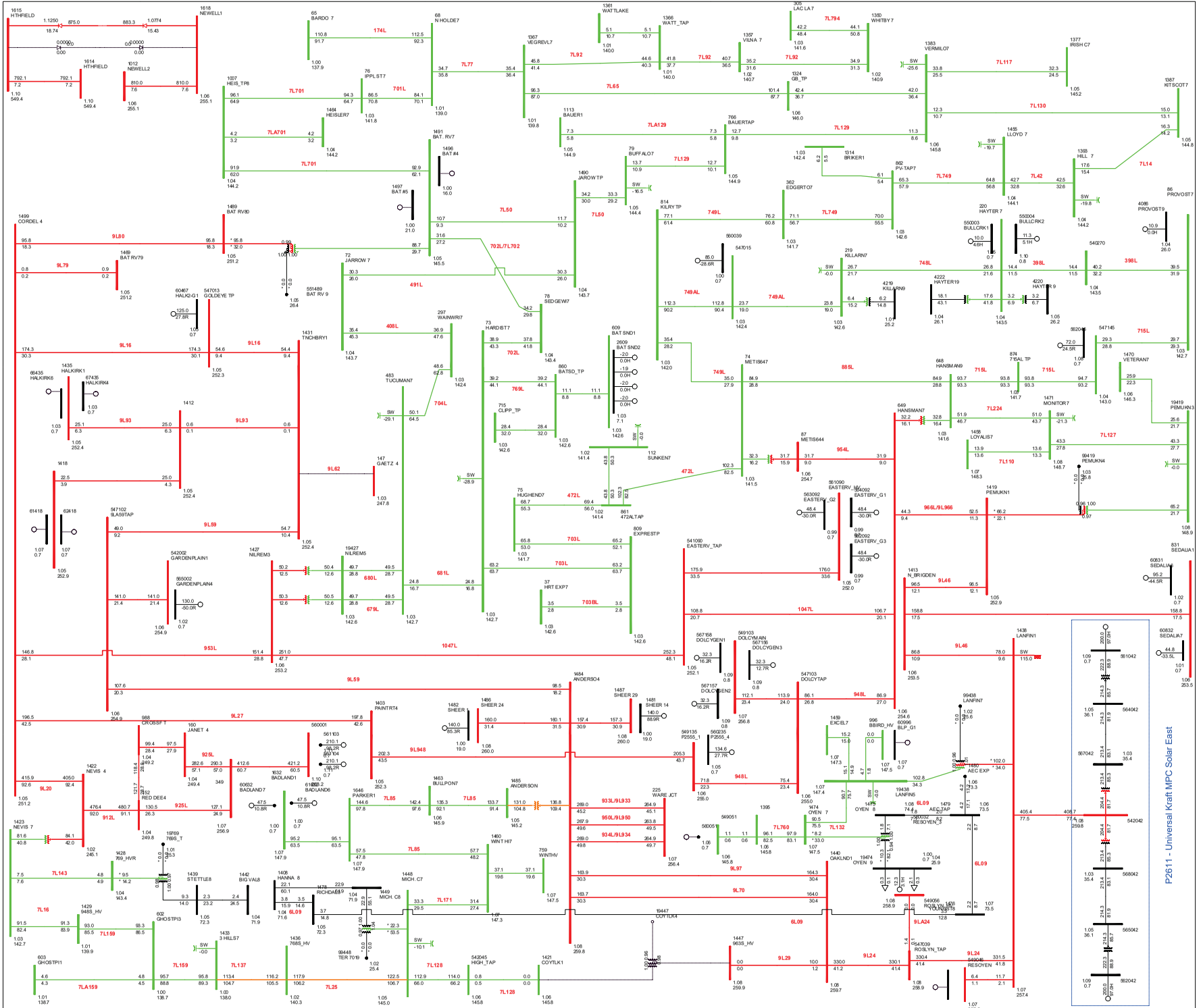
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-17: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L794 (WHITBYLAKE 819S TO LACLABICHE 157S)
SUN, SEP 07 2025 22:18
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -892.2 MW

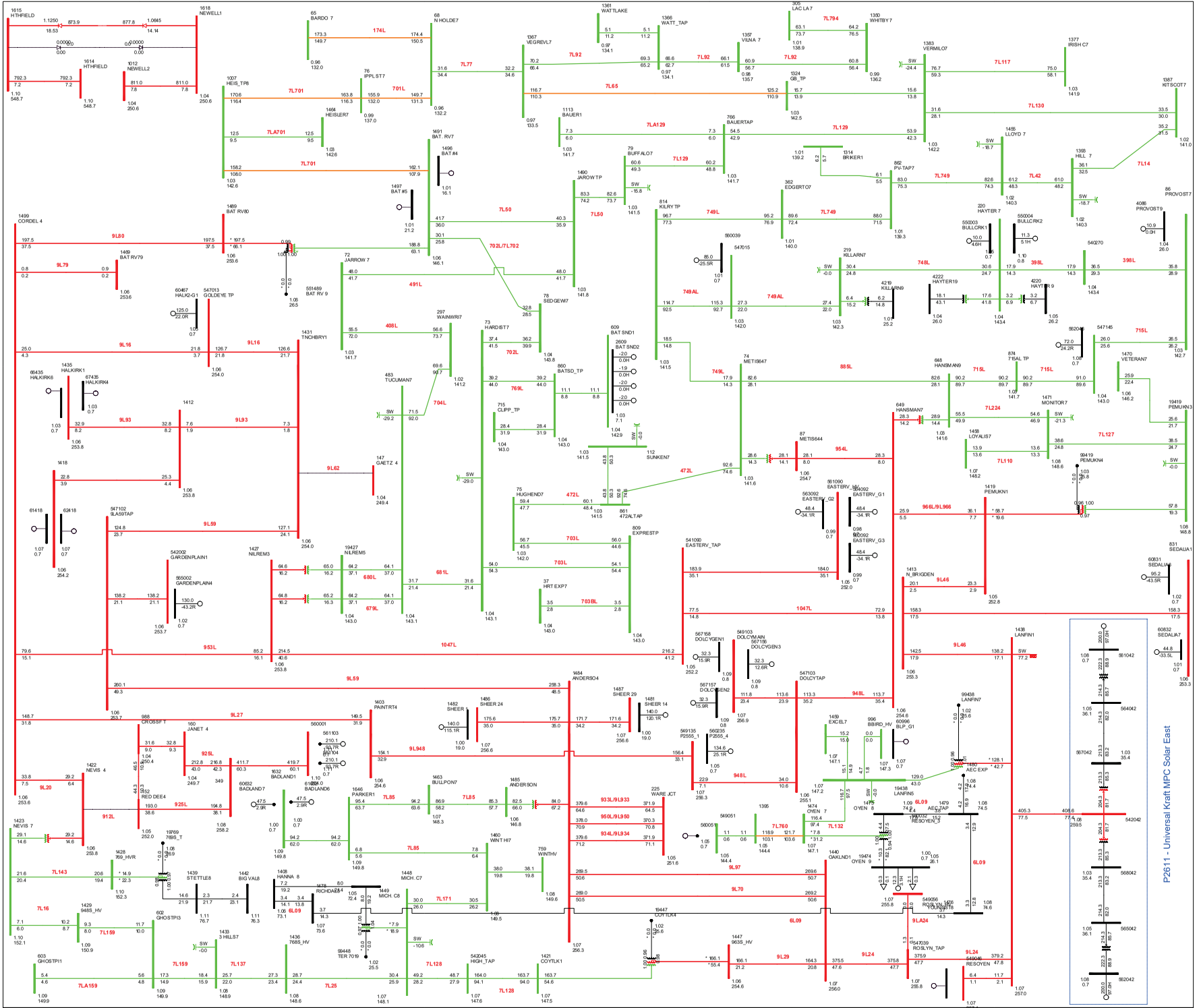
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-18: SCN9-SP-SEN-POST.SAV
CATEGORY B - COYOTE LAKE 963S – 901 TRANSFORMER
SUN, SEP 07 2025 22:19
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -833.5 MW

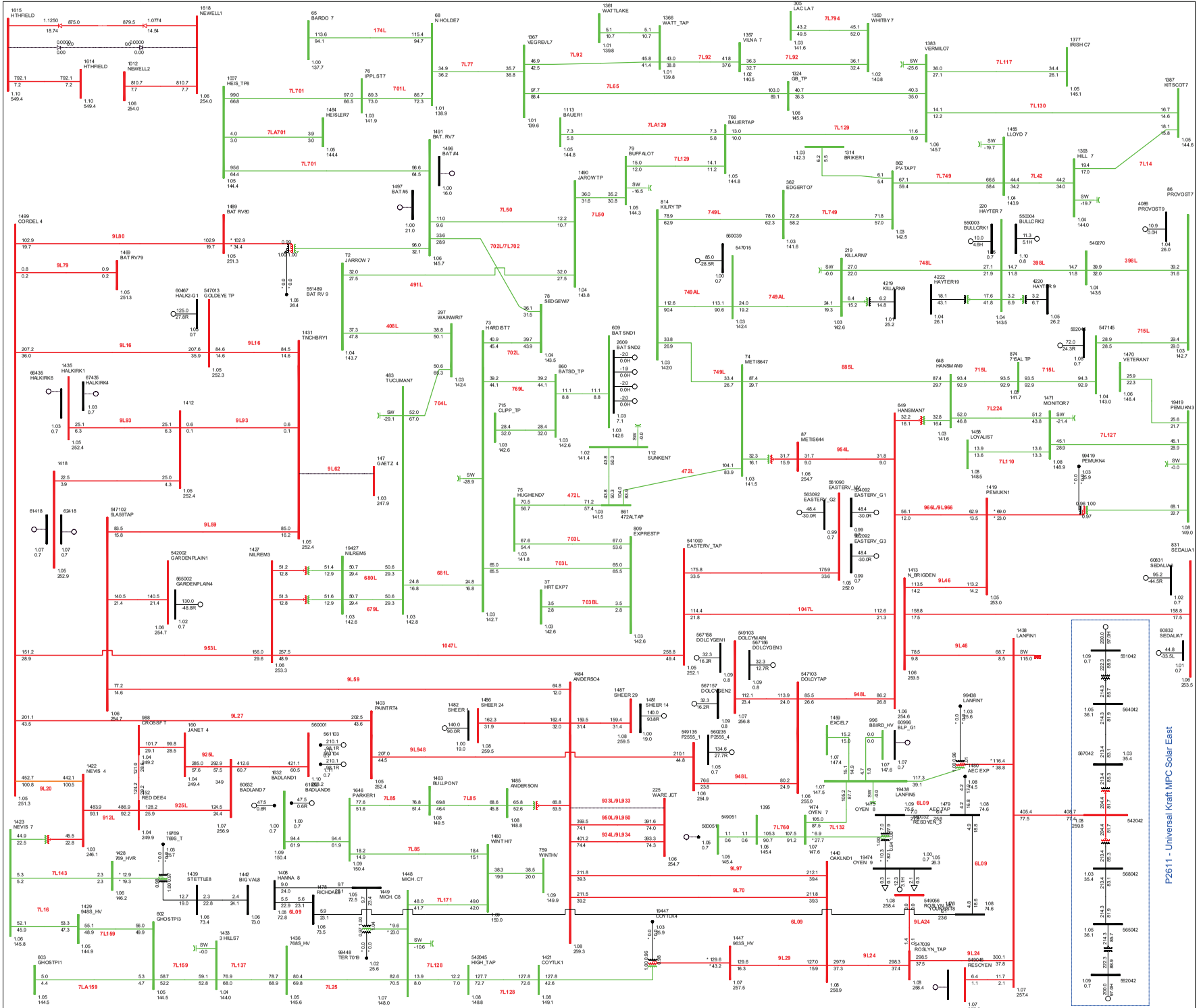
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-19: SCN9-SP-SEN-POST.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
SUN, SEP 07 2025 22:19
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -902.4 MW

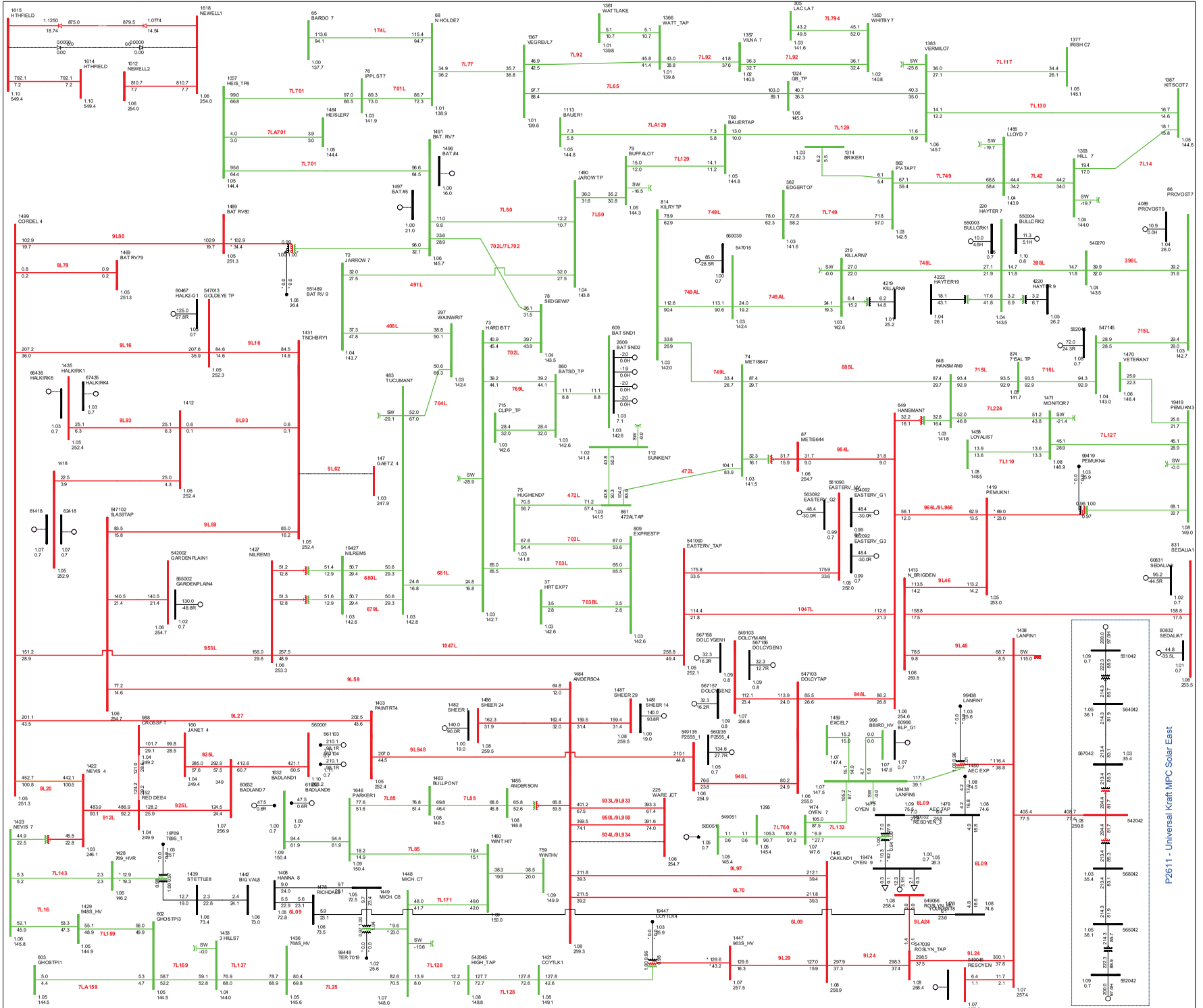
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-20: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L933 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 22:19
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -902.4 MW

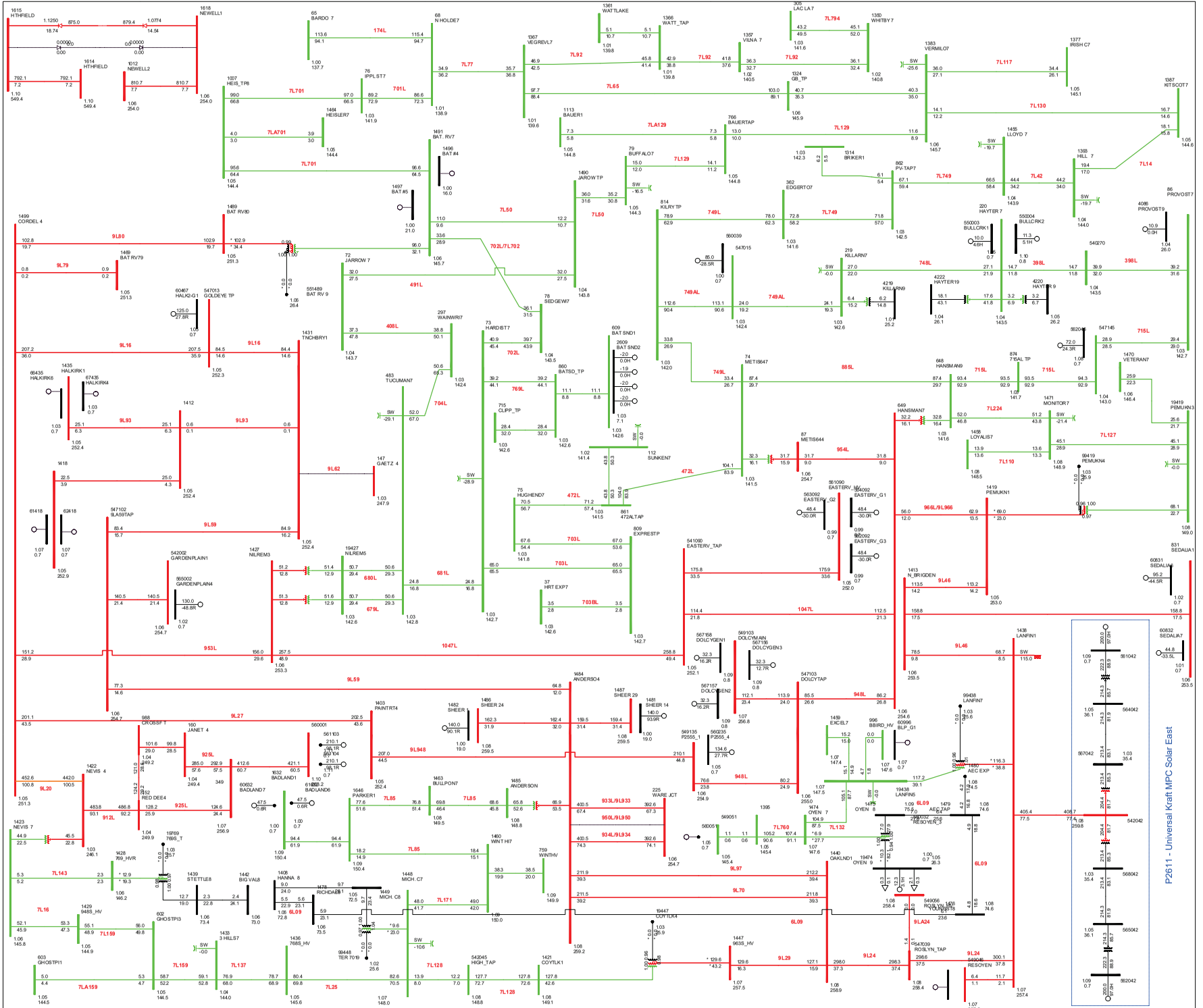
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-21: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L934 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 22:20
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -902.4 MW

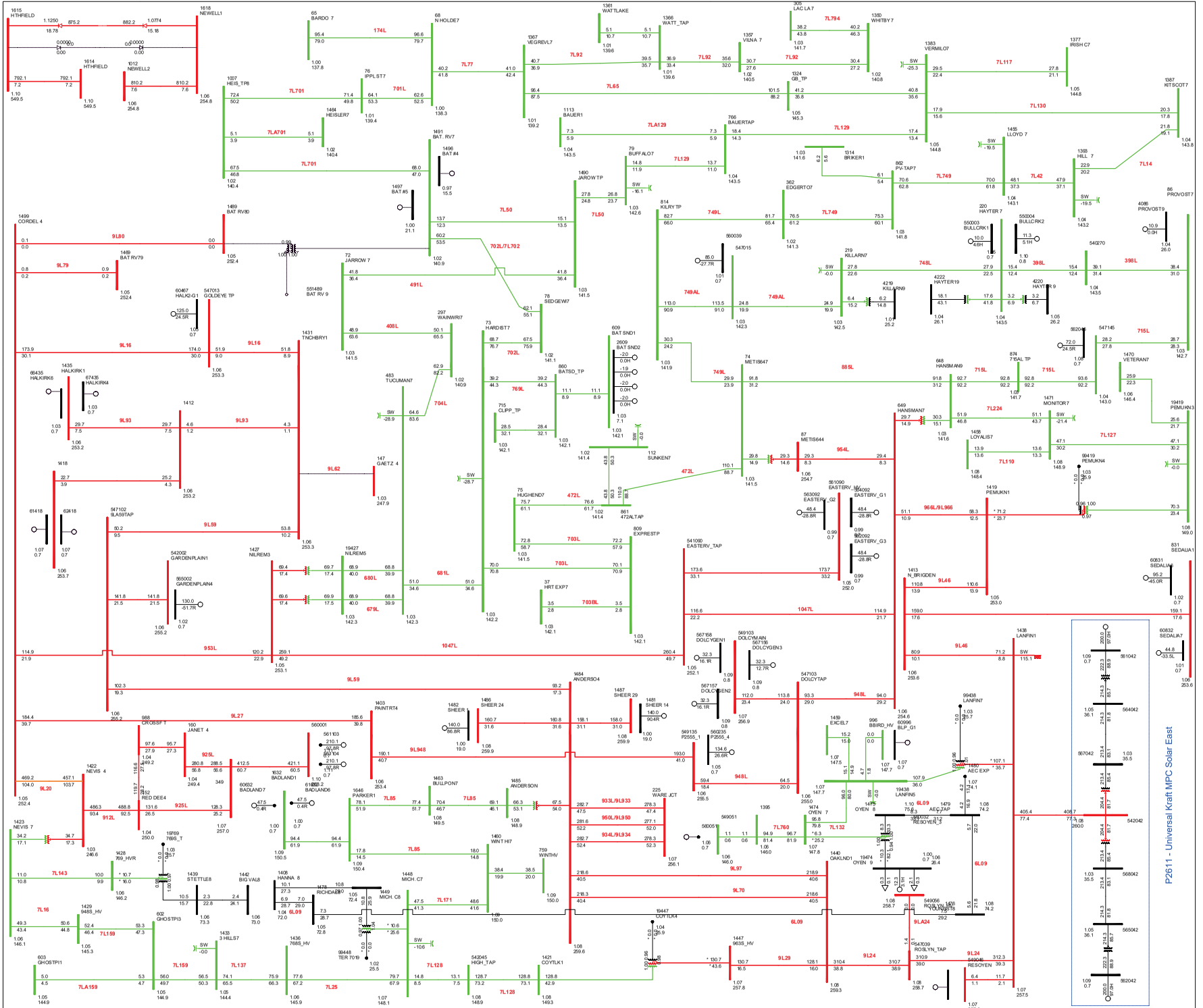
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-22: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L950 (ANDERSON 801S TO WARE JUNCTION 132S)
SUN, SEP 07 2025 22:20
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -913.5 MW

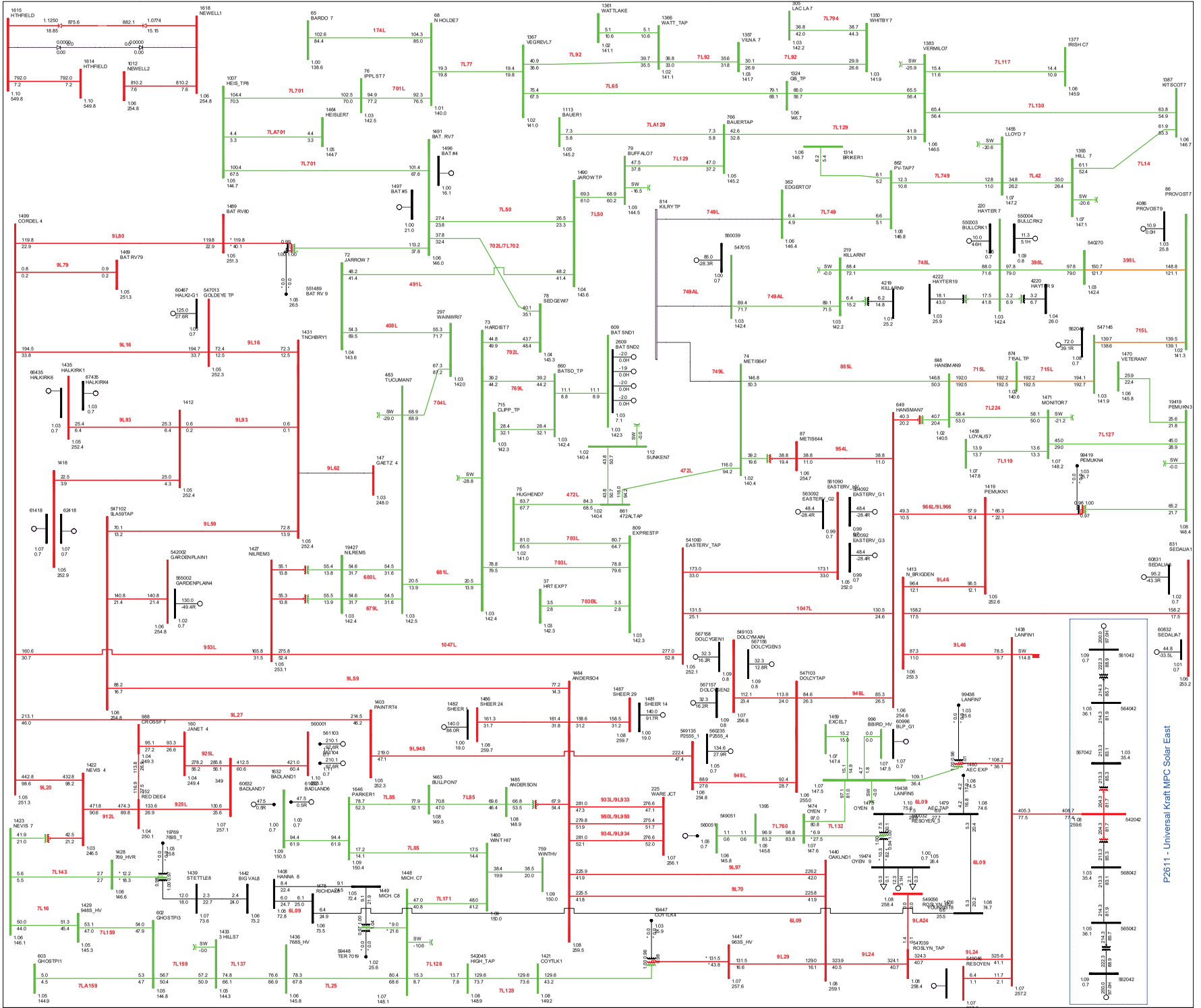
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-23: SCN9-SP-SEN-POST.SAV
CATEGORY B - BATTLE RIVER 3 WINDING TRANSFORMER
SUN, SEP 07 2025 22:20
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -897.8 MW

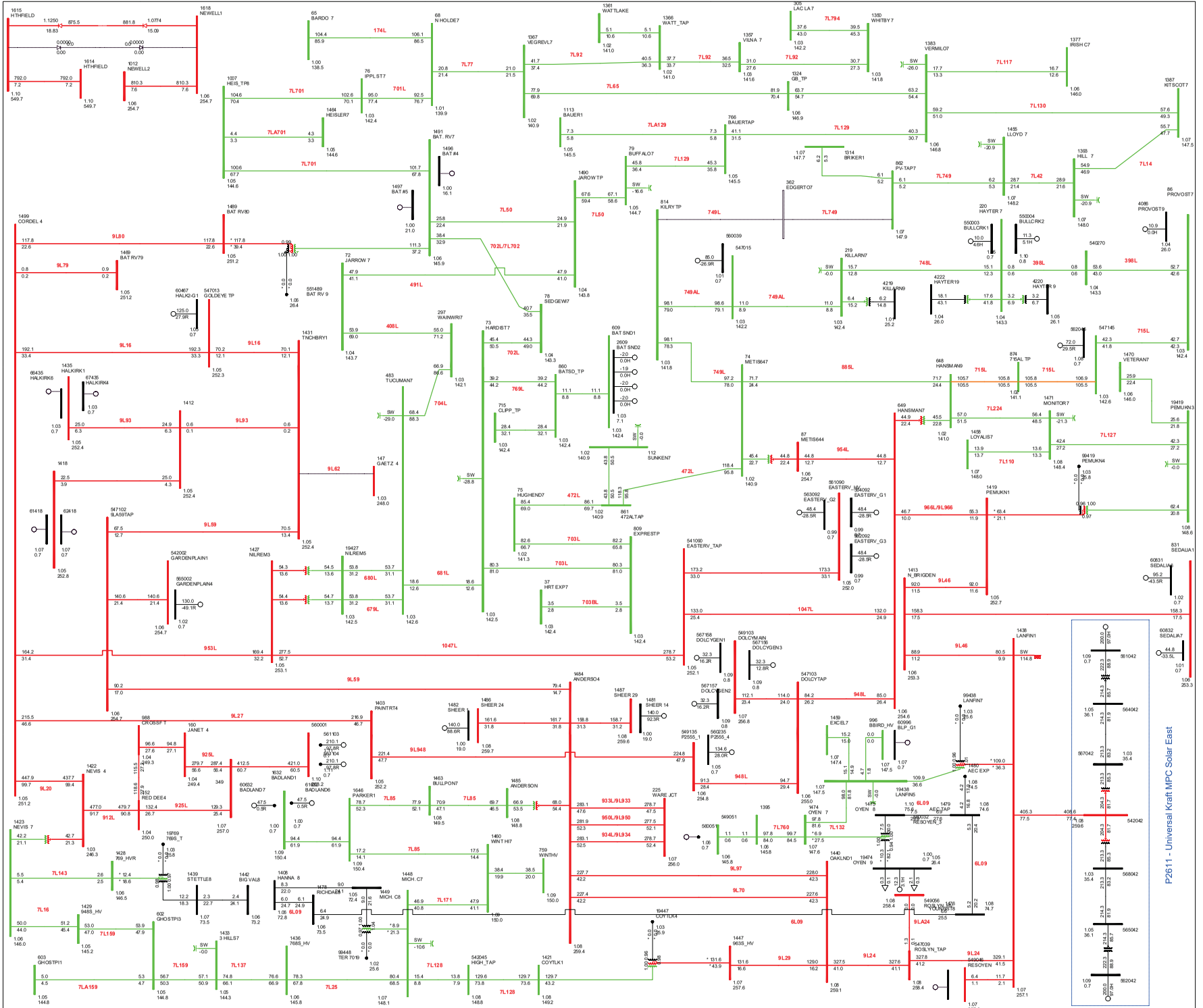
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-24: SCN9-SP-SEN-POST.SAV
CATEGORY B - 749L (METISKOW 648S TO EDGERTON 899S)
SUN, SEP 07 2025 22:21
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -911.7 MW

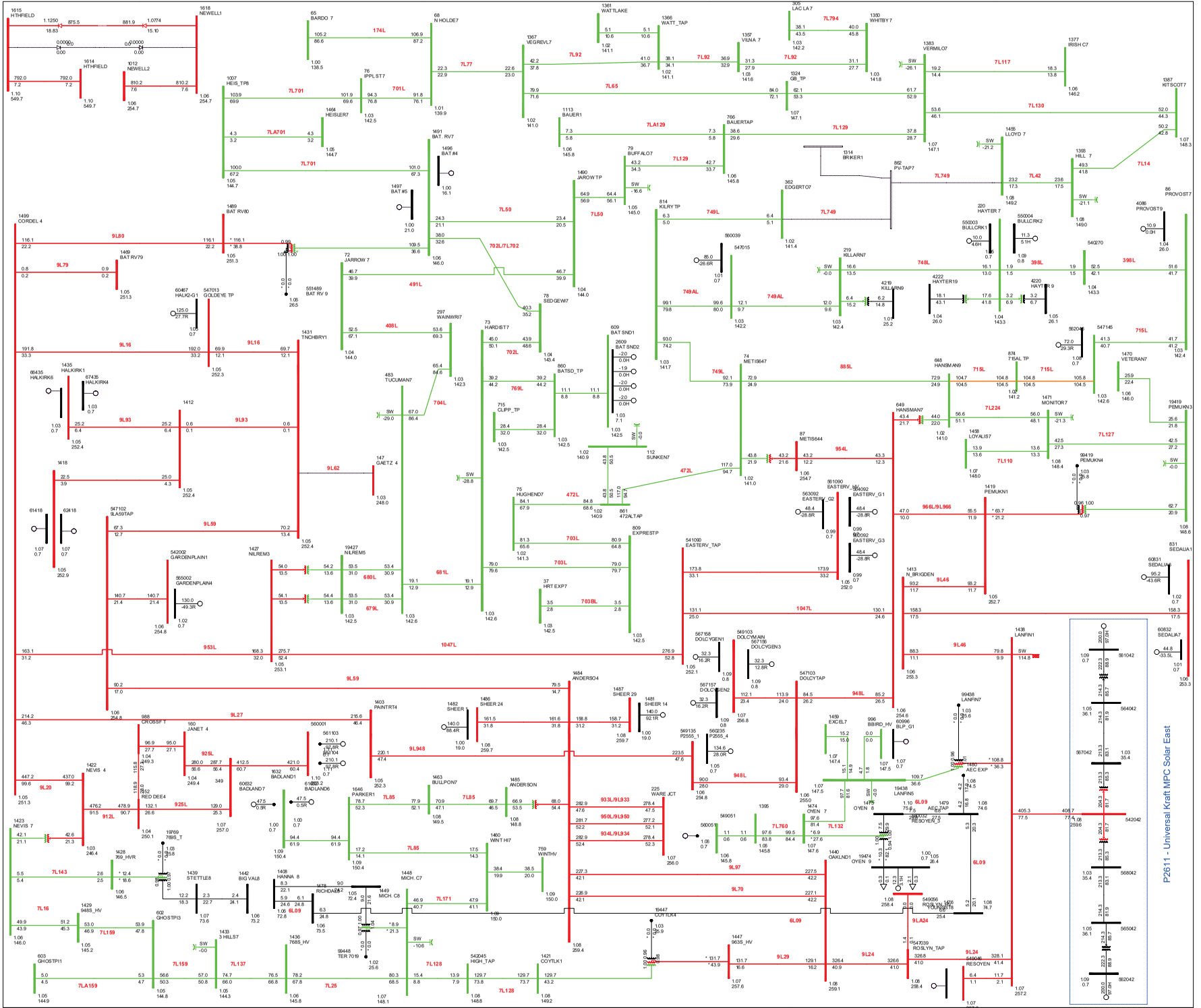
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-25: SCN9-SP-SEN-POST.SAV
CATEGORY B - EDGERTON 899S TRANSFORMER
SUN, SEP 07 2025 22:21
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -912.8 MW

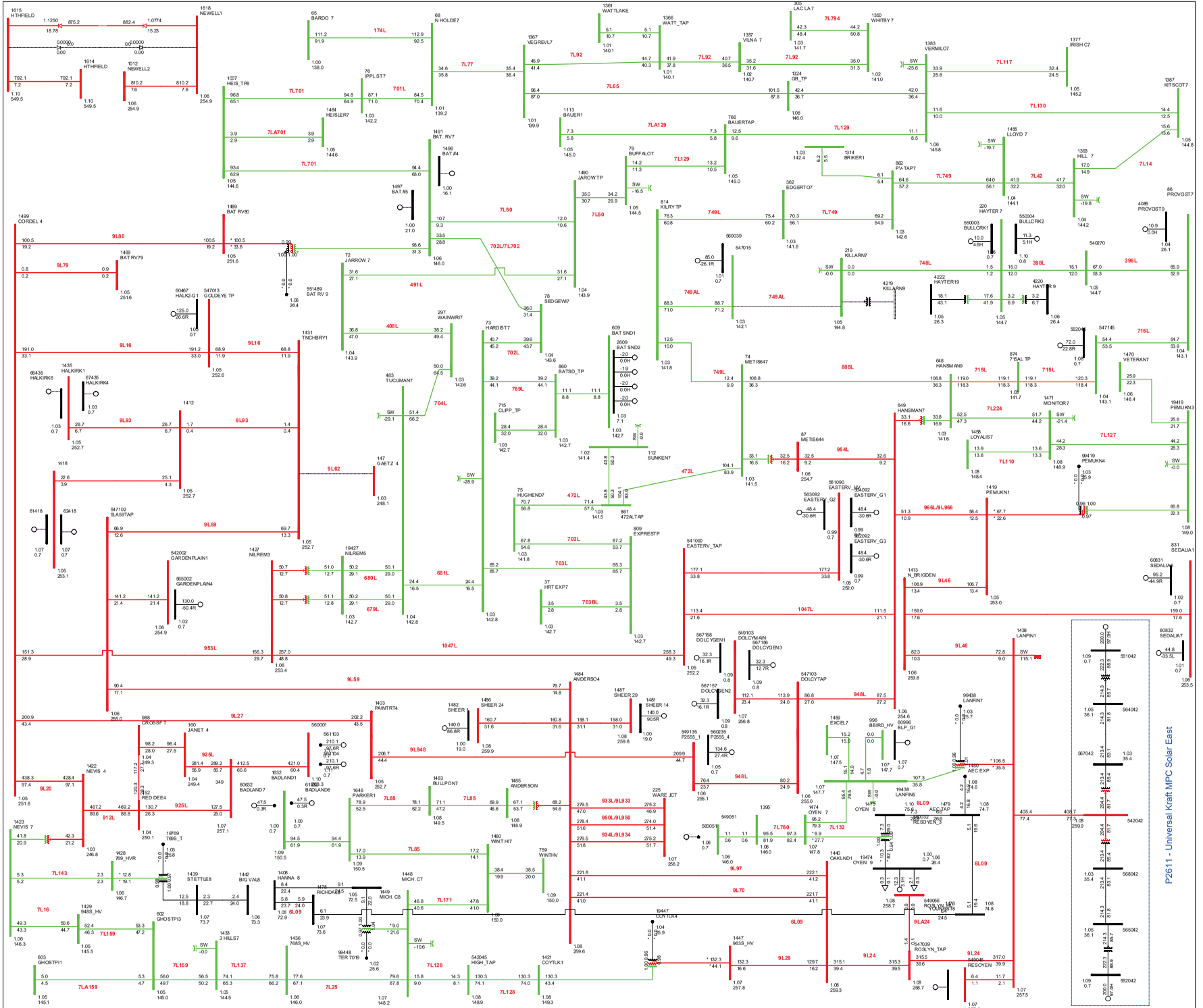
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-26: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L749 (EDGERTON 899S TO LLOYDMINSTER 716S)
SUN, SEP 07 2025 22:21
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -912.9 MW

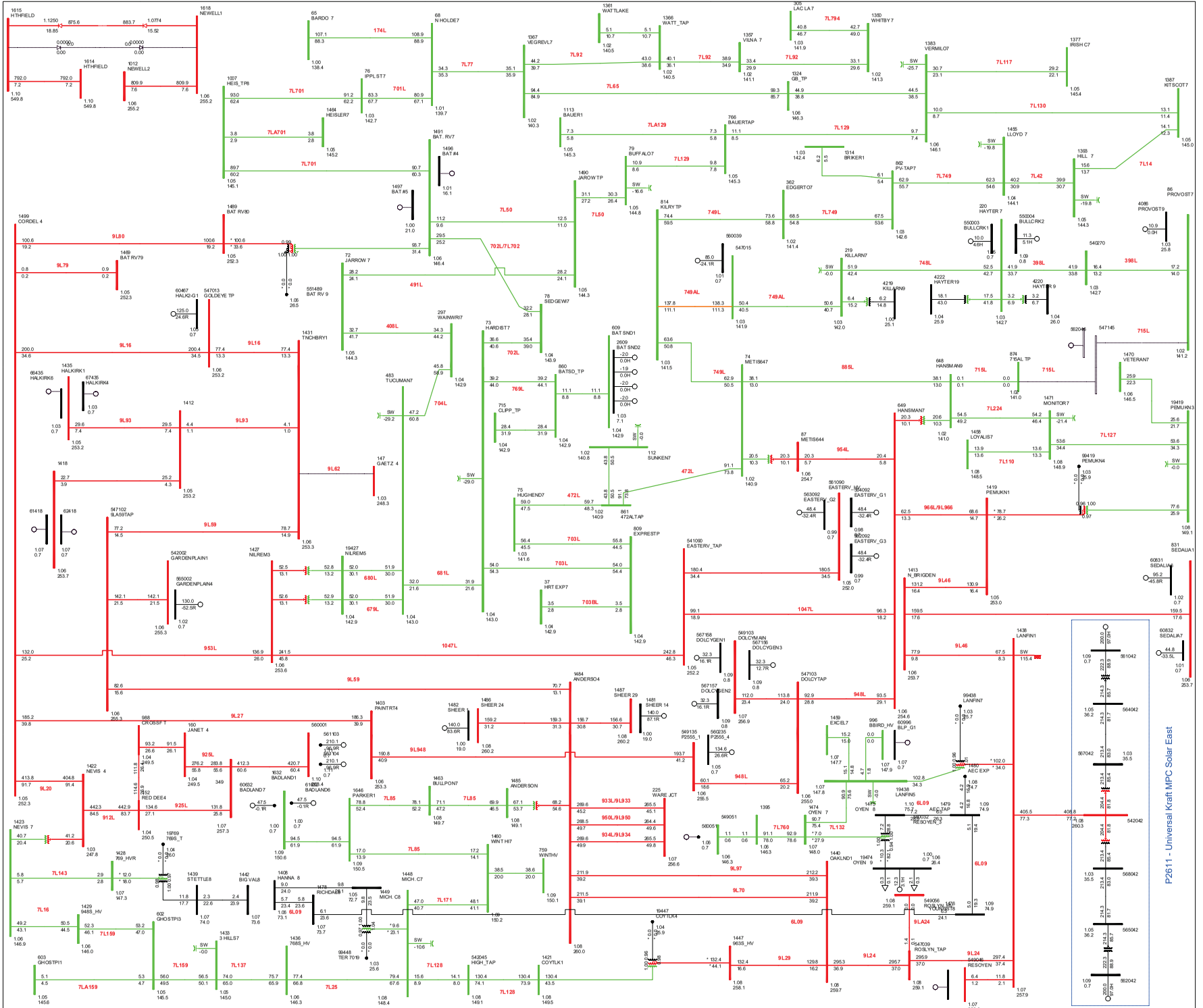
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-27: SCN9-SP-SEN-POST.SAV
CATEGORY B - KILLARNEY LAKE 267S TRANSFORMER
SUN, SEP 07 2025 22:13
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -859.1 MW

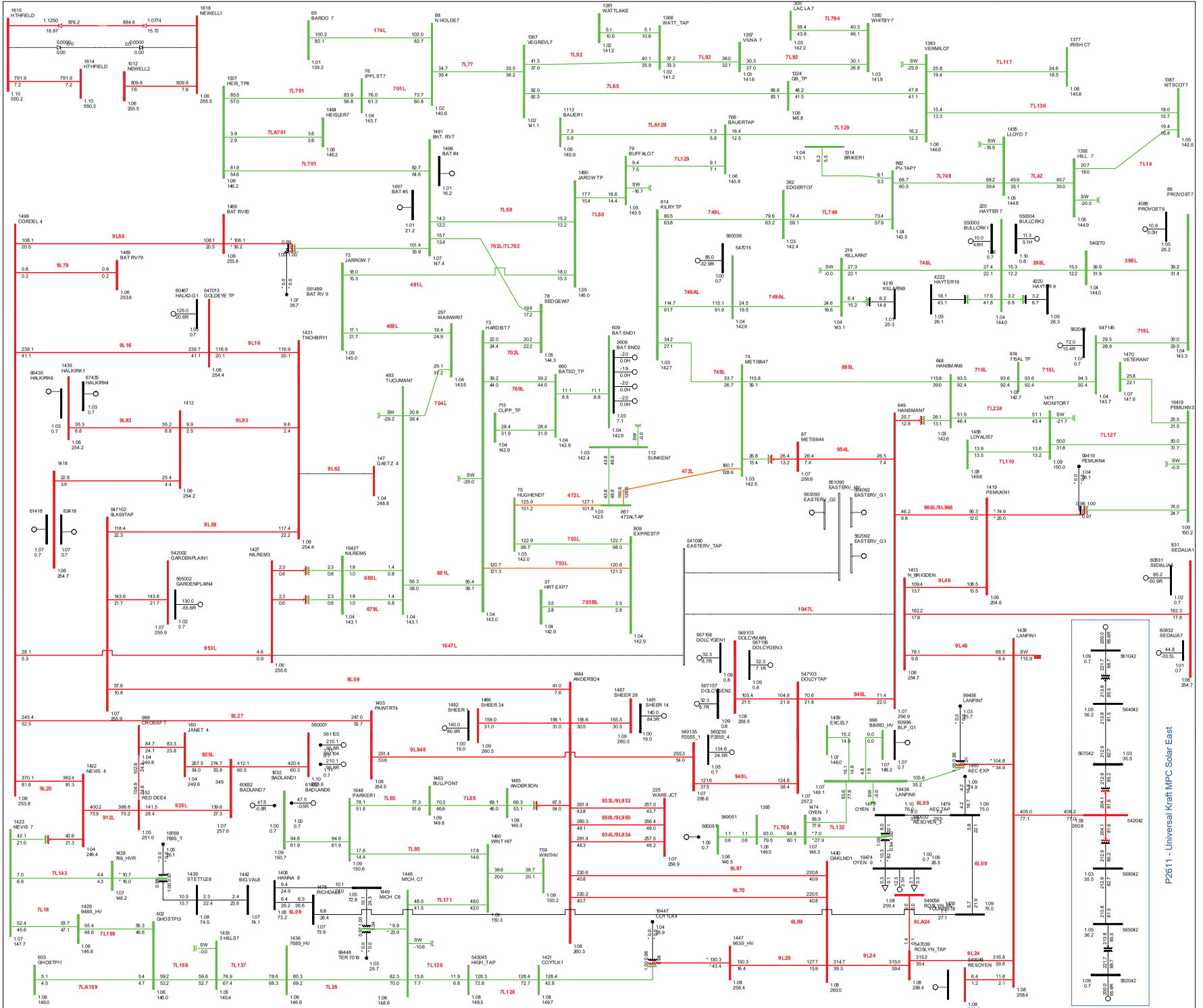
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-28: SCN9-SP-SEN-POST.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
SUN, SEP 07 2025 22:22
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -795.3 MW

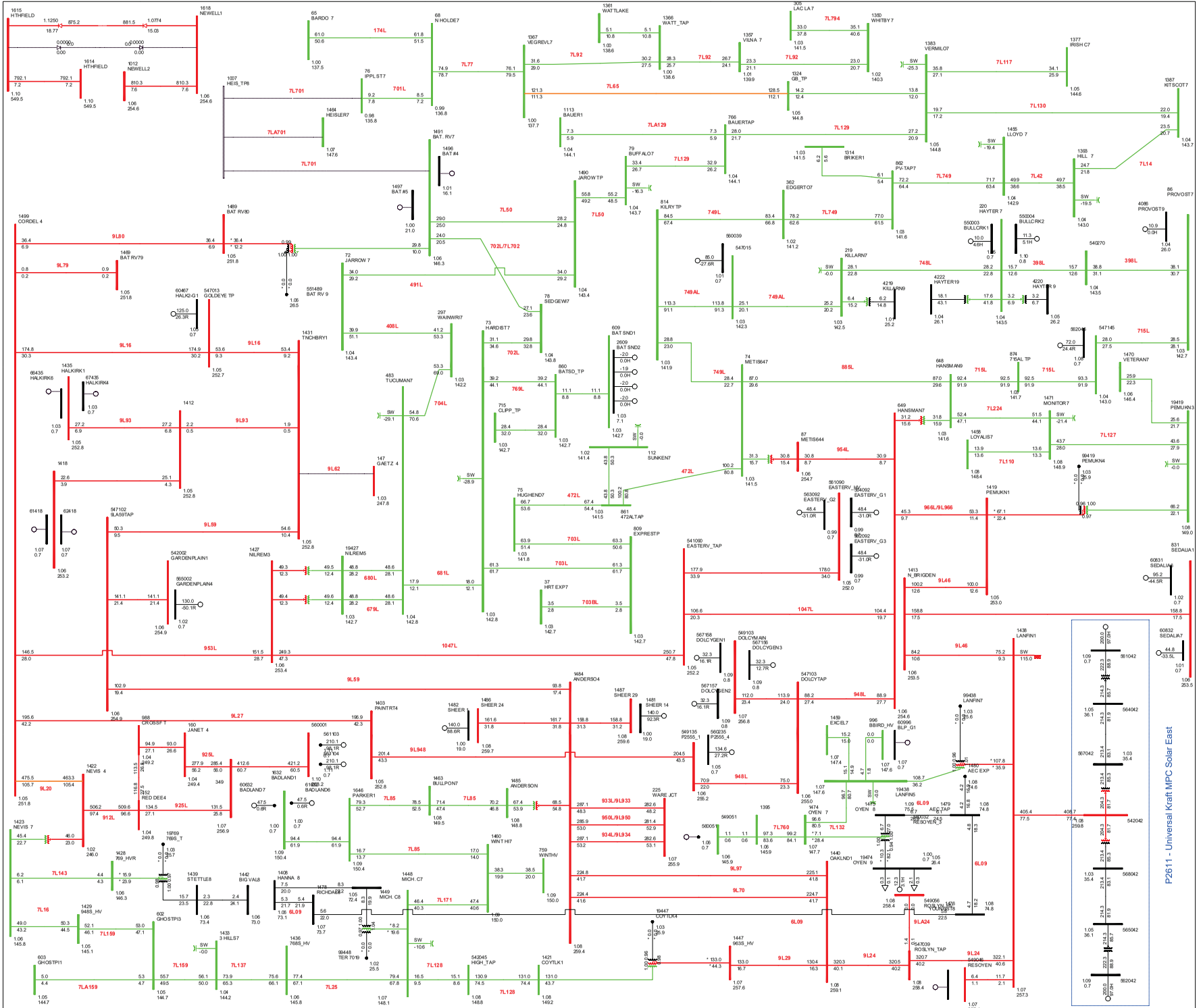
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-29: SCN9-SP-SEN-POST.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
SUN, SEP 07 2025 22:22
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -906.5 MW

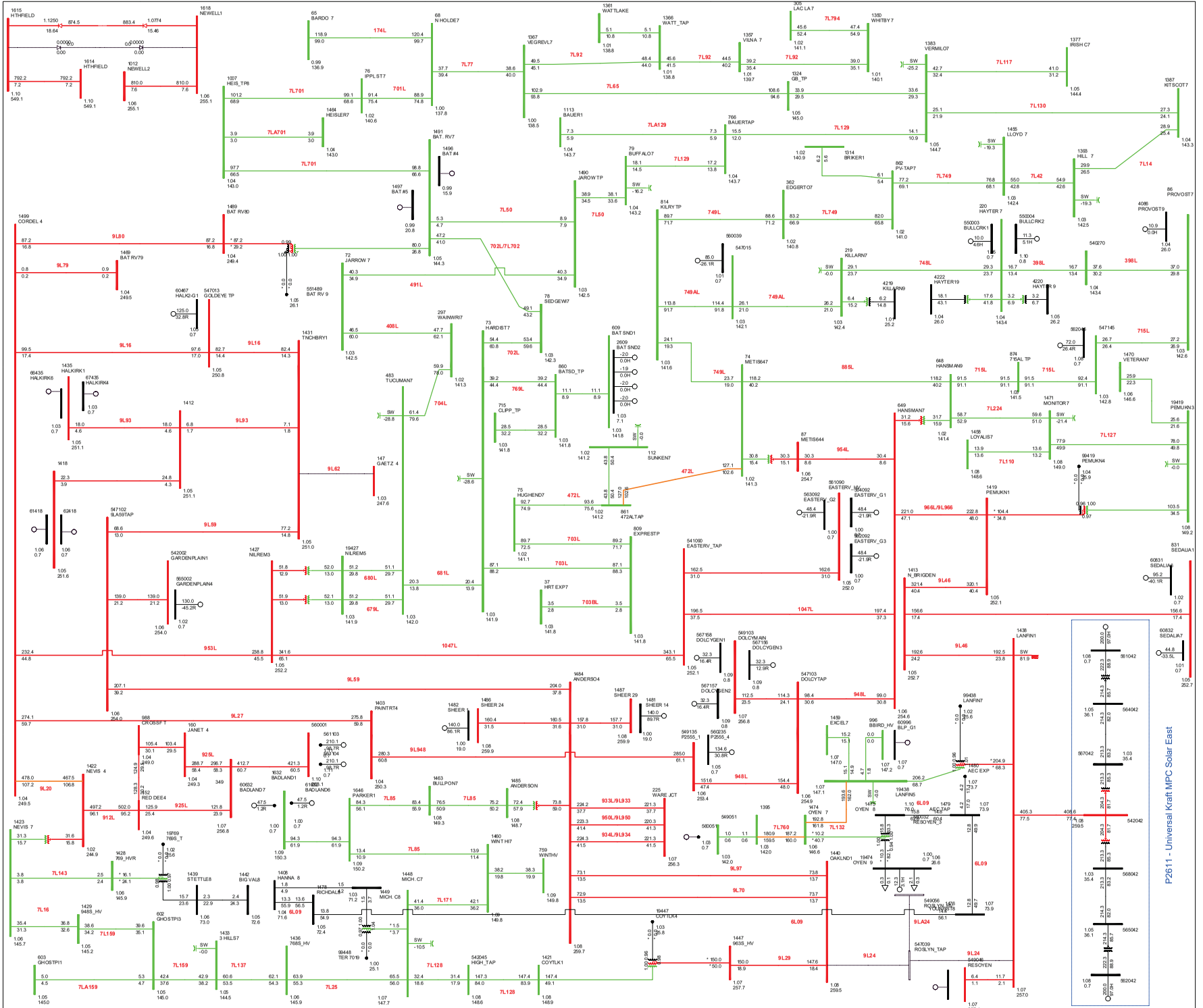
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-30: SCN9-SP-SEN-POST.SAV
CATEGORY B - 701L (BATTLE RIVER 757S TO STROME 223S)
SUN, SEP 07 2025 22:22
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -869.1 MW

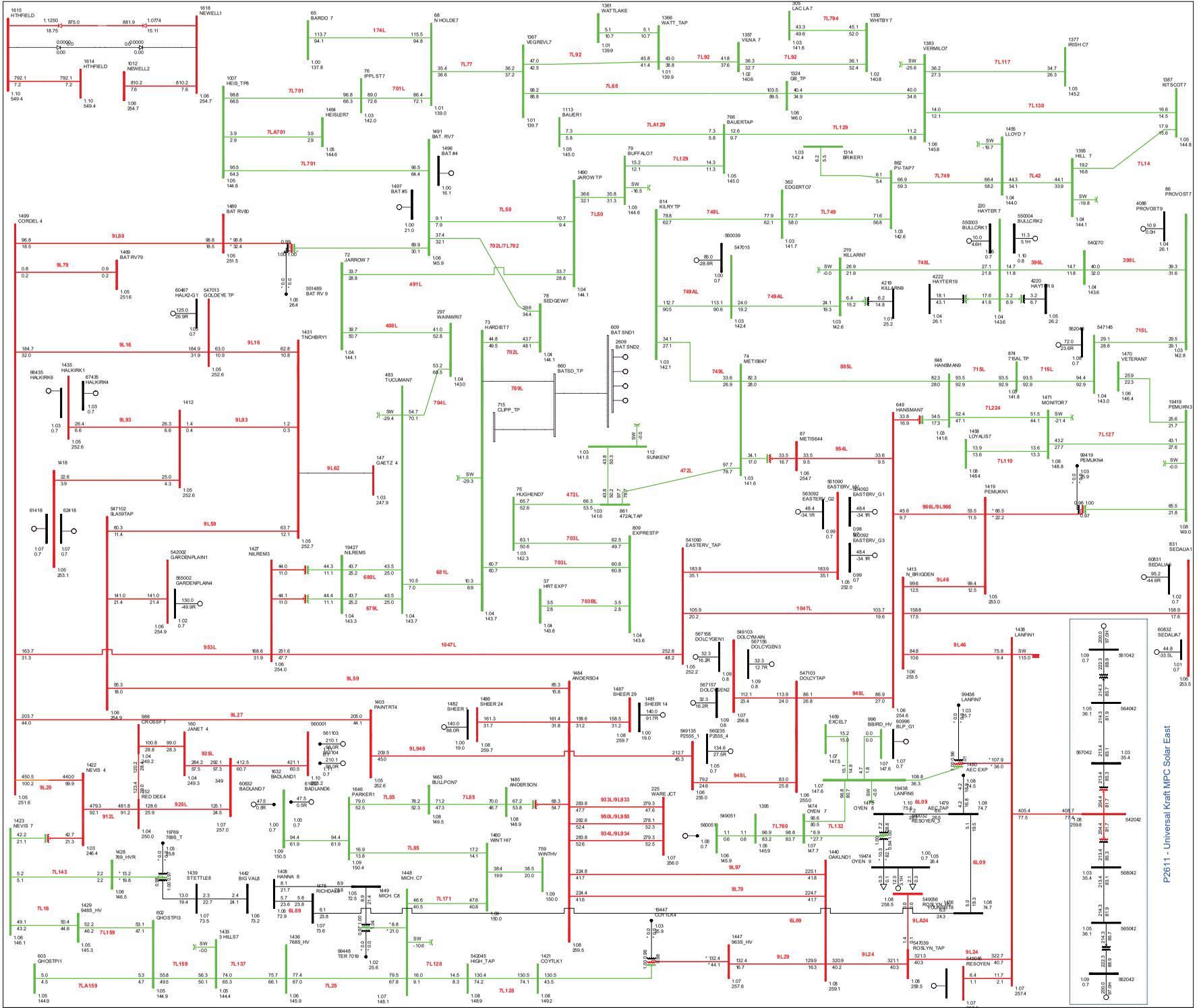
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-31: SCN9-SP-SEN-POST.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
SUN, SEP 07 2025 22:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -938.4 MW

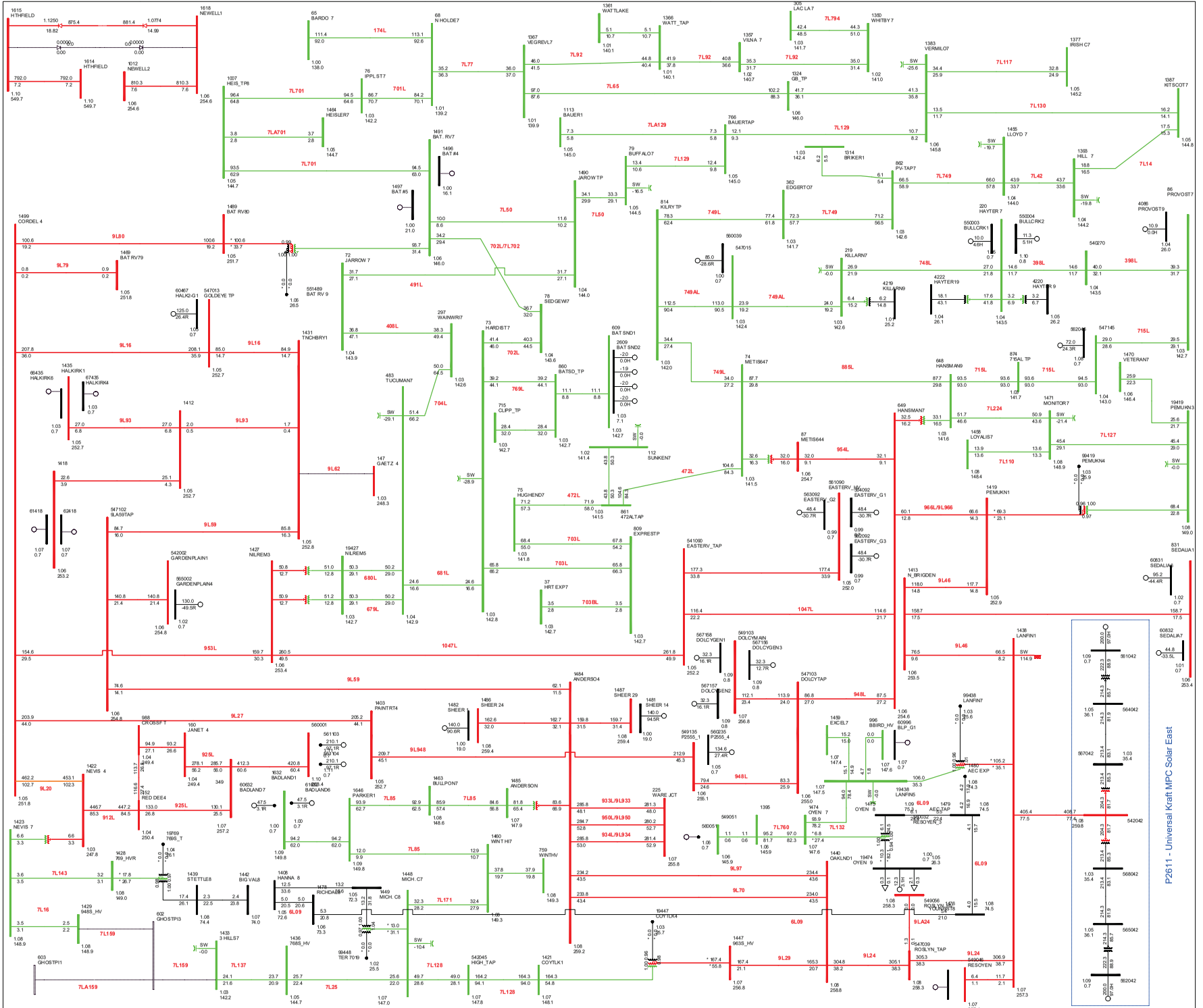
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-32: SCN9-SP-SEN-POST.SAV
CATEGORY B - 769L (HARDISTY 377S TO ROSYTH 296S)
SUN, SEP 07 2025 22:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -911.9 MW

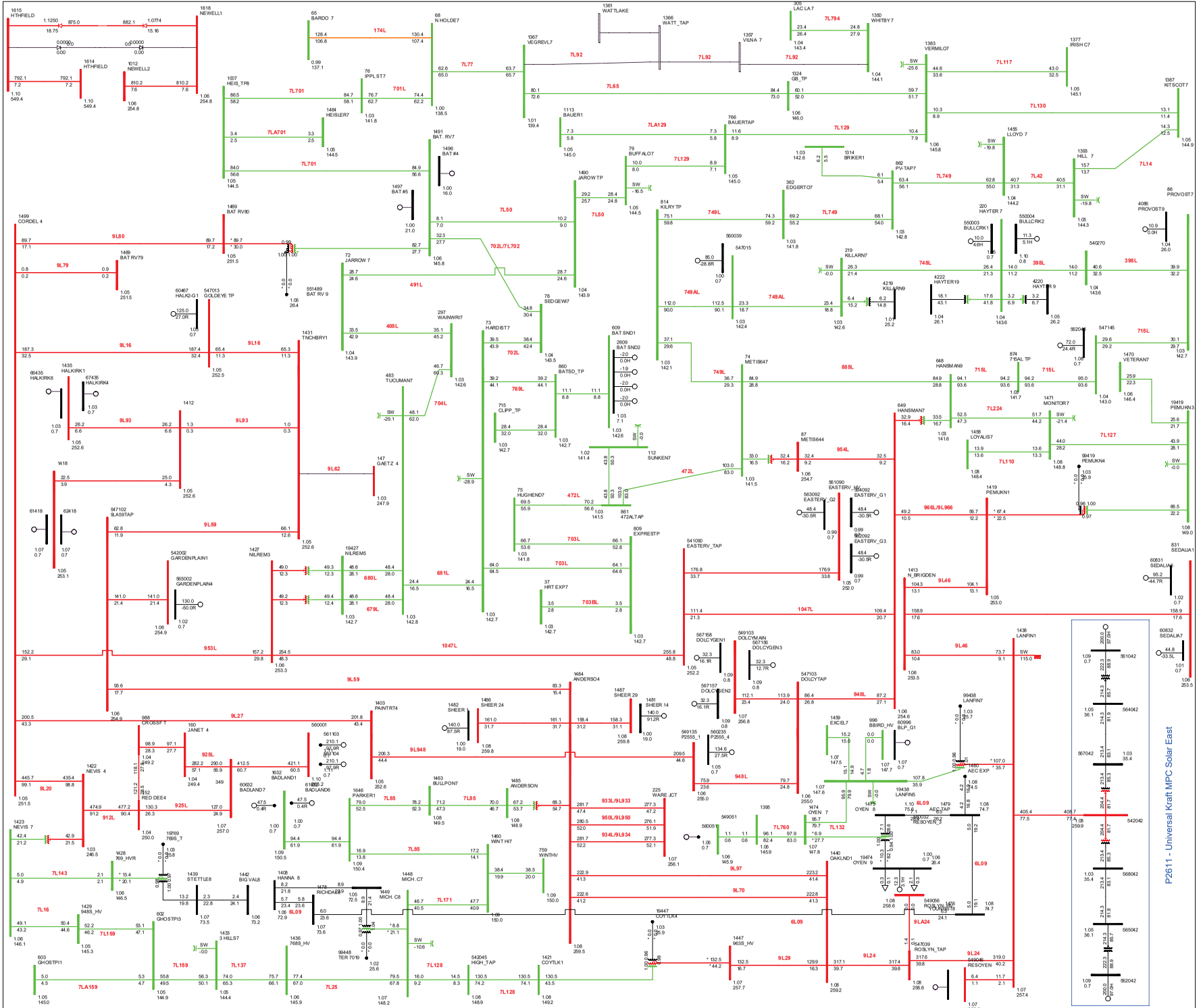
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-33: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L159 (THREE HILLS 770S TO HEATBURG 948S)
SUN, SEP 07 2025 22:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -921.1 MW

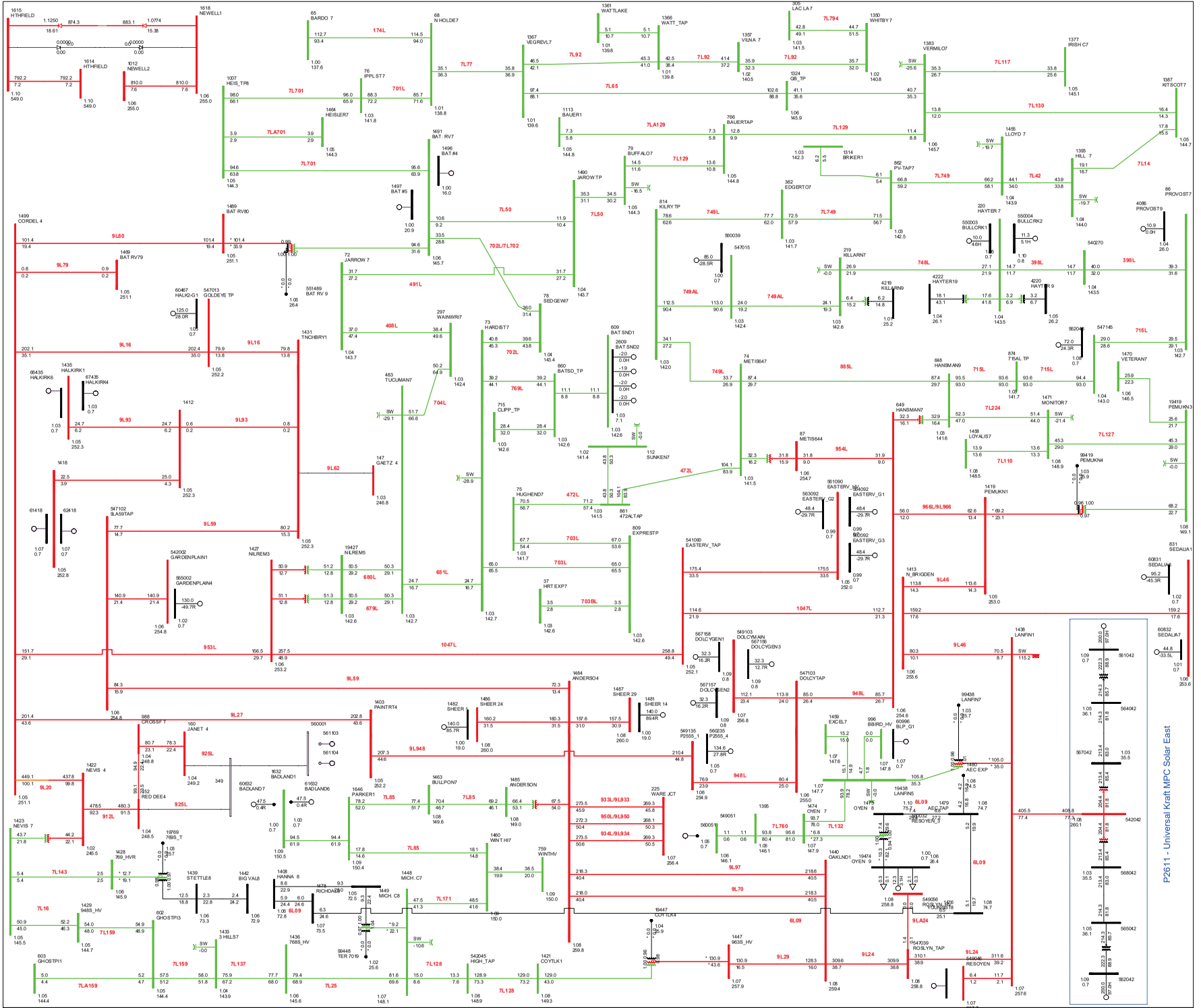
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-9-34: SCN9-SP-SEN-POST.SAV
CATEGORY B - 7L92 (VEGREVILLE 709S TO WHITBYLAKE 819S)
SUN, SEP 07 2025 22:24
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -528.2 MW

Sask Import: 150.9 MW

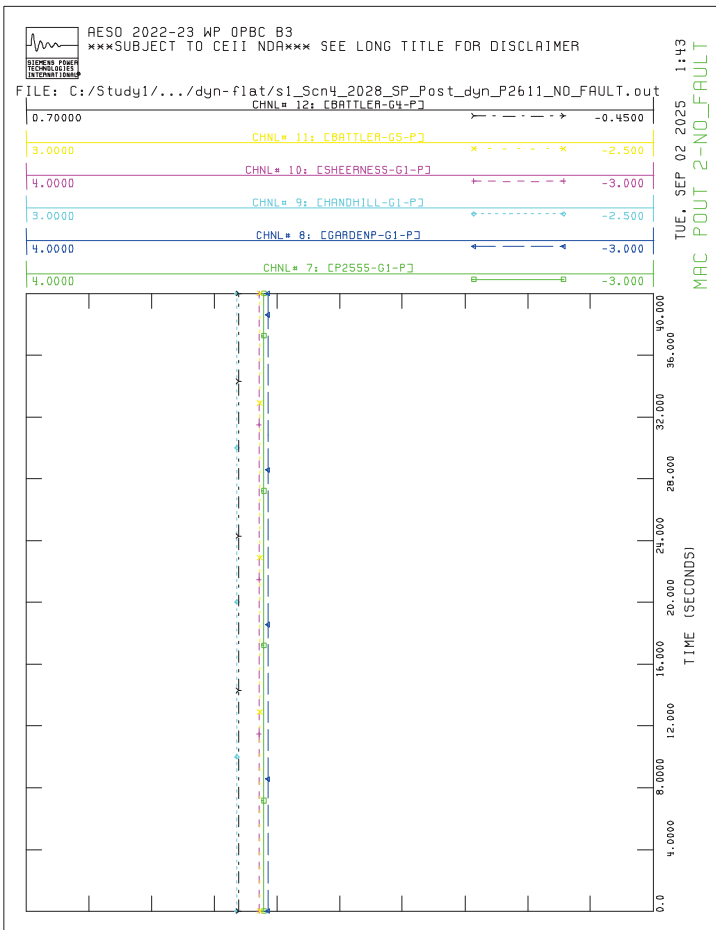
MATL: 186.8 MW

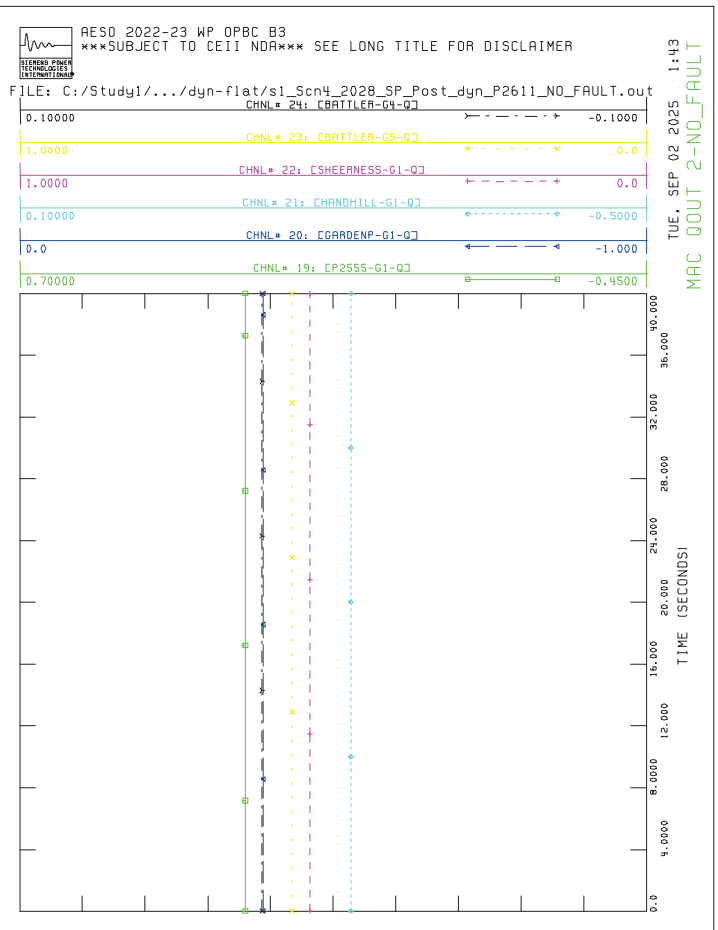
FIGURE B-9-35: SCN9-SP-SEN-POST.SAV
CATEGORY B - 925L (RED DEER 63S TO JANET 74S)
SUN, SEP 07 2025 22:24
New Diagram

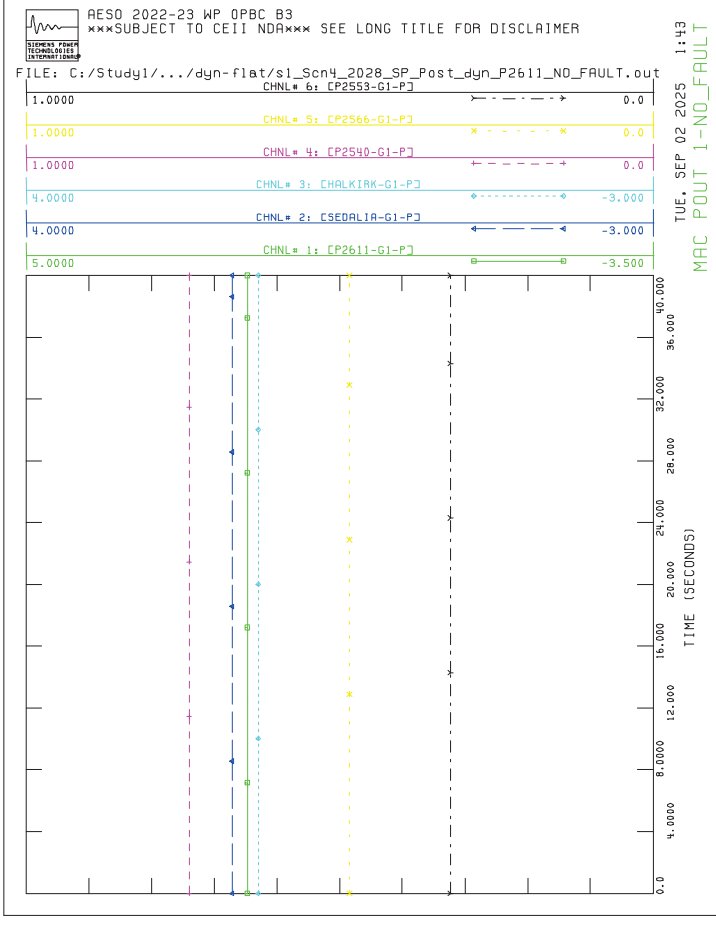
Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

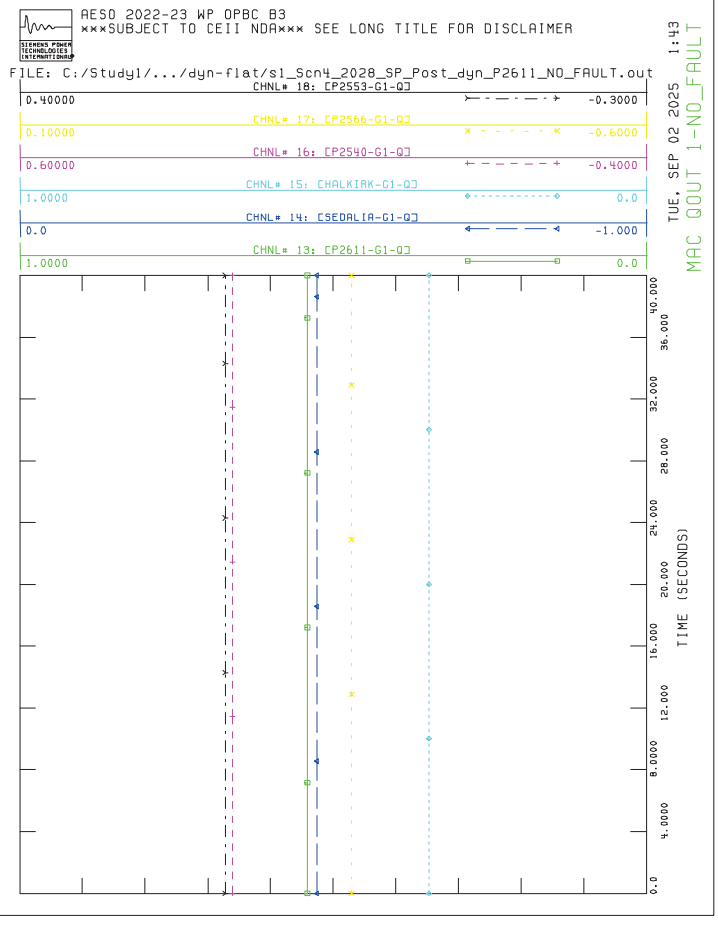
kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

Attachment A4
Post-Project Transient Stability Diagrams


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out
CHNL# 12: [BATTLEA-G4-P]
0.70000
-0.4500
CHNL# 11: [BATTLEA-G5-P]
3.0000
-2.500
CHNL# 10: [SHEERNESS-G1-P]
4.0000
-3.000
CHNL# 9: [HANDHILL-G1-P]
3.0000
-2.500
CHNL# 8: [GARDENP-G1-P]
4.0000
-3.000
CHNL# 7: [P2555-G1-P]
4.0000
-3.000
TUE, SEP 02 2025 1:43
MAC POUT 2-NO_FAULT
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out
CHNL# 24: [BATTLEA-G4-Q]
0.10000
-0.1000
CHNL# 23: [BATTLEA-G5-Q]
1.0000
0.0
CHNL# 22: [SHEERNESS-G1-Q]
1.0000
0.0
CHNL# 21: [HANDHILL-G1-Q]
0.10000
-0.5000
CHNL# 20: [GARDENP-G1-Q]
0.0
-1.000
CHNL# 19: [P2555-G1-Q]
0.70000
-0.4500
TUE, SEP 02 2025 1:43
MAC QOUT 2-NO_FAULT
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out
CHNL# 6: [P2553-G1-P]
1.0000
0.0
CHNL# 5: [P2566-G1-P]
1.0000
0.0
CHNL# 4: [P2540-G1-P]
1.0000
0.0
CHNL# 3: [HALKIRK-G1-P]
4.0000
-3.000
CHNL# 2: [SEDALIA-G1-P]
4.0000
-3.000
CHNL# 1: [P2611-G1-P]
5.0000
-3.500
TUE, SEP 02 2025 1:43
MAC POUT 1-NO_FAULT
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out
CHNL# 18: [P2553-G1-Q]
0.40000
-0.3000
CHNL# 17: [P2566-G1-Q]
0.10000
-0.6000
CHNL# 16: [P2540-G1-Q]
0.60000
-0.4000
CHNL# 15: [HALKIRK-G1-Q]
1.0000
0.0
CHNL# 14: [SEDALIA-G1-Q]
0.0
-1.000
CHNL# 13: [P2611-G1-Q]
1.0000
0.0
TUE, SEP 02 2025 1:43
MAC QOUT 1-NO_FAULT
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out

TUE, SEP 02 2025 1:43

BUS VOL-NO_FAULT

CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out

TUE, SEP 02 2025 1:43

BRN Q FLOW-NO_FAULT

CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out

TUE, SEP 02 2025 1:43

SYNC MAC ANGLE-NO_FAULT

CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

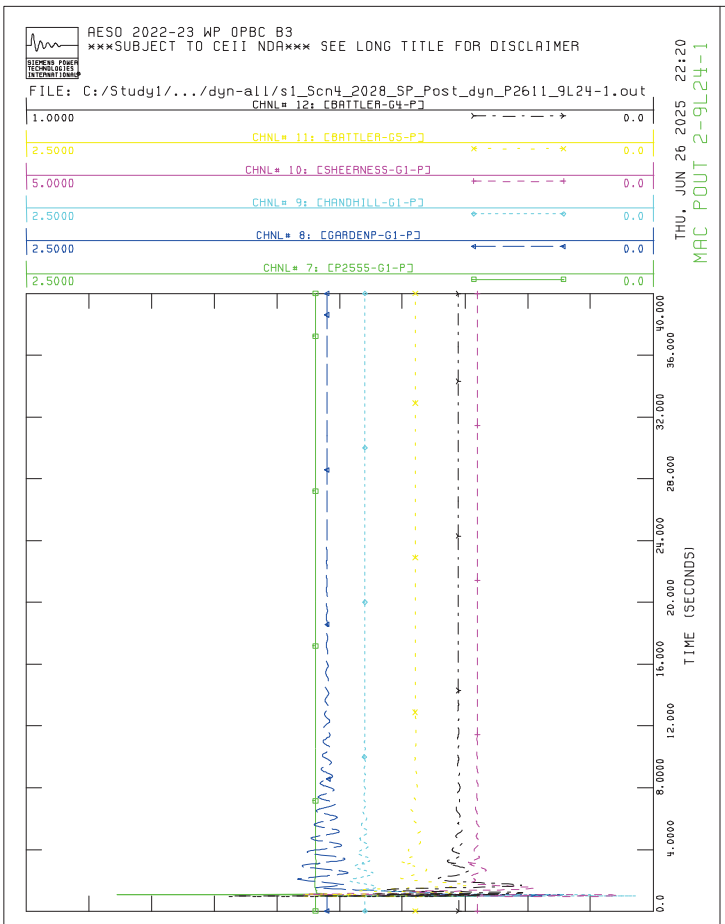
FILE: C:/Study1/.../dyn-flat/s1_Scn4_2028_SP_Post_dyn_P2611_NO_FAULT.out

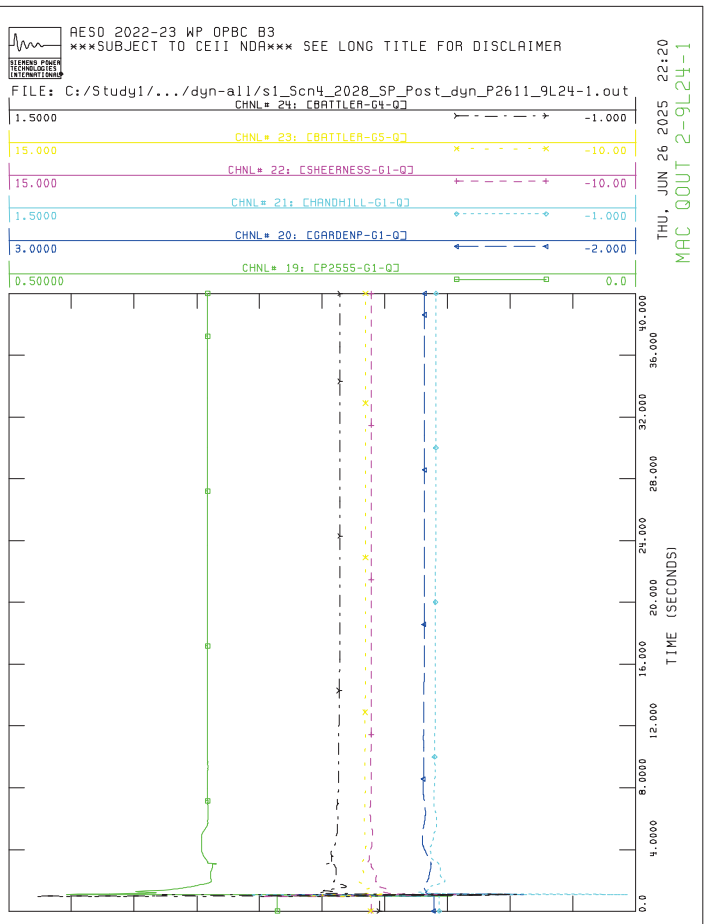
TUE, SEP 02 2025 1:43

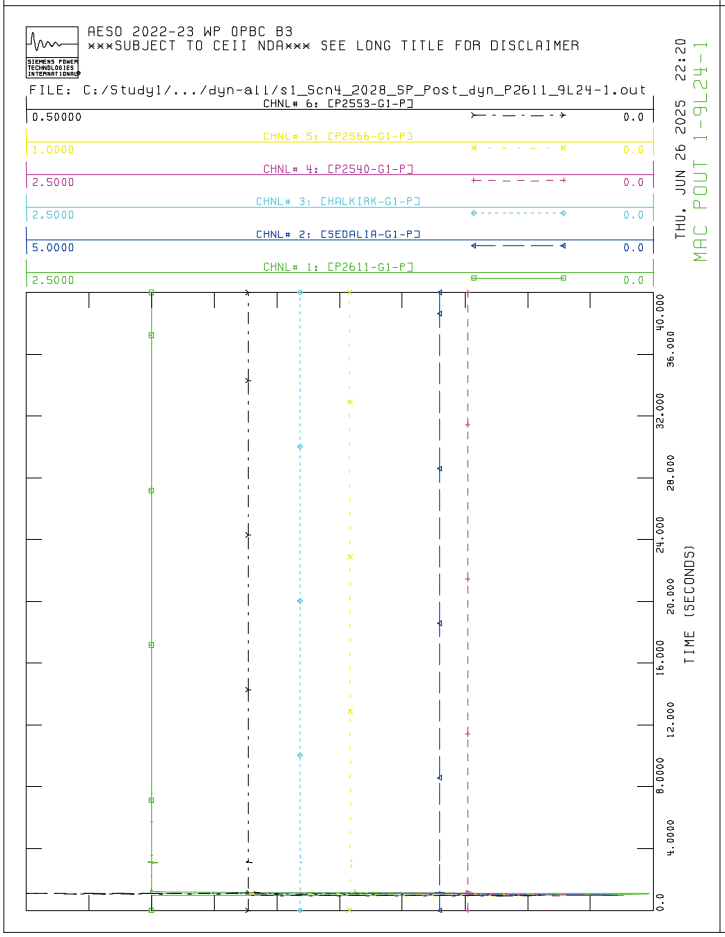
BRN P FLOW-NO_FAULT

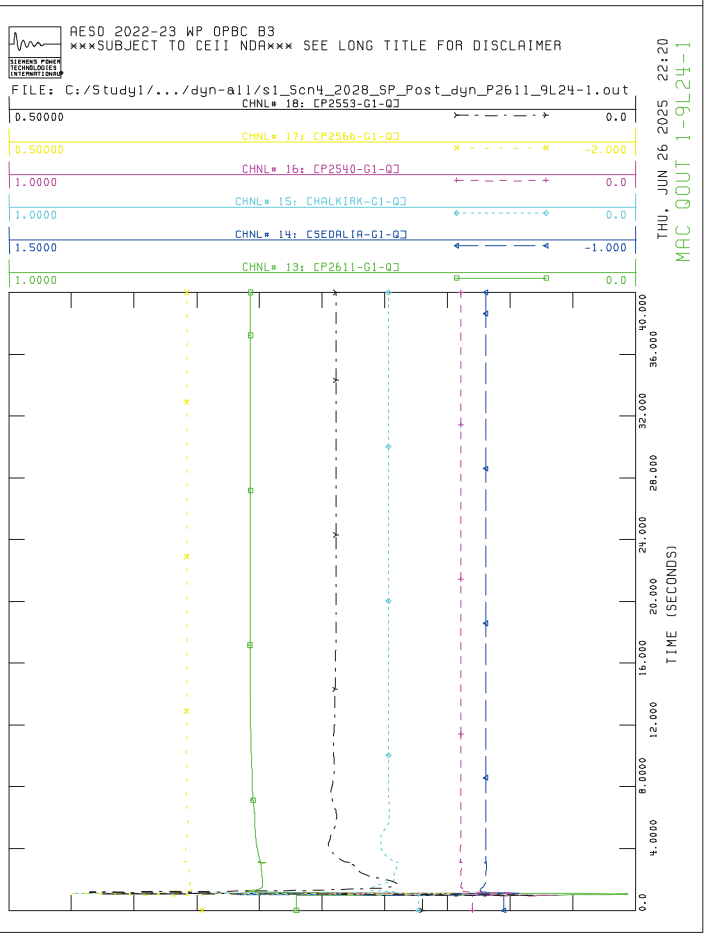
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ

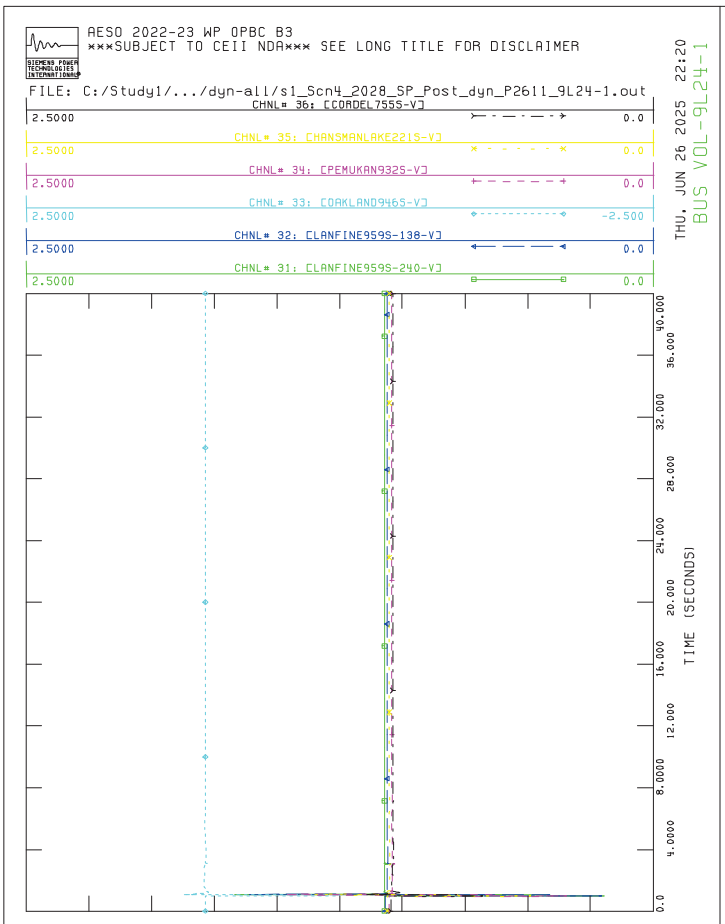
TIME (SECONDS)

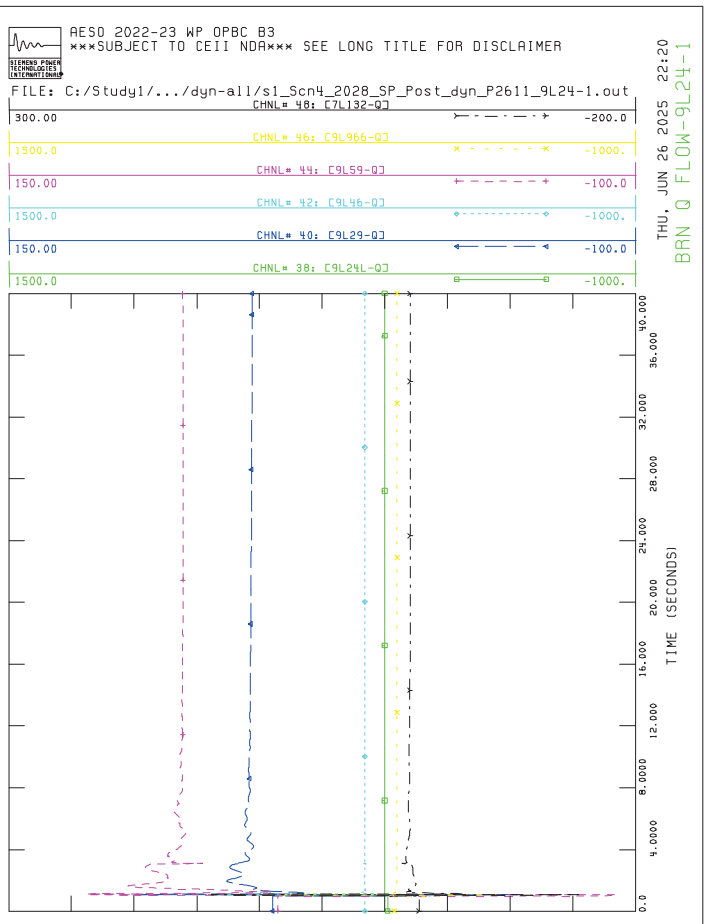

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-9L24-1

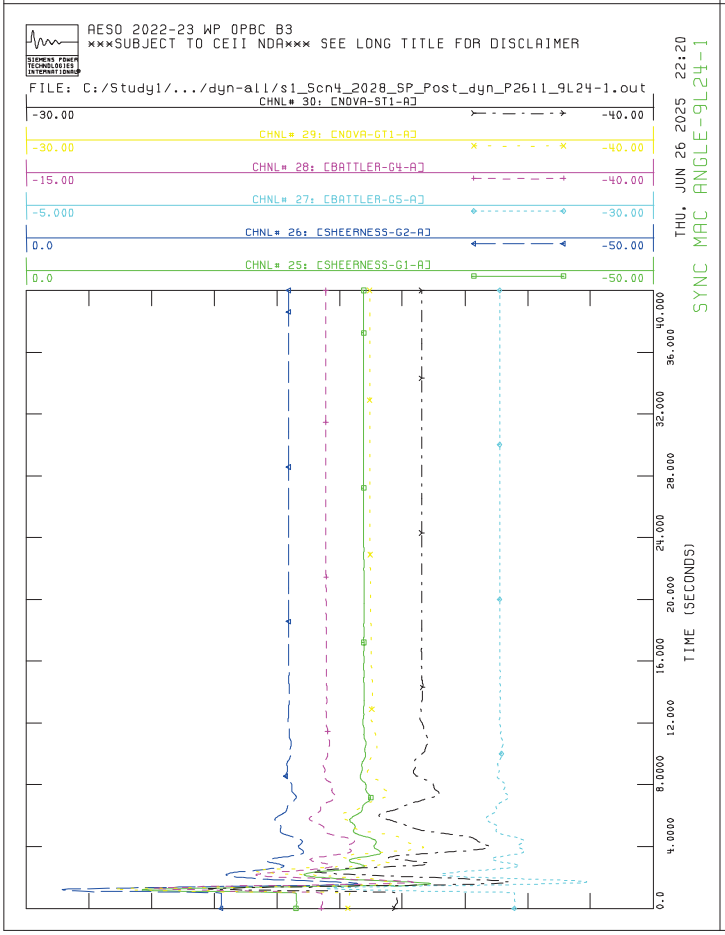

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-9L24-1

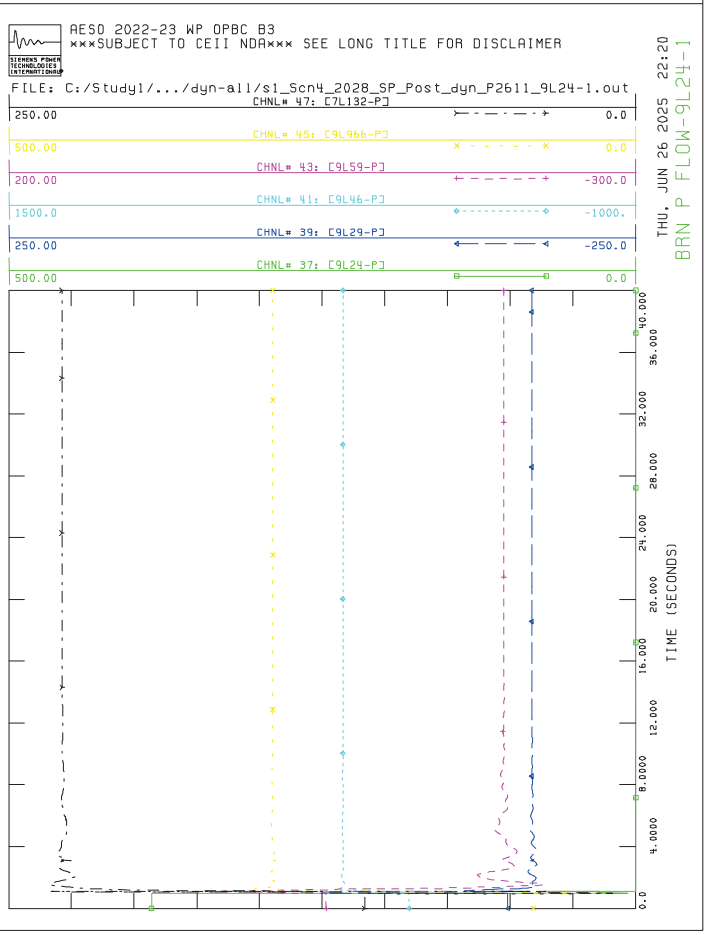

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-9L24-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-9L24-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE22LS-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:20
BUS VOL-9L24-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
THU, JUN 26 2025 22:20
BRN Q FLOW-9L24-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-9L24-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s1_Scn4_2028_SP_Post_dyn_P2611_9L24-1.out
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
CHNL= 39: C9L29-PJ
CHNL= 37: C9L24-PJ
THU, JUN 26 2025 22:20
BRN P FLOW-9L24-1
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s2_Scn4_2028_SP_Post_dyn_P2611_9L24-2.out

THU, JUN 26 2025 22:20
MAC POUT 2-9L24-2

CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s2_Scn4_2028_SP_Post_dyn_P2611_9L24-2.out

THU, JUN 26 2025 22:20
MAC QOUT 2-9L24-2

CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s2_Scn4_2028_SP_Post_dyn_P2611_9L24-2.out

THU, JUN 26 2025 22:20
MAC POUT 1-9L24-2

CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]

TIME (SECONDS)

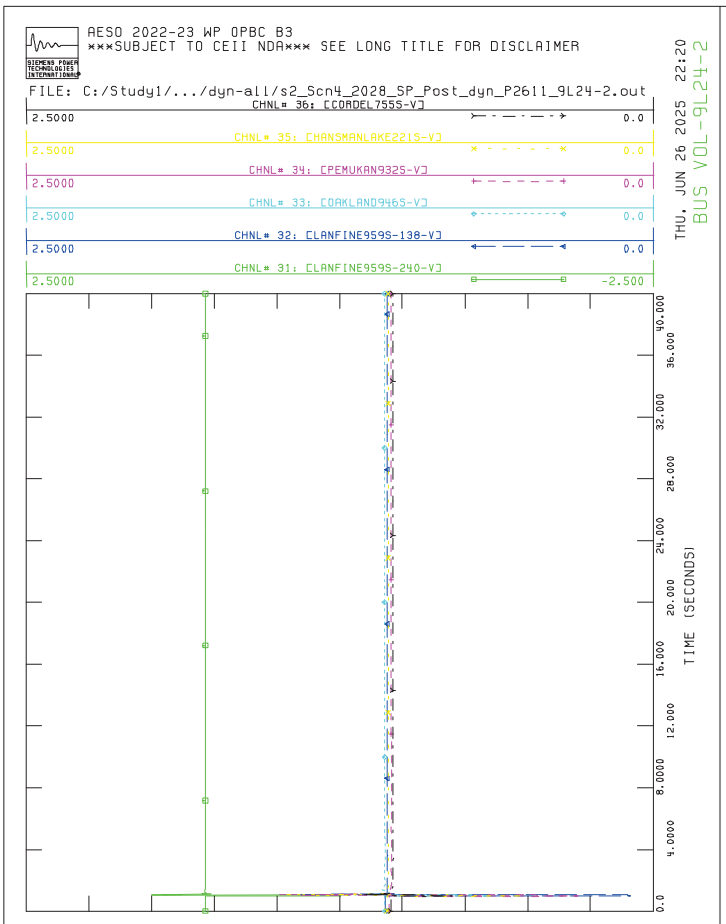
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

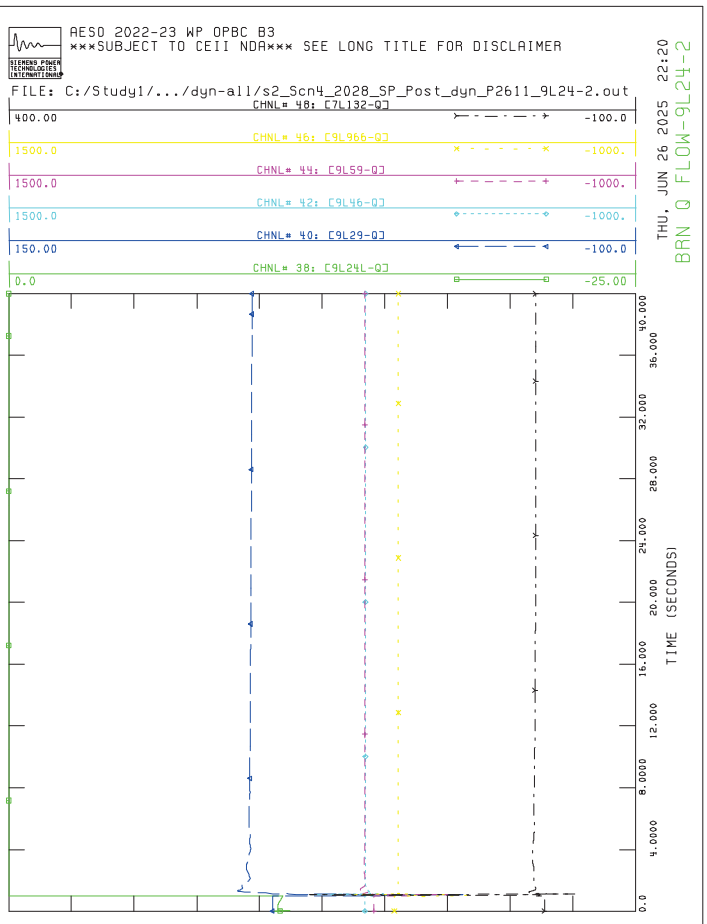
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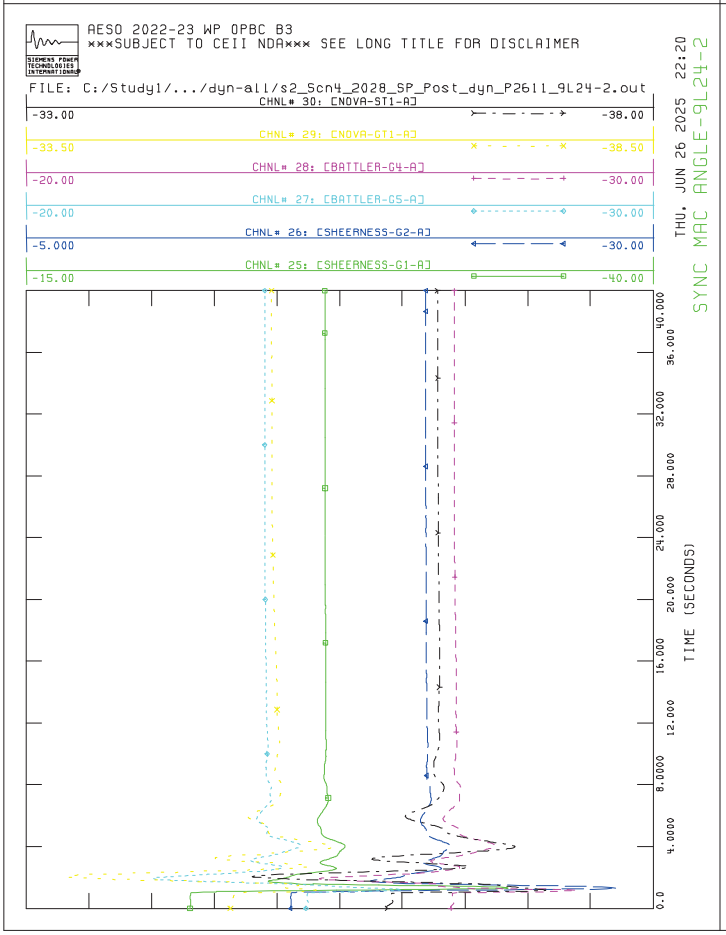
THU, JUN 26 2025 22:20
MAC QOUT 1-9L24-2

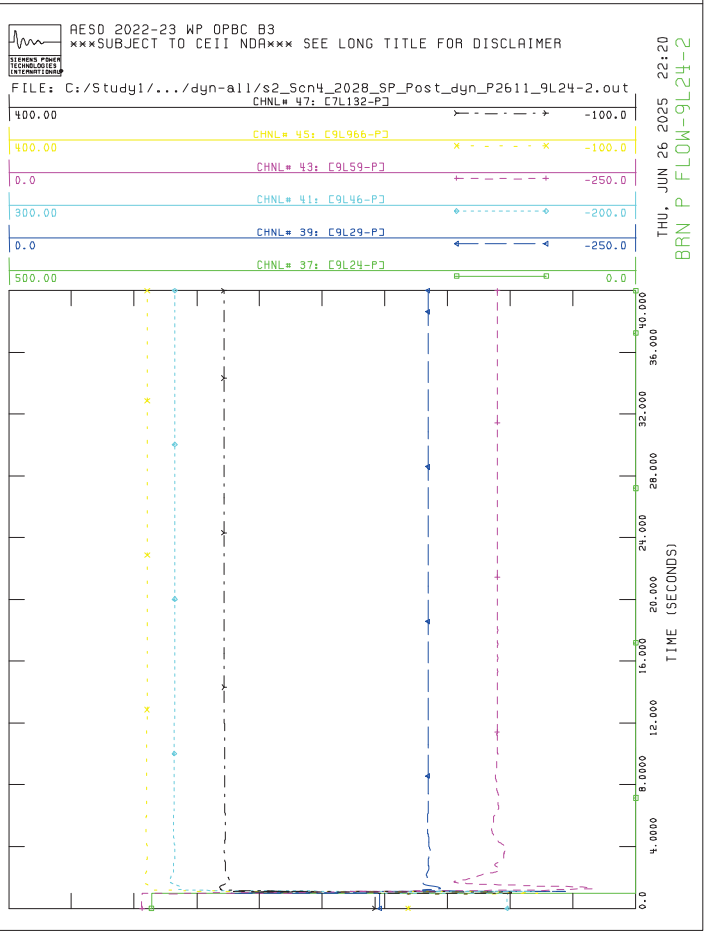
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]

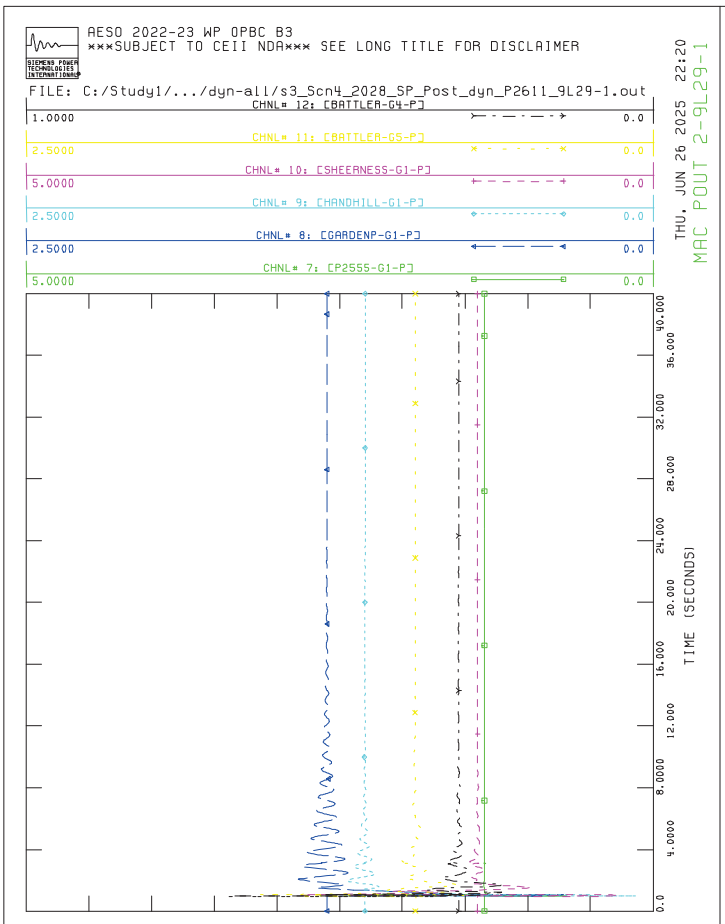
TIME (SECONDS)

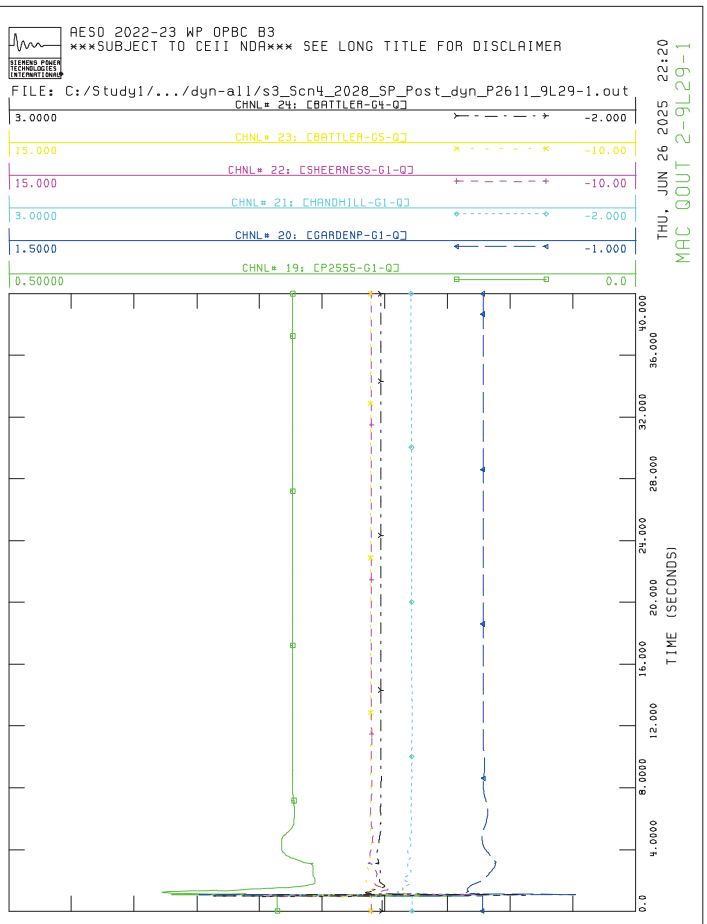

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s2_Scn4_2028_SP_Post_dyn_P2611_9L24-2.out
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE2215-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:20
BUS VOL-9L24-2
TIME (SECONDS)

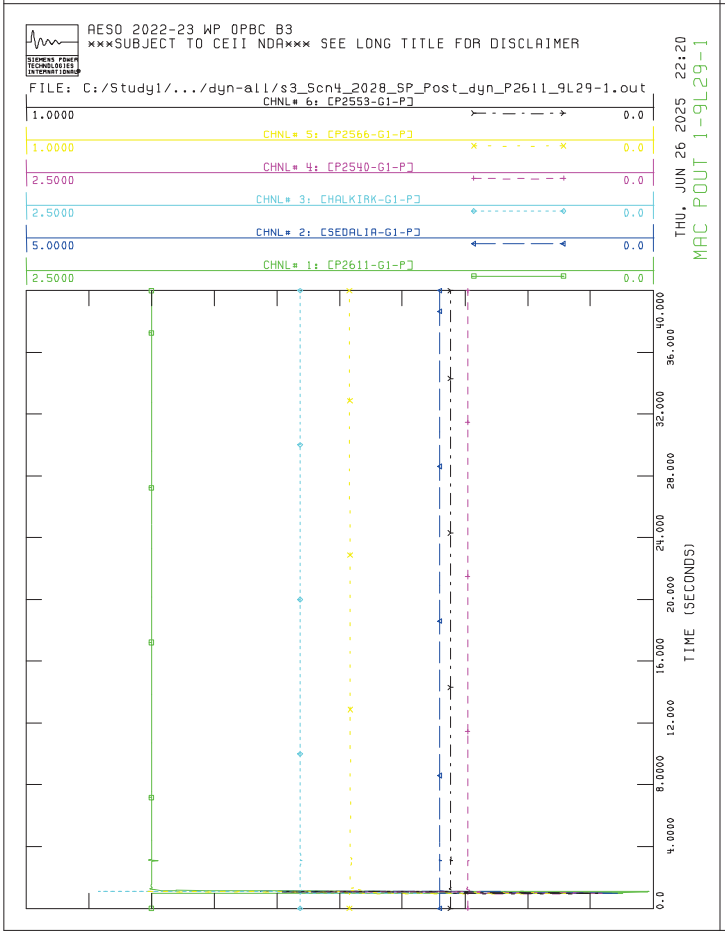

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s2_Scn4_2028_SP_Post_dyn_P2611_9L24-2.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:20
BRN Q FLOW-9L24-2
TIME (SECONDS)

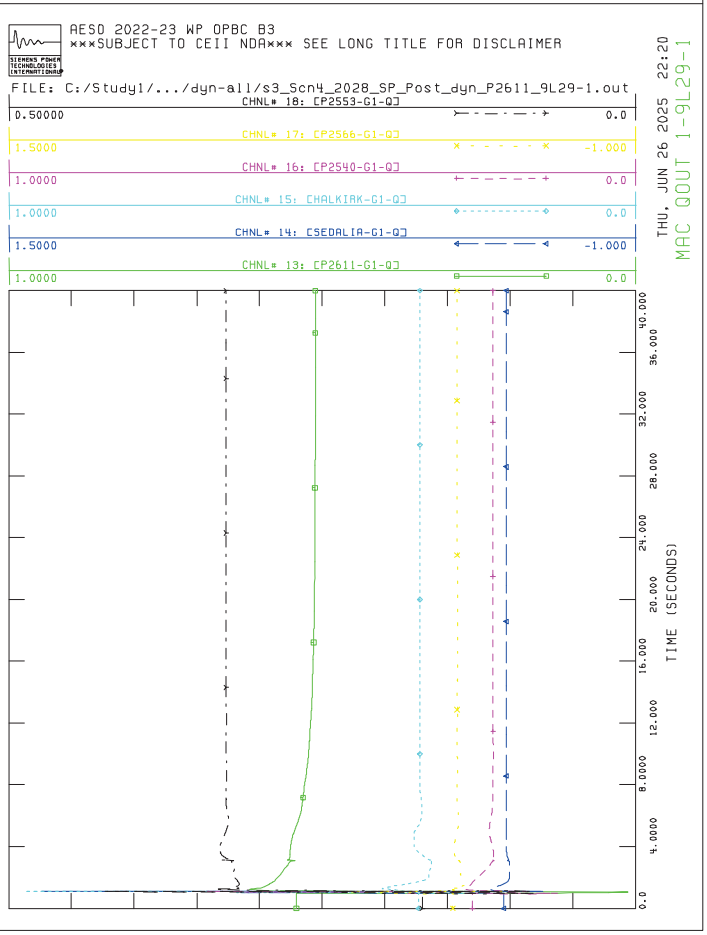

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s2_Scn4_2028_SP_Post_dyn_P2611_9L24-2.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-9L24-2
TIME (SECONDS)

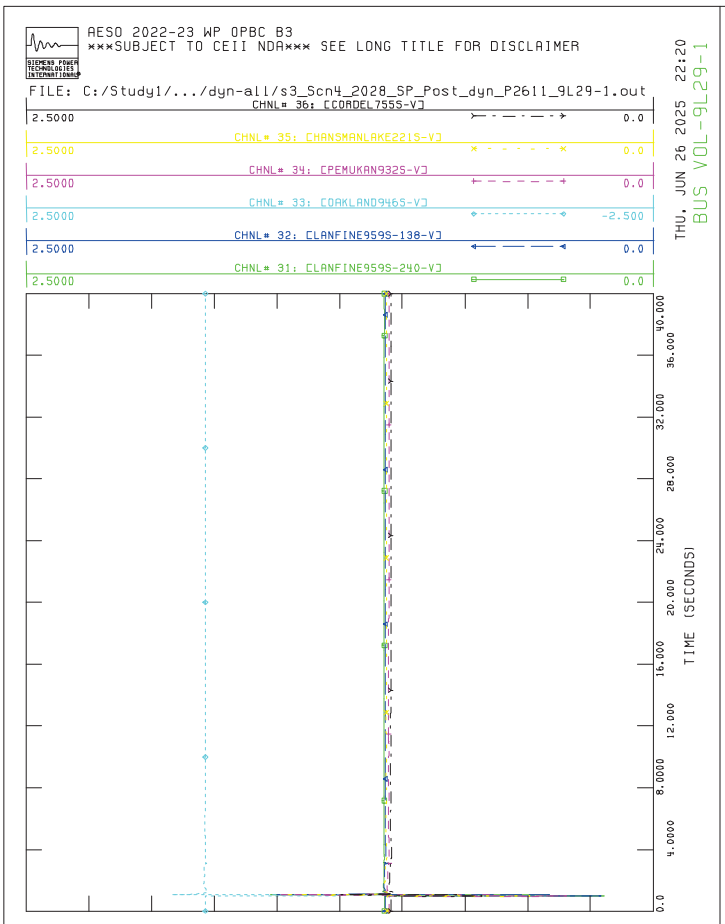

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s2_Scn4_2028_SP_Post_dyn_P2611_9L24-2.out
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:20
BRN P FLOW-9L24-2
TIME (SECONDS)

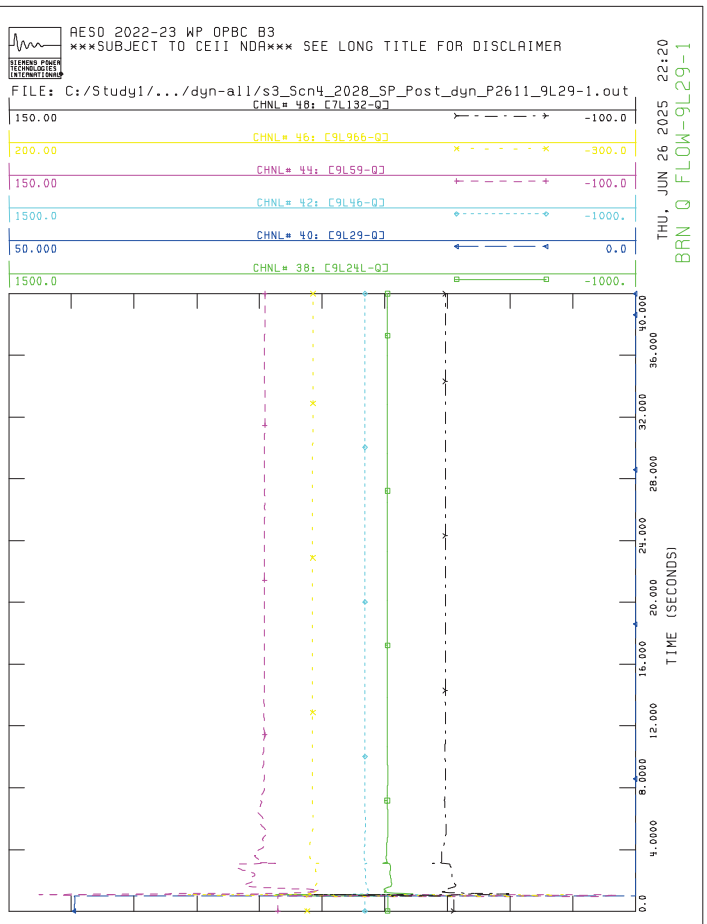

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s3_Scn4_2028_SP_Post_dyn_P2611_9L29-1.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-9L29-1

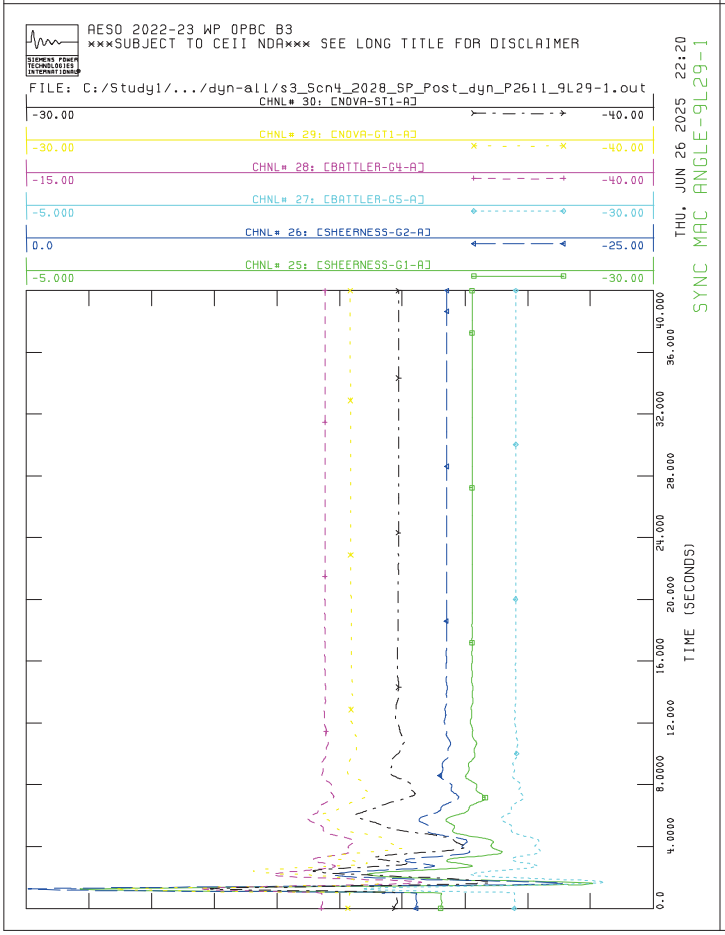

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s3_Scn4_2028_SP_Post_dyn_P2611_9L29-1.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-9L29-1

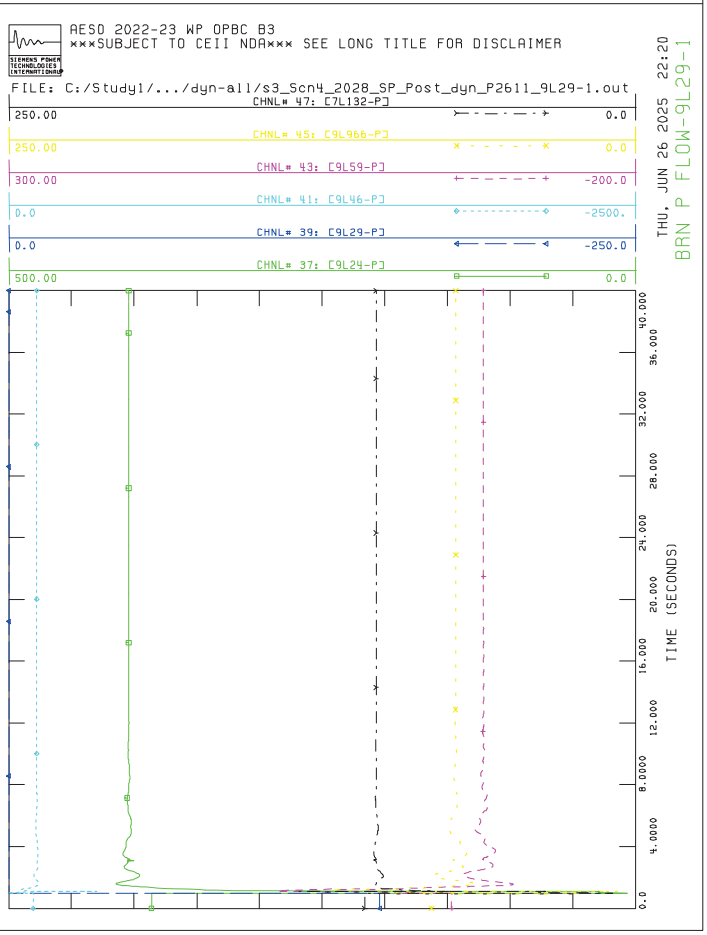

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s3_Scn4_2028_SP_Post_dyn_P2611_9L29-1.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [HALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-9L29-1

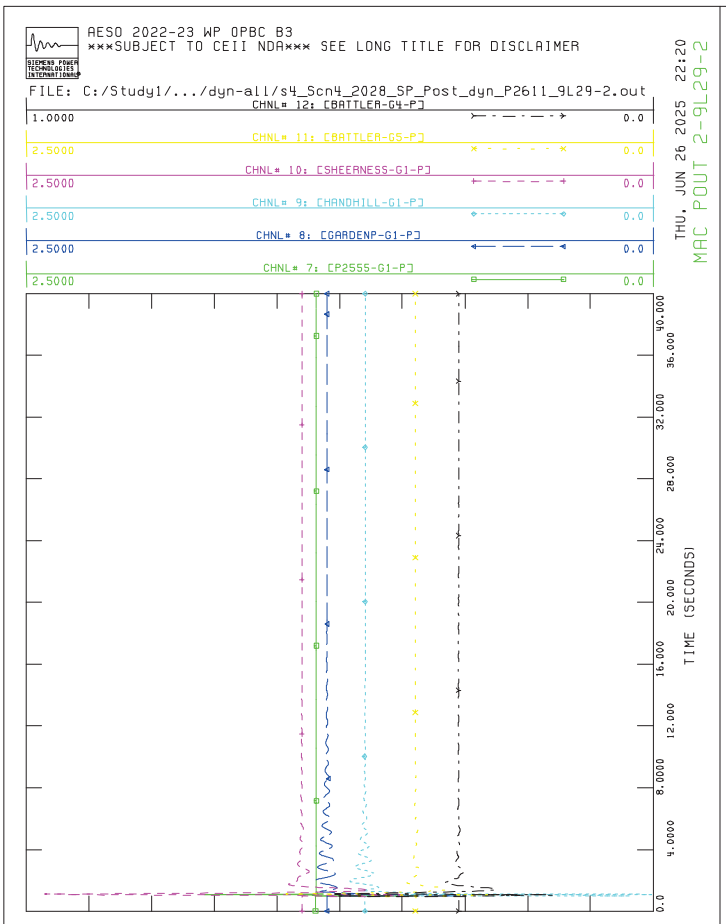

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s3_Scn4_2028_SP_Post_dyn_P2611_9L29-1.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [HALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-9L29-1

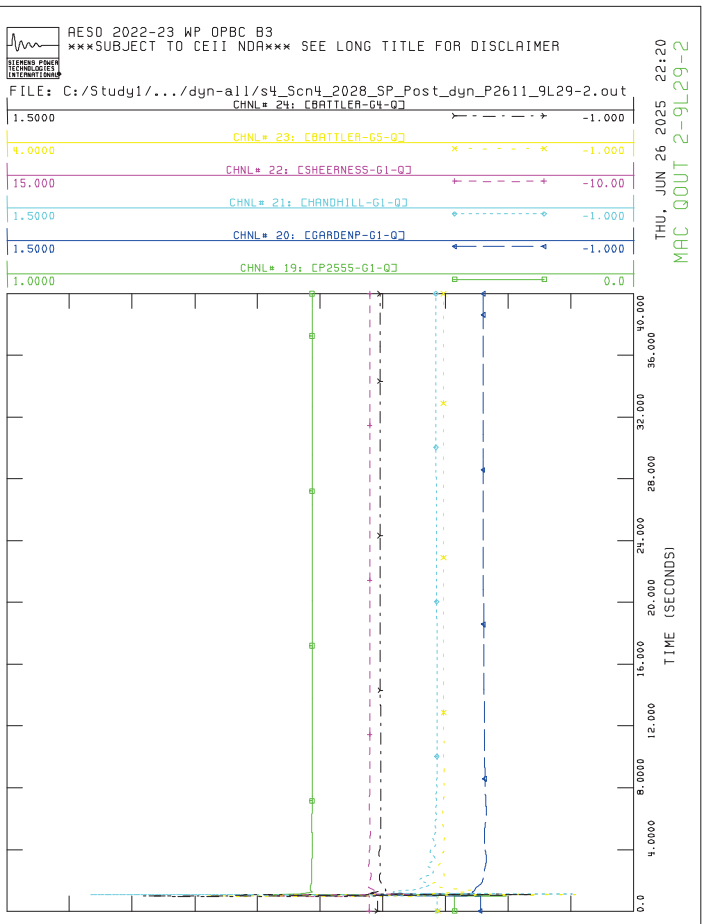

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s3_Scn4_2028_SP_Post_dyn_P2611_9L29-1.out
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:20
BUS VOL-9L29-1
TIME (SECONDS)

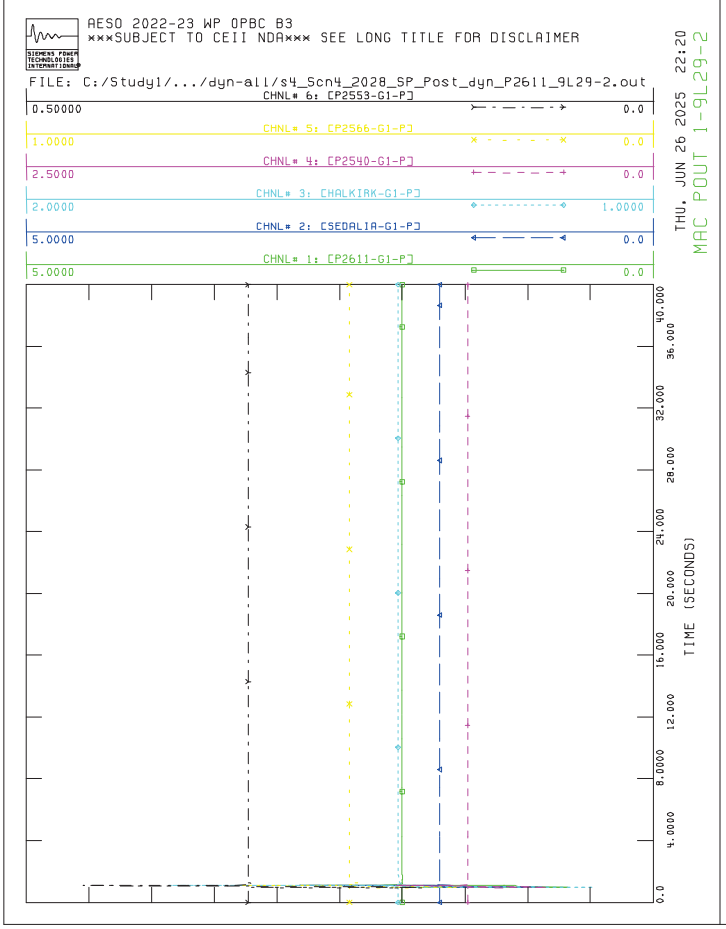

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s3_Scn4_2028_SP_Post_dyn_P2611_9L29-1.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:20
BRN Q FLOW-9L29-1
TIME (SECONDS)

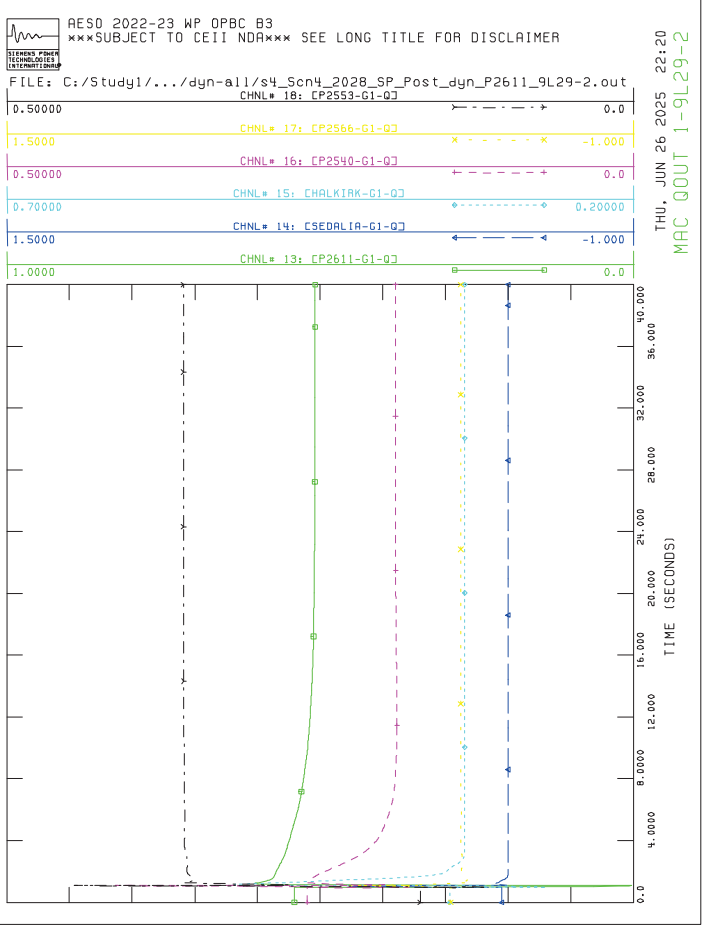

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s3_Scn4_2028_SP_Post_dyn_P2611_9L29-1.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-9L29-1
TIME (SECONDS)

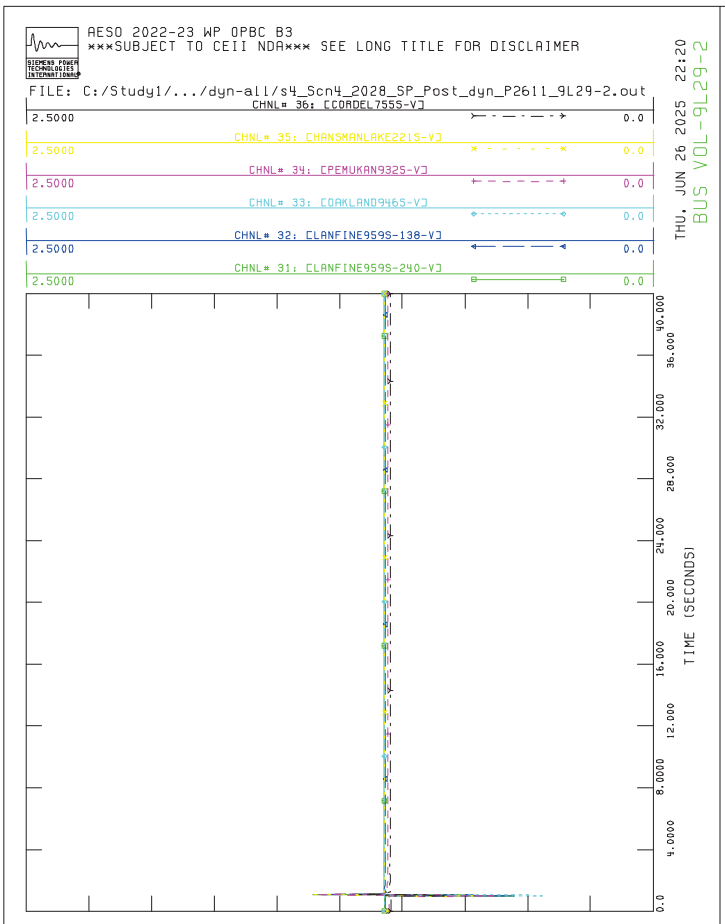

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
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CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:20
BRN P FLOW-9L29-1
TIME (SECONDS)

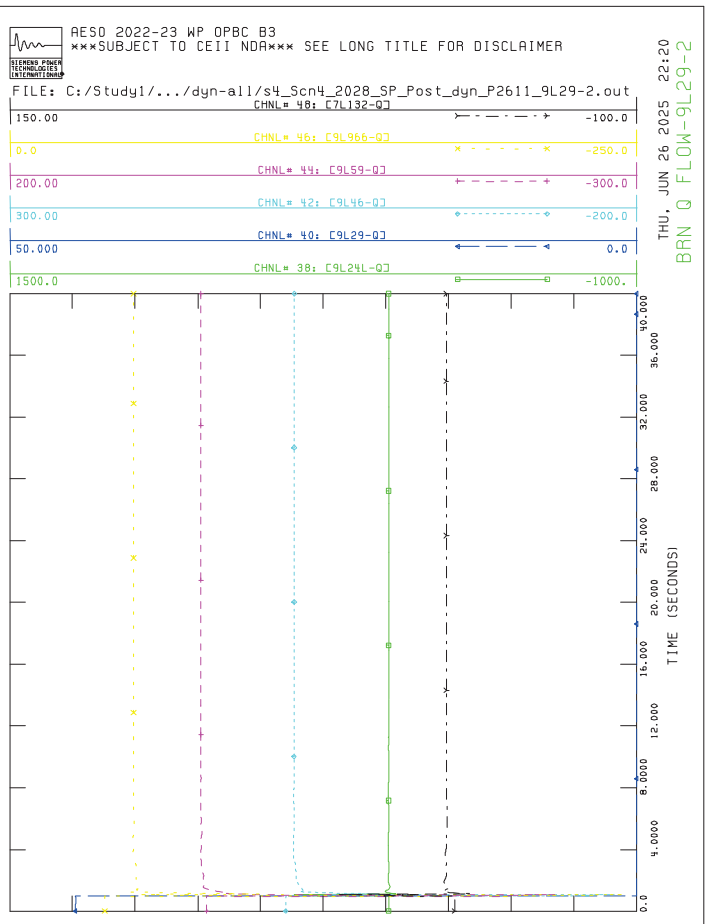

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-9L29-2

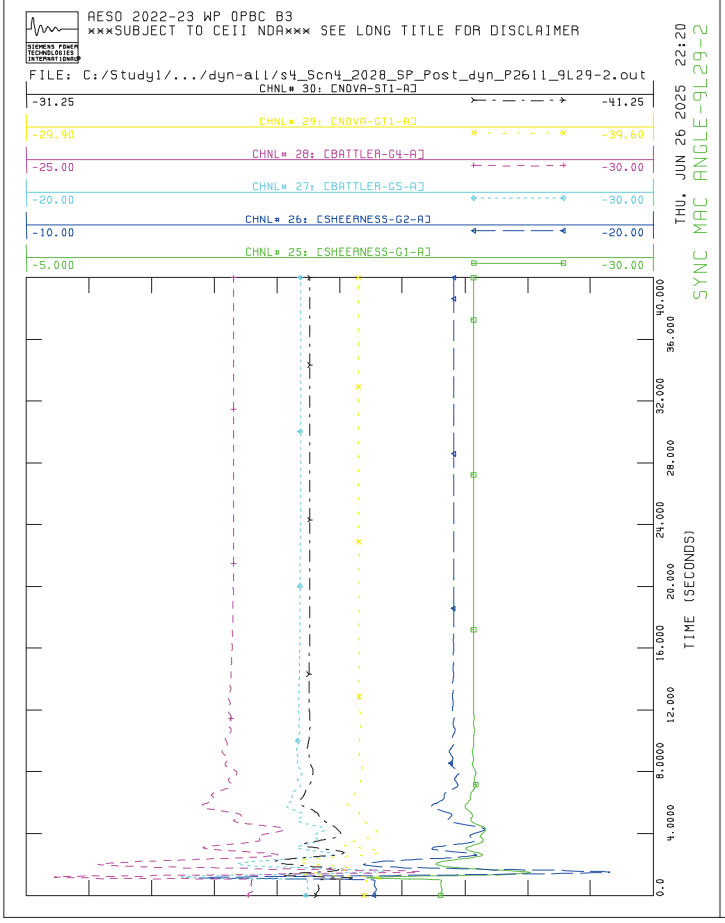

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-9L29-2

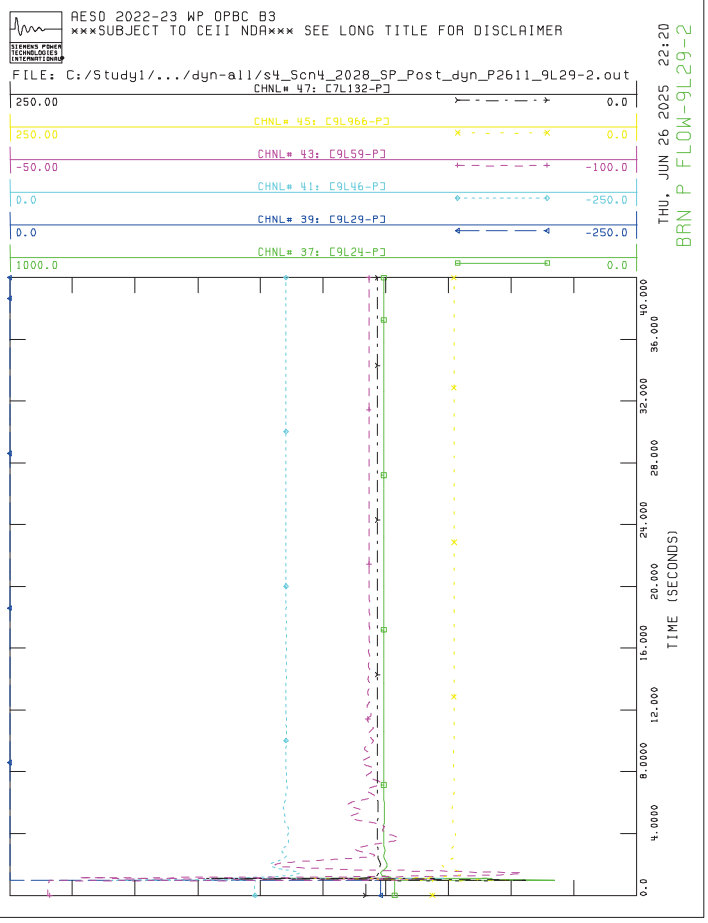

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-9L29-2

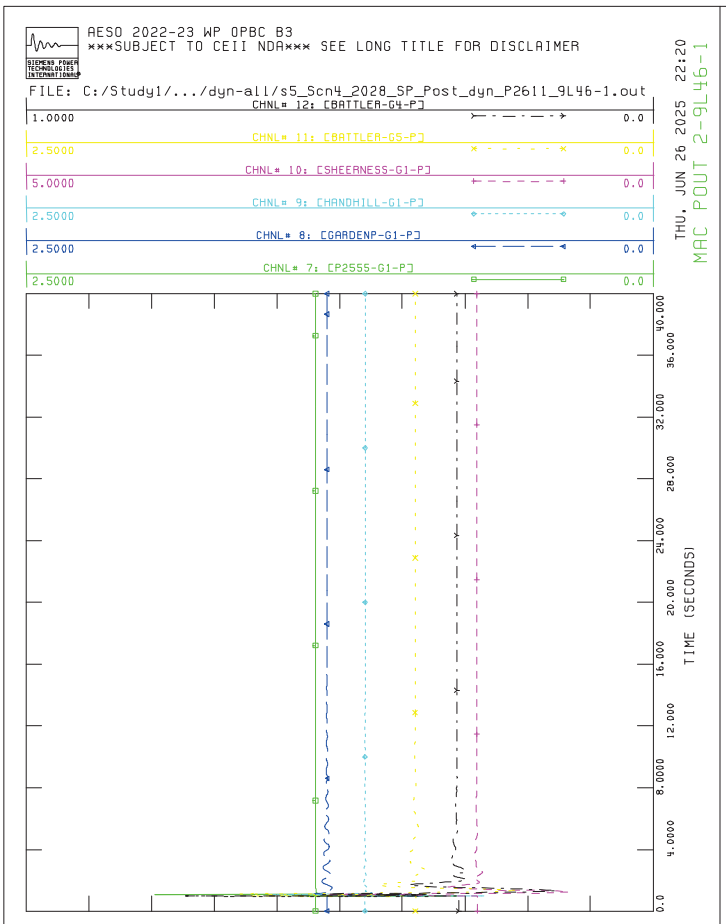

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
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TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-9L29-2

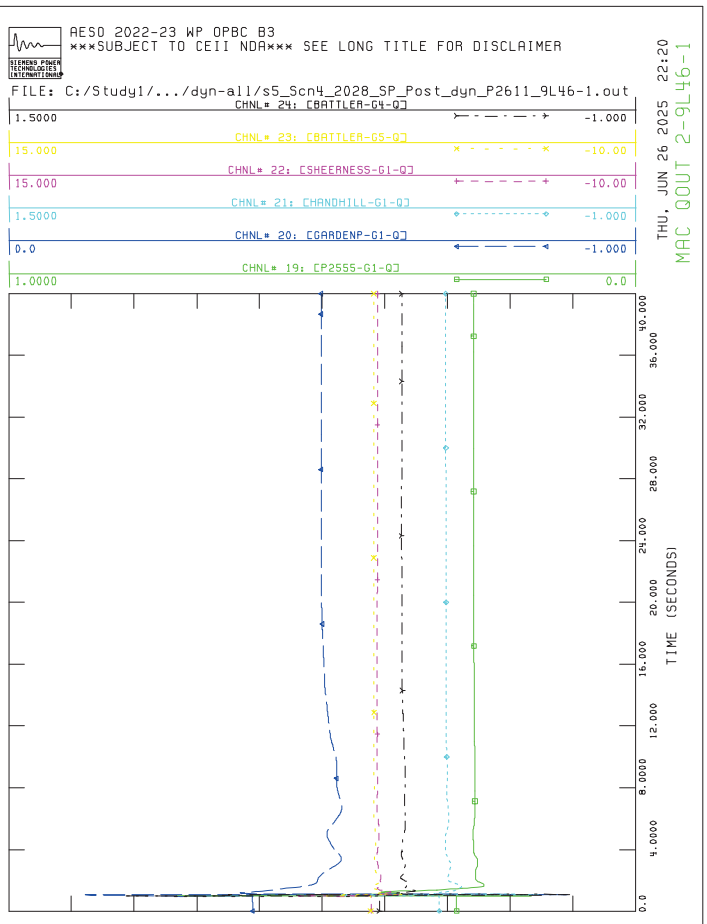

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:20
BUS VOL-9L29-2
TIME (SECONDS)
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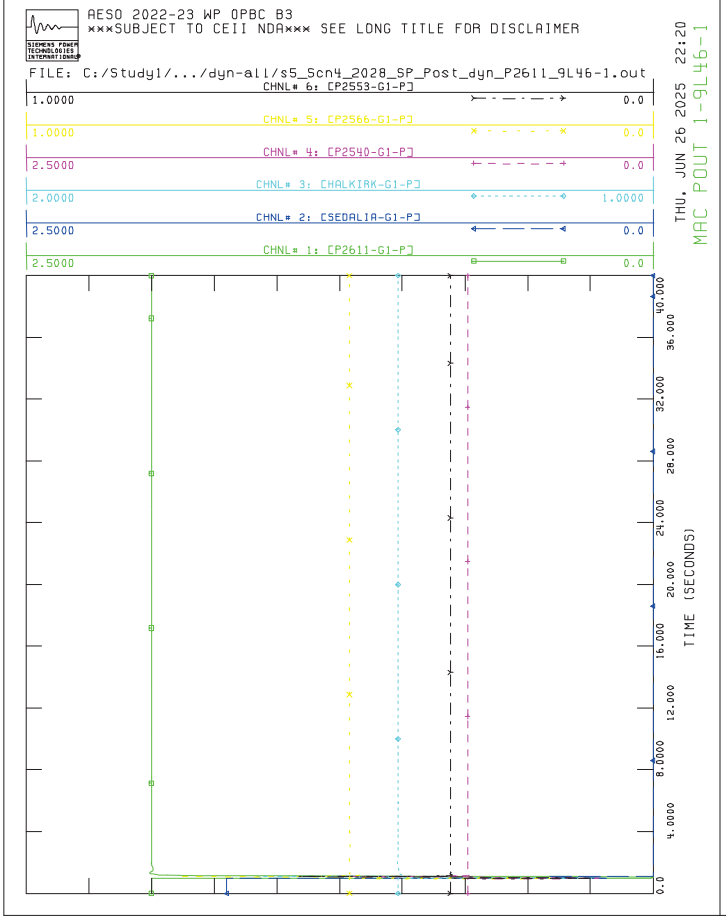

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:20
BRN Q FLOW-9L29-2
TIME (SECONDS)
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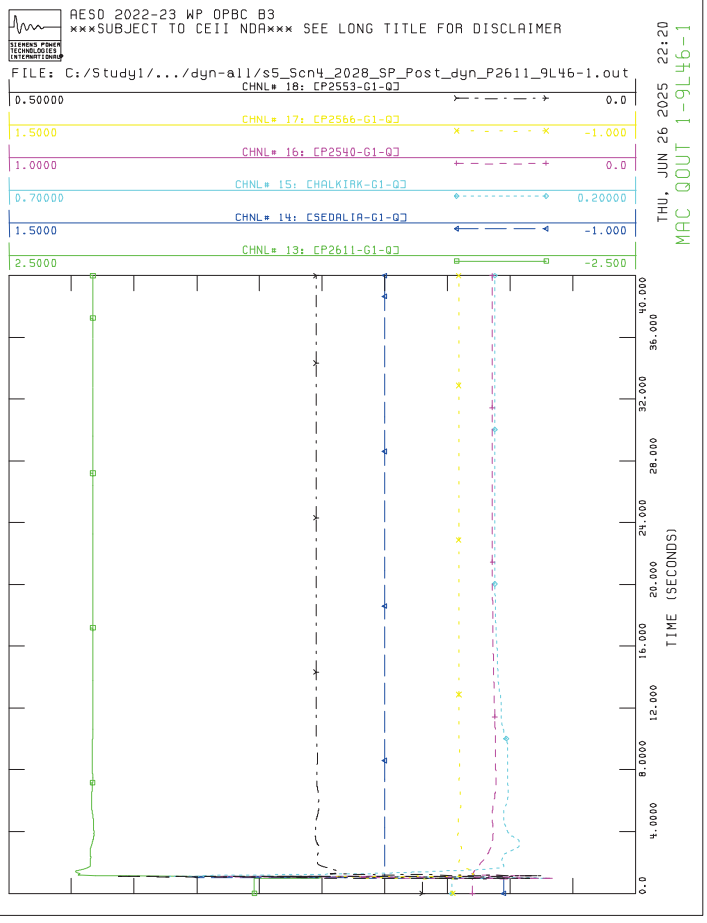

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL= 27: [BATTLER-G5-AJ
CHNL= 26: [SHEERNESS-G2-AJ
CHNL= 25: [SHEERNESS-G1-AJ
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-10.00
-20.00
-5.000
-30.00
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-9L29-2
TIME (SECONDS)
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8.0000
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16.000
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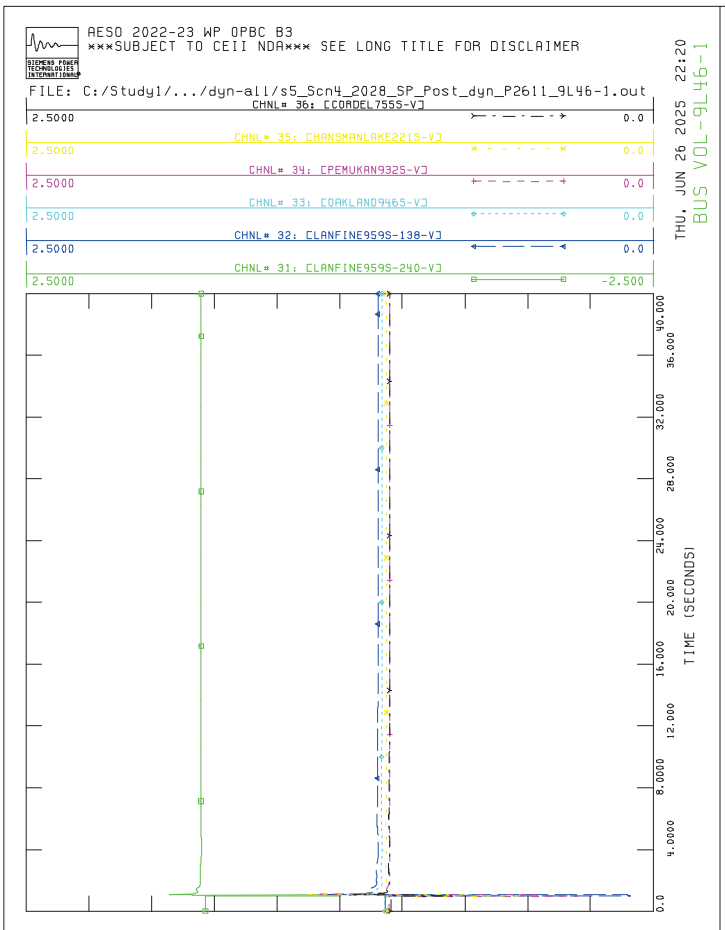

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL= 45: [9L966-PJ
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CHNL= 37: [9L24-PJ
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THU, JUN 26 2025 22:20
BRN P FLOW-9L29-2
TIME (SECONDS)
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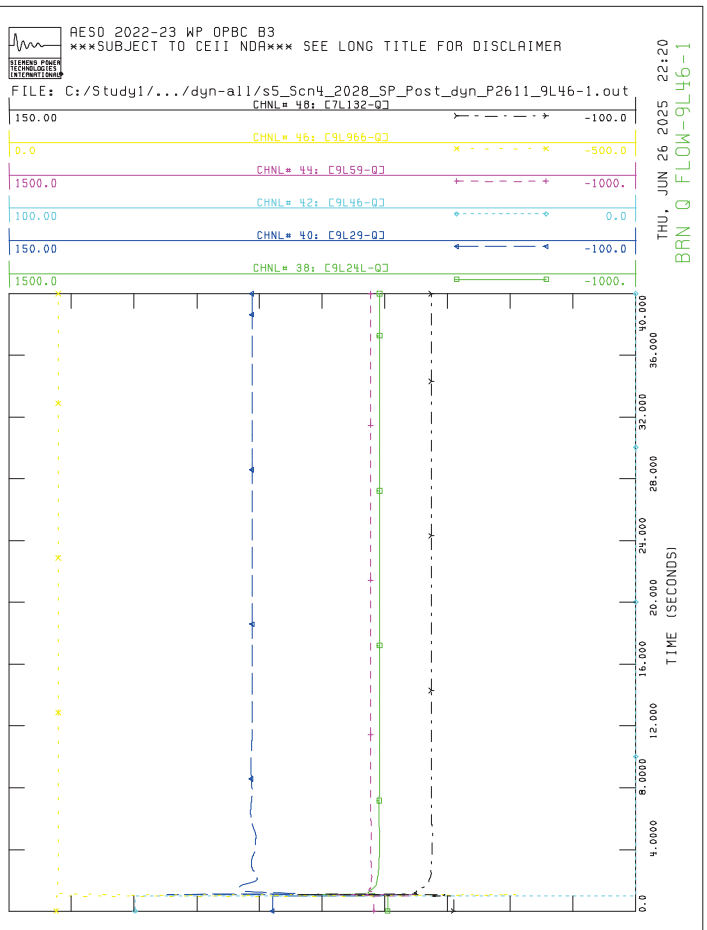

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-9L46-1

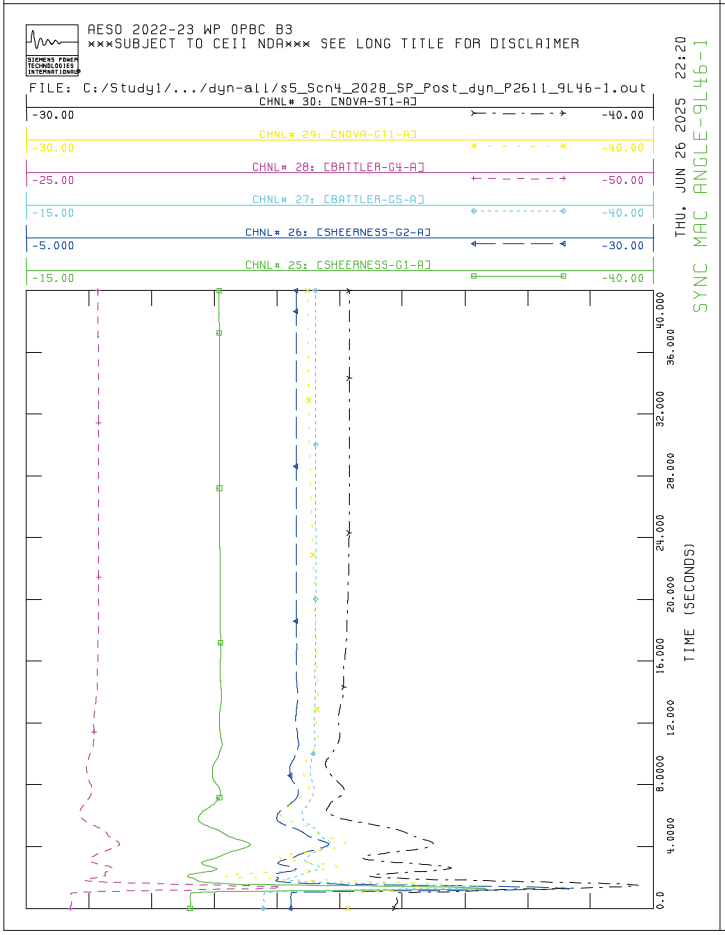

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s5_Scn4_2028_SP_Post_dyn_P2611_9L46-1.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-9L46-1

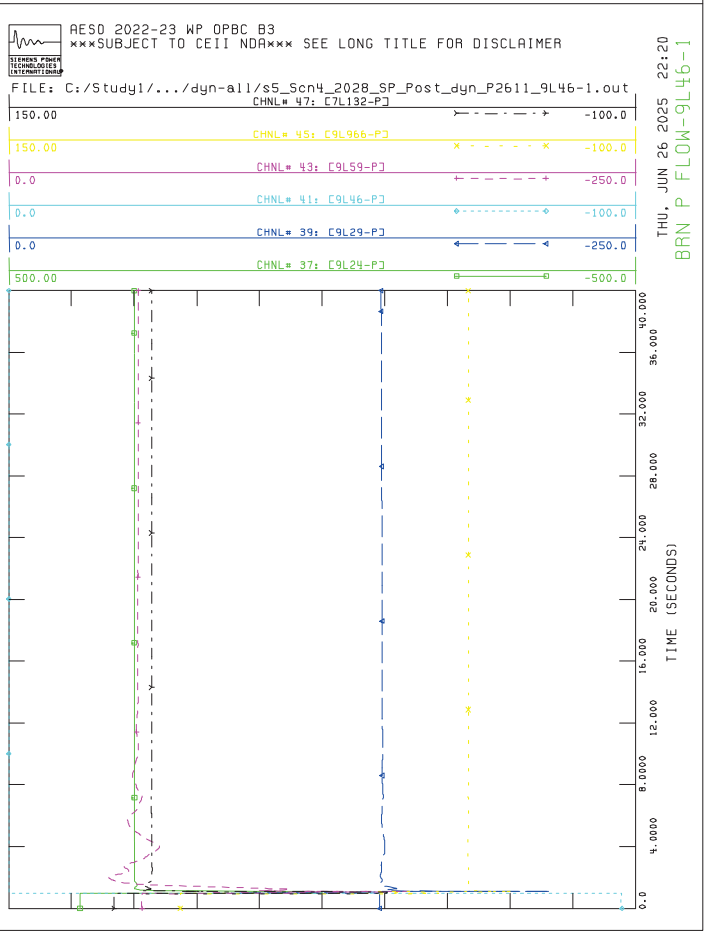

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s5_Scn4_2028_SP_Post_dyn_P2611_9L46-1.out
CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-9L46-1

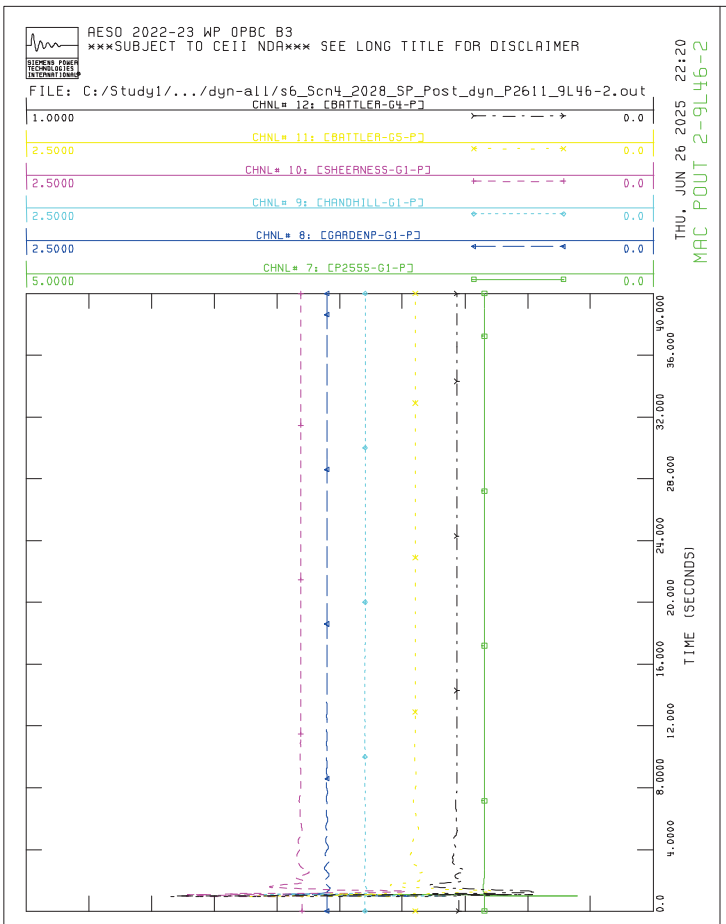

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s5_Scn4_2028_SP_Post_dyn_P2611_9L46-1.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-9L46-1

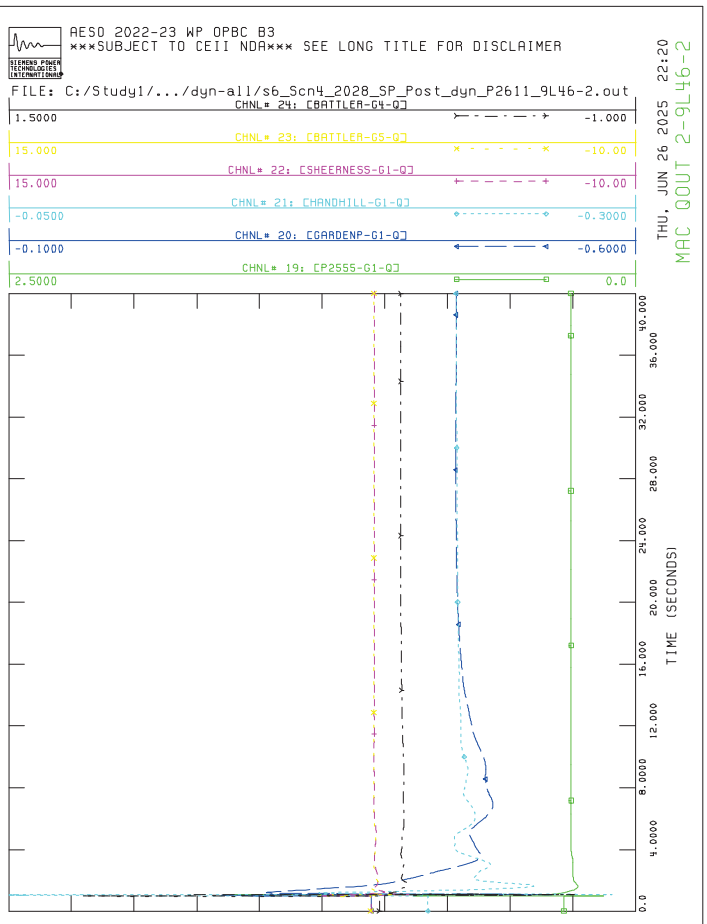

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:20
BUS VOL-9L46-1
TIME (SECONDS)

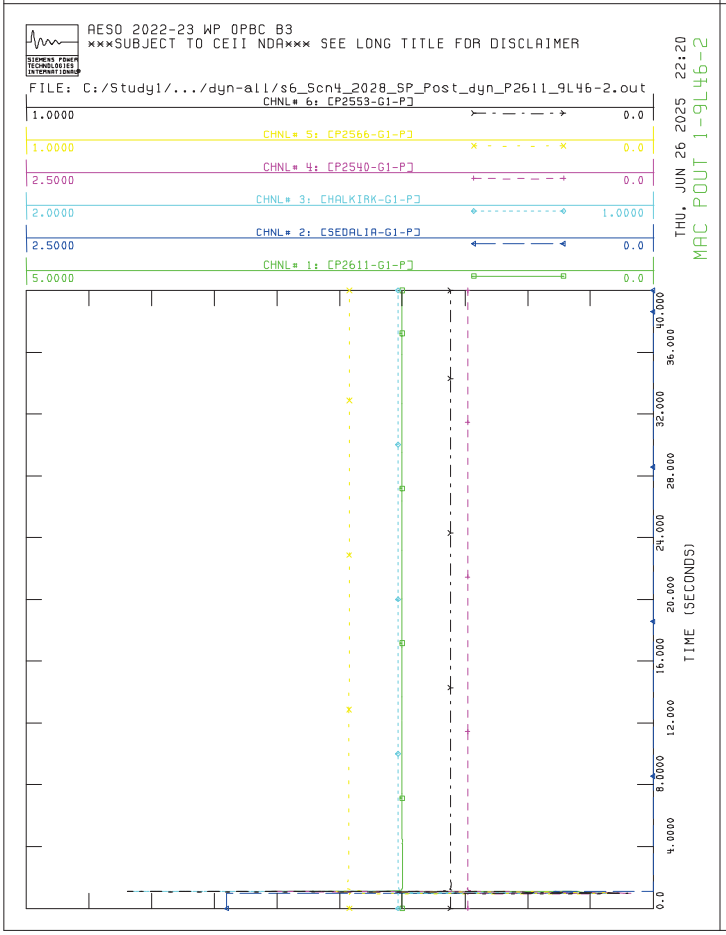

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s5_Scn4_2028_SP_Post_dyn_P2611_9L46-1.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:20
BRN Q FLOW-9L46-1
TIME (SECONDS)

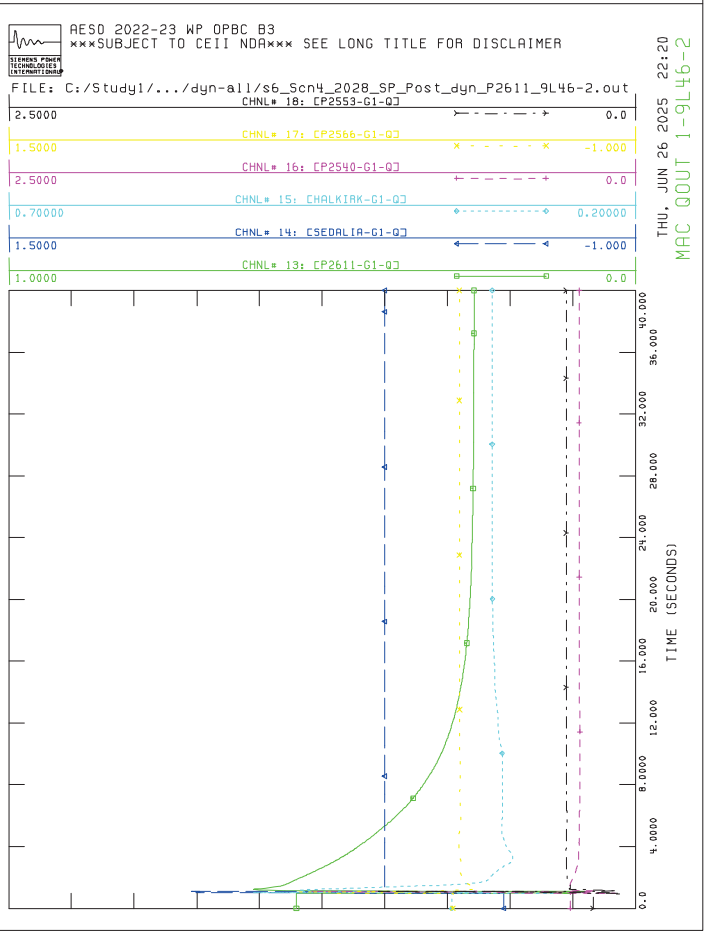

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
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THU, JUN 26 2025 22:20
SYNC MAC ANGLE-9L46-1
TIME (SECONDS)

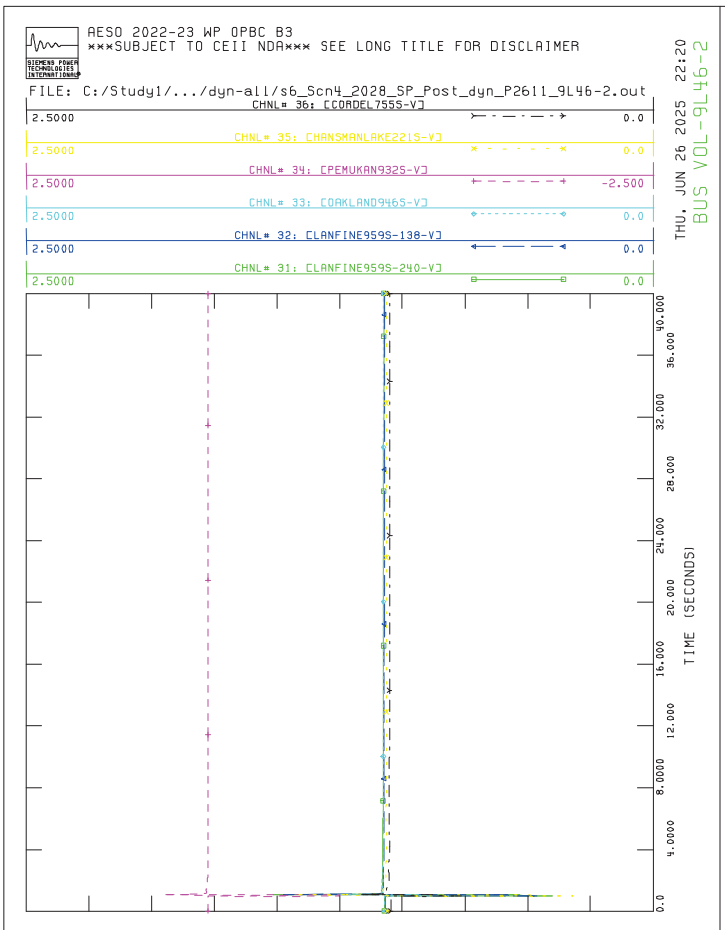

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
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BRN P FLOW-9L46-1
TIME (SECONDS)

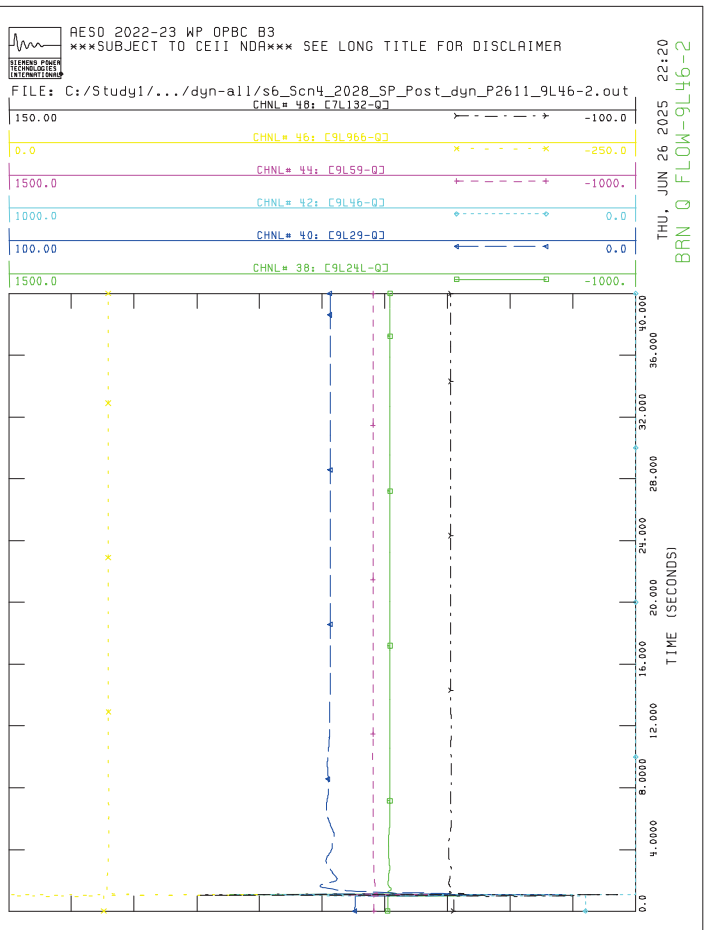

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-9L46-2

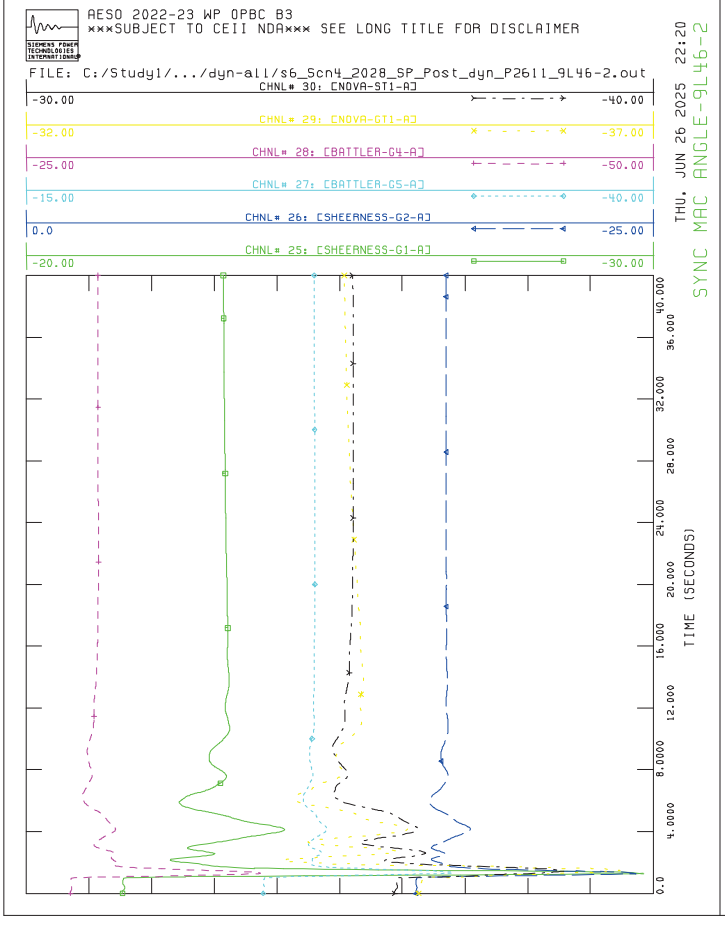

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-9L46-2

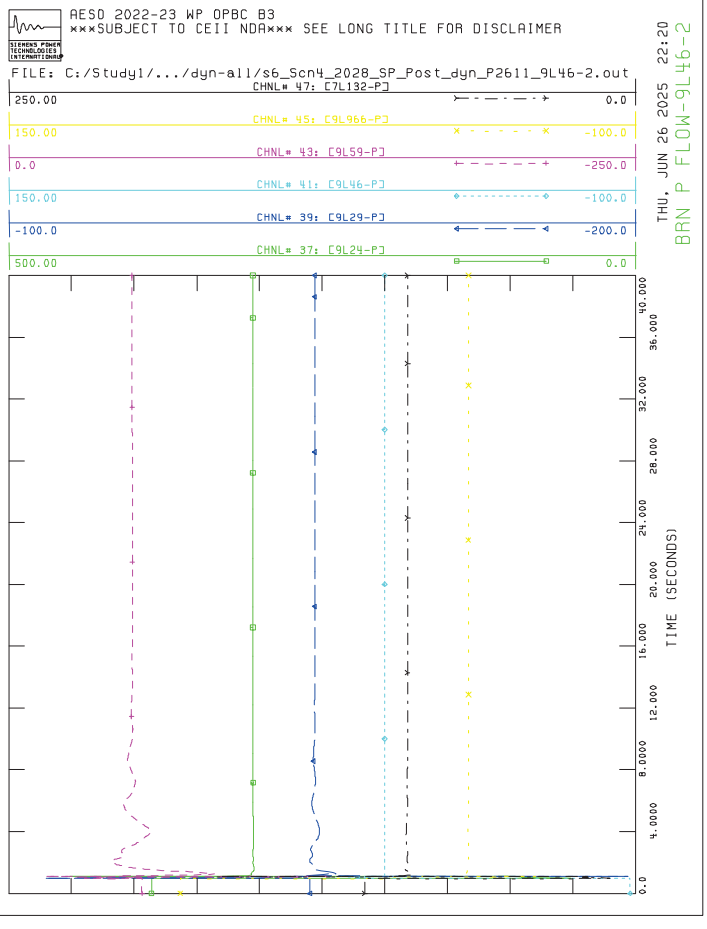

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-9L46-2

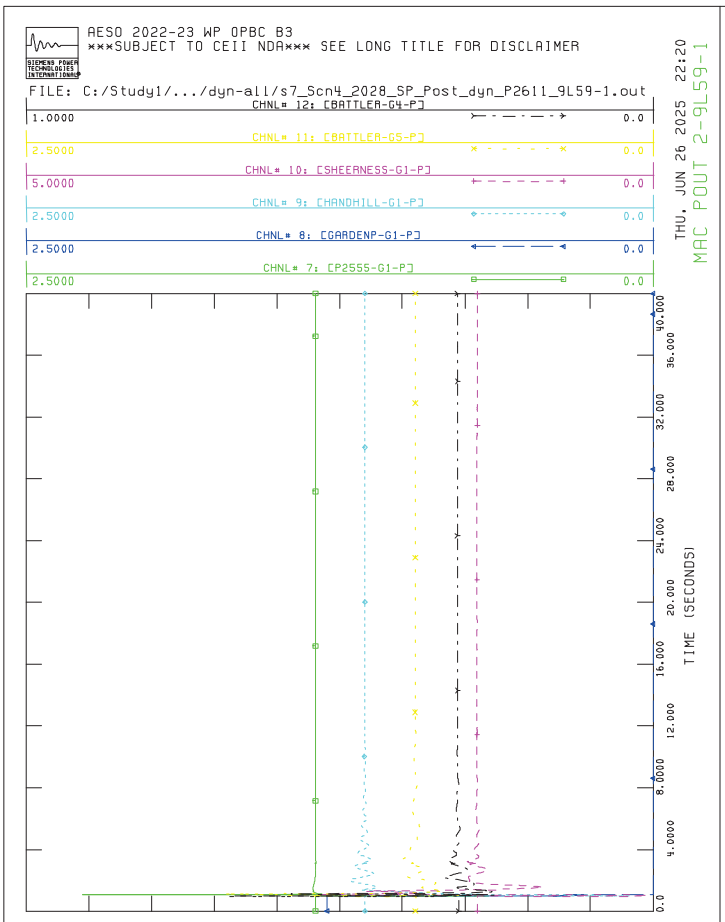

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
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TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-9L46-2

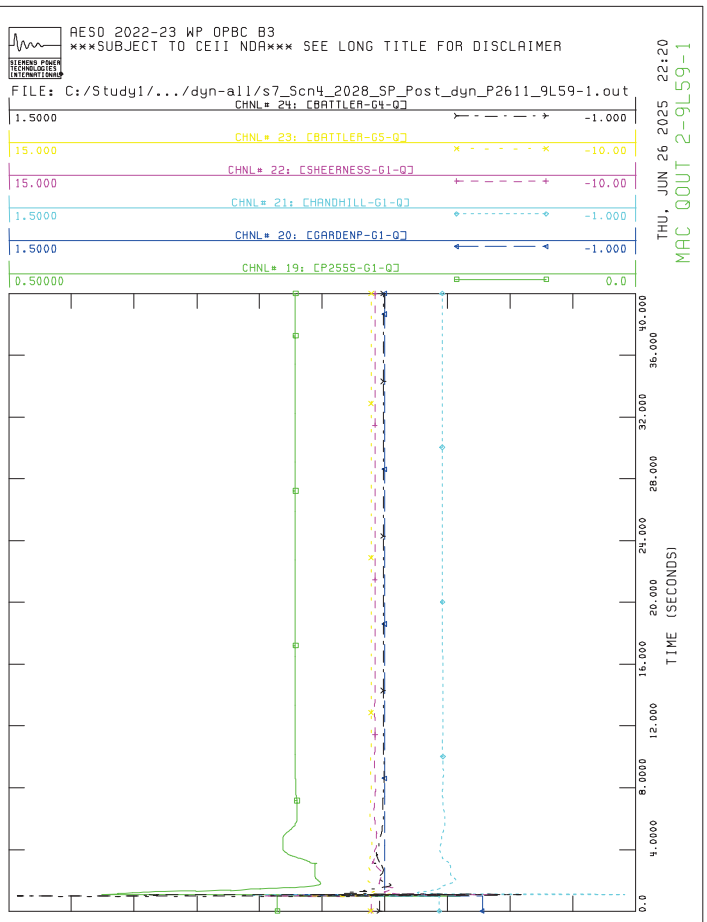

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:20
BUS VOL-9L46-2
TIME (SECONDS)

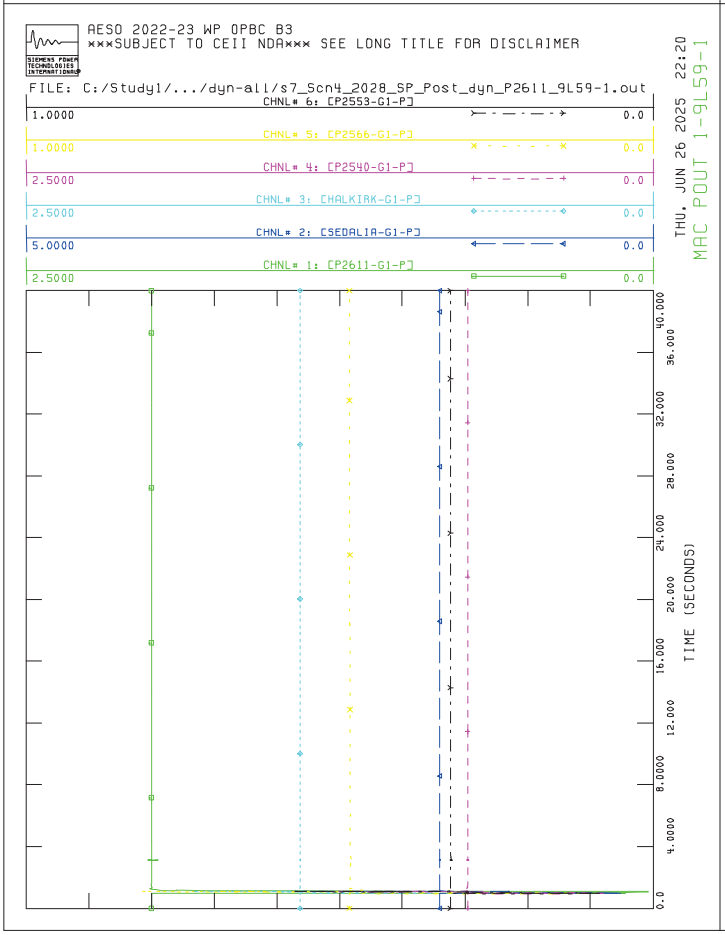

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s6_Scn4_2028_SP_Post_dyn_P2611_9L46-2.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:20
BRN Q FLOW-9L46-2
TIME (SECONDS)

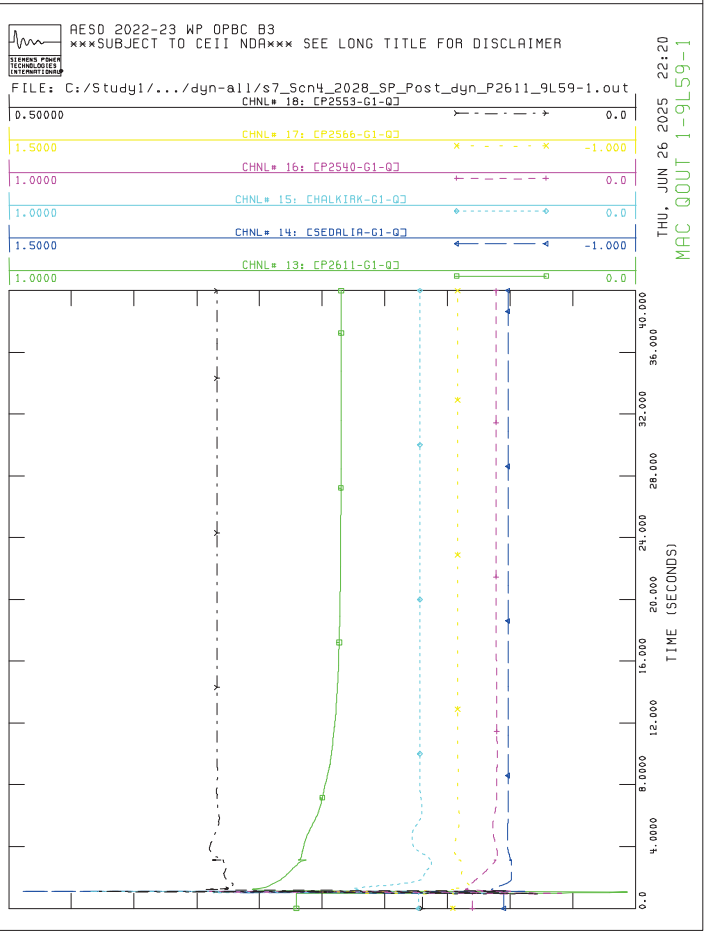

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s6_Scn4_2028_SP_Post_dyn_P2611_9L46-2.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-9L46-2
TIME (SECONDS)

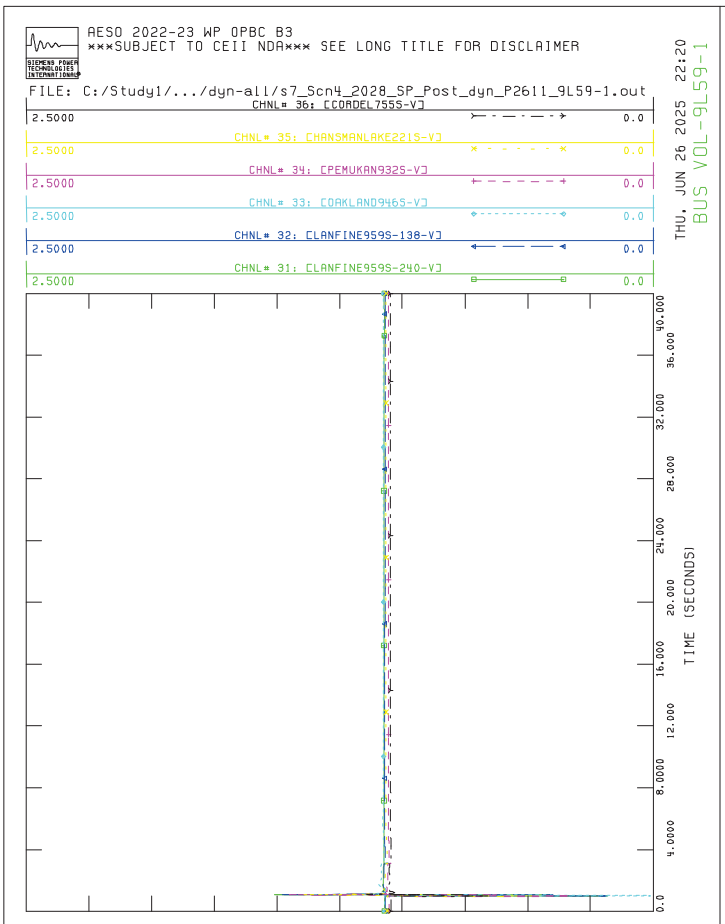

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:20
BRN P FLOW-9L46-2
TIME (SECONDS)

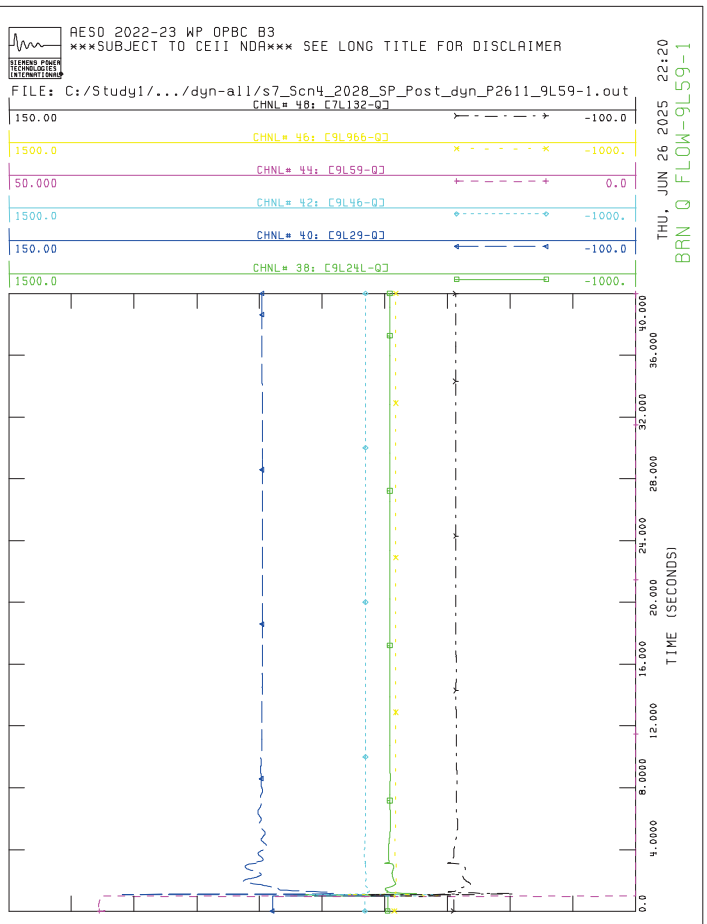

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-9L59-1

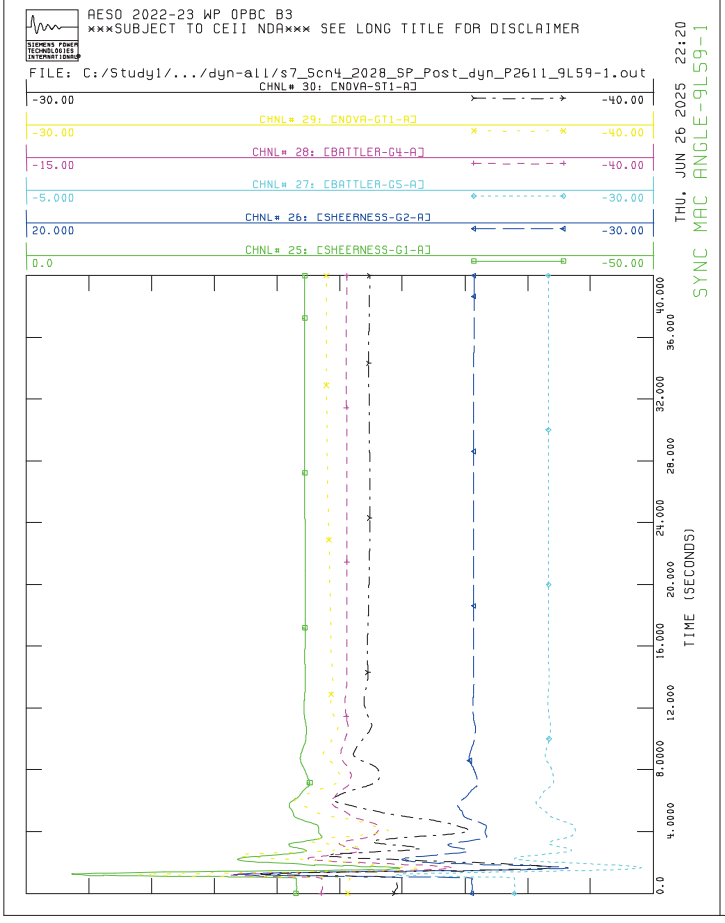

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-9L59-1

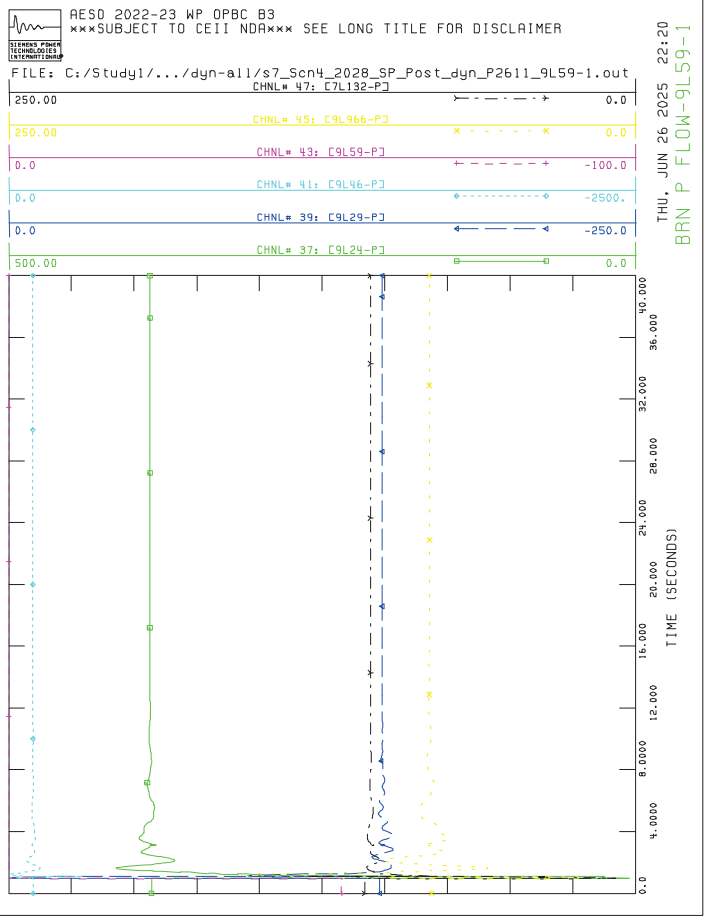

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-9L59-1

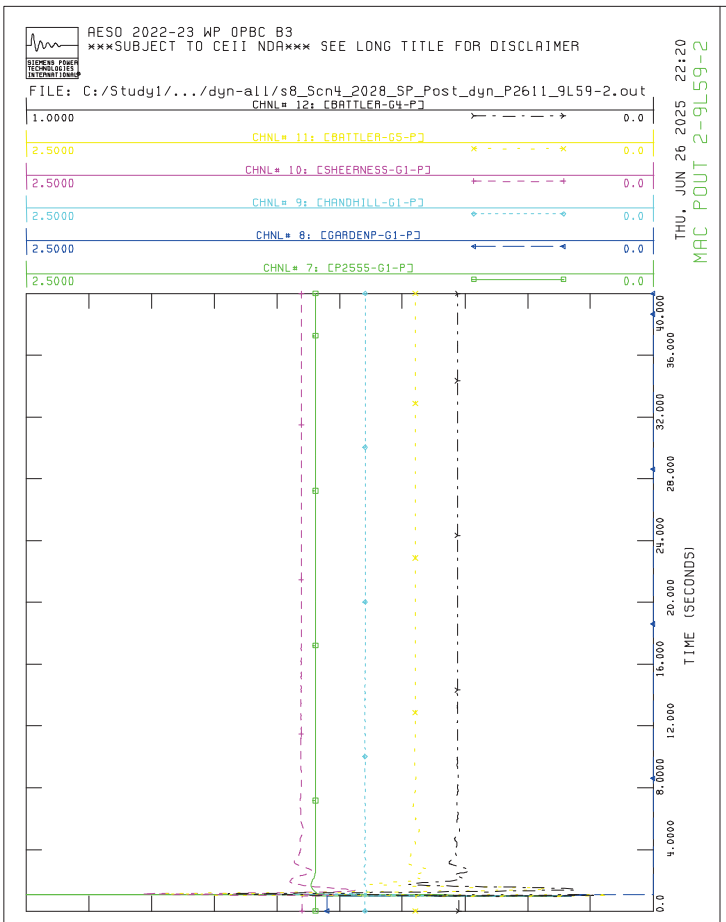

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-9L59-1

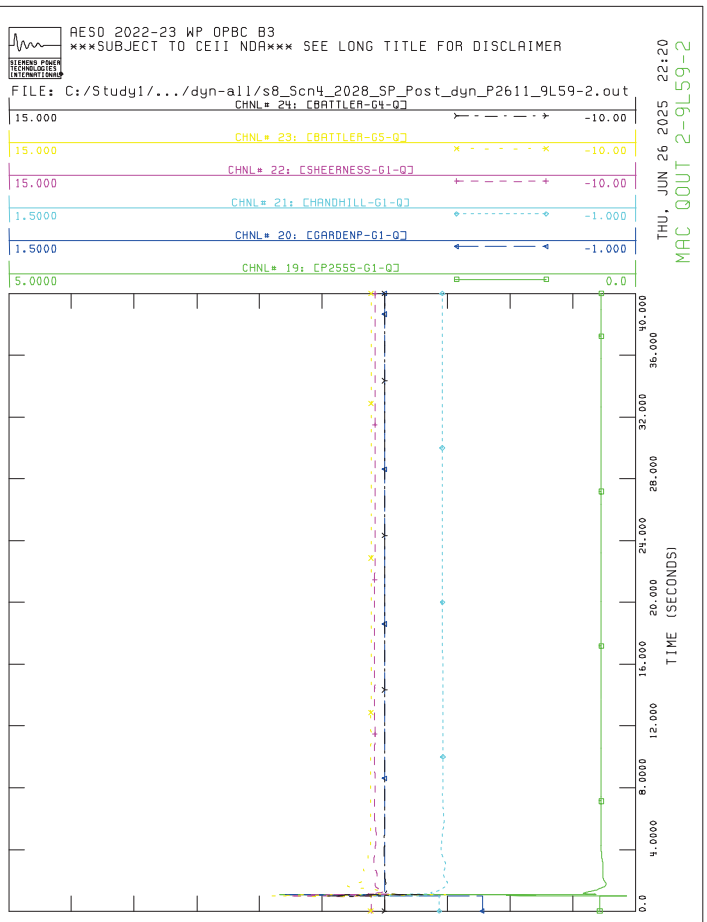

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE22LS-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
2.5000
0.0
TIME (SECONDS)
THU, JUN 26 2025 22:20
BUS VOL-9L59-1

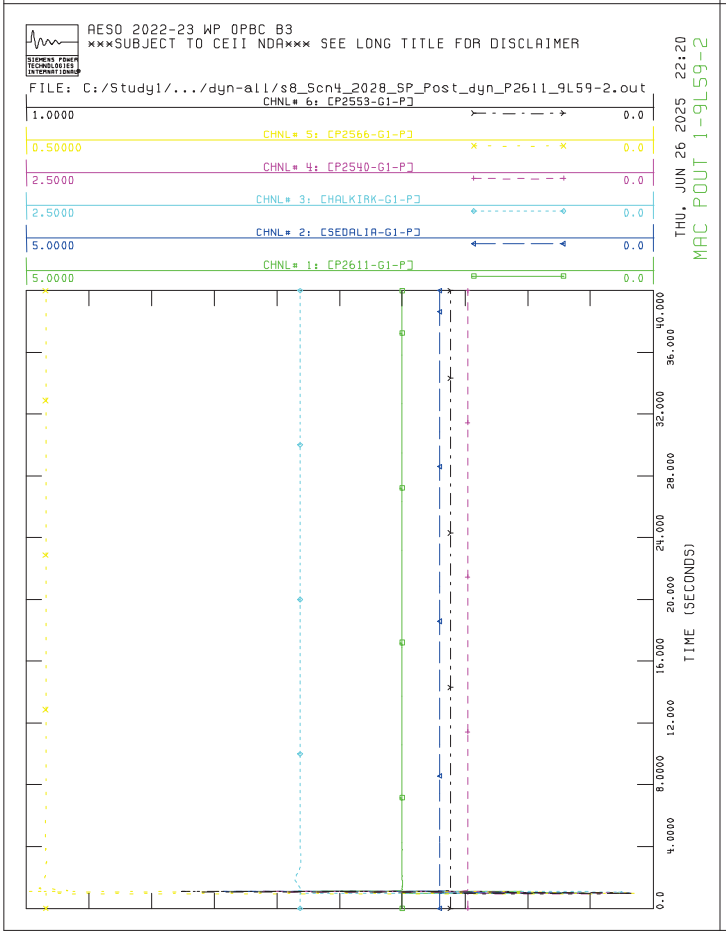

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
150.00
-100.0
50.000
0.0
1500.0
-1000.
TIME (SECONDS)
THU, JUN 26 2025 22:20
BRN Q FLOW-9L59-1

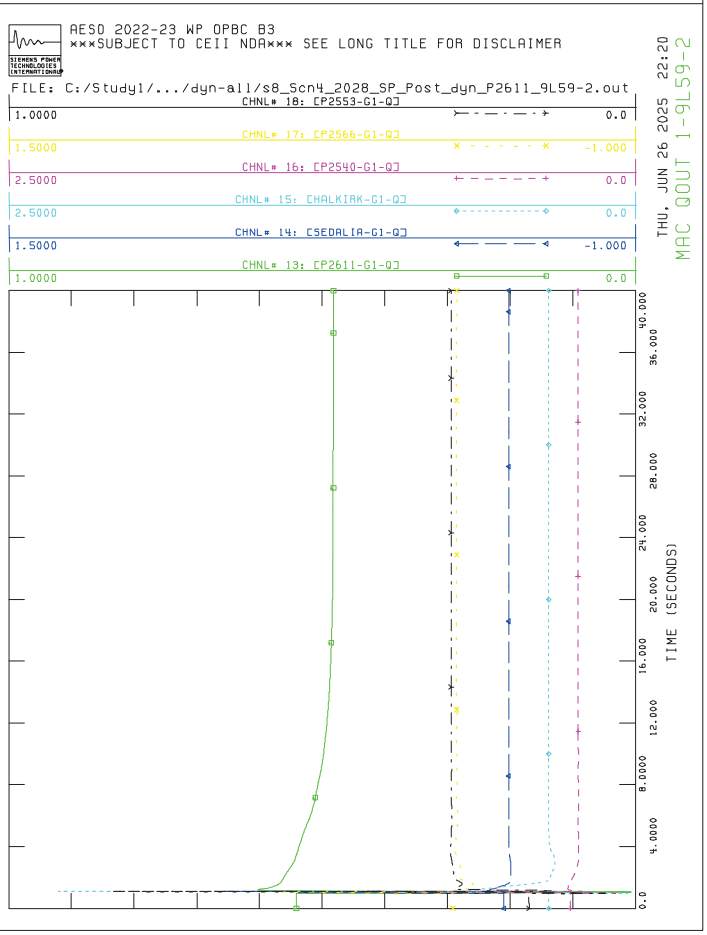

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
-30.00
-40.00
-15.00
-5.000
-30.00
20.000
0.0
-50.00
TIME (SECONDS)
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-9L59-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s7_Scn4_2028_SP_Post_dyn_P2611_9L59-1.out
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
CHNL= 39: C9L29-PJ
CHNL= 37: C9L24-PJ
250.00
0.0
-100.0
-2500.
-250.0
500.00
TIME (SECONDS)
THU, JUN 26 2025 22:20
BRN P FLOW-9L59-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s8_Scn4_2028_SP_Post_dyn_P2611_9L59-2.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s8_Scn4_2028_SP_Post_dyn_P2611_9L59-2.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s8_Scn4_2028_SP_Post_dyn_P2611_9L59-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s8_Scn4_2028_SP_Post_dyn_P2611_9L59-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-9L59-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s8_Scn4_2028_SP_Post_dyn_P2611_9L59-2.out

THU, JUN 26 2025 22:20

BUS VOL-9L59-2

CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE22LS-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s8_Scn4_2028_SP_Post_dyn_P2611_9L59-2.out

THU, JUN 26 2025 22:20

BRN Q FLOW-9L59-2

CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s8_Scn4_2028_SP_Post_dyn_P2611_9L59-2.out

THU, JUN 26 2025 22:20

SYNC MAC ANGLE-9L59-2

CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

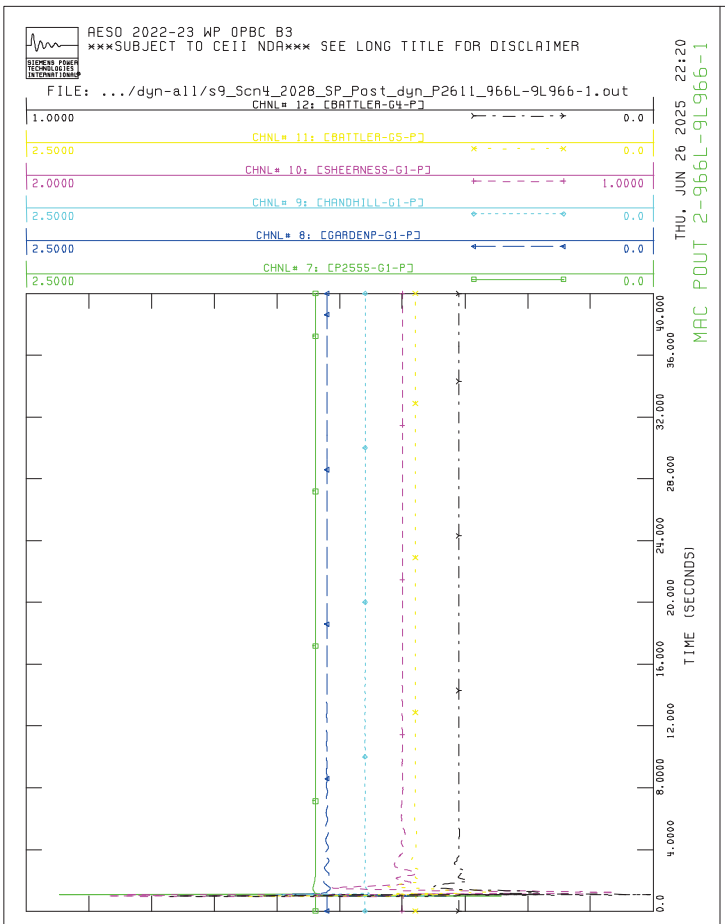
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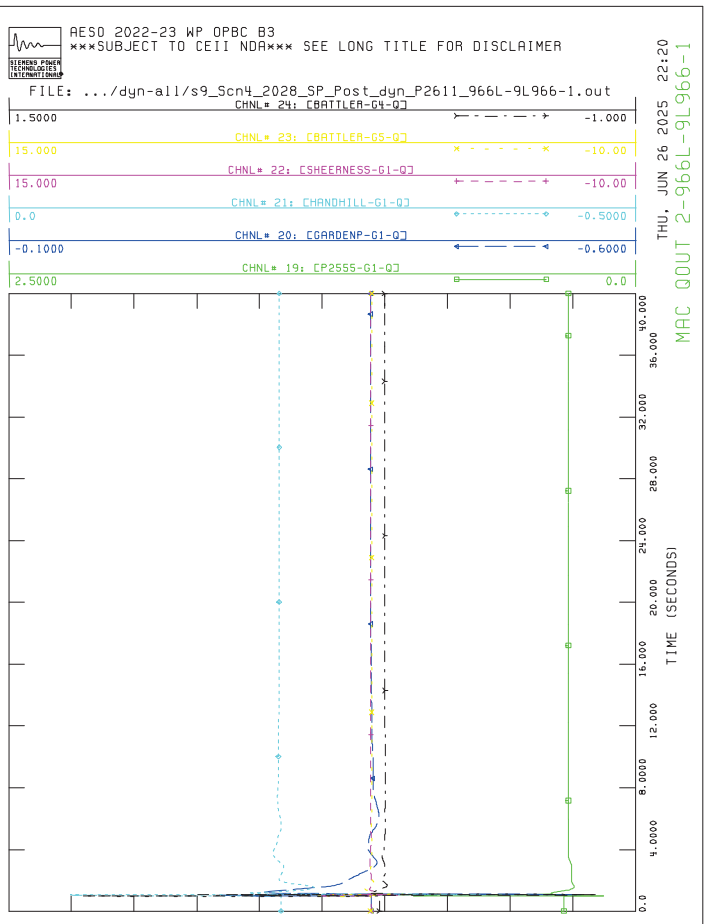
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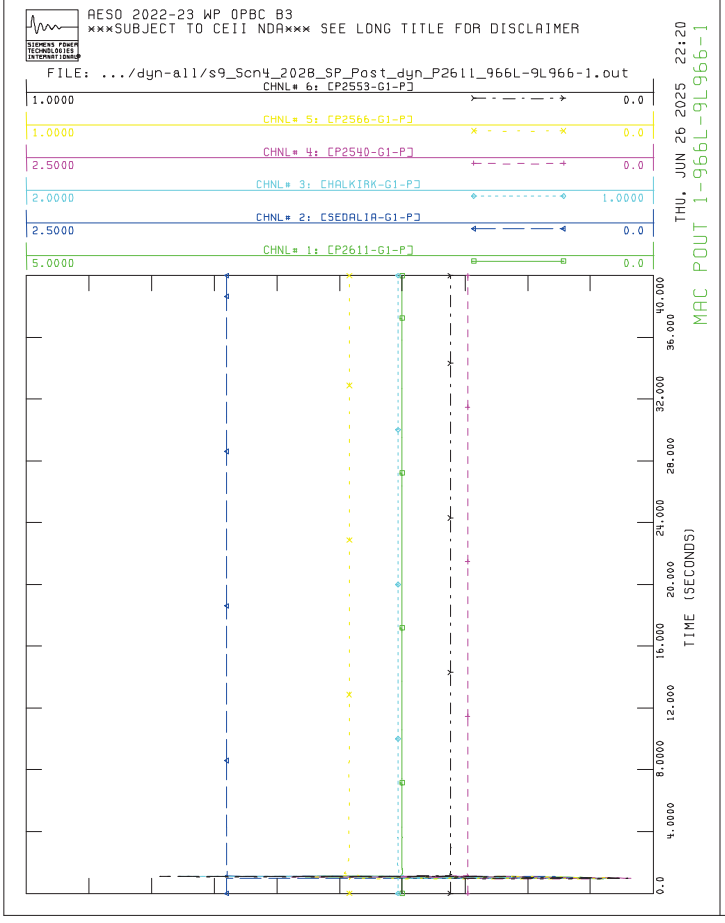
BRN P FLOW-9L59-2

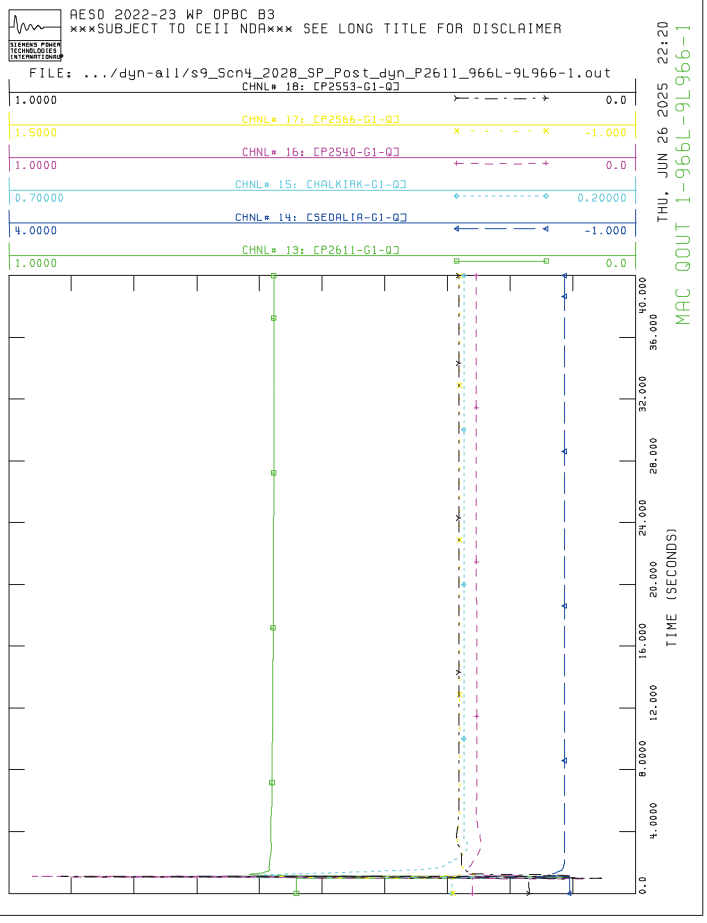
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
CHNL= 39: C9L29-PJ
CHNL= 37: C9L24-PJ

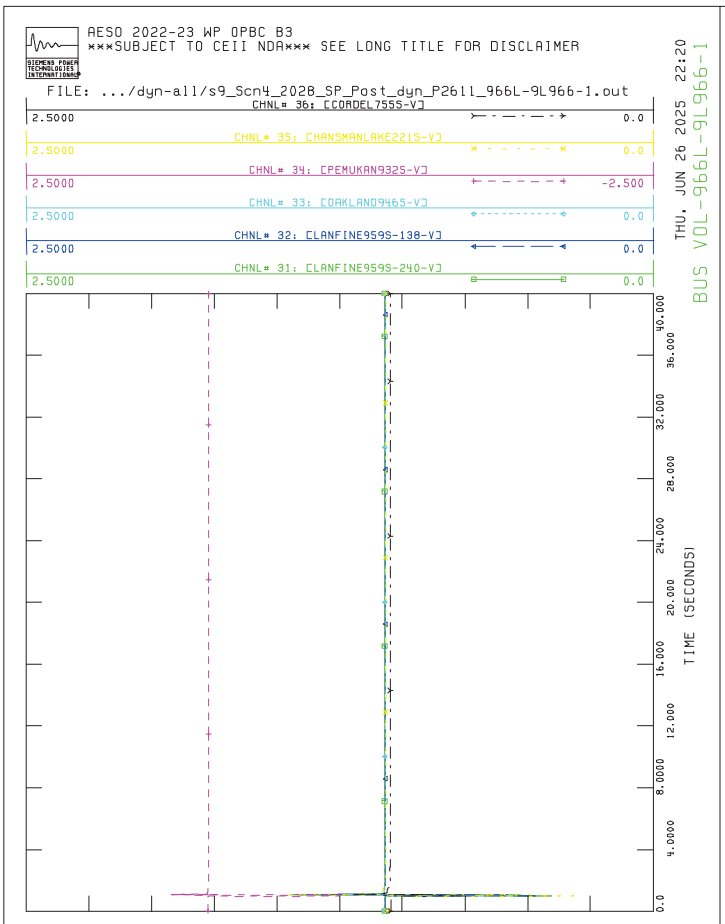
TIME (SECONDS)

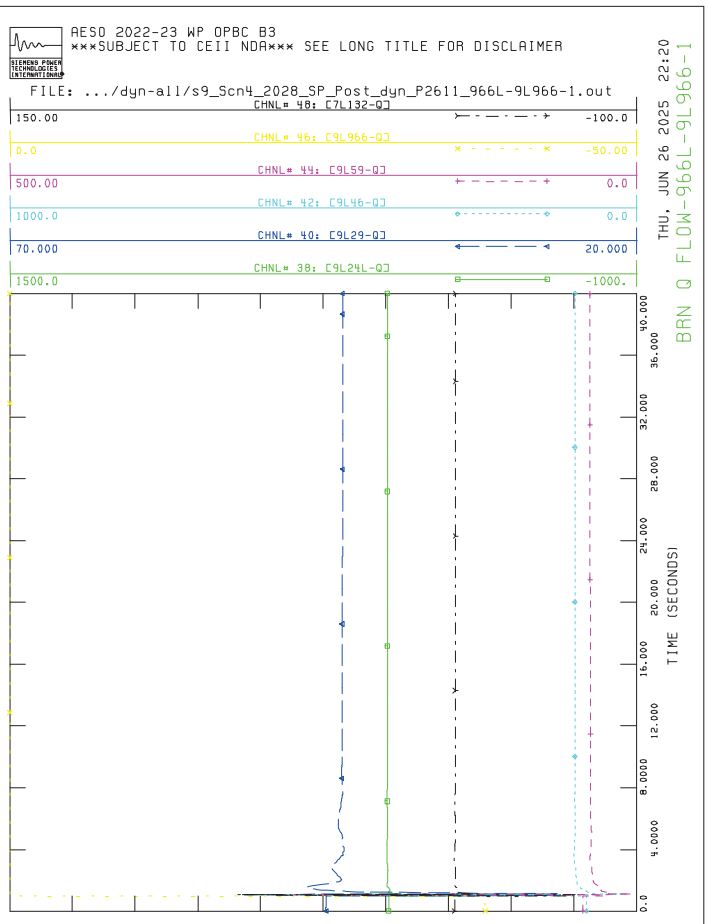

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 2-966L-9L966-1

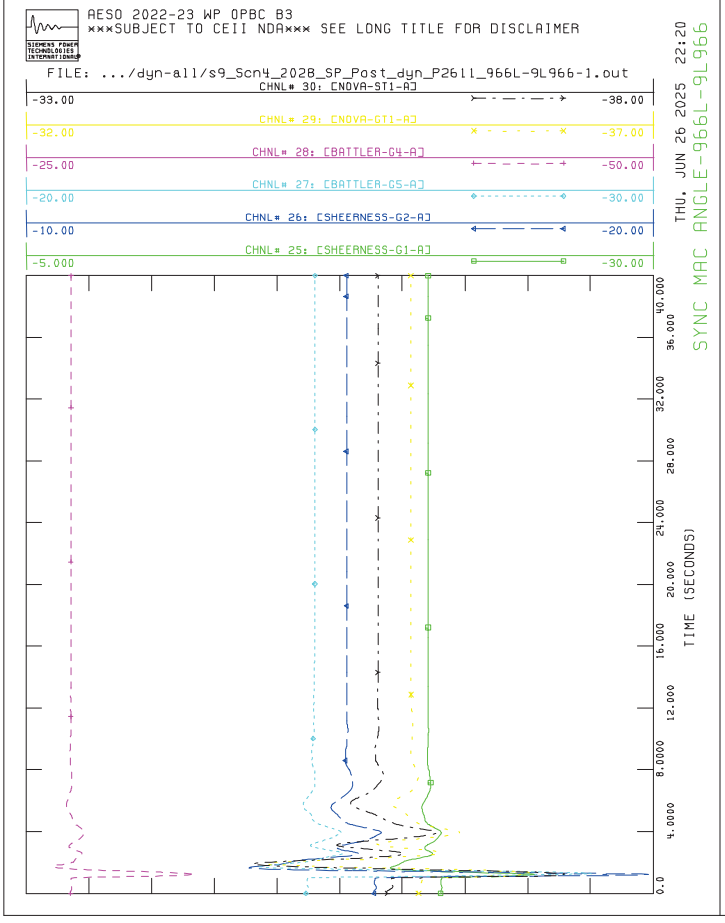

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 2-966L-9L966-1

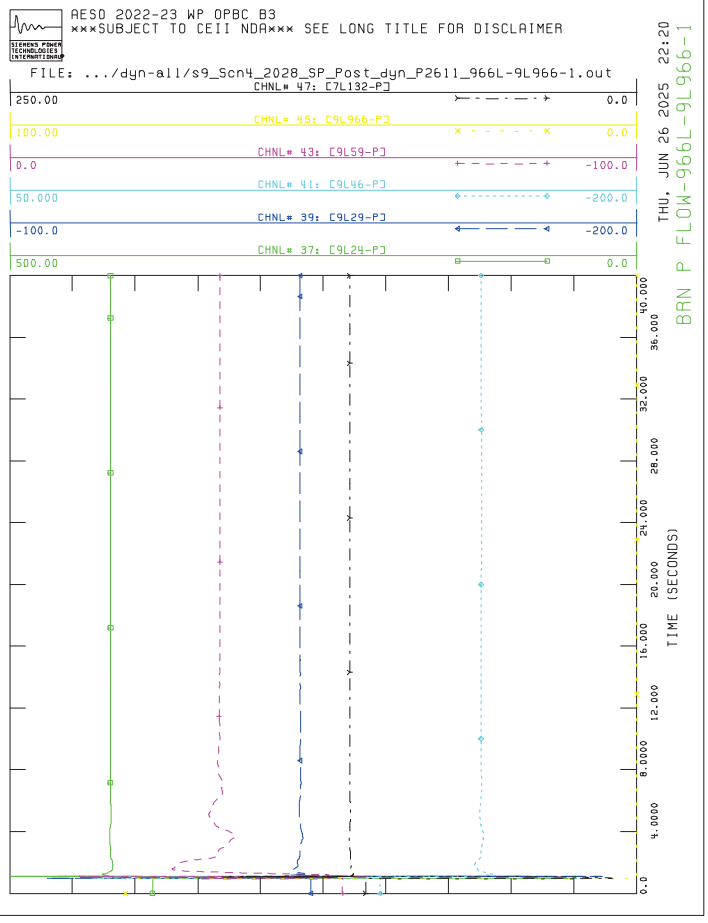

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC POUT 1-966L-9L966-1

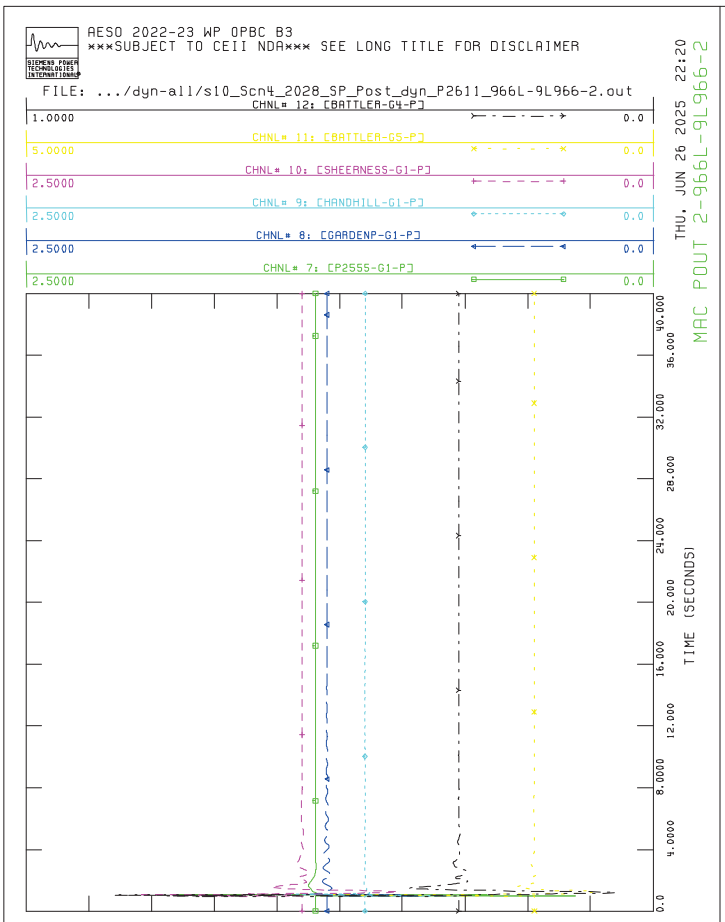

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
MAC QOUT 1-966L-9L966-1

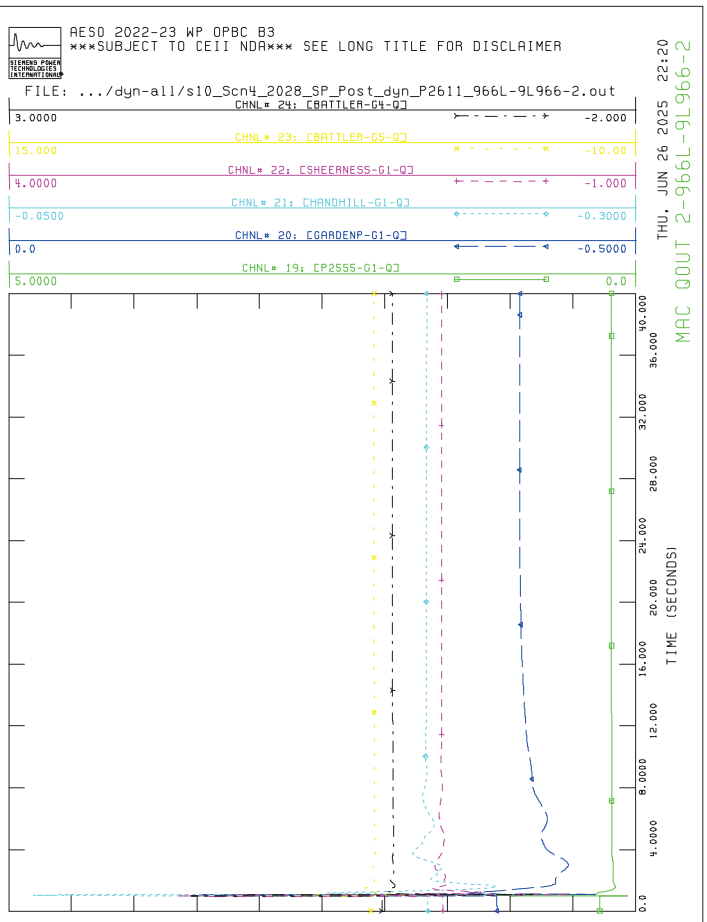

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
BUS VOL-966L-9L966-1

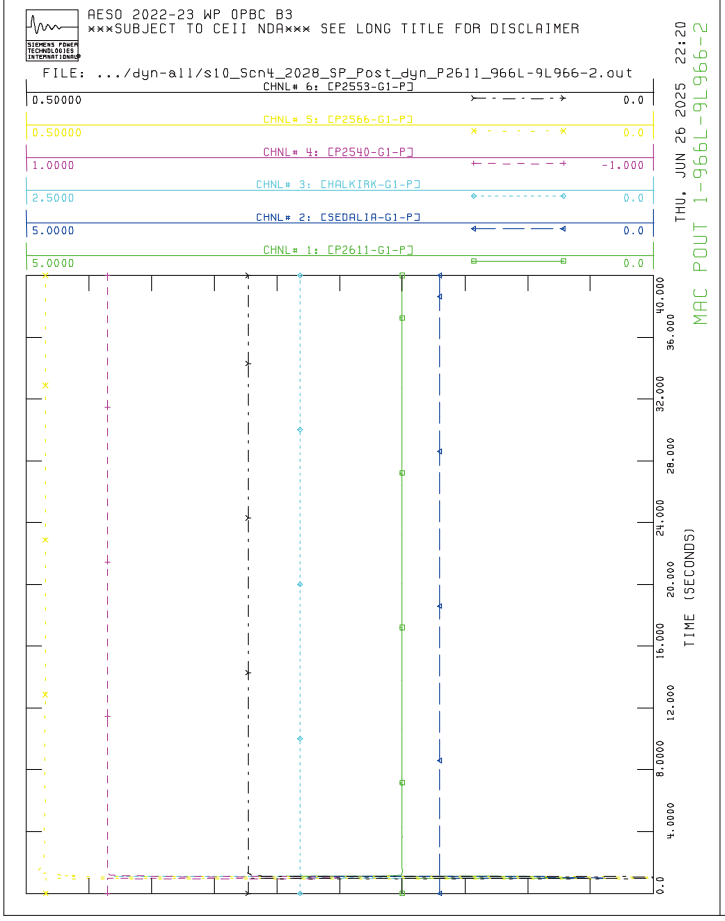

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s9_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-1.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
BRN Q FLOW-966L-9L966-1

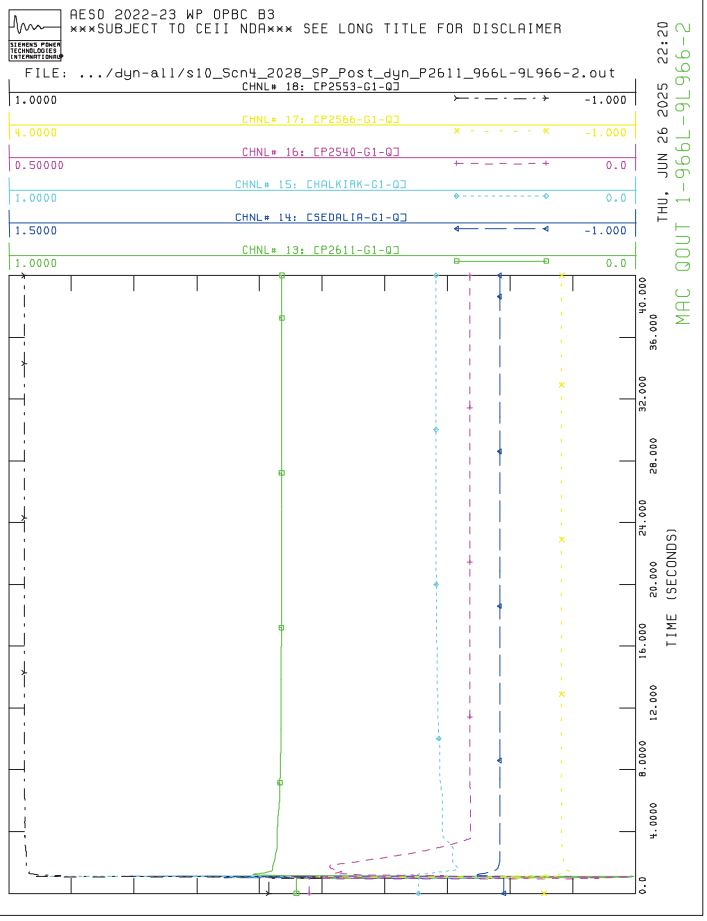

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s9_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-1.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-966L-9L966

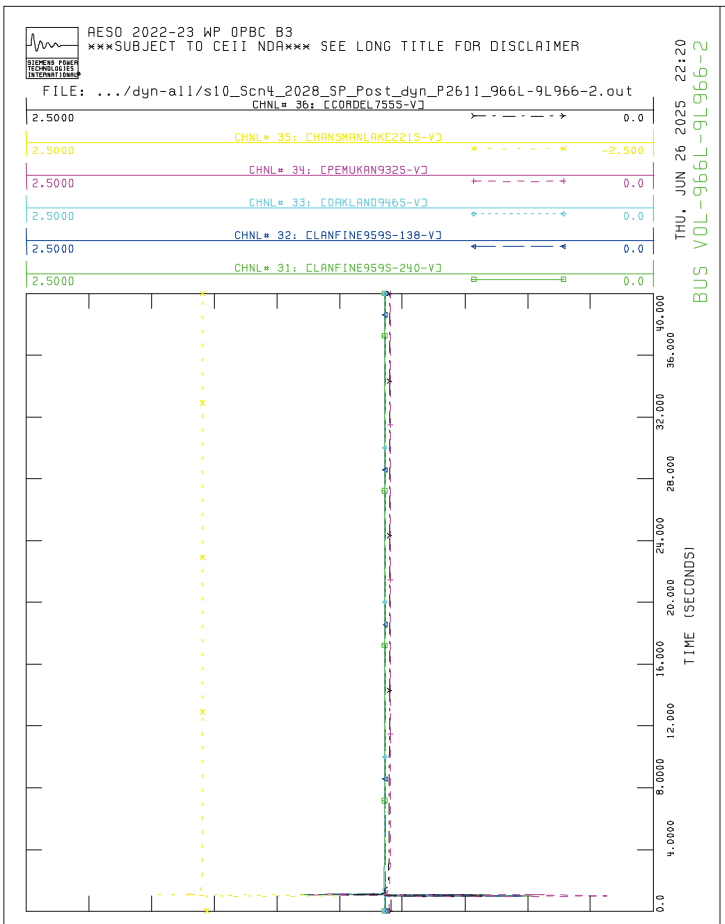

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s9_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-1.out
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:20
BRN P FLOW-966L-9L966-1

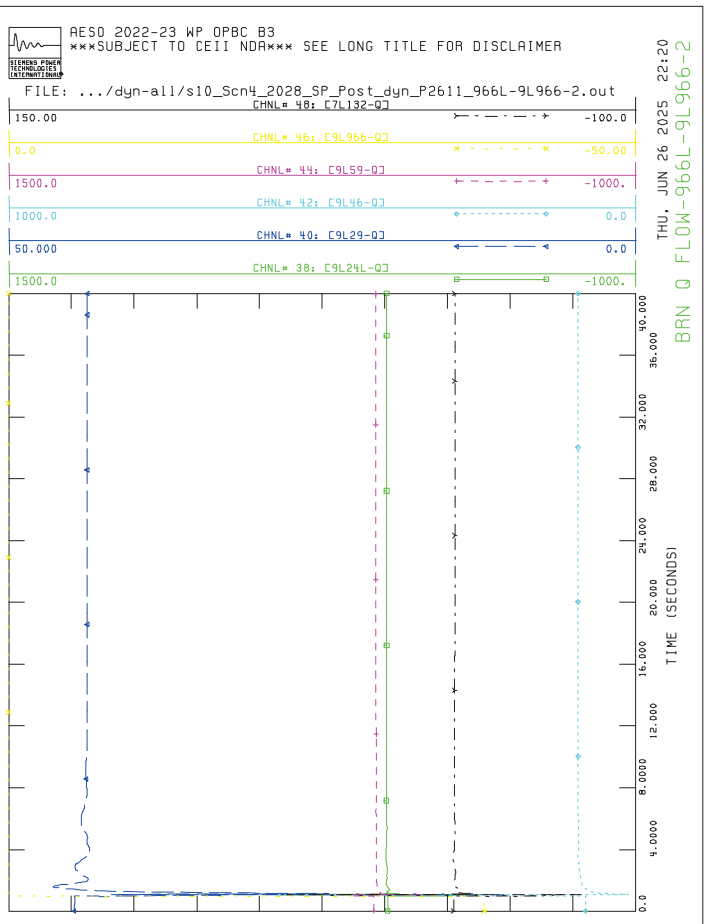

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
THU, JUN 26 2025 22:20
MAC POUT 2-966L-9L966-2
TIME (SECONDS)

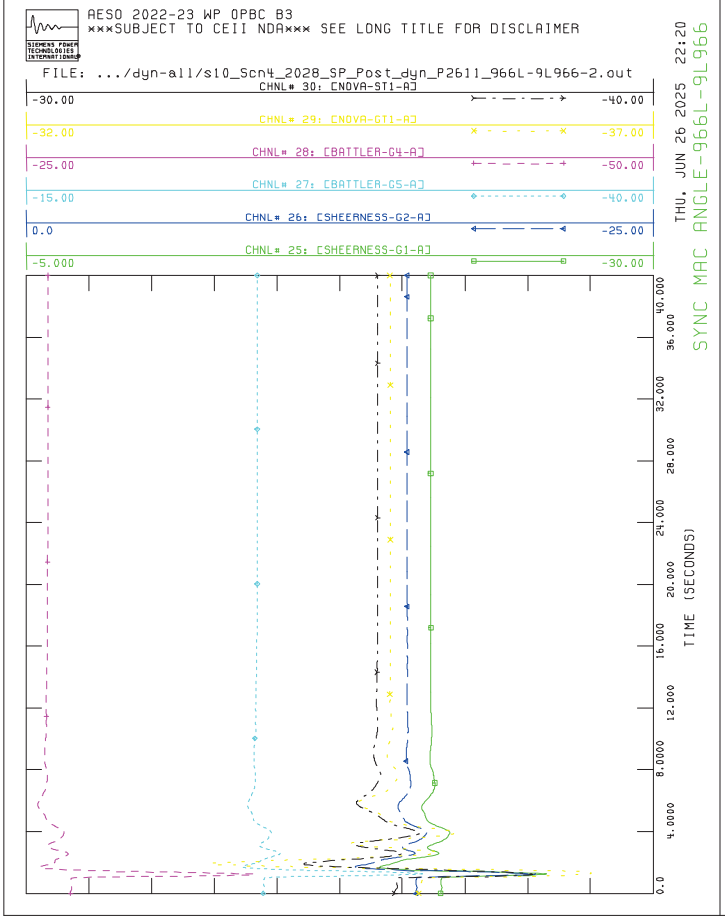

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
THU, JUN 26 2025 22:20
MAC QOUT 2-966L-9L966-2
TIME (SECONDS)

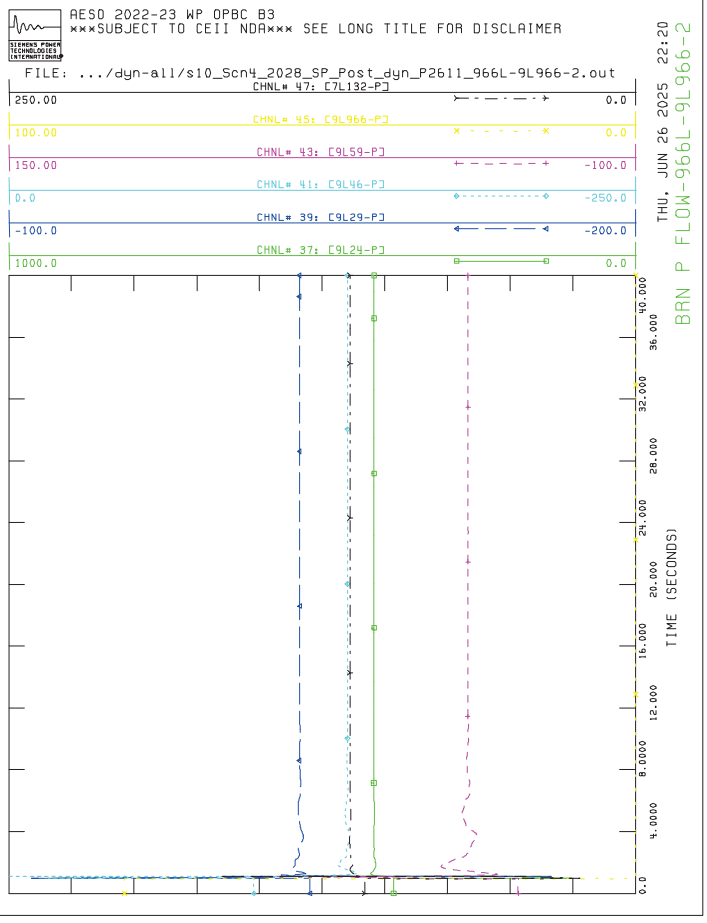

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
THU, JUN 26 2025 22:20
MAC POUT 1-966L-9L966-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
THU, JUN 26 2025 22:20
MAC QOUT 1-966L-9L966-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE22LS-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:20
BUS VOL-966L-9L966-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
THU, JUN 26 2025 22:20
BRN Q FLOW-966L-9L966-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-966L-9L966
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s10_Scn4_2028_SP_Post_dyn_P2611_966L-9L966-2.out
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
CHNL= 39: C9L29-PJ
CHNL= 37: C9L24-PJ
THU, JUN 26 2025 22:20
BRN P FLOW-966L-9L966-2
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s11_Scn4_2028_SP_Post_dyn_P2611_760L-1.out

THU, JUN 26 2025 22:20
MAC POUT 2-760L-1

CHNL# 12: CBATTLEA-G4-PJ 1.0000 0.0
CHNL# 11: CBATTLEA-G5-PJ 2.5000 0.0
CHNL# 10: CSHEERNESS-G1-PJ 2.0000 1.0000
CHNL# 9: CHANDHILL-G1-PJ 2.5000 0.0
CHNL# 8: CGARDENP-G1-PJ 2.0000 1.0000
CHNL# 7: CP2555-G1-PJ 2.0000 1.0000

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s11_Scn4_2028_SP_Post_dyn_P2611_760L-1.out

THU, JUN 26 2025 22:20
MAC QOUT 2-760L-1

CHNL# 24: CBATTLEA-G4-QJ 1.5000 -1.000
CHNL# 23: CBATTLEA-G5-QJ 4.0000 -1.000
CHNL# 22: CSHEERNESS-G1-QJ 2.5000 0.0
CHNL# 21: CHANDHILL-G1-QJ 0.0 -0.2500
CHNL# 20: CGARDENP-G1-QJ -0.2500 -0.5000
CHNL# 19: CP2555-G1-QJ 0.70000 0.20000

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s11_Scn4_2028_SP_Post_dyn_P2611_760L-1.out

THU, JUN 26 2025 22:20
MAC POUT 1-760L-1

CHNL# 6: CP2553-G1-PJ 0.45000 0.20000
CHNL# 5: CP2566-G1-PJ 0.80000 0.30000
CHNL# 4: CP2540-G1-PJ 1.0000 0.0
CHNL# 3: CHALKIRK-G1-PJ 2.0000 1.0000
CHNL# 2: CSEDALIA-G1-PJ 5.0000 0.0
CHNL# 1: CP2611-G1-PJ 5.0000 0.0

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

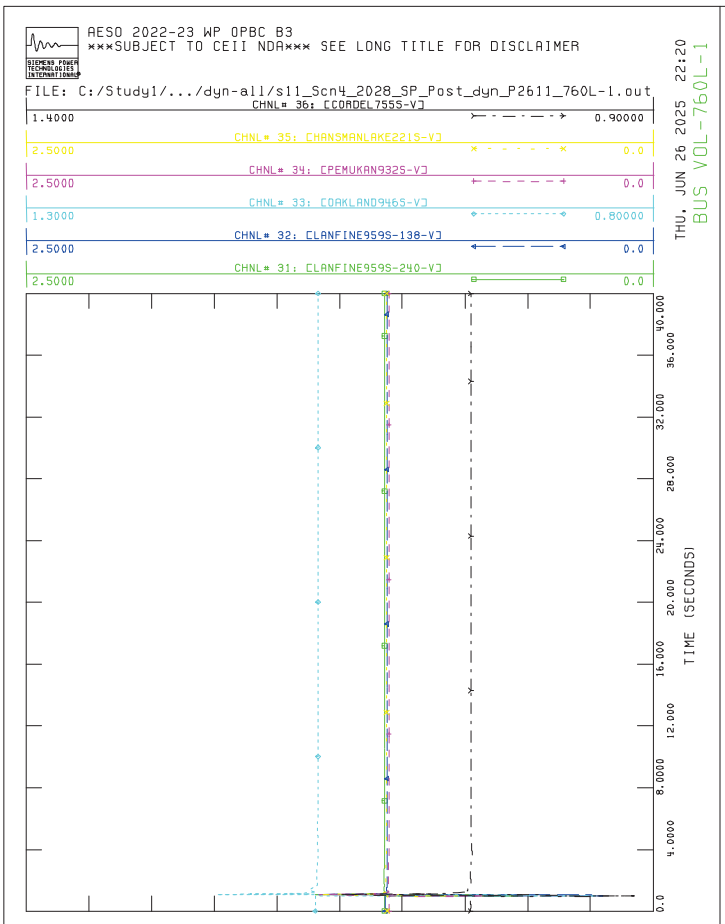
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

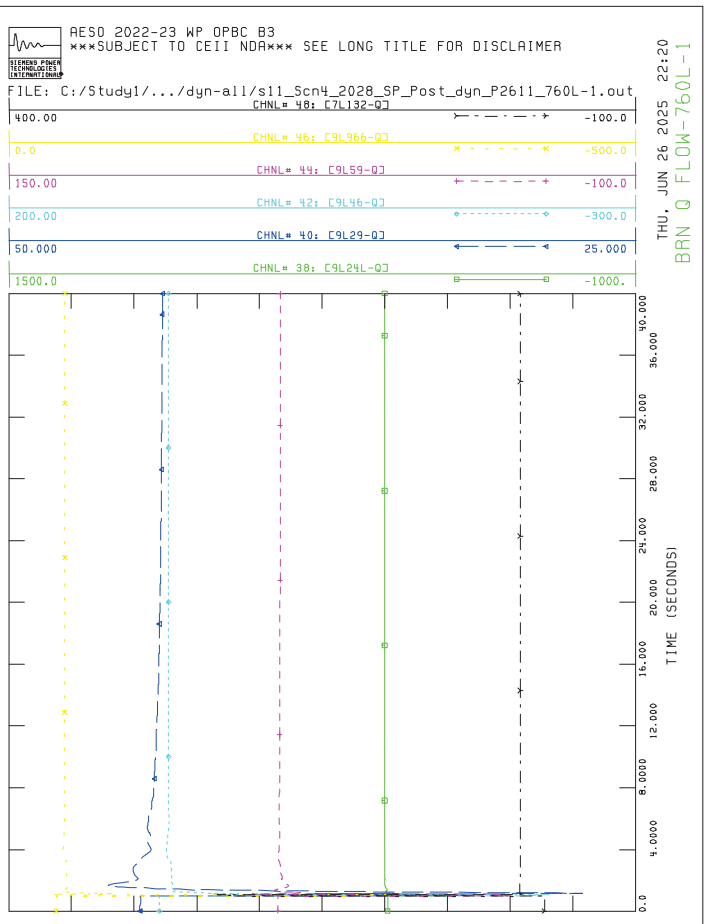
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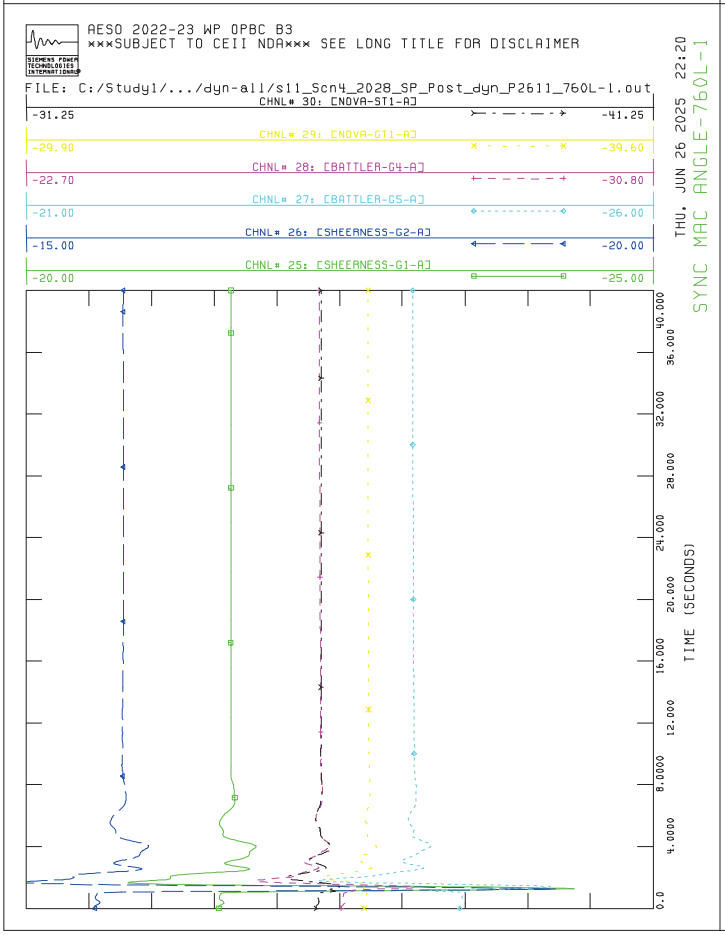
THU, JUN 26 2025 22:20
MAC QOUT 1-760L-1

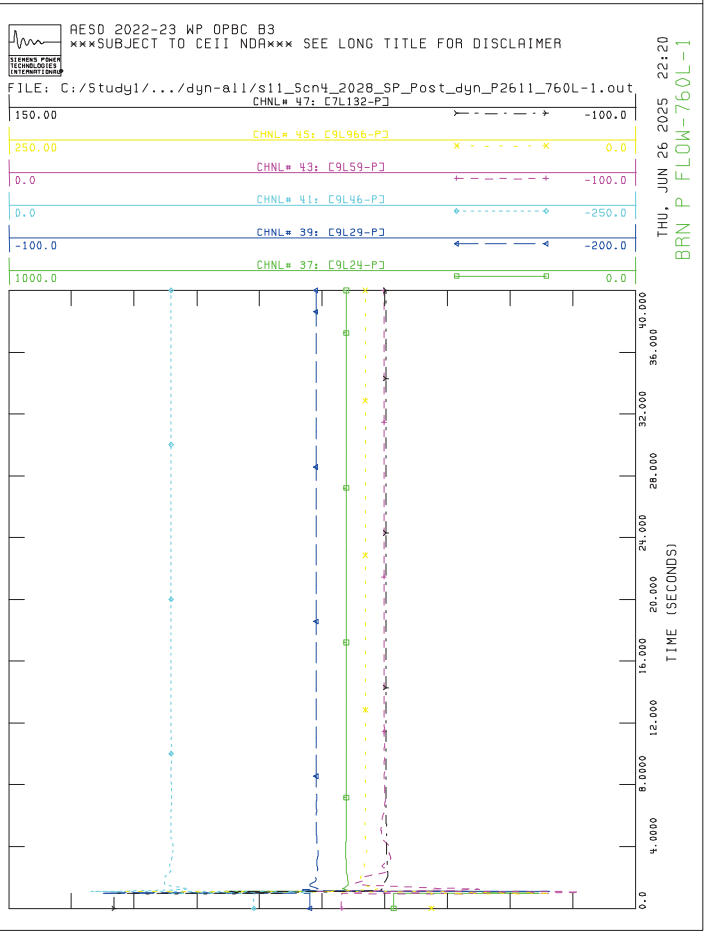
CHNL# 18: CP2553-G1-QJ 0.50000 0.0
CHNL# 17: CP2566-G1-QJ 1.5000 -1.000
CHNL# 16: CP2540-G1-QJ 0.50000 0.0
CHNL# 15: CHALKIRK-G1-QJ 0.50000 0.25000
CHNL# 14: CSEDALIA-G1-QJ 1.5000 -1.000
CHNL# 13: CP2611-G1-QJ 1.0000 0.0

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s11_Scn4_2028_SP_Post_dyn_P2611_760L-1.out
CHNL= 36: CCORDEL755S-VJ
1.4000
0.90000
CHNL= 35: CHANSMANLAKE22LS-VJ
2.5000
0.0
CHNL= 34: CPEMUKAN932S-VJ
2.5000
0.0
CHNL= 33: COAKLAND946S-VJ
1.3000
0.80000
CHNL= 32: CLANFINE959S-138-VJ
2.5000
0.0
CHNL= 31: CLANFINE959S-240-VJ
2.5000
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:20
BUS VOL-760L-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s11_Scn4_2028_SP_Post_dyn_P2611_760L-1.out
CHNL= 48: C7L132-QJ
400.00
-100.0
CHNL= 46: C9L966-QJ
0.0
-500.0
CHNL= 44: C9L59-QJ
150.00
-100.0
CHNL= 42: C9L46-QJ
200.00
-300.0
CHNL= 40: C9L29-QJ
50.000
25.000
CHNL= 38: C9L24L-QJ
1500.0
-1000.
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:20
BRN Q FLOW-760L-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s11_Scn4_2028_SP_Post_dyn_P2611_760L-1.out
CHNL= 30: CNOVA-ST1-AJ
-31.25
-41.25
CHNL= 29: CNOVA-GT1-AJ
-29.90
-39.60
CHNL= 28: CBATTLER-G4-AJ
-22.70
-30.80
CHNL= 27: CBATTLER-G5-AJ
-21.00
-26.00
CHNL= 26: CSHEERNESS-G2-AJ
-15.00
-20.00
CHNL= 25: CSHEERNESS-G1-AJ
-20.00
-25.00
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-760L-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s11_Scn4_2028_SP_Post_dyn_P2611_760L-1.out
CHNL= 47: C7L132-PJ
150.00
-100.0
CHNL= 45: C9L966-PJ
250.00
0.0
CHNL= 43: C9L59-PJ
0.0
-100.0
CHNL= 41: C9L46-PJ
0.0
-250.0
CHNL= 39: C9L29-PJ
-100.0
-200.0
CHNL= 37: C9L24-PJ
1000.0
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:20
BRN P FLOW-760L-1

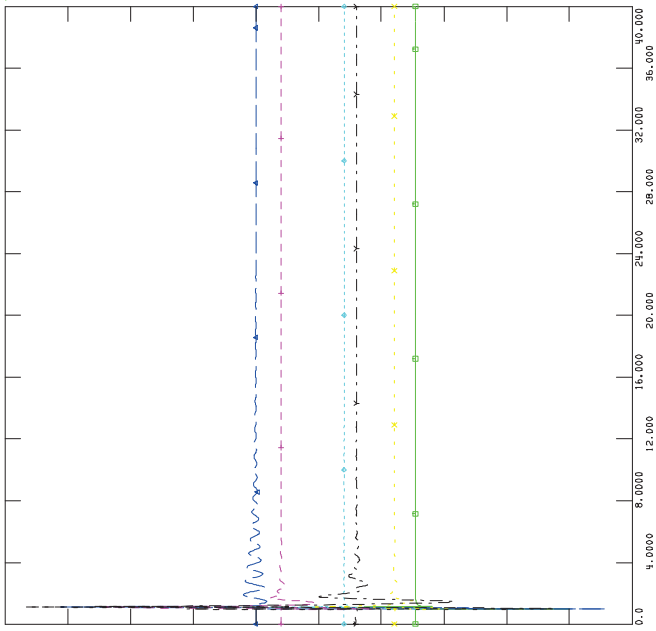
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out

THU, JUN 26 2025 22:20
MAC POUT 2-760L-2

CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]

TIME (SECONDS)



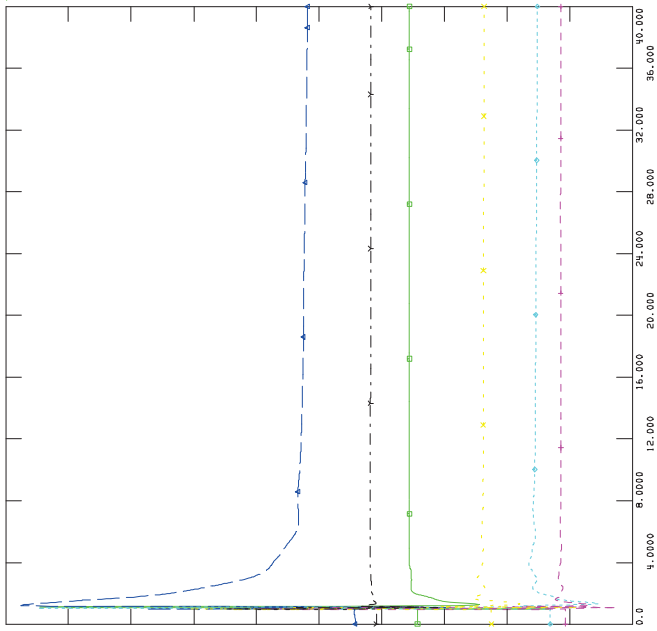
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out

THU, JUN 26 2025 22:20
MAC QOUT 2-760L-2

CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]

TIME (SECONDS)



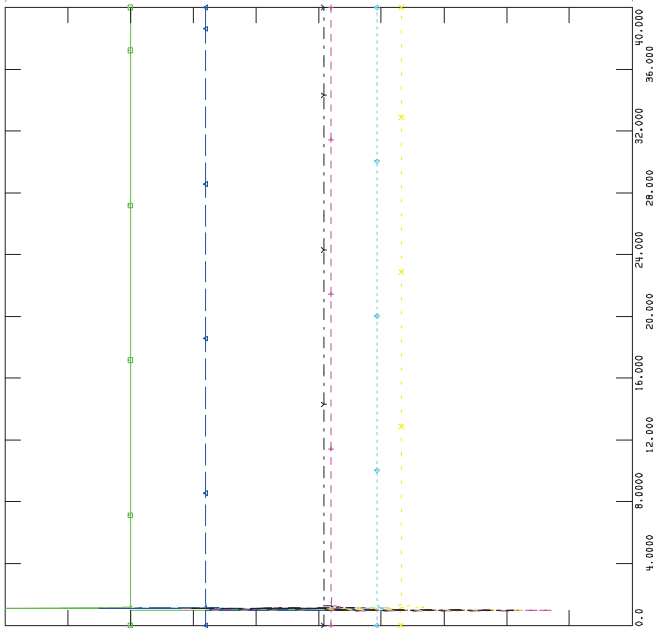
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out

THU, JUN 26 2025 22:20
MAC POUT 1-760L-2

CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [HALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]

TIME (SECONDS)



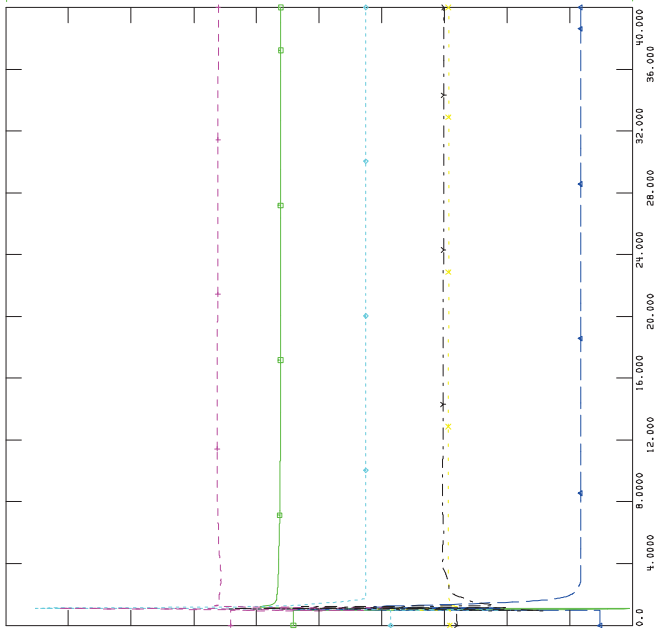
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

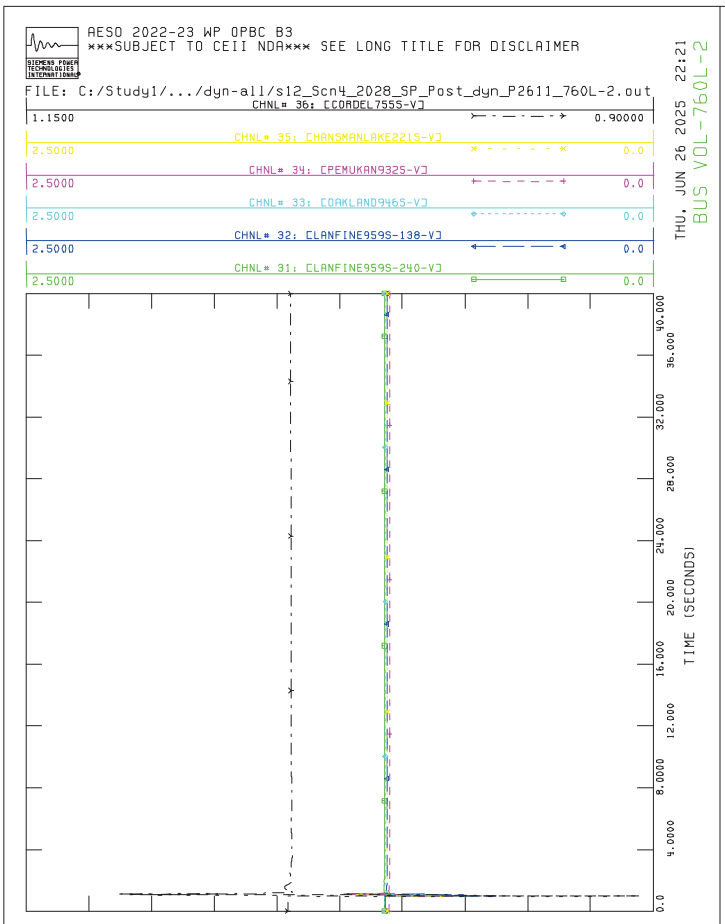
FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out

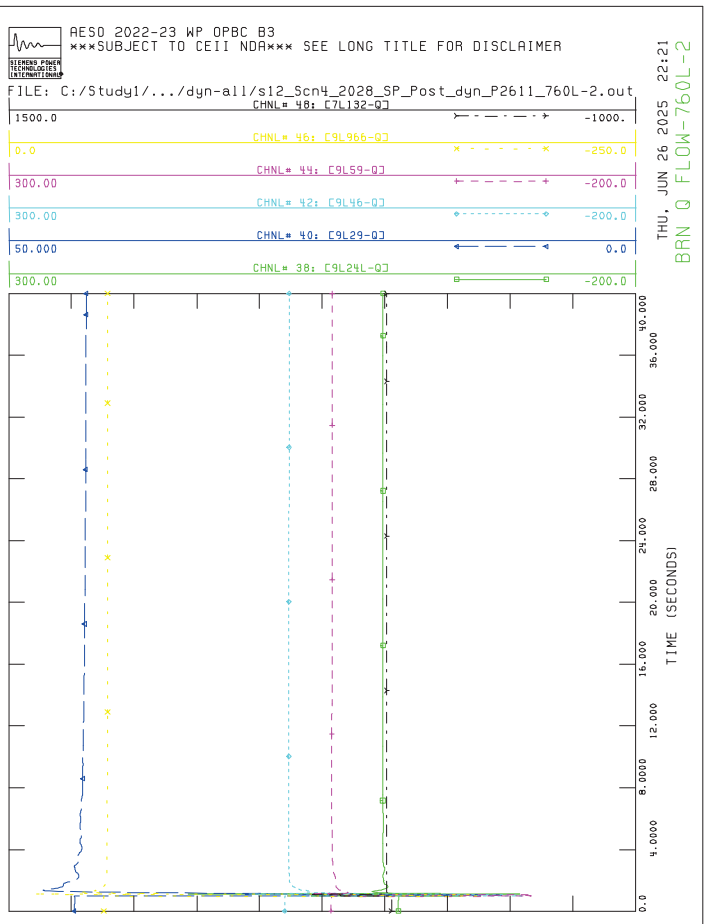
THU, JUN 26 2025 22:20
MAC QOUT 1-760L-2

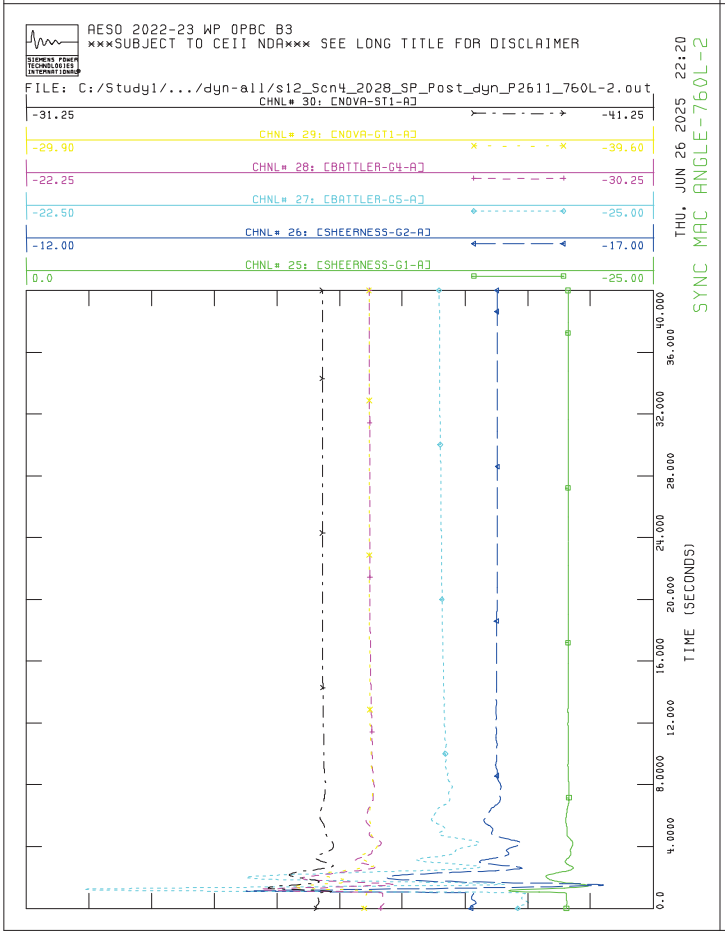
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [HALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]

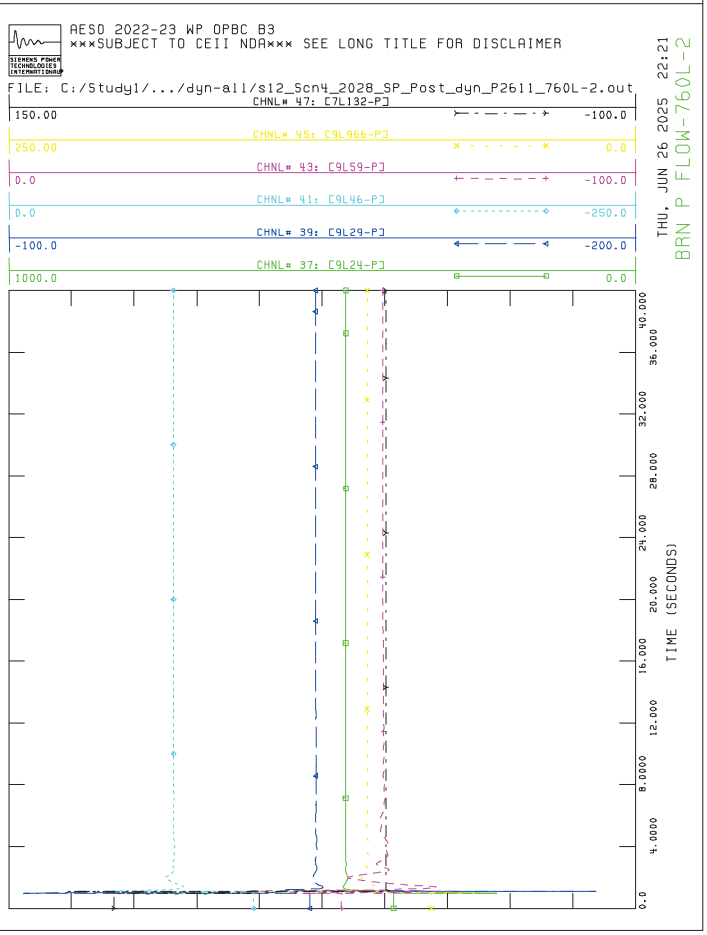
TIME (SECONDS)

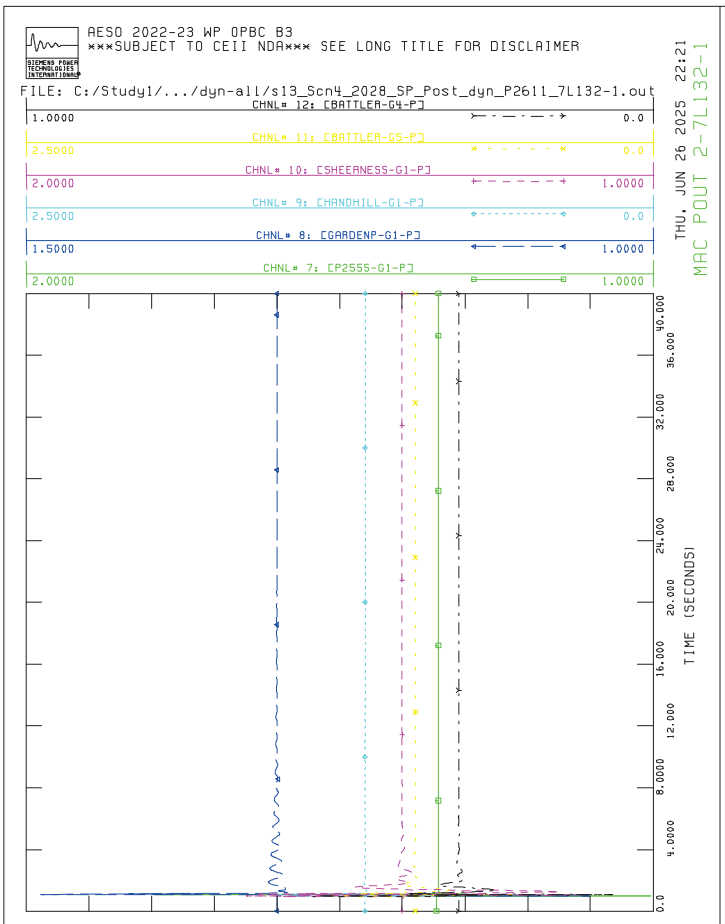


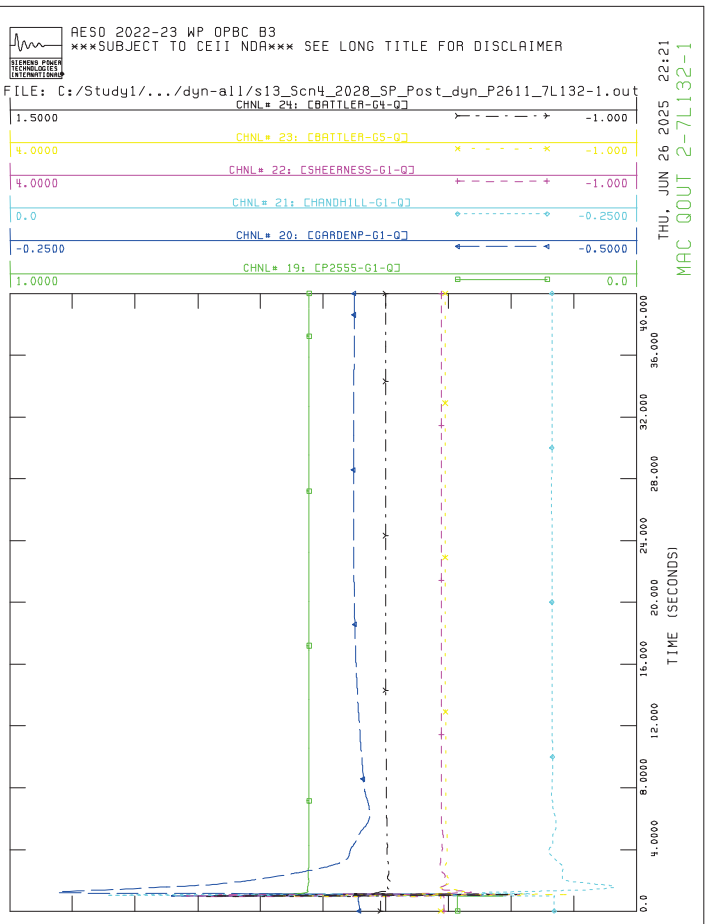

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out
CHNL# 36: CCORDEL755S-VJ
1.1500
0.90000
CHNL# 35: CHANSMANLAKE221S-VJ
2.5000
0.0
CHNL# 34: CPEMUKAN932S-VJ
2.5000
0.0
CHNL# 33: COAKLAND946S-VJ
2.5000
0.0
CHNL# 32: CLANFINE959S-138-VJ
2.5000
0.0
CHNL# 31: CLANFINE959S-240-VJ
2.5000
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:21
BUS VOL-760L-2

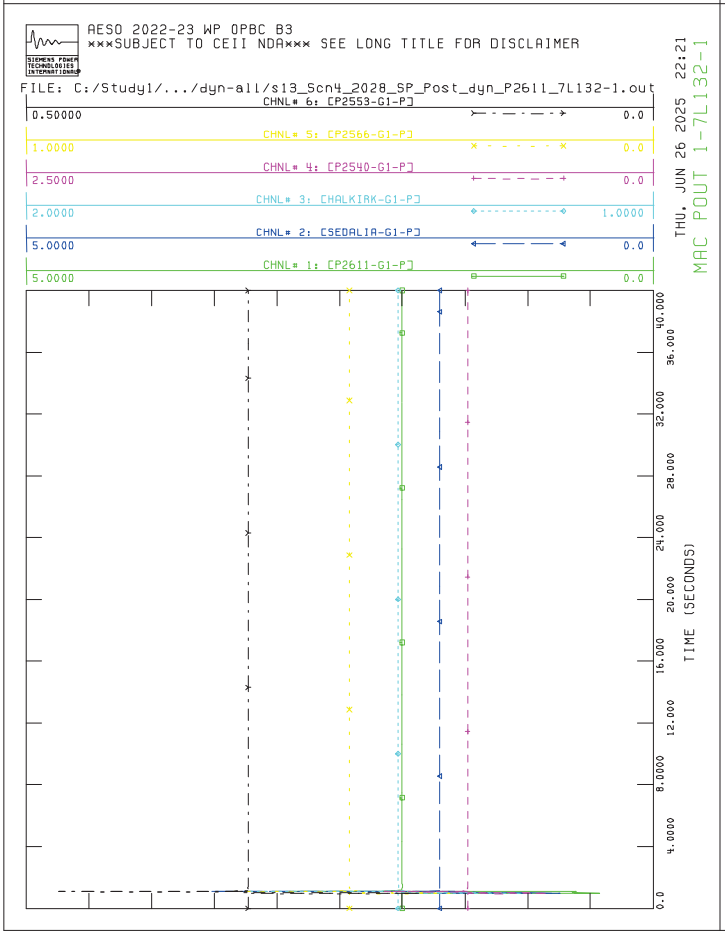

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out
CHNL# 48: C7L132-QJ
1500.0
-1000.
CHNL# 46: C9L966-QJ
0.0
-250.0
CHNL# 44: C9L59-QJ
300.00
-200.0
CHNL# 42: C9L46-QJ
300.00
-200.0
CHNL# 40: C9L29-QJ
50.000
0.0
CHNL# 38: C9L24L-QJ
300.00
-200.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:21
BRN Q FLOW-760L-2

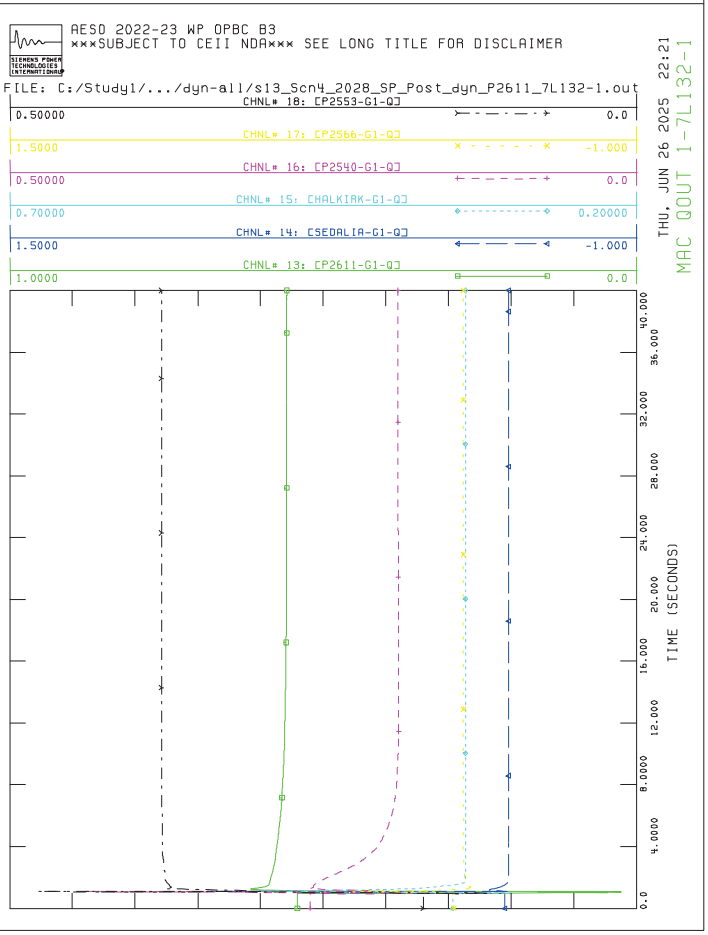

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out
CHNL# 30: CNOVA-ST1-AJ
-31.25
-41.25
CHNL# 29: CNOVA-GT1-AJ
-29.90
-39.60
CHNL# 28: CBATTLER-G4-AJ
-22.25
-30.25
CHNL# 27: CBATTLER-G5-AJ
-22.50
-25.00
CHNL# 26: CSHEERNESS-G2-AJ
-12.00
-17.00
CHNL# 25: CSHEERNESS-G1-AJ
0.0
-25.00
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:20
SYNC MAC ANGLE-760L-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s12_Scn4_2028_SP_Post_dyn_P2611_760L-2.out
CHNL# 47: C7L132-PJ
150.00
-100.0
CHNL# 45: C9L966-PJ
250.00
0.0
CHNL# 43: C9L59-PJ
0.0
-100.0
CHNL# 41: C9L46-PJ
0.0
-250.0
CHNL# 39: C9L29-PJ
-100.0
-200.0
CHNL# 37: C9L24-PJ
1000.0
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
THU, JUN 26 2025 22:21
BRN P FLOW-760L-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s13_Scn4_2028_SP_Post_dyn_P2611_7L132-1.out
CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-7L132-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s13_Scn4_2028_SP_Post_dyn_P2611_7L132-1.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-7L132-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s13_Scn4_2028_SP_Post_dyn_P2611_7L132-1.out
CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-7L132-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s13_Scn4_2028_SP_Post_dyn_P2611_7L132-1.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-7L132-1

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s13_Scn4_2028_SP_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:21

CHNL# 36: [CORDEL755S-VJ] 1.3000 0.80000
CHNL# 35: [HANSMANLAKE22LS-VJ] 2.5000 0.0
CHNL# 34: [PEMUKAN932S-VJ] 2.5000 0.0
CHNL# 33: [OAKLAND946S-VJ] 2.5000 0.0
CHNL# 32: [LANFINE959S-138-VJ] 2.5000 -2.500
CHNL# 31: [LANFINE959S-240-VJ] 2.5000 0.0

BUS VOL-7L132-1

TIME (SECONDS)
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s13_Scn4_2028_SP_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:21

CHNL# 48: [7L132-QJ] 0.0 -50.00
CHNL# 46: [9L966-QJ] 0.0 -500.0
CHNL# 44: [9L59-QJ] 150.00 -100.0
CHNL# 42: [9L46-QJ] 1500.0 -1000.
CHNL# 40: [9L29-QJ] 45.000 20.000
CHNL# 38: [9L24L-QJ] 1500.0 -1000.

BRN Q FLOW-7L132-1

TIME (SECONDS)
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s13_Scn4_2028_SP_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:21

CHNL# 30: [NOVA-ST1-AJ] -31.25 -41.25
CHNL# 29: [NOVA-GT1-AJ] -29.90 -39.60
CHNL# 28: [BATTLER-G4-AJ] -25.00 -30.00
CHNL# 27: [BATTLER-G5-AJ] -21.00 -26.00
CHNL# 26: [SHEERNESS-G2-AJ] -15.00 -20.00
CHNL# 25: [SHEERNESS-G1-AJ] -20.00 -25.00

SYNC MAC ANGLE-7L132-1

TIME (SECONDS)
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

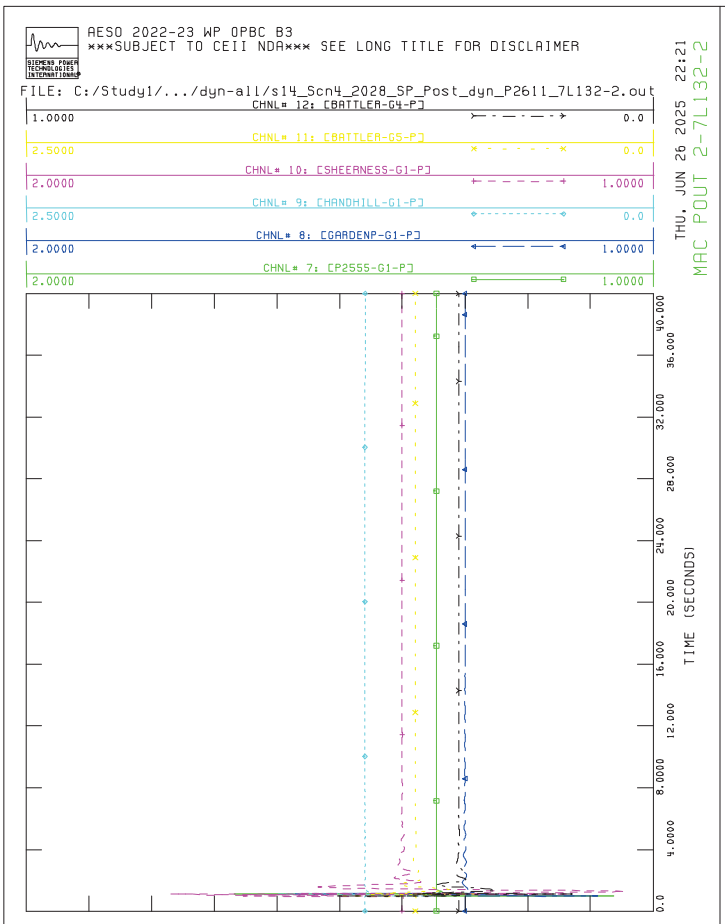
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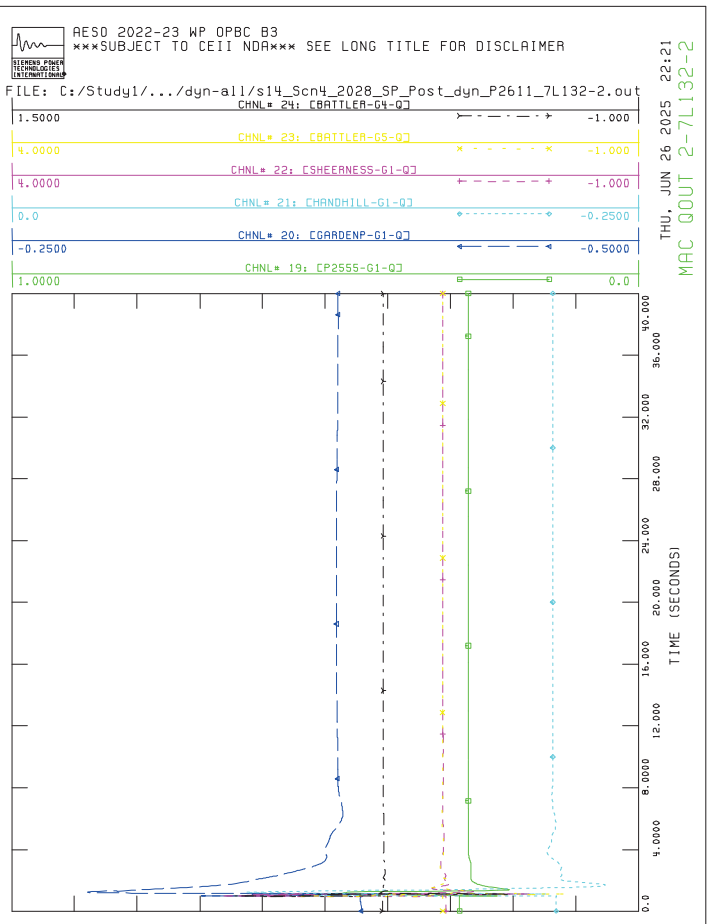
THU, JUN 26 2025 22:21

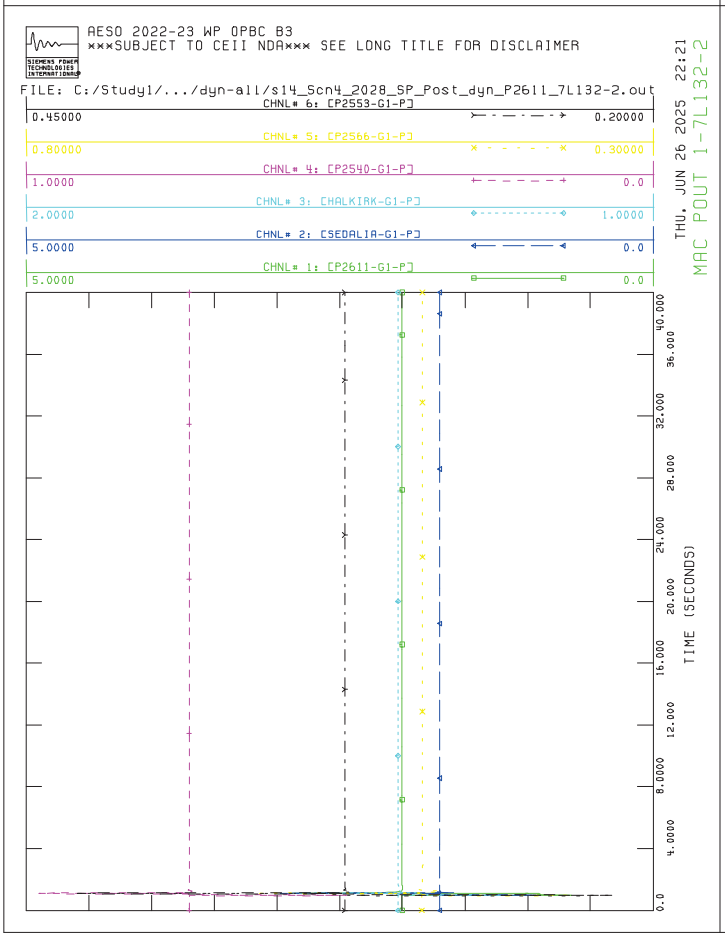
CHNL# 47: [7L132-PJ] 250.00 0.0
CHNL# 45: [9L966-PJ] 250.00 0.0
CHNL# 43: [9L59-PJ] -50.00 -100.0
CHNL# 41: [9L46-PJ] 0.0 -250.0
CHNL# 39: [9L29-PJ] -100.0 -200.0
CHNL# 37: [9L24-PJ] 1000.0 0.0

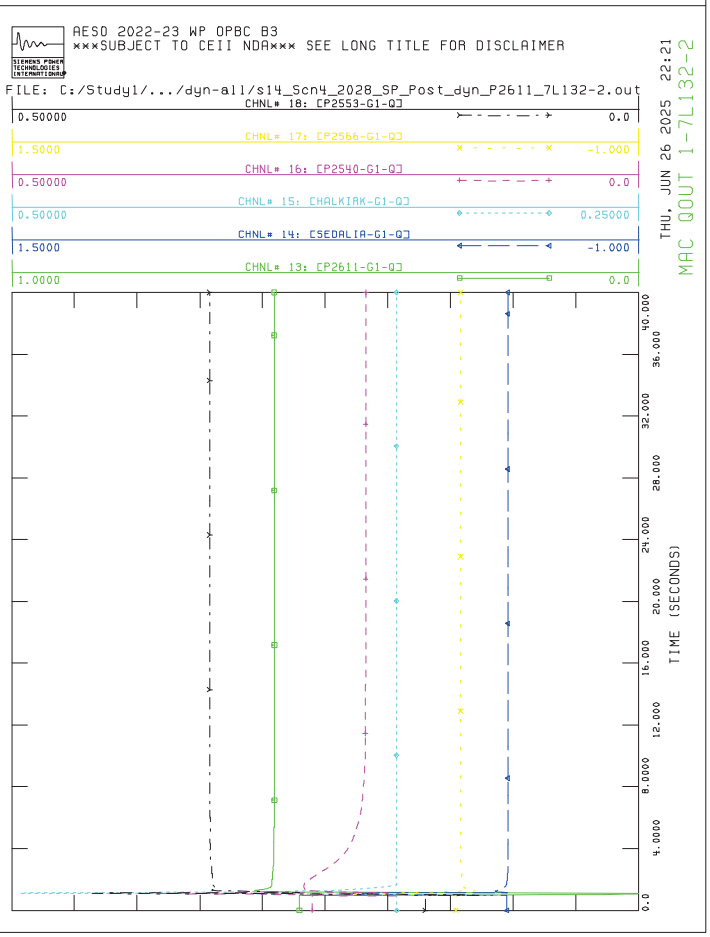
BRN P FLOW-7L132-1

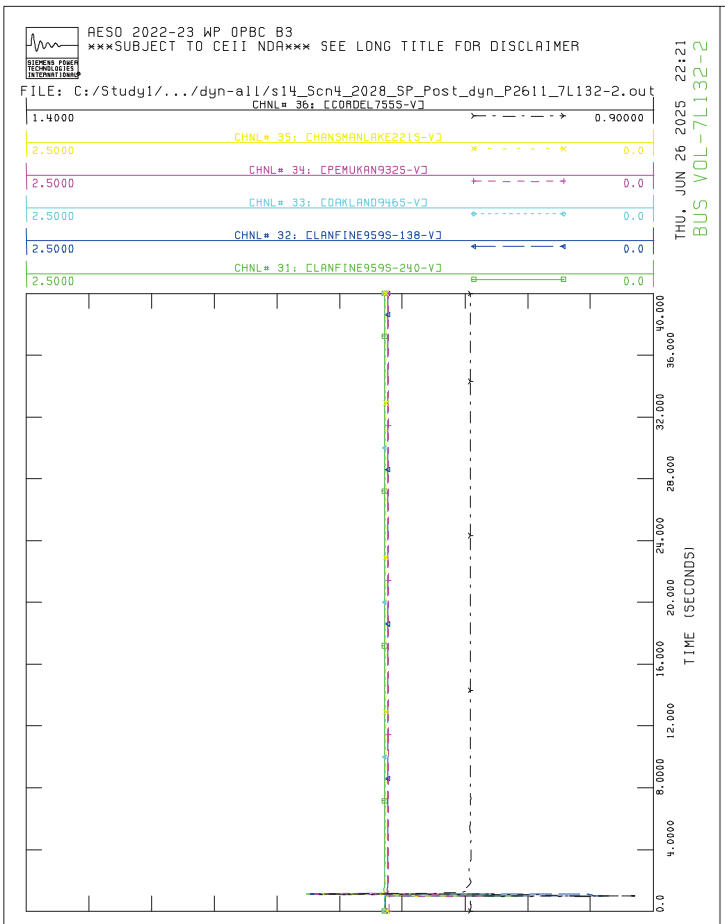
TIME (SECONDS)
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

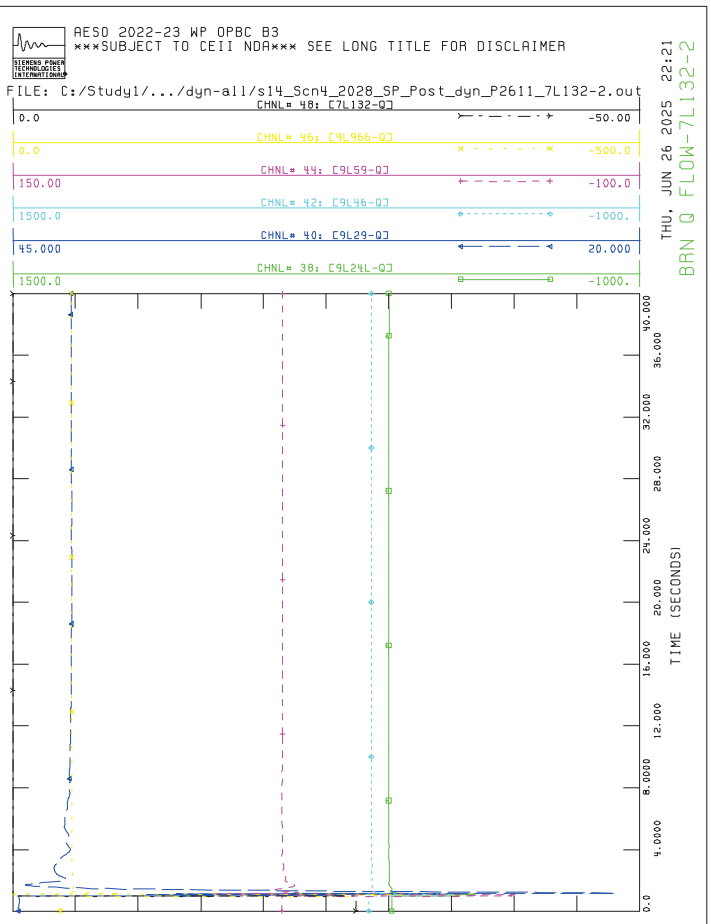

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-7L132-2

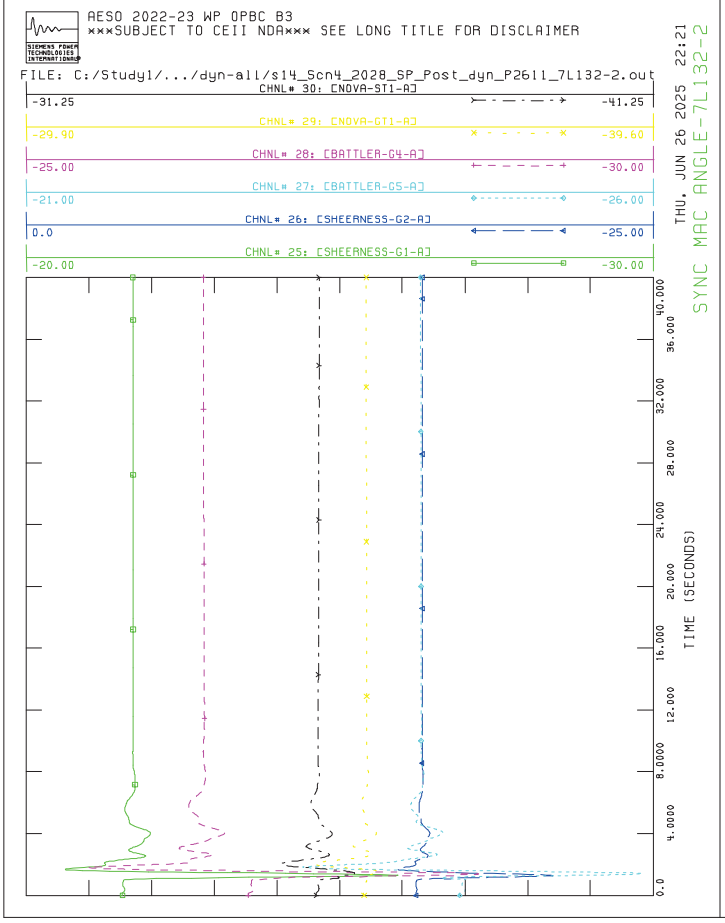

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-7L132-2

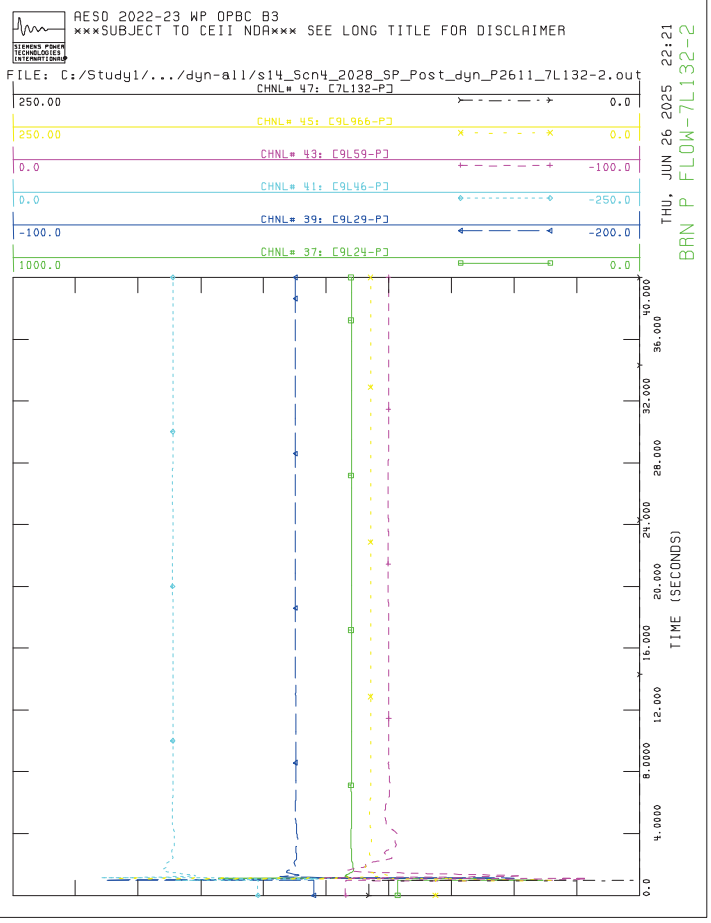

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-7L132-2

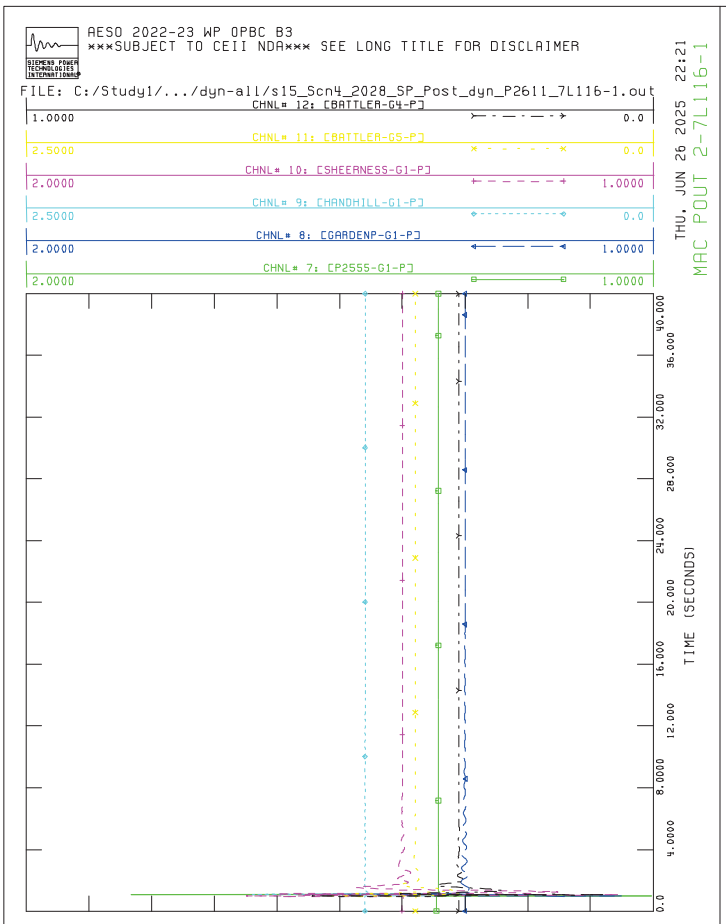

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-7L132-2

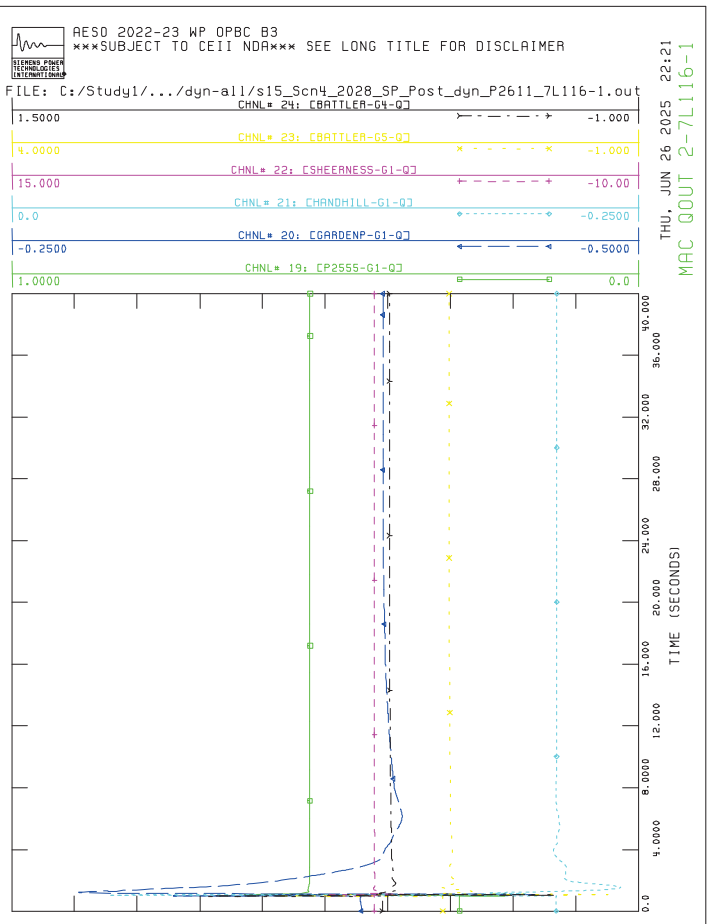

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 36: CCORDEL755S-VJ
1.4000
0.90000
CHNL# 35: CHANSMANLAKE221S-VJ
2.5000
0.0
CHNL# 34: CPEMUKAN932S-VJ
2.5000
0.0
CHNL# 33: COAKLAND946S-VJ
2.5000
0.0
CHNL# 32: CLANFINE959S-138-VJ
2.5000
0.0
CHNL# 31: CLANFINE959S-240-VJ
2.5000
0.0
THU, JUN 26 2025 22:21
BUS VOL-7L132-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000

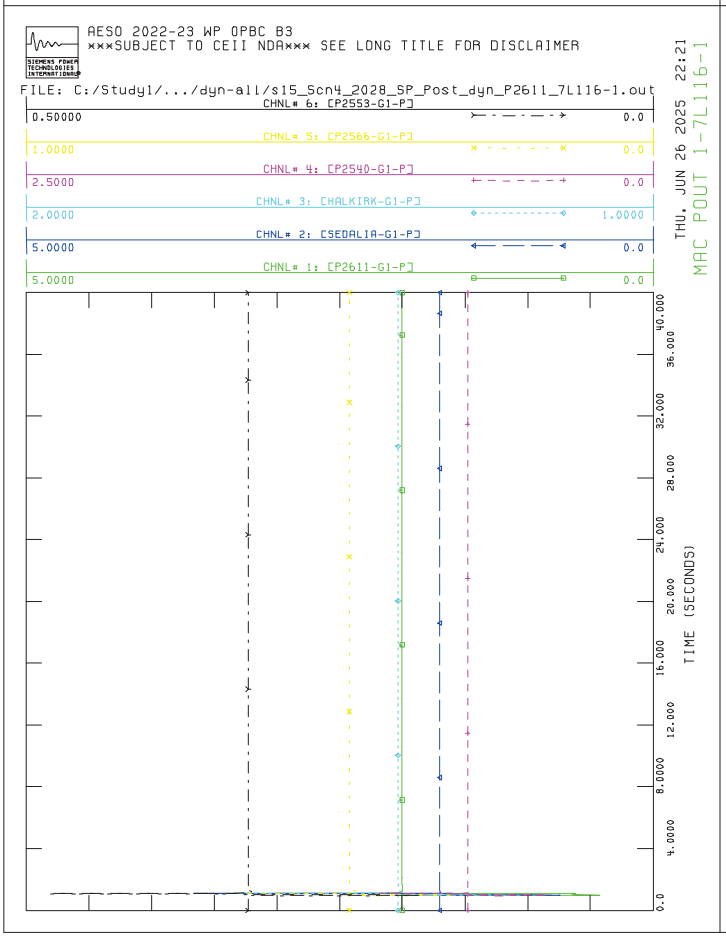

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 48: C7L132-QJ
0.0
-50.00
CHNL# 46: C9L966-QJ
0.0
-500.0
CHNL# 44: C9L59-QJ
150.00
-100.0
CHNL# 42: C9L46-QJ
1500.0
-1000.
CHNL# 40: C9L29-QJ
45.000
20.000
CHNL# 38: C9L24L-QJ
1500.0
-1000.
THU, JUN 26 2025 22:21
BRN Q FLOW-7L132-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000

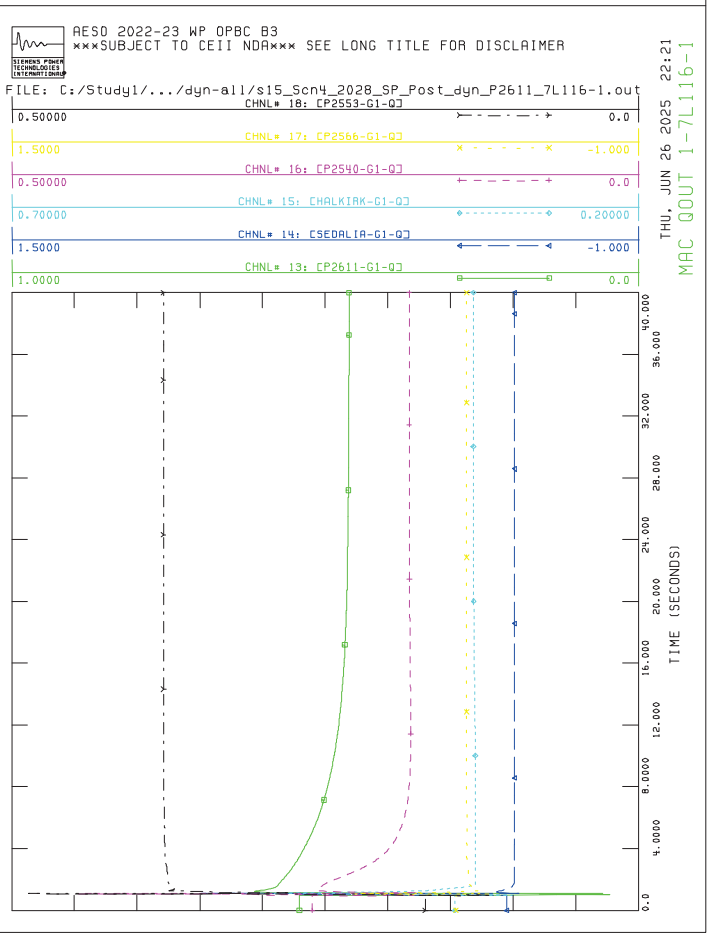

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 30: CNOVA-ST1-AJ
-31.25
-41.25
CHNL# 29: CNOVA-GT1-AJ
-29.90
-39.60
CHNL# 28: CBATTLER-G4-AJ
-25.00
-30.00
CHNL# 27: CBATTLER-G5-AJ
-21.00
-26.00
CHNL# 26: CSHEERNESS-G2-AJ
0.0
-25.00
CHNL# 25: CSHEERNESS-G1-AJ
-20.00
-30.00
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-7L132-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s14_Scn4_2028_SP_Post_dyn_P2611_7L132-2.out
CHNL# 47: C7L132-PJ
250.00
0.0
CHNL# 45: C9L966-PJ
250.00
0.0
CHNL# 43: C9L59-PJ
0.0
-100.0
CHNL# 41: C9L46-PJ
0.0
-250.0
CHNL# 39: C9L29-PJ
-100.0
-200.0
CHNL# 37: C9L24-PJ
1000.0
0.0
THU, JUN 26 2025 22:21
BRN P FLOW-7L132-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-7L116-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-7L116-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-7L116-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-7L116-1

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out

THU, JUN 26 2025 22:21

BUS VOL-7L116-1

CHNL# 36: CCORDEL755S-VJ 1.3000 0.80000
CHNL# 35: CHANSMANLAKE22LS-VJ 2.5000 0.0
CHNL# 34: CPEMUKAN932S-VJ 2.5000 0.0
CHNL# 33: COAKLAND946S-VJ 2.5000 0.0
CHNL# 32: CLANFINE959S-138-VJ 2.5000 -2.500
CHNL# 31: CLANFINE959S-240-VJ 2.5000 0.0

TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out

THU, JUN 26 2025 22:21

BRN Q FLOW-7L116-1

CHNL# 48: C7L132-QJ 150.00 -100.0
CHNL# 46: C9L966-QJ 1500.0 -1000.
CHNL# 44: C9L59-QJ 150.00 -100.0
CHNL# 42: C9L46-QJ 1500.0 -1000.
CHNL# 40: C9L29-QJ 50.000 0.0
CHNL# 38: C9L24L-QJ 1500.0 -1000.

TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out

THU, JUN 26 2025 22:21

SYNC MAC ANGLE-7L116-1

CHNL# 30: CNOVA-ST1-AJ -31.25 -41.25
CHNL# 29: CNOVA-GT1-AJ -29.90 -39.60
CHNL# 28: CBATTLER-G4-AJ -25.00 -30.00
CHNL# 27: CBATTLER-G5-AJ -21.00 -26.00
CHNL# 26: CSHEERNESS-G2-AJ -10.00 -20.00
CHNL# 25: CSHEERNESS-G1-AJ -20.00 -25.00

TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s15_Scn4_2028_SP_Post_dyn_P2611_7L116-1.out

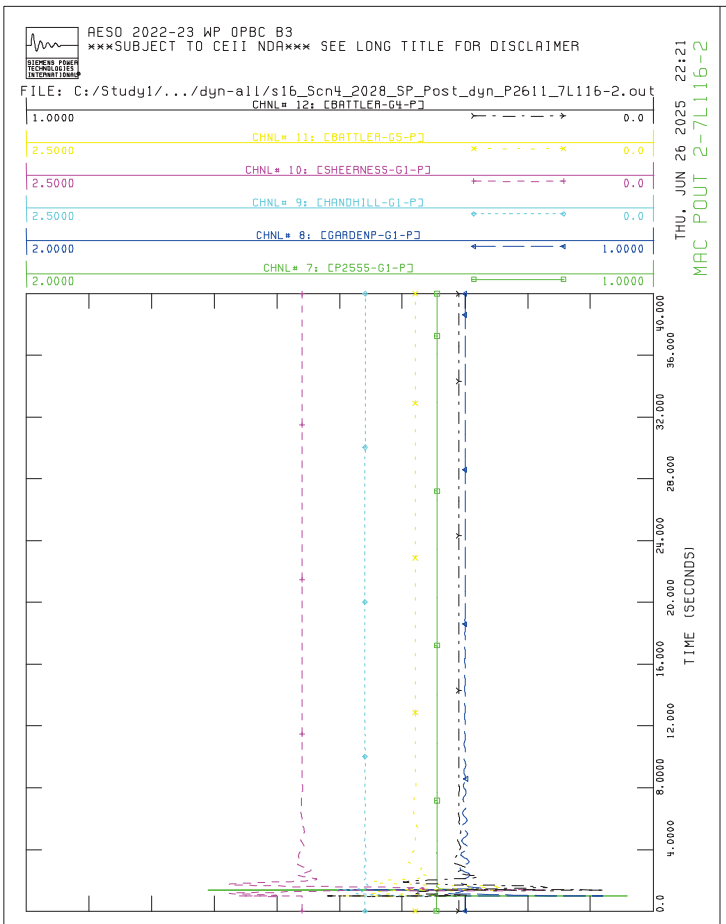
THU, JUN 26 2025 22:21

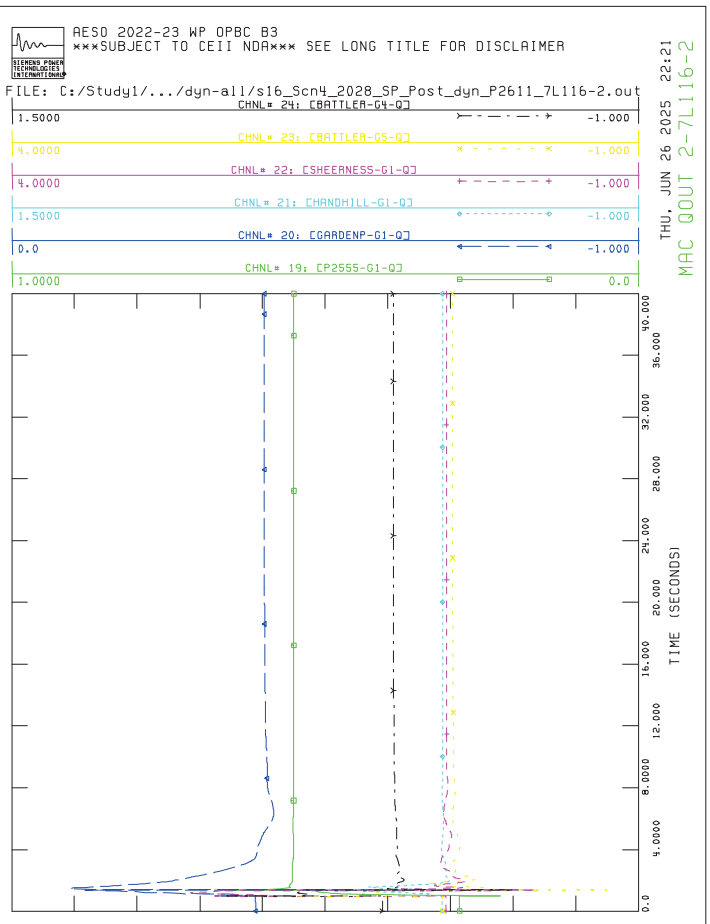
BRN P FLOW-7L116-1

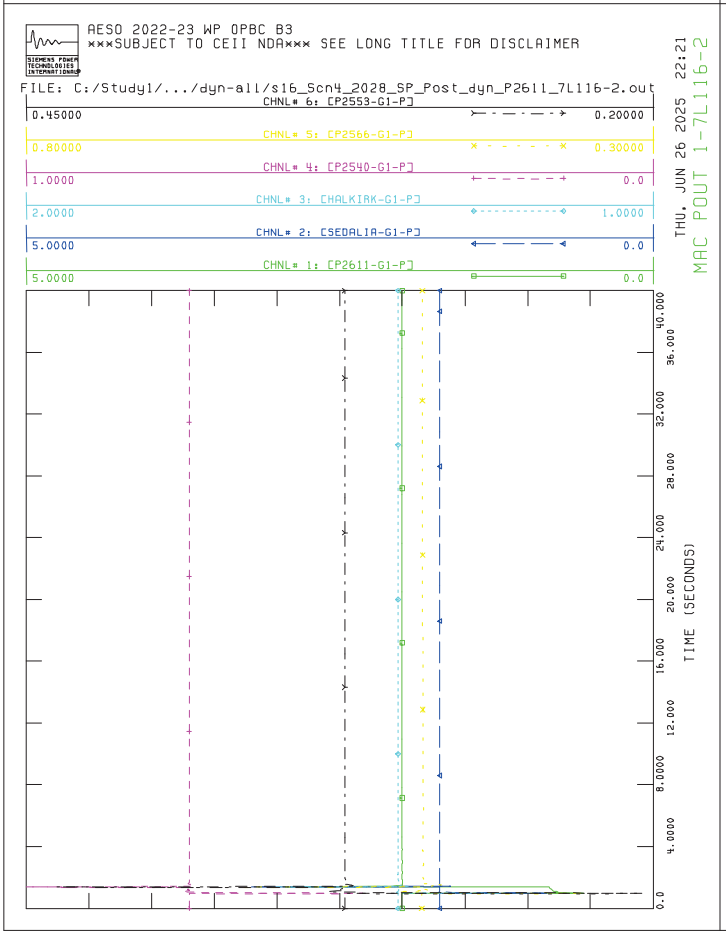
CHNL# 47: C7L132-PJ 250.00 -250.0
CHNL# 45: C9L966-PJ 250.00 0.0
CHNL# 43: C9L59-PJ 0.0 -100.0
CHNL# 41: C9L46-PJ 0.0 -250.0
CHNL# 39: C9L29-PJ 0.0 -250.0
CHNL# 37: C9L24-PJ 1000.0 0.0

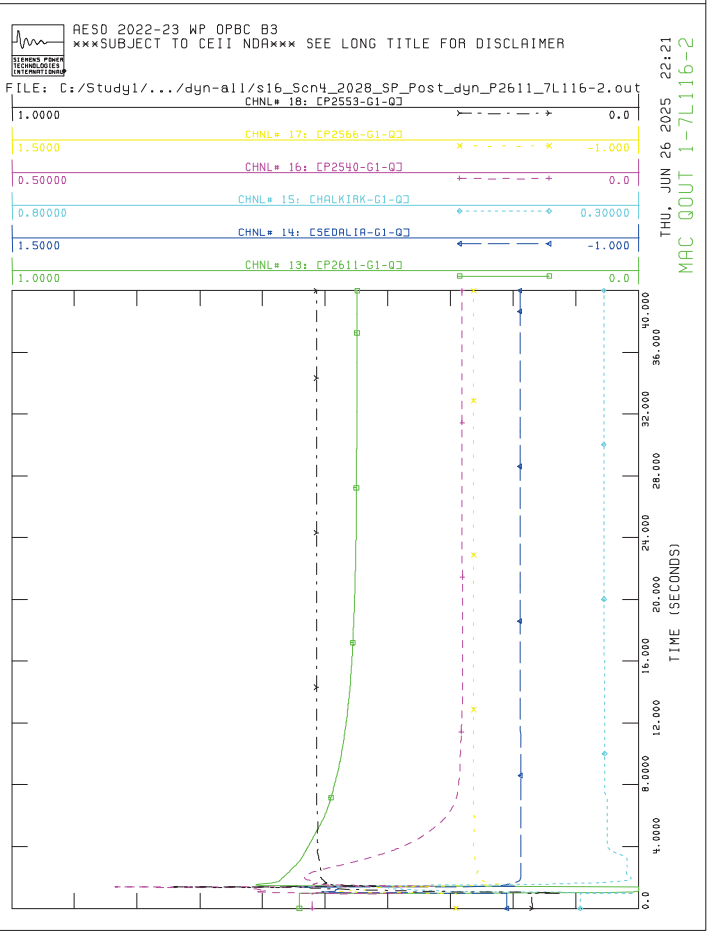
TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s16_Scn4_2028_SP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:21
MAC POUT 2-7L116-2
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s16_Scn4_2028_SP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:21
MAC QOUT 2-7L116-2
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)

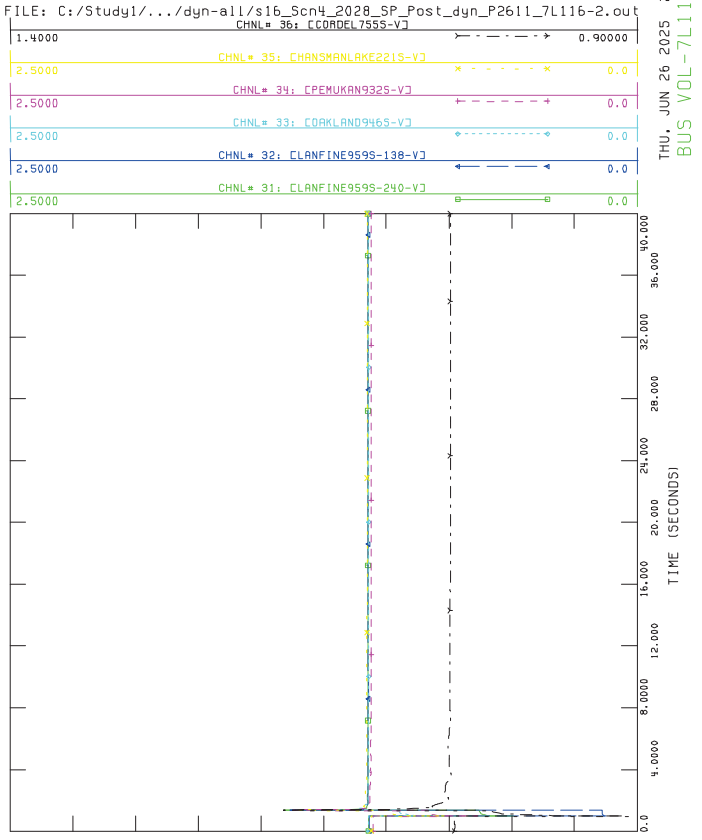

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s16_Scn4_2028_SP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:21
MAC POUT 1-7L116-2
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s16_Scn4_2028_SP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:21
MAC QOUT 1-7L116-2
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s16_Scn4_2028_SP_Post_dyn_P2611_7L116-2.out

THU, JUN 26 2025 22:21

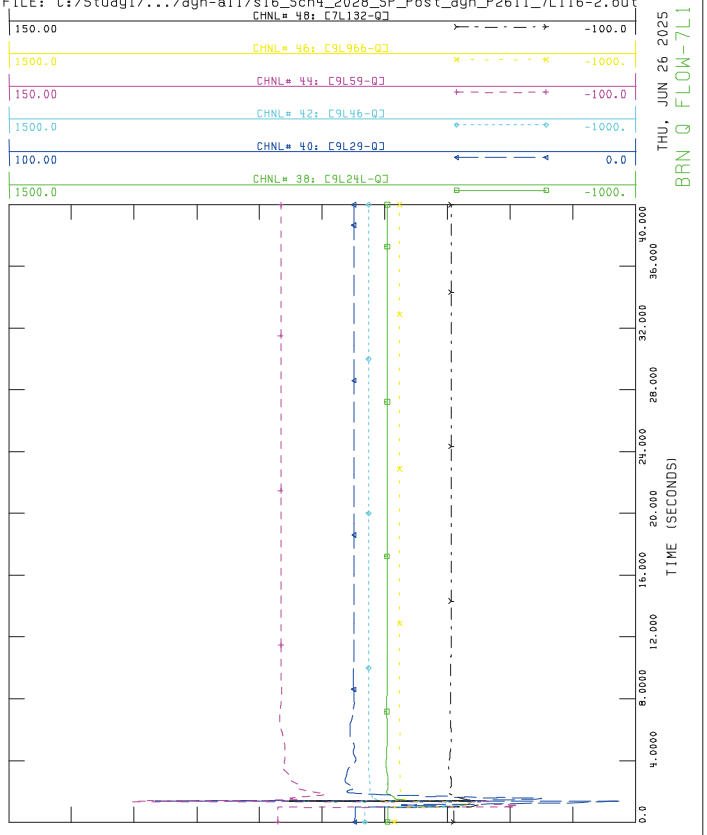


BUS VOL-7L116-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s16_Scn4_2028_SP_Post_dyn_P2611_7L116-2.out

THU, JUN 26 2025 22:21

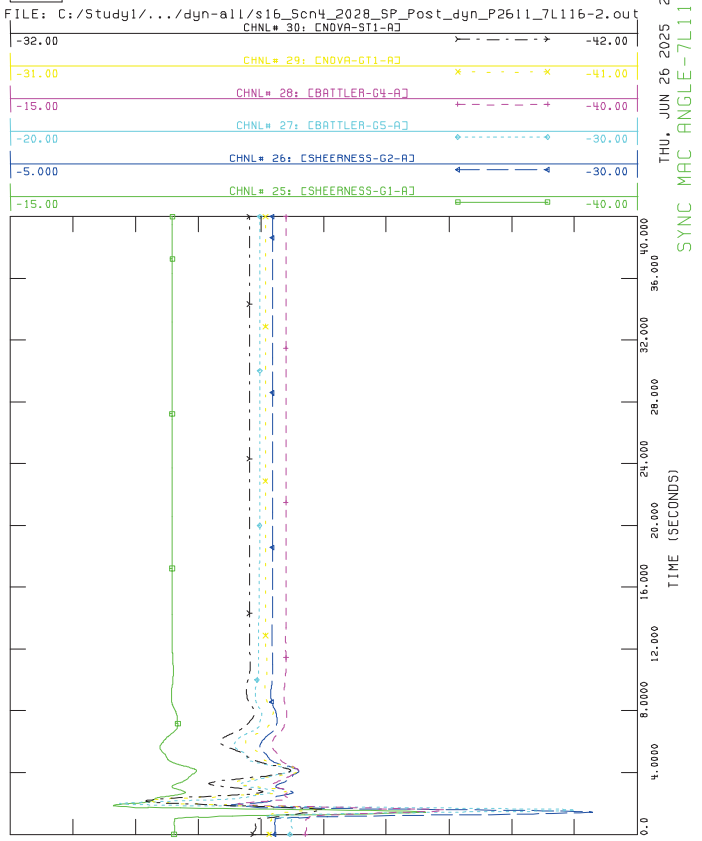


BRN Q FLOW-7L116-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s16_Scn4_2028_SP_Post_dyn_P2611_7L116-2.out

THU, JUN 26 2025 22:21

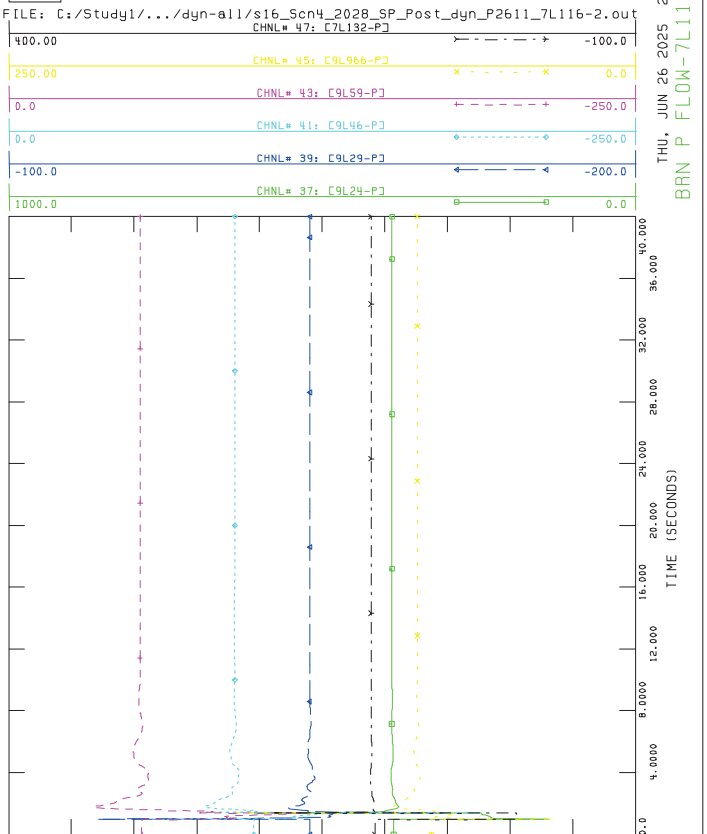


SYNC MAC ANGLE-7L116-2

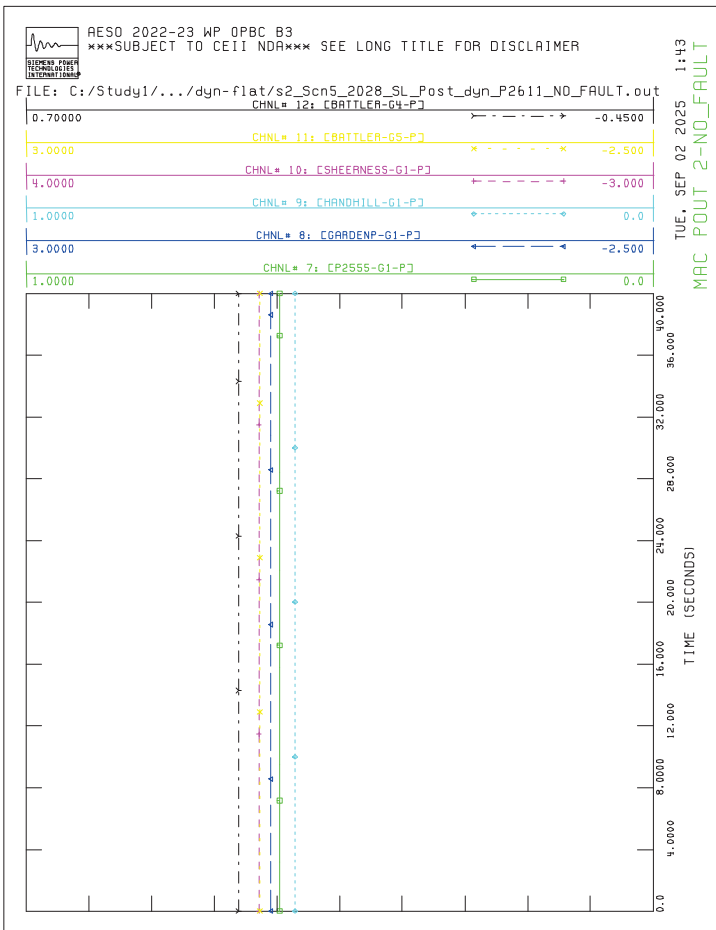
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

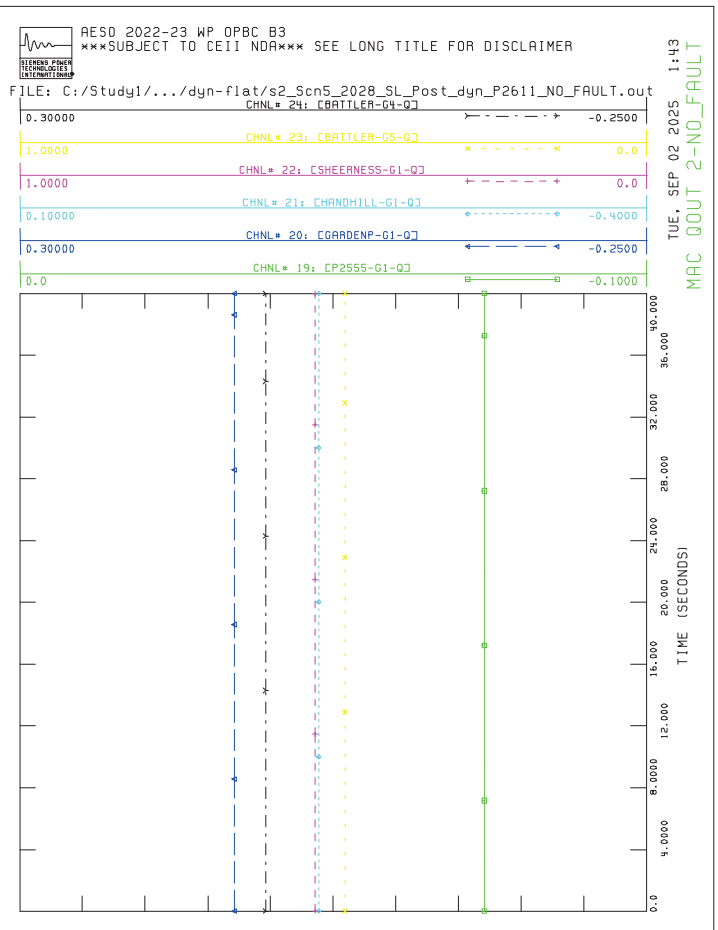
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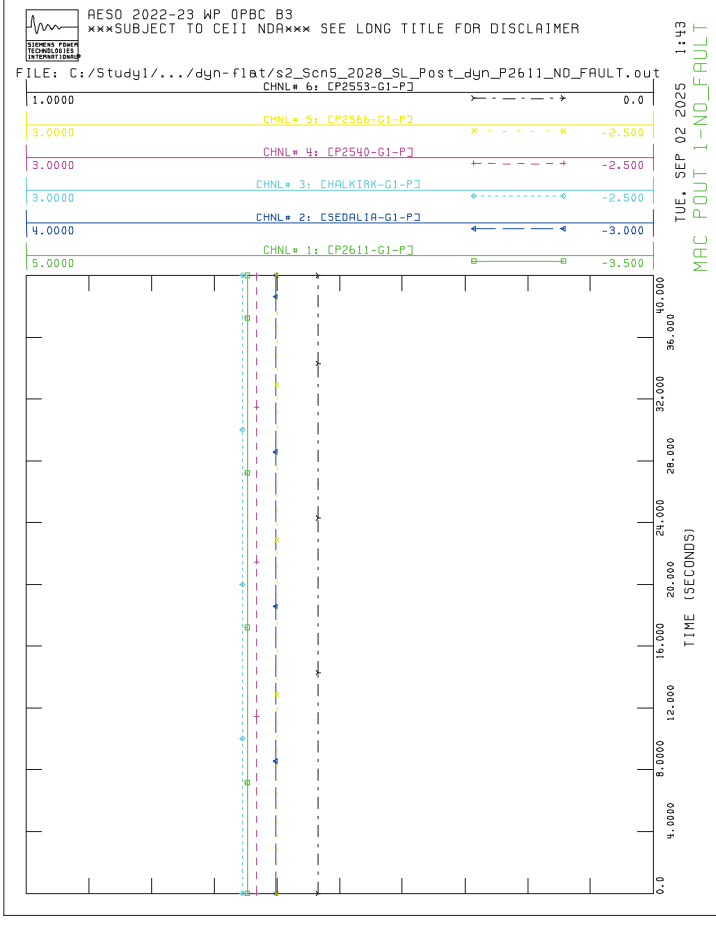
THU, JUN 26 2025 22:21

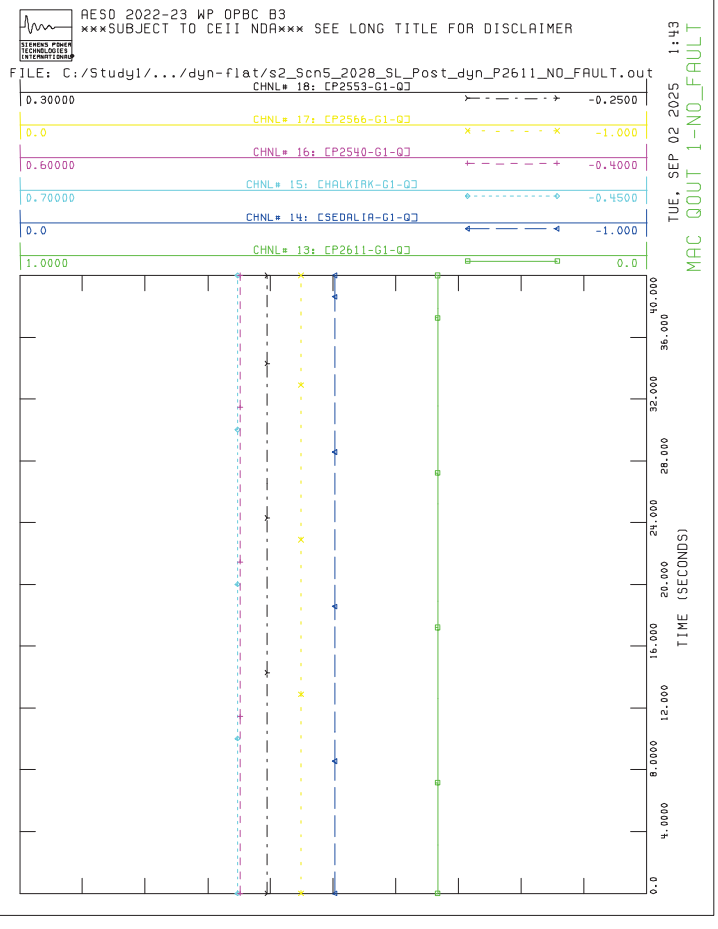


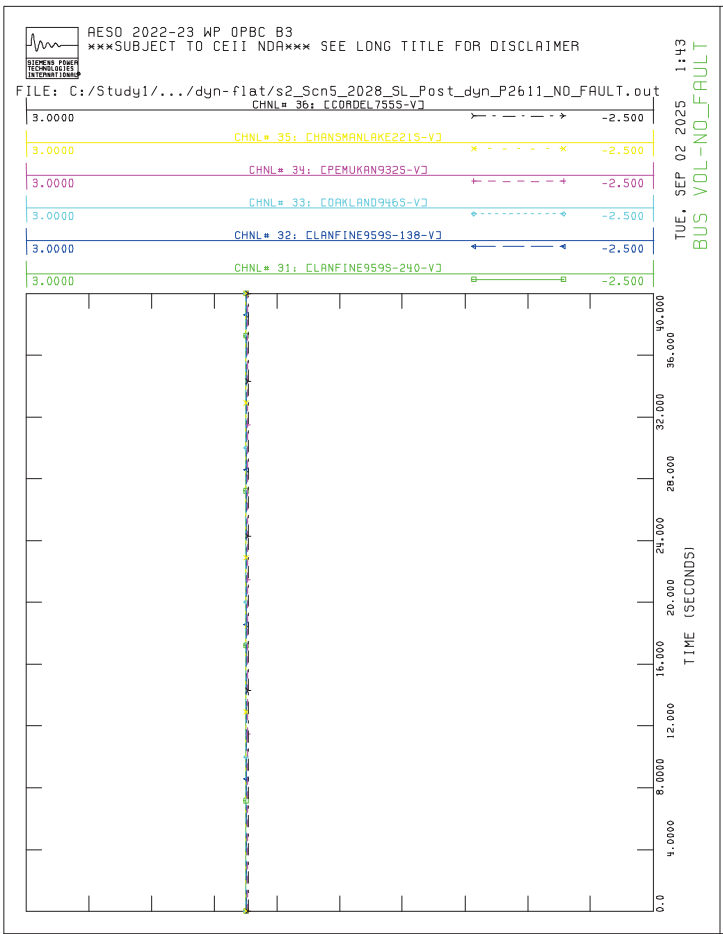
BRN P FLOW-7L116-2

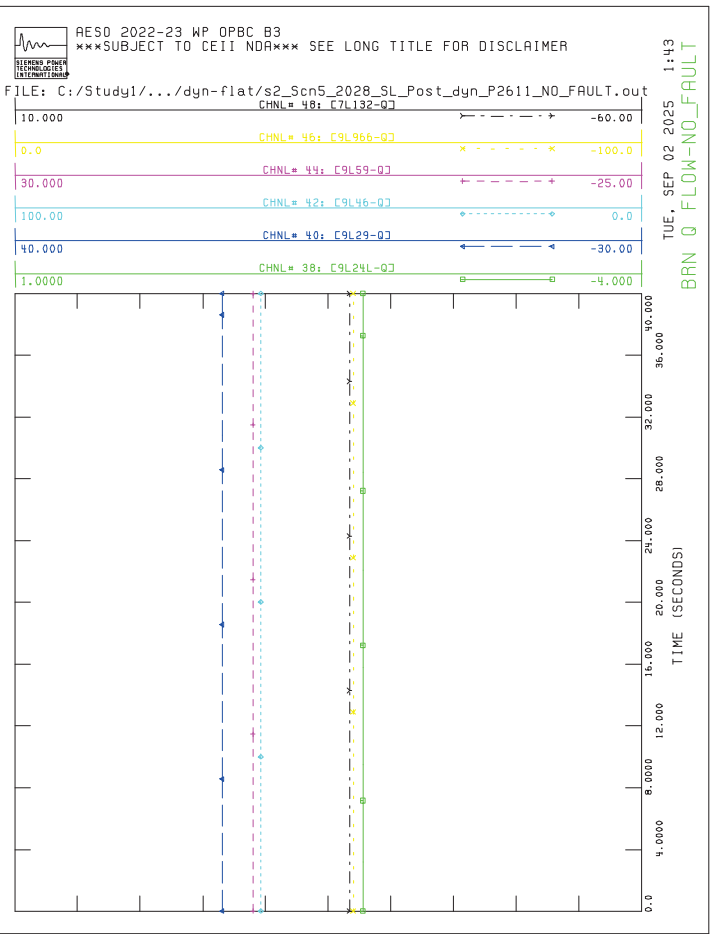

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
CHNL# 12: [BATTLEA-G4-P]
0.70000
-0.4500
CHNL# 11: [BATTLEA-G5-P]
3.0000
-2.500
CHNL# 10: [SHEERNESS-G1-P]
4.0000
-3.000
CHNL# 9: [HANDHILL-G1-P]
1.0000
0.0
CHNL# 8: [GARDENP-G1-P]
3.0000
-2.500
CHNL# 7: [P2555-G1-P]
1.0000
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
MAC POUT 2-NO_FAULT

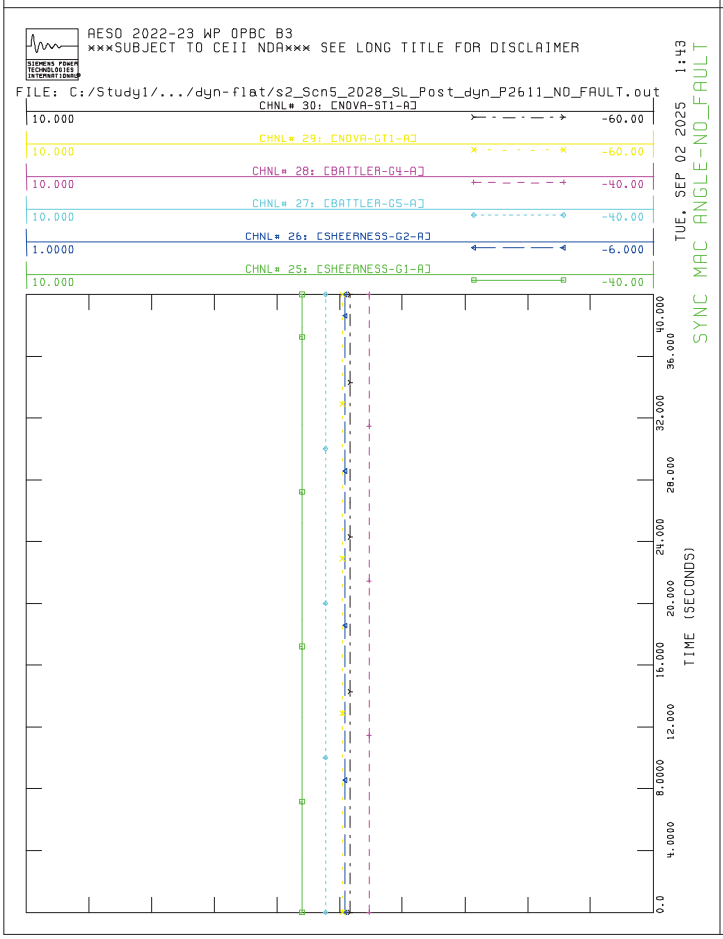

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
CHNL# 24: [BATTLEA-G4-Q]
0.30000
-0.2500
CHNL# 23: [BATTLEA-G5-Q]
1.0000
0.0
CHNL# 22: [SHEERNESS-G1-Q]
1.0000
0.0
CHNL# 21: [HANDHILL-G1-Q]
0.10000
-0.4000
CHNL# 20: [GARDENP-G1-Q]
0.30000
-0.2500
CHNL# 19: [P2555-G1-Q]
0.0
-0.1000
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
MAC QOUT 2-NO_FAULT

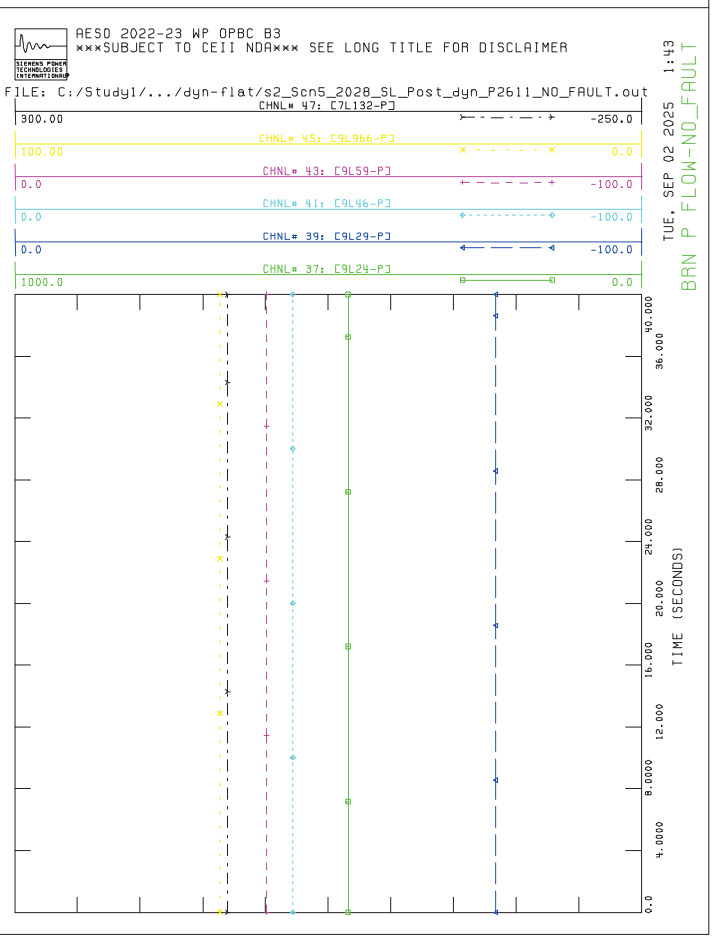

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
CHNL# 6: [P2553-G1-P]
1.0000
0.0
CHNL# 5: [P2566-G1-P]
3.0000
-2.500
CHNL# 4: [P2540-G1-P]
3.0000
-2.500
CHNL# 3: [HALKIRK-G1-P]
3.0000
-2.500
CHNL# 2: [SEDALIA-G1-P]
4.0000
-3.000
CHNL# 1: [P2611-G1-P]
5.0000
-3.500
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
MAC POUT 1-NO_FAULT

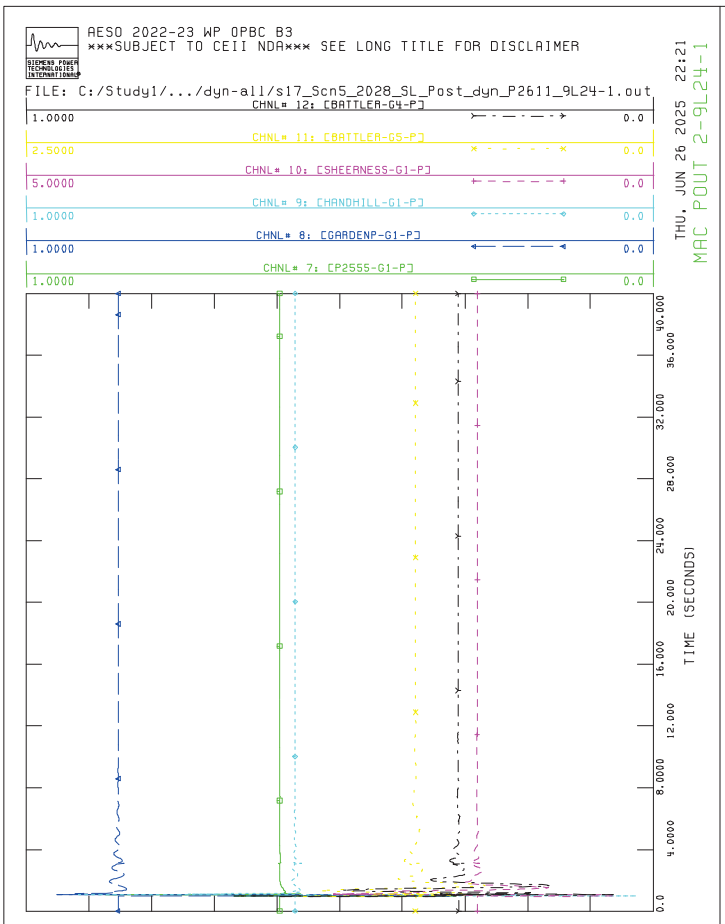

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
CHNL# 18: [P2553-G1-Q]
0.30000
-0.2500
CHNL# 17: [P2566-G1-Q]
0.0
-1.000
CHNL# 16: [P2540-G1-Q]
0.60000
-0.4000
CHNL# 15: [HALKIRK-G1-Q]
0.70000
-0.4500
CHNL# 14: [SEDALIA-G1-Q]
0.0
-1.000
CHNL# 13: [P2611-G1-Q]
1.0000
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
MAC QOUT 1-NO_FAULT

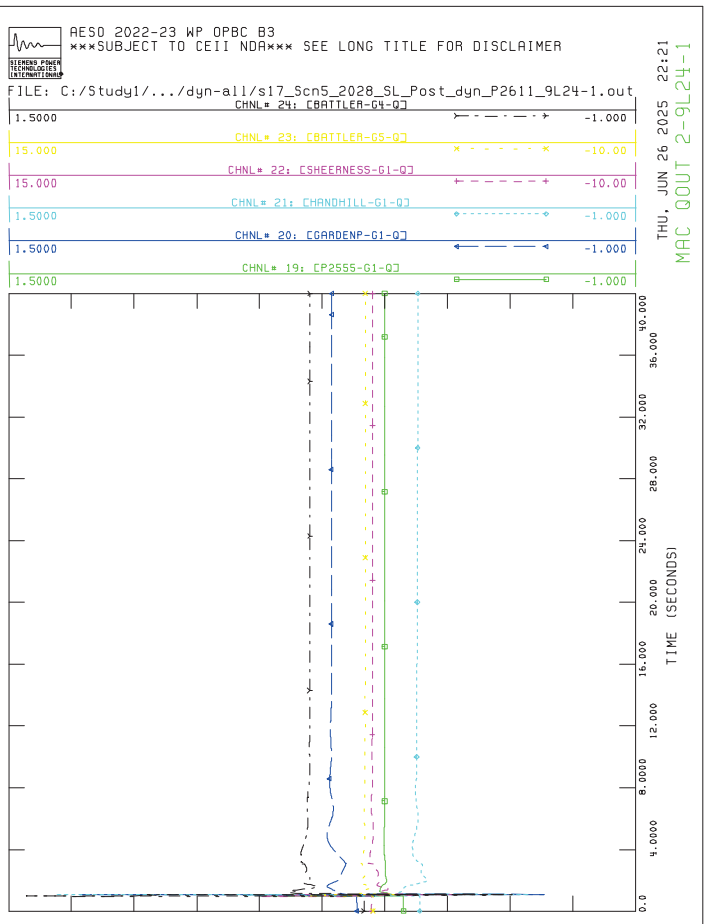

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
BUS VOL-NO_FAULT
TIME (SECONDS)

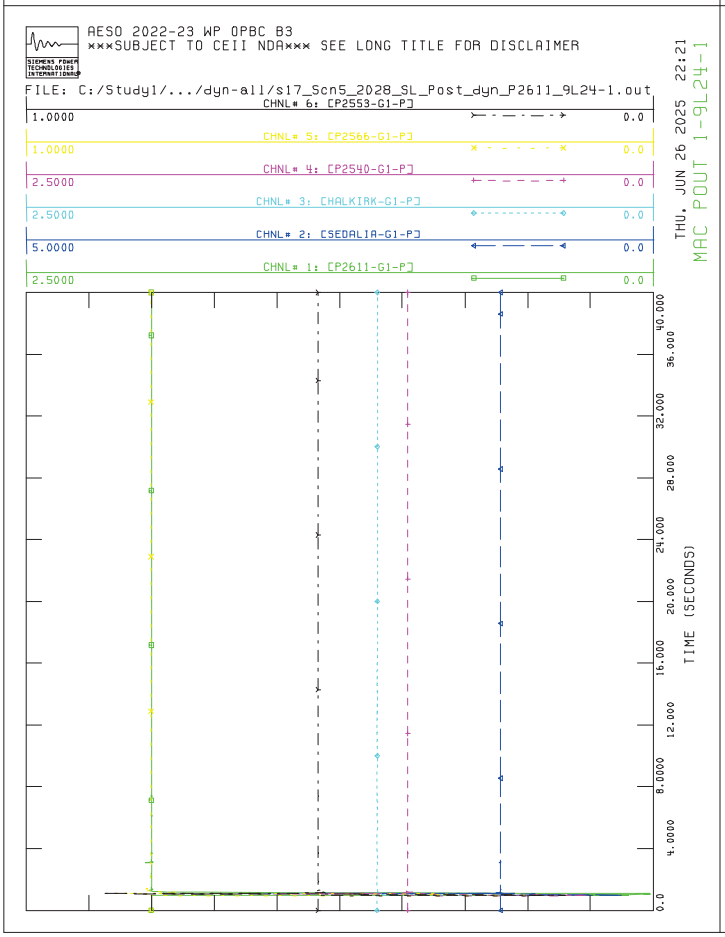

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
BRN Q FLOW-NO_FAULT
TIME (SECONDS)

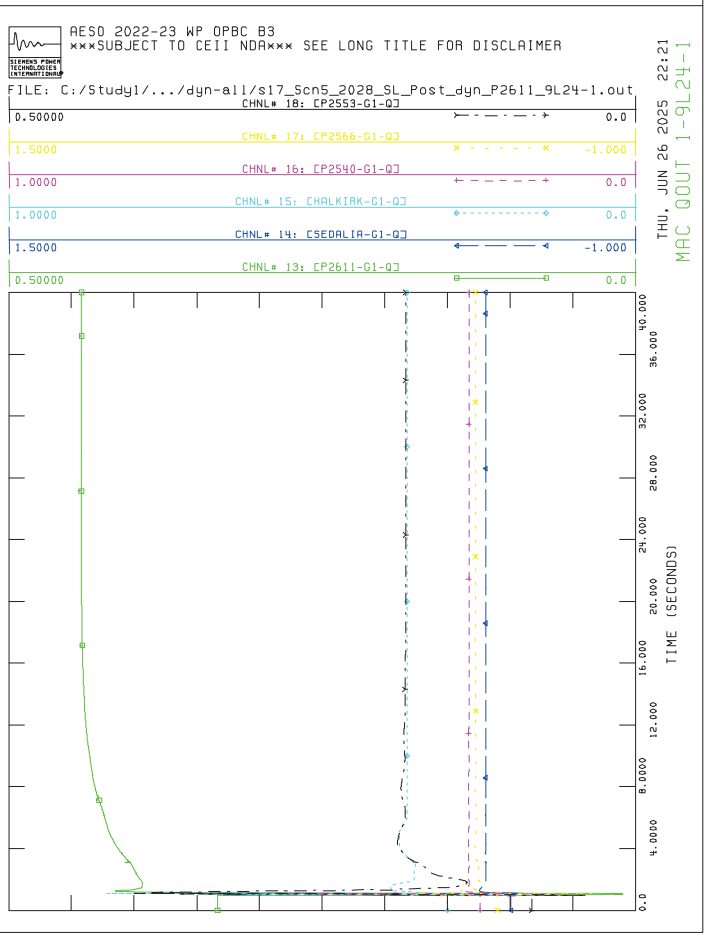

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
SYNC MAC ANGLE-NO_FAULT
TIME (SECONDS)

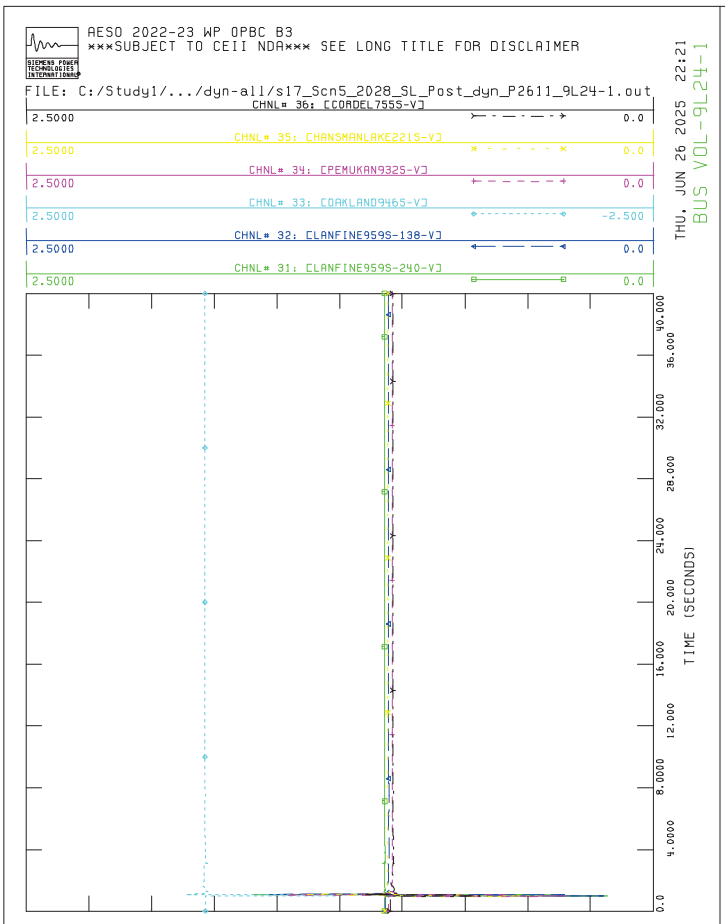

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s2_Scn5_2028_SL_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
BRN P FLOW-NO_FAULT
TIME (SECONDS)

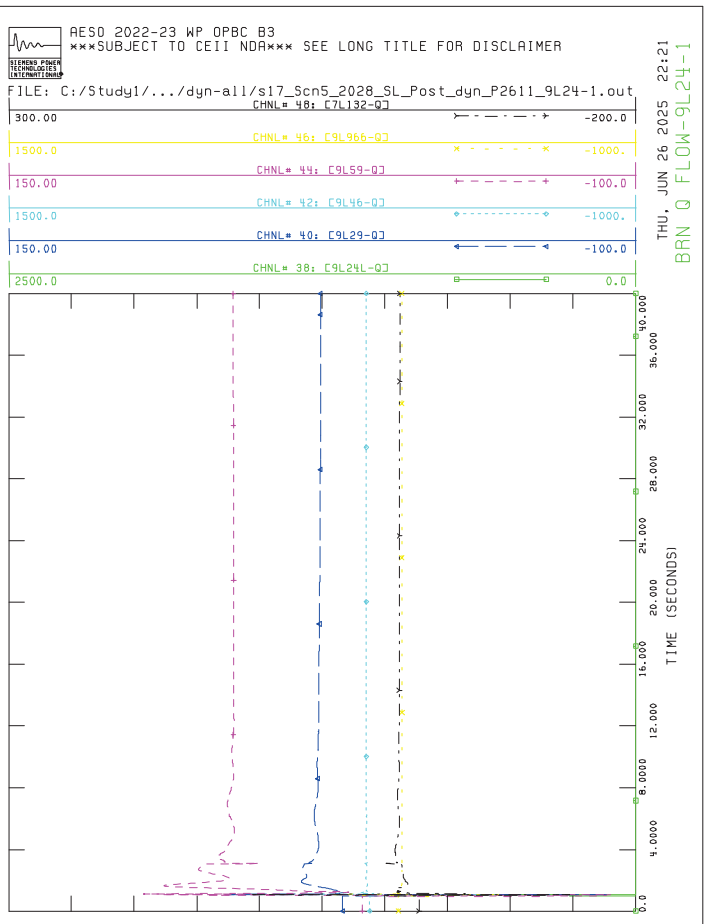

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s17_Scn5_2028_SL_Post_dyn_P2611_9L24-1.out
CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-9L24-1

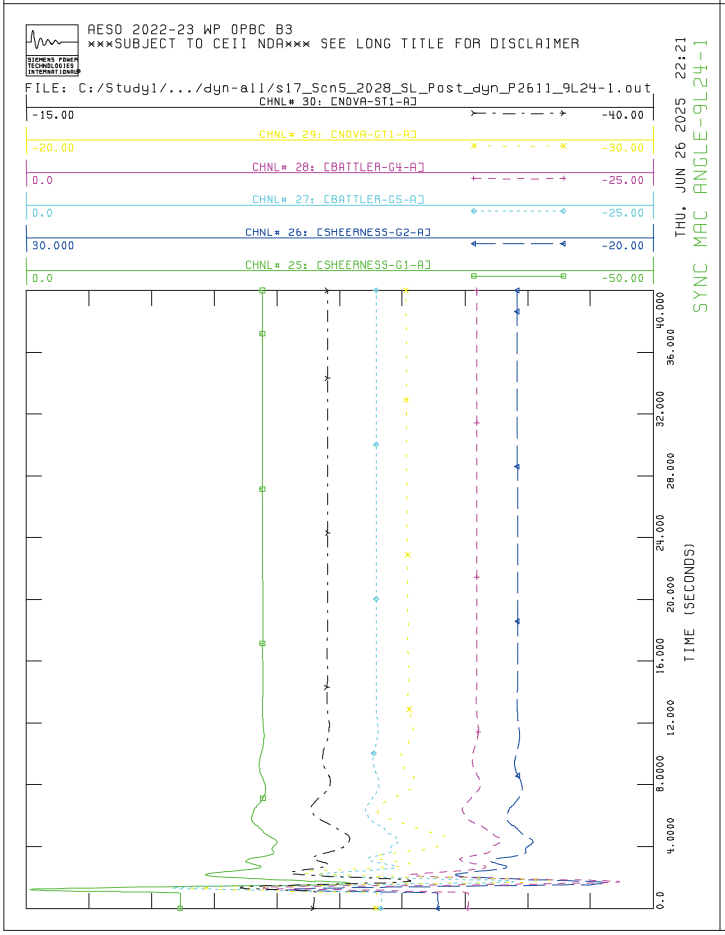

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s17_Scn5_2028_SL_Post_dyn_P2611_9L24-1.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-9L24-1

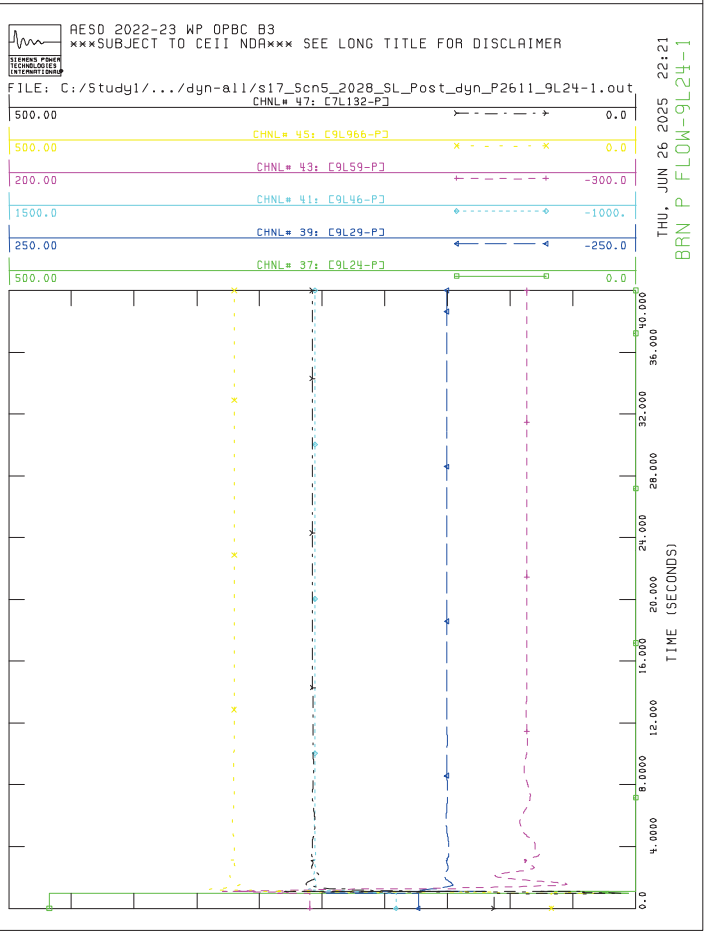

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s17_Scn5_2028_SL_Post_dyn_P2611_9L24-1.out
CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-9L24-1

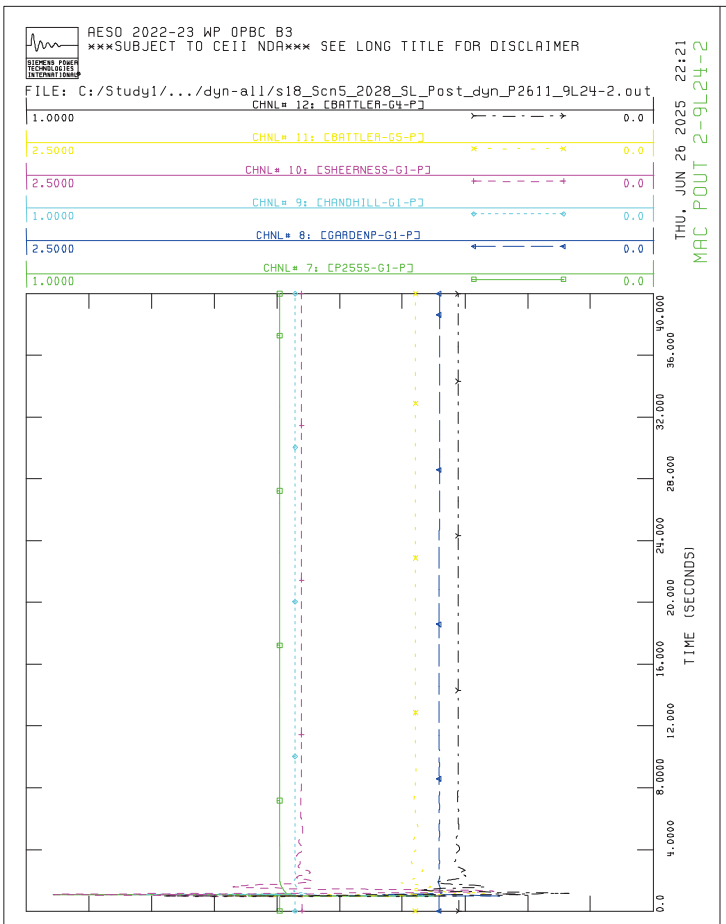

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s17_Scn5_2028_SL_Post_dyn_P2611_9L24-1.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-9L24-1

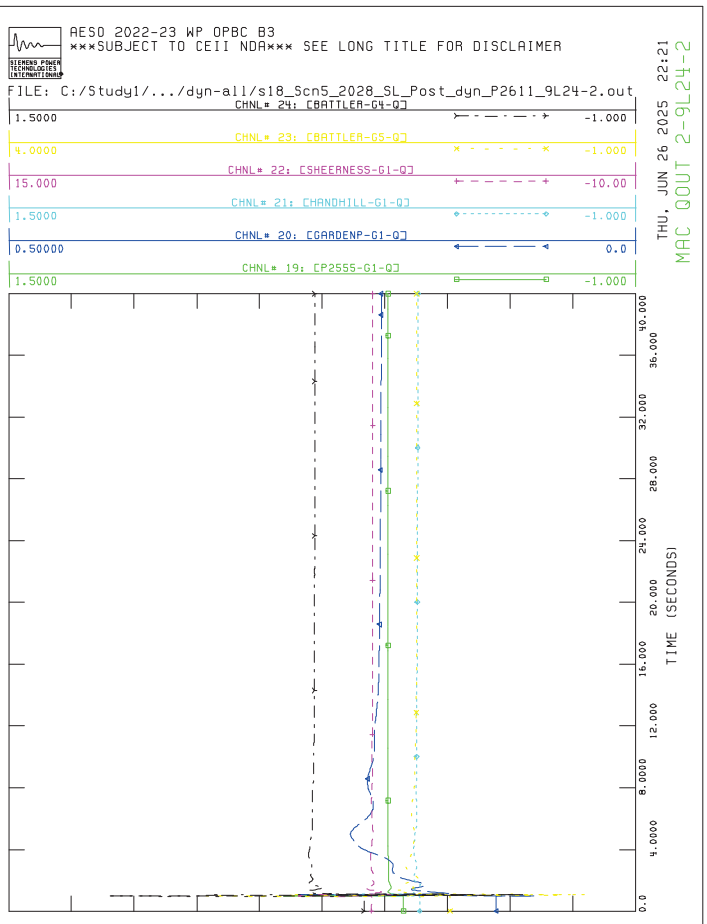

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
BUS VOL-9L24-1
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
TIME (SECONDS)

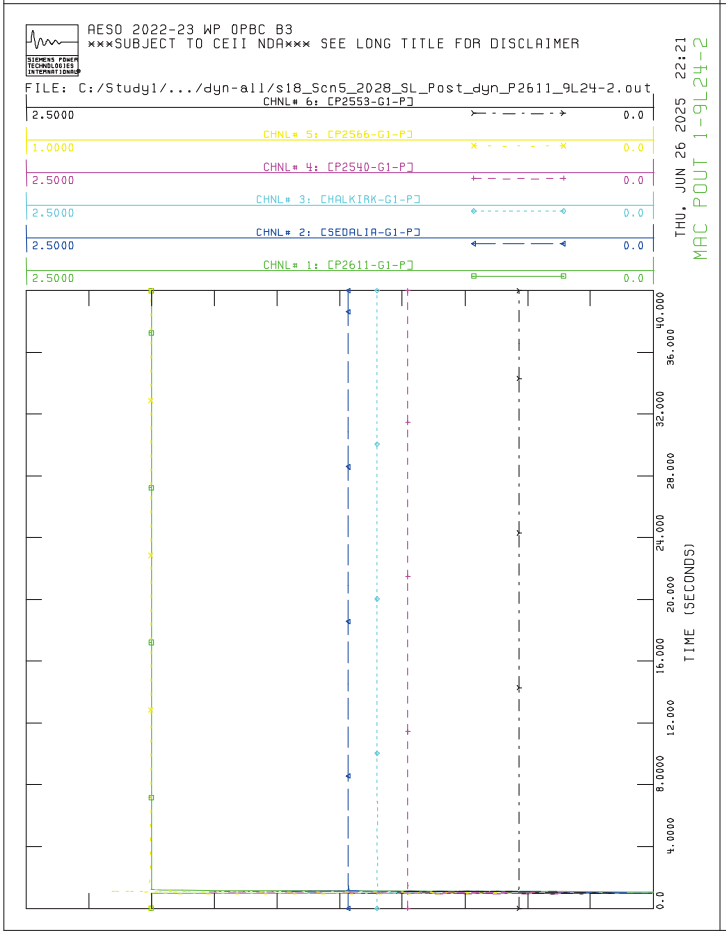

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
BRN Q FLOW-9L24-1
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
TIME (SECONDS)

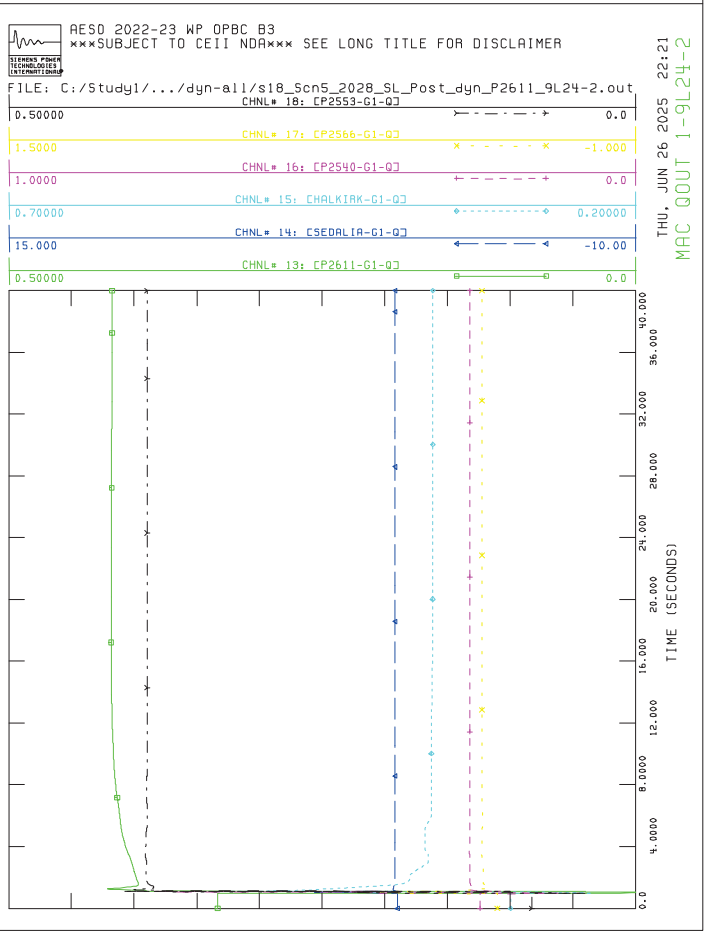

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s17_Scn5_2028_SL_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L24-1
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
TIME (SECONDS)

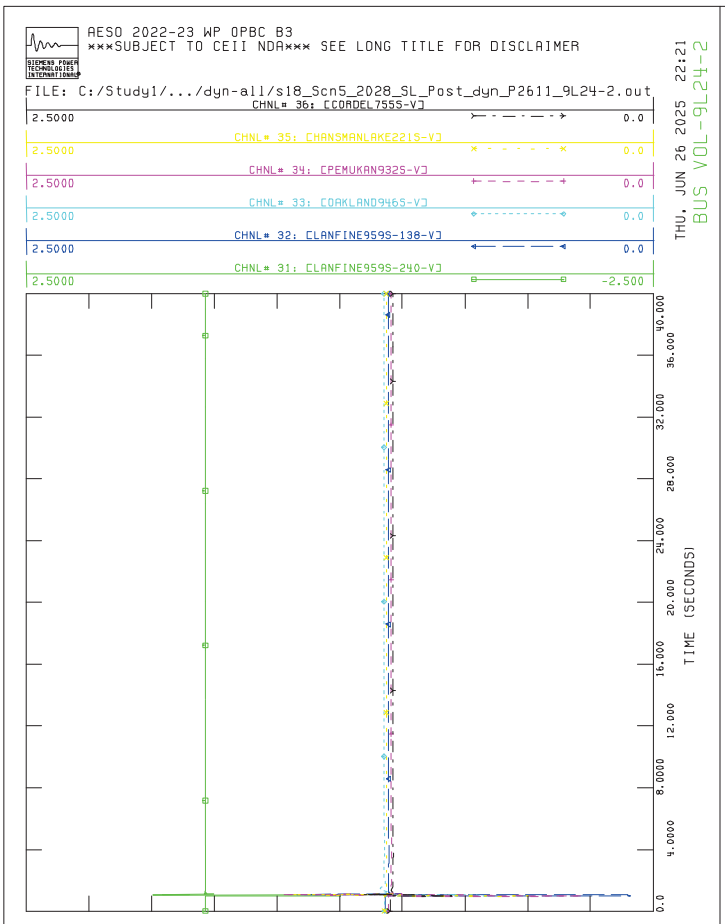

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
BRN P FLOW-9L24-1
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
TIME (SECONDS)

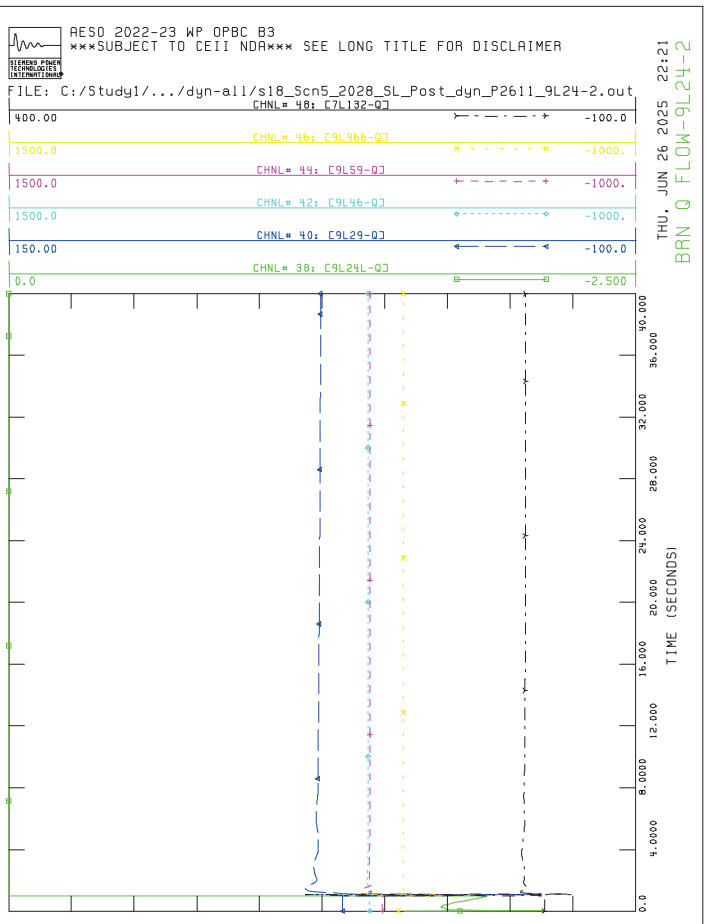

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-9L24-2

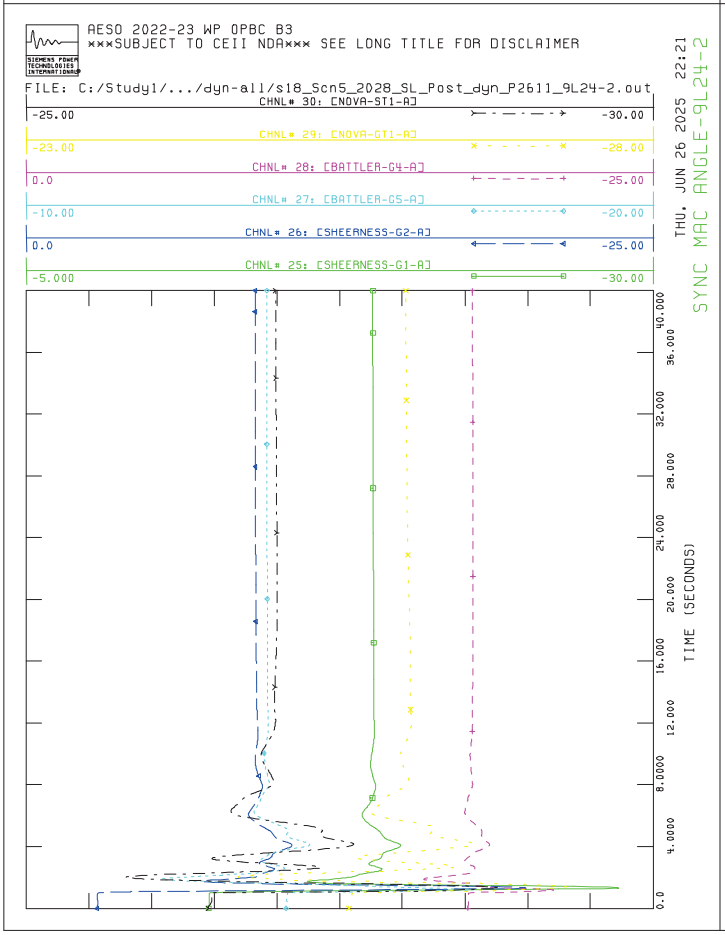

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-9L24-2

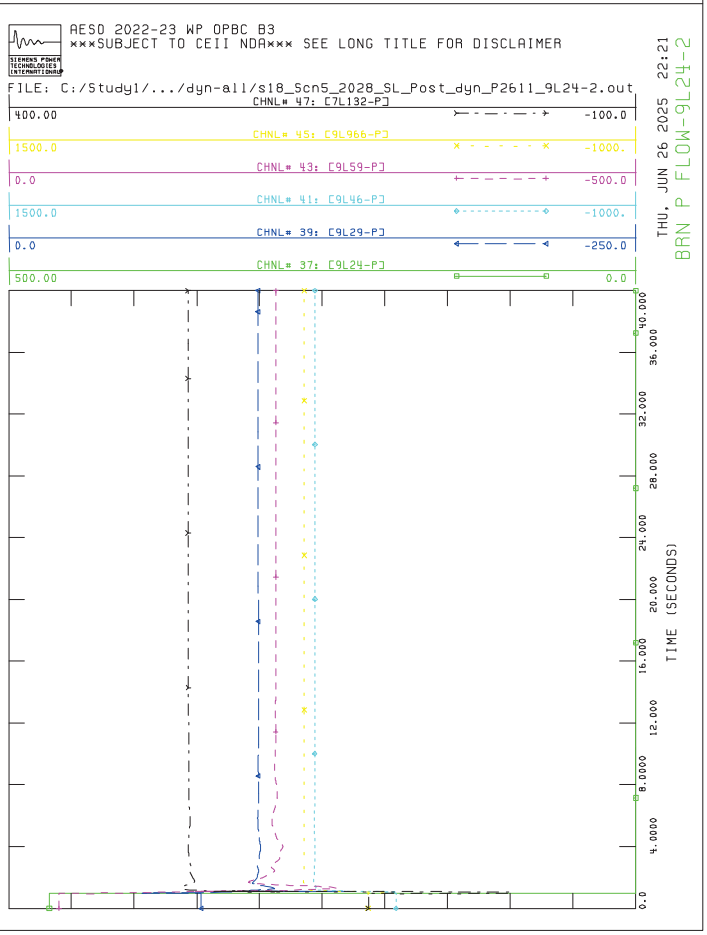

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s18_Scn5_2028_SL_Post_dyn_P2611_9L24-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [HALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-9L24-2

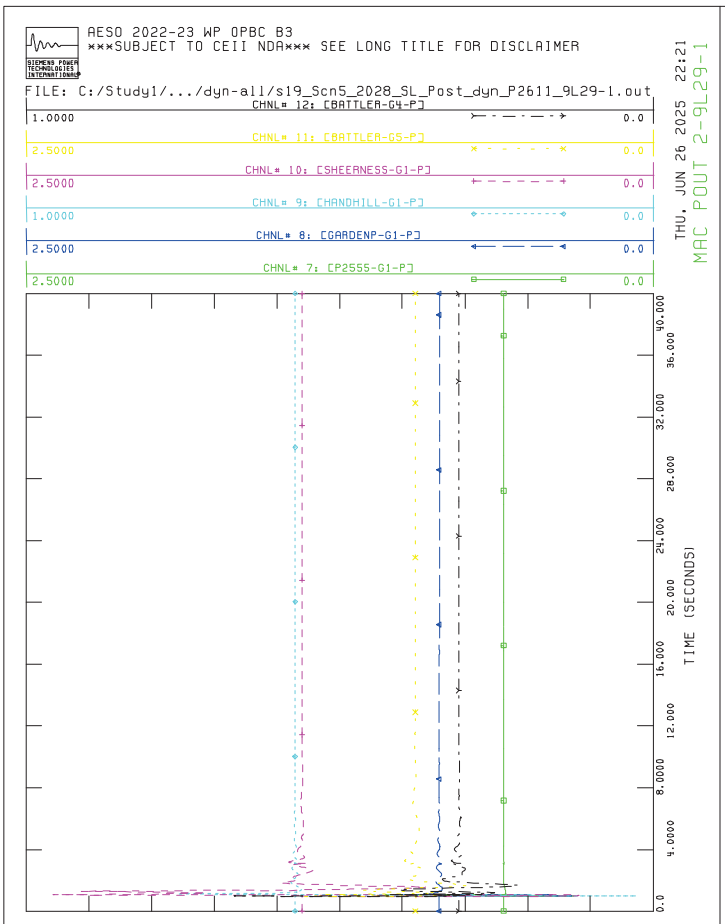

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s18_Scn5_2028_SL_Post_dyn_P2611_9L24-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [HALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-9L24-2

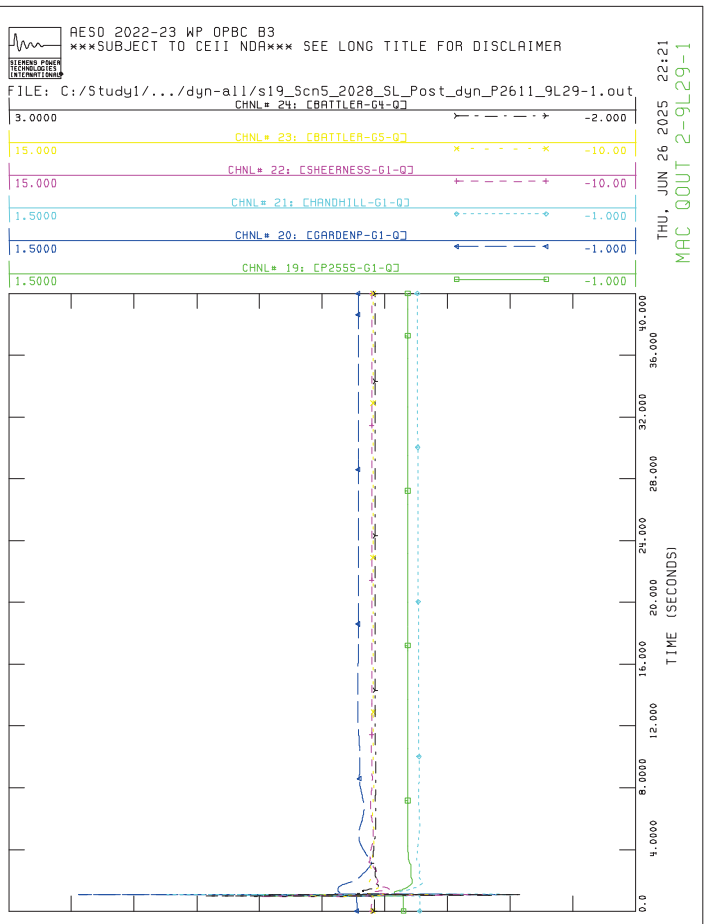

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s18_Scn5_2028_SL_Post_dyn_P2611_9L24-2.out
THU, JUN 26 2025 22:21
BUS VOL-9L24-2
CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE22LS-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
TIME (SECONDS)

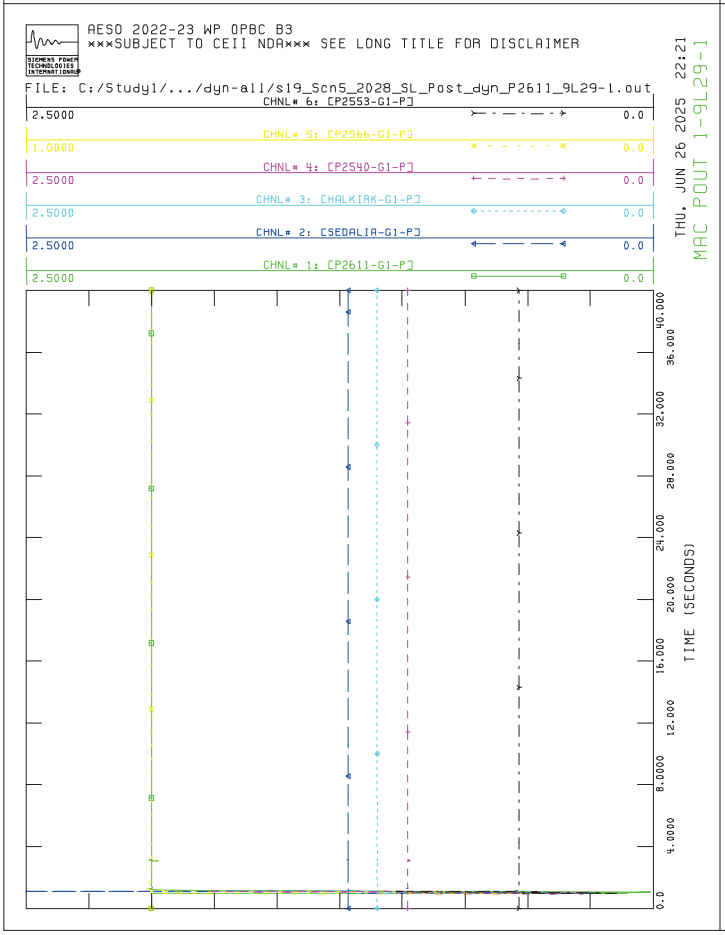

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s18_Scn5_2028_SL_Post_dyn_P2611_9L24-2.out
THU, JUN 26 2025 22:21
BRN Q FLOW-9L24-2
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
TIME (SECONDS)

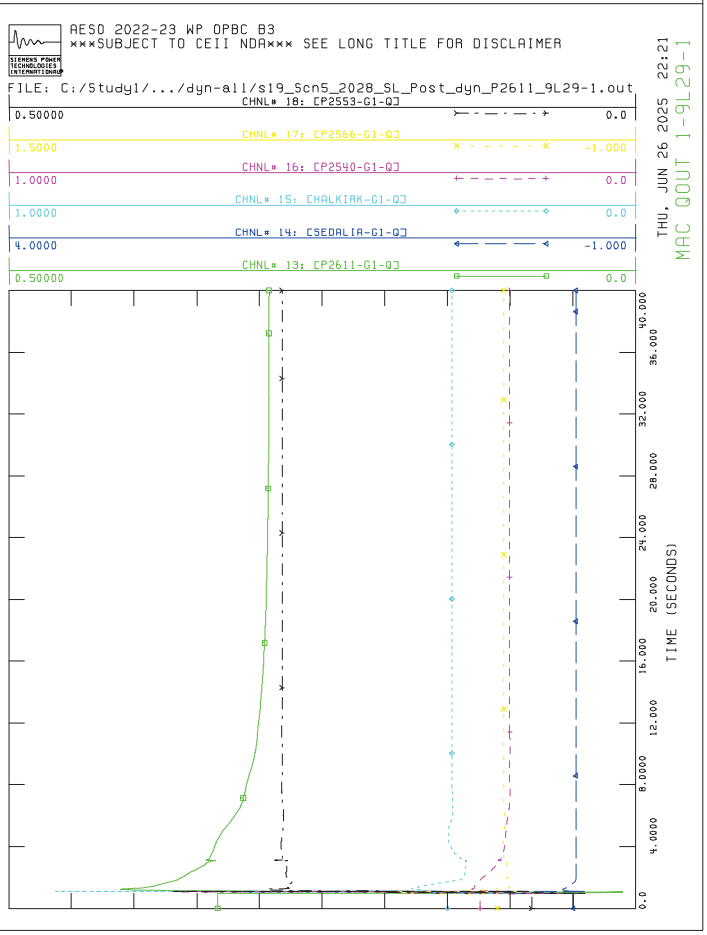

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s18_Scn5_2028_SL_Post_dyn_P2611_9L24-2.out
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L24-2
CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
TIME (SECONDS)

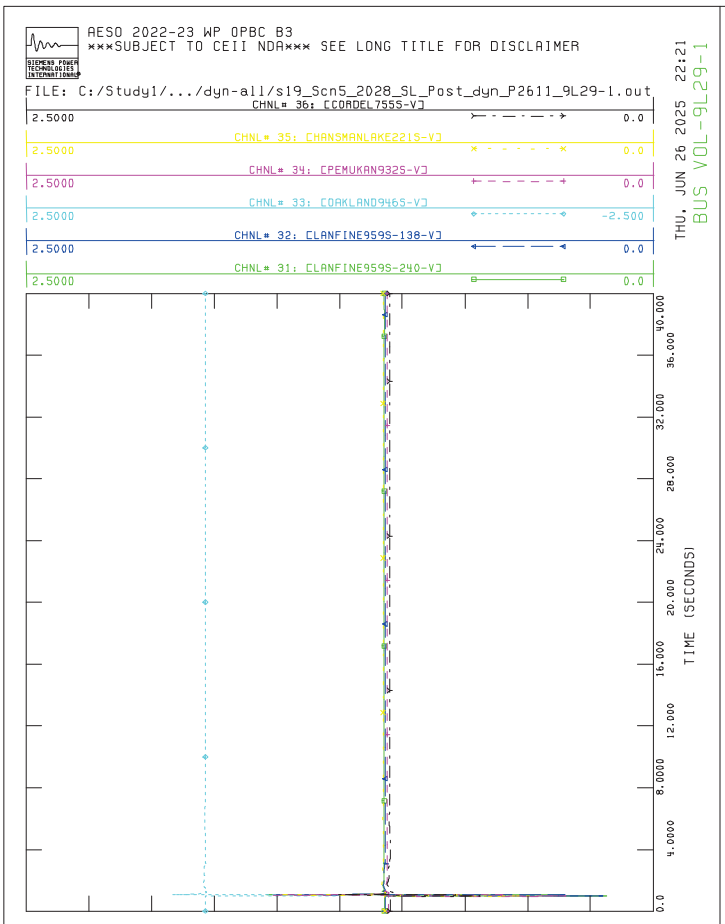

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s18_Scn5_2028_SL_Post_dyn_P2611_9L24-2.out
THU, JUN 26 2025 22:21
BRN P FLOW-9L24-2
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
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CHNL= 37: C9L24-PJ
TIME (SECONDS)

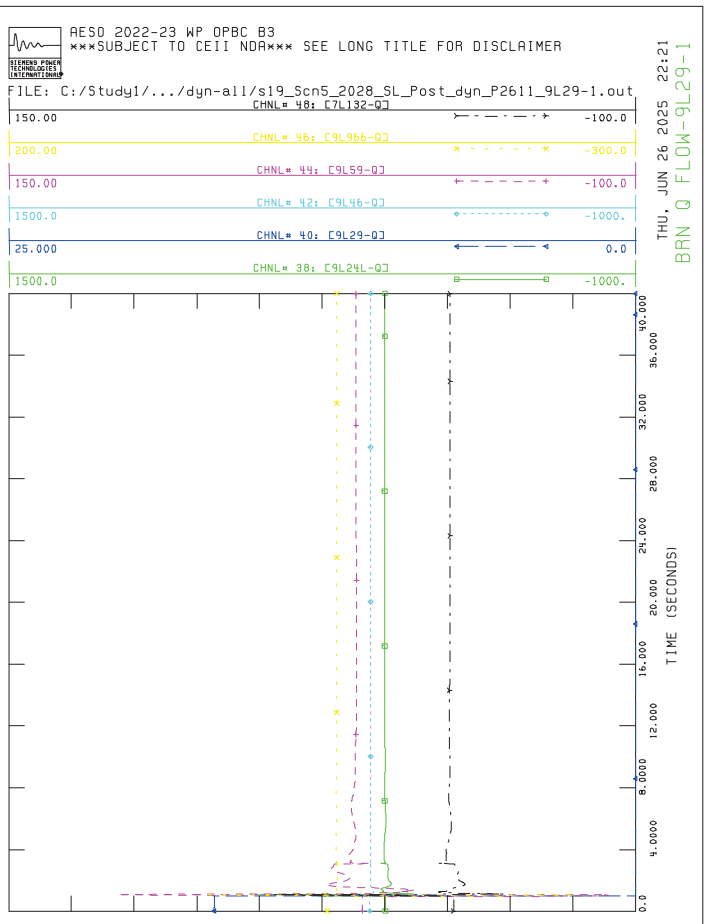

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s19_Scn5_2028_SL_Post_dyn_P2611_9L29-1.out
CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-9L29-1

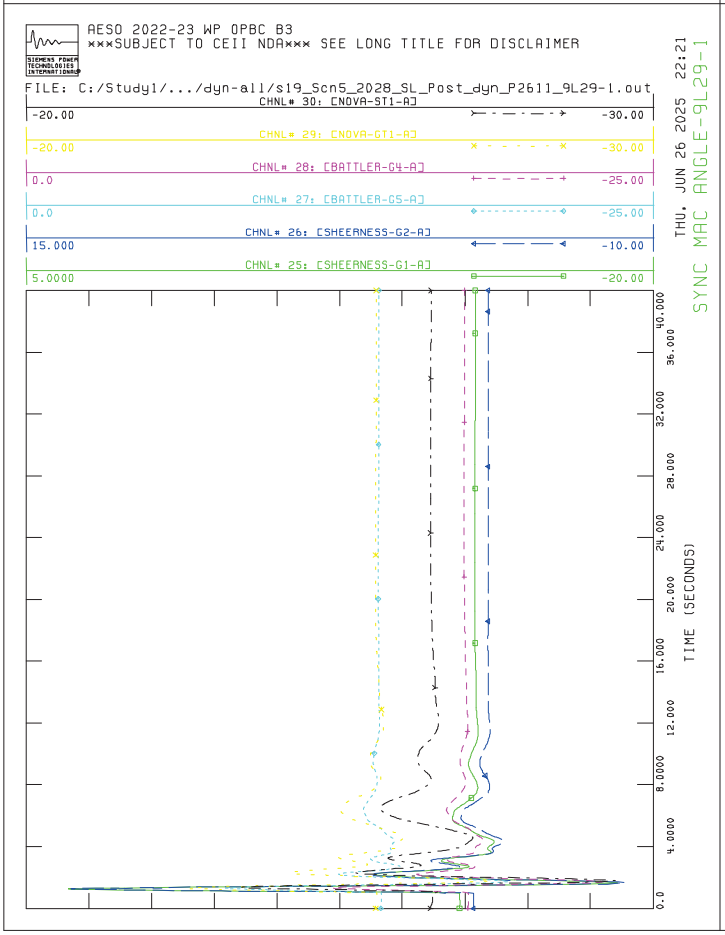

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s19_Scn5_2028_SL_Post_dyn_P2611_9L29-1.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-9L29-1

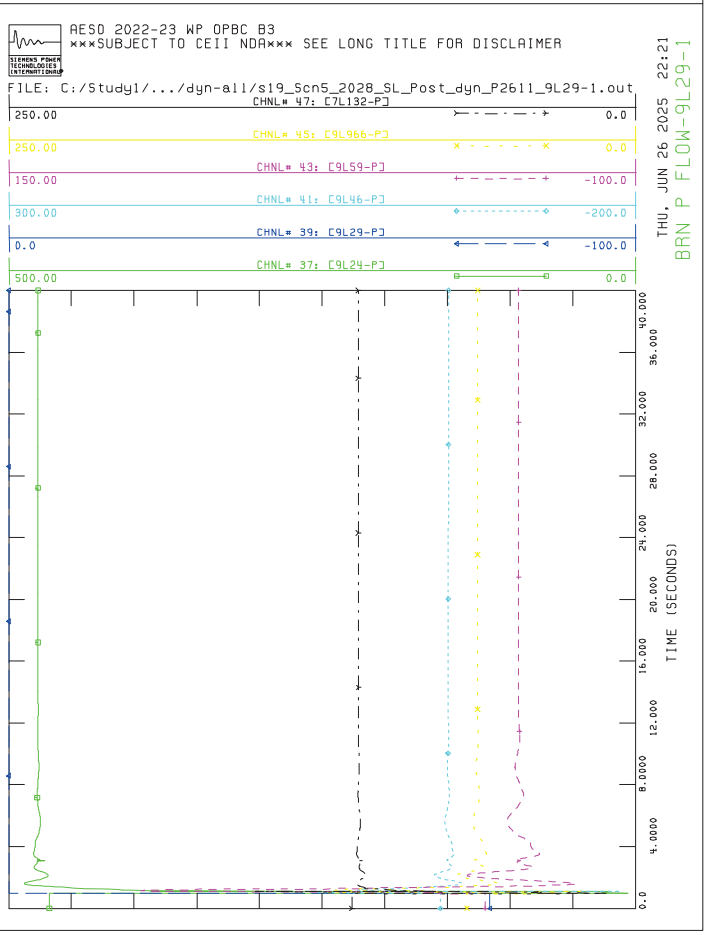

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s19_Scn5_2028_SL_Post_dyn_P2611_9L29-1.out
CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-9L29-1

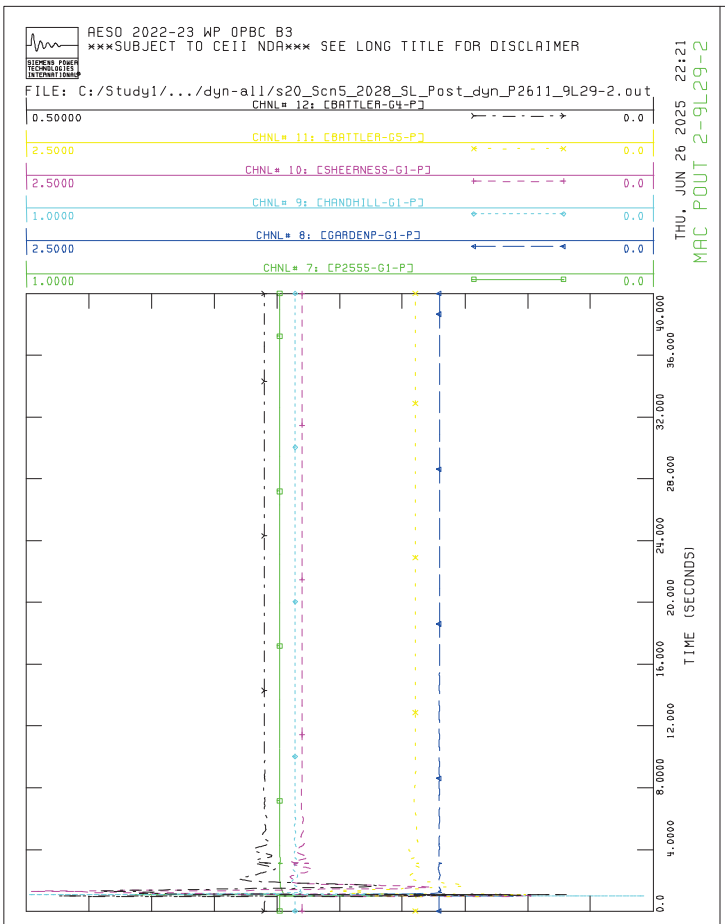

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s19_Scn5_2028_SL_Post_dyn_P2611_9L29-1.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-9L29-1

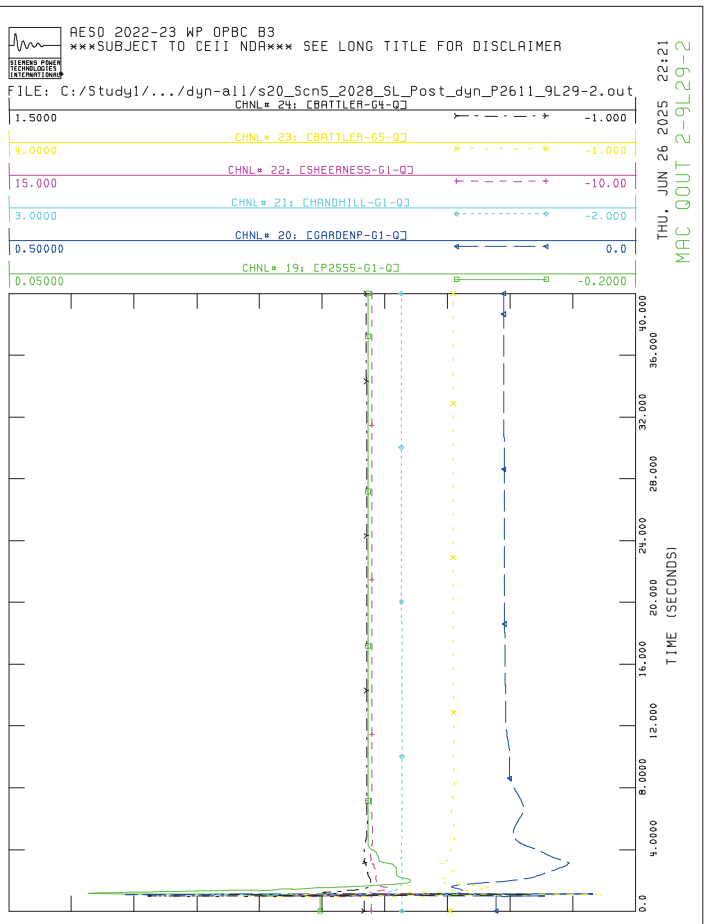

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s19_Scn5_2028_SL_Post_dyn_P2611_9L29-1.out
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE221S-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:21
BUS VOL-9L29-1
TIME (SECONDS)

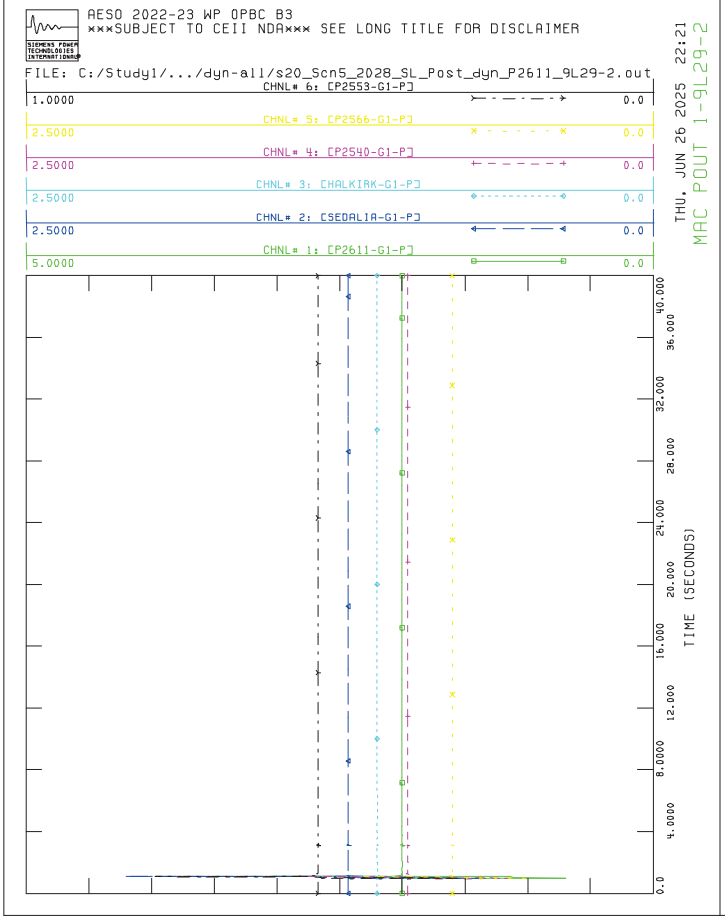

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:21
BRN Q FLOW-9L29-1
TIME (SECONDS)

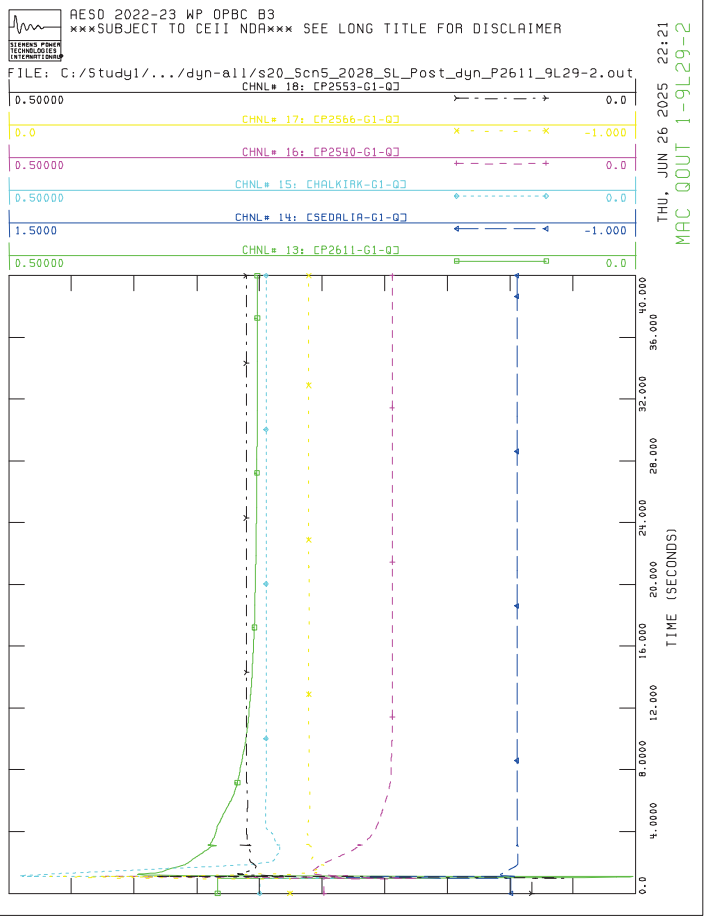

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s19_Scn5_2028_SL_Post_dyn_P2611_9L29-1.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L29-1
TIME (SECONDS)

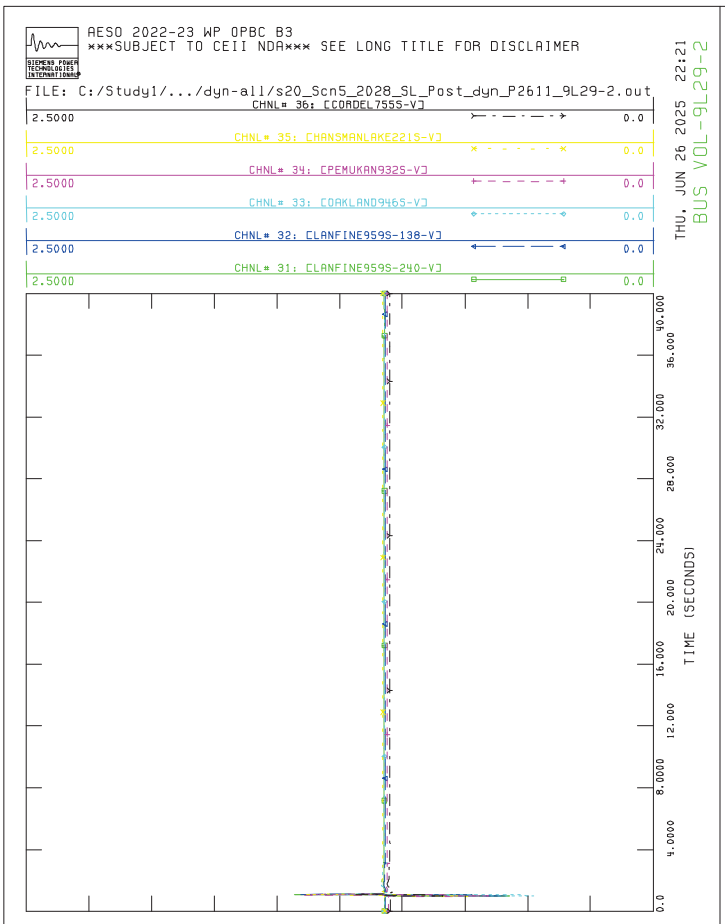

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:21
BRN P FLOW-9L29-1
TIME (SECONDS)

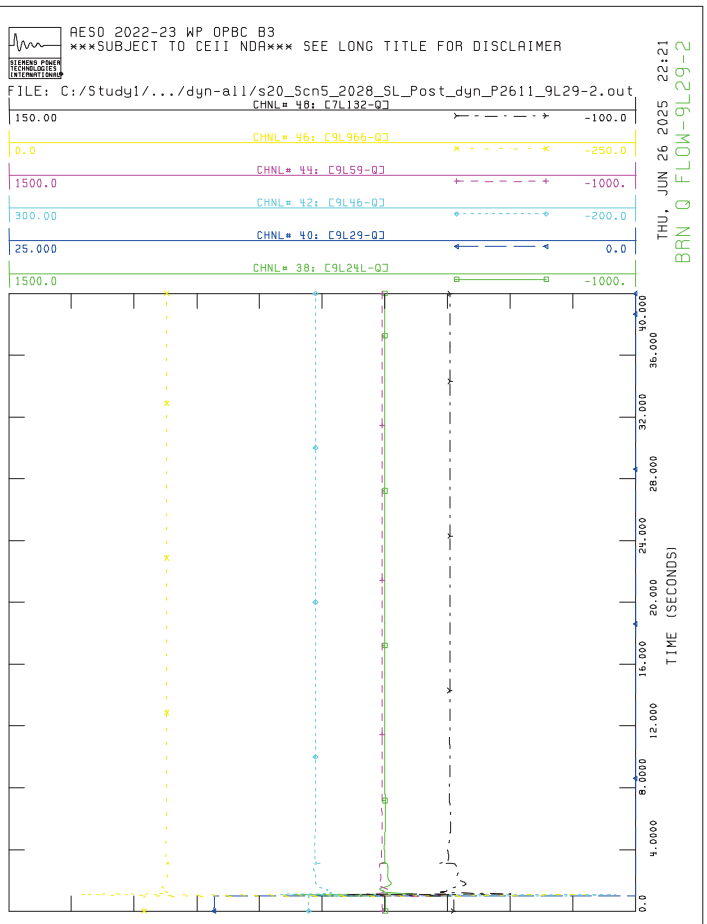

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-9L29-2

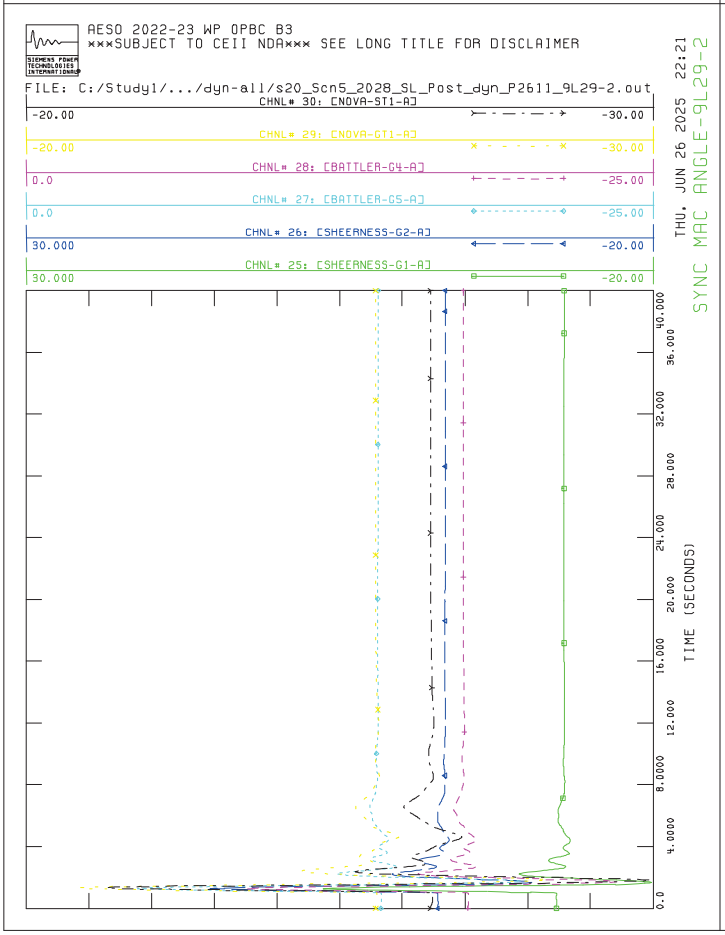

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s20_Scn5_2028_SL_Post_dyn_P2611_9L29-2.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-9L29-2

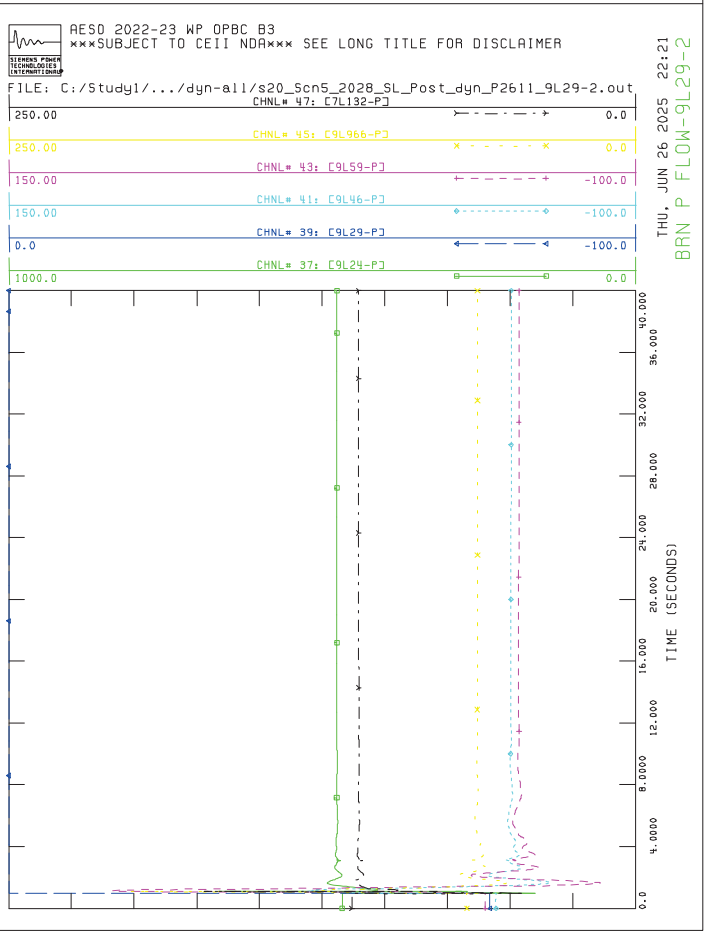

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s20_Scn5_2028_SL_Post_dyn_P2611_9L29-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-9L29-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s20_Scn5_2028_SL_Post_dyn_P2611_9L29-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-9L29-2

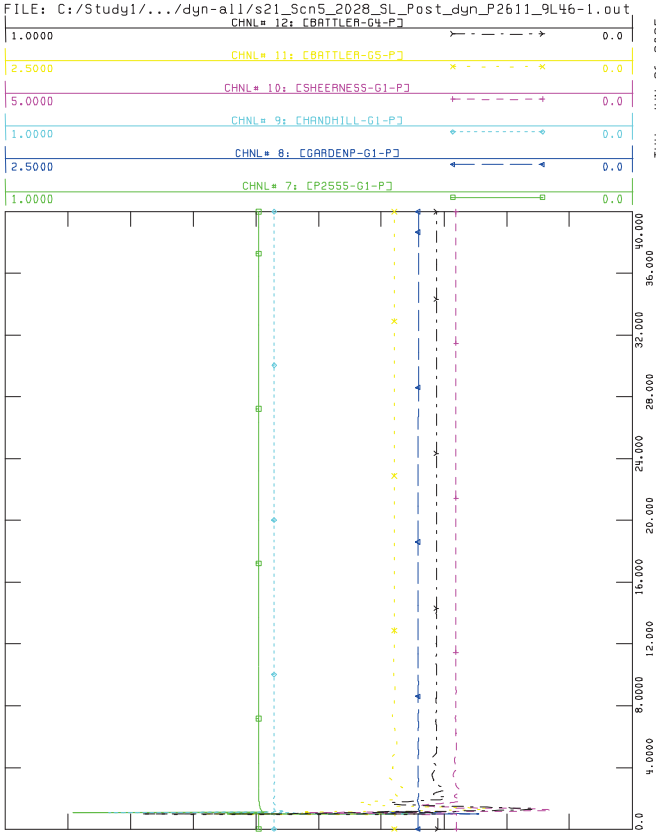

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s20_Scn5_2028_SL_Post_dyn_P2611_9L29-2.out
CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE221S-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:21
BUS VOL-9L29-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s20_Scn5_2028_SL_Post_dyn_P2611_9L29-2.out
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
THU, JUN 26 2025 22:21
BRN Q FLOW-9L29-2
TIME (SECONDS)

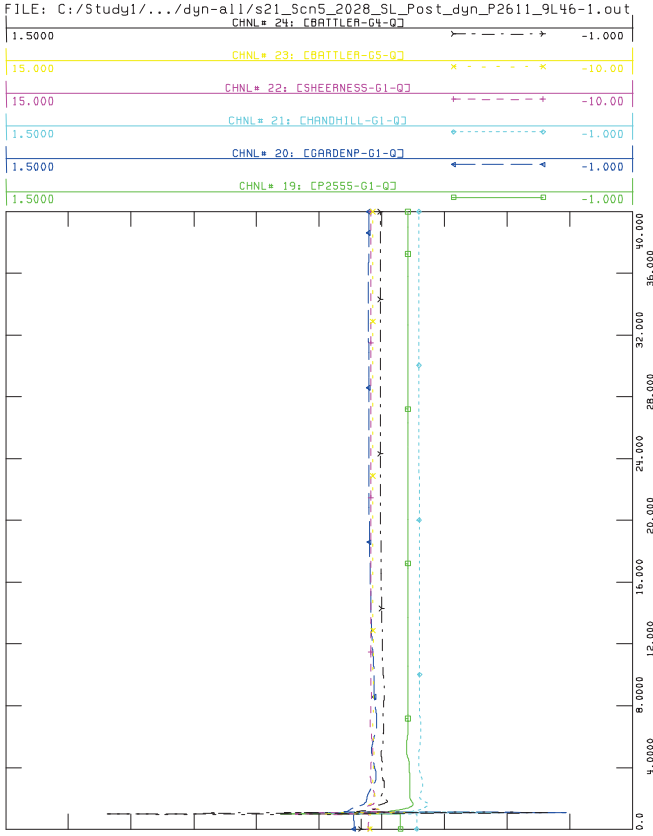

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L29-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s20_Scn5_2028_SL_Post_dyn_P2611_9L29-2.out
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
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CHNL= 37: C9L24-PJ
THU, JUN 26 2025 22:21
BRN P FLOW-9L29-2
TIME (SECONDS)

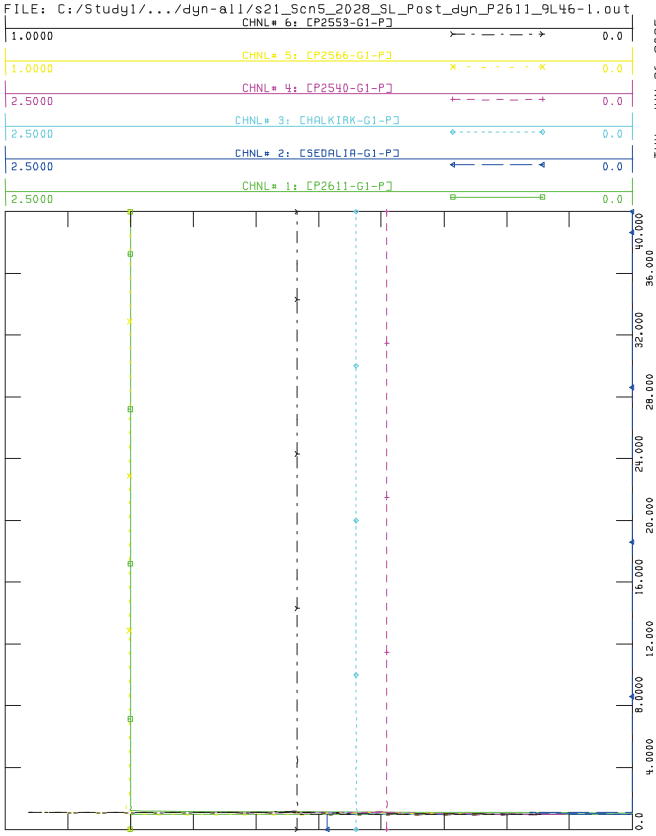
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THU, JUN 26 2025 22:21
MAC POUT 2-9L46-1



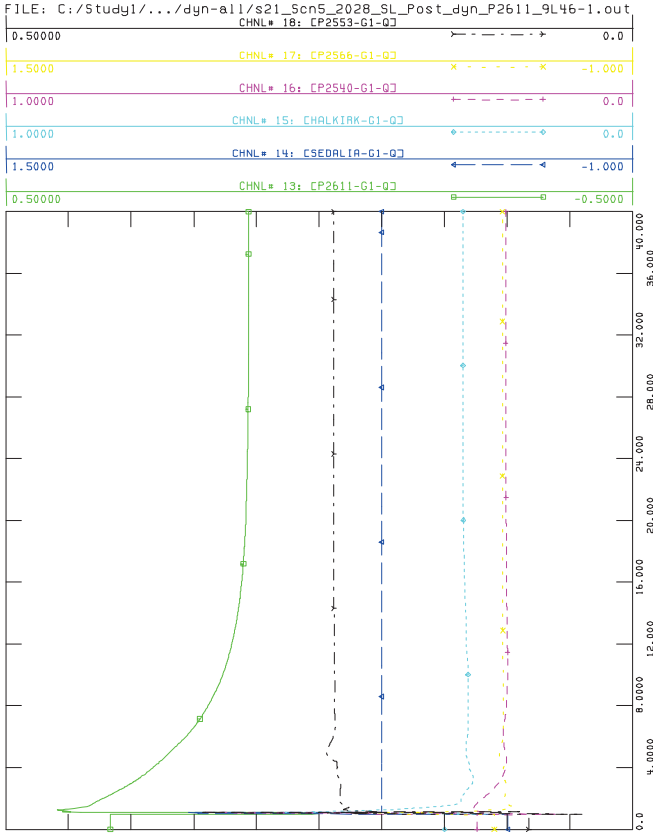
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MAC QOUT 2-9L46-1

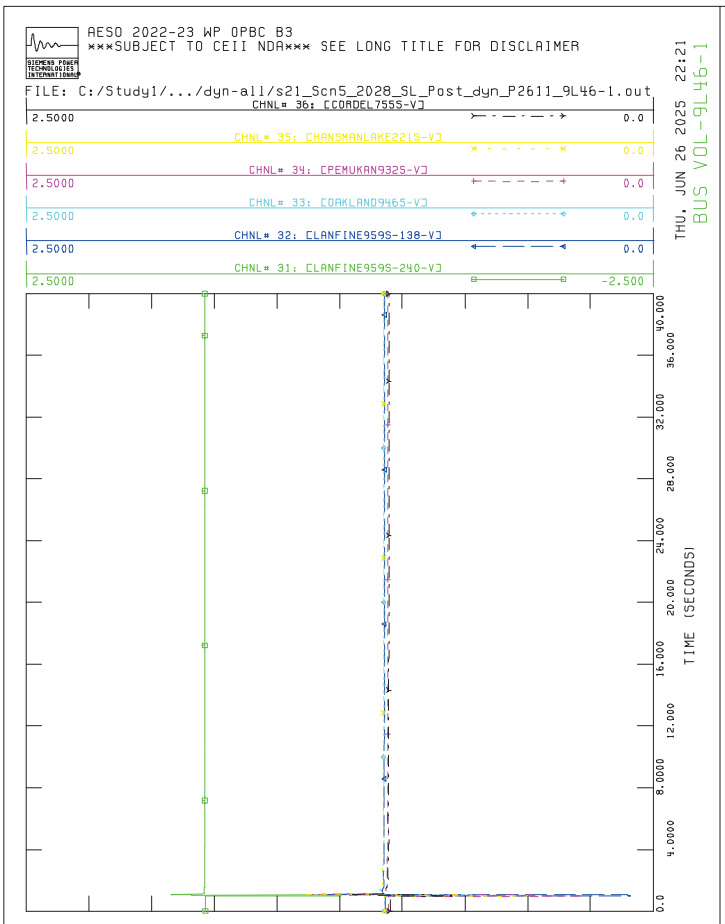


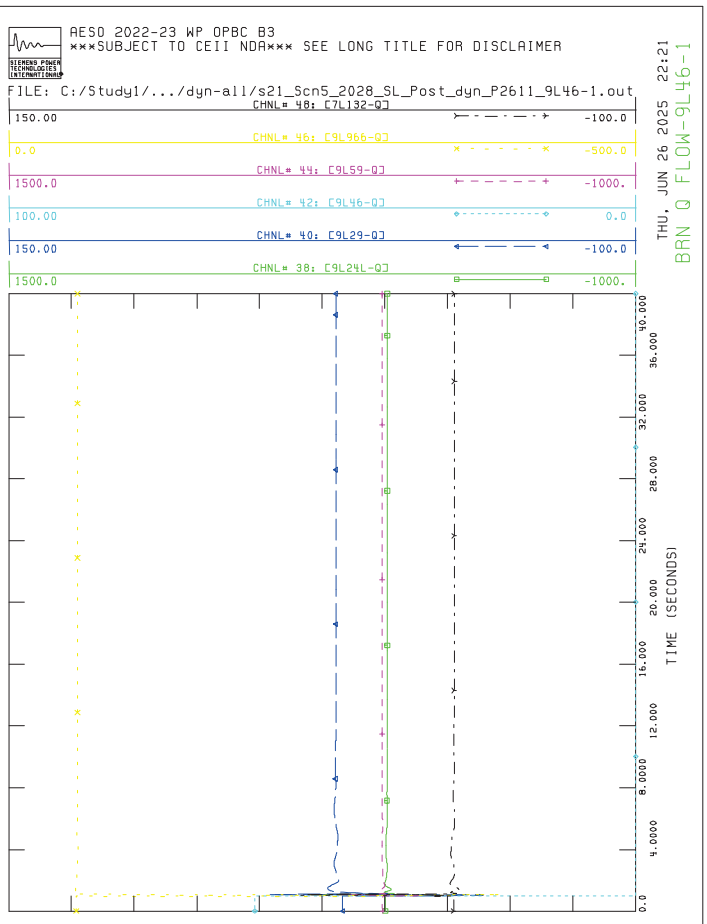
AESO 2022-23 WP OPBC B3
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THU, JUN 26 2025 22:21
MAC POUT 1-9L46-1

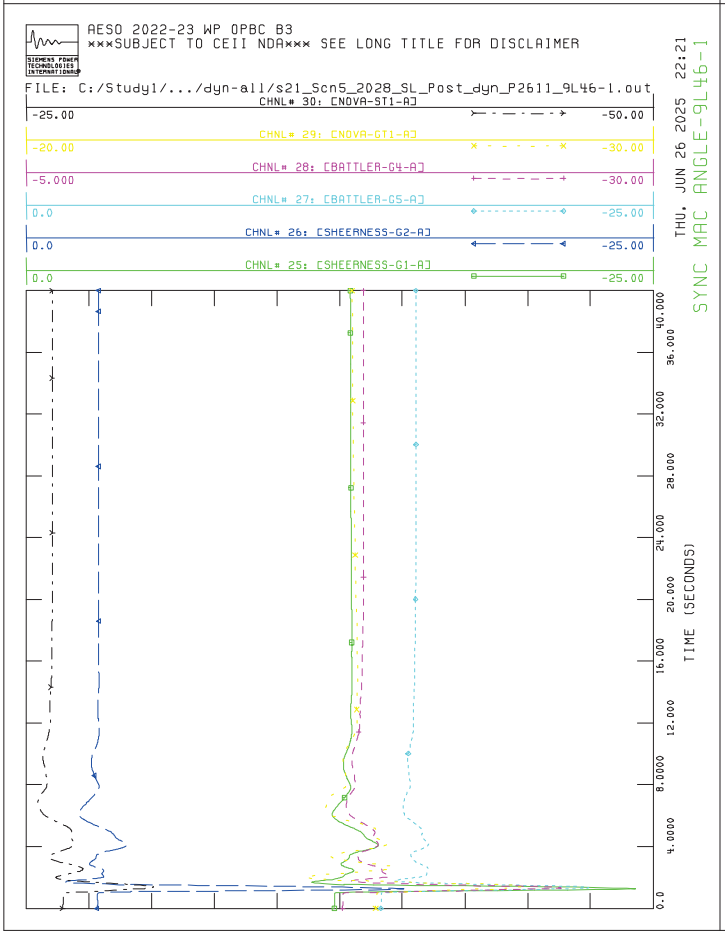


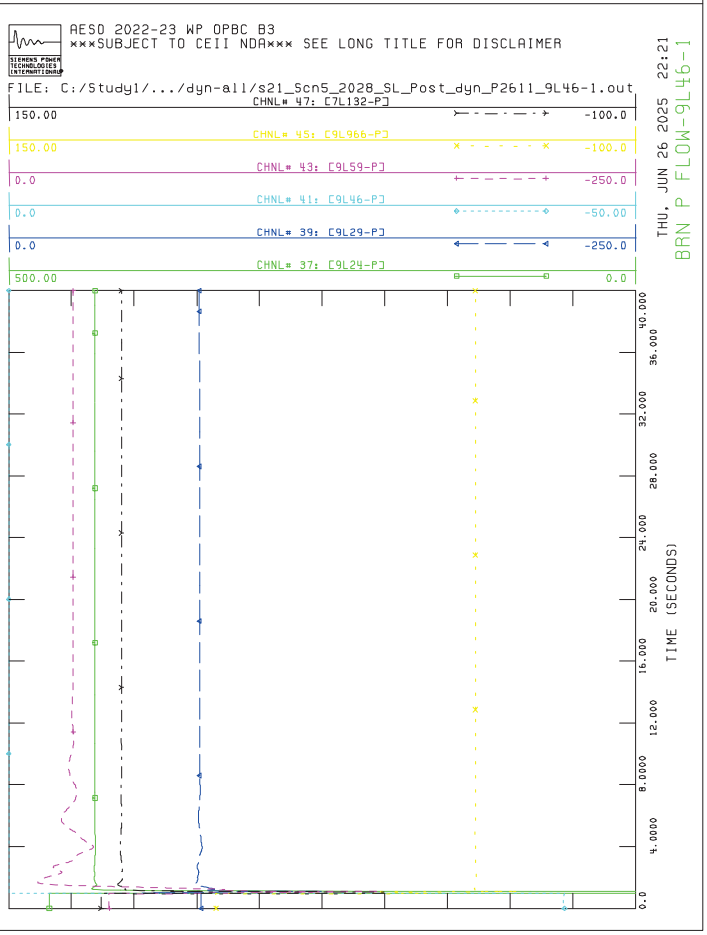
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
MAC QOUT 1-9L46-1

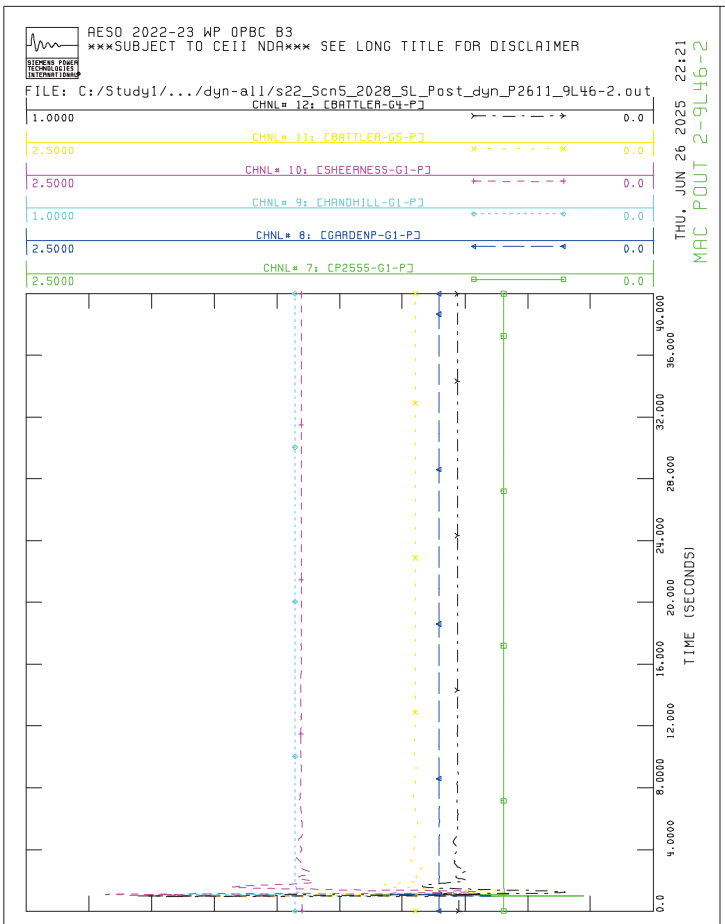


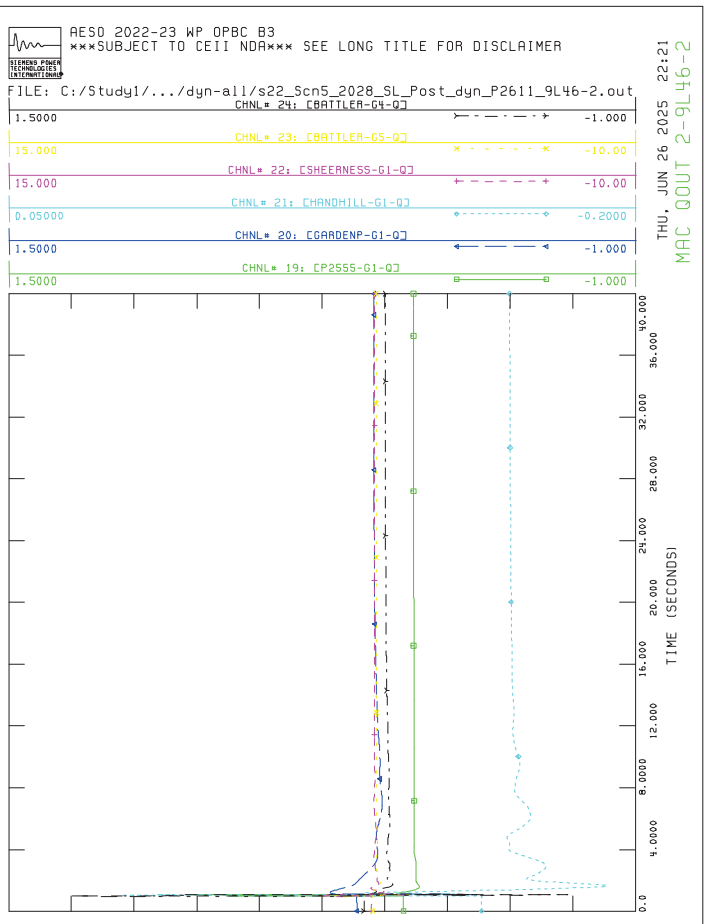

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE221S-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:21
BUS VOL-9L46-1
TIME (SECONDS)

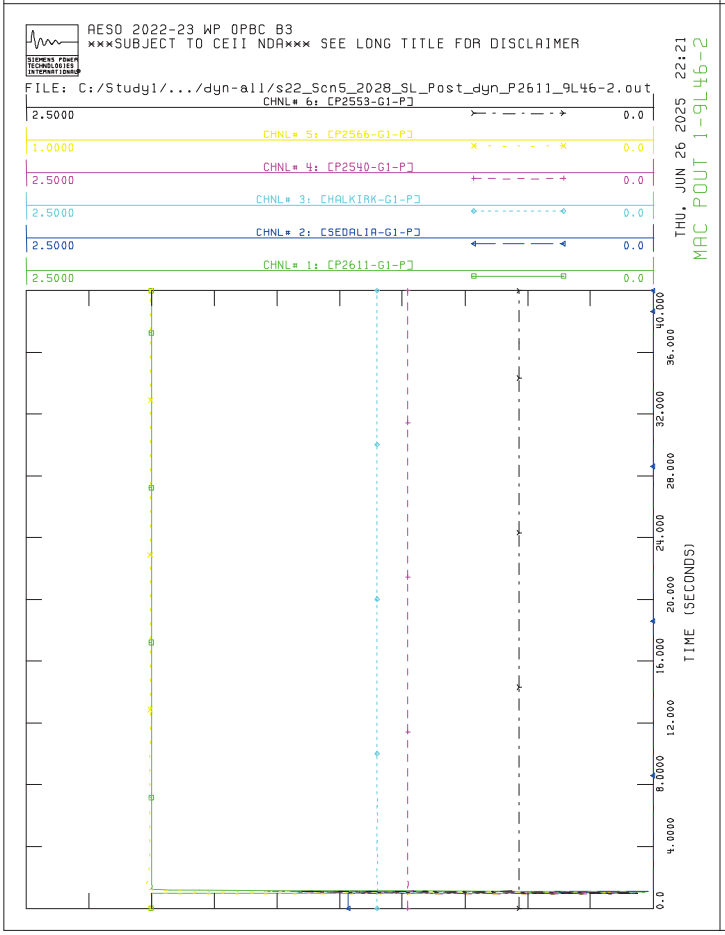

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s21_Scn5_2028_SL_Post_dyn_P2611_9L46-1.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:21
BRN Q FLOW-9L46-1
TIME (SECONDS)

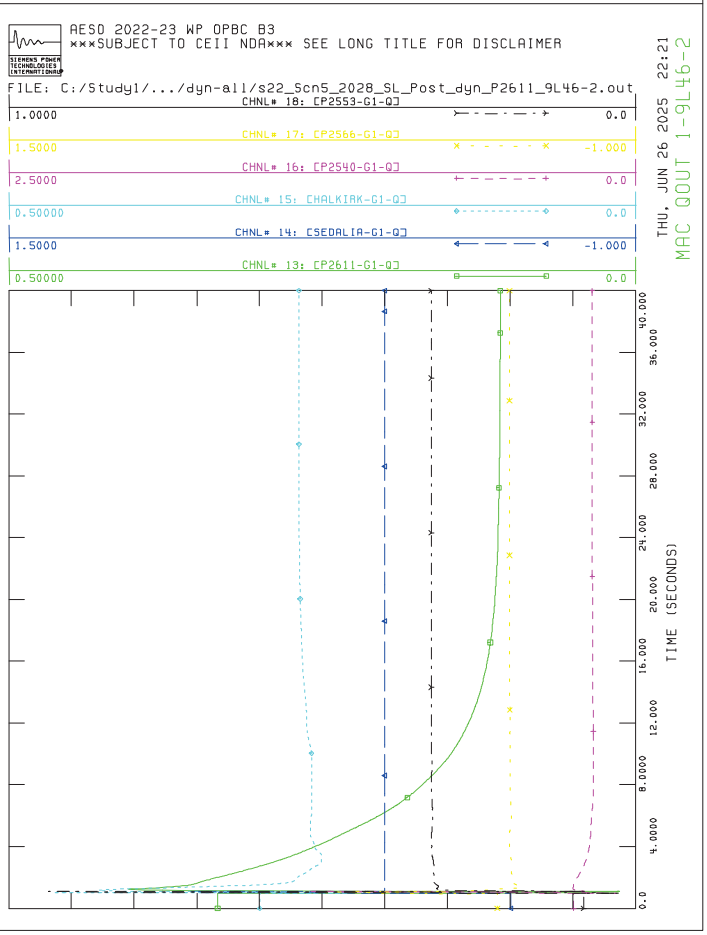

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 30: CNOVA-GT1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L46-1
TIME (SECONDS)

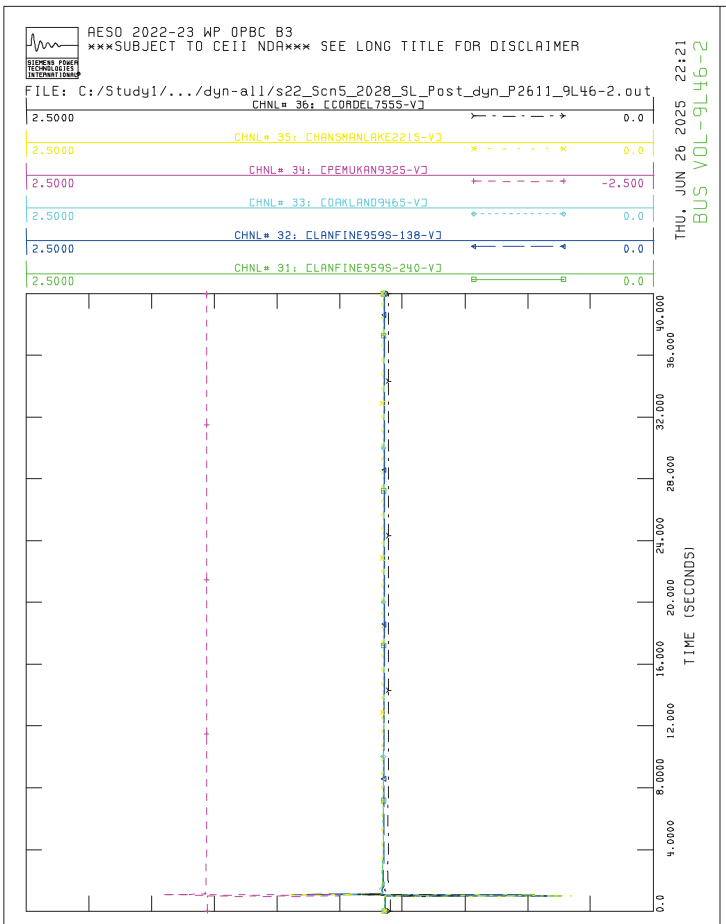

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:21
BRN P FLOW-9L46-1
TIME (SECONDS)

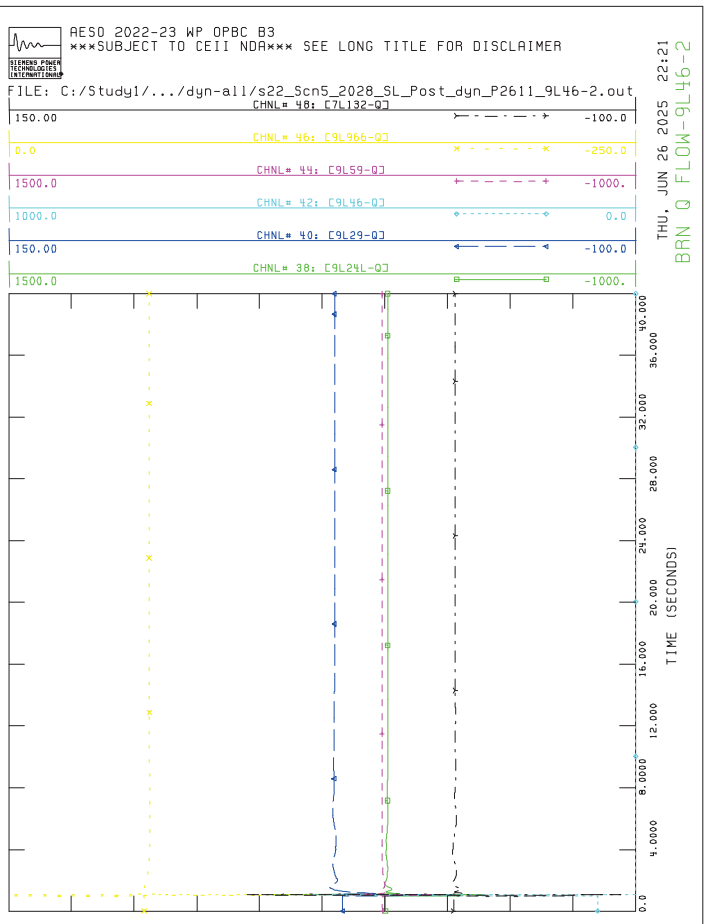

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-9L46-2

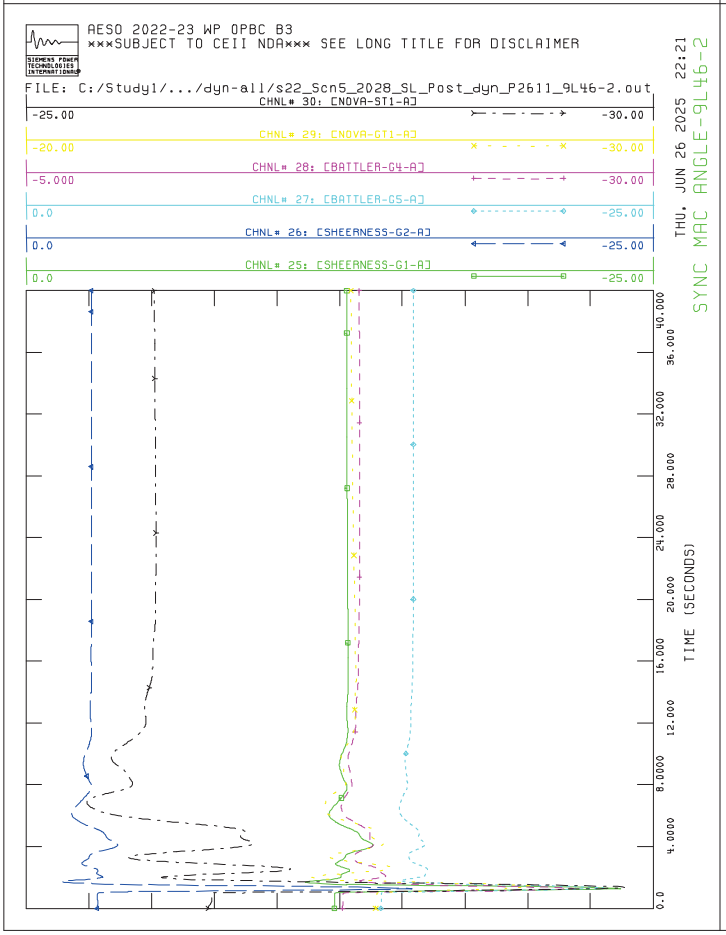

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s22_Scn5_2028_SL_Post_dyn_P2611_9L46-2.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-9L46-2

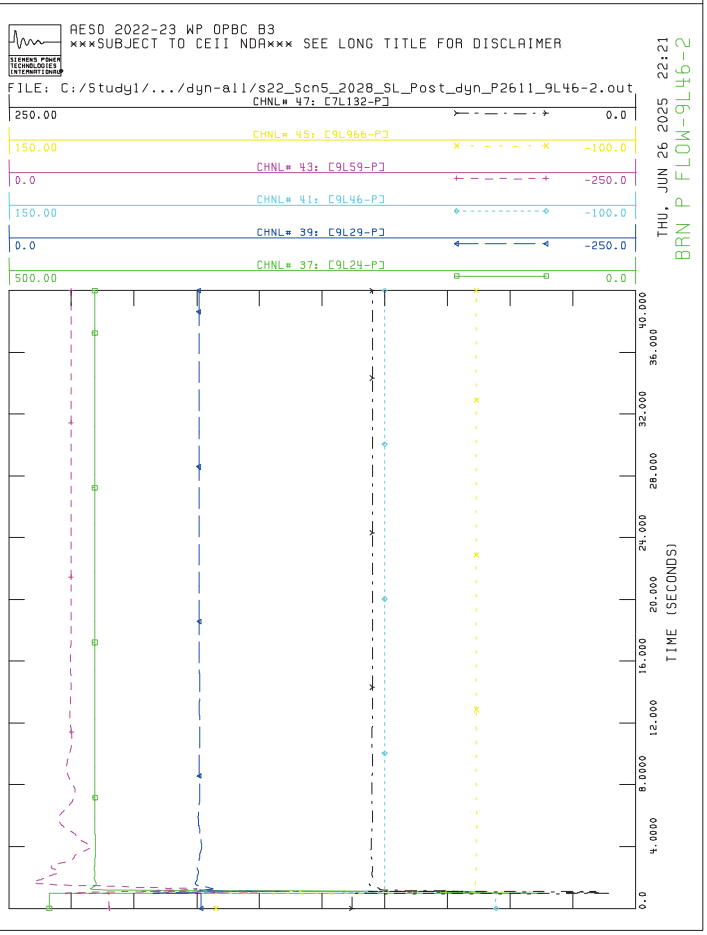

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-9L46-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s22_Scn5_2028_SL_Post_dyn_P2611_9L46-2.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-9L46-2

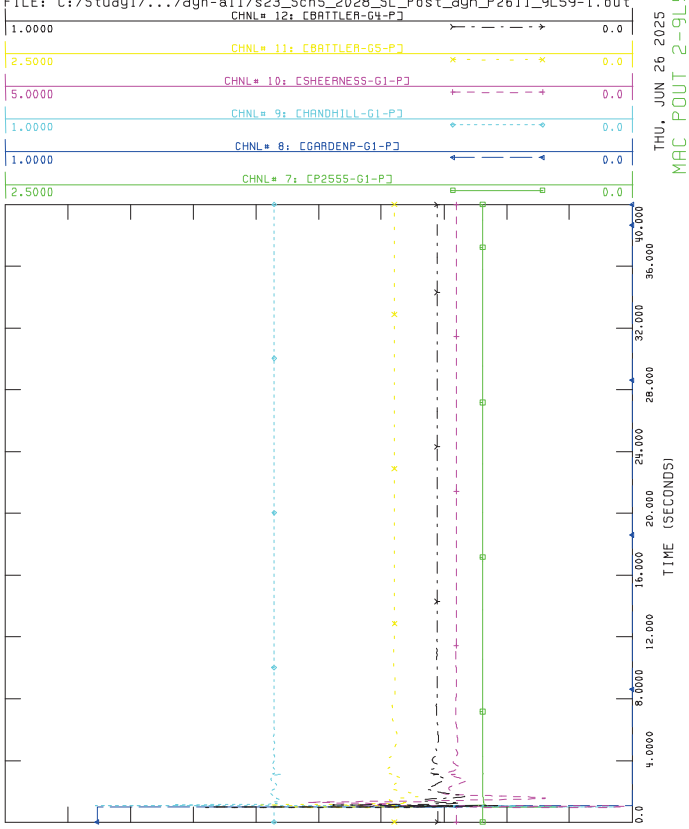

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE2215-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:21
BUS VOL-9L46-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s22_Scn5_2028_SL_Post_dyn_P2611_9L46-2.out
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
THU, JUN 26 2025 22:21
BRN Q FLOW-9L46-2
TIME (SECONDS)

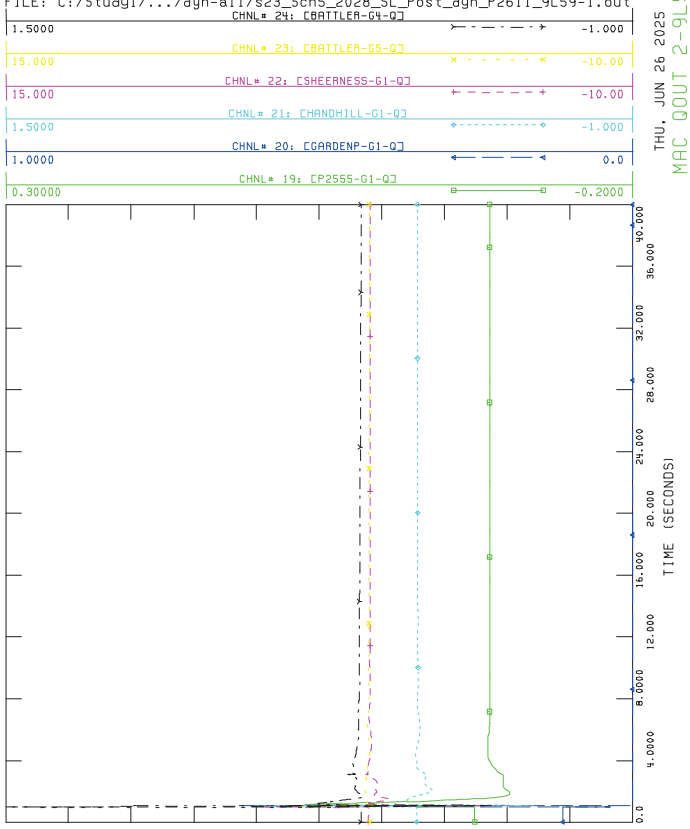

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L46-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s22_Scn5_2028_SL_Post_dyn_P2611_9L46-2.out
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CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
CHNL= 39: C9L29-PJ
CHNL= 37: C9L24-PJ
THU, JUN 26 2025 22:21
BRN P FLOW-9L46-2
TIME (SECONDS)

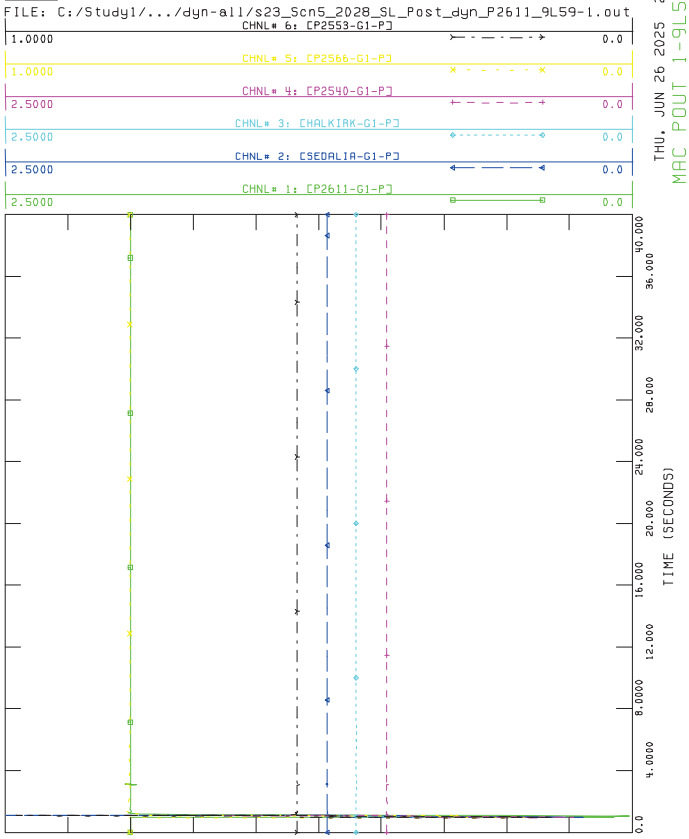
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
MAC POUT 2-9L59-1



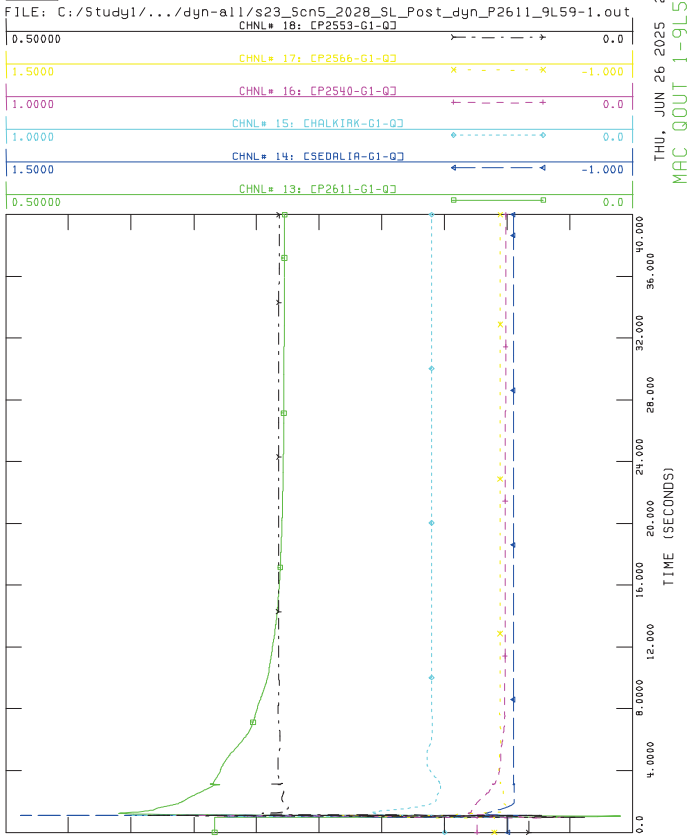
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s23_Scn5_2028_SL_Post_dyn_P2611_9L59-1.out
THU, JUN 26 2025 22:21
MAC QOUT 2-9L59-1

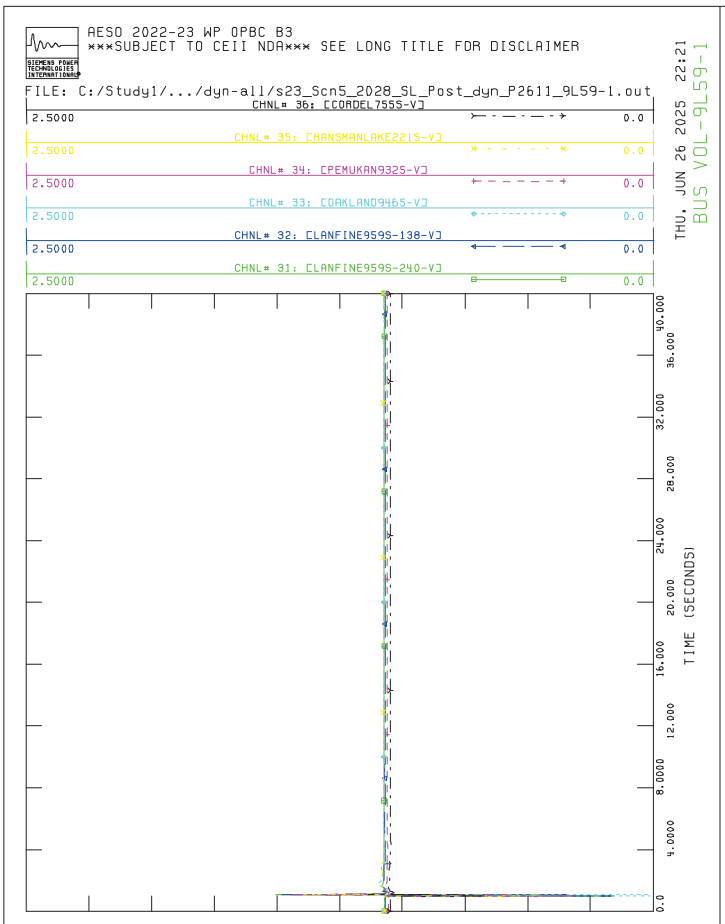


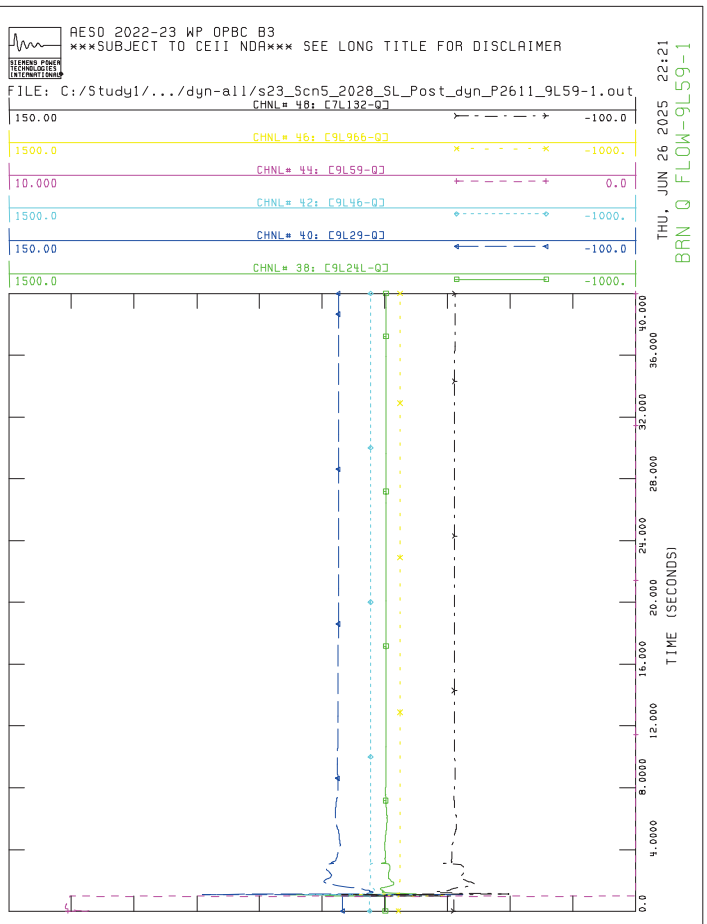
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
MAC POUT 1-9L59-1

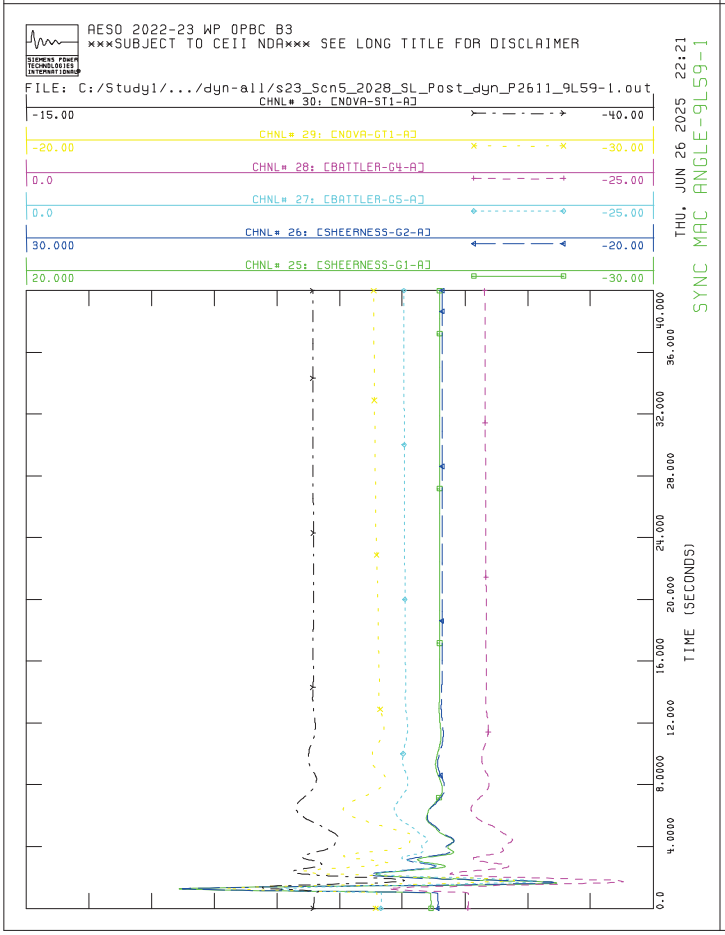


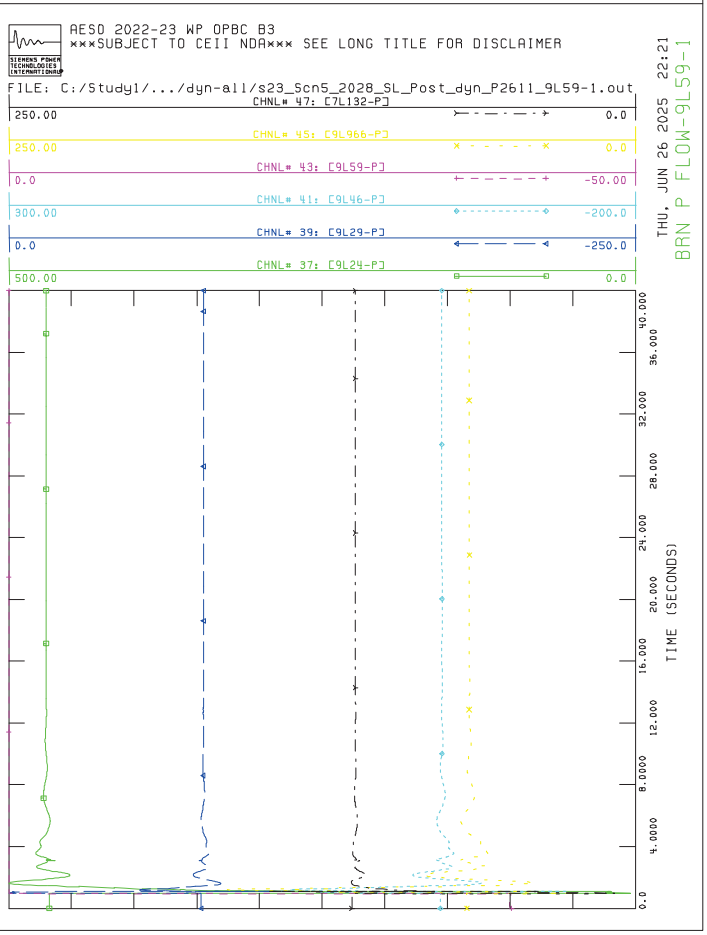
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
MAC QOUT 1-9L59-1

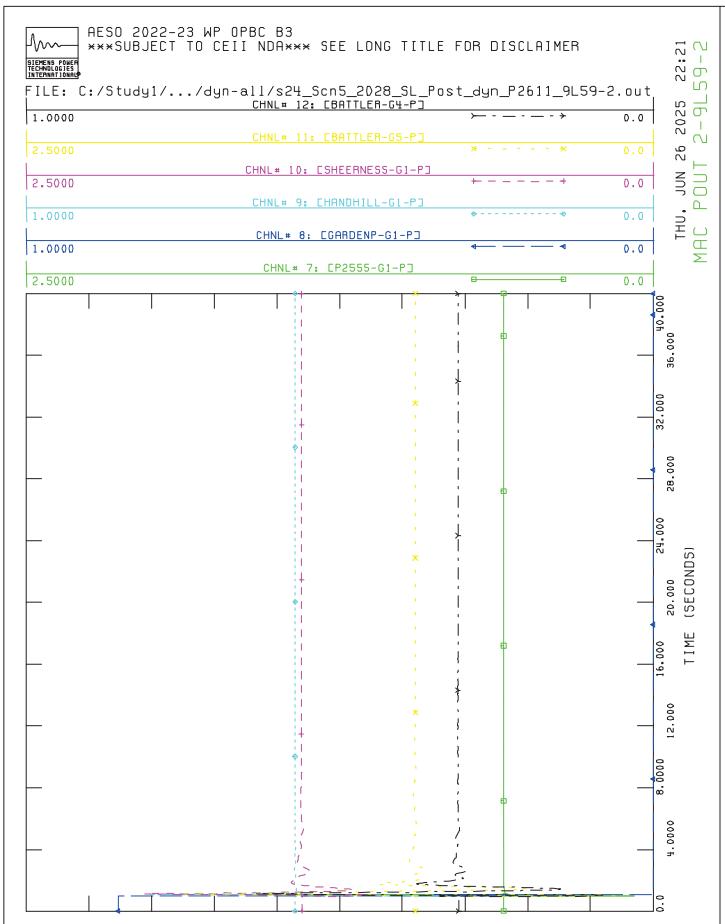


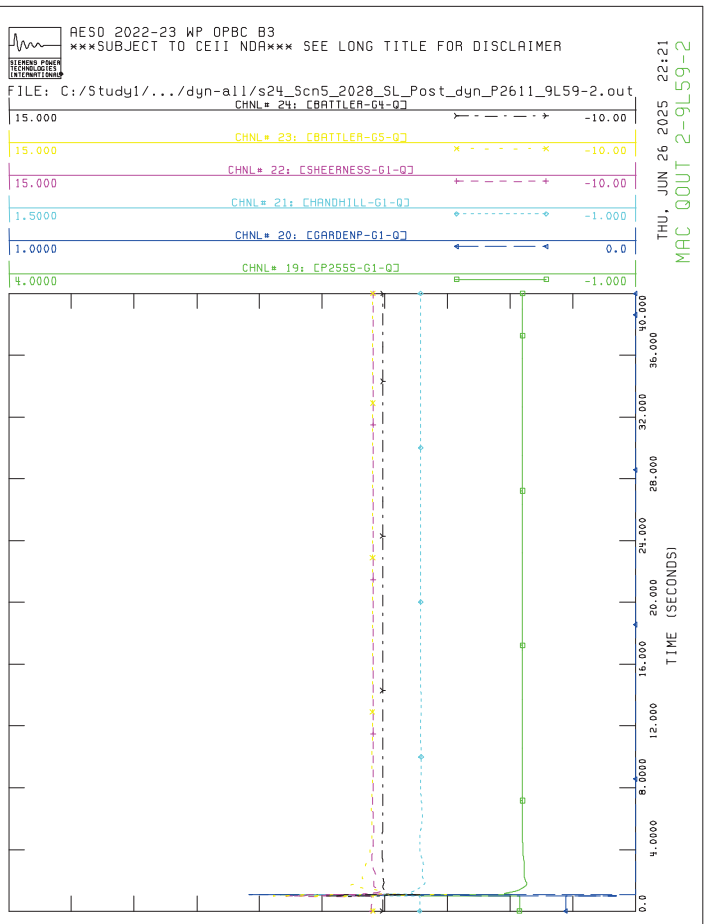

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s23_Scn5_2028_SL_Post_dyn_P2611_9L59-1.out
THU, JUN 26 2025 22:21
BUS VOL-9L59-1
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
TIME (SECONDS)

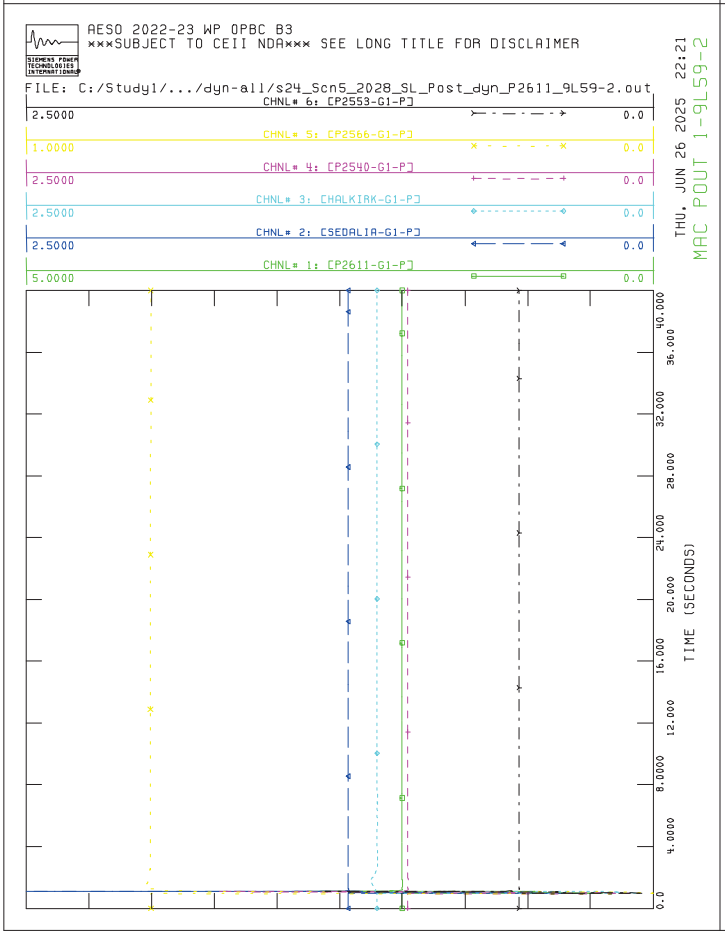

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s23_Scn5_2028_SL_Post_dyn_P2611_9L59-1.out
THU, JUN 26 2025 22:21
BRN Q FLOW-9L59-1
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
TIME (SECONDS)

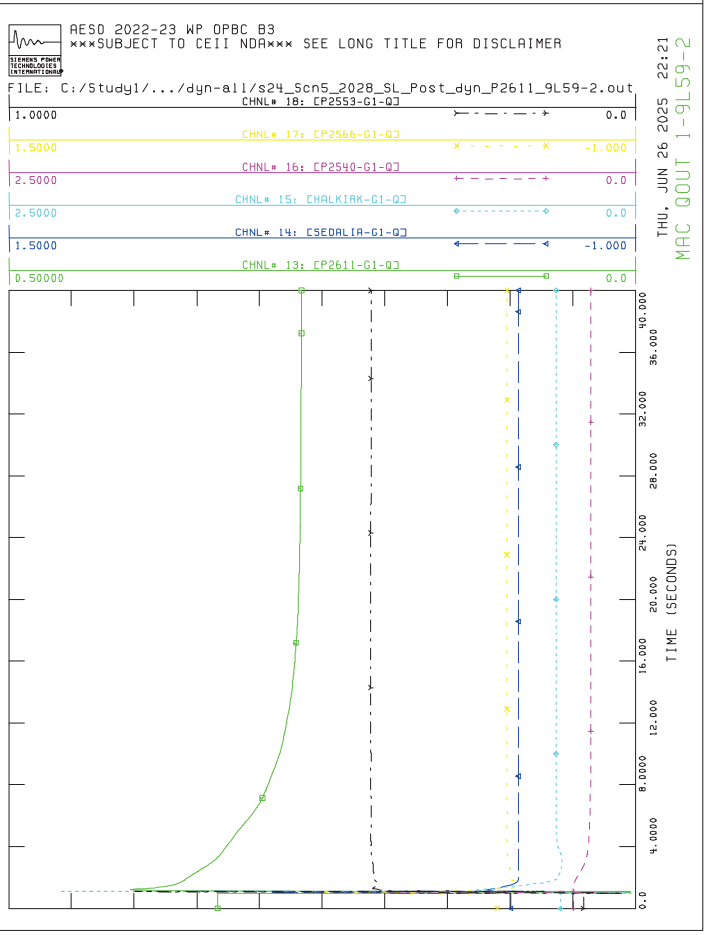

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s23_Scn5_2028_SL_Post_dyn_P2611_9L59-1.out
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L59-1
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s23_Scn5_2028_SL_Post_dyn_P2611_9L59-1.out
THU, JUN 26 2025 22:21
BRN P FLOW-9L59-1
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s24_Scn5_2028_SL_Post_dyn_P2611_9L59-2.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s24_Scn5_2028_SL_Post_dyn_P2611_9L59-2.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s24_Scn5_2028_SL_Post_dyn_P2611_9L59-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [HALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s24_Scn5_2028_SL_Post_dyn_P2611_9L59-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [HALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-9L59-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s24_Scn5_2028_SL_Post_dyn_P2611_9L59-2.out

THU, JUN 26 2025 22:21

BUS VOL-9L59-2

CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s24_Scn5_2028_SL_Post_dyn_P2611_9L59-2.out

THU, JUN 26 2025 22:21

BRN Q FLOW-9L59-2

CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s24_Scn5_2028_SL_Post_dyn_P2611_9L59-2.out

THU, JUN 26 2025 22:21

SYNC MAC ANGLE-9L59-2

CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

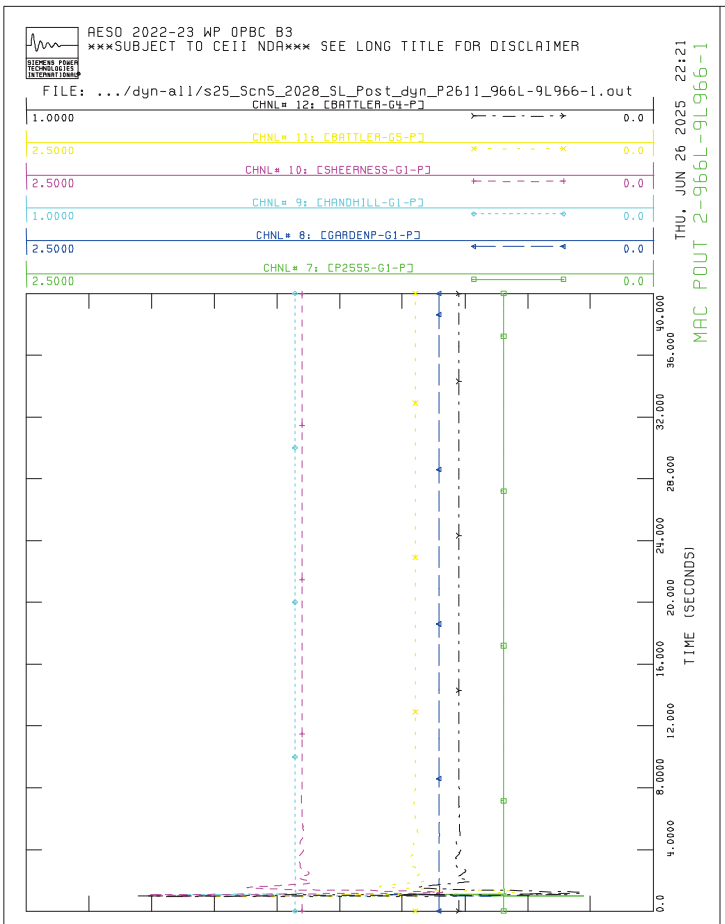
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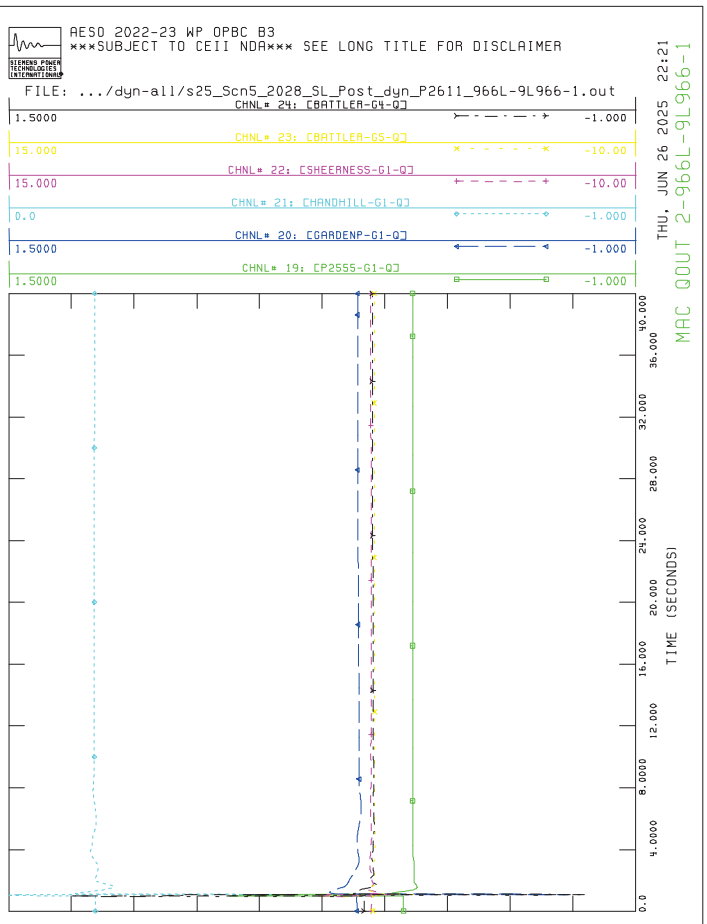
THU, JUN 26 2025 22:21

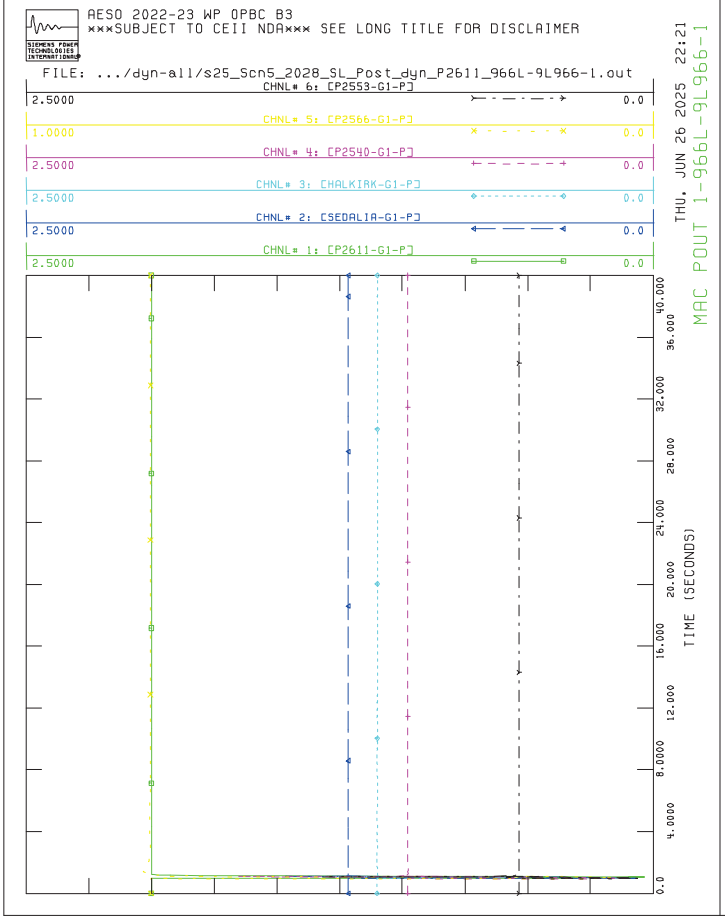
BRN P FLOW-9L59-2

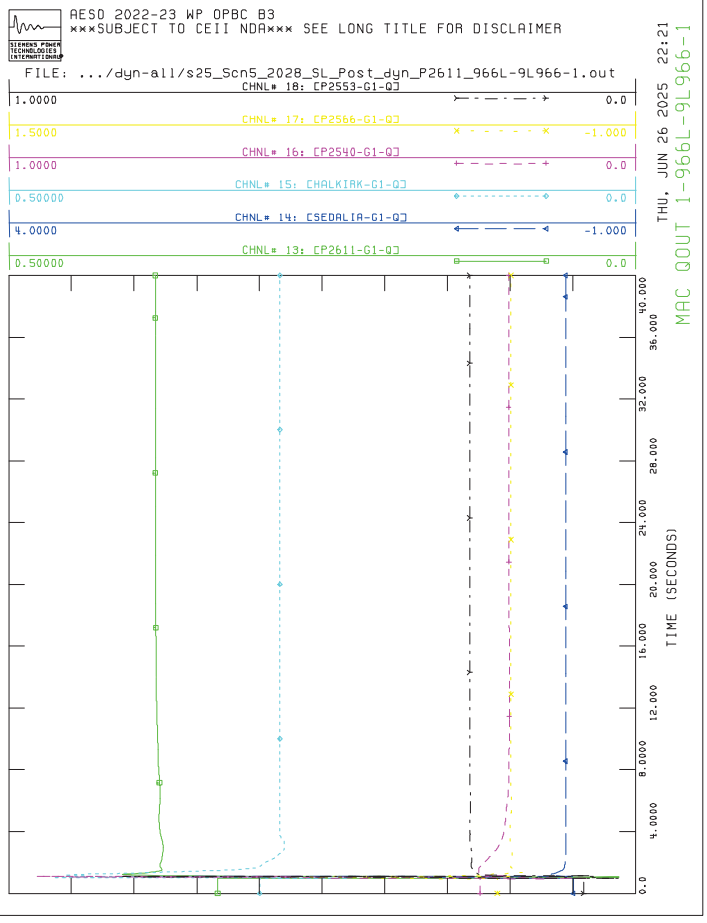
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ

TIME (SECONDS)

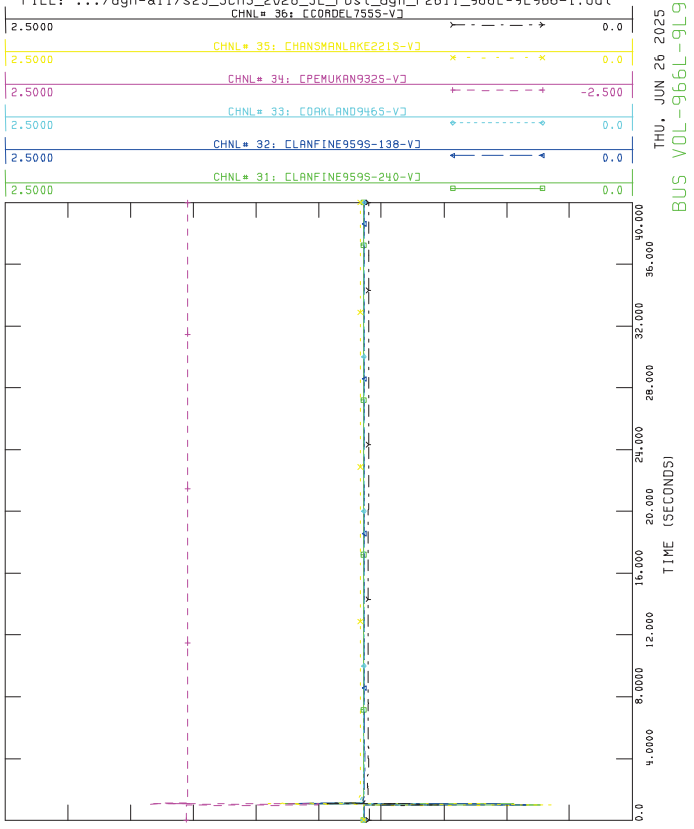

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-966L-9L966-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s25_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-1.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-966L-9L966-1

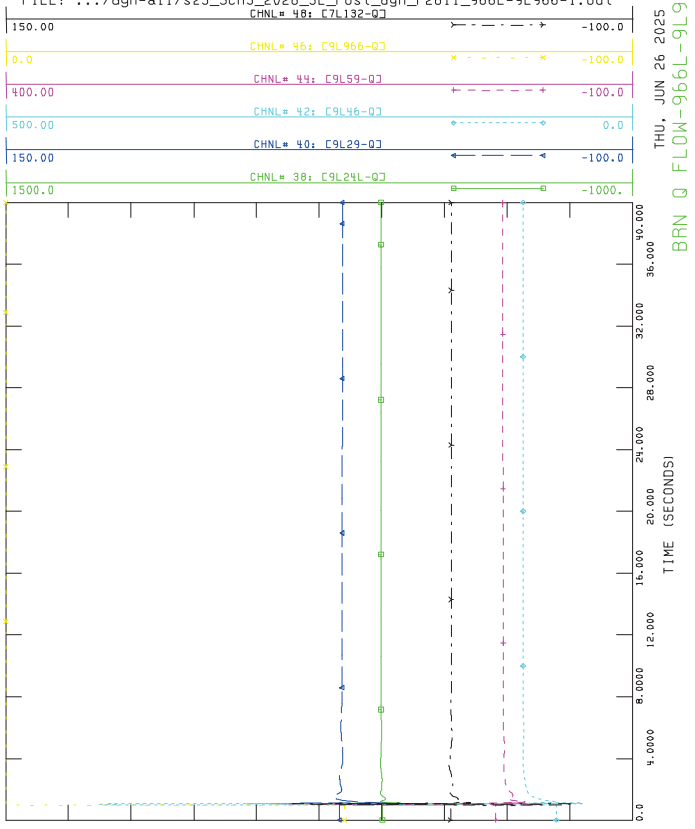

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-966L-9L966-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s25_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-1.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-966L-9L966-1

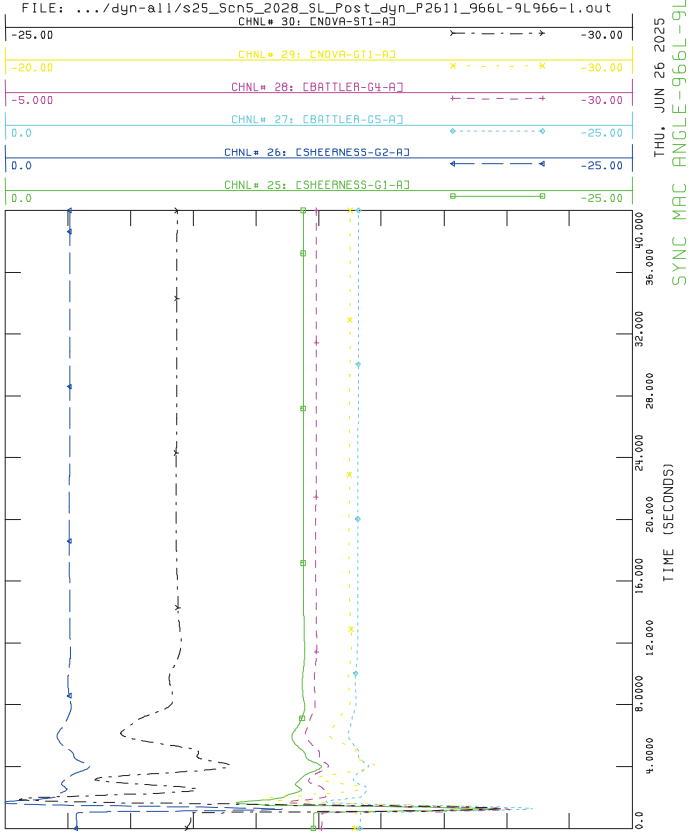
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SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
BUS VOL-966L-9L966-1



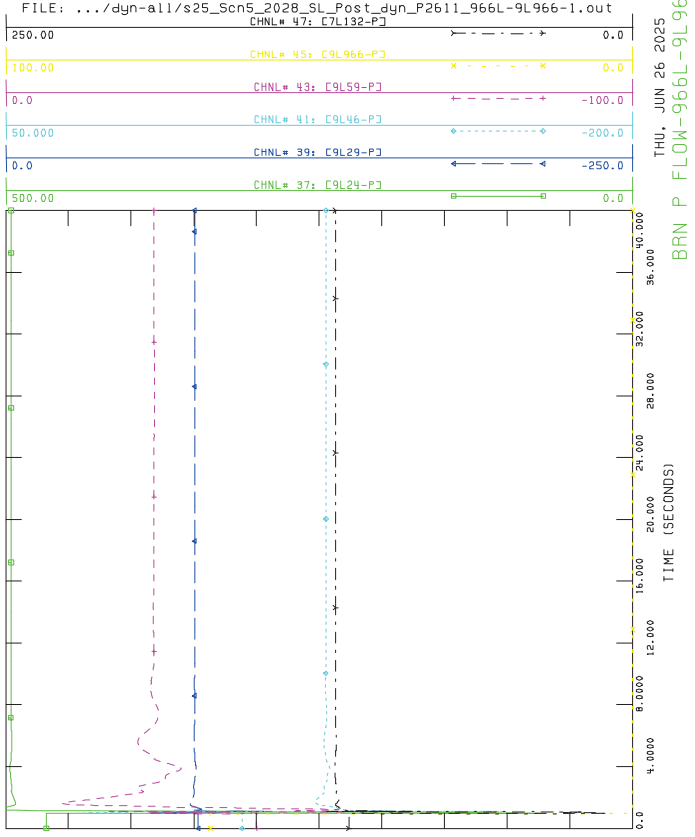
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BRN Q FLOW-966L-9L966-1

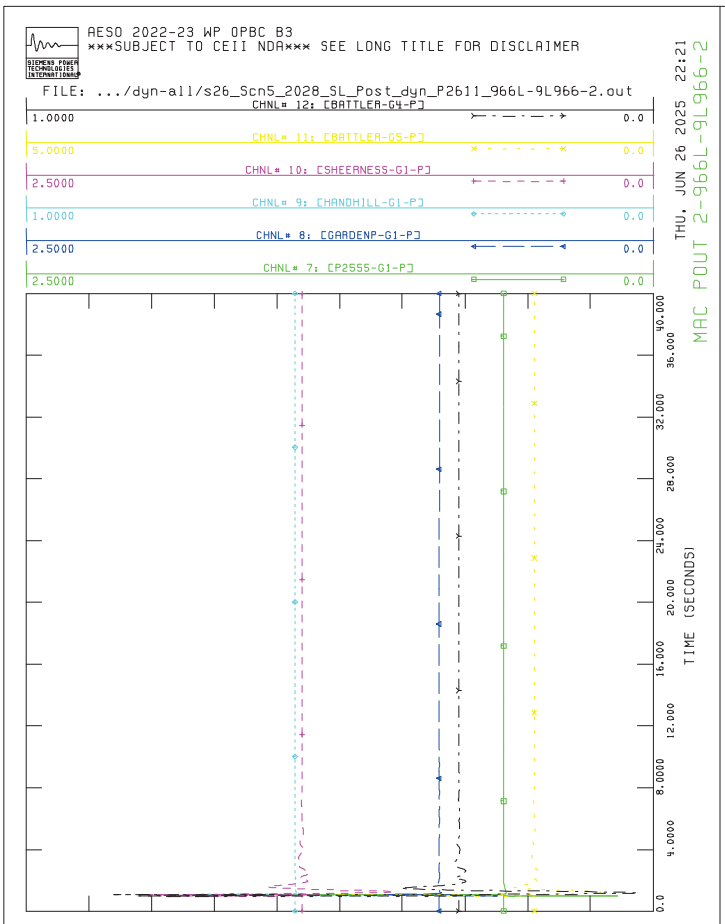


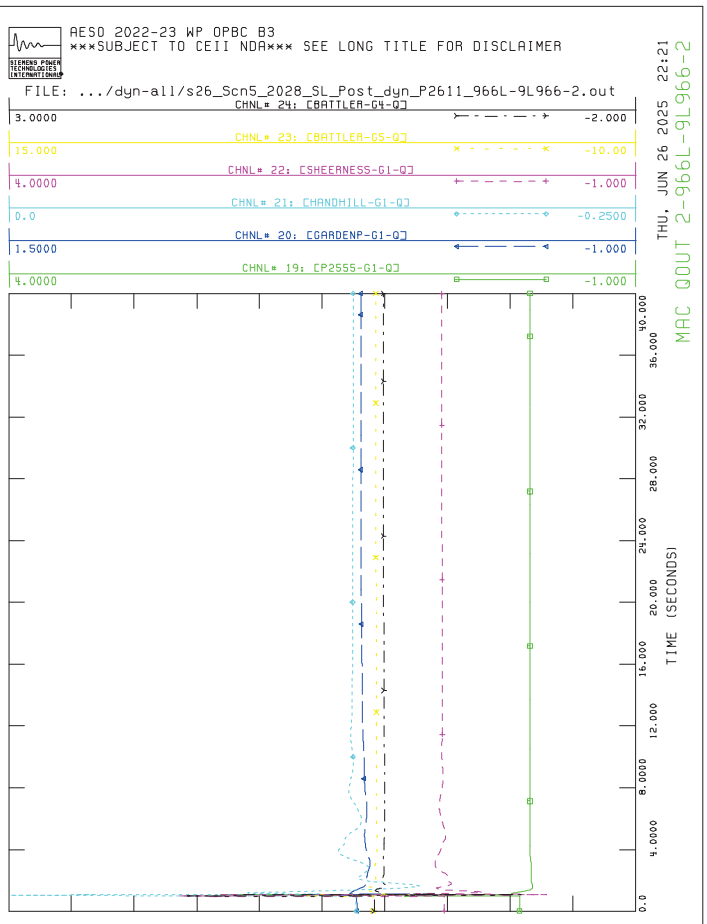
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s25_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-1.out
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-966L-9L966

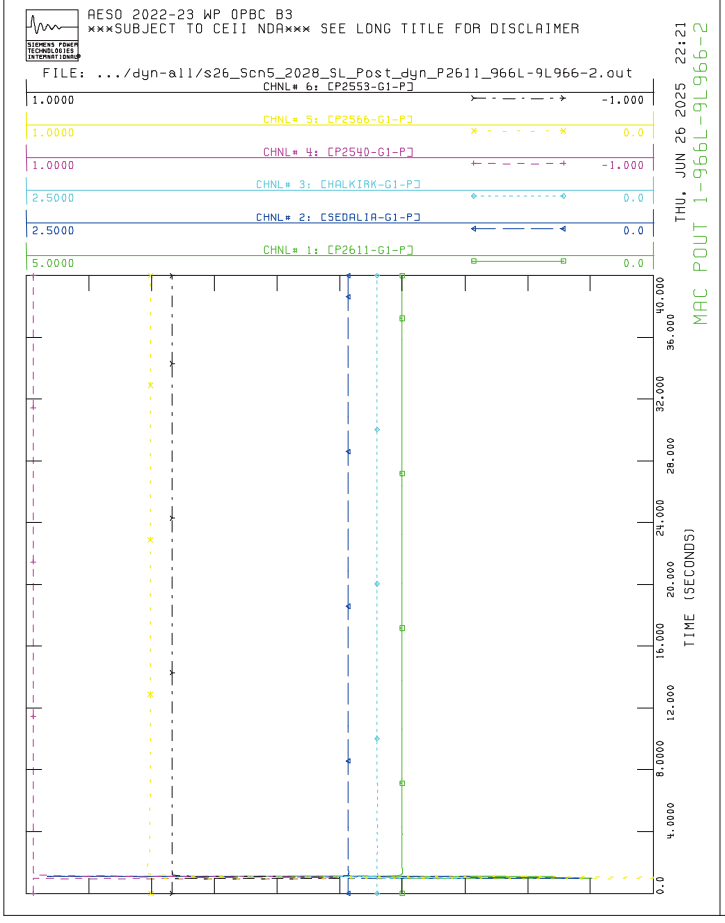


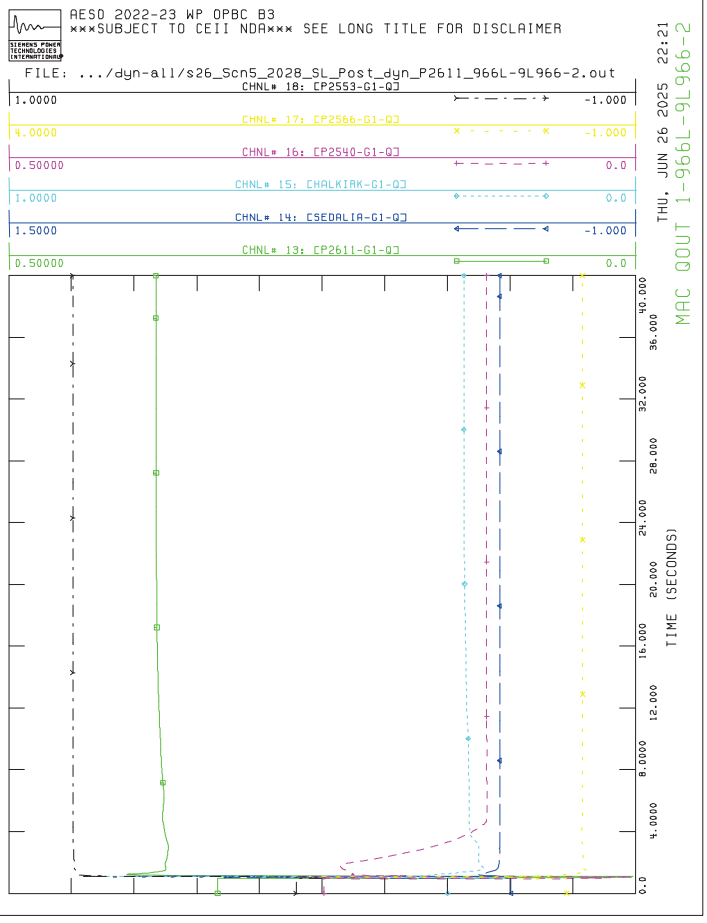
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
BRN P FLOW-966L-9L966-1

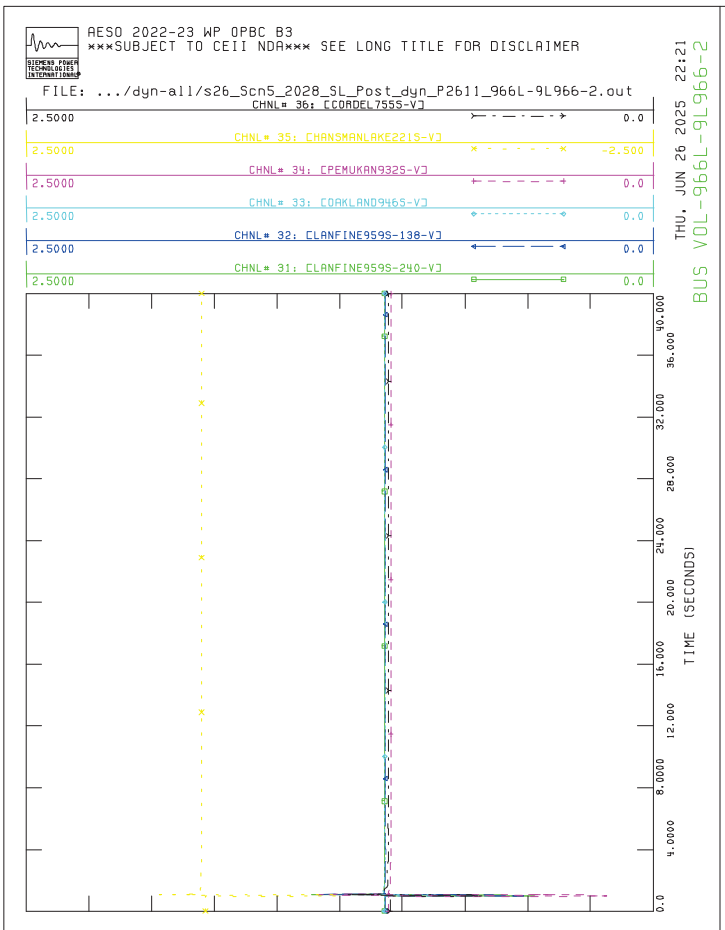


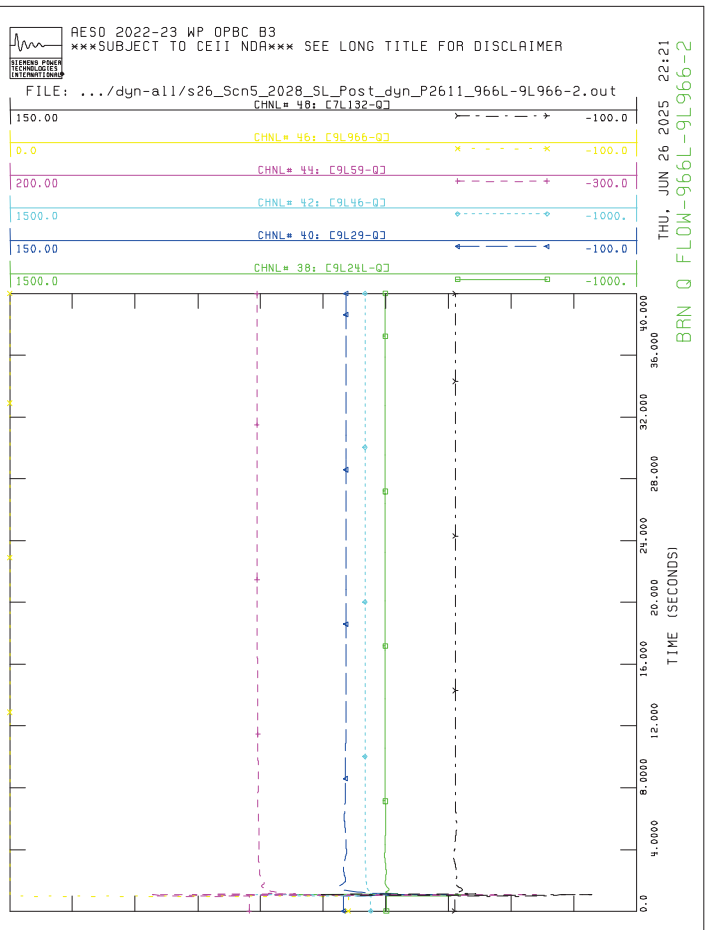

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-966L-9L966-2

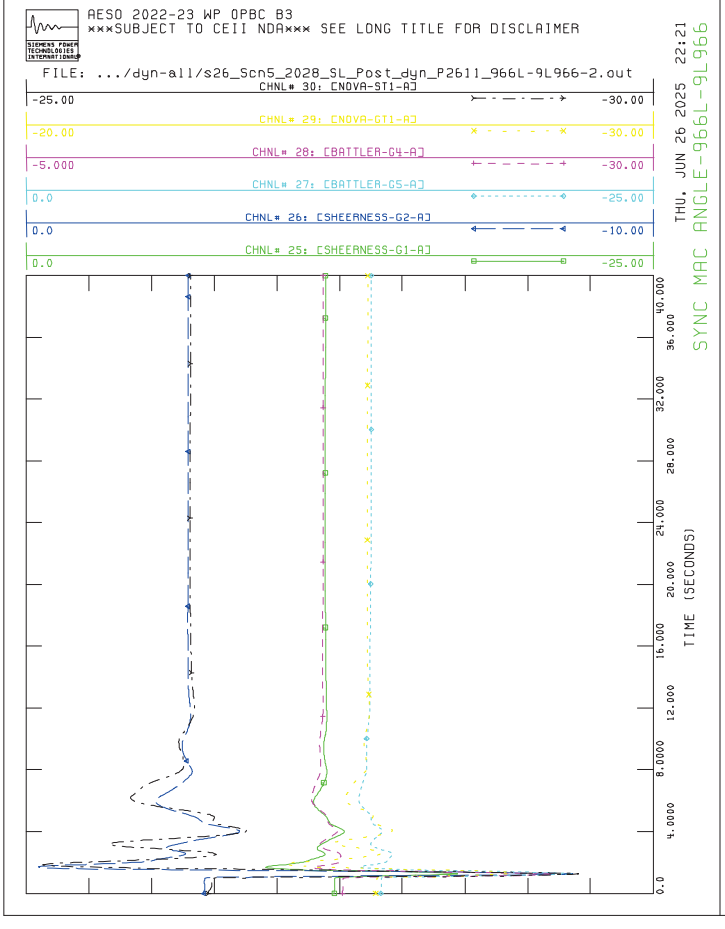

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-966L-9L966-2

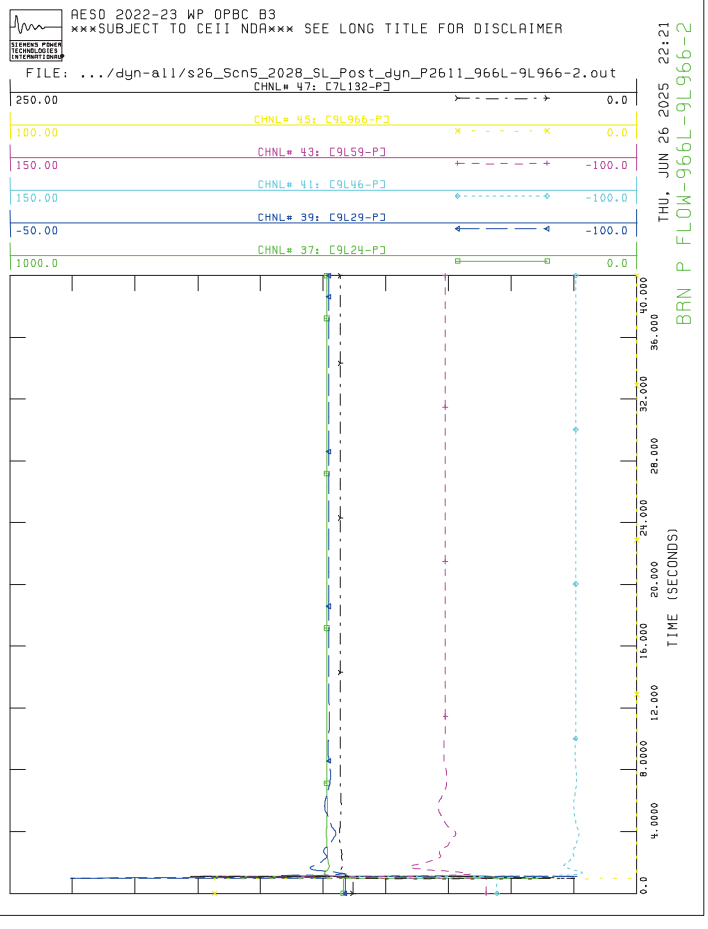

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-966L-9L966-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-966L-9L966-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:21
BUS VOL-966L-9L966-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:21
BRN Q FLOW-966L-9L966-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-966L-9L966
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s26_Scn5_2028_SL_Post_dyn_P2611_966L-9L966-2.out
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:21
BRN P FLOW-966L-9L966-2
TIME (SECONDS)

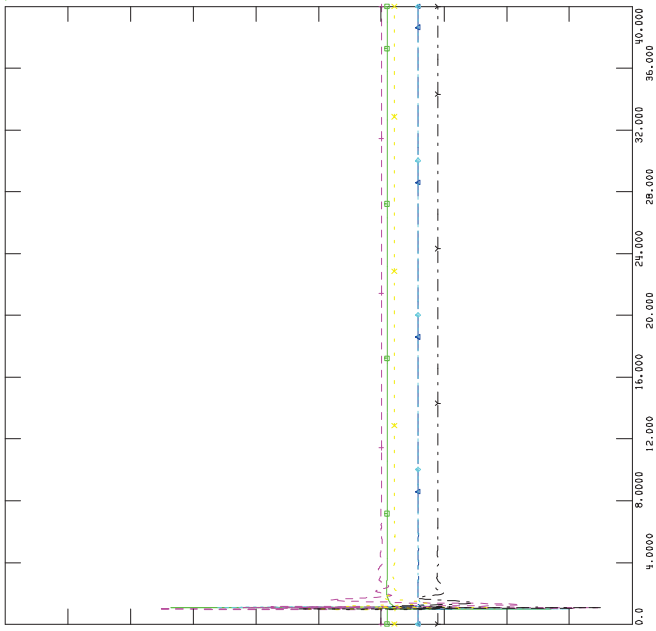
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s27_Scn5_2028_SL_Post_dyn_P2611_760L-1.out

THU, JUN 26 2025 22:21
MAC POUT 2-760L-1

CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]

TIME (SECONDS)



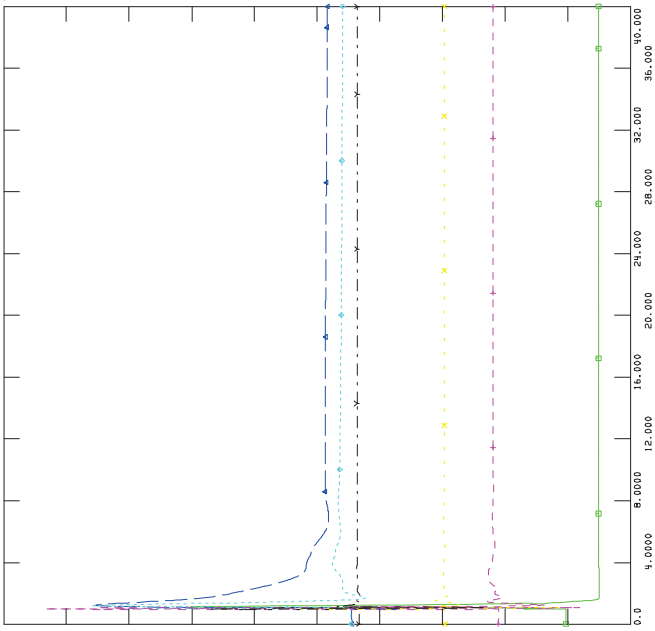
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s27_Scn5_2028_SL_Post_dyn_P2611_760L-1.out

THU, JUN 26 2025 22:21
MAC QOUT 2-760L-1

CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]

TIME (SECONDS)



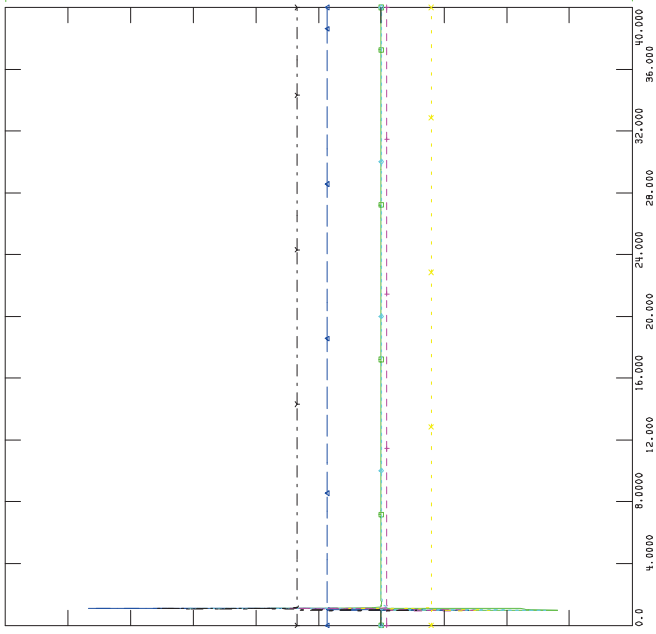
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s27_Scn5_2028_SL_Post_dyn_P2611_760L-1.out

THU, JUN 26 2025 22:21
MAC POUT 1-760L-1

CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [CSEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]

TIME (SECONDS)



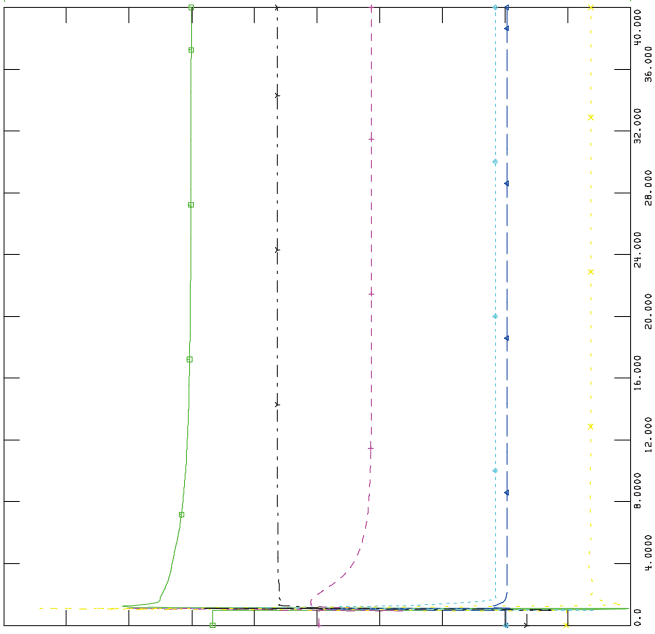
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s27_Scn5_2028_SL_Post_dyn_P2611_760L-1.out

THU, JUN 26 2025 22:21
MAC QOUT 1-760L-1

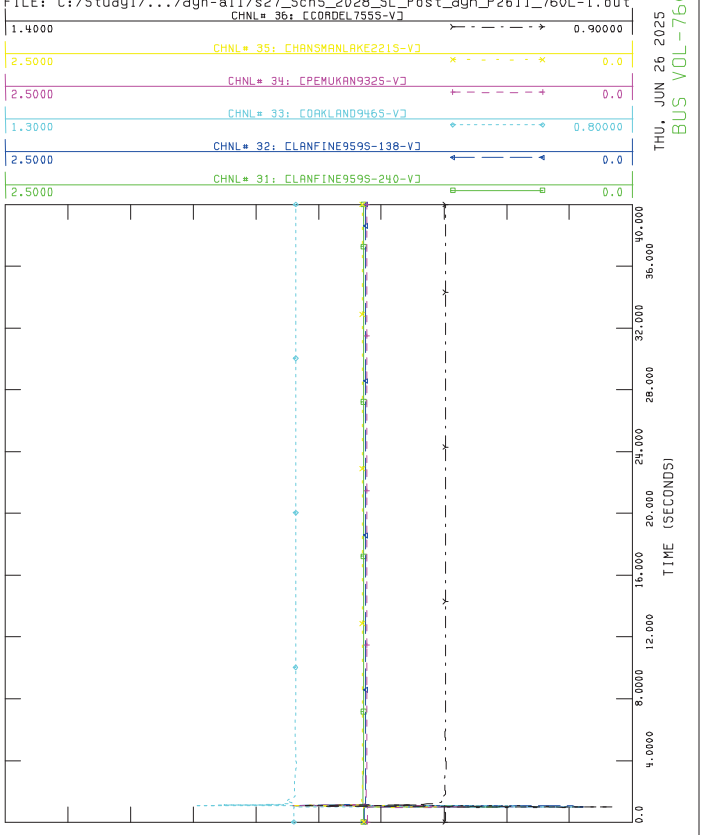
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CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [CSEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]

TIME (SECONDS)



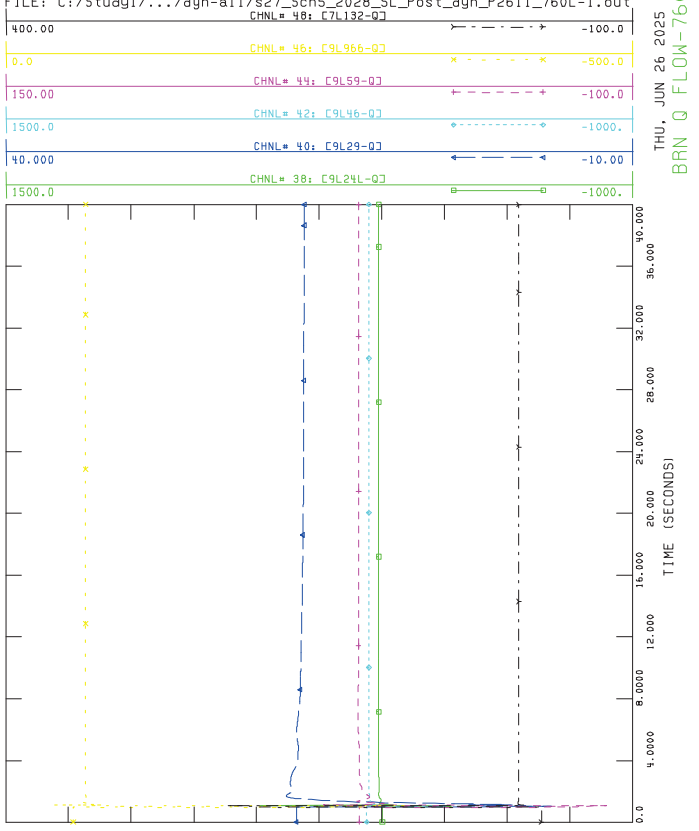
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

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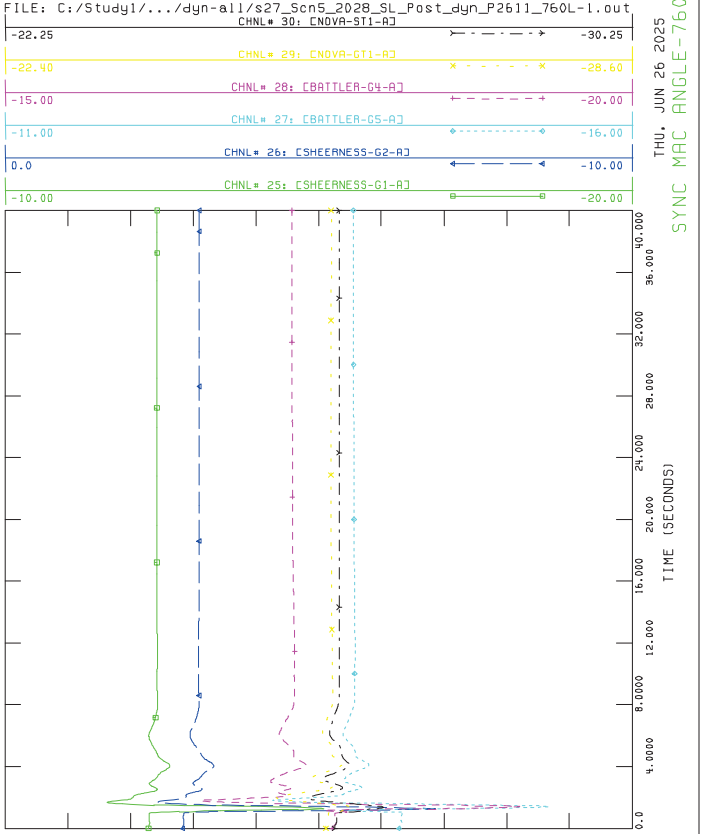
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

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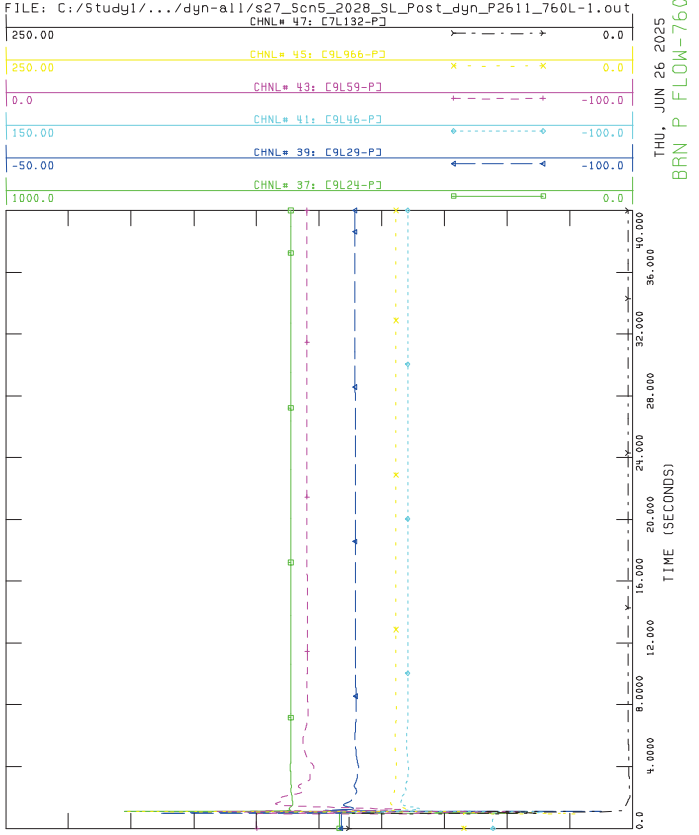
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

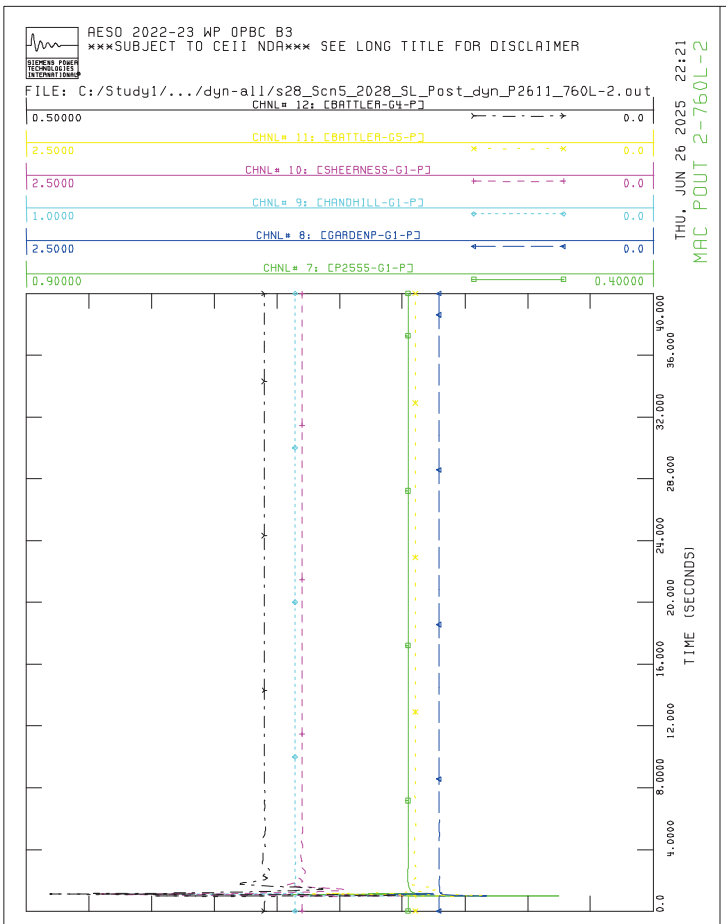
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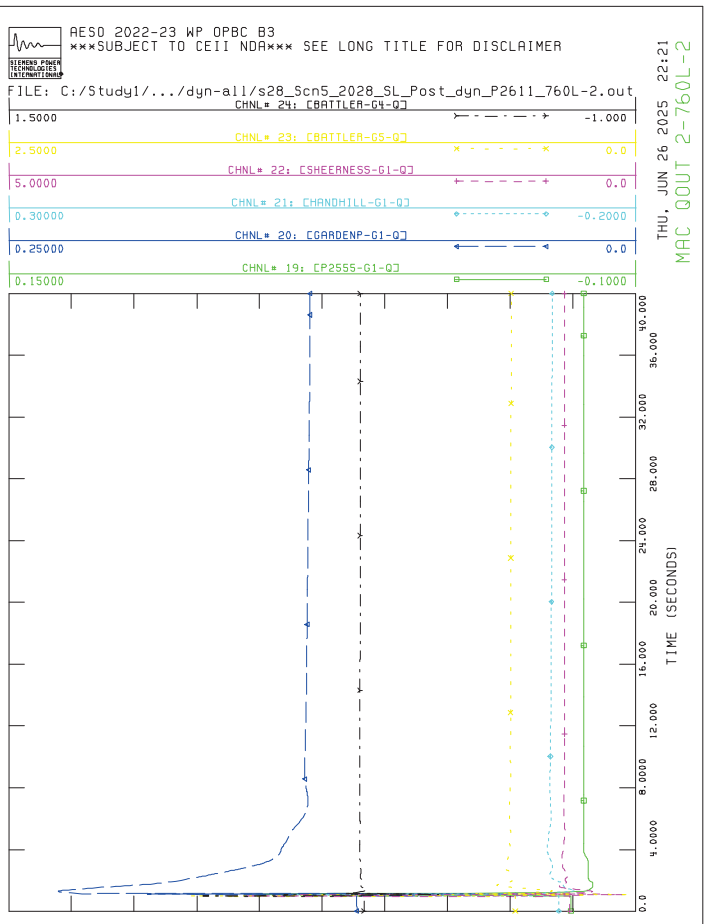


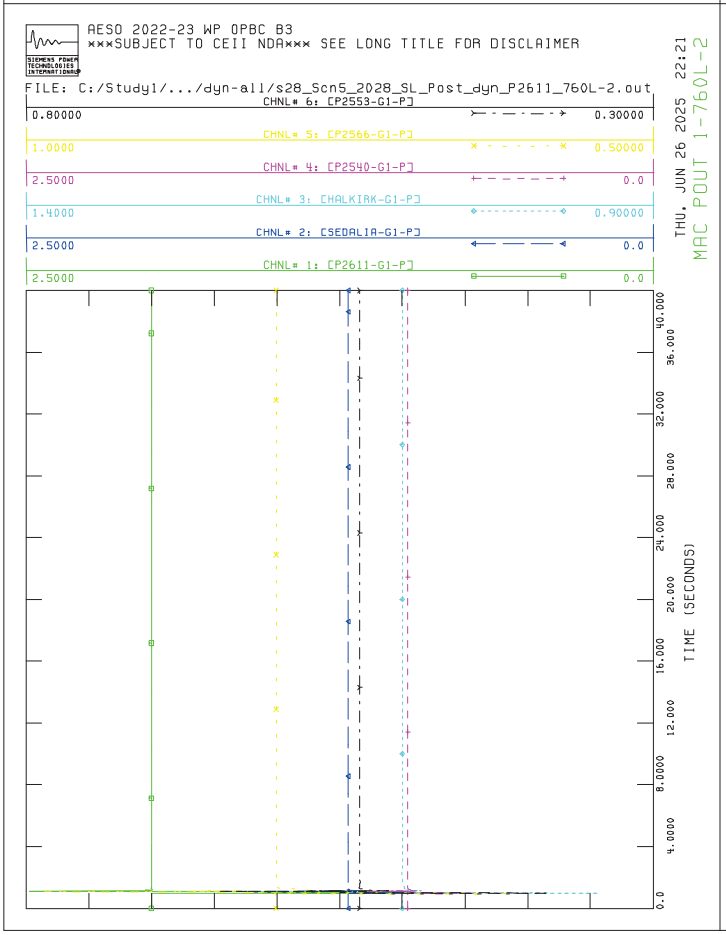
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

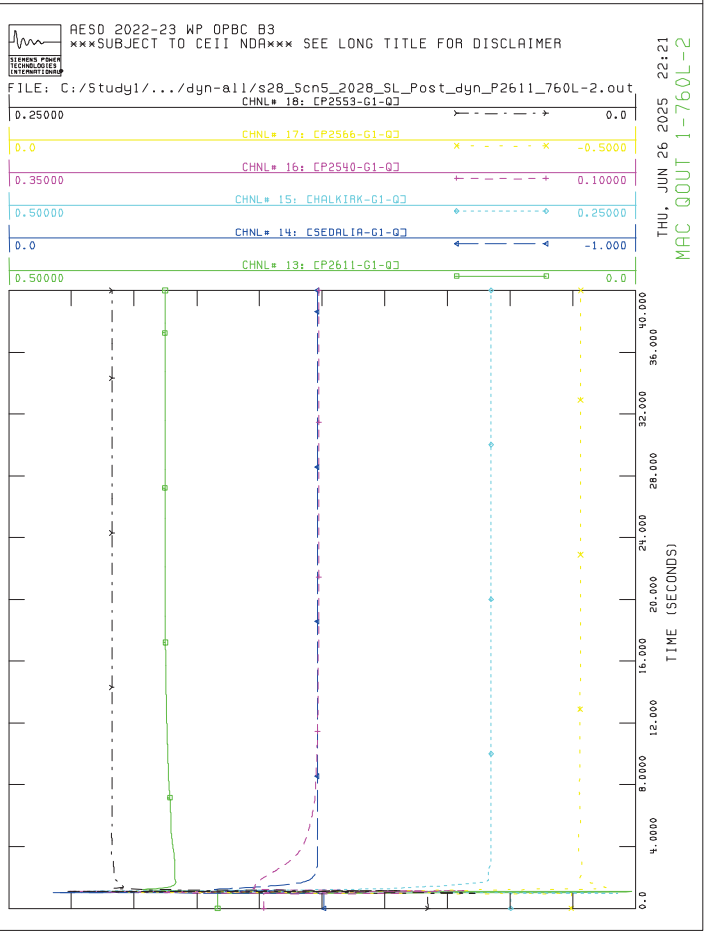
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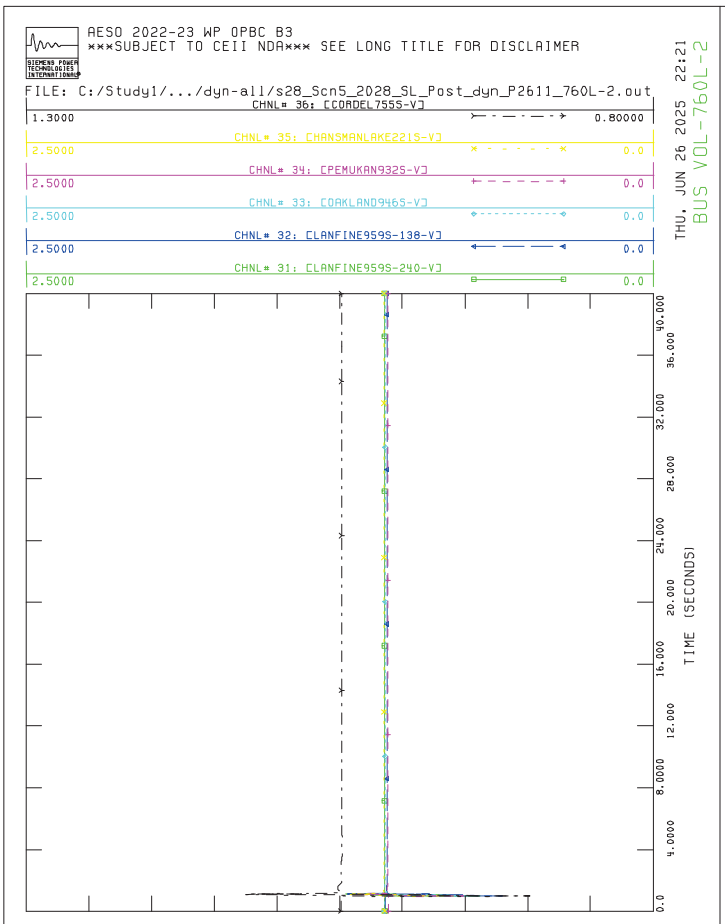


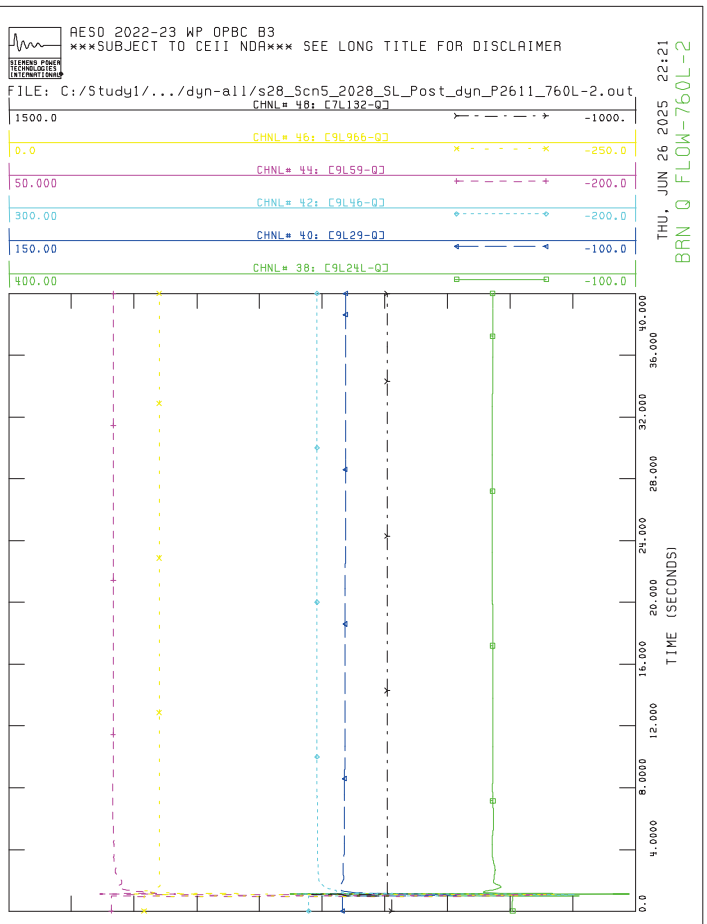

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 12: [BATTLEA-G4-PJ]
CHNL# 11: [BATTLEA-G5-PJ]
CHNL# 10: [SHEERNESS-G1-PJ]
CHNL# 9: [HANDHILL-G1-PJ]
CHNL# 8: [GARDENP-G1-PJ]
CHNL# 7: [P2555-G1-PJ]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-760L-2

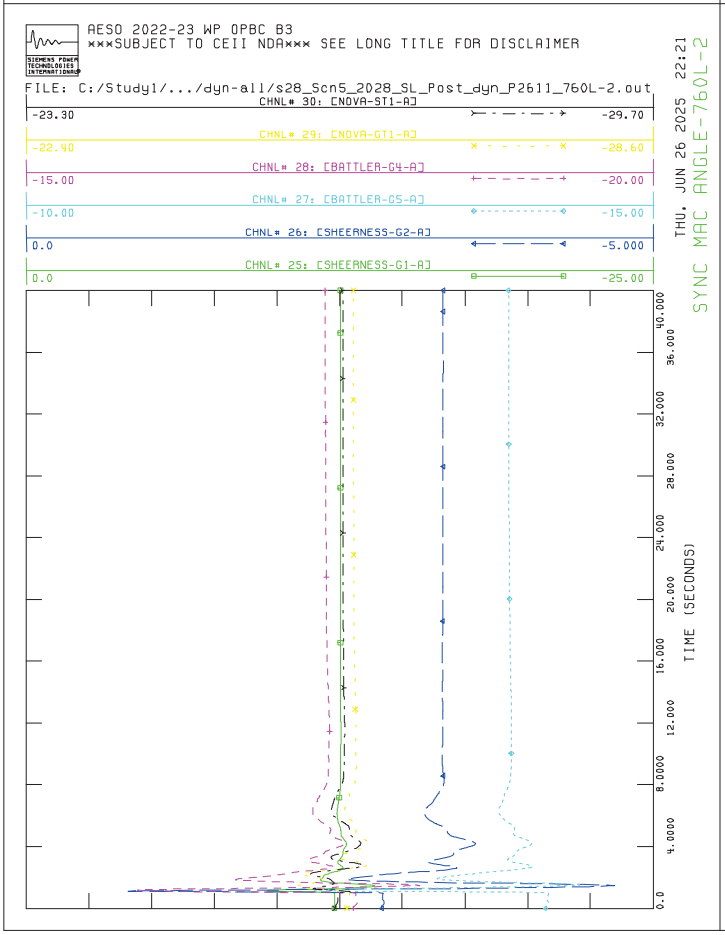

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 24: [BATTLEA-G4-QJ]
CHNL# 23: [BATTLEA-G5-QJ]
CHNL# 22: [SHEERNESS-G1-QJ]
CHNL# 21: [HANDHILL-G1-QJ]
CHNL# 20: [GARDENP-G1-QJ]
CHNL# 19: [P2555-G1-QJ]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-760L-2

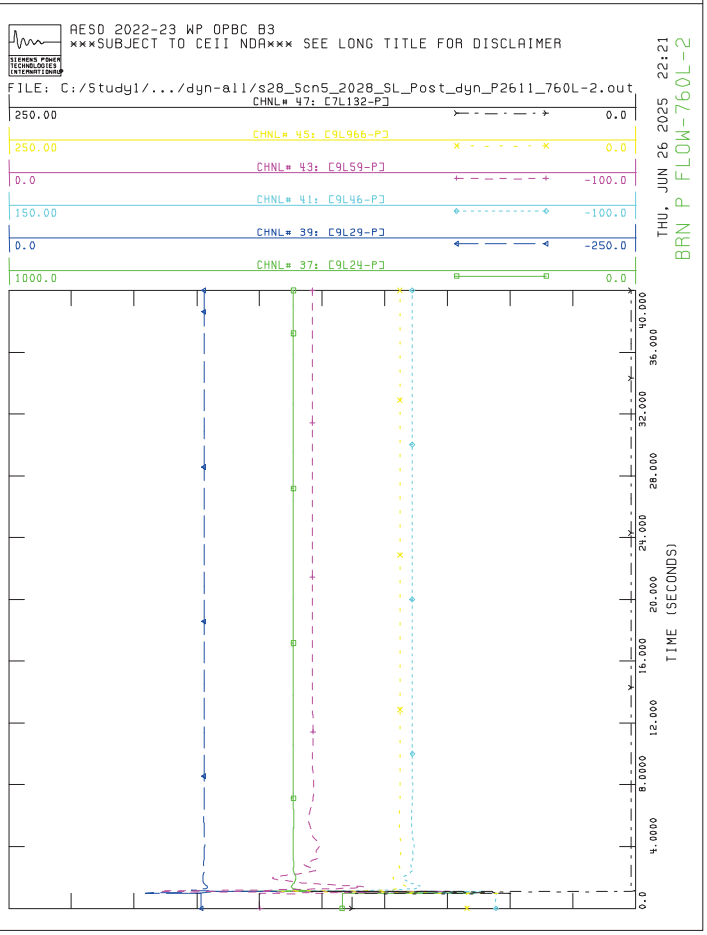

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 6: [P2553-G1-PJ]
CHNL# 5: [P2566-G1-PJ]
CHNL# 4: [P2540-G1-PJ]
CHNL# 3: [HALKIRK-G1-PJ]
CHNL# 2: [SEDALIA-G1-PJ]
CHNL# 1: [P2611-G1-PJ]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-760L-2

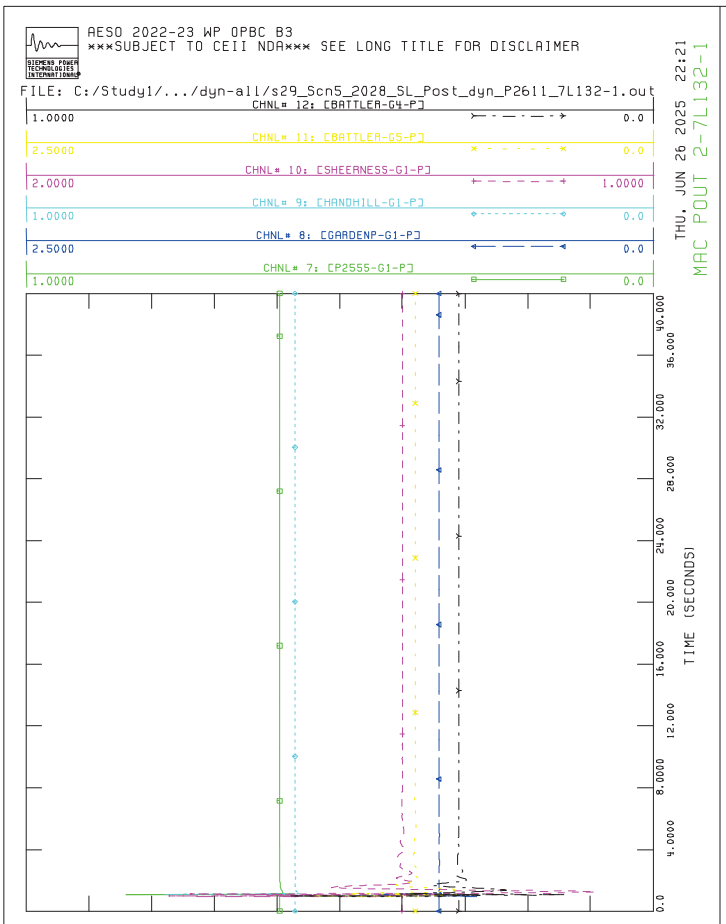

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 18: [P2553-G1-QJ]
CHNL# 17: [P2566-G1-QJ]
CHNL# 16: [P2540-G1-QJ]
CHNL# 15: [HALKIRK-G1-QJ]
CHNL# 14: [SEDALIA-G1-QJ]
CHNL# 13: [P2611-G1-QJ]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-760L-2

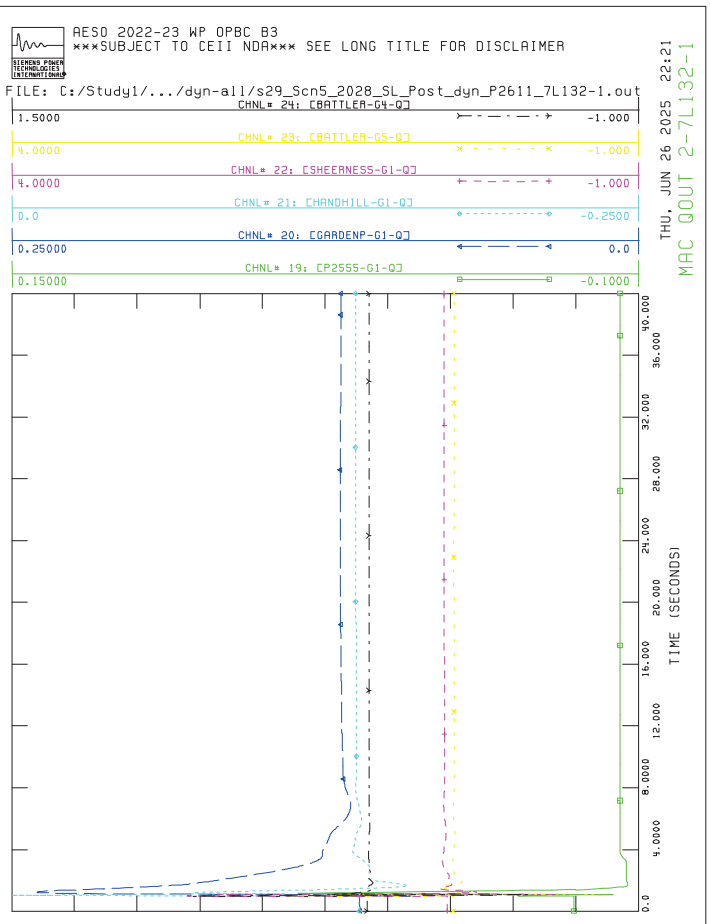

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 36: CCORDEL755S-VJ
1.3000
0.80000
CHNL# 35: CHANSMANLAKE221S-VJ
2.5000
0.0
CHNL# 34: CPEMUKAN932S-VJ
2.5000
0.0
CHNL# 33: COAKLAND946S-VJ
2.5000
0.0
CHNL# 32: CLANFINE959S-138-VJ
2.5000
0.0
CHNL# 31: CLANFINE959S-240-VJ
2.5000
0.0
THU, JUN 26 2025 22:21
BUS VOL-760L-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000

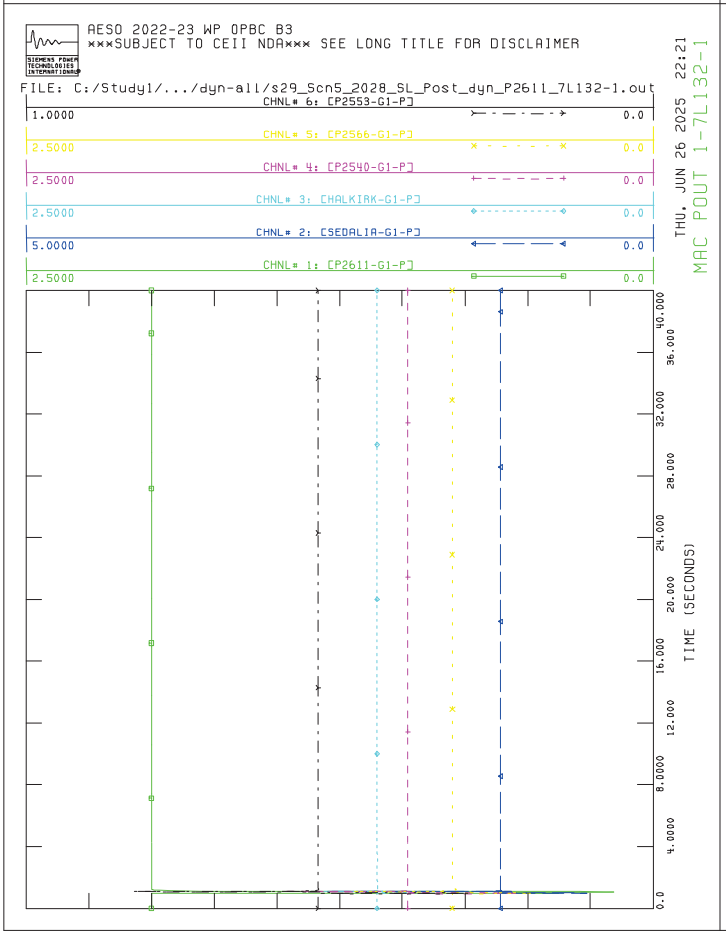

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 48: C7L132-QJ
1500.0
-1000.
CHNL# 46: C9L966-QJ
0.0
-250.0
CHNL# 44: C9L59-QJ
50.000
-200.0
CHNL# 42: C9L46-QJ
300.00
-200.0
CHNL# 40: C9L29-QJ
150.00
-100.0
CHNL# 38: C9L24L-QJ
400.00
-100.0
THU, JUN 26 2025 22:21
BRN Q FLOW-760L-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000

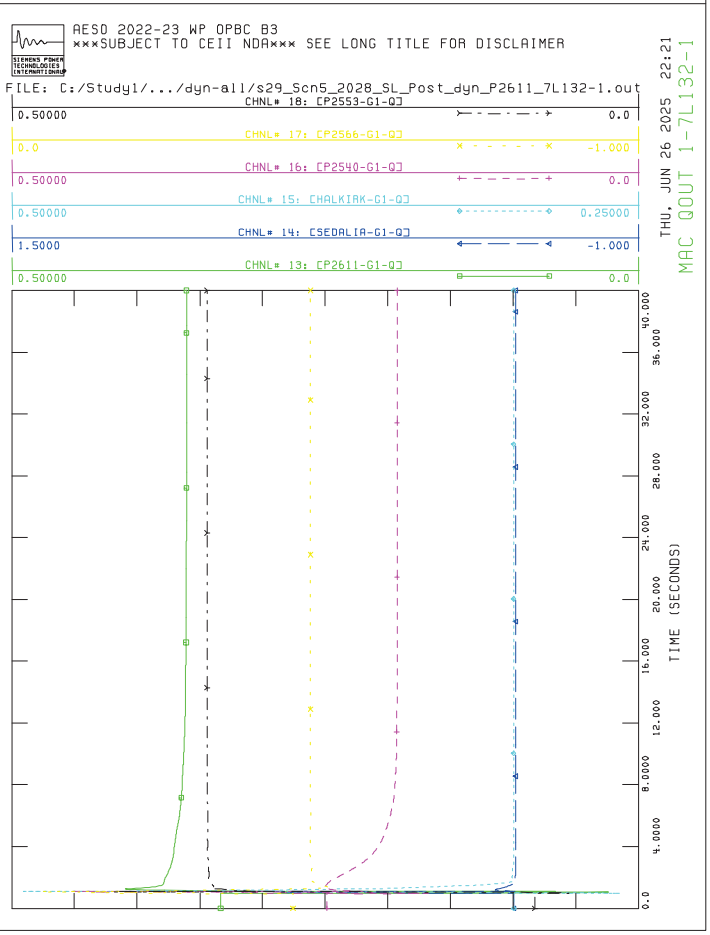

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 30: CNOVA-ST1-AJ
-23.30
-29.70
CHNL# 29: CNOVA-GT1-AJ
-22.40
-28.60
CHNL# 28: CBATTLER-G4-AJ
-15.00
-20.00
CHNL# 27: CBATTLER-G5-AJ
-10.00
-15.00
CHNL# 26: CSHEERNESS-G2-AJ
0.0
-5.000
CHNL# 25: CSHEERNESS-G1-AJ
0.0
-25.00
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-760L-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s28_Scn5_2028_SL_Post_dyn_P2611_760L-2.out
CHNL# 47: C7L132-PJ
250.00
0.0
CHNL# 45: C9L966-PJ
250.00
0.0
CHNL# 43: C9L59-PJ
0.0
-100.0
CHNL# 41: C9L46-PJ
150.00
-100.0
CHNL# 39: C9L29-PJ
0.0
-250.0
CHNL# 37: C9L24-PJ
1000.0
0.0
THU, JUN 26 2025 22:21
BRN P FLOW-760L-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-7L132-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-7L132-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-7L132-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-7L132-1

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:21

BUS VOL-7L132-1

CHNL# 36: CCORDEL755S-VJ 1.3000 0.80000
CHNL# 35: CHANSMANLAKE22LS-VJ 2.5000 0.0
CHNL# 34: CPEMUKAN932S-VJ 2.5000 0.0
CHNL# 33: COAKLAND946S-VJ 2.5000 0.0
CHNL# 32: CLANFINE959S-138-VJ 2.5000 -2.500
CHNL# 31: CLANFINE959S-240-VJ 2.5000 0.0

TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:21

BRN Q FLOW-7L132-1

CHNL# 48: C7L132-QJ 0.0 -50.00
CHNL# 46: C9L966-QJ 1500.0 -1000.
CHNL# 44: C9L59-QJ 150.00 -100.0
CHNL# 42: C9L46-QJ 1500.0 -1000.
CHNL# 40: C9L29-QJ 30.000 -20.00
CHNL# 38: C9L24L-QJ 1500.0 -1000.

TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:21

SYNC MAC ANGLE-7L132-1

CHNL# 30: CNOVA-ST1-AJ -22.25 -30.25
CHNL# 29: CNOVA-GT1-AJ -21.80 -29.70
CHNL# 28: CBATTLER-G4-AJ 0.0 -25.00
CHNL# 27: CBATTLER-G5-AJ -10.00 -20.00
CHNL# 26: CSHEERNESS-G2-AJ 0.0 -10.00
CHNL# 25: CSHEERNESS-G1-AJ -10.00 -20.00

TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s29_Scn5_2028_SL_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:21

BRN P FLOW-7L132-1

CHNL# 47: C7L132-PJ 250.00 0.0
CHNL# 45: C9L966-PJ 250.00 0.0
CHNL# 43: C9L59-PJ 0.0 -100.0
CHNL# 41: C9L46-PJ 0.0 -250.0
CHNL# 39: C9L29-PJ -50.00 -100.0
CHNL# 37: C9L24-PJ 1000.0 0.0

TIME (SECONDS)

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s30_Scn5_2028_SL_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:21

MAC POUT 2-7L132-2

CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s30_Scn5_2028_SL_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:21

MAC QOUT 2-7L132-2

CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s30_Scn5_2028_SL_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:21

MAC POUT 1-7L132-2

CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s30_Scn5_2028_SL_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:21

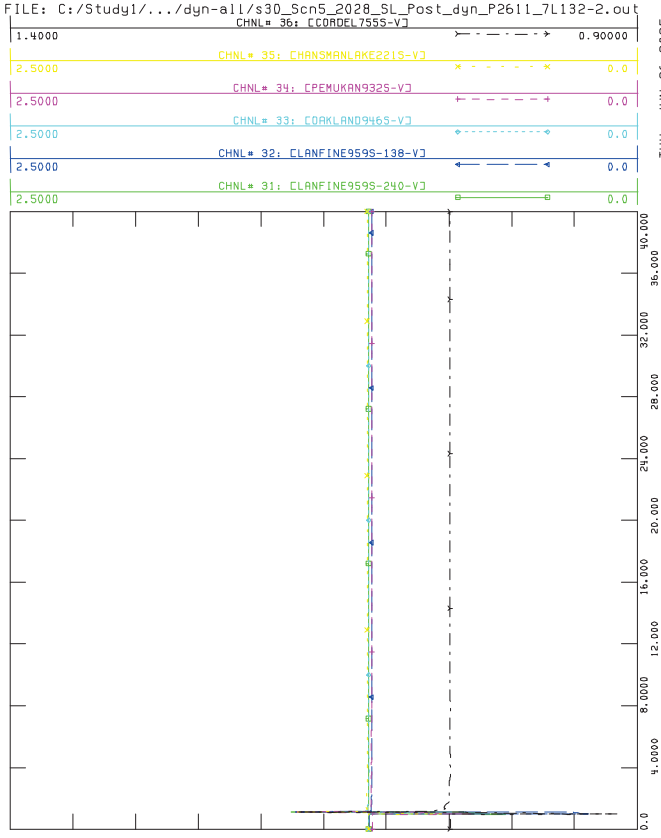
MAC QOUT 1-7L132-2

CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

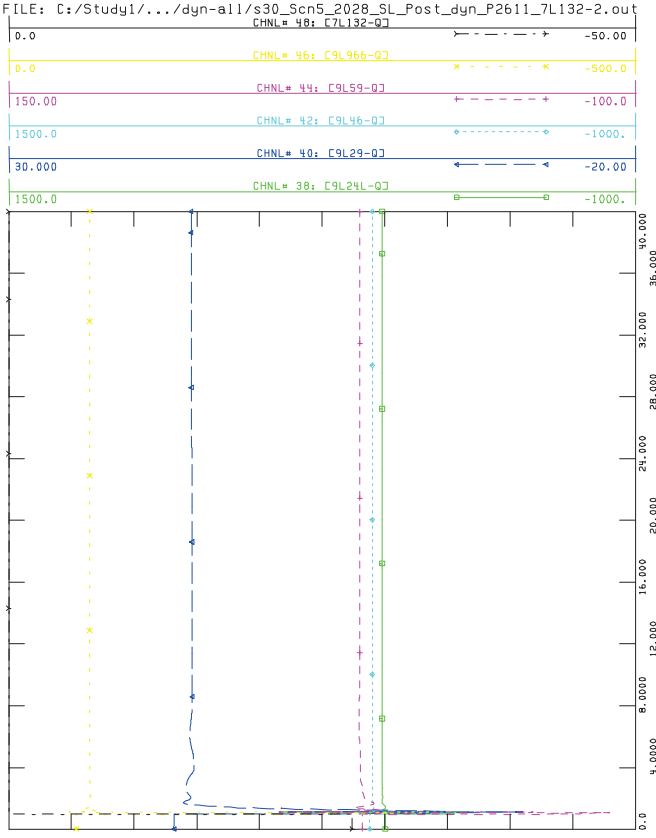
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THU, JUN 26 2025 22:21
BUS VOL-7L132-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

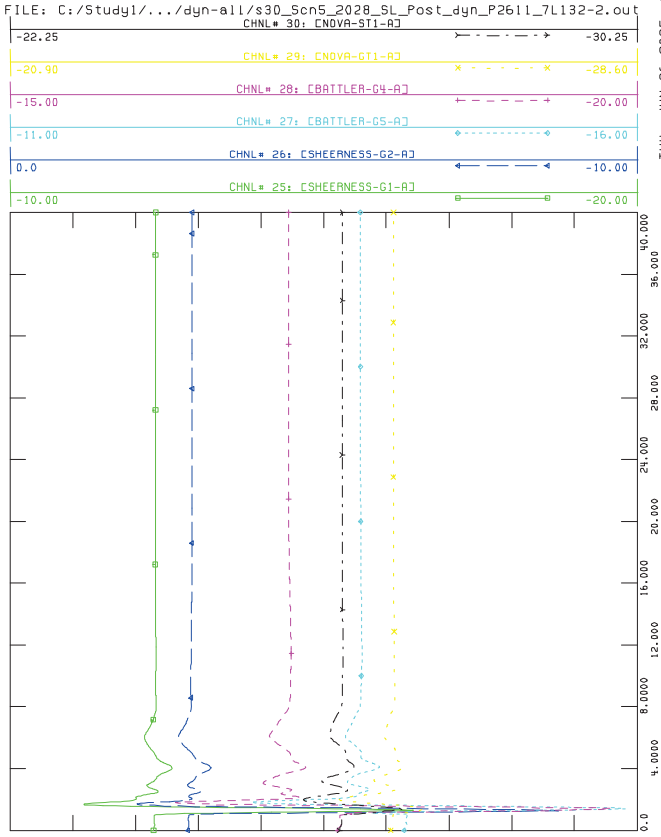
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THU, JUN 26 2025 22:21
BRN Q FLOW-7L132-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

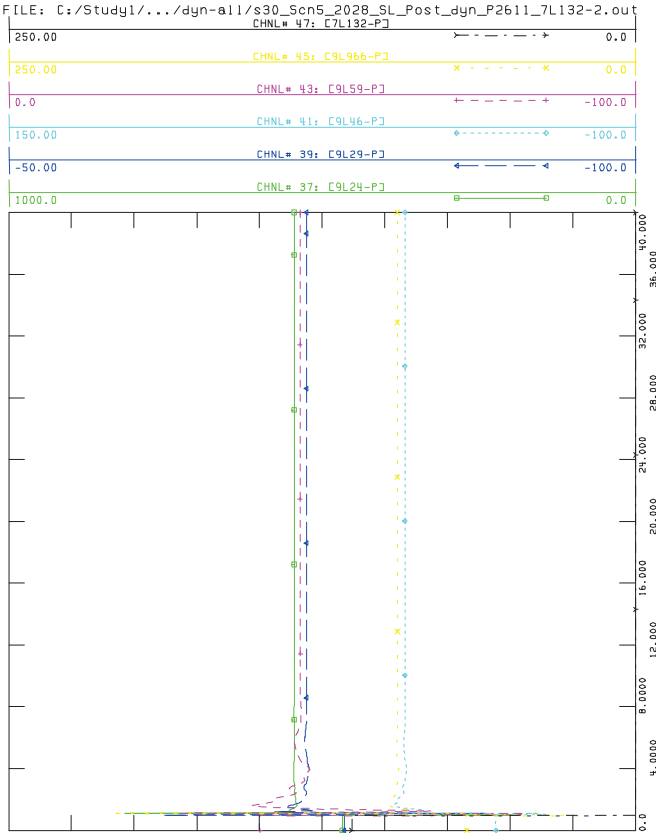
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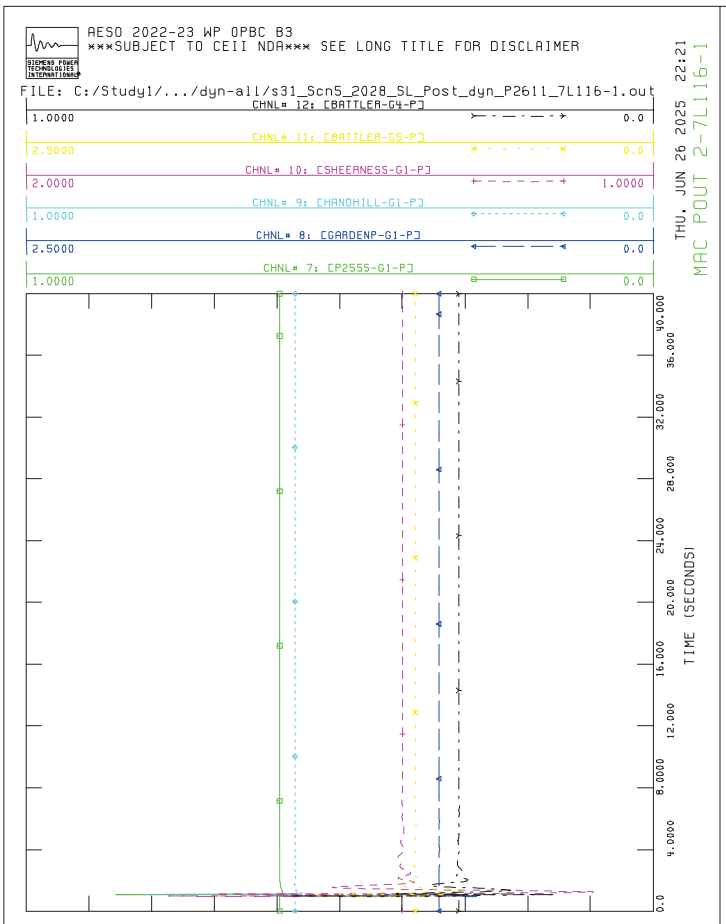
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SYNC MAC ANGLE-7L132-2

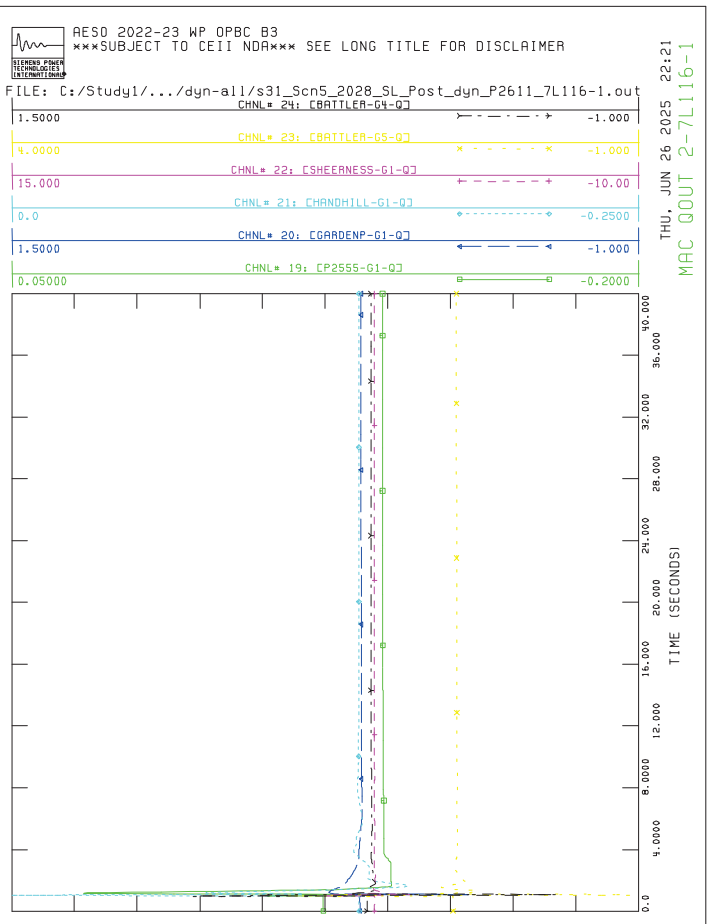
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

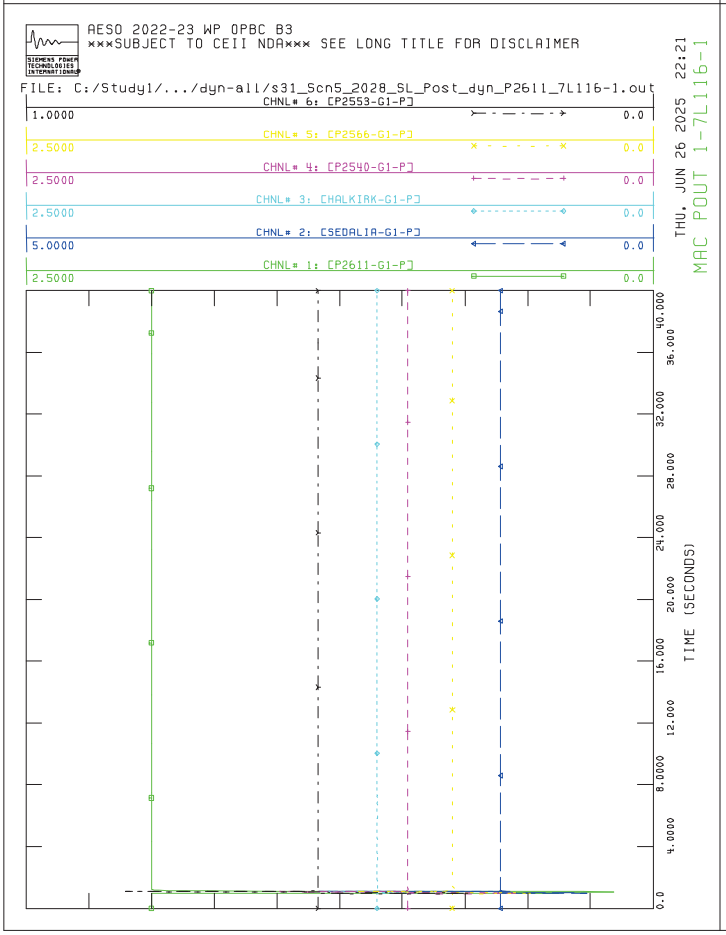
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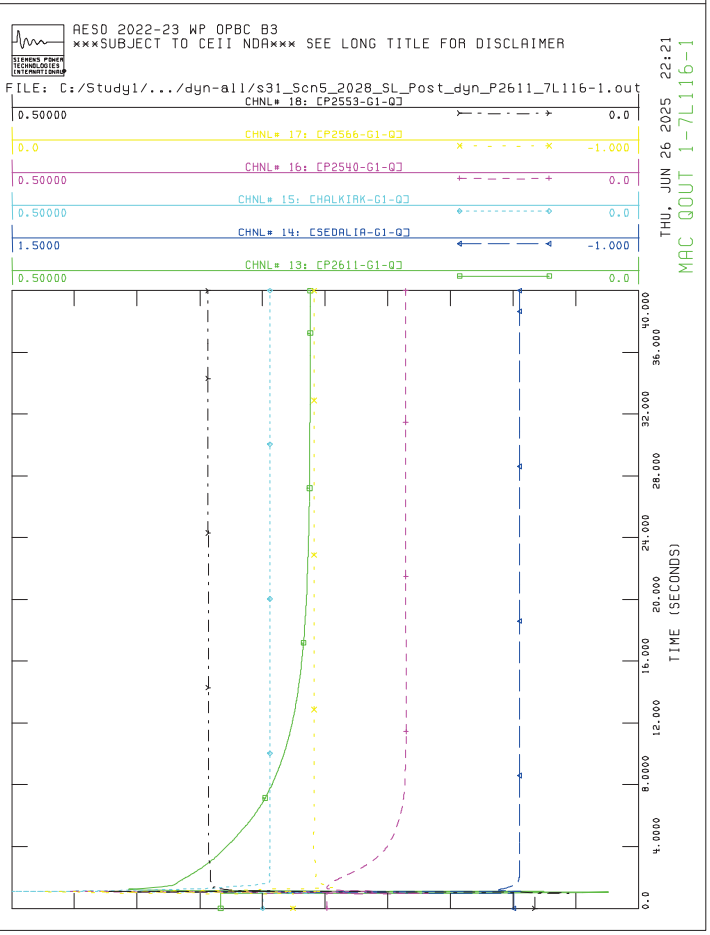


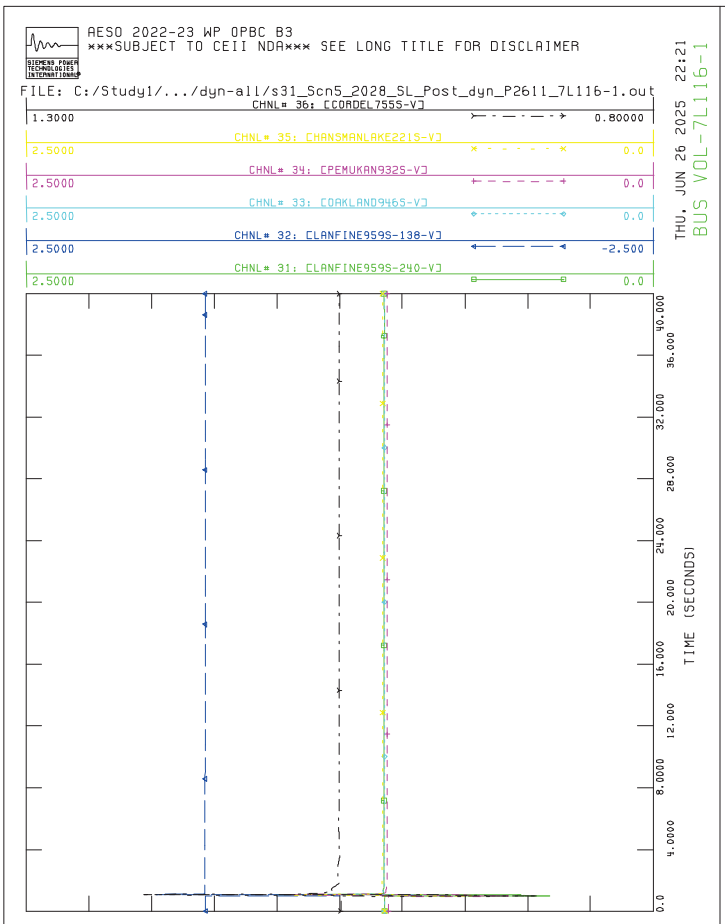
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BRN P FLOW-7L132-2

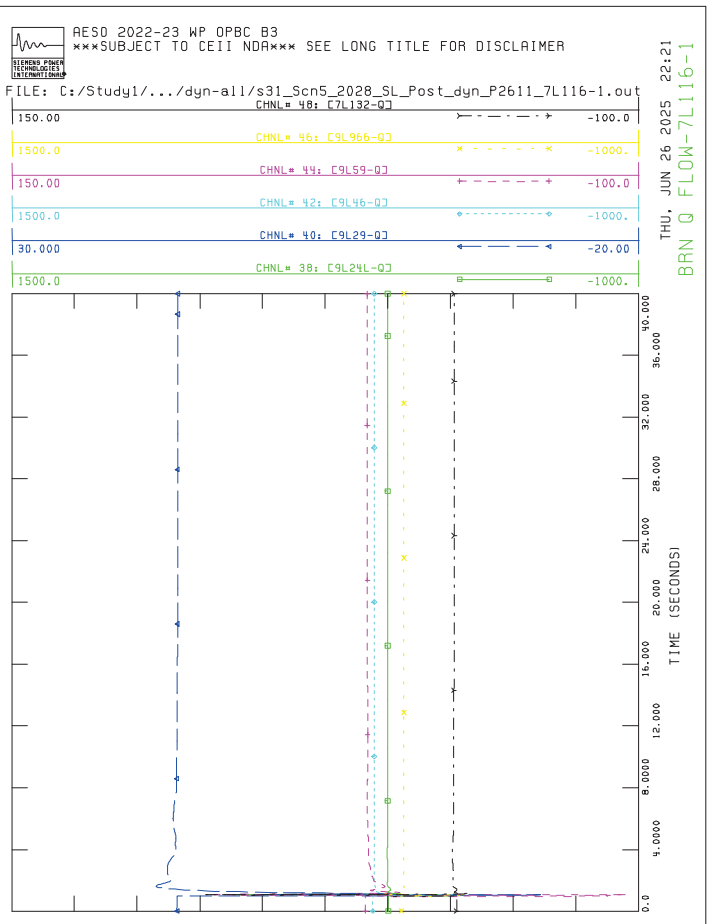

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-7L116-1

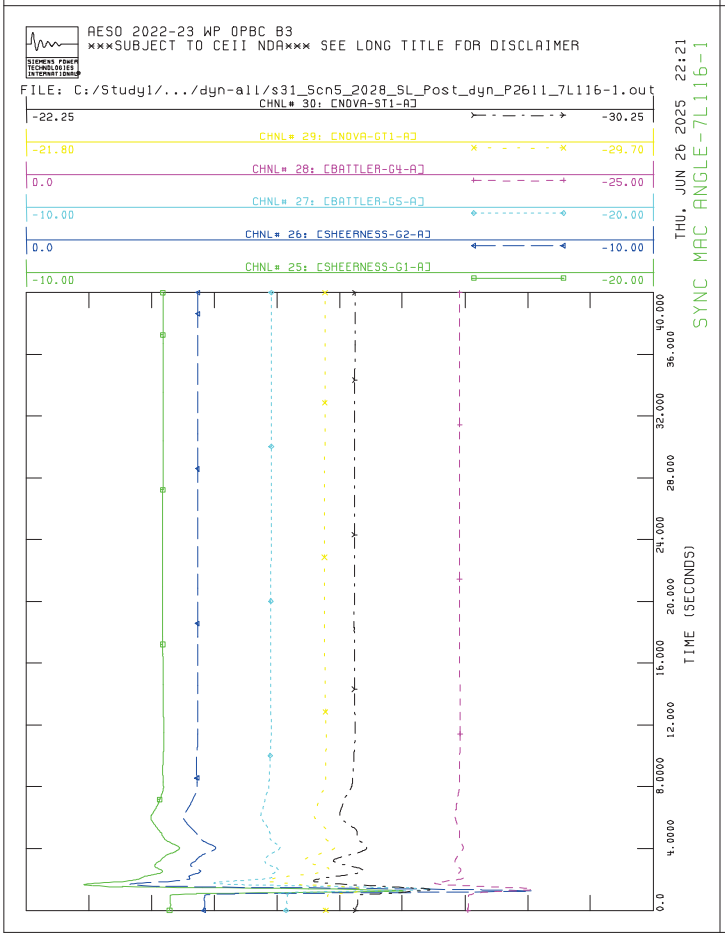

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-7L116-1

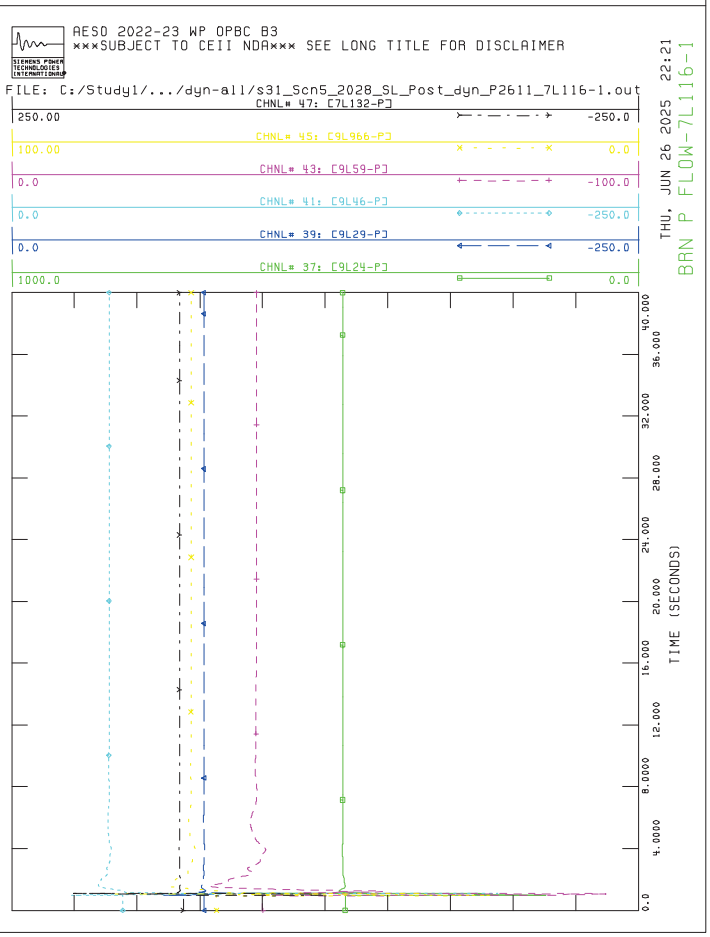

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [HALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-7L116-1

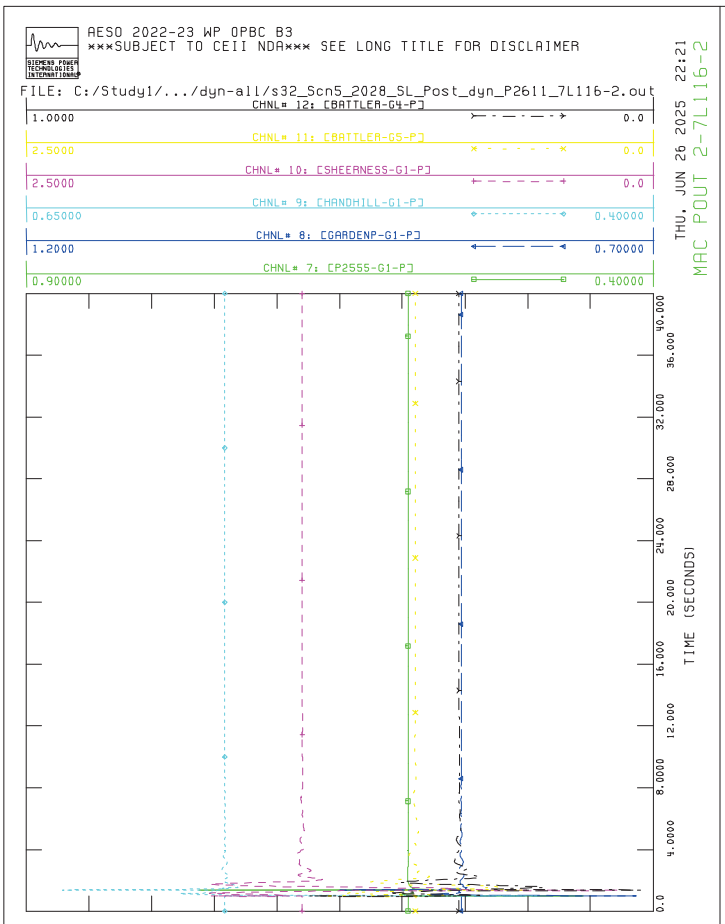

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [HALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-7L116-1

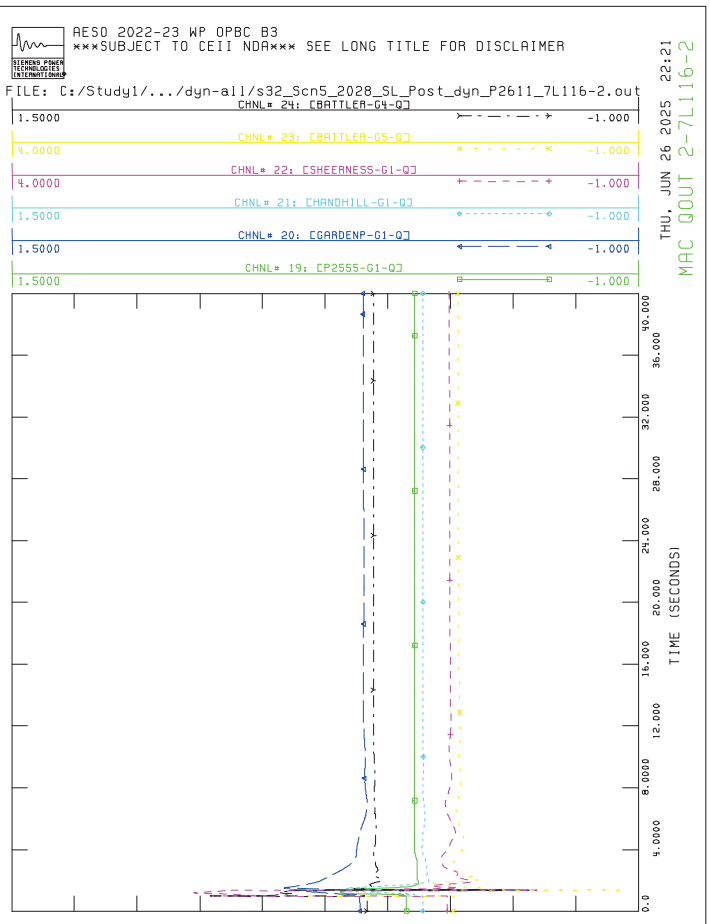

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 36: CCORDEL755S-VJ
1.3000
0.80000
CHNL# 35: CHANSMANLAKE22LS-VJ
2.5000
0.0
CHNL# 34: CPEMUKAN932S-VJ
2.5000
0.0
CHNL# 33: COAKLAND946S-VJ
2.5000
0.0
CHNL# 32: CLANFINE959S-138-VJ
2.5000
-2.500
CHNL# 31: CLANFINE959S-240-VJ
2.5000
0.0
THU, JUN 26 2025 22:21
BUS VOL-7L116-1
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000

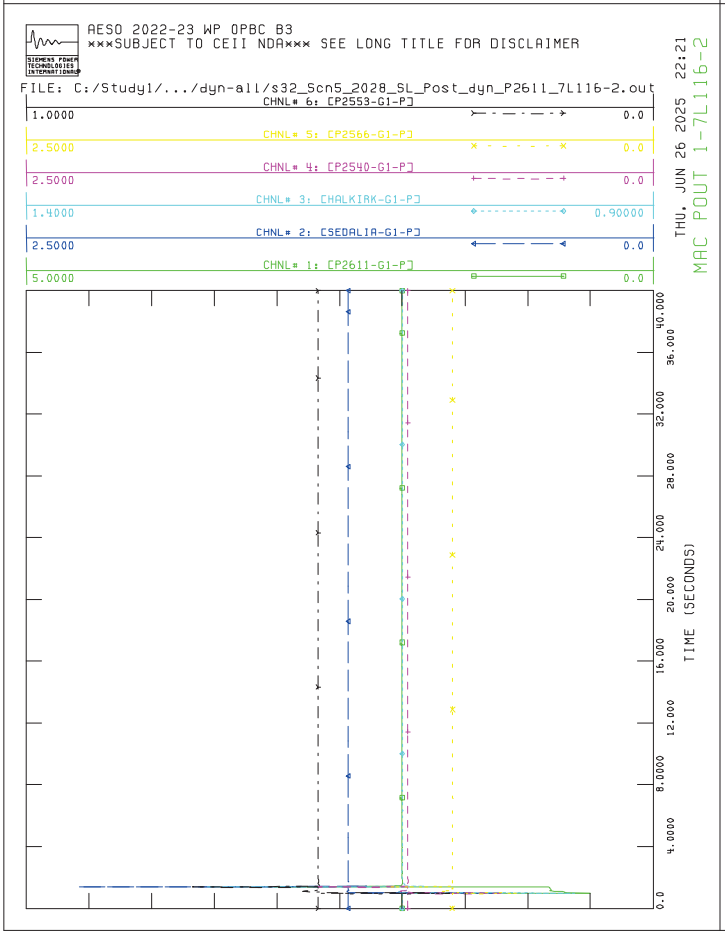

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 48: C7L132-QJ
150.00
-100.0
CHNL# 46: C9L966-QJ
1500.0
-1000.
CHNL# 44: C9L59-QJ
150.00
-100.0
CHNL# 42: C9L46-QJ
1500.0
-1000.
CHNL# 40: C9L29-QJ
30.000
-20.00
CHNL# 38: C9L24L-QJ
1500.0
-1000.
THU, JUN 26 2025 22:21
BRN Q FLOW-7L116-1
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000

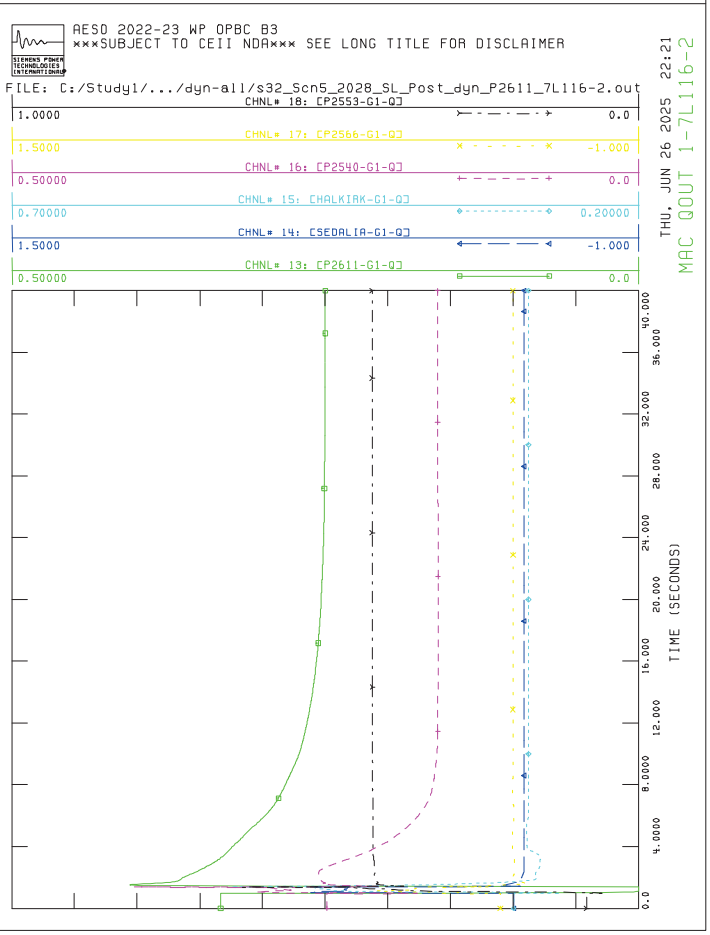

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 30: CNOVA-ST1-AJ
-22.25
-30.25
CHNL# 29: CNOVA-GT1-AJ
-21.80
-29.70
CHNL# 28: CBATTLER-G4-AJ
0.0
-25.00
CHNL# 27: CBATTLER-G5-AJ
-10.00
-20.00
CHNL# 26: CSHEERNESS-G2-AJ
0.0
-10.00
CHNL# 25: CSHEERNESS-G1-AJ
-10.00
-20.00
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-7L116-1
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s31_Scn5_2028_SL_Post_dyn_P2611_7L116-1.out
CHNL# 47: C7L132-PJ
250.00
-250.0
CHNL# 45: C9L966-PJ
100.00
0.0
CHNL# 43: C9L59-PJ
0.0
-100.0
CHNL# 41: C9L46-PJ
0.0
-250.0
CHNL# 39: C9L29-PJ
0.0
-250.0
CHNL# 37: C9L24-PJ
1000.0
0.0
THU, JUN 26 2025 22:21
BRN P FLOW-7L116-1
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s32_Scn5_2028_SL_Post_dyn_P2611_7L116-2.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
THU, JUN 26 2025 22:21
MAC POUT 2-7L116-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s32_Scn5_2028_SL_Post_dyn_P2611_7L116-2.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
THU, JUN 26 2025 22:21
MAC QOUT 2-7L116-2
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s32_Scn5_2028_SL_Post_dyn_P2611_7L116-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
THU, JUN 26 2025 22:21
MAC POUT 1-7L116-2
TIME (SECONDS)

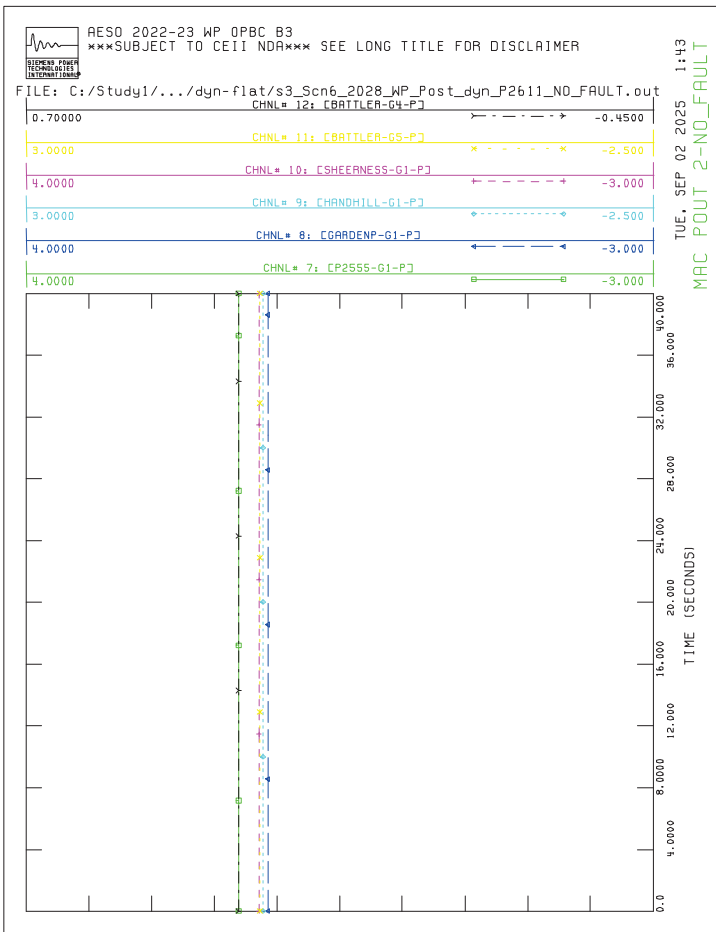

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s32_Scn5_2028_SL_Post_dyn_P2611_7L116-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
THU, JUN 26 2025 22:21
MAC QOUT 1-7L116-2
TIME (SECONDS)

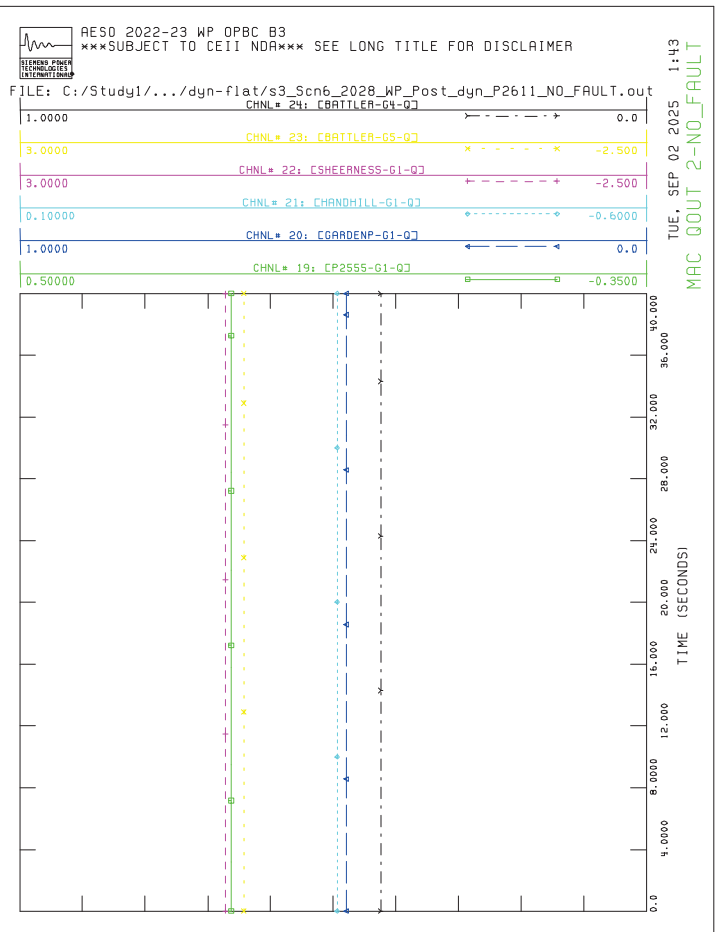
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:21
BUS VOL-7L116-2
CHNL# 36: CCORDEL755S-VJ 1.4000 0.90000
CHNL# 35: CHANSMANLAKE22LS-VJ 2.5000 0.0
CHNL# 34: CPEMUKAN932S-VJ 2.5000 0.0
CHNL# 33: COAKLAND946S-VJ 2.5000 0.0
CHNL# 32: CLANFINE959S-138-VJ 2.5000 0.0
CHNL# 31: CLANFINE959S-240-VJ 2.5000 0.0
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

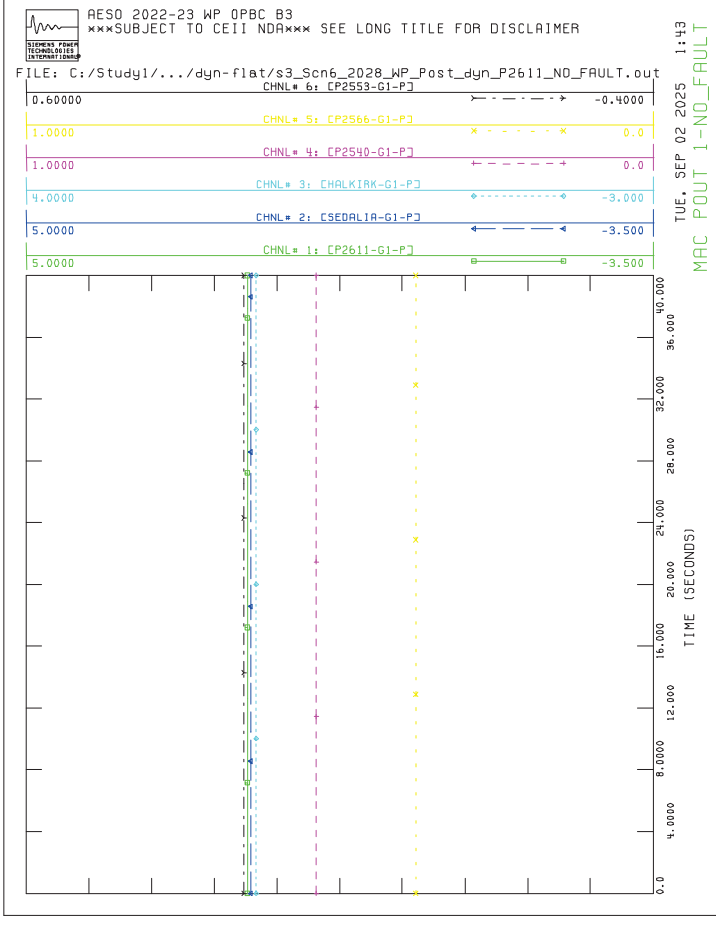
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s32_Scn5_2028_SL_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:21
BRN Q FLOW-7L116-2
CHNL# 48: C7L132-QJ 150.00 -100.0
CHNL# 46: C9L966-QJ 0.0 -500.0
CHNL# 44: C9L59-QJ 150.00 -100.0
CHNL# 42: C9L46-QJ 1500.0 -1000.
CHNL# 40: C9L29-QJ 150.00 -100.0
CHNL# 38: C9L24L-QJ 1500.0 -1000.
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

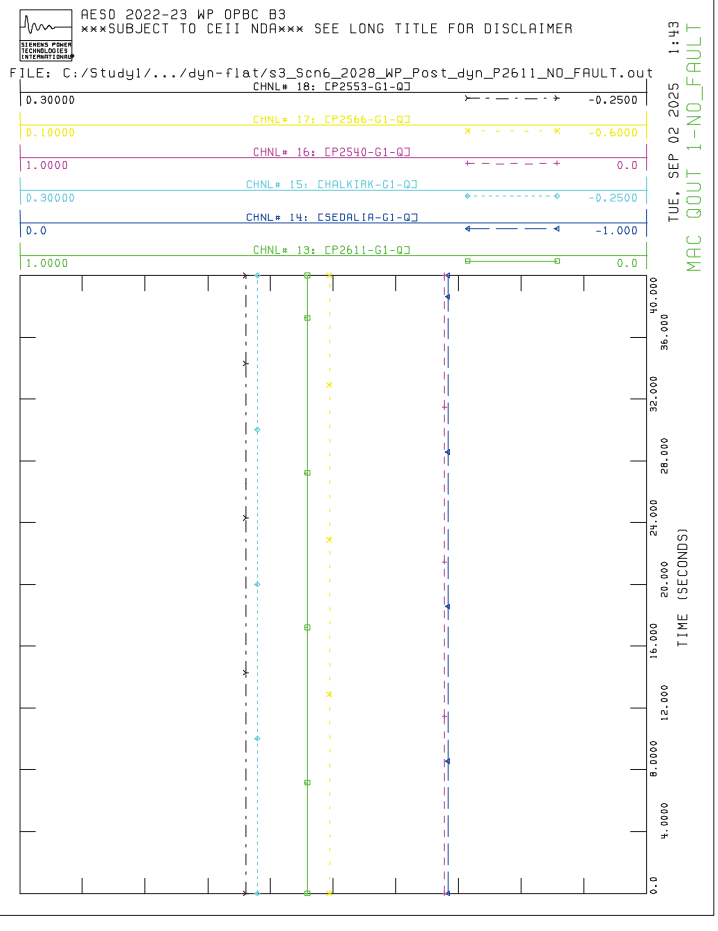
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s32_Scn5_2028_SL_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-7L116-2
CHNL# 30: CNOVA-ST1-AJ -20.00 -30.00
CHNL# 29: CNOVA-GT1-AJ -20.00 -30.00
CHNL# 28: CBATTLER-G4-AJ 0.0 -25.00
CHNL# 27: CBATTLER-G5-AJ -10.00 -20.00
CHNL# 26: CSHEERNESS-G2-AJ 0.0 -25.00
CHNL# 25: CSHEERNESS-G1-AJ 0.0 -25.00
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

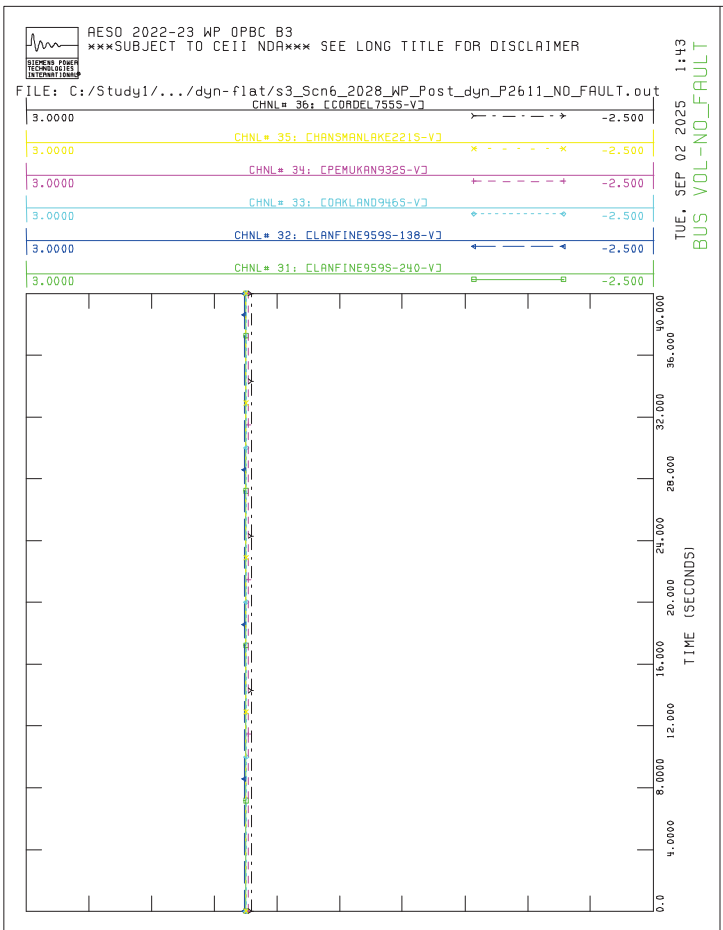
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s32_Scn5_2028_SL_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:21
BRN P FLOW-7L116-2
CHNL# 47: C7L132-PJ 400.00 -100.0
CHNL# 45: C9L966-PJ 250.00 0.0
CHNL# 43: C9L59-PJ 0.0 -250.0
CHNL# 41: C9L46-PJ 0.0 -100.0
CHNL# 39: C9L29-PJ -50.00 -100.0
CHNL# 37: C9L24-PJ 1000.0 0.0
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

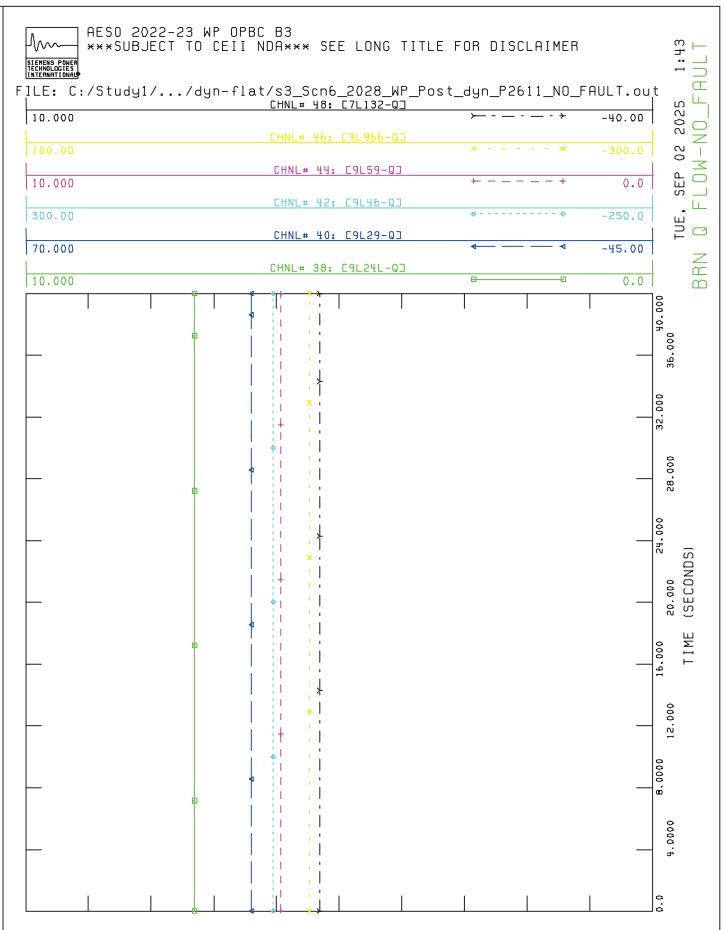

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
MAC POUT 2-NO_FAULT
CHNL# 12: [BATTLEA-G4-P]
0.70000
-0.4500
CHNL# 11: [BATTLEA-G5-P]
3.0000
-2.500
CHNL# 10: [SHEERNESS-G1-P]
4.0000
-3.000
CHNL# 9: [HANDHILL-G1-P]
3.0000
-2.500
CHNL# 8: [GARDENP-G1-P]
4.0000
-3.000
CHNL# 7: [P2555-G1-P]
4.0000
-3.000
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)

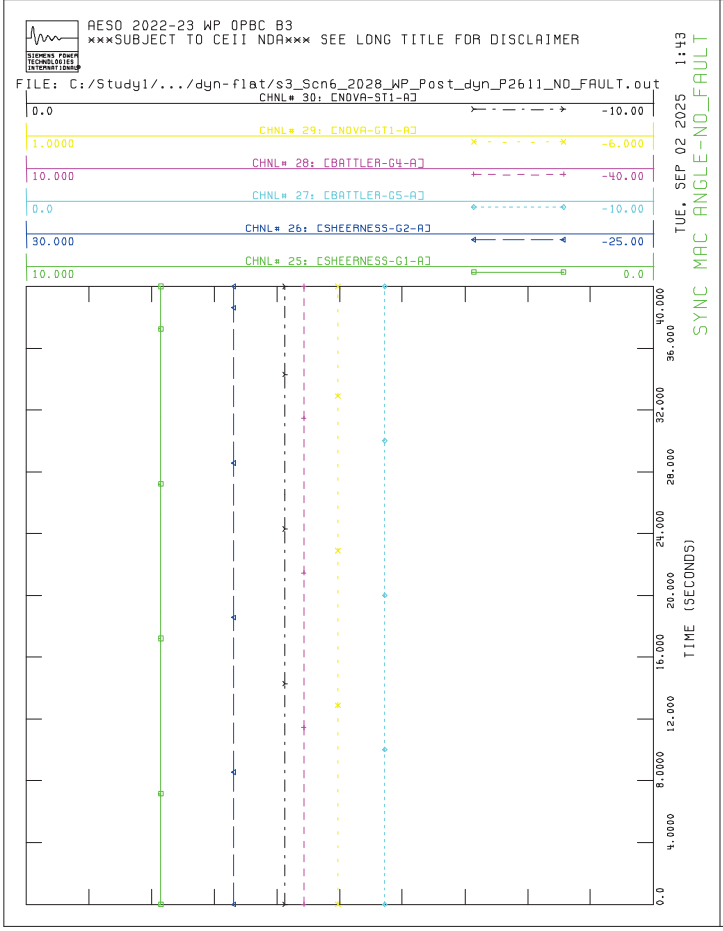

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
MAC QOUT 2-NO_FAULT
CHNL# 24: [BATTLEA-G4-Q]
1.0000
0.0
CHNL# 23: [BATTLEA-G5-Q]
3.0000
-2.500
CHNL# 22: [SHEERNESS-G1-Q]
3.0000
-2.500
CHNL# 21: [HANDHILL-G1-Q]
0.10000
-0.6000
CHNL# 20: [GARDENP-G1-Q]
1.0000
0.0
CHNL# 19: [P2555-G1-Q]
0.50000
-0.3500
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)

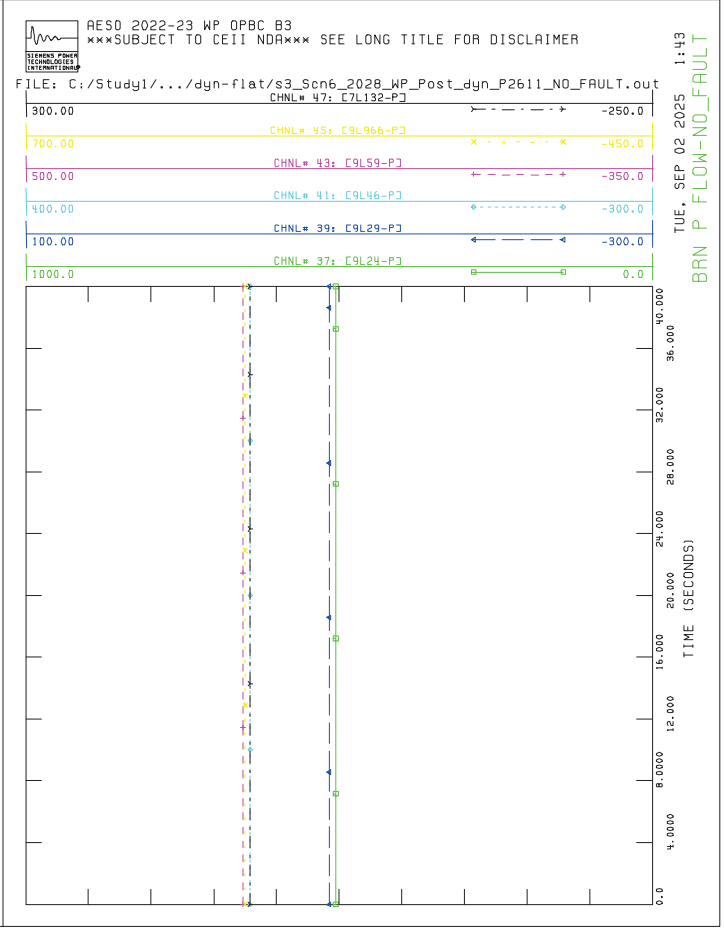

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
MAC POUT 1-NO_FAULT
CHNL# 6: [P2553-G1-P]
0.60000
-0.4000
CHNL# 5: [P2566-G1-P]
1.0000
0.0
CHNL# 4: [P2540-G1-P]
1.0000
0.0
CHNL# 3: [HALKIRK-G1-P]
4.0000
-3.000
CHNL# 2: [SEDALIA-G1-P]
5.0000
-3.500
CHNL# 1: [P2611-G1-P]
5.0000
-3.500
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
TUE, SEP 02 2025 1:43
MAC QOUT 1-NO_FAULT
CHNL# 18: [P2553-G1-Q]
0.30000
-0.2500
CHNL# 17: [P2566-G1-Q]
0.10000
-0.6000
CHNL# 16: [P2540-G1-Q]
1.0000
0.0
CHNL# 15: [HALKIRK-G1-Q]
0.30000
-0.2500
CHNL# 14: [SEDALIA-G1-Q]
0.0
-1.000
CHNL# 13: [P2611-G1-Q]
1.0000
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
CHNL= 36: CCORDEL755S-VJ
3.0000
-2.500
CHNL= 35: CHANSMANLAKE221S-VJ
3.0000
-2.500
CHNL= 34: CPEMUKAN932S-VJ
3.0000
-2.500
CHNL= 33: COAKLAND946S-VJ
3.0000
-2.500
CHNL= 32: CLANFINE959S-138-VJ
3.0000
-2.500
CHNL= 31: CLANFINE959S-240-VJ
3.0000
-2.500
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
BUS VOL-NO_FAULT


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
CHNL= 48: C7L132-QJ
10.000
-40.00
CHNL= 46: C9L966-QJ
100.00
-300.0
CHNL= 44: C9L59-QJ
10.000
0.0
CHNL= 42: C9L46-QJ
300.00
-250.0
CHNL= 40: C9L29-QJ
70.000
-45.00
CHNL= 38: C9L24L-QJ
10.000
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
BRN Q FLOW-NO_FAULT


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
CHNL= 30: CNOVA-ST1-AJ
0.0
-10.00
CHNL= 29: CNOVA-GT1-AJ
1.0000
-6.000
CHNL= 28: CBATTLER-G4-AJ
10.000
-40.00
CHNL= 27: CBATTLER-G5-AJ
0.0
-10.00
CHNL= 26: CSHEERNESS-G2-AJ
30.000
-25.00
CHNL= 25: CSHEERNESS-G1-AJ
10.000
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
SYNC MAC ANGLE-NO_FAULT


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-flat/s3_Scn6_2028_WP_Post_dyn_P2611_NO_FAULT.out
CHNL= 47: C7L132-PJ
300.00
-250.0
CHNL= 45: C9L966-PJ
700.00
-450.0
CHNL= 43: C9L59-PJ
500.00
-350.0
CHNL= 41: C9L46-PJ
400.00
-300.0
CHNL= 39: C9L29-PJ
100.00
-300.0
CHNL= 37: C9L24-PJ
1000.0
0.0
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000
TIME (SECONDS)
TUE, SEP 02 2025 1:43
BRN P FLOW-NO_FAULT

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
MAC POUT 2-9L24-1
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
MAC QOUT 2-9L24-1
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
MAC POUT 1-9L24-1
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [HALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)

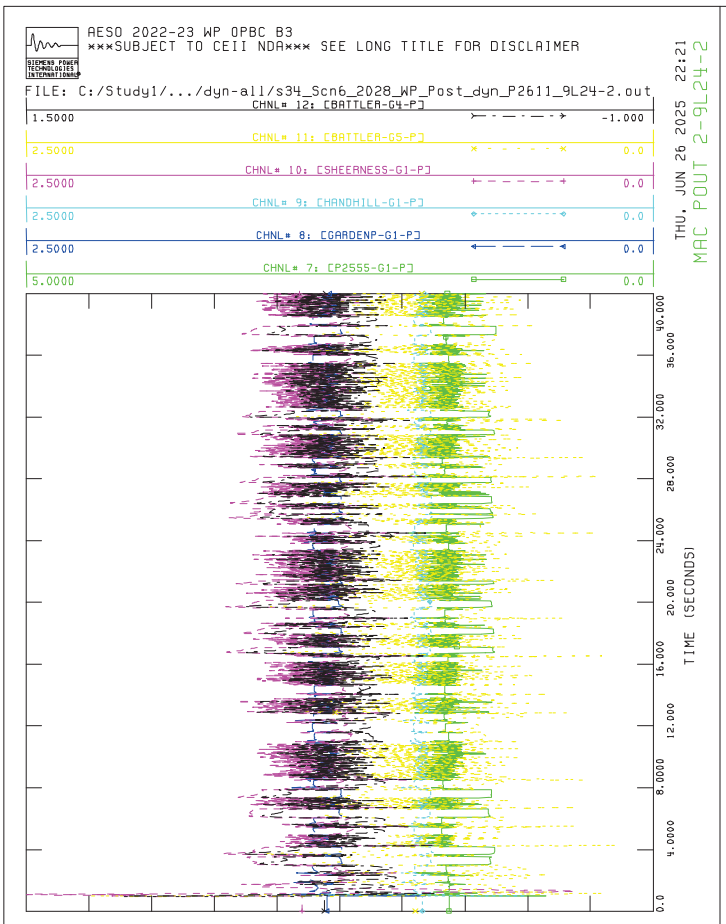
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
MAC QOUT 1-9L24-1
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [HALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)

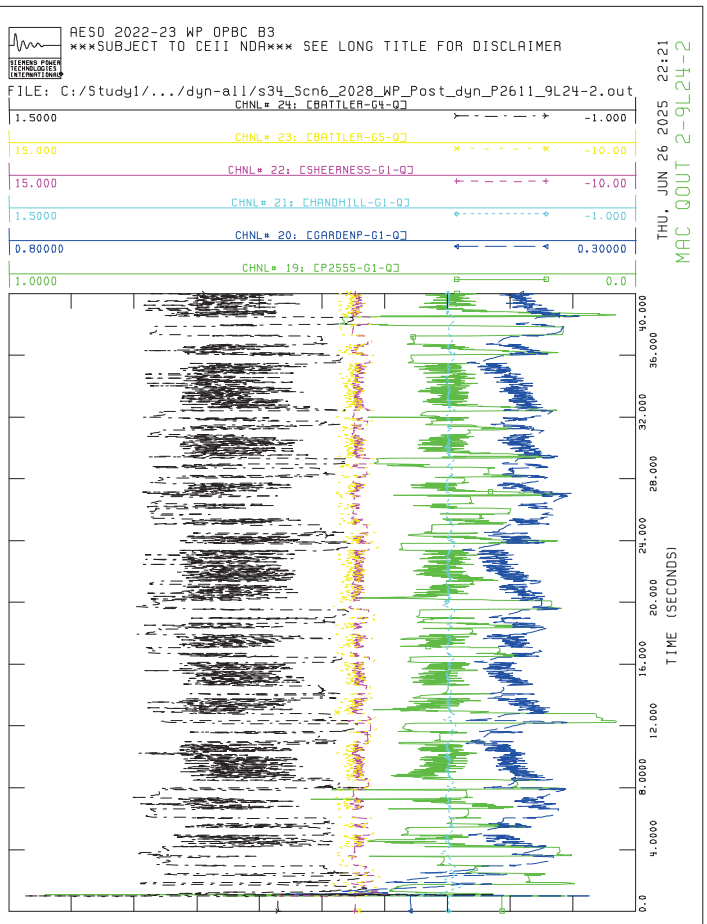
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
BUS VOL-9L24-1
CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE22LS-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
TIME (SECONDS)

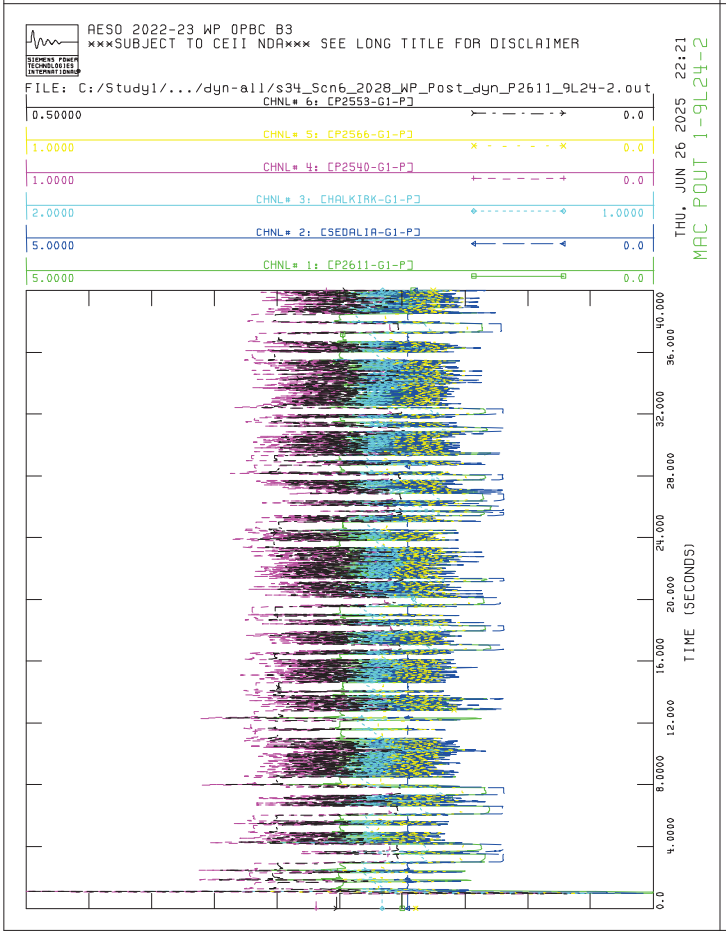
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
BRN Q FLOW-9L24-1
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
TIME (SECONDS)

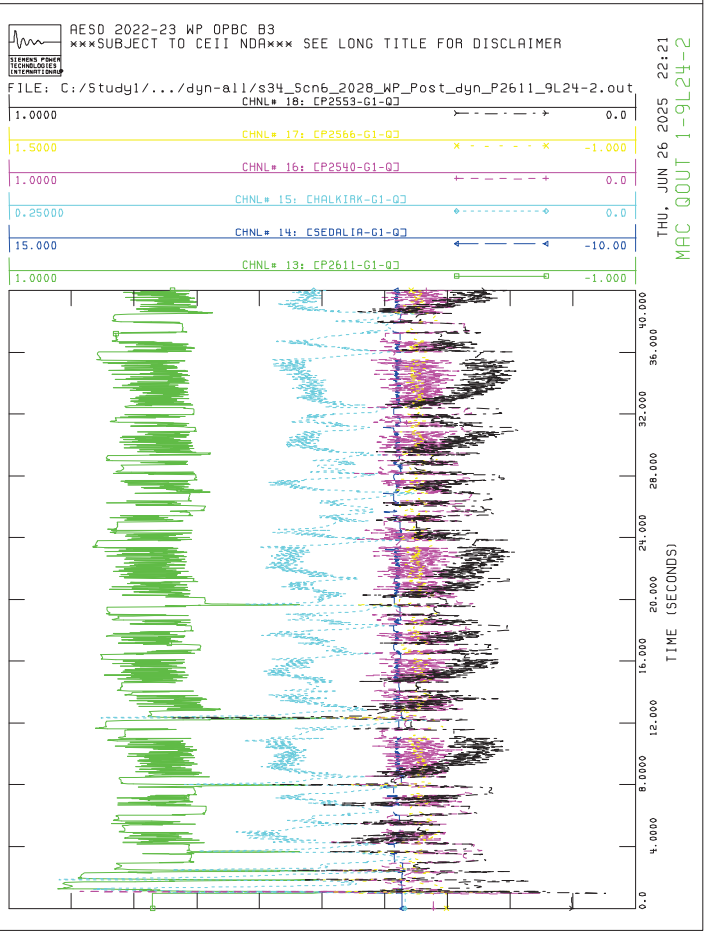
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
SYNC MAC ANGLE-9L24-1
CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
TIME (SECONDS)

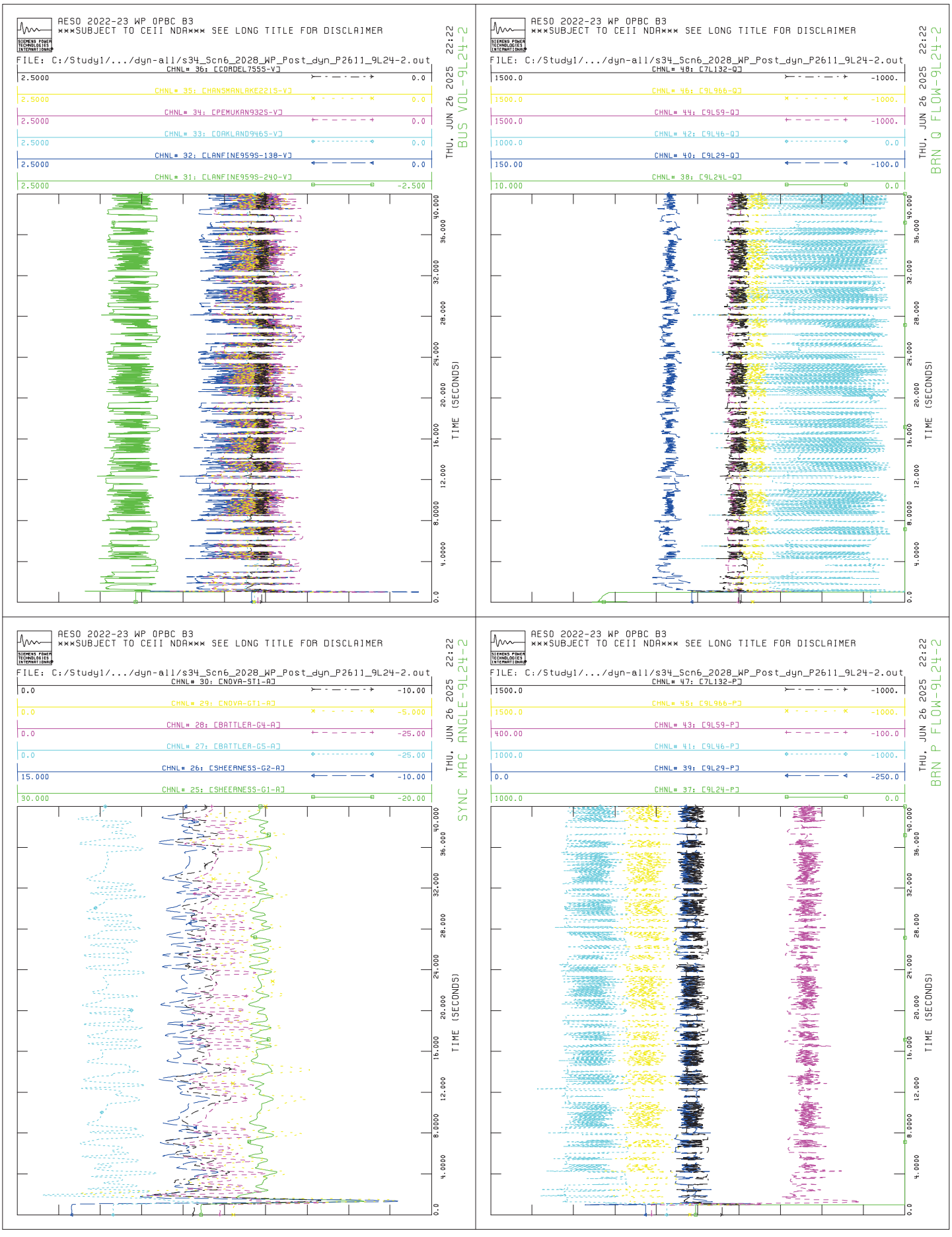
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s33_Scn6_2028_WP_Post_dyn_P2611_9L24-1.out
THU, JUN 26 2025 22:21
BRN P FLOW-9L24-1
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
CHNL= 39: C9L29-PJ
CHNL= 37: C9L24-PJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s34_Scn6_2028_WP_Post_dyn_P2611_9L24-2.out
CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 2-9L24-2

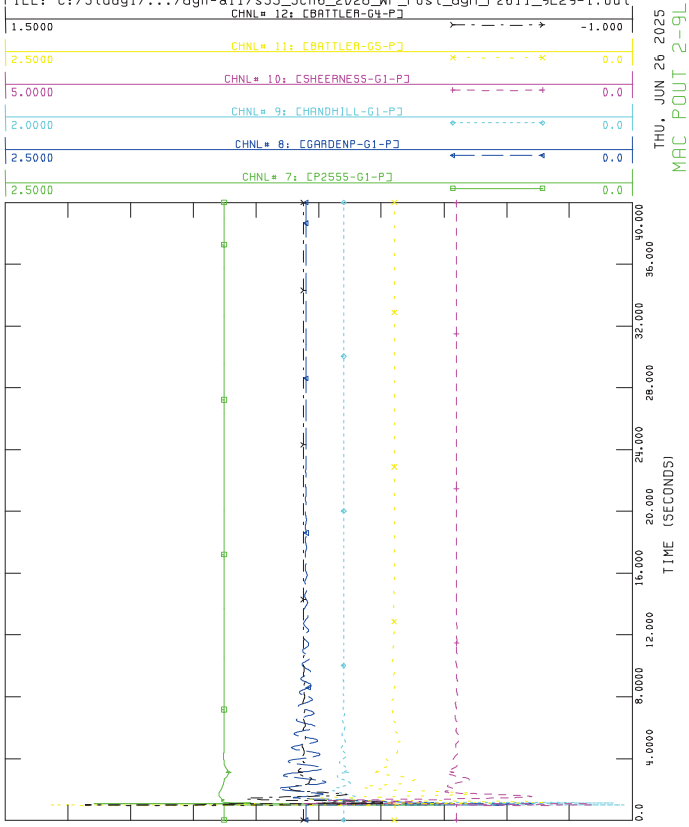

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s34_Scn6_2028_WP_Post_dyn_P2611_9L24-2.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 2-9L24-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s34_Scn6_2028_WP_Post_dyn_P2611_9L24-2.out
CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC POUT 1-9L24-2

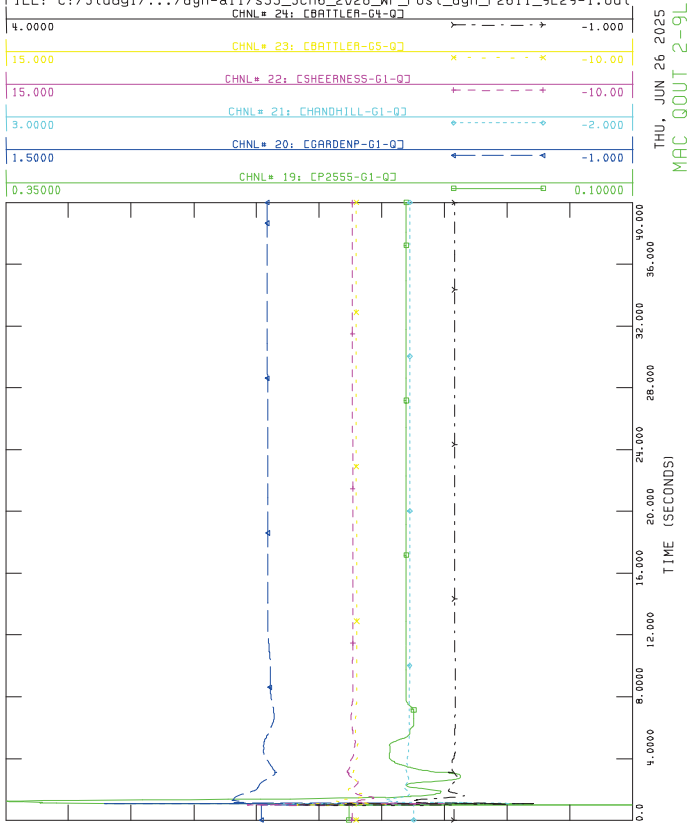

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s34_Scn6_2028_WP_Post_dyn_P2611_9L24-2.out
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:21
MAC QOUT 1-9L24-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s34_Scn6_2028_WP_Post_dyn_P2611_9L24-2.out
THU, JUN 26 2025 22:22
BUS VOL-9L24-2
CHNL= 36: CCORDEL755S-VJ
CHNL= 35: CHANSMANLAKE22LS-VJ
CHNL= 34: CPEMUKAN932S-VJ
CHNL= 33: COAKLAND946S-VJ
CHNL= 32: CLANFINE959S-138-VJ
CHNL= 31: CLANFINE959S-240-VJ
TIME (SECONDS)
BRN Q FLOW-9L24-2
CHNL= 48: C7L132-QJ
CHNL= 46: C9L966-QJ
CHNL= 44: C9L59-QJ
CHNL= 42: C9L46-QJ
CHNL= 40: C9L29-QJ
CHNL= 38: C9L24L-QJ
SYNC MAC ANGLE-9L24-2
CHNL= 30: CNOVA-ST1-AJ
CHNL= 29: CNOVA-GT1-AJ
CHNL= 28: CBATTLER-G4-AJ
CHNL= 27: CBATTLER-G5-AJ
CHNL= 26: CSHEERNESS-G2-AJ
CHNL= 25: CSHEERNESS-G1-AJ
BRN P FLOW-9L24-2
CHNL= 47: C7L132-PJ
CHNL= 45: C9L966-PJ
CHNL= 43: C9L59-PJ
CHNL= 41: C9L46-PJ
CHNL= 39: C9L29-PJ
CHNL= 37: C9L24-PJ

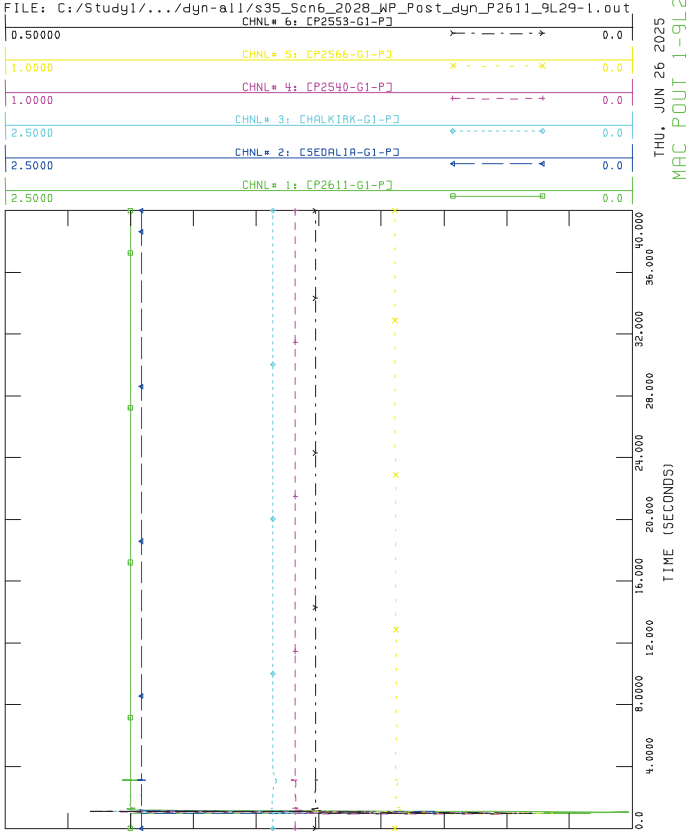
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
MAC POUT 2-9L29-1



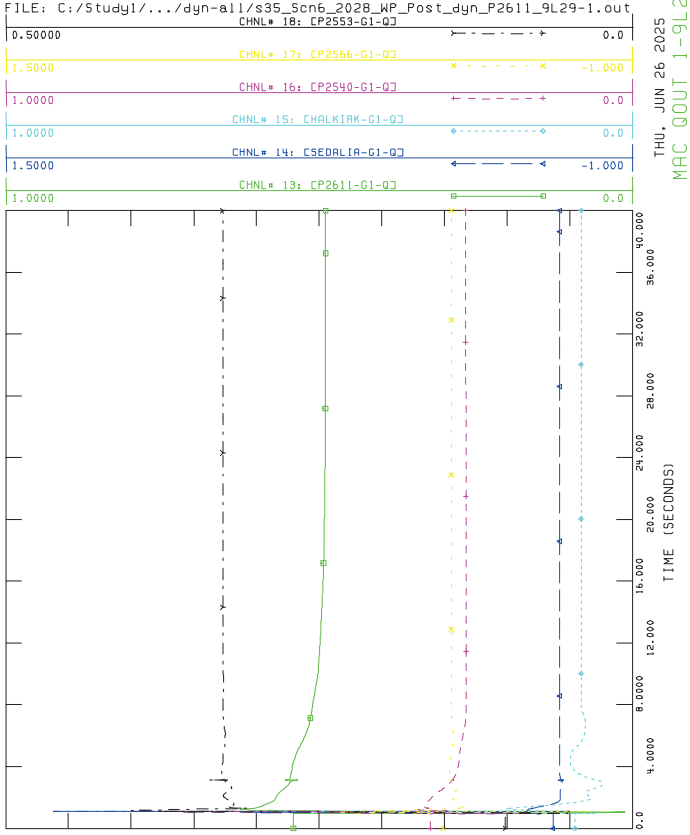
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
MAC QOUT 2-9L29-1

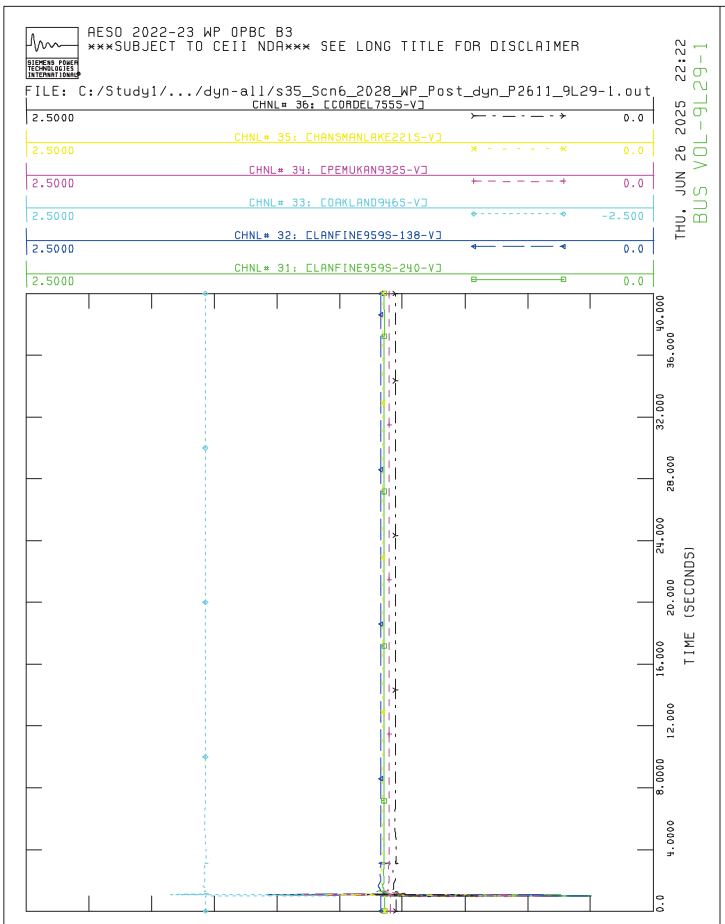


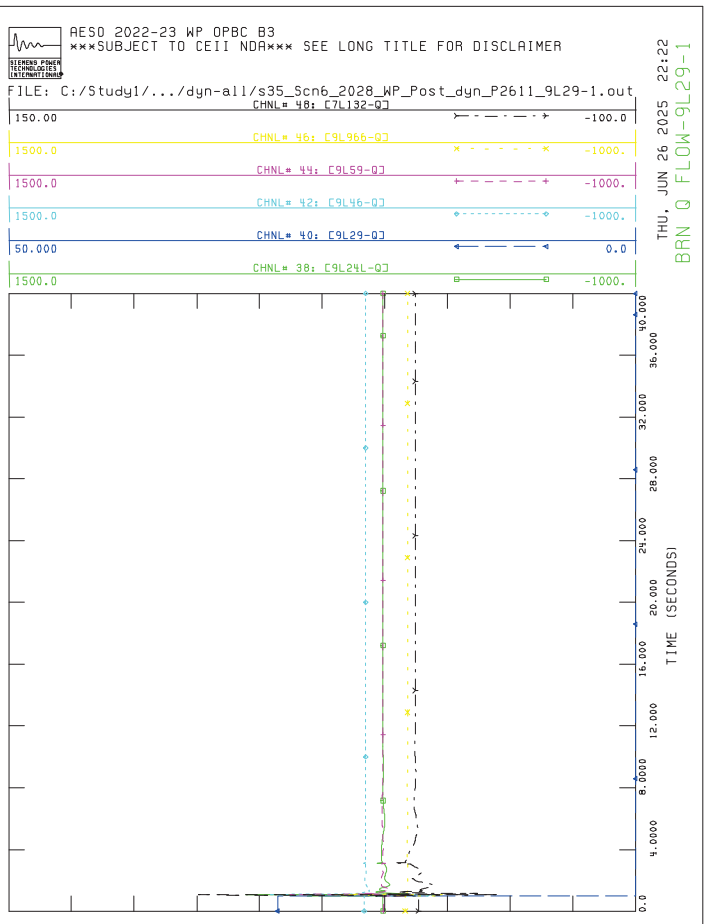
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
MAC POUT 1-9L29-1

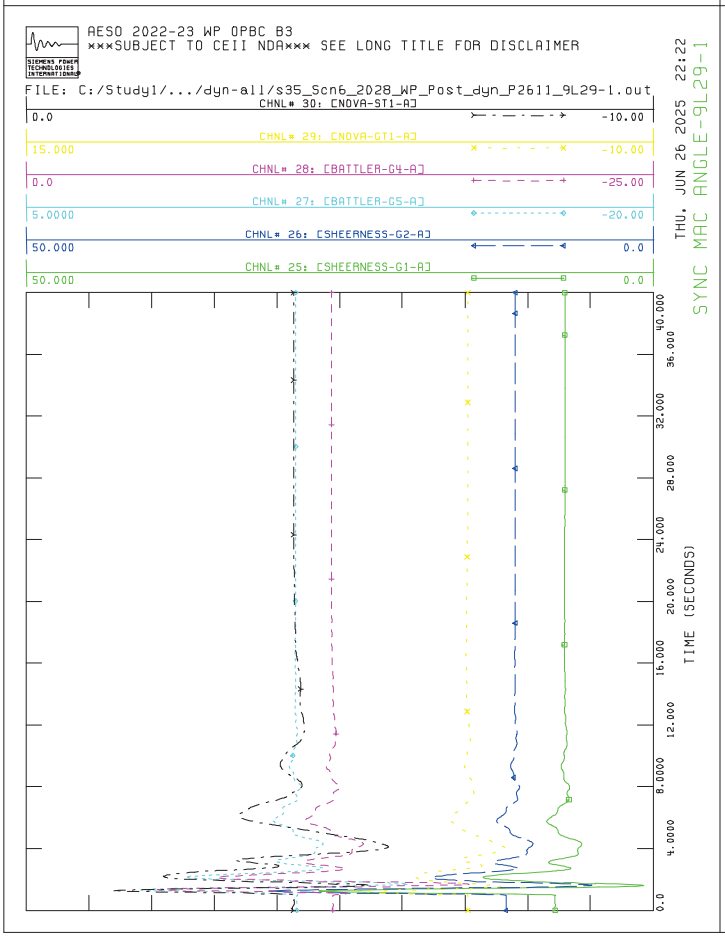


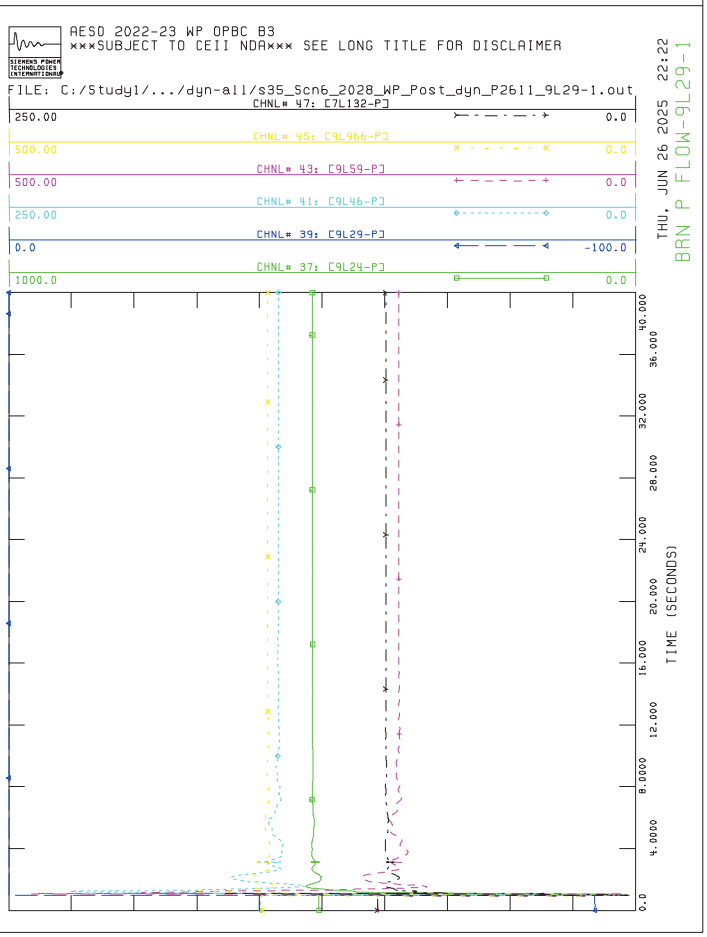
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
MAC QOUT 1-9L29-1




AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
BUS VOL-9L29-1
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
BRN Q FLOW-9L29-1
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-9L29-1
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s35_Scn6_2028_WP_Post_dyn_P2611_9L29-1.out
THU, JUN 26 2025 22:22
BRN P FLOW-9L29-1
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s36_Scn6_2028_WP_Post_dyn_P2611_9L29-2.out
THU, JUN 26 2025 22:22
MAC POUT 2-9L29-2

CHNL# 12: CBATTLEA-G4-PJ 1.5000 -1.000
CHNL# 11: CBATTLEA-G5-PJ 4.0000 -1.000
CHNL# 10: CSHEERNESS-G1-PJ 5.0000 0.0
CHNL# 9: CHANDHILL-G1-PJ 1.0000 0.0
CHNL# 8: CGARDENP-G1-PJ 2.5000 0.0
CHNL# 7: CP2555-G1-PJ 2.5000 0.0

TIME (SECONDS)
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s36_Scn6_2028_WP_Post_dyn_P2611_9L29-2.out
THU, JUN 26 2025 22:22
MAC QOUT 2-9L29-2

CHNL# 24: CBATTLEA-G4-QJ 2.5000 0.0
CHNL# 23: CBATTLEA-G5-QJ 5.0000 0.0
CHNL# 22: CSHEERNESS-G1-QJ 15.000 -10.00
CHNL# 21: CHANDHILL-G1-QJ 1.5000 -1.000
CHNL# 20: CGARDENP-G1-QJ 2.5000 0.0
CHNL# 19: CP2555-G1-QJ 0.50000 0.0

TIME (SECONDS)
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s36_Scn6_2028_WP_Post_dyn_P2611_9L29-2.out
THU, JUN 26 2025 22:22
MAC POUT 1-9L29-2

CHNL# 6: CP2553-G1-PJ 0.50000 0.0
CHNL# 5: CP2566-G1-PJ 1.0000 0.0
CHNL# 4: CP2540-G1-PJ 1.0000 0.0
CHNL# 3: CHALKIRK-G1-PJ 2.0000 1.0000
CHNL# 2: CSEDALIA-G1-PJ 5.0000 0.0
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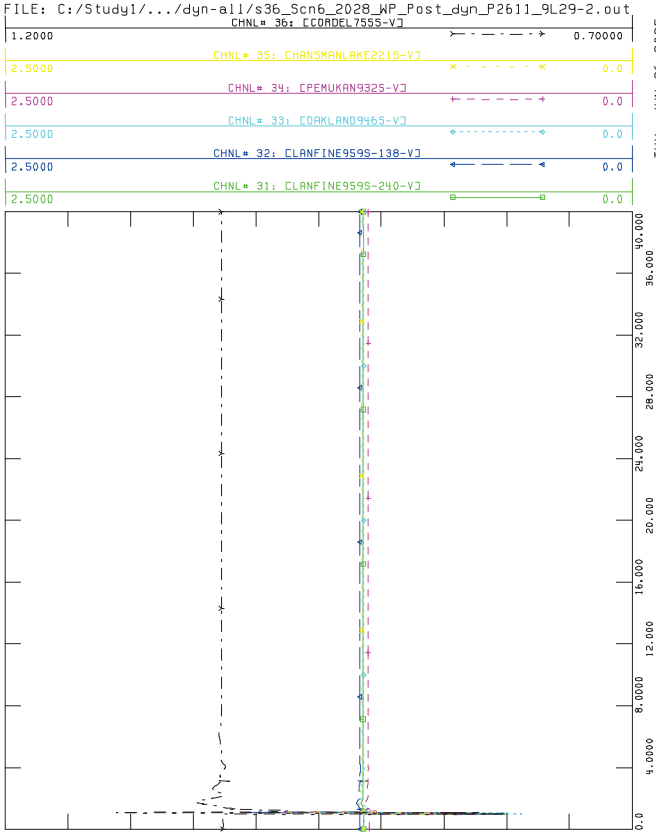
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AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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MAC QOUT 1-9L29-2

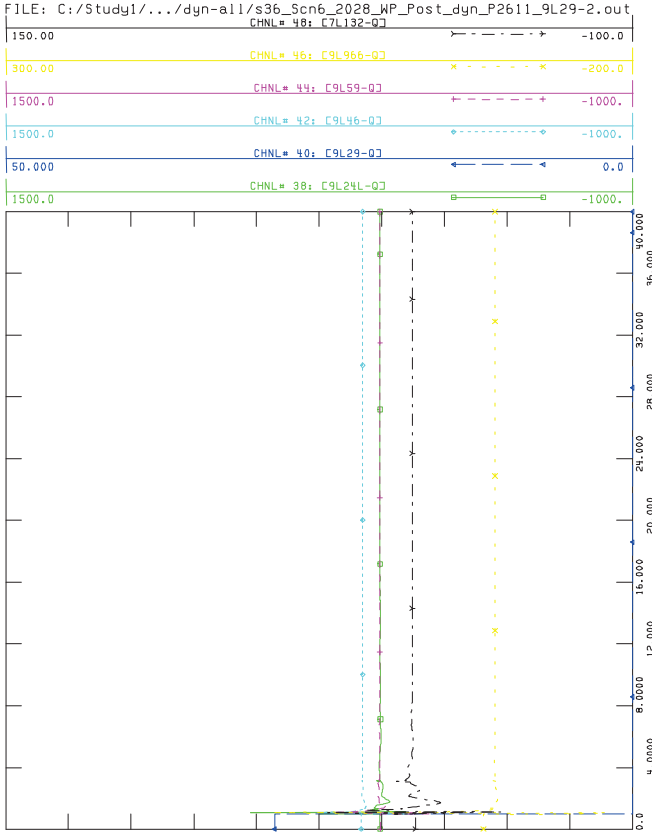
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CHNL# 15: CHALKIRK-G1-QJ 0.50000 0.0
CHNL# 14: CSEDALIA-G1-QJ 1.5000 -1.000
CHNL# 13: CP2611-G1-QJ 1.0000 0.0

TIME (SECONDS)
0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

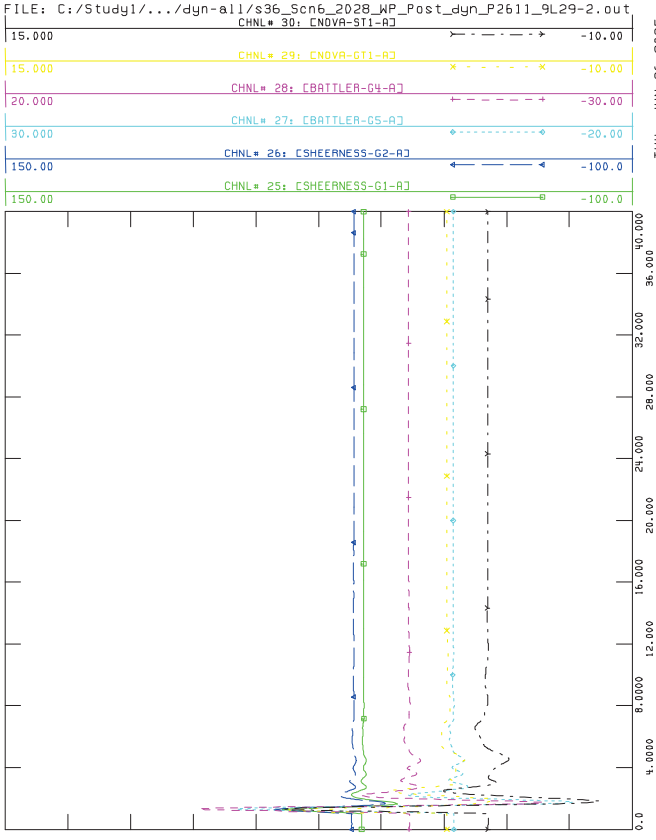
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BUS VOL-9L29-2



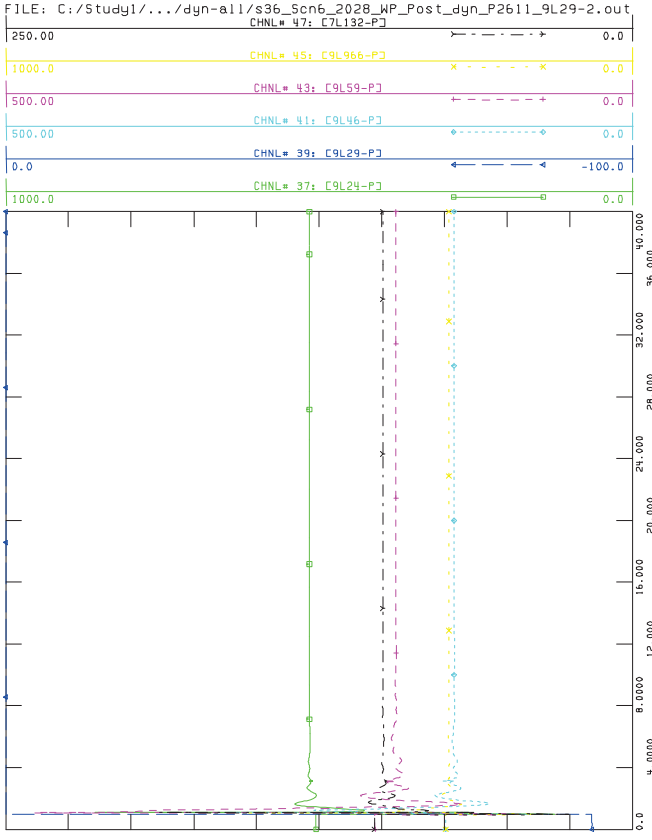
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BRN Q FLOW-9L29-2

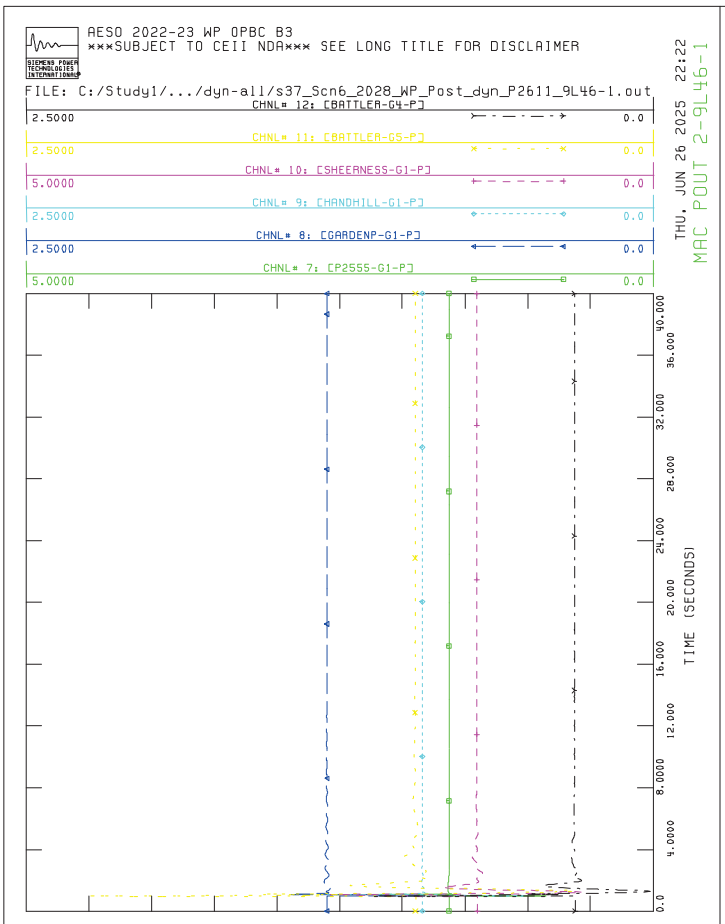


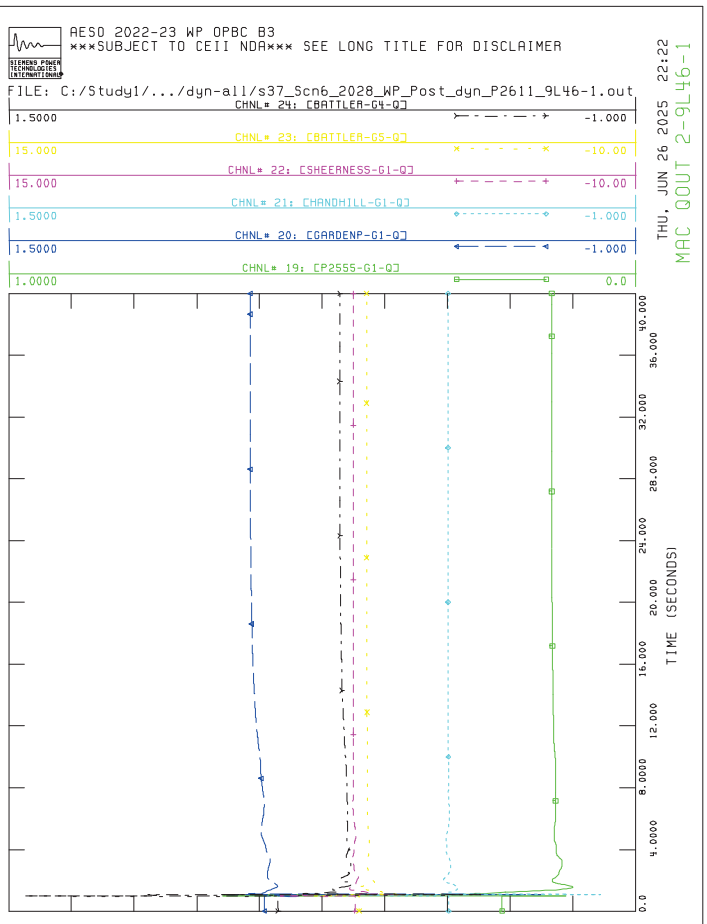
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SYNC MAC ANGLE-9L29-2

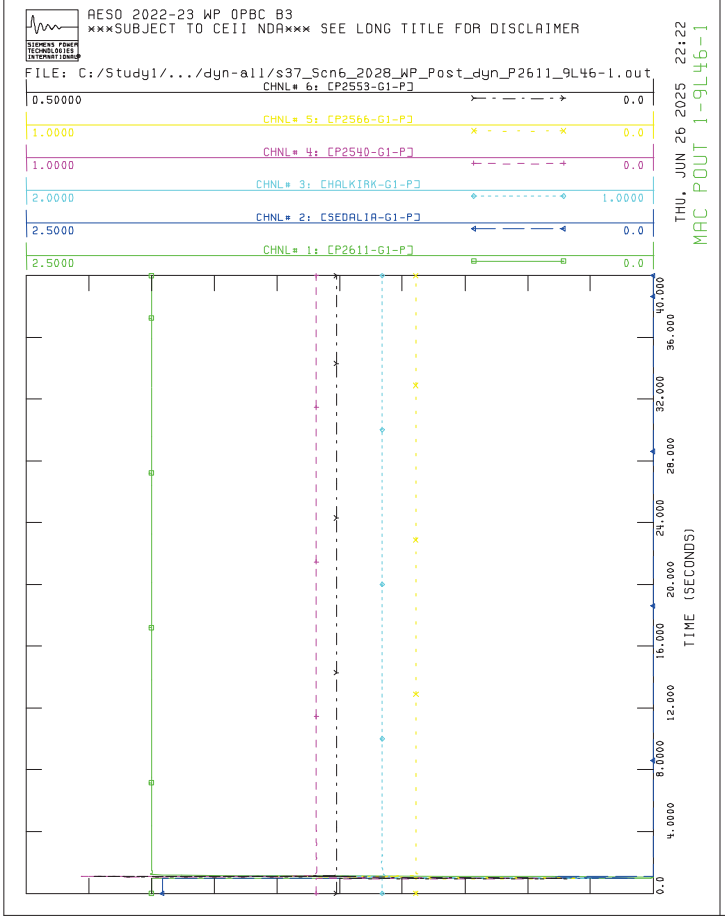


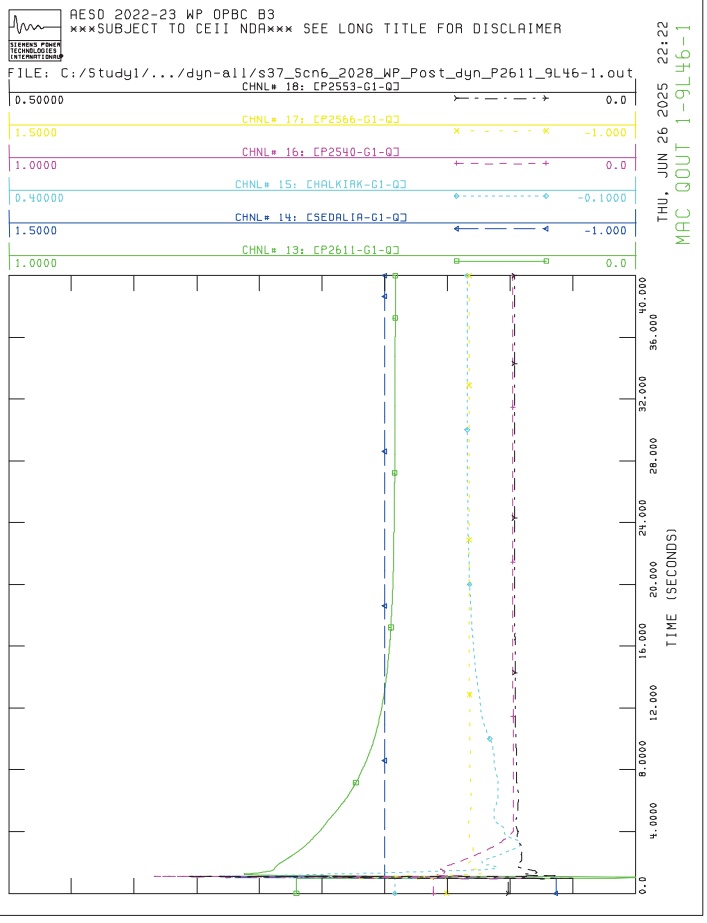
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BRN P FLOW-9L29-2



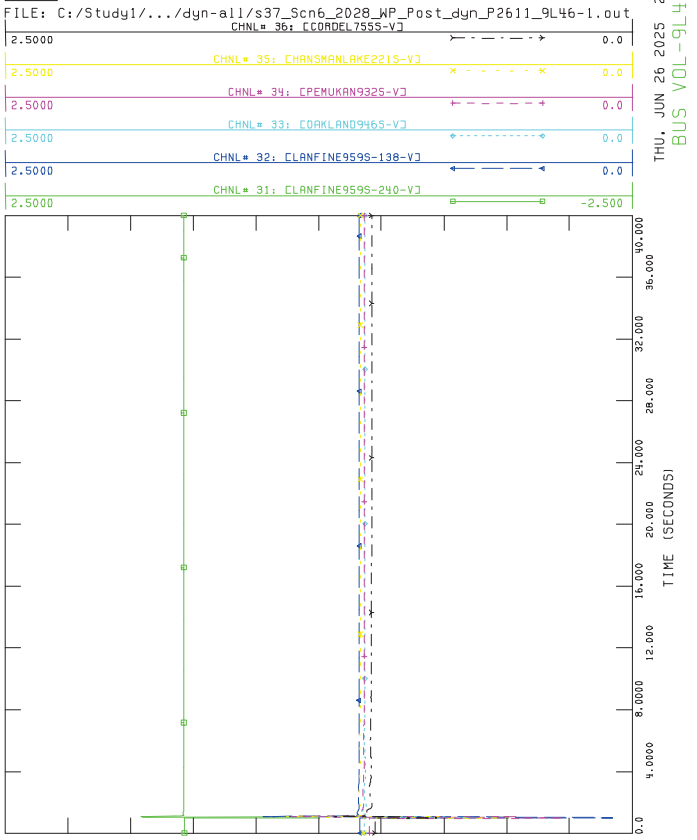

AESO 2022-23 WP OPBC B3
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CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 2-9L46-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s37_Scn6_2028_WP_Post_dyn_P2611_9L46-1.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 2-9L46-1

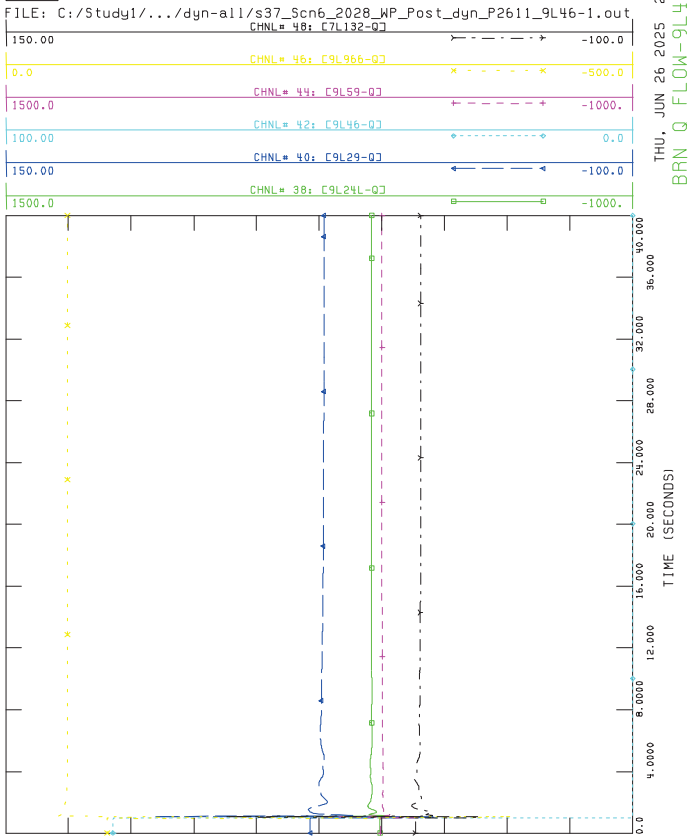

AESO 2022-23 WP OPBC B3
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CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 1-9L46-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s37_Scn6_2028_WP_Post_dyn_P2611_9L46-1.out
CHNL# 18: CP2553-G1-QJ
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CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 1-9L46-1

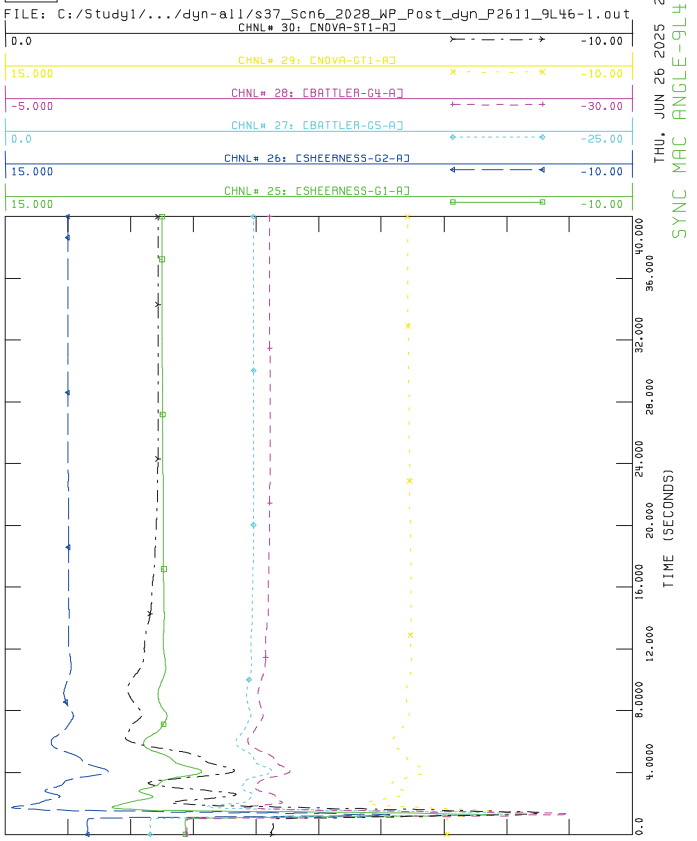
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THU, JUN 26 2025 22:22
BUS VOL-9L46-1



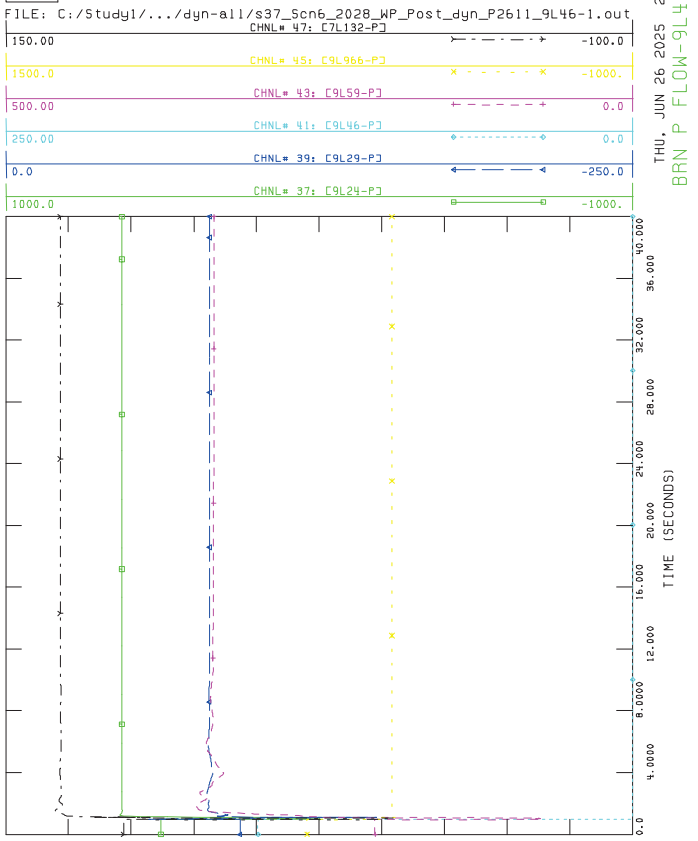
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BRN Q FLOW-9L46-1

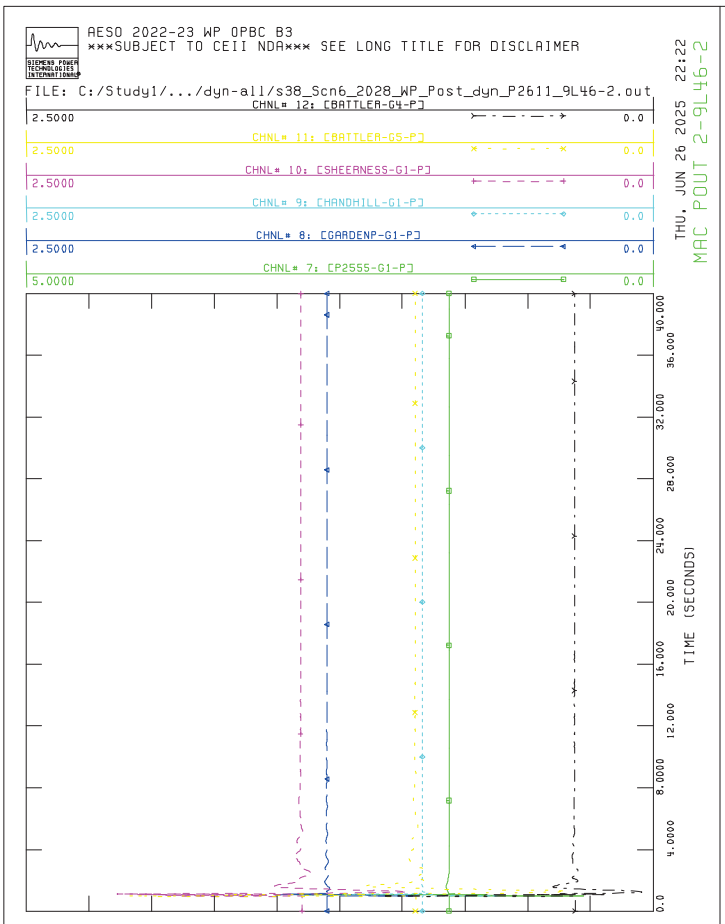


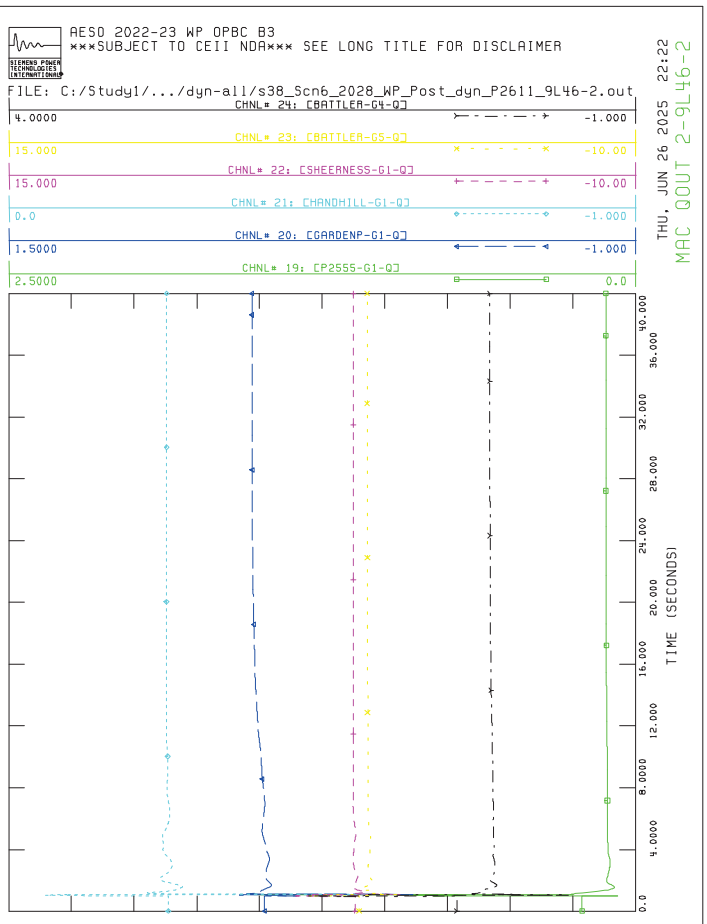
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SYNC MAC ANGLE-9L46-1

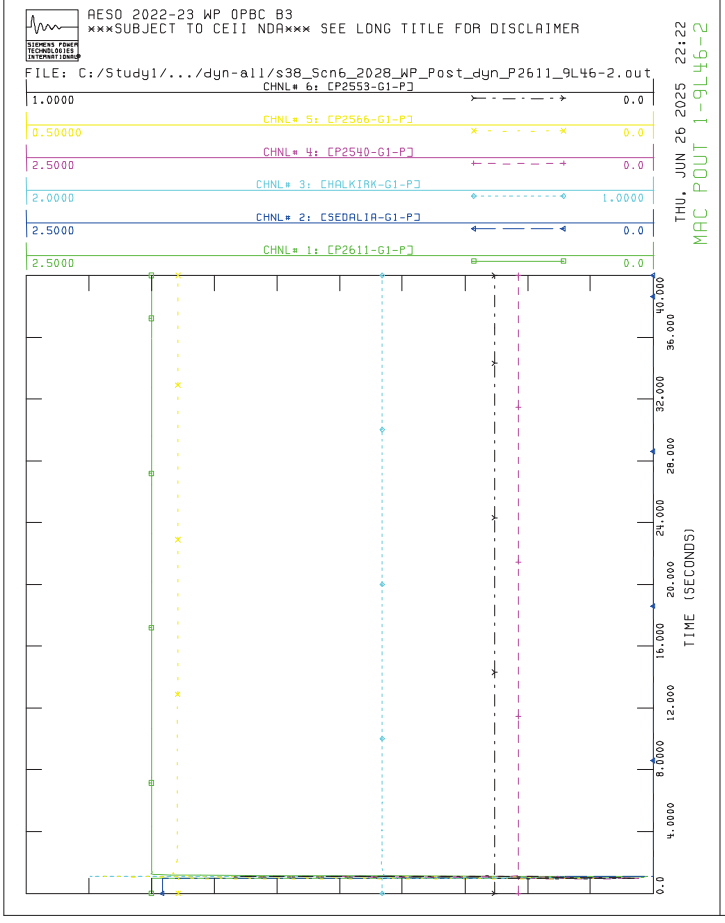


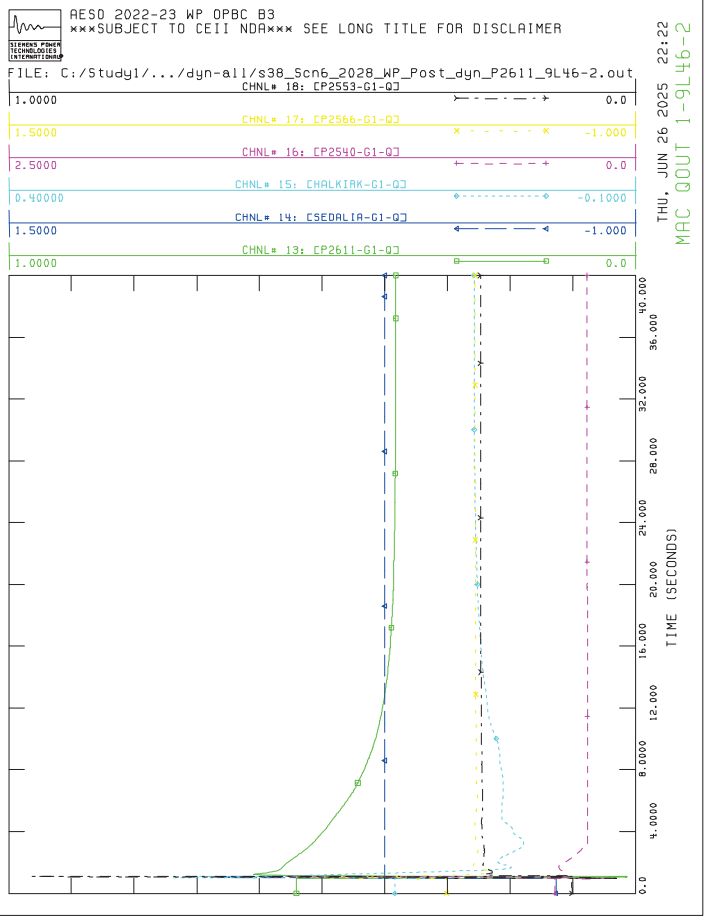
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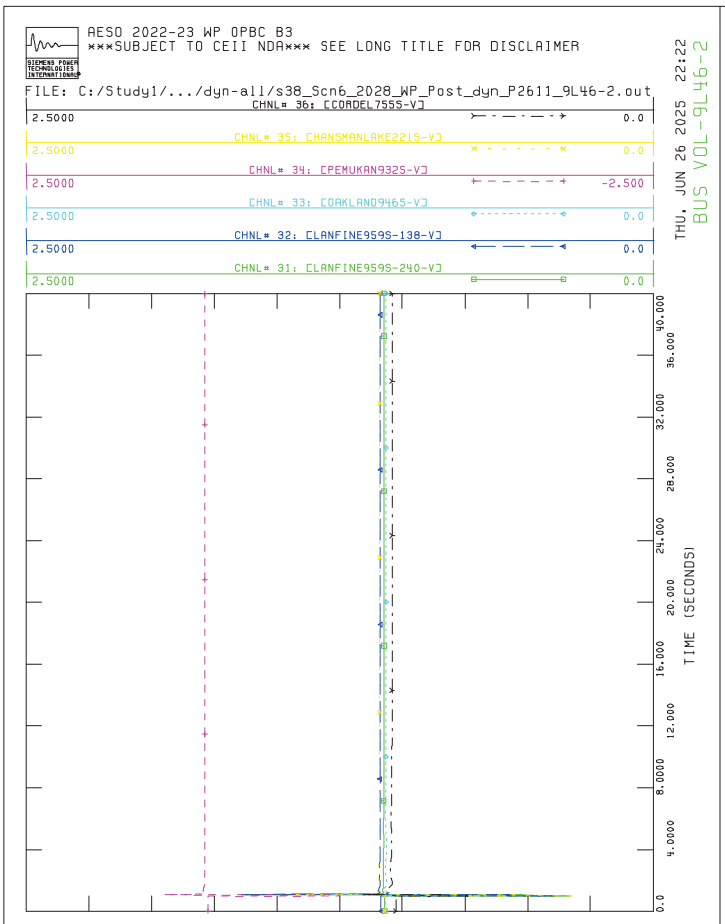


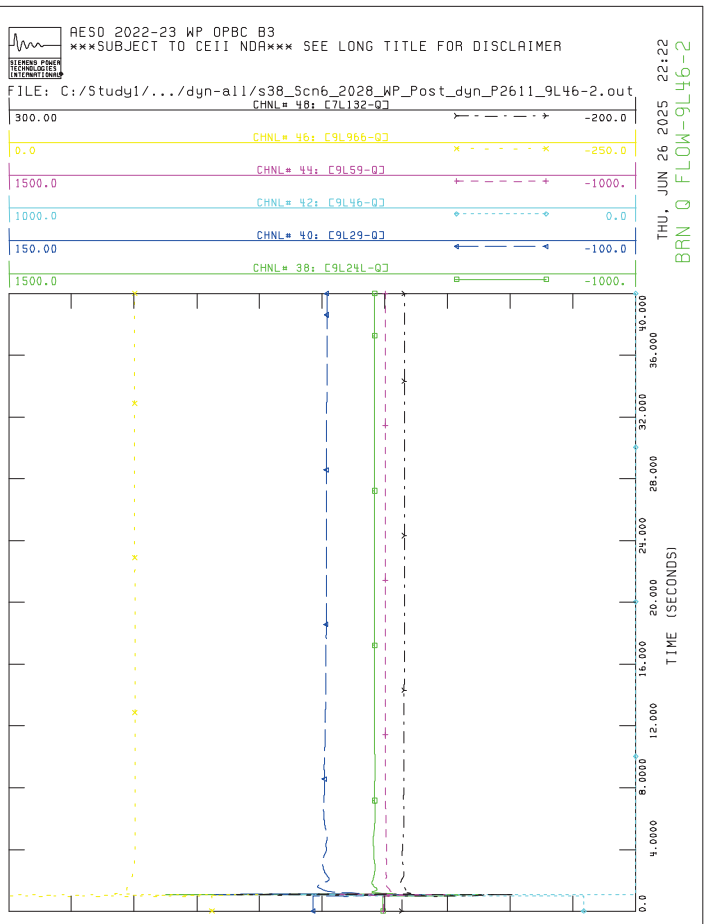

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CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 2-9L46-2

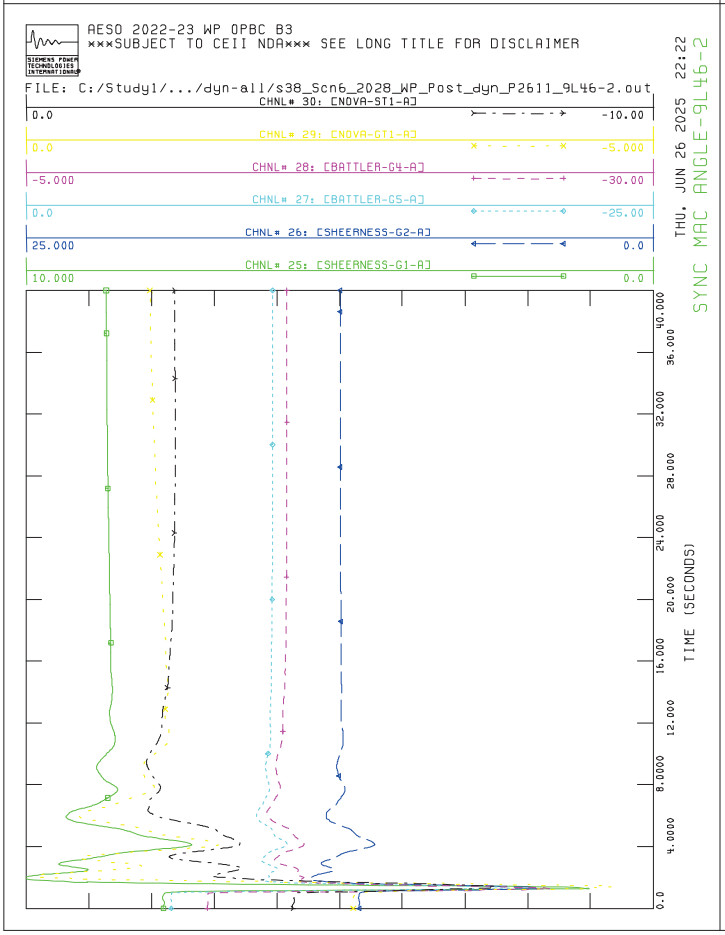

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
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TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 2-9L46-2

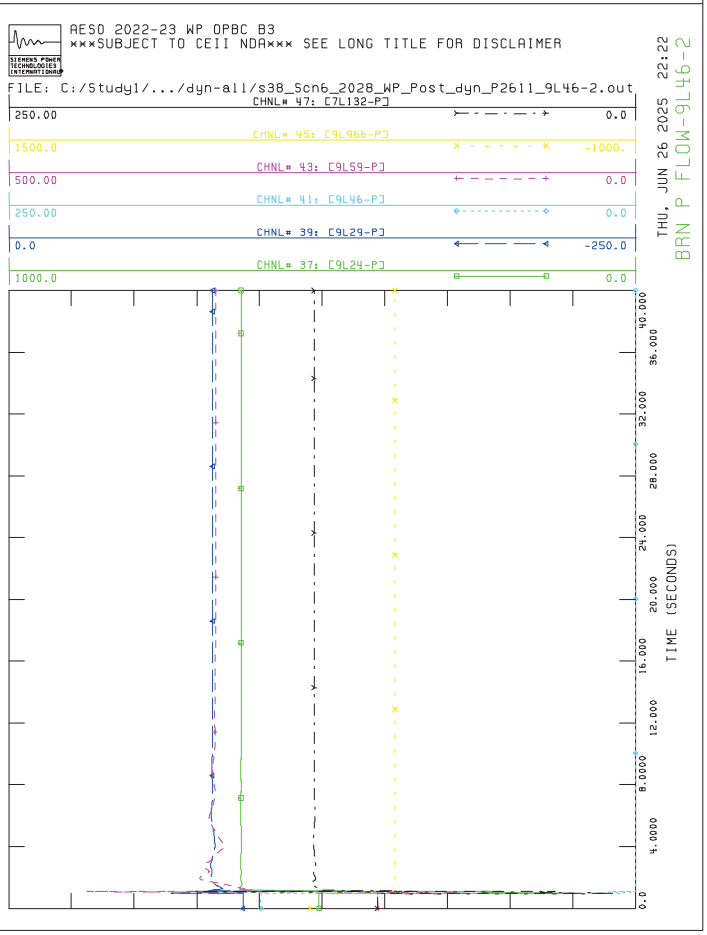

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CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 1-9L46-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
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TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 1-9L46-2

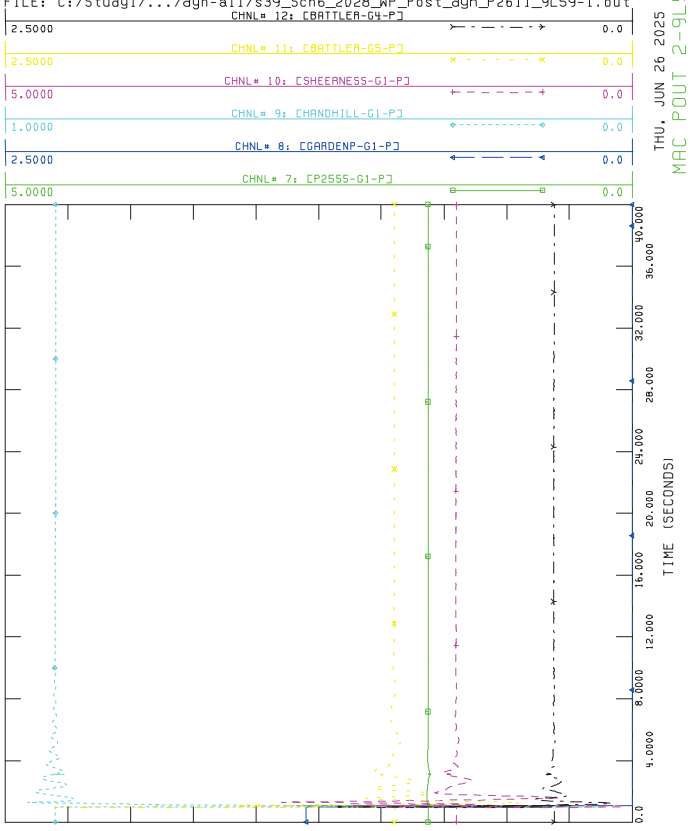

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THU, JUN 26 2025 22:22
BUS VOL-9L46-2
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s38_Scn6_2028_WP_Post_dyn_P2611_9L46-2.out
THU, JUN 26 2025 22:22
BRN Q FLOW-9L46-2
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
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CHNL# 40: C9L29-QJ
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TIME (SECONDS)

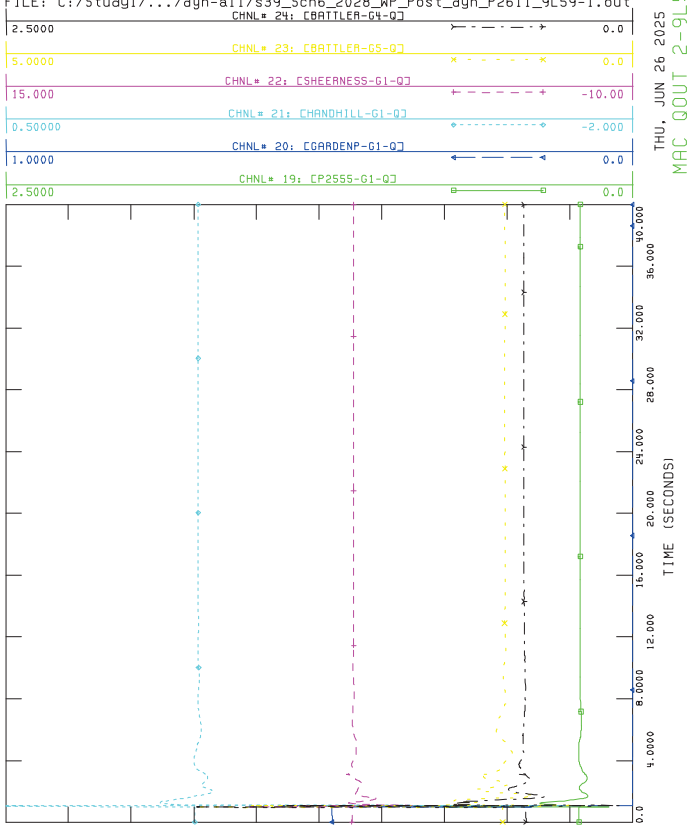

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THU, JUN 26 2025 22:22
SYNC MAC ANGLE-9L46-2
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s38_Scn6_2028_WP_Post_dyn_P2611_9L46-2.out
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BRN P FLOW-9L46-2
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CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
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TIME (SECONDS)

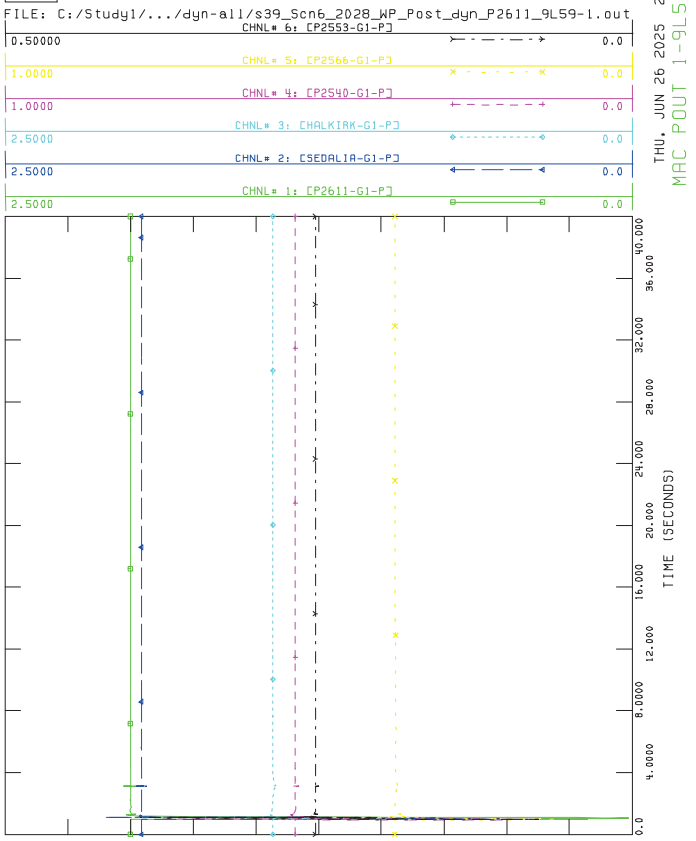
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MAC POUT 2-9L59-1



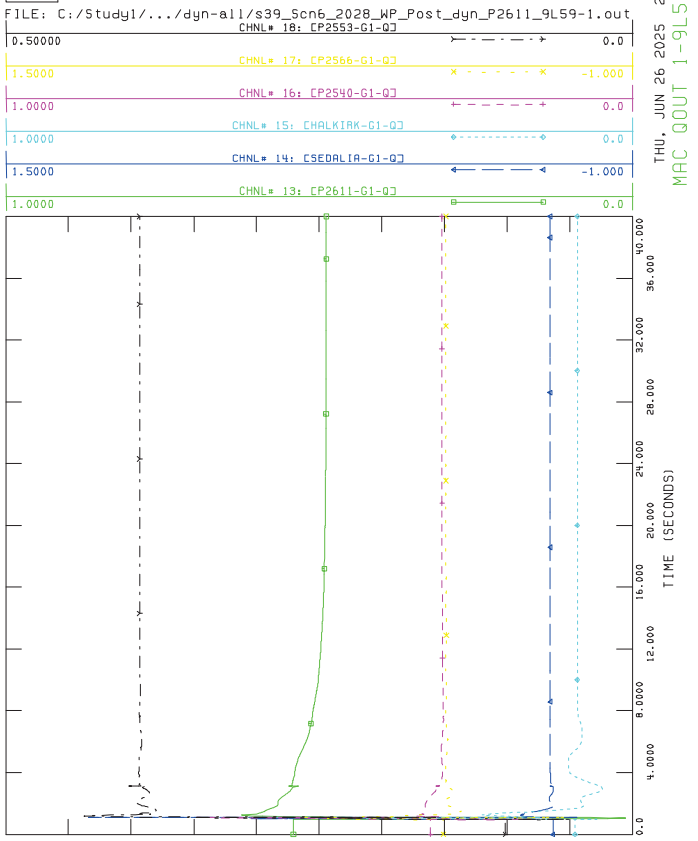
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SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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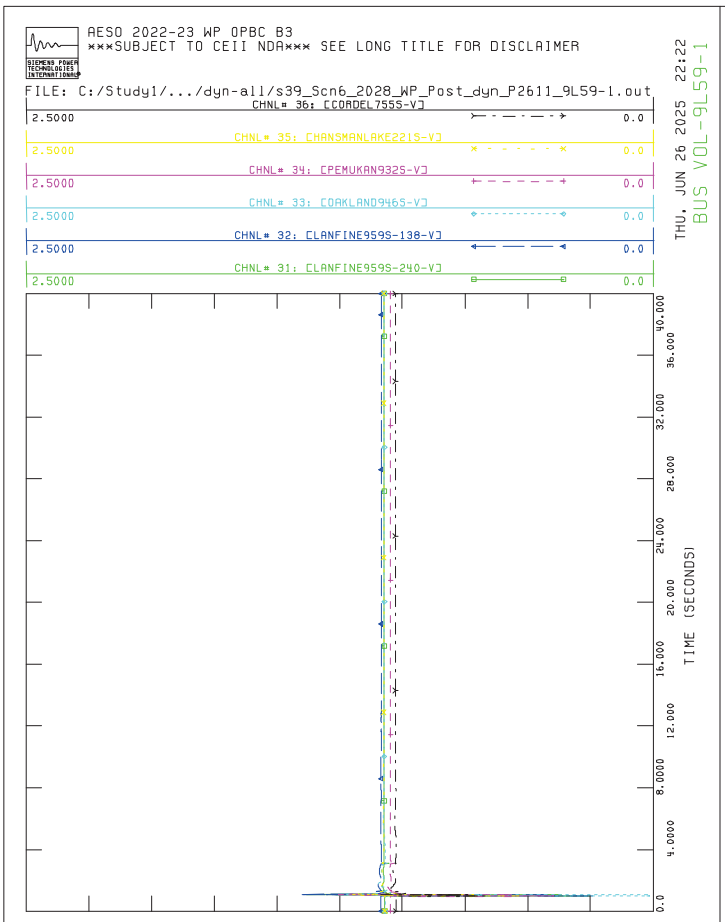


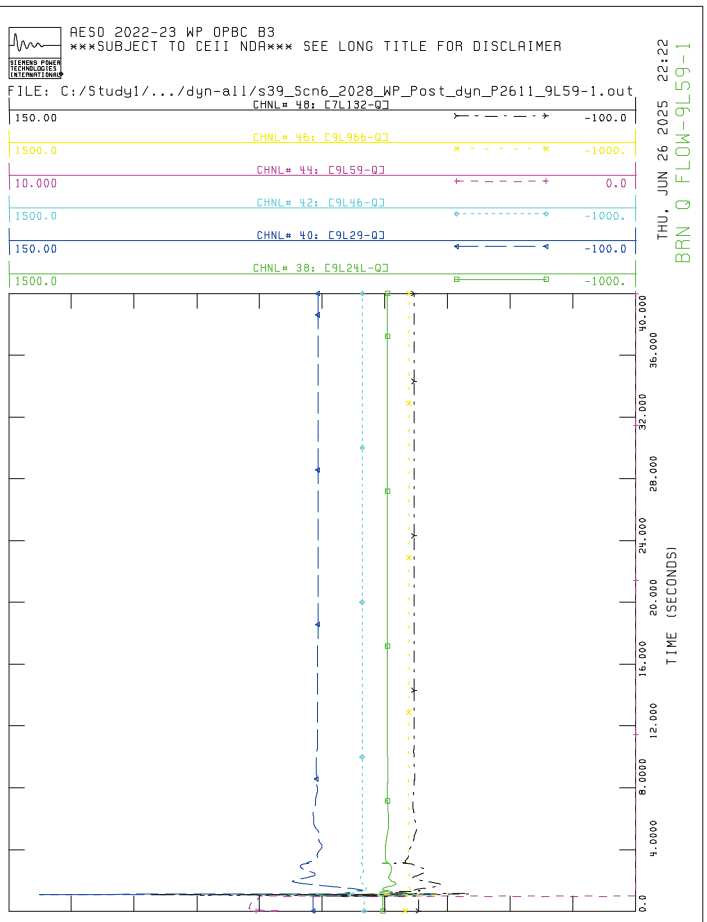
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MAC POUT 1-9L59-1

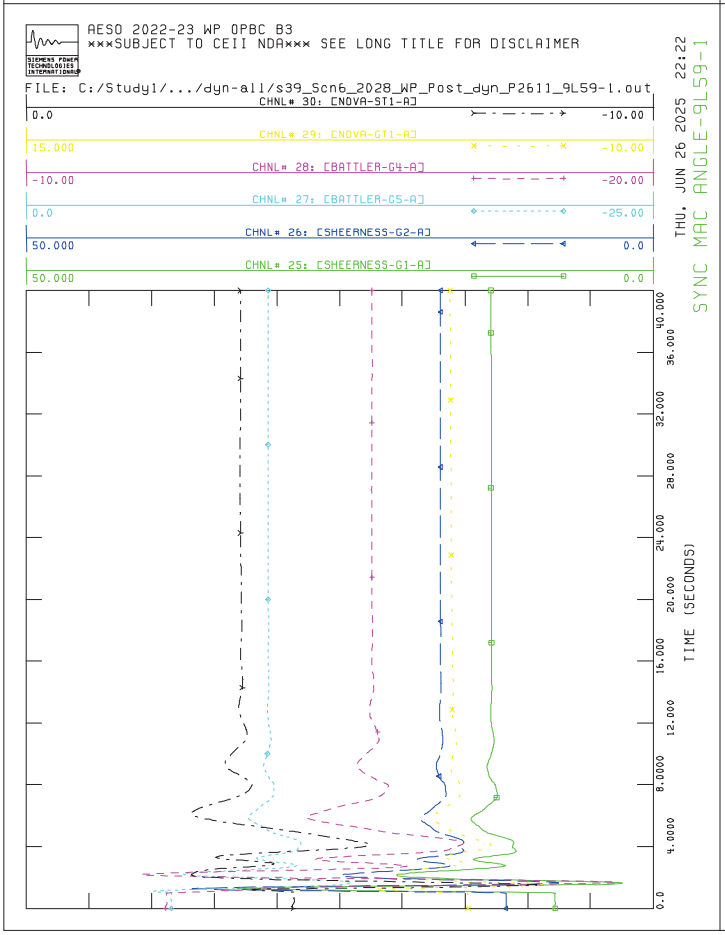


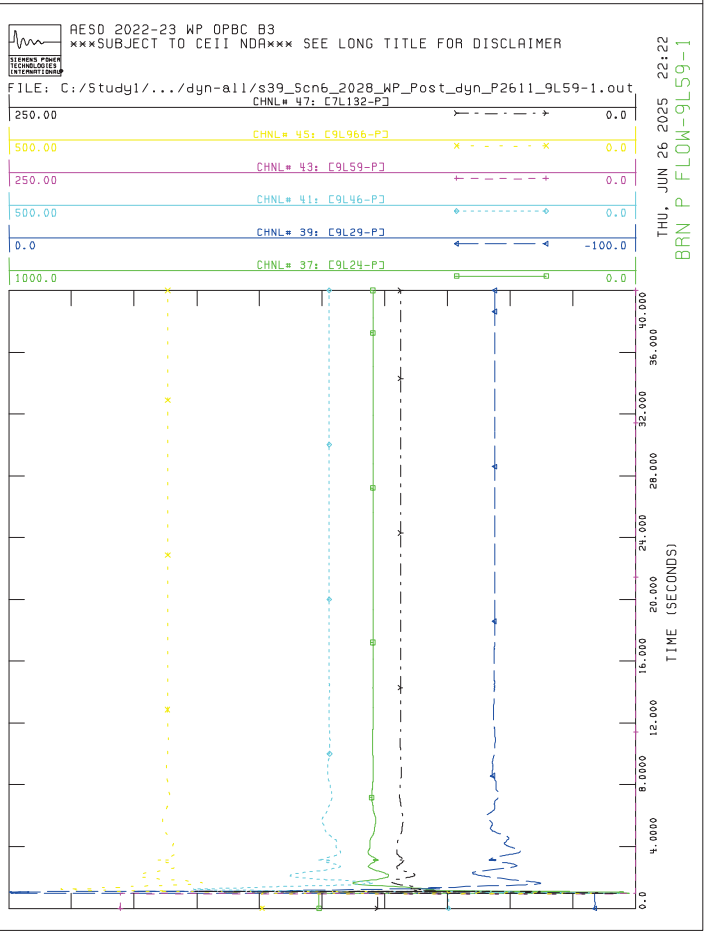
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THU, JUN 26 2025 22:22
MAC QOUT 1-9L59-1

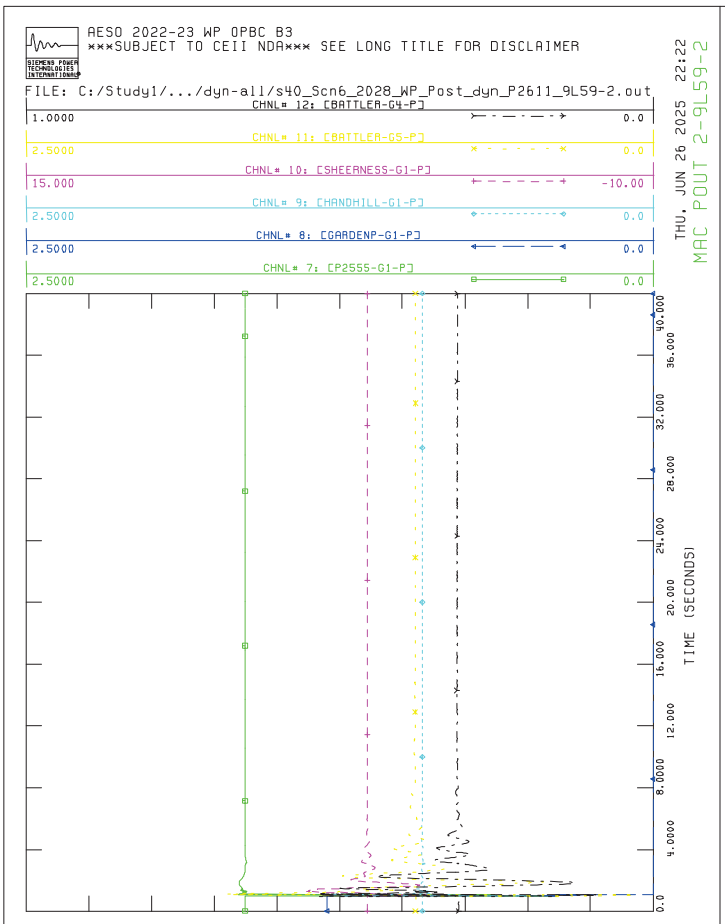


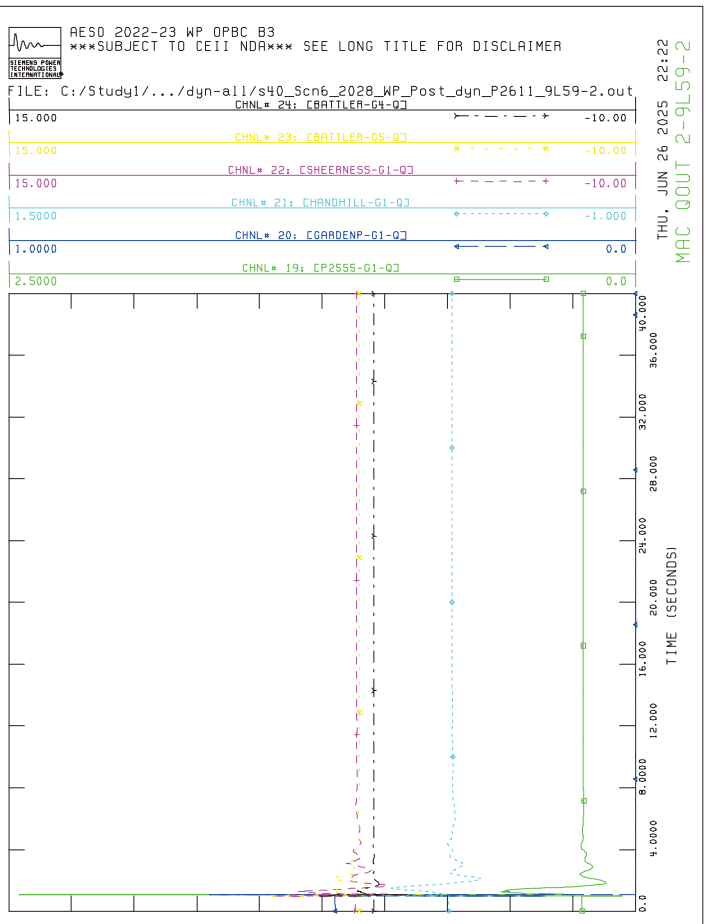

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE2215-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:22
BUS VOL-9L59-1
TIME (SECONDS)

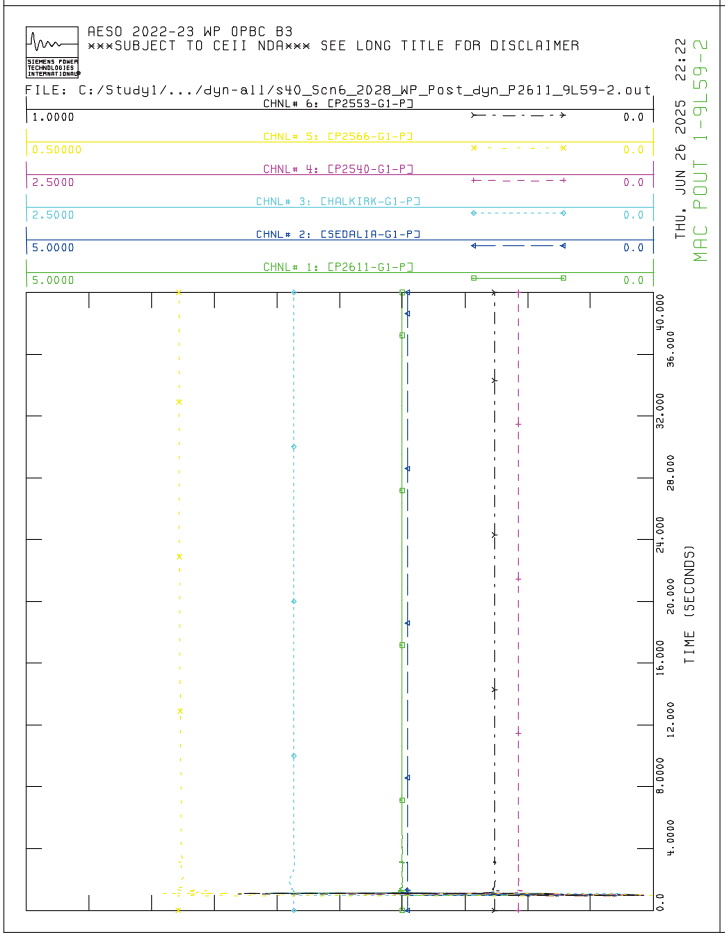

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:22
BRN Q FLOW-9L59-1
TIME (SECONDS)

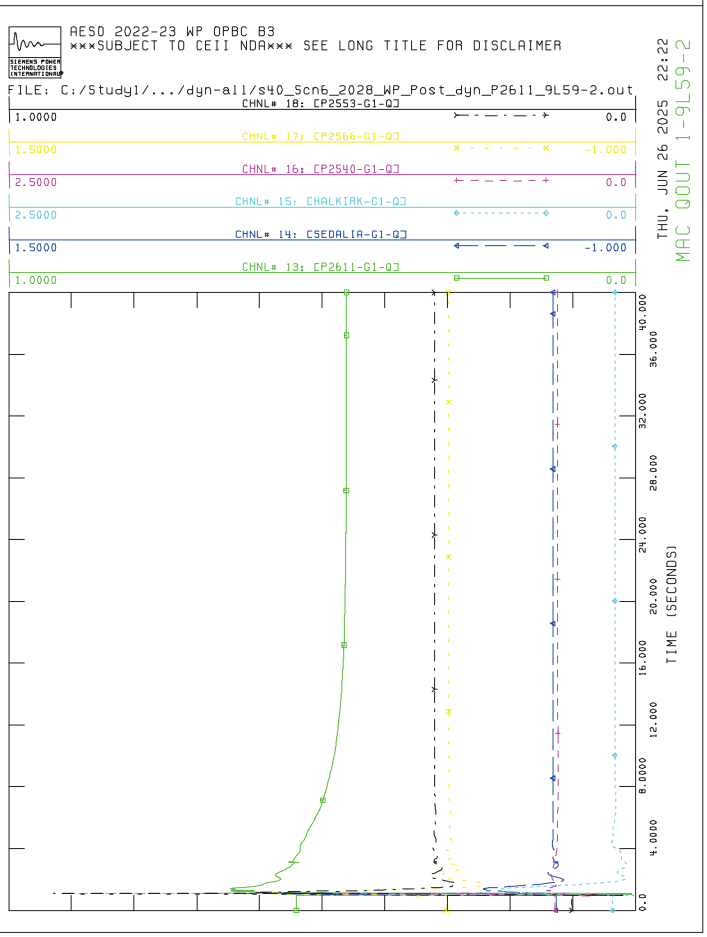

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s39_Scn6_2028_WP_Post_dyn_P2611_9L59-1.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-9L59-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s39_Scn6_2028_WP_Post_dyn_P2611_9L59-1.out
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:22
BRN P FLOW-9L59-1
TIME (SECONDS)

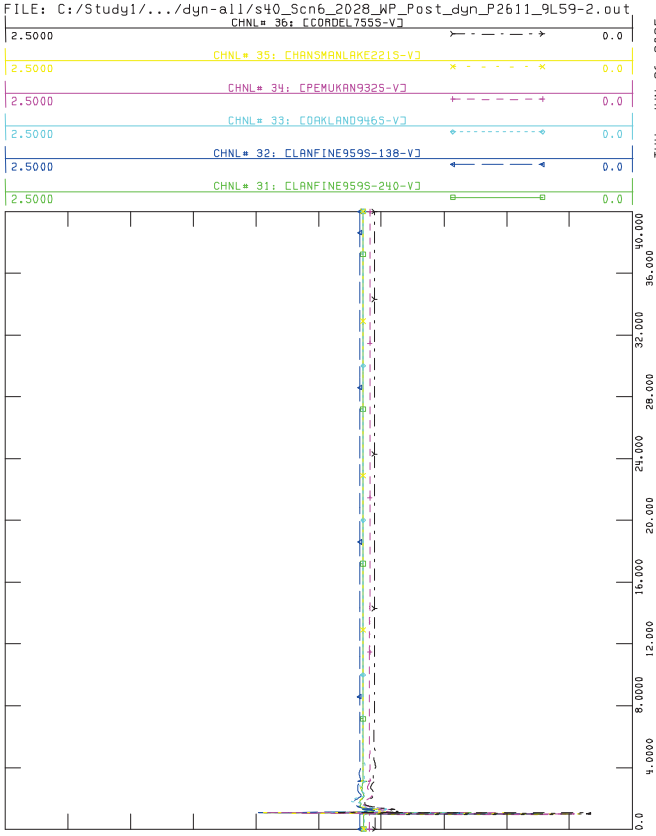

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s40_Scn6_2028_WP_Post_dyn_P2611_9L59-2.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 2-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s40_Scn6_2028_WP_Post_dyn_P2611_9L59-2.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 2-9L59-2

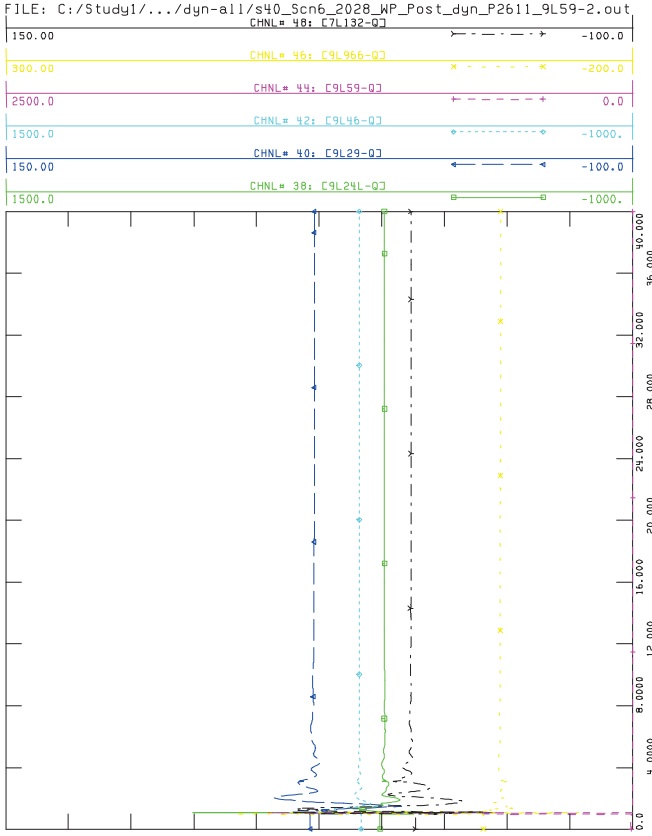

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s40_Scn6_2028_WP_Post_dyn_P2611_9L59-2.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 1-9L59-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s40_Scn6_2028_WP_Post_dyn_P2611_9L59-2.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 1-9L59-2

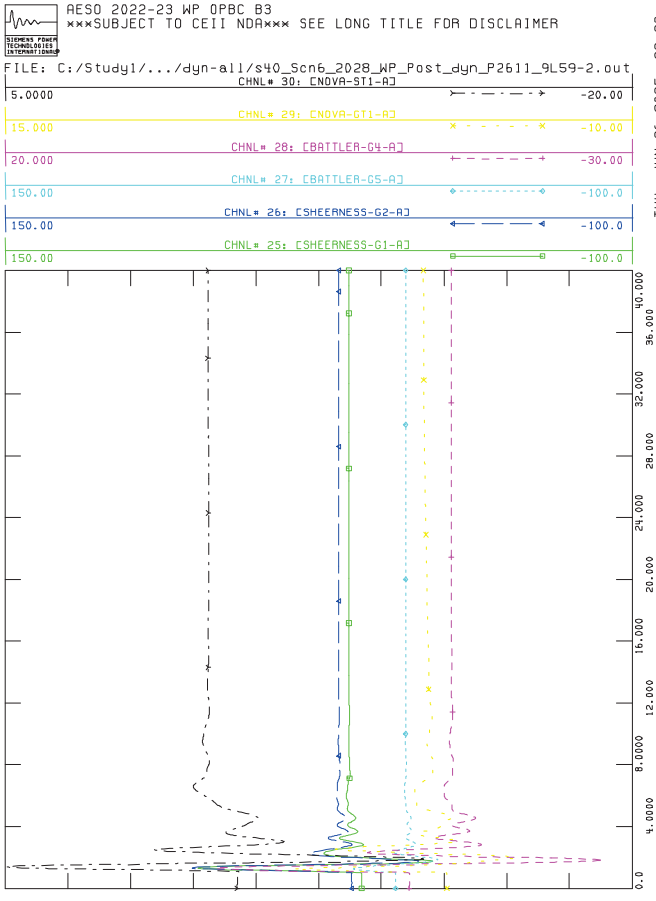
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SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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BUS VOL-9L59-2



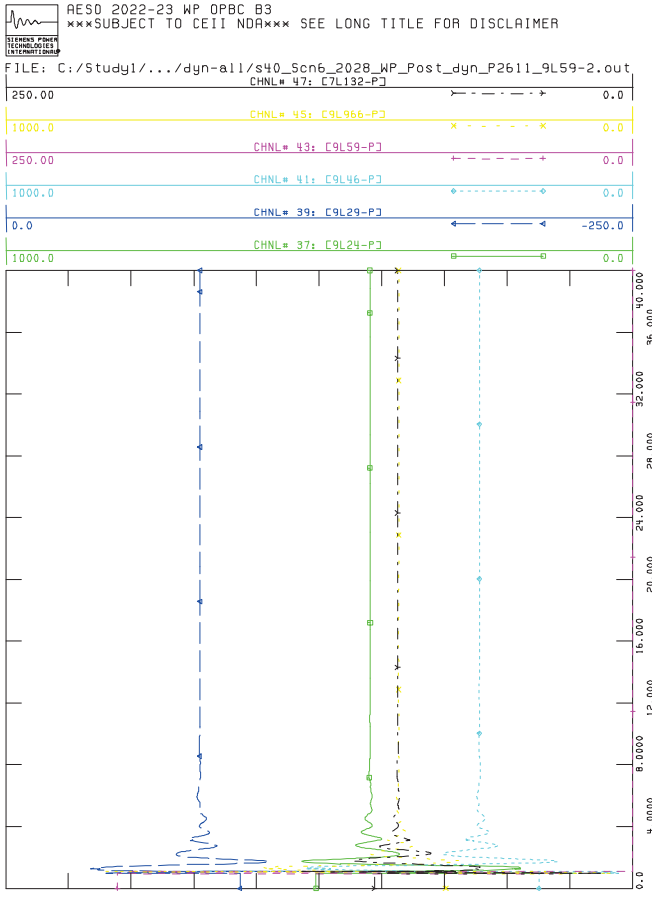
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THU, JUN 26 2025 22:22
BRN Q FLOW-9L59-2



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s40_Scn6_2028_WP_Post_dyn_P2611_9L59-2.out
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-9L59-2



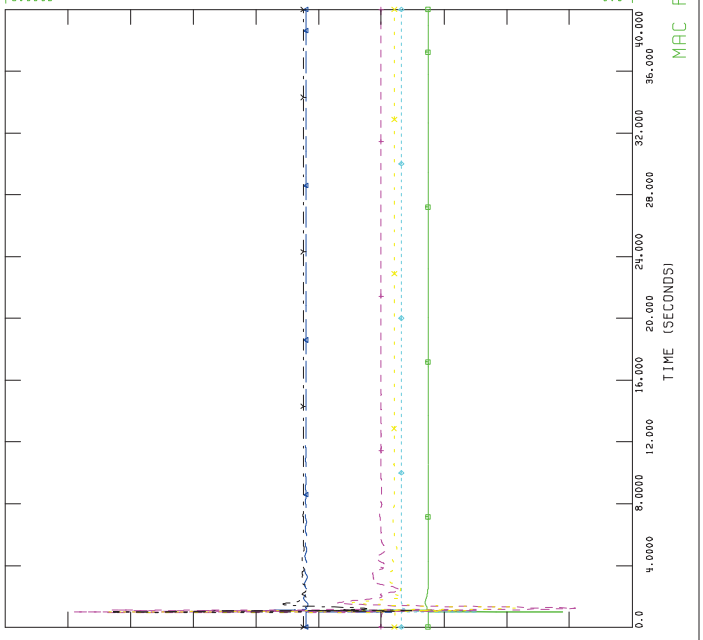
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THU, JUN 26 2025 22:22
BRN P FLOW-9L59-2



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s41_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-1.out
THU, JUN 26 2025 22:22
MAC POUT 2-966L-9L966-1

CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ

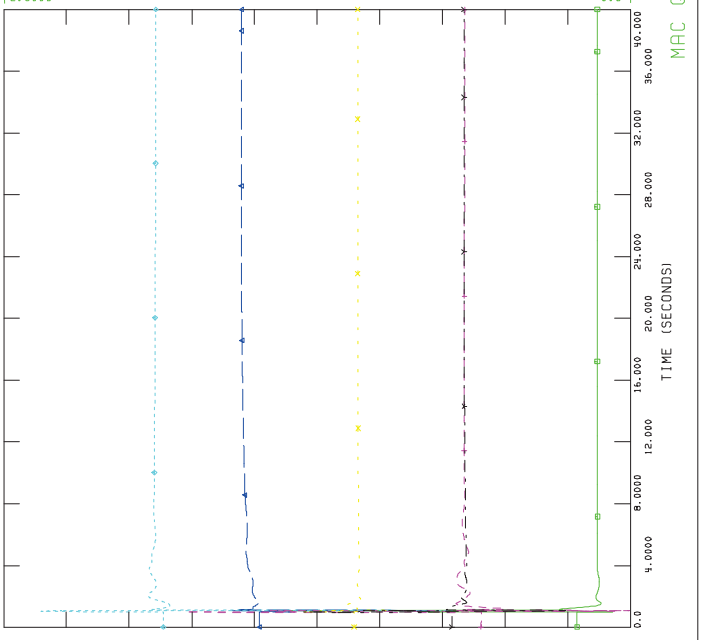
TIME (SECONDS)



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:22
MAC QOUT 2-966L-9L966-1

CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ

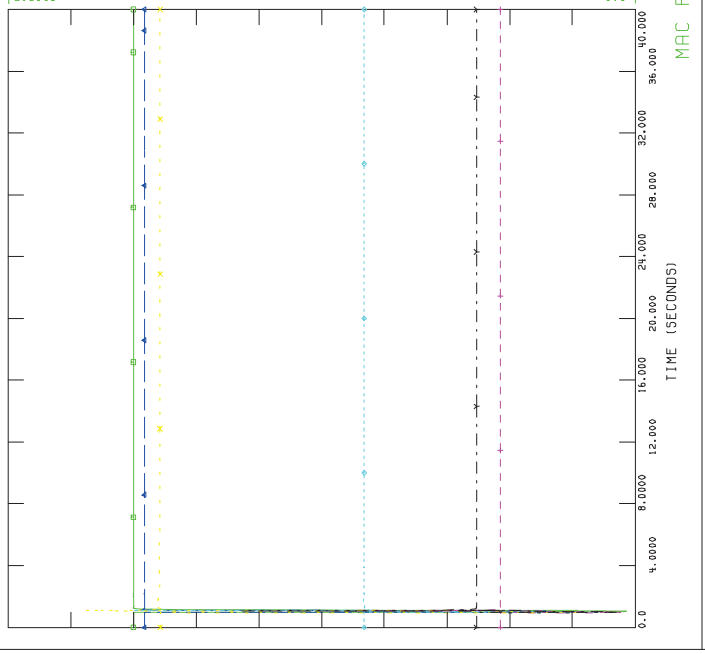
TIME (SECONDS)



AESO 2022-23 WP OPBC B3
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THU, JUN 26 2025 22:22
MAC POUT 1-966L-9L966-1

CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ

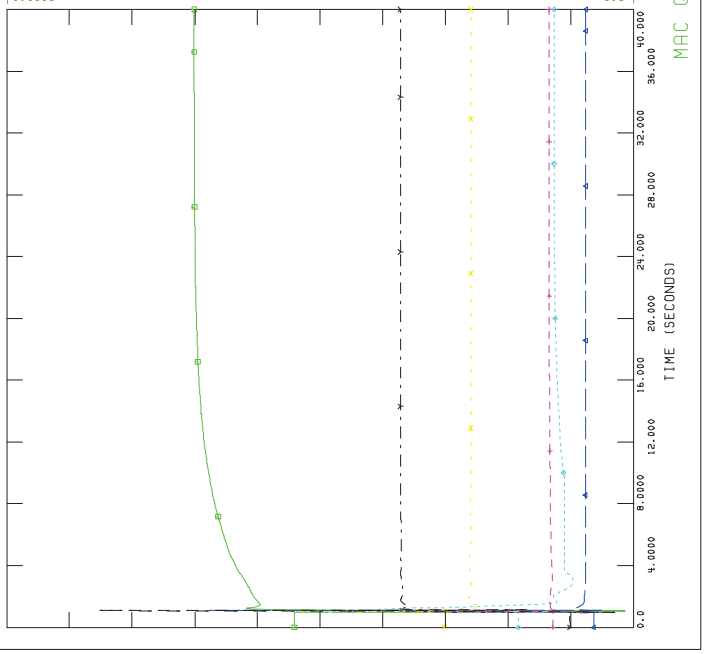
TIME (SECONDS)

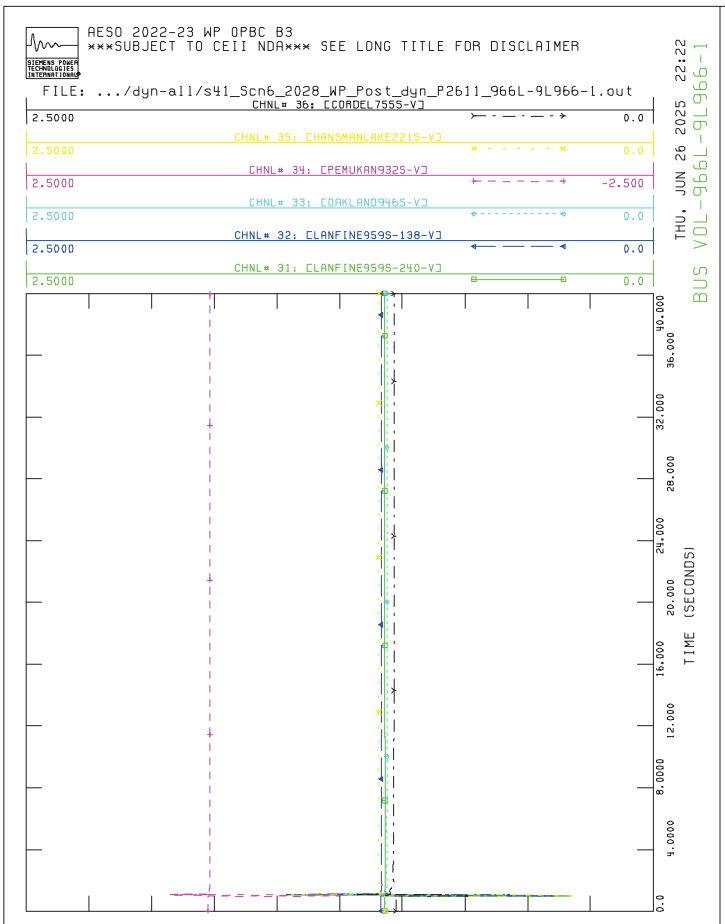


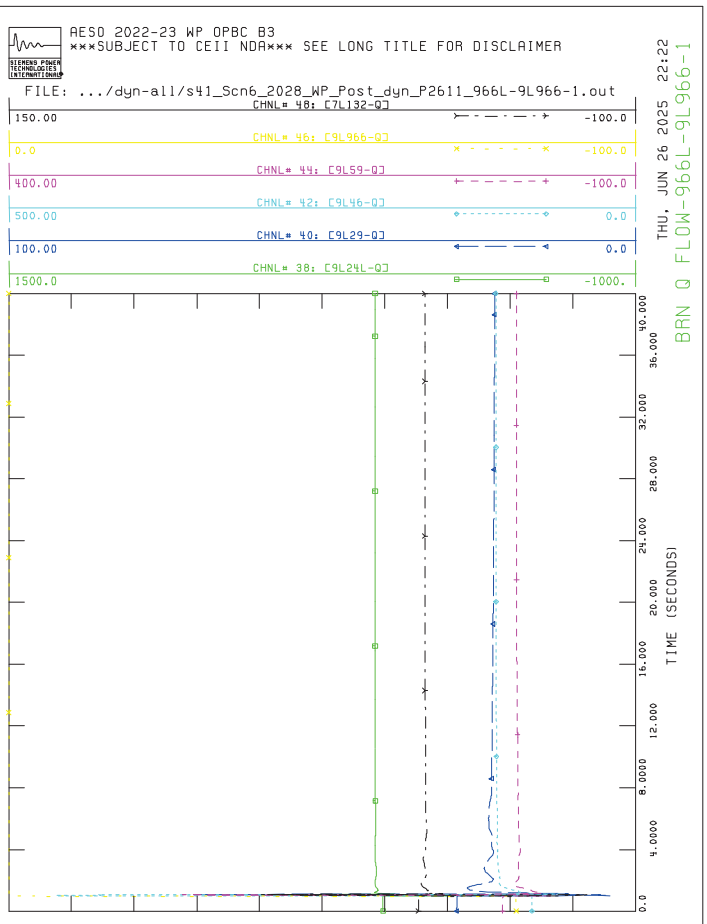
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THU, JUN 26 2025 22:22
MAC QOUT 1-966L-9L966-1

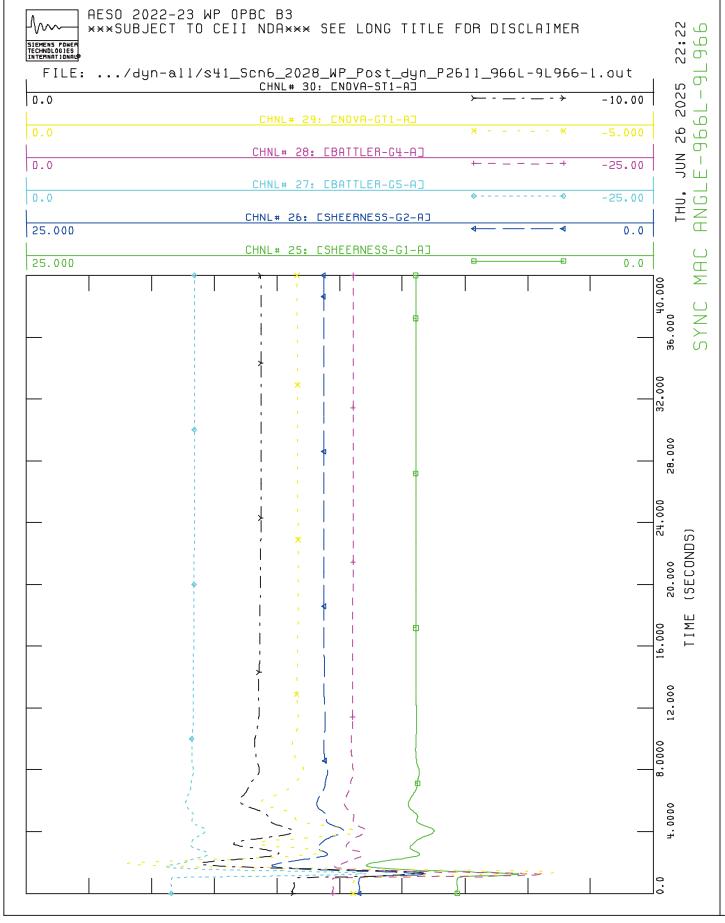
CHNL# 18: CP2553-G1-QJ
CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ

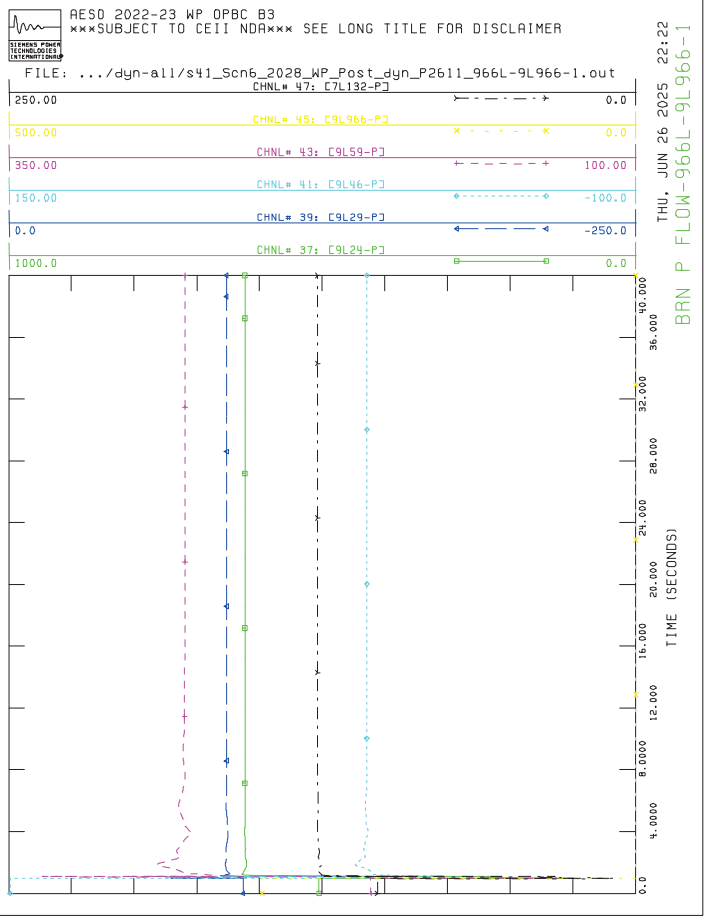
TIME (SECONDS)

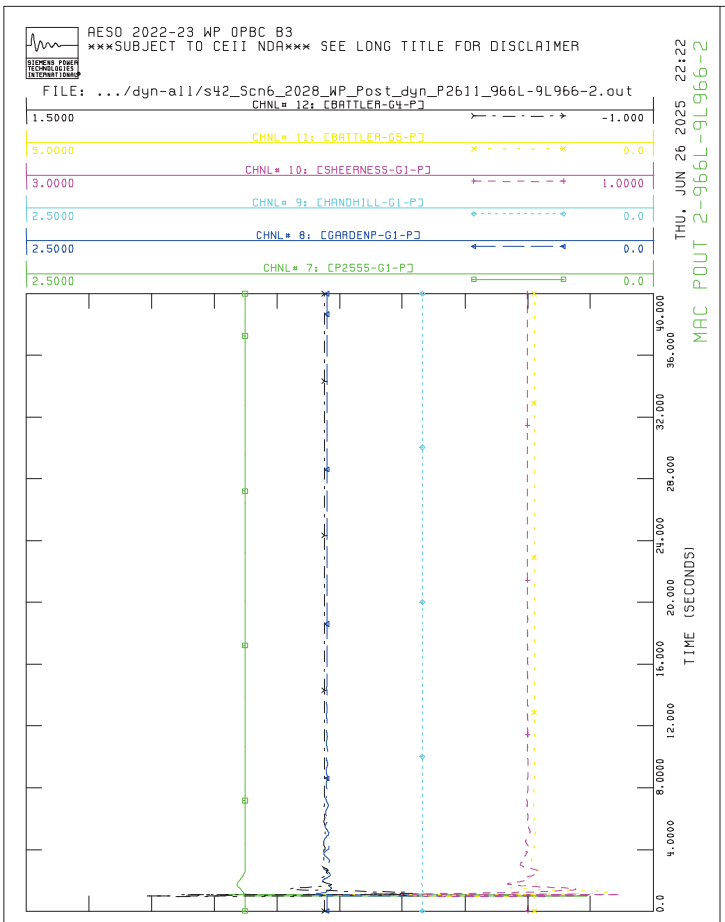


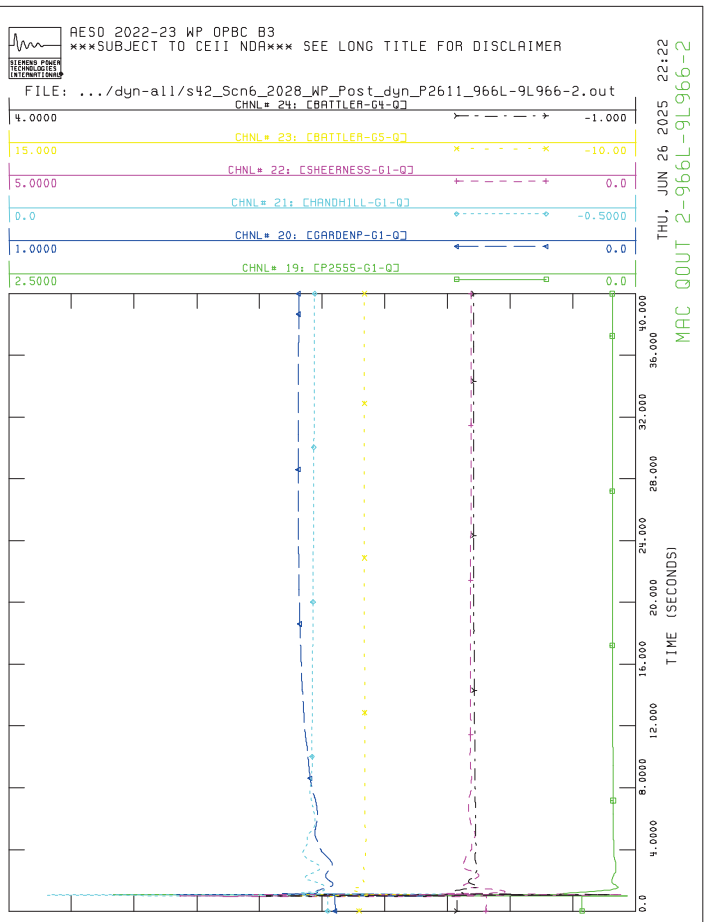

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:22
BUS VOL-966L-9L966-1
TIME (SECONDS)

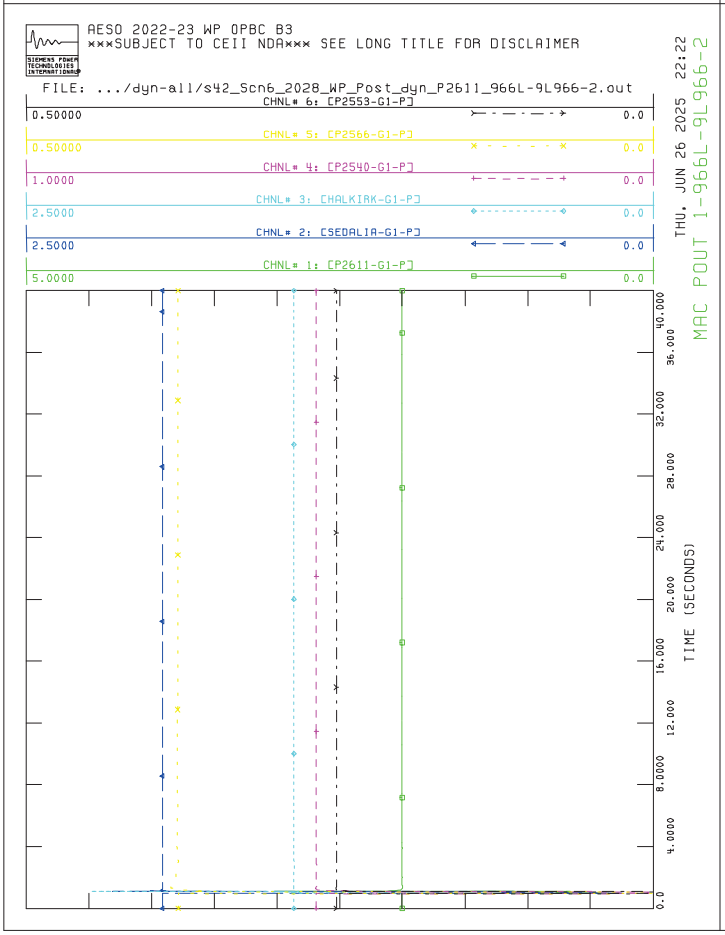

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:22
BRN Q FLOW-966L-9L966-1
TIME (SECONDS)

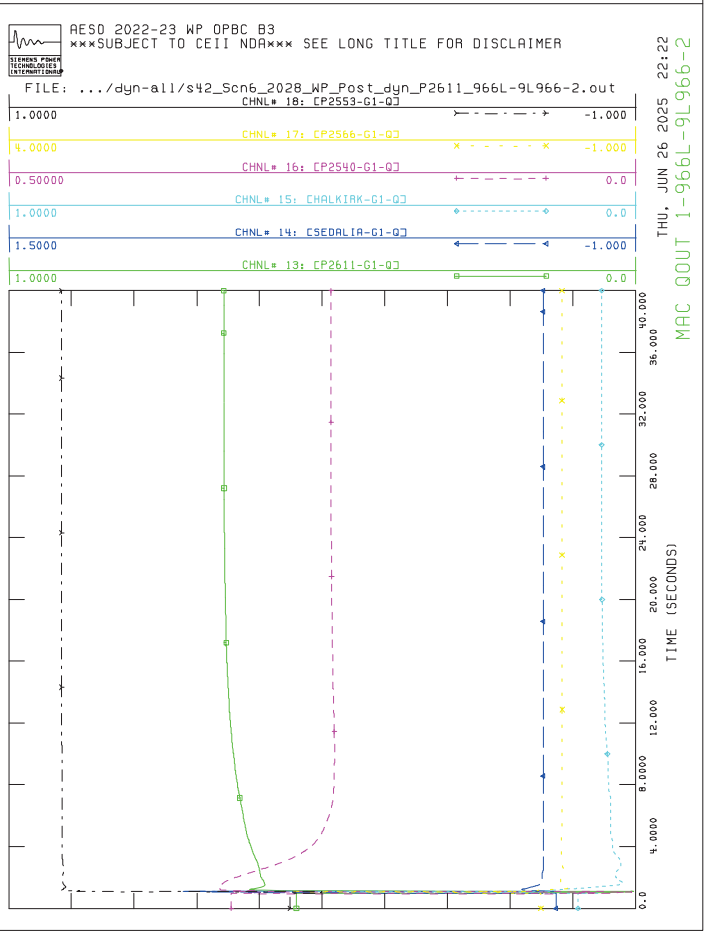

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s41_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-1.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-966L-9L966
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s41_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-1.out
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:22
BRN P FLOW-966L-9L966-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s42_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-2.out
CHNL# 12: CBATTLEA-G4-PJ
CHNL# 11: CBATTLEA-G5-PJ
CHNL# 10: CSHEERNESS-G1-PJ
CHNL# 9: CHANDHILL-G1-PJ
CHNL# 8: CGARDENP-G1-PJ
CHNL# 7: CP2555-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 2-966L-9L966-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s42_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-2.out
CHNL# 24: CBATTLEA-G4-QJ
CHNL# 23: CBATTLEA-G5-QJ
CHNL# 22: CSHEERNESS-G1-QJ
CHNL# 21: CHANDHILL-G1-QJ
CHNL# 20: CGARDENP-G1-QJ
CHNL# 19: CP2555-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 2-966L-9L966-2


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s42_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-2.out
CHNL# 6: CP2553-G1-PJ
CHNL# 5: CP2566-G1-PJ
CHNL# 4: CP2540-G1-PJ
CHNL# 3: CHALKIRK-G1-PJ
CHNL# 2: CSEDALIA-G1-PJ
CHNL# 1: CP2611-G1-PJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 1-966L-9L966-2

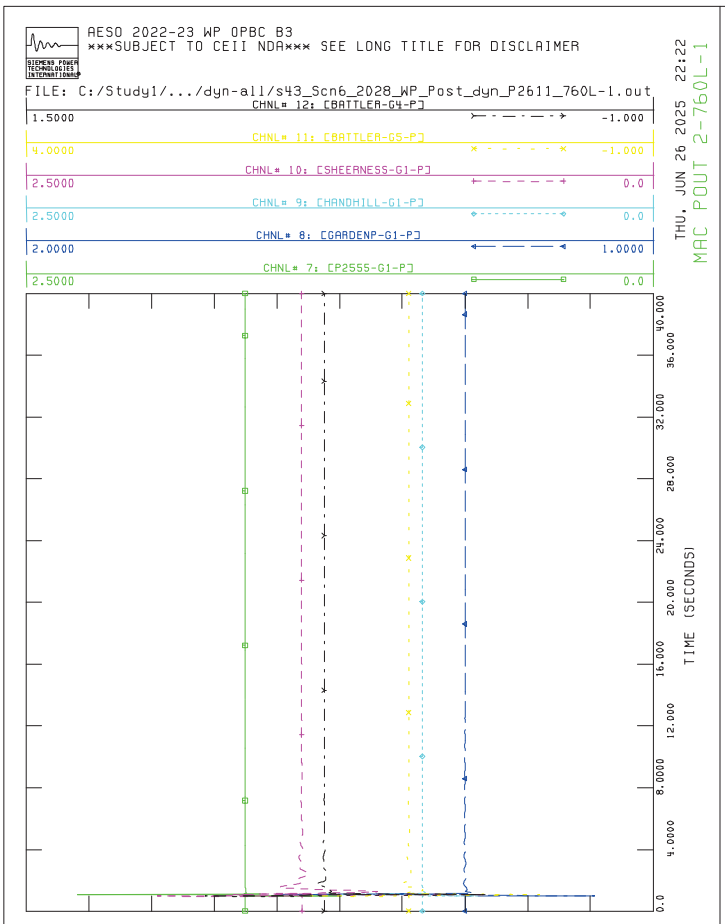

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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CHNL# 17: CP2566-G1-QJ
CHNL# 16: CP2540-G1-QJ
CHNL# 15: CHALKIRK-G1-QJ
CHNL# 14: CSEDALIA-G1-QJ
CHNL# 13: CP2611-G1-QJ
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 1-966L-9L966-2

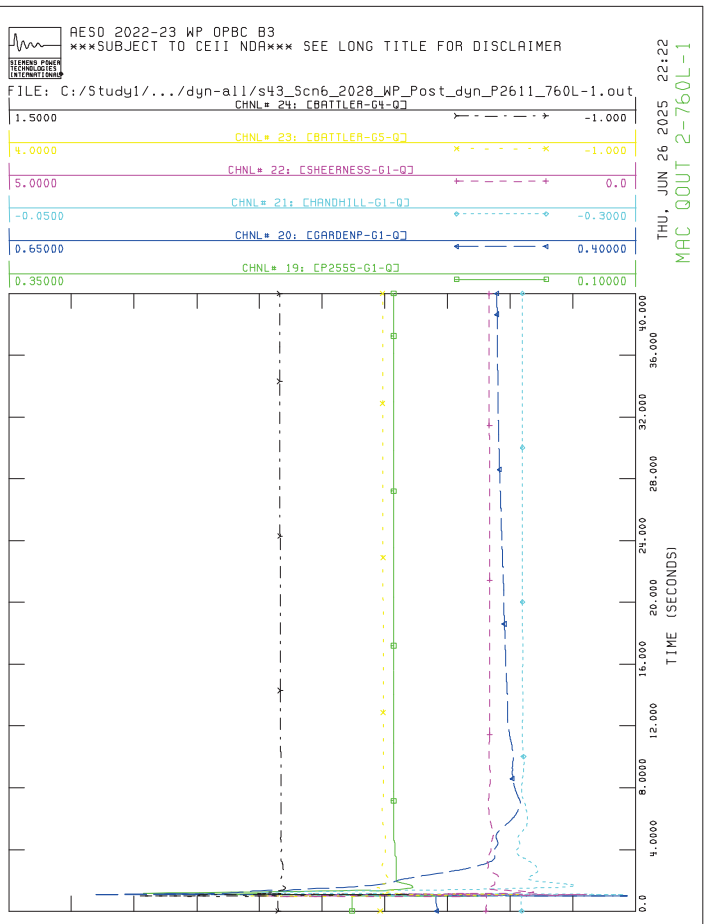
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SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
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THU, JUN 26 2025 22:22
BUS VOL-966L-9L966-2
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND965S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
TIME (SECONDS)

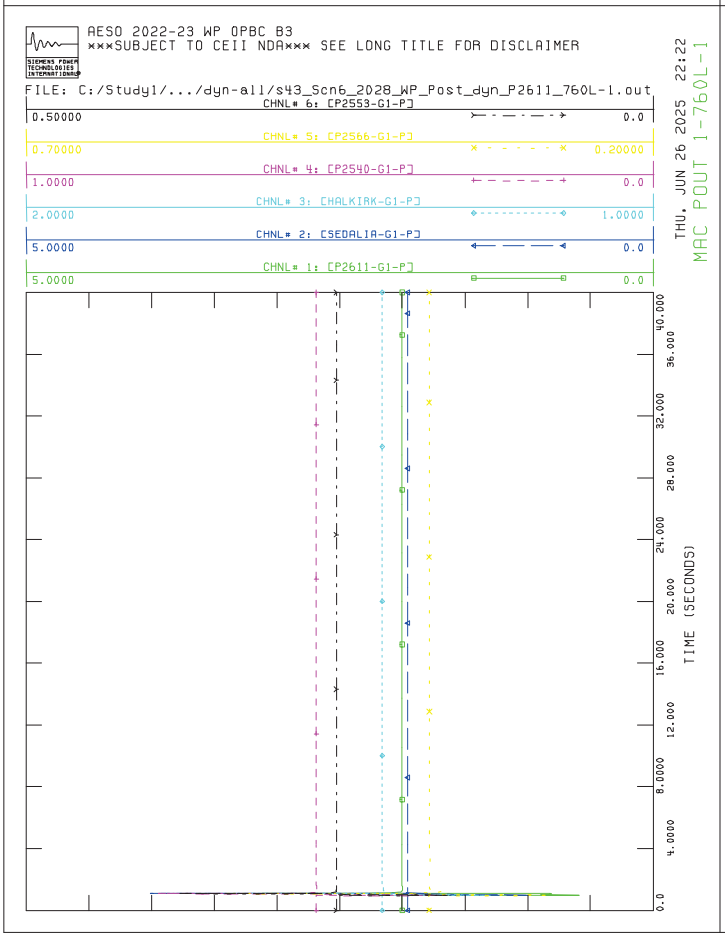
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SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s42_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-2.out
THU, JUN 26 2025 22:22
BRN Q FLOW-966L-9L966-2
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
TIME (SECONDS)

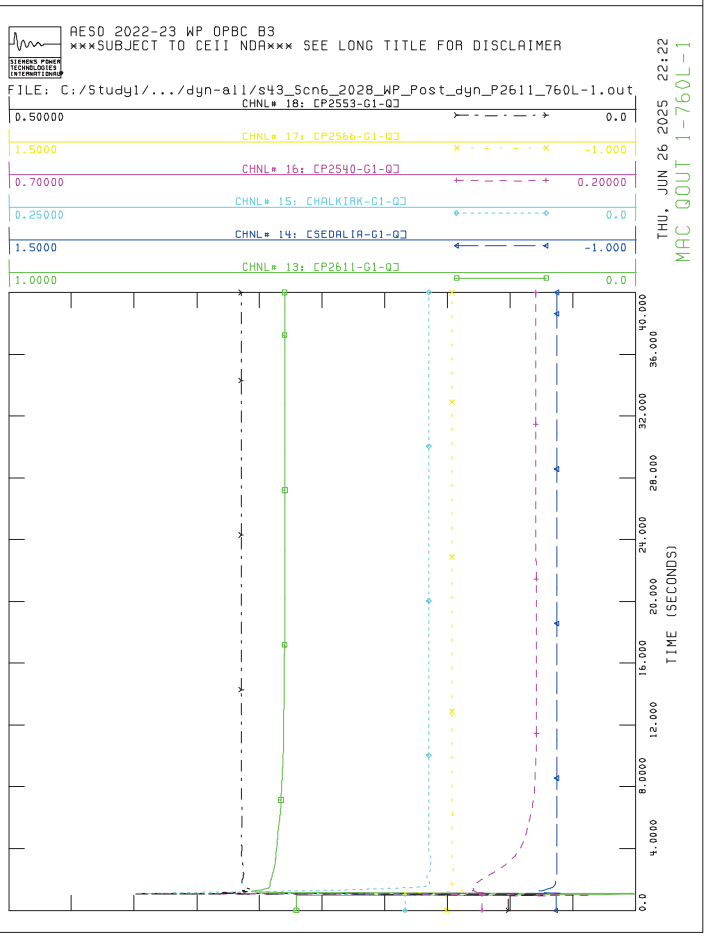
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s42_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-2.out
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-966L-9L966
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
TIME (SECONDS)

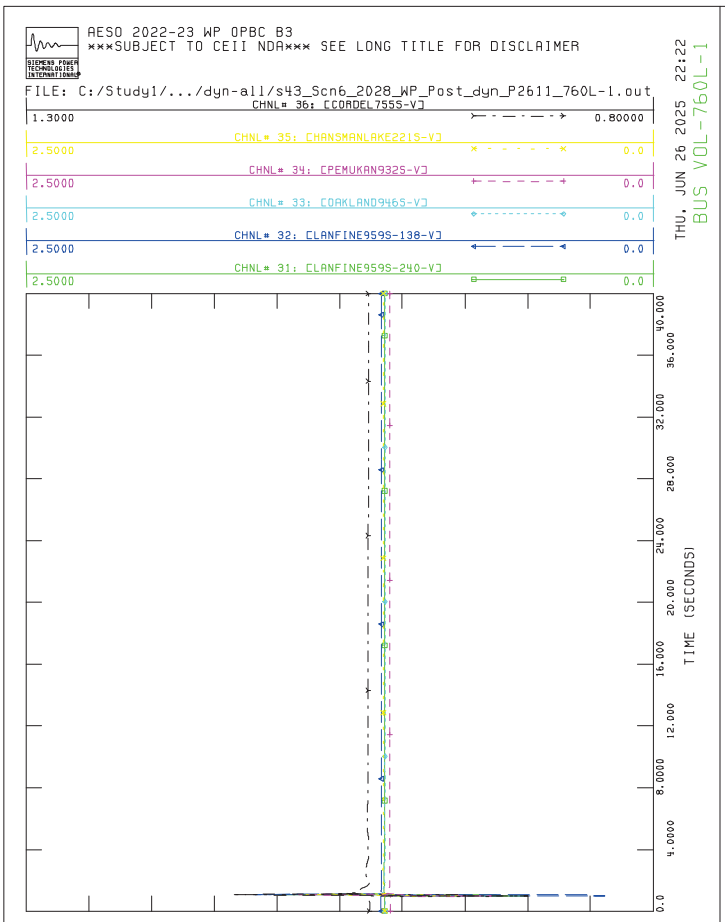
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: .../dyn-all/s42_Scn6_2028_WP_Post_dyn_P2611_966L-9L966-2.out
THU, JUN 26 2025 22:22
BRN P FLOW-966L-9L966-2
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
TIME (SECONDS)

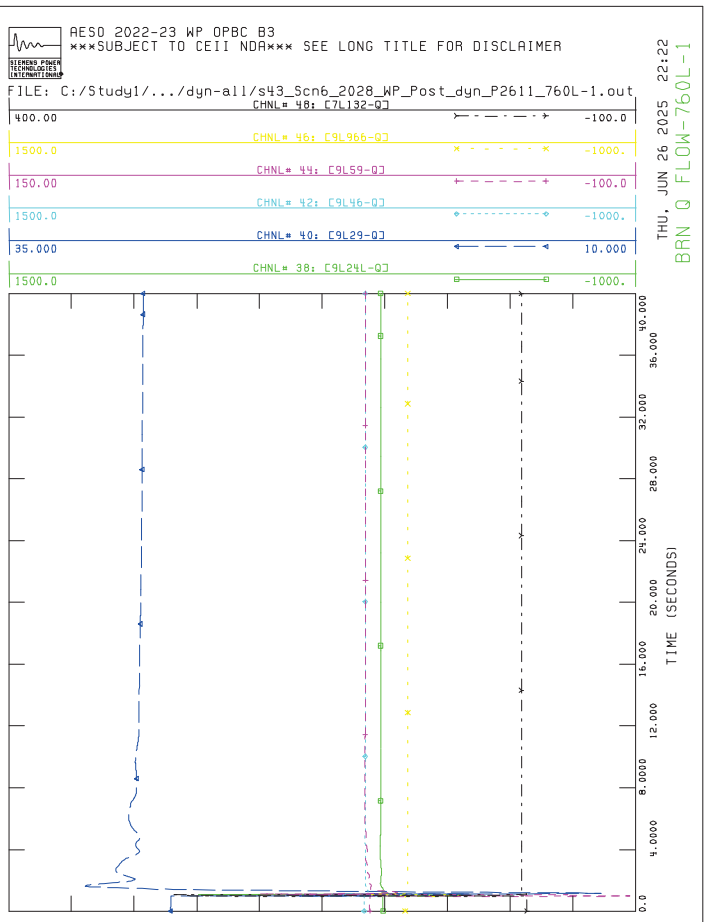

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 2-760L-1

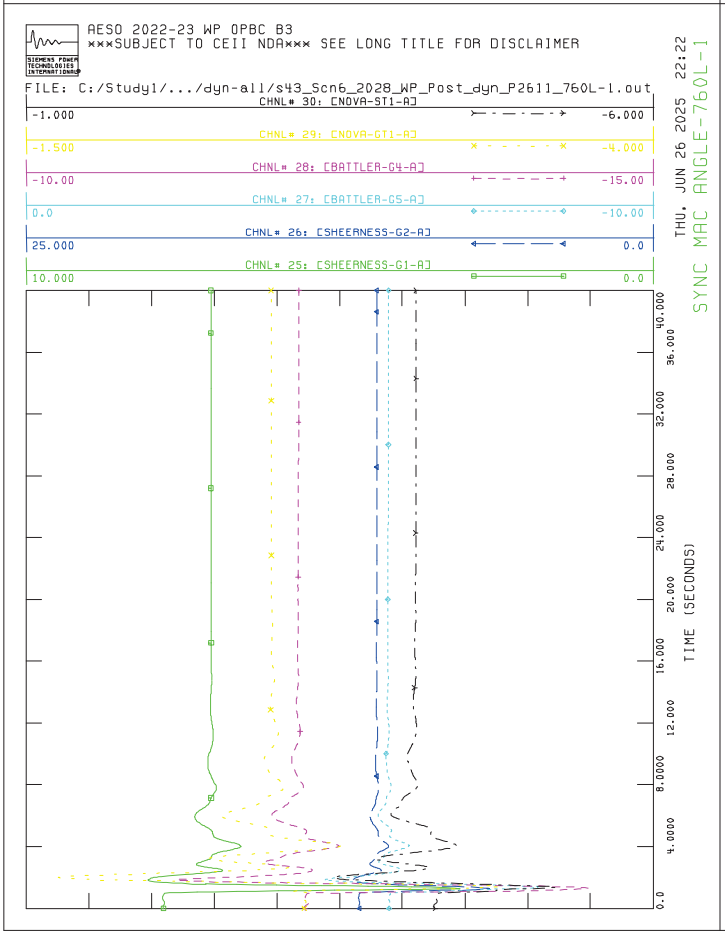

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 2-760L-1

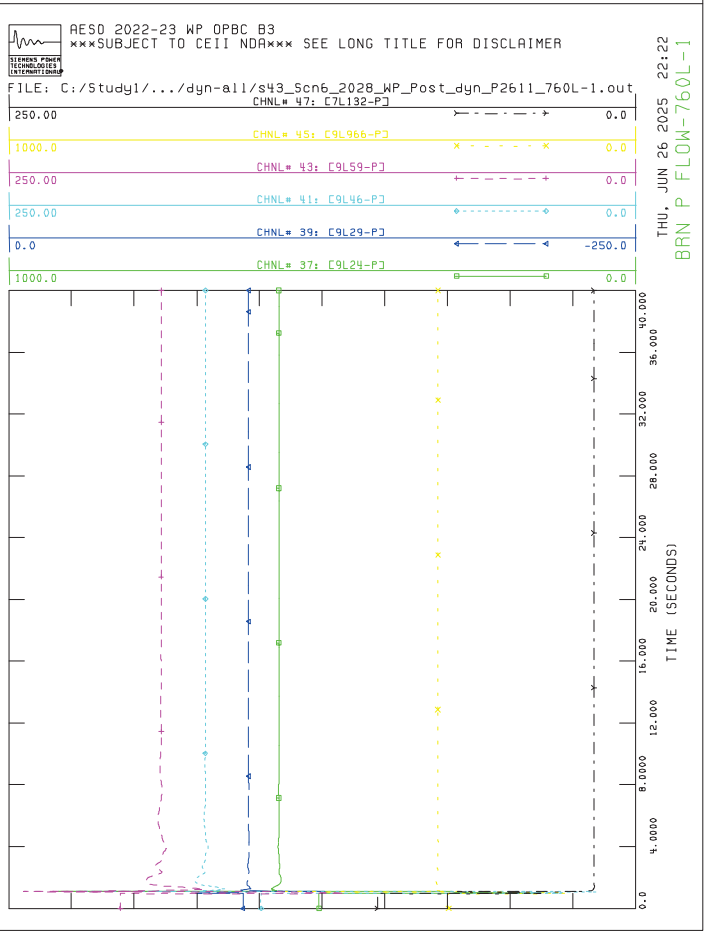

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC POUT 1-760L-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]
TIME (SECONDS)
THU, JUN 26 2025 22:22
MAC QOUT 1-760L-1


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
THU, JUN 26 2025 22:22
BUS VOL-760L-1
CHNL# 36: CCORDEL755S-VJ
1.3000
0.80000
CHNL# 35: CHANSMANLAKE22LS-VJ
2.5000
0.0
CHNL# 34: CPEMUKAN932S-VJ
2.5000
0.0
CHNL# 33: COAKLAND946S-VJ
2.5000
0.0
CHNL# 32: CLANFINE959S-138-VJ
2.5000
0.0
CHNL# 31: CLANFINE959S-240-VJ
2.5000
0.0
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
THU, JUN 26 2025 22:22
BRN Q FLOW-760L-1
CHNL# 48: C7L132-QJ
400.00
-100.0
CHNL# 46: C9L966-QJ
1500.0
-1000.
CHNL# 44: C9L59-QJ
150.00
-100.0
CHNL# 42: C9L46-QJ
1500.0
-1000.
CHNL# 40: C9L29-QJ
35.000
10.000
CHNL# 38: C9L24L-QJ
1500.0
-1000.
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-760L-1
CHNL# 30: CNOVA-ST1-AJ
-1.000
-6.000
CHNL# 29: CNOVA-GT1-AJ
-1.500
-4.000
CHNL# 28: CBATTLER-G4-AJ
-10.00
-15.00
CHNL# 27: CBATTLER-G5-AJ
0.0
-10.00
CHNL# 26: CSHEERNESS-G2-AJ
25.000
0.0
CHNL# 25: CSHEERNESS-G1-AJ
10.000
0.0
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s43_Scn6_2028_WP_Post_dyn_P2611_760L-1.out
THU, JUN 26 2025 22:22
BRN P FLOW-760L-1
CHNL# 47: C7L132-PJ
250.00
0.0
CHNL# 45: C9L966-PJ
1000.0
0.0
CHNL# 43: C9L59-PJ
250.00
0.0
CHNL# 41: C9L46-PJ
250.00
0.0
CHNL# 39: C9L29-PJ
0.0
-250.0
CHNL# 37: C9L24-PJ
1000.0
0.0
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

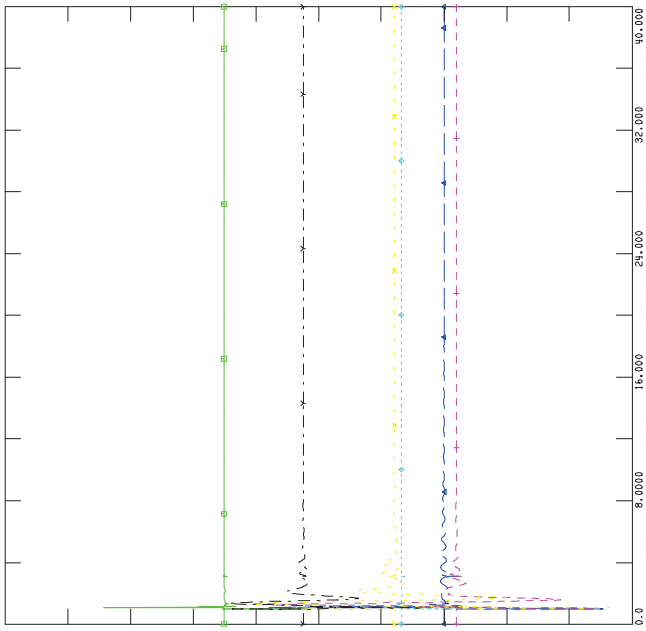
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out

THU, JUN 26 2025 22:22

MAC POUT 2-760L-2

CHNL# 12: CBATTLEA-G4-PJ 1.5000 -1.000
CHNL# 11: CBATTLEA-G5-PJ 2.5000 0.0
CHNL# 10: CSHEERNESS-G1-PJ 5.0000 0.0
CHNL# 9: CHANDHILL-G1-PJ 2.5000 0.0
CHNL# 8: CGARDENP-G1-PJ 2.0000 1.0000
CHNL# 7: CP2555-G1-PJ 2.5000 0.0

TIME (SECONDS)



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

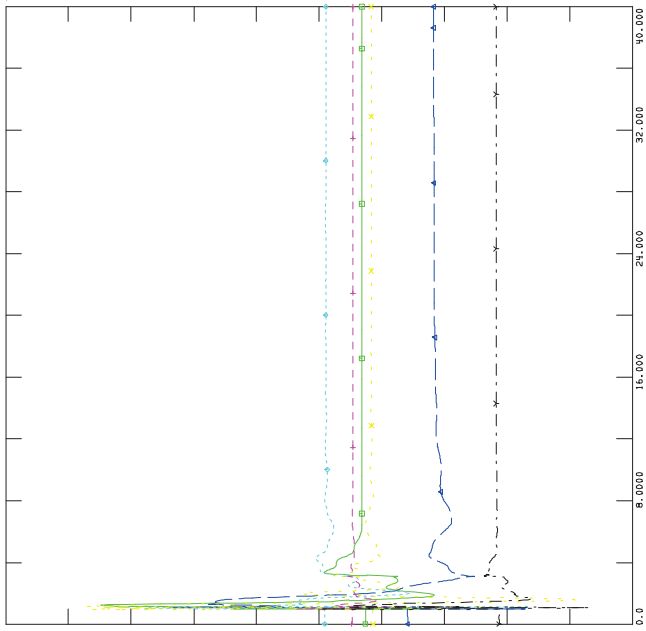
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out

THU, JUN 26 2025 22:22

MAC QOUT 2-760L-2

CHNL# 24: CBATTLEA-G4-QJ 2.0000 0.0
CHNL# 23: CBATTLEA-G5-QJ 2.5000 0.0
CHNL# 22: CSHEERNESS-G1-QJ 15.000 -10.00
CHNL# 21: CHANDHILL-G1-QJ 0.0 -0.5000
CHNL# 20: CGARDENP-G1-QJ 0.80000 0.30000
CHNL# 19: CP2555-G1-QJ 0.50000 0.0

TIME (SECONDS)



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

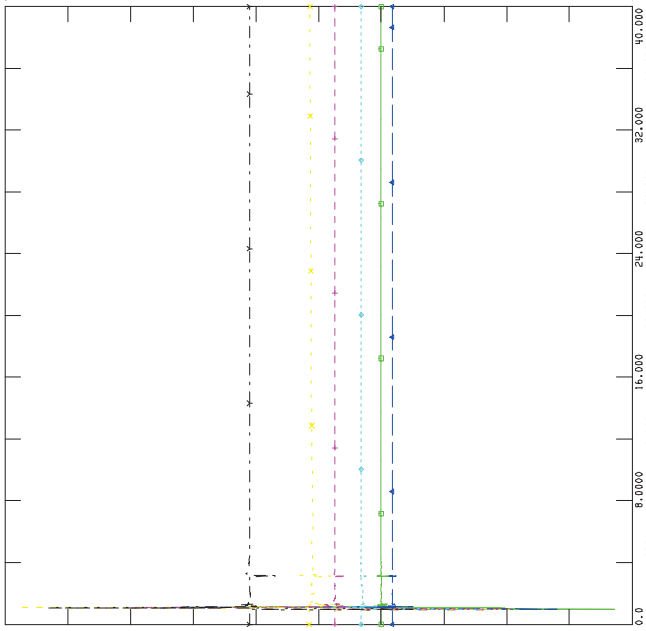
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out

THU, JUN 26 2025 22:22

MAC POUT 1-760L-2

CHNL# 6: CP2553-G1-PJ 0.35000 0.10000
CHNL# 5: CP2566-G1-PJ 0.50000 0.25000
CHNL# 4: CP2540-G1-PJ 0.80000 0.30000
CHNL# 3: CHALKIRK-G1-PJ 2.0000 1.0000
CHNL# 2: CSEDALIA-G1-PJ 3.5000 1.0000
CHNL# 1: CP2611-G1-PJ 3.5000 1.0000

TIME (SECONDS)



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

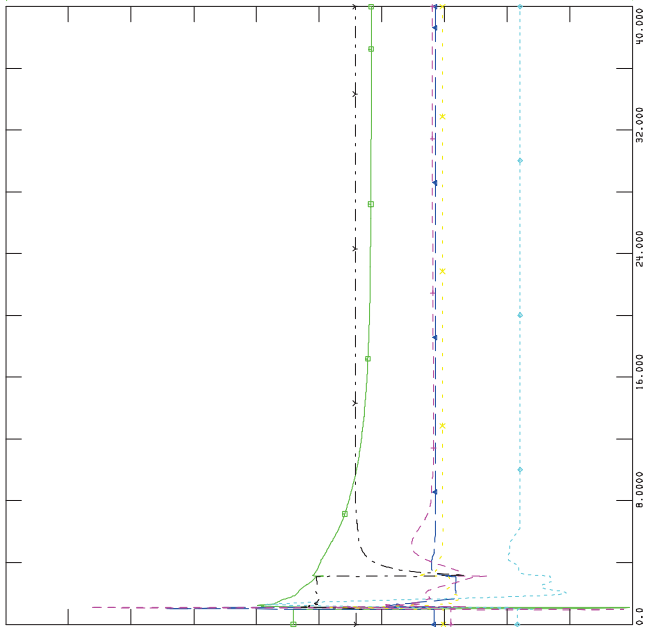
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out

THU, JUN 26 2025 22:22

MAC QOUT 1-760L-2

CHNL# 18: CP2553-G1-QJ 1.5000 -1.000
CHNL# 17: CP2566-G1-QJ 1.5000 -1.000
CHNL# 16: CP2540-G1-QJ 0.50000 0.25000
CHNL# 15: CHALKIRK-G1-QJ 0.50000 0.0
CHNL# 14: CSEDALIA-G1-QJ 0.0 -1.000
CHNL# 13: CP2611-G1-QJ 1.0000 0.0

TIME (SECONDS)



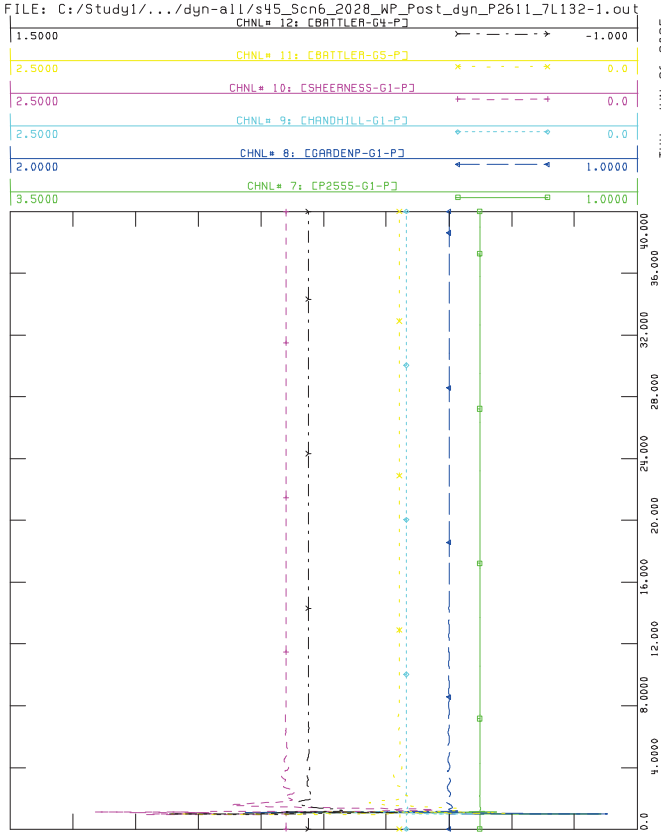
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out
THU, JUN 26 2025 22:22
BUS VOL-760L-2
CHNL# 36: CCORDEL755S-VJ 1.3000 0.80000
CHNL# 35: CHANSMANLAKE22LS-VJ 2.5000 0.0
CHNL# 34: CPEMUKAN932S-VJ 2.5000 0.0
CHNL# 33: COAKLAND946S-VJ 2.5000 0.0
CHNL# 32: CLANFINE959S-138-VJ 2.5000 0.0
CHNL# 31: CLANFINE959S-240-VJ 2.5000 0.0
TIME (SECONDS) 0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out
THU, JUN 26 2025 22:22
BRN Q FLOW-760L-2
CHNL# 48: C7L132-QJ 1500.0 -1000.
CHNL# 46: C9L966-QJ 50.000 -200.0
CHNL# 44: C9L59-QJ 1500.0 -1000.
CHNL# 42: C9L46-QJ 400.00 -100.0
CHNL# 40: C9L29-QJ 50.000 0.0
CHNL# 38: C9L24L-QJ 300.00 -200.0
TIME (SECONDS) 0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

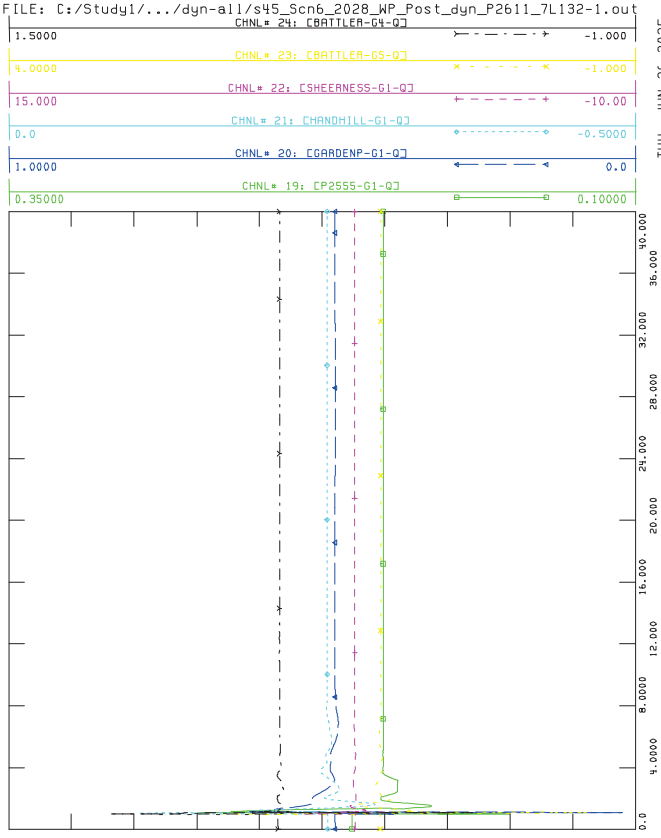
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-760L-2
CHNL# 30: CNOVA-ST1-AJ 15.000 -10.00
CHNL# 29: CNOVA-GT1-AJ 15.000 -10.00
CHNL# 28: CBATTLER-G4-AJ 20.000 -30.00
CHNL# 27: CBATTLER-G5-AJ 30.000 -20.00
CHNL# 26: CSHEERNESS-G2-AJ 50.000 0.0
CHNL# 25: CSHEERNESS-G1-AJ 150.00 -100.0
TIME (SECONDS) 0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s44_Scn6_2028_WP_Post_dyn_P2611_760L-2.out
THU, JUN 26 2025 22:22
BRN P FLOW-760L-2
CHNL# 47: C7L132-PJ 250.00 0.0
CHNL# 45: C9L966-PJ 500.00 0.0
CHNL# 43: C9L59-PJ 500.00 0.0
CHNL# 41: C9L46-PJ 350.00 100.00
CHNL# 39: C9L29-PJ 0.0 -250.0
CHNL# 37: C9L24-PJ 1000.0 0.0
TIME (SECONDS) 0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000

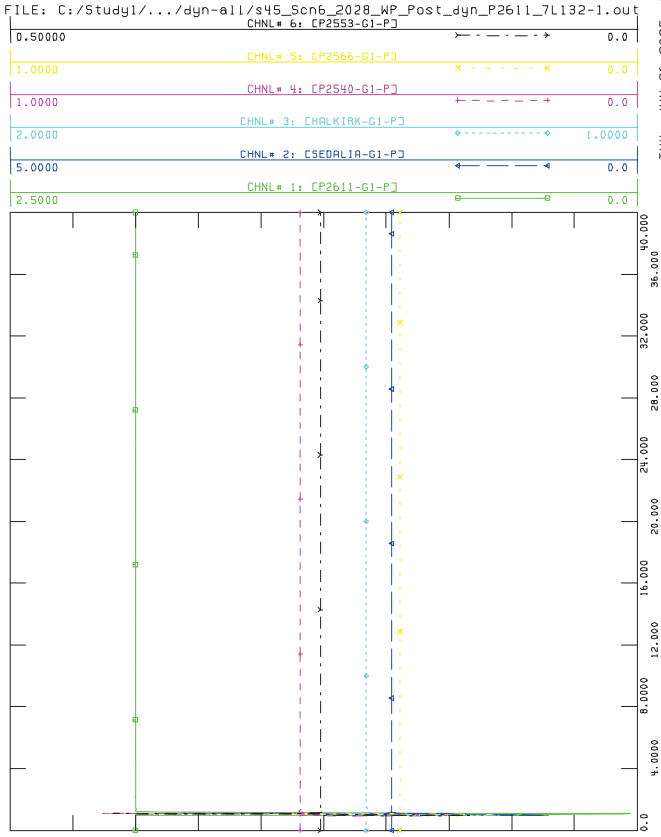
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out
THU, JUN 26 2025 22:22
MAC POUT 2-7L132-1



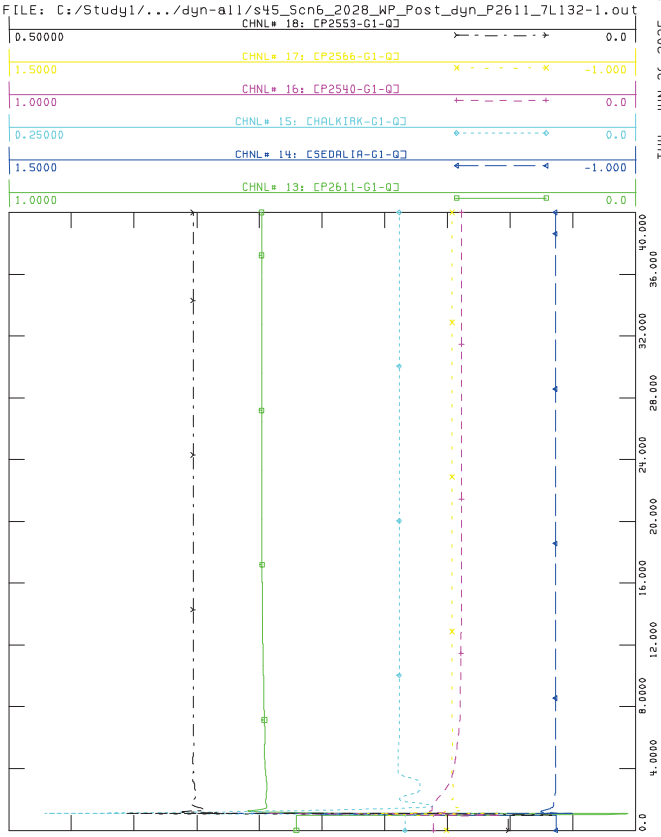
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out
THU, JUN 26 2025 22:22
MAC QOUT 2-7L132-1



AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out
THU, JUN 26 2025 22:22
MAC POUT 1-7L132-1



AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out
THU, JUN 26 2025 22:22
MAC QOUT 1-7L132-1



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:22

BUS VOL-7L132-1

CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:22

BRN Q FLOW-7L132-1

CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:22

SYNC MAC ANGLE-7L132-1

CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s45_Scn6_2028_WP_Post_dyn_P2611_7L132-1.out

THU, JUN 26 2025 22:22

BRN P FLOW-7L132-1

CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s46_Scn6_2028_WP_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:22

MAC POUT 2-7L132-2

CHNL# 12: [BATTLER-G4-P]
CHNL# 11: [BATTLER-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [CHANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s46_Scn6_2028_WP_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:22

MAC QOUT 2-7L132-2

CHNL# 24: [BATTLER-G4-Q]
CHNL# 23: [BATTLER-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [CHANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s46_Scn6_2028_WP_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:22

MAC POUT 1-7L132-2

CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [CHALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s46_Scn6_2028_WP_Post_dyn_P2611_7L132-2.out

THU, JUN 26 2025 22:22

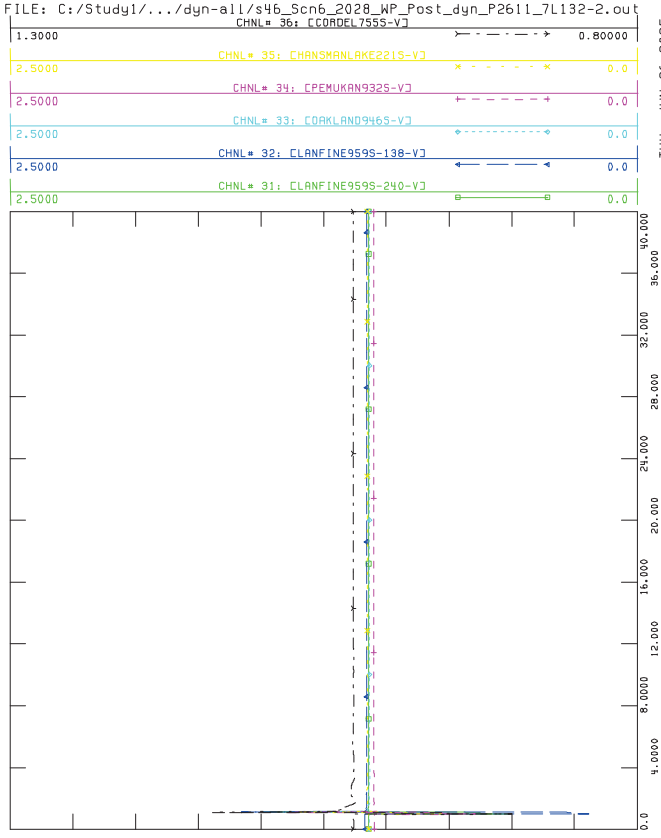
MAC QOUT 1-7L132-2

CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [CHALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

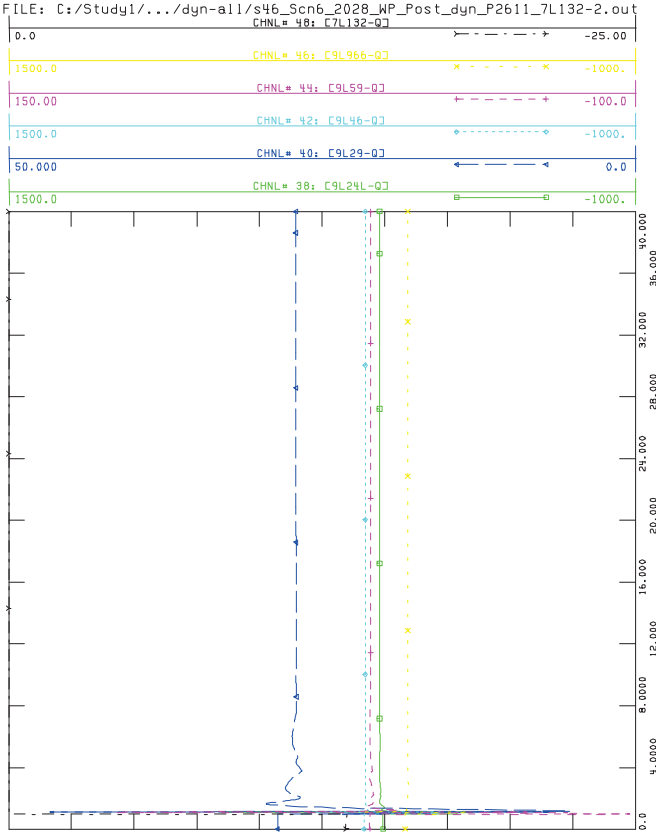
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THU, JUN 26 2025 22:22
BUS VOL-7L132-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

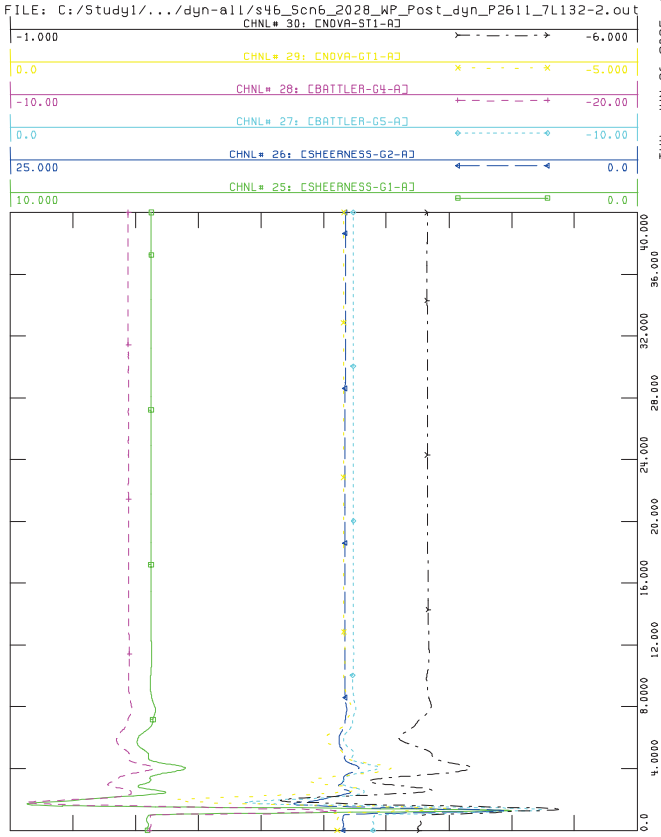
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THU, JUN 26 2025 22:22
BRN Q FLOW-7L132-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

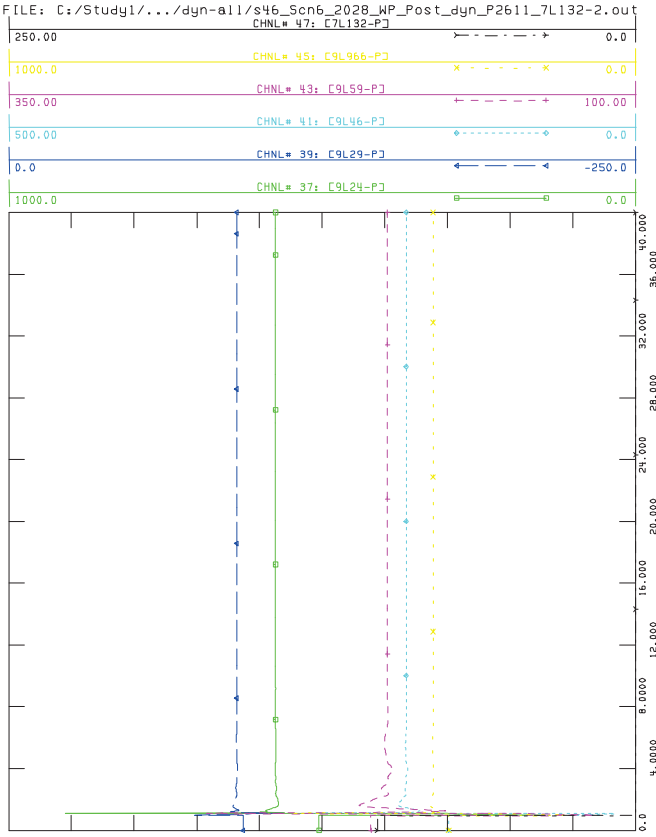
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THU, JUN 26 2025 22:22
SYNC MAC ANGLE-7L132-2

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: C:/Study1/.../dyn-all/s46_Scn6_2028_WP_Post_dyn_P2611_7L132-2.out



THU, JUN 26 2025 22:22
BRN P FLOW-7L132-2

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
THU, JUN 26 2025 22:22
MAC POUT 2-7L116-1

CHNL# 12: CBATTLEA-G4-PJ 1.5000 -1.000
CHNL# 11: CBATTLEA-G5-PJ 2.5000 0.0
CHNL# 10: CSHEERNESS-G1-PJ 2.5000 0.0
CHNL# 9: CHANDHILL-G1-PJ 2.5000 0.0
CHNL# 8: CGARDENP-G1-PJ 2.0000 1.0000
CHNL# 7: CP2555-G1-PJ 3.5000 1.0000

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
THU, JUN 26 2025 22:22
MAC QOUT 2-7L116-1

CHNL# 24: CBATTLEA-G4-QJ 1.5000 -1.000
CHNL# 23: CBATTLEA-G5-QJ 4.0000 -1.000
CHNL# 22: CSHEERNESS-G1-QJ 15.000 -10.00
CHNL# 21: CHANDHILL-G1-QJ 0.0 -1.000
CHNL# 20: CGARDENP-G1-QJ 1.5000 -1.000
CHNL# 19: CP2555-G1-QJ 0.35000 0.10000

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
THU, JUN 26 2025 22:22
MAC POUT 1-7L116-1

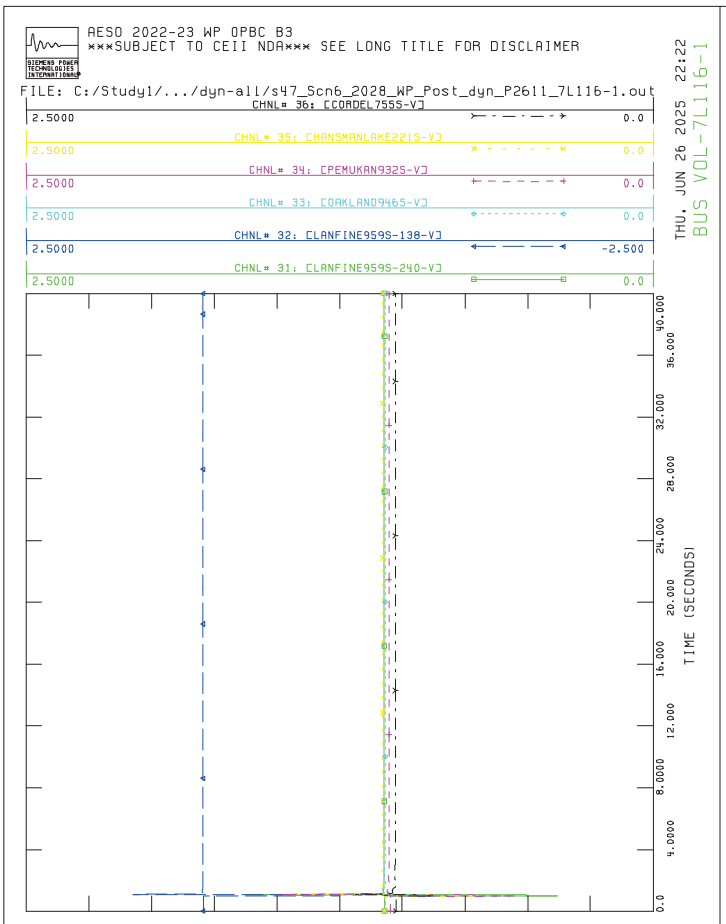
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CHNL# 5: CP2566-G1-PJ 0.70000 0.20000
CHNL# 4: CP2540-G1-PJ 1.0000 0.0
CHNL# 3: CHALKIRK-G1-PJ 2.0000 1.0000
CHNL# 2: CSEDALIA-G1-PJ 5.0000 0.0
CHNL# 1: CP2611-G1-PJ 2.5000 0.0

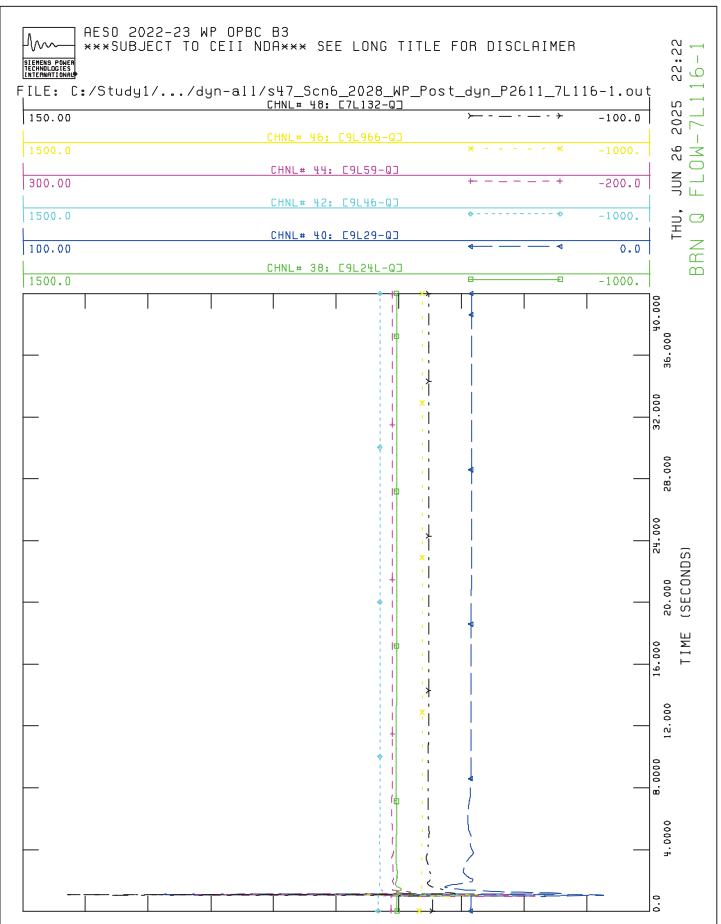
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TIME (SECONDS)

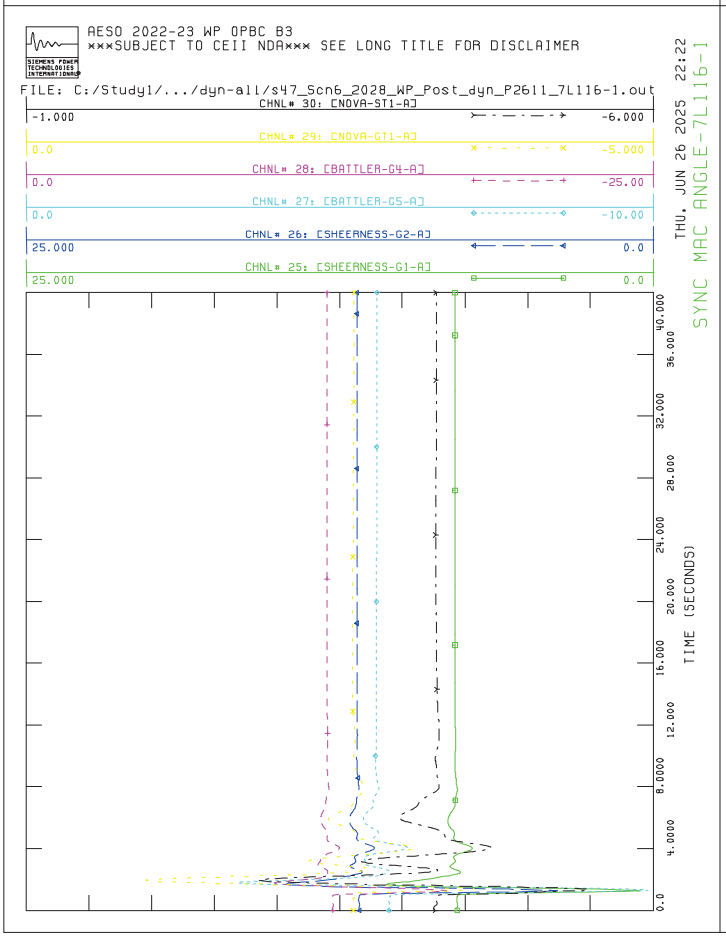
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
THU, JUN 26 2025 22:22
MAC QOUT 1-7L116-1

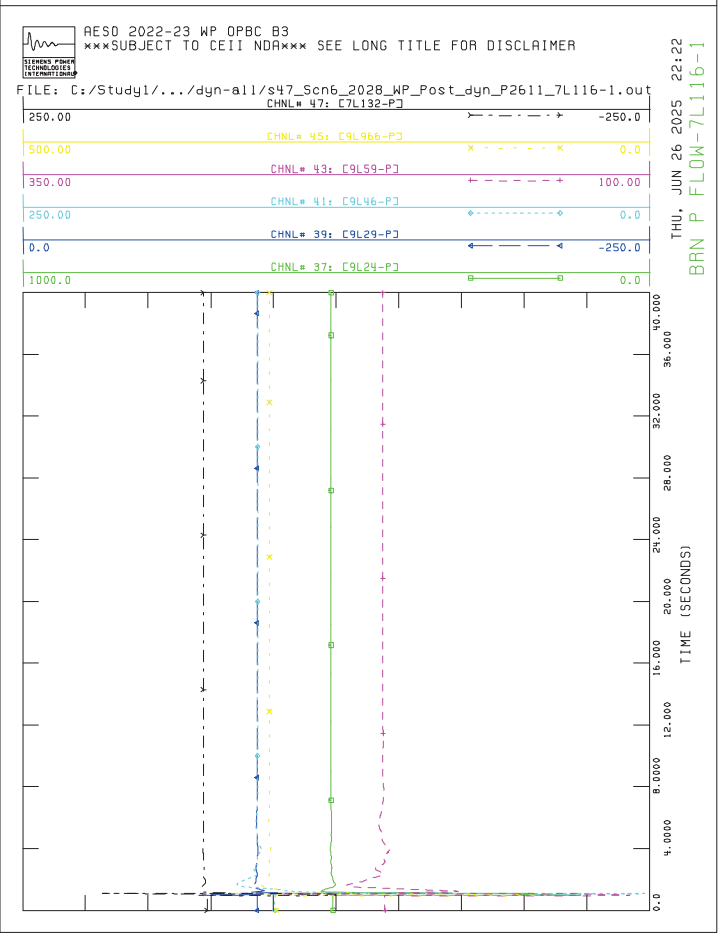
CHNL# 18: CP2553-G1-QJ 0.50000 0.0
CHNL# 17: CP2566-G1-QJ 1.5000 -1.000
CHNL# 16: CP2540-G1-QJ 1.0000 0.0
CHNL# 15: CHALKIRK-G1-QJ 0.25000 0.0
CHNL# 14: CSEDALIA-G1-QJ 1.5000 -1.000
CHNL# 13: CP2611-G1-QJ 1.0000 0.0

0.0 4.0000 8.0000 12.000 16.000 20.000 24.000 28.000 32.000 36.000 40.000
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
CHNL# 36: CCORDEL755S-VJ
CHNL# 35: CHANSMANLAKE22LS-VJ
CHNL# 34: CPEMUKAN932S-VJ
CHNL# 33: COAKLAND946S-VJ
CHNL# 32: CLANFINE959S-138-VJ
CHNL# 31: CLANFINE959S-240-VJ
THU, JUN 26 2025 22:22
BUS VOL-7L116-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
CHNL# 48: C7L132-QJ
CHNL# 46: C9L966-QJ
CHNL# 44: C9L59-QJ
CHNL# 42: C9L46-QJ
CHNL# 40: C9L29-QJ
CHNL# 38: C9L24L-QJ
THU, JUN 26 2025 22:22
BRN Q FLOW-7L116-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
CHNL# 30: CNOVA-ST1-AJ
CHNL# 29: CNOVA-GT1-AJ
CHNL# 28: CBATTLER-G4-AJ
CHNL# 27: CBATTLER-G5-AJ
CHNL# 26: CSHEERNESS-G2-AJ
CHNL# 25: CSHEERNESS-G1-AJ
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-7L116-1
TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s47_Scn6_2028_WP_Post_dyn_P2611_7L116-1.out
CHNL# 47: C7L132-PJ
CHNL# 45: C9L966-PJ
CHNL# 43: C9L59-PJ
CHNL# 41: C9L46-PJ
CHNL# 39: C9L29-PJ
CHNL# 37: C9L24-PJ
THU, JUN 26 2025 22:22
BRN P FLOW-7L116-1
TIME (SECONDS)

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:22
MAC POUT 2-7L116-2

CHNL# 12: [BATTLEA-G4-P]
CHNL# 11: [BATTLEA-G5-P]
CHNL# 10: [SHEERNESS-G1-P]
CHNL# 9: [HANDHILL-G1-P]
CHNL# 8: [GARDENP-G1-P]
CHNL# 7: [P2555-G1-P]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:22
MAC QOUT 2-7L116-2

CHNL# 24: [BATTLEA-G4-Q]
CHNL# 23: [BATTLEA-G5-Q]
CHNL# 22: [SHEERNESS-G1-Q]
CHNL# 21: [HANDHILL-G1-Q]
CHNL# 20: [GARDENP-G1-Q]
CHNL# 19: [P2555-G1-Q]

TIME (SECONDS)

AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:22
MAC POUT 1-7L116-2

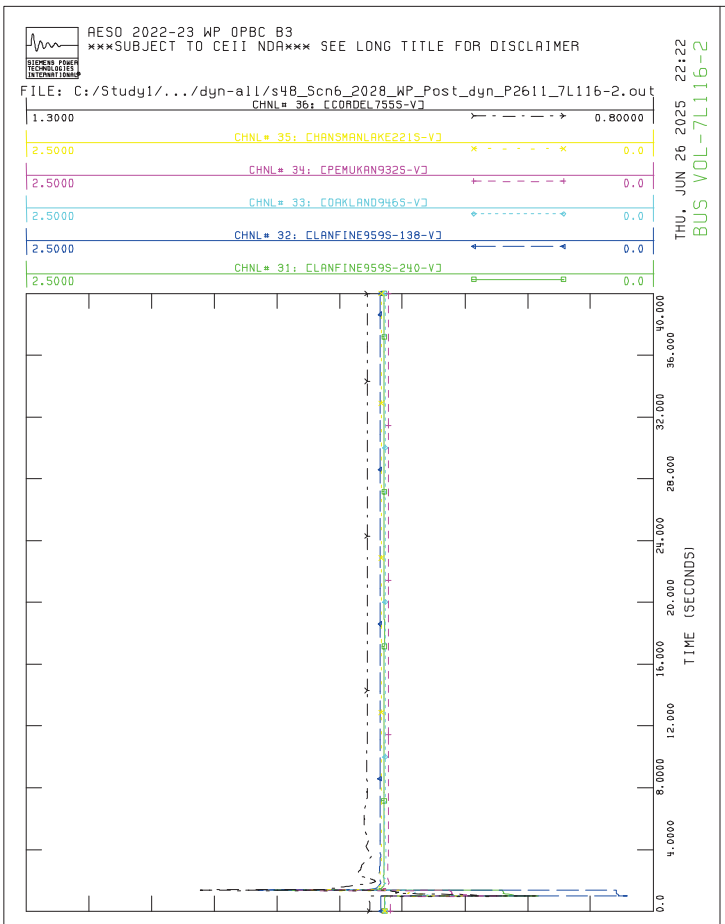
CHNL# 6: [P2553-G1-P]
CHNL# 5: [P2566-G1-P]
CHNL# 4: [P2540-G1-P]
CHNL# 3: [HALKIRK-G1-P]
CHNL# 2: [SEDALIA-G1-P]
CHNL# 1: [P2611-G1-P]

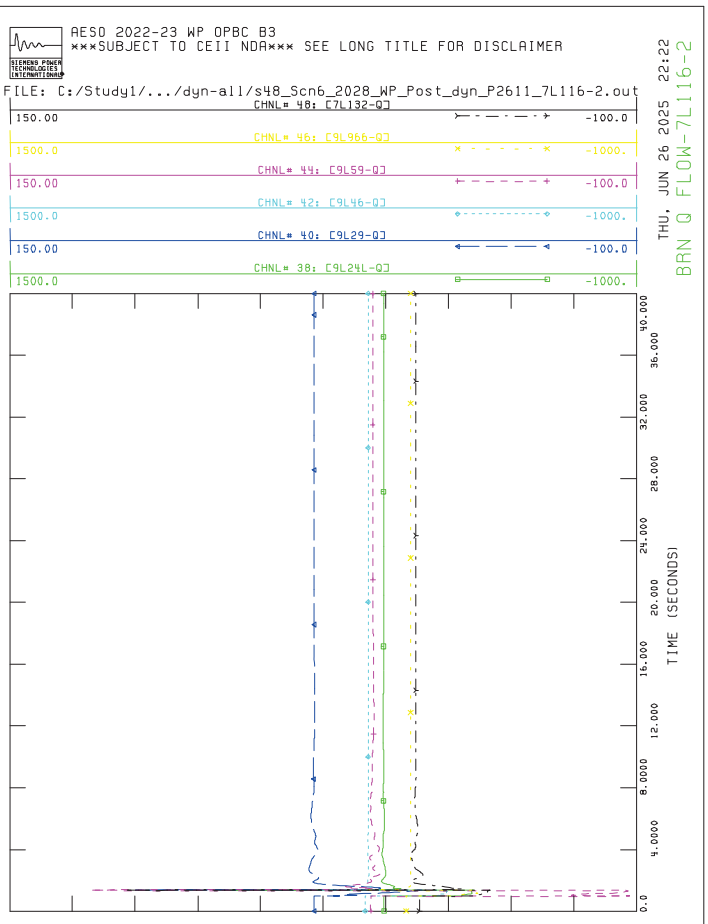
TIME (SECONDS)

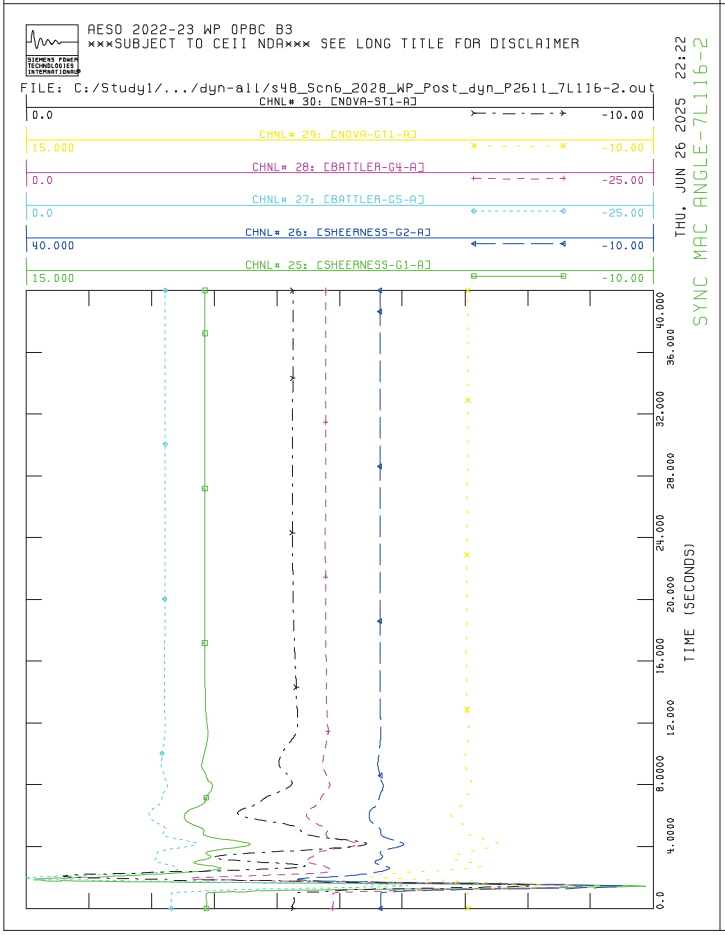
AESO 2022-23 WP OPBC B3
×××SUBJECT TO CEII NDA××× SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
THU, JUN 26 2025 22:22
MAC QOUT 1-7L116-2

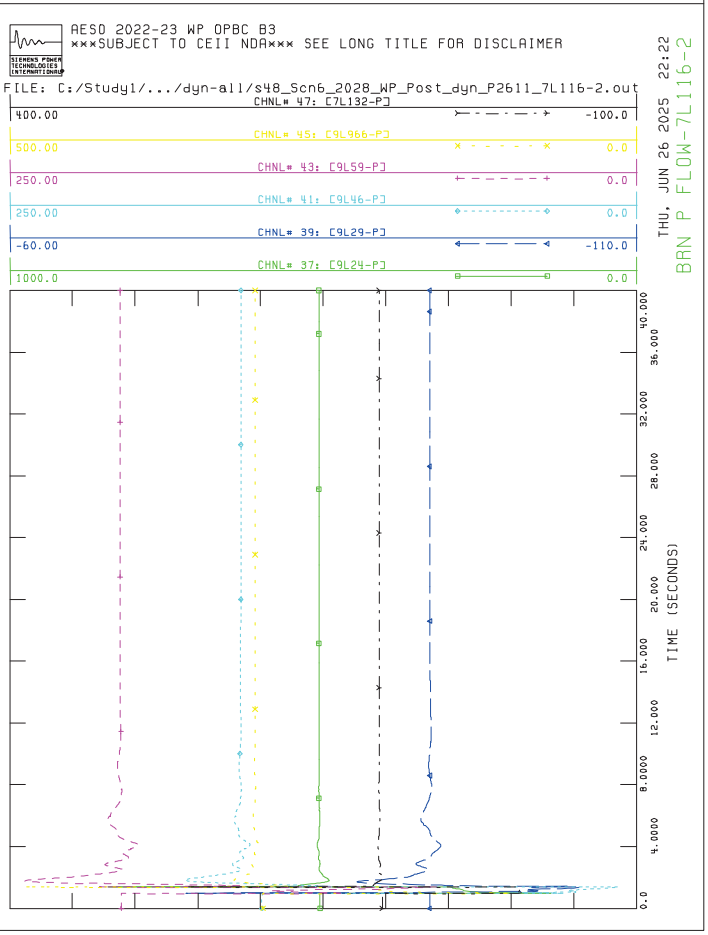
CHNL# 18: [P2553-G1-Q]
CHNL# 17: [P2566-G1-Q]
CHNL# 16: [P2540-G1-Q]
CHNL# 15: [HALKIRK-G1-Q]
CHNL# 14: [SEDALIA-G1-Q]
CHNL# 13: [P2611-G1-Q]

TIME (SECONDS)


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
CHNL# 36: CCORDEL755S-VJ
1.3000
0.80000
CHNL# 35: CHANSMANLAKE221S-VJ
2.5000
0.0
CHNL# 34: CPEMUKAN932S-VJ
2.5000
0.0
CHNL# 33: COAKLAND946S-VJ
2.5000
0.0
CHNL# 32: CLANFINE959S-138-VJ
2.5000
0.0
CHNL# 31: CLANFINE959S-240-VJ
2.5000
0.0
THU, JUN 26 2025 22:22
BUS VOL-7L116-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
CHNL# 48: C7L132-QJ
150.00
-100.0
CHNL# 46: C9L966-QJ
1500.0
-1000.
CHNL# 44: C9L59-QJ
150.00
-100.0
CHNL# 42: C9L46-QJ
1500.0
-1000.
CHNL# 40: C9L29-QJ
150.00
-100.0
CHNL# 38: C9L24L-QJ
1500.0
-1000.
THU, JUN 26 2025 22:22
BRN Q FLOW-7L116-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
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40.000

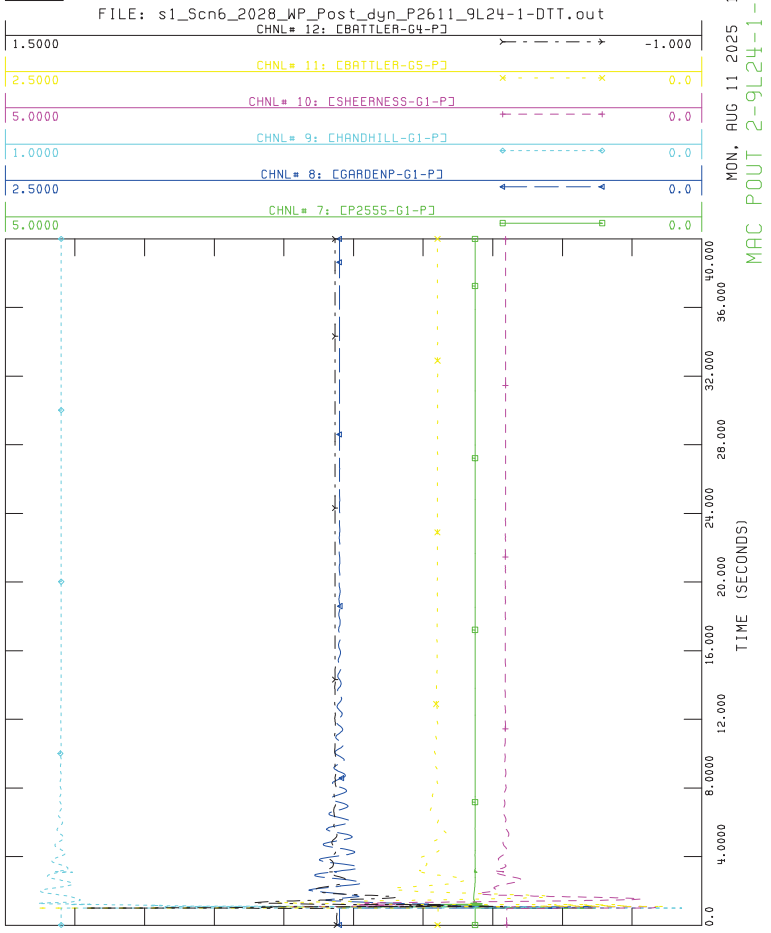

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
CHNL# 30: CNOVA-ST1-AJ
0.0
-10.00
CHNL# 29: CNOVA-GT1-AJ
15.000
-10.00
CHNL# 28: CBATTLER-G4-AJ
0.0
-25.00
CHNL# 27: CBATTLER-G5-AJ
0.0
-25.00
CHNL# 26: CSHEERNESS-G2-AJ
40.000
-10.00
CHNL# 25: CSHEERNESS-G1-AJ
15.000
-10.00
THU, JUN 26 2025 22:22
SYNC MAC ANGLE-7L116-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
32.000
36.000
40.000


AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER
FILE: C:/Study1/.../dyn-all/s48_Scn6_2028_WP_Post_dyn_P2611_7L116-2.out
CHNL# 47: C7L132-PJ
400.00
-100.0
CHNL# 45: C9L966-PJ
500.00
0.0
CHNL# 43: C9L59-PJ
250.00
0.0
CHNL# 41: C9L46-PJ
250.00
0.0
CHNL# 39: C9L29-PJ
-60.00
-110.0
CHNL# 37: C9L24-PJ
1000.0
0.0
THU, JUN 26 2025 22:22
BRN P FLOW-7L116-2
TIME (SECONDS)
0.0
4.0000
8.0000
12.000
16.000
20.000
24.000
28.000
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40.000

Post-RAS Plots - 9L24 Contingency

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

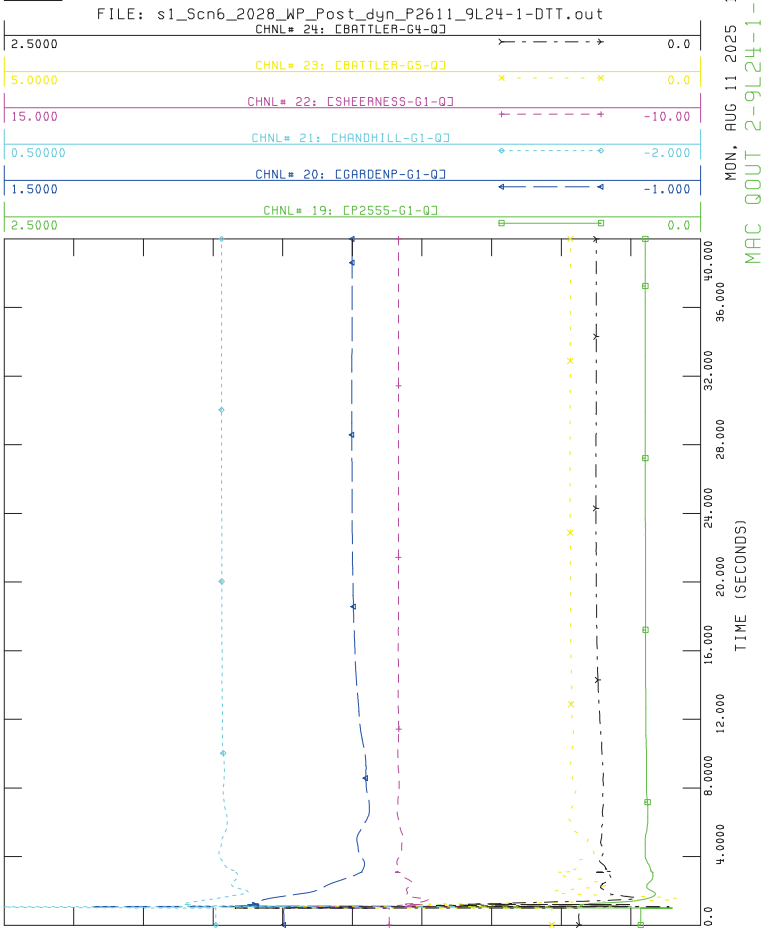
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MON, AUG 11 2025 13:58
MAC POUT 2-9L24-1-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

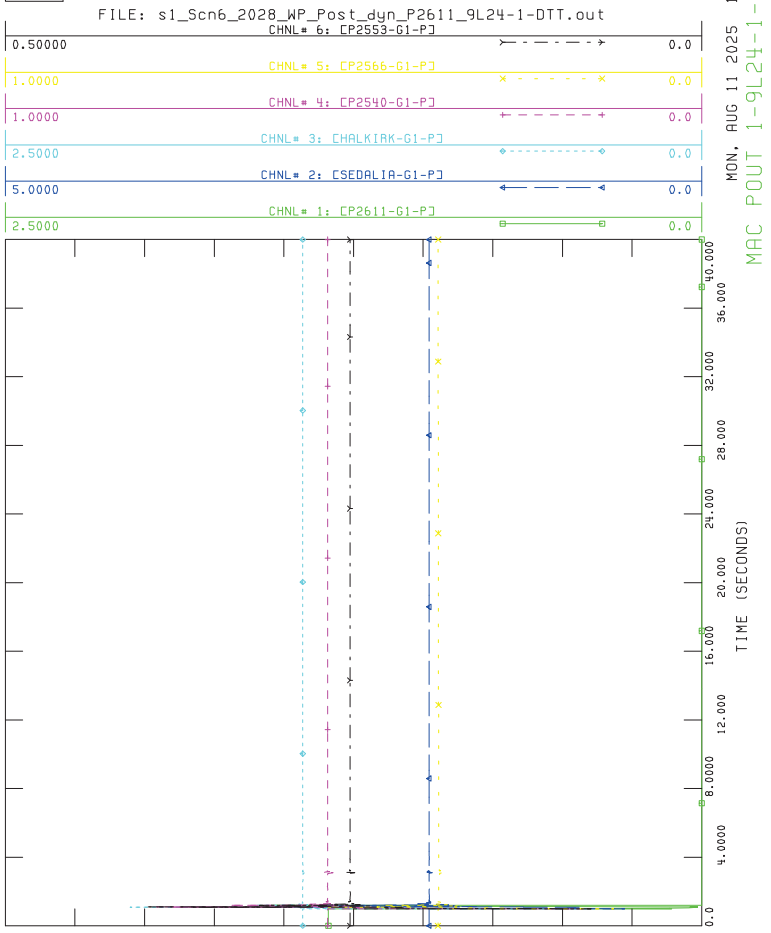
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MON, AUG 11 2025 13:58
MAC QOUT 2-9L24-1-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

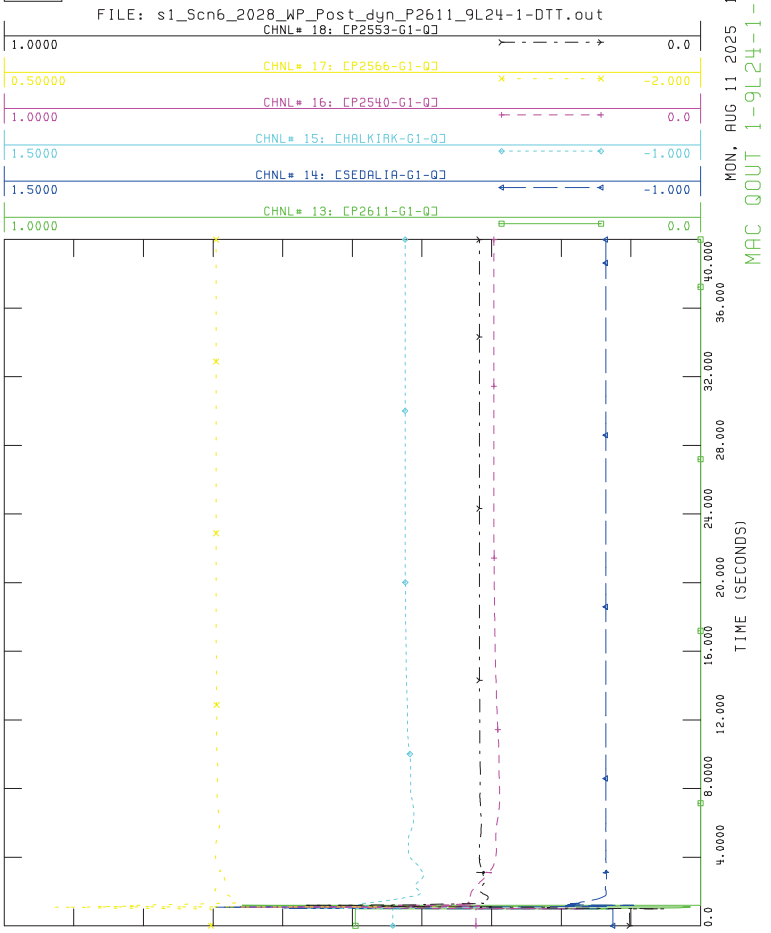
FILE: s1_Scn6_2028_WP_Post_dyn_P2611_9L24-1-DTT.out



MON, AUG 11 2025 13:58
MAC POUT 1-9L24-1-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

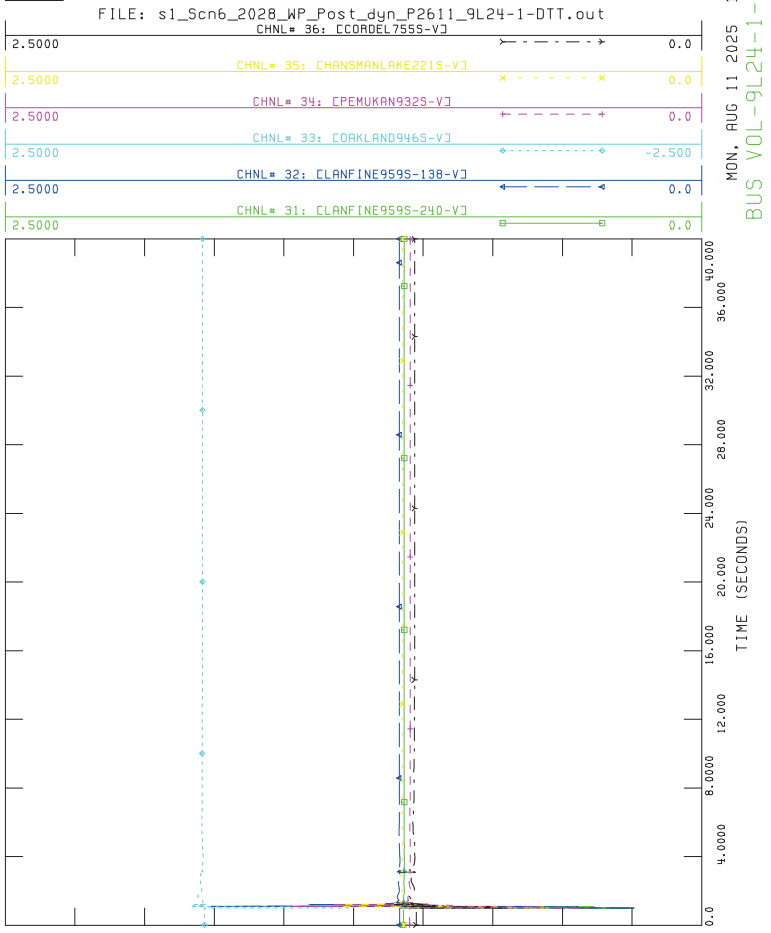
FILE: s1_Scn6_2028_WP_Post_dyn_P2611_9L24-1-DTT.out



MON, AUG 11 2025 13:58
MAC QOUT 1-9L24-1-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s1_Scn6_2028_WP_Post_dyn_P2611_9L24-1-DTT.out

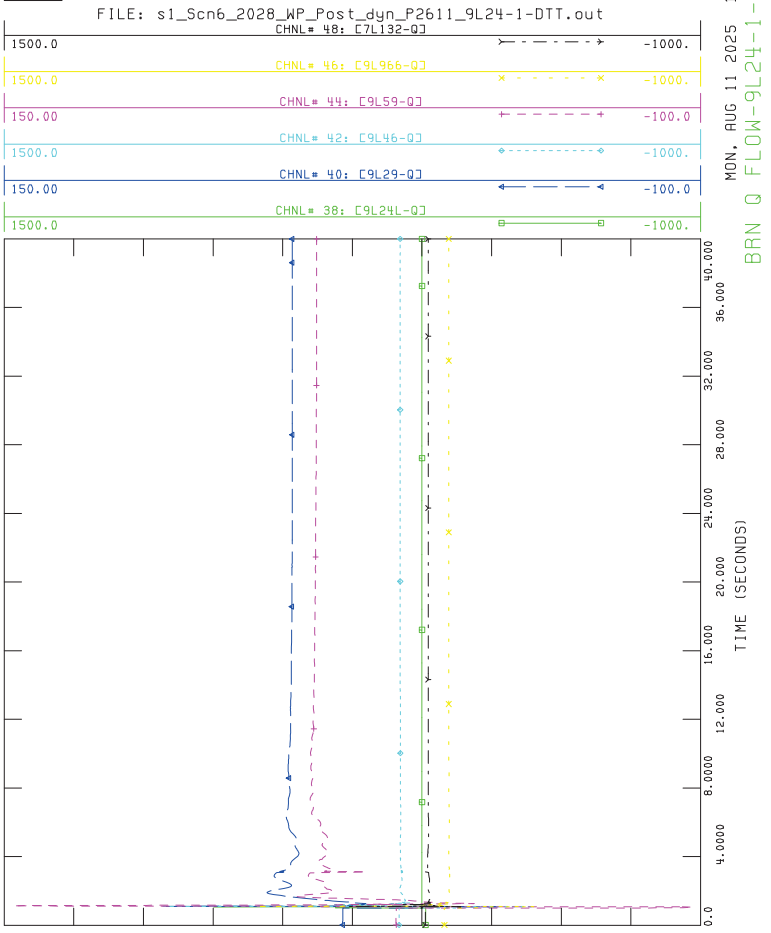


MON, AUG 11 2025 13:58

BUS VOL-9L24-1-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s1_Scn6_2028_WP_Post_dyn_P2611_9L24-1-DTT.out

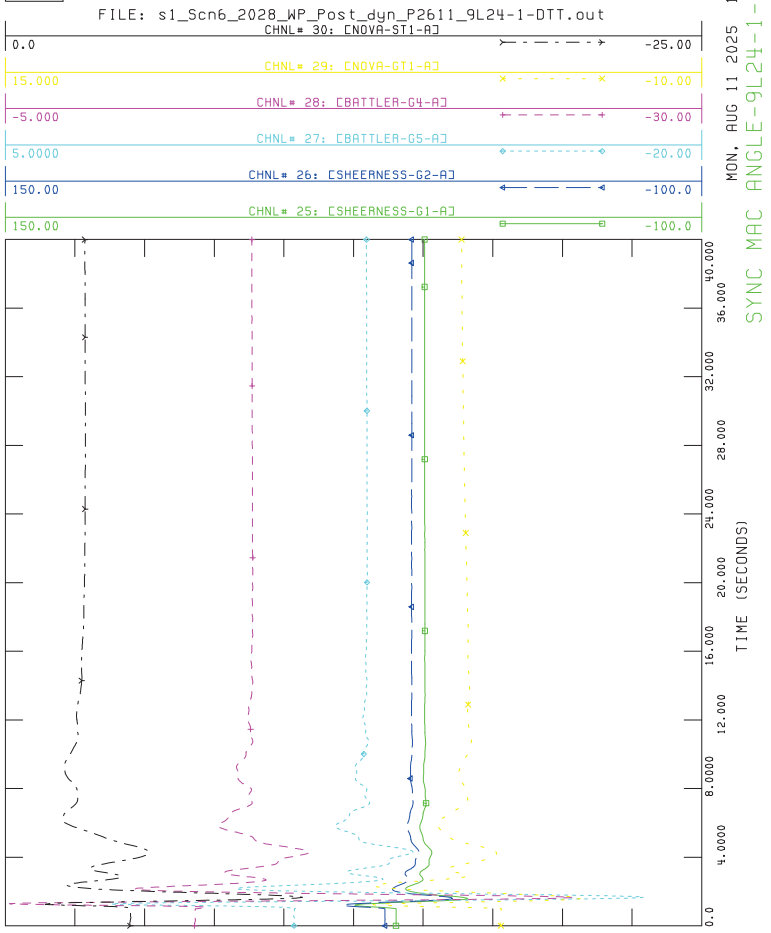


MON, AUG 11 2025 13:58

BRN Q FLOW-9L24-1-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s1_Scn6_2028_WP_Post_dyn_P2611_9L24-1-DTT.out

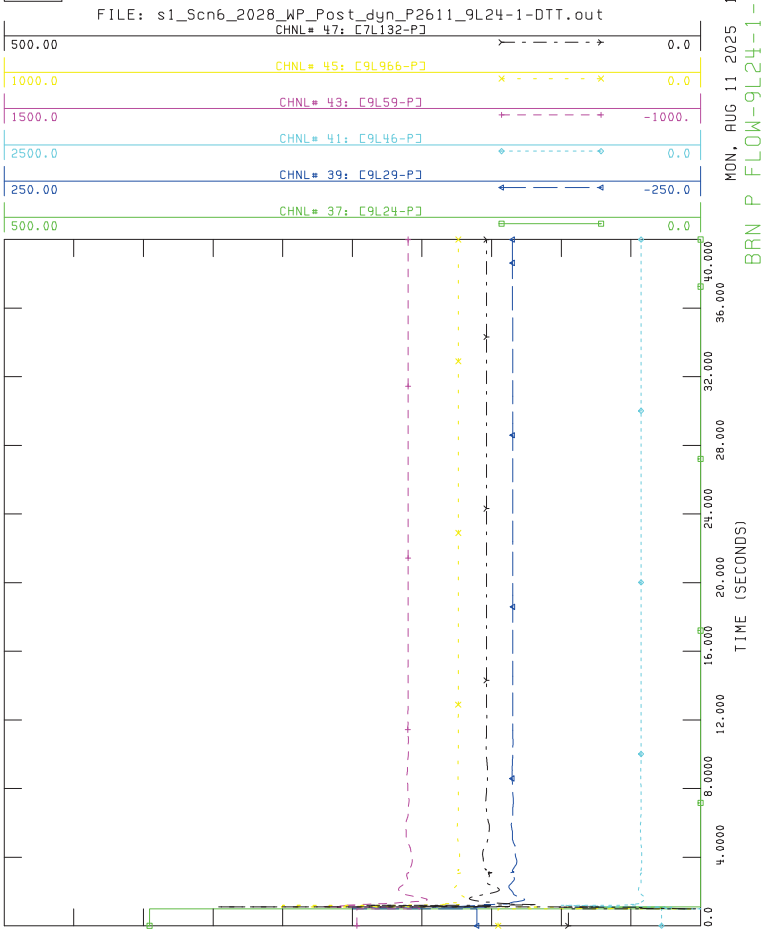


MON, AUG 11 2025 13:58

SYNC MAC ANGLE-9L24-1-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s1_Scn6_2028_WP_Post_dyn_P2611_9L24-1-DTT.out



MON, AUG 11 2025 13:58

BRN P FLOW-9L24-1-DTT

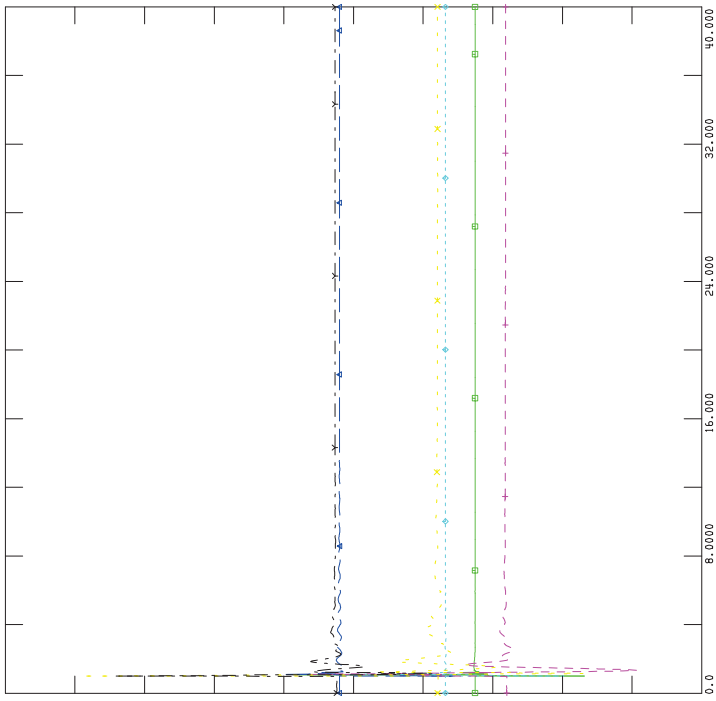
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out

MON, AUG 11 2025 13:58

MAC POUT 2-9L24-2-DTT

CHNL# 12: CBATTLER-G4-PJ 1.5000 -1.000
CHNL# 11: CBATTLER-G5-PJ 2.5000 0.0
CHNL# 10: CSHEERNESS-G1-PJ 5.0000 0.0
CHNL# 9: CHANDHILL-G1-PJ 2.5000 0.0
CHNL# 8: CGARDENP-G1-PJ 2.5000 0.0
CHNL# 7: CP2555-G1-PJ 5.0000 0.0



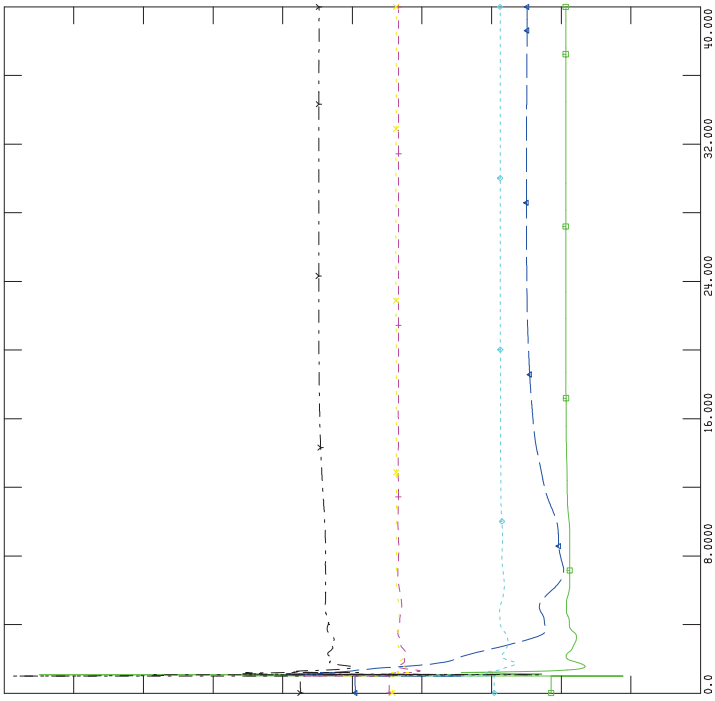
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out

MON, AUG 11 2025 13:58

MAC QOUT 2-9L24-2-DTT

CHNL# 24: CBATTLER-G4-QJ 1.5000 -1.000
CHNL# 23: CBATTLER-G5-QJ 15.000 -10.00
CHNL# 22: CSHEERNESS-G1-QJ 15.000 -10.00
CHNL# 21: CHANDHILL-G1-QJ 1.5000 -1.000
CHNL# 20: CGARDENP-G1-QJ 1.0000 0.0
CHNL# 19: CP2555-G1-QJ 1.0000 0.0



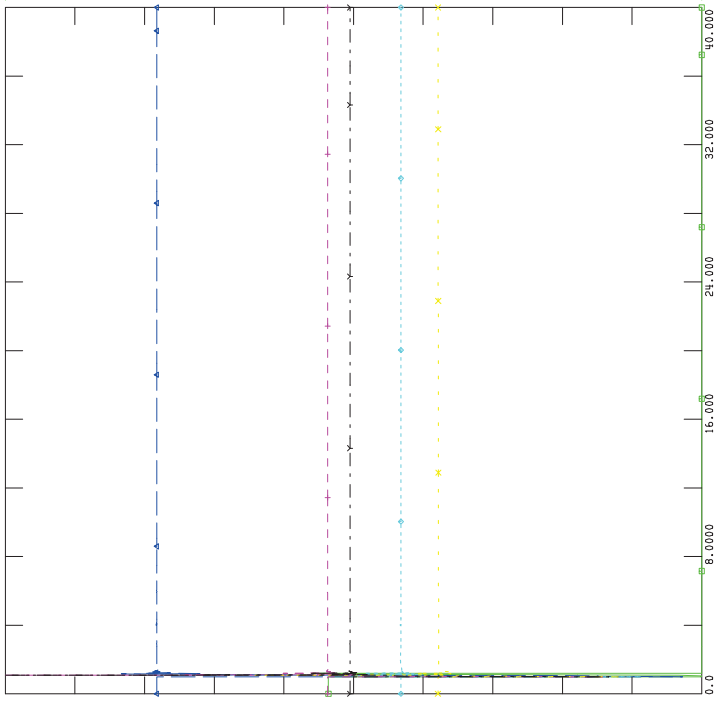
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out

MON, AUG 11 2025 13:58

MAC POUT 1-9L24-2-DTT

CHNL# 6: CP2553-G1-PJ 0.50000 0.0
CHNL# 5: CP2566-G1-PJ 1.0000 0.0
CHNL# 4: CP2540-G1-PJ 1.0000 0.0
CHNL# 3: CHALKIRK-G1-PJ 2.0000 1.0000
CHNL# 2: CSEDALIA-G1-PJ 2.5000 0.0
CHNL# 1: CP2611-G1-PJ 2.5000 0.0



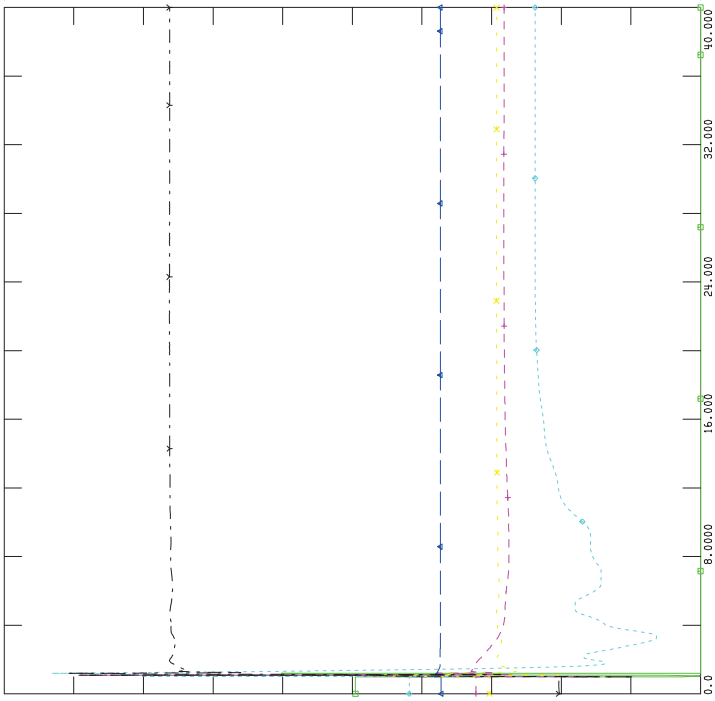
AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out

MON, AUG 11 2025 13:58

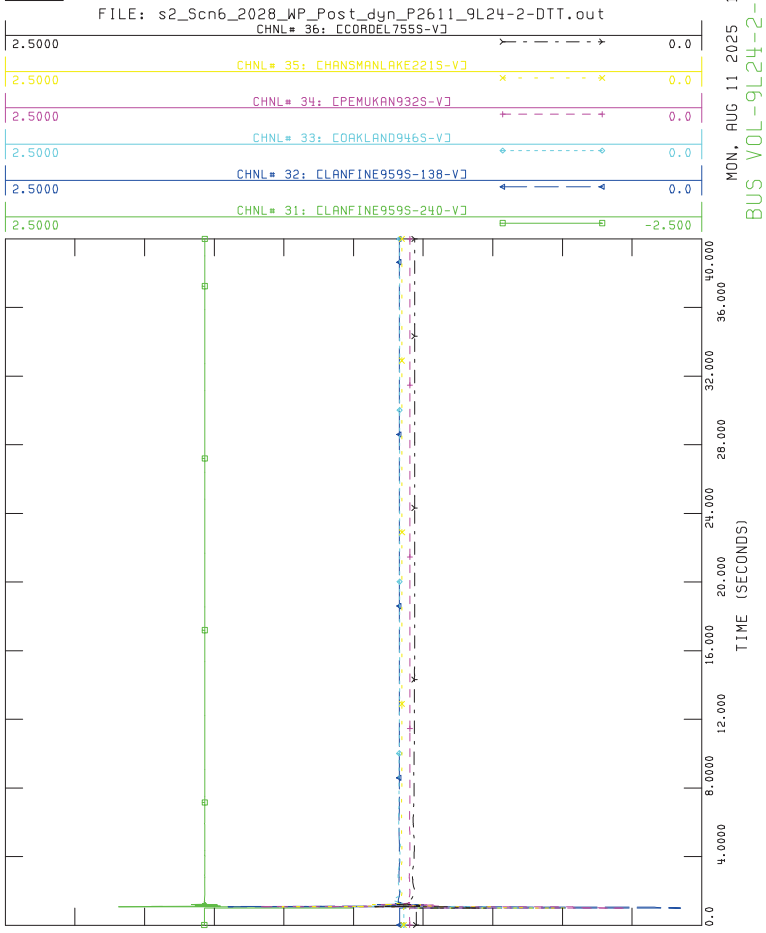
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CHNL# 18: CP2553-G1-QJ 0.50000 0.0
CHNL# 17: CP2566-G1-QJ 1.5000 -1.000
CHNL# 16: CP2540-G1-QJ 1.0000 0.0
CHNL# 15: CHALKIRK-G1-QJ 0.25000 0.0
CHNL# 14: CSEDALIA-G1-QJ 15.000 -10.00
CHNL# 13: CP2611-G1-QJ 1.0000 0.0



AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out

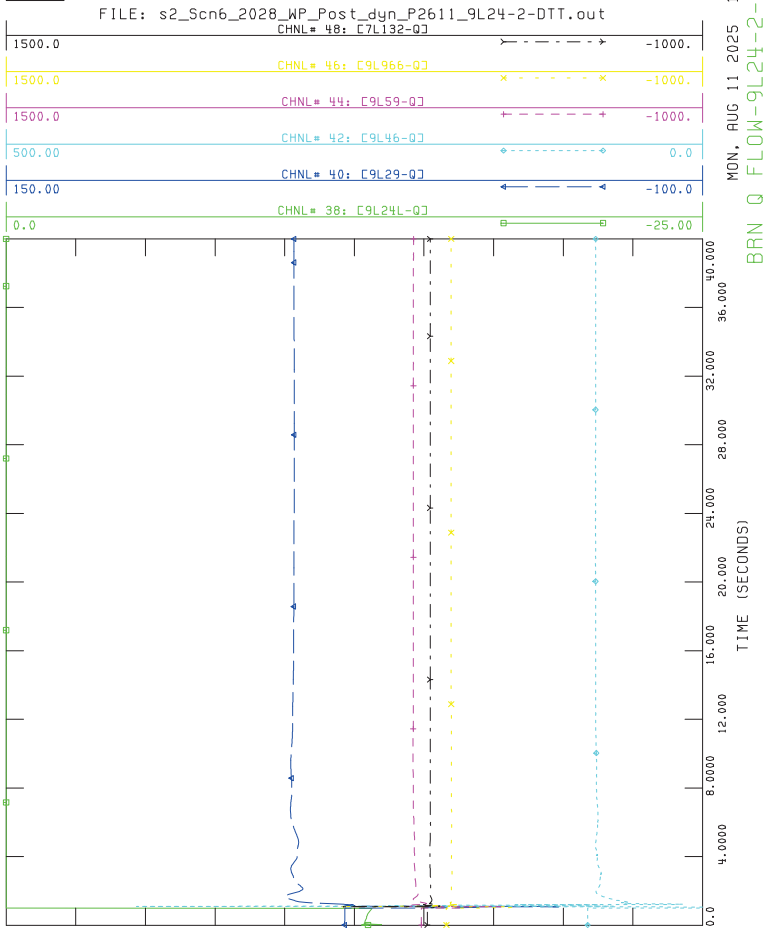


MON, AUG 11 2025 13:58

BUS VOL-9L24-2-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out

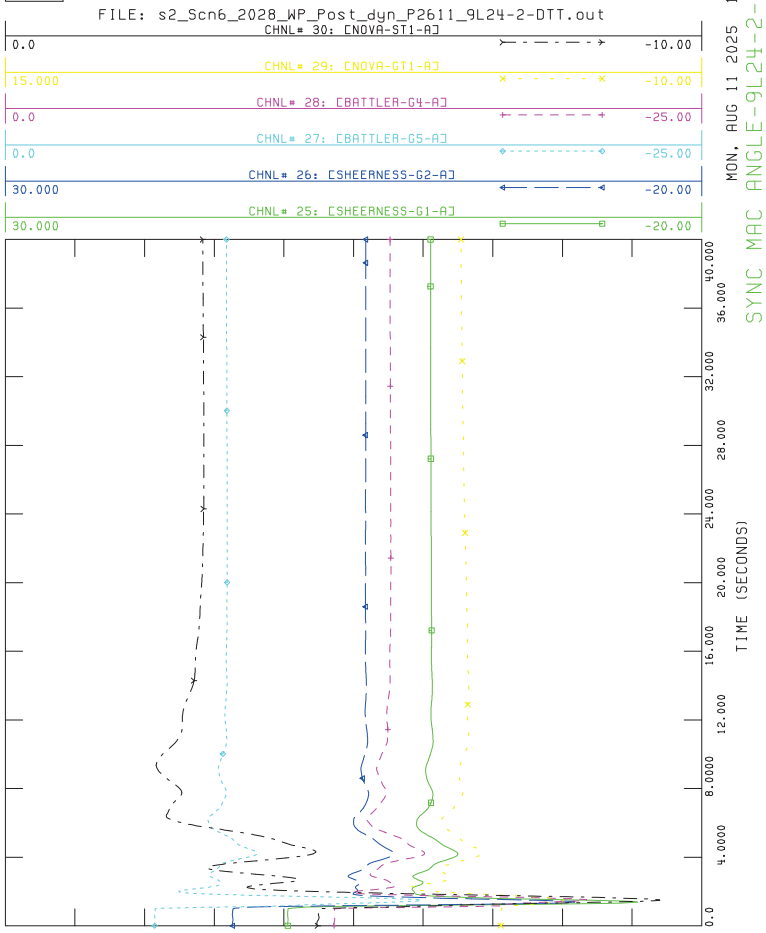


MON, AUG 11 2025 13:58

BRN Q FLOW-9L24-2-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out

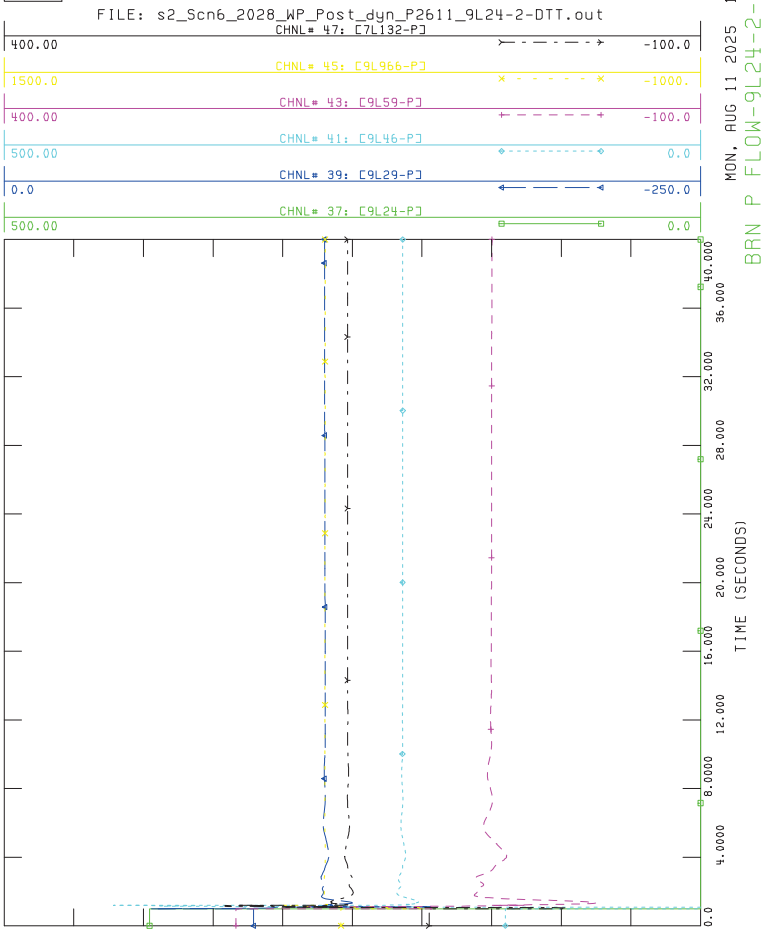


MON, AUG 11 2025 13:58

SYNC MAC ANGLE-9L24-2-DTT

AESO 2022-23 WP OPBC B3
SUBJECT TO CEII NDA SEE LONG TITLE FOR DISCLAIMER

FILE: s2_Scn6_2028_WP_Post_dyn_P2611_9L24-2-DTT.out



MON, AUG 11 2025 13:58

BRN P FLOW-9L24-2-DTT

Attachment A5
Dynamic Data and Assumptions

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	Renewable Energy Generator	PSSE	REGCAU1

Description

Array	#	Value	Description	
J	0	0.02	Tg	Convert time constant (s)
J	1	10.0	Rrpwr	Low Voltage Power Logic (LVPL) ramp rate limit (pu)
J	2	0.9	Brkpt	LVPL characteristic voltage 2 (pu)
J	3	0.5	Zerox	LVPL characteristic voltage 1 (ou)
J	4	1.1	Lvpl1	LVPL gain (pu)
J	5	1.1	Volim	Voltage limit (pu) for high voltage reactive current managemer
J	6	0.9	Lvpnt1	High voltage point for low voltage active current management
J	7	0.0	Lvpnt0	Low voltage point for low voltage active current management

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility or a project passing
- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

of the AESO project process, and is subject to change as project design proceeds and as-built data becomes available.
It is not to be relied upon for construction.

APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	Renewable Energy Generator	PSSE	REGCAU1

Description

Array	#	Value	Description	
J	8	-1.0	Iolim	Current limit (pu) for high voltage reactive current managemen
J	9	0.01	Tfltr	Voltage filter time constant for low voltage active current mana
J	10	0	Khv	Overvoltage compensation gain used in the high voltage reacti
J	11	99	Iqrmax	Upper limit on rate of change for reactive current (pu)
J	12	-99	Iqrmin	Lower limit on rate of change for reactive current (pu)
J	13	1	Accel	Acceleration factor

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- ☐ An operational facility

or a project passing

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- ☑ Gate 3
- ☐ Gate 5

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APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Electrical	PSSE	REECAU1

Description

Array	#	Value	Description	
M		0		Bus number for voltage control
M	1	0	PFFLAG	Power factor control flag
M	2	1	VFLAG	
M	3	0	QFLAG	
M	4	0	PFLAG	
M	5	0	PQFLAG	

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

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- ☐ Gate 5

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APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Electrical	PSSE	REECAU1

Description

Array	#	Value	Description	
J		0.9	Vdip (pu)	Low voltage threshold to active reactive current injection Logic
J	1	1.1	Vup (pu)	Voltage above which reactive current injection logic is activate
J	2	0.01	Trv (s)	Voltage filter time constant
J	3	-0.1	dbd1 (pu)	Voltage error dead band lower threshold (<=0)
J	4	0.1	dbd2 (pu)	Voltage error dead band upper threshold (>=0)
J	5	1	Kqv (pu)	Reactive current injection gain during over and undervoltage
J	6	1.0	Iqhl (pu)	Upper limit on reactive current injection Iqinj
J	7	-1.0	Iqll (pu)	Lower limit on reactive current injection Iqinj

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- ☐ An operational facility

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- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

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APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Electrical	PSSE	REECAU1

Description

Array	#	Value	Description	
J	8	0	Vref0 (pu)	User defined reference (if 0, model initialized it to initial termin
J	9	0	Iqfrz (pu)	Value at which Iqinj is held for Thld seconds following a voltage
J	10	0	Thld (s)	Time for which Iqinj is held at Iqfrz after voltage dip returns to z
J	11	0	Thld2 (s)	Time for which the active current limit (IPMAX) is held at the fa
J	12	0.01	Tp (s)	Filter time constant for electrical power
J	13	0.6	Qmax (pu)	Limit for reactive power regulator
J	14	-0.6	Qmin (pu)	Limit for reactive power regulator
J	15	1.1	VMAX (pu)	Max limit for voltage control

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility

or a project passing

- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

of the AESO project process, and is subject to change as project design proceeds and as-built data becomes available.
It is not to be relied upon for construction.

APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Electrical	PSSE	REECAU1

Description

Array	#	Value	Description	
J	16	0.9	VMIN (pu)	Min limit for voltage control
J	17	0.3	Kqp (pu)	Reactive power regulator proportional gain
J	18	5	Kqi (pu)	Reactive power regulator integral gain
J	19	0.5	Kvp (pu)	Voltage regulator proportional gain
J	20	0	Kvi (pu)	Voltage regulator integral gain
J	21	0	Vbias (pu)	User-defined bias (normally 0)
J	22	0.01	Tiq (s)	Time constant on delay s4
J	23	99	dPmax (pu/s) (>0)	Power reference max ramp rate

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

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APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Electrical	PSSE	REECAU1

Description

Array	#	Value	Description	
J	24	-99	dPmin (pu/s) (<0)	Power reference min ramp rate
J	25	1	PMAX (pu)	Max power limit
J	26	0	PMIN (pu)	Min power limit
J	27	1.0	Imax (pu)	Max limit on total converted current
J	28	0.01	Tpord (s)	Power filter time constant
J	29	0	Vq1 (pu)	Reactive Power V-I pair, voltage
J	30	0.01	Iq1 (pu)	Reactive Power V-I pair, current
J	31	0.49	Vq2 (pu) (Vq2>Vq1)	Reactive Power V-I pair, voltage

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility or a project passing
- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

of the AESO project process, and is subject to change as project design proceeds and as-built data becomes available.
It is not to be relied upon for construction.

APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Electrical	PSSE	REECAU1

Description

Array	#	Value	Description	
J	32	0.01	Iq2 (pu) (Iq2>Iq1)	Reactive Power V-I pair, current
J	33	0.5	Vq3 (pu) (Vq3>Vq2)	Reactive Power V-I pair, voltage
J	34	1	Iq3 (pu) (Iq3>Iq2)	Reactive Power V-I pair, current
J	35	1.2	Vq4 (pu) (Vq4>Vq3)	Reactive Power V-I pair, voltage
J	36	1	Iq4 (pu) (Iq4>Iq3)	Reactive Power V-I pair, current
J	37	0.0	Vp1 (pu)	Real Power V-I pair, voltage
J	38	0.01	Ip1 (pu)	Real Power V-I pair, current
J	39	0.49	Vp2 (pu) (Vp2>Vp1)	Real Power V-I pair, voltage

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility

or a project passing

- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

of the AESO project process, and is subject to change as project design proceeds and as-built data becomes available.
It is not to be relied upon for construction.

APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Electrical	PSSE	REECAU1

Description

Array	#	Value	Description	
J	40	0.01	Ip2 (pu) (Ip2>Ip1)	Real Power V-I pair, current
J	41	0.5	Vp3 (pu) (Vp3>Vp2)	Real Power V-I pair, voltage
J	42	1.0	Ip3 (pu) (Ip3>Ip2)	Real Power V-I pair, current
J	43	1.2	Vp4 (pu) (Vp4>Vp3)	Real Power V-I pair, voltage
J	44	1.0	Ip4 (pu) (Ip4>Ip3)	Real Power V-I pair, current

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility

or a project passing

- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

of the AESO project process, and is subject to change as project design proceeds and as-built data becomes available.
It is not to be relied upon for construction.

APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Plant Cor	PSSE	REPCAU1

Description

Array	#	Value	Description	
M		542042		Bus number for voltage control; local control if 0
M	1	0		Monitored branch FROM bus number for line drop compensati
M	2	0		Monitored branch TO bus number for line drop compensation
M	3	0		Branch circuit id for line drop compensation (enter in single)
M	4	1	VCFlag (droop flag)	0: with droop if power factor control; 1: with line drop compens
M	5	1	RefFlag (Flag for V)	0: Q control; 1: voltage control
M	6	1	Fflag	Flag to disable frequency control

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility

or a project passing

- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

of the AESO project process, and is subject to change as project design proceeds and as-built data becomes available.
It is not to be relied upon for construction.

APEGA Permit-to-Practice:

AESO Protected

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Plant Cor	PSSE	REPCAU1

Description

Array	#	Value	Description	
J	0	0.05	Tfltr	Voltage or reactive power measurement filter time constant (s)
J	1	0.5	Kp	Reactive power PI control proportional gain (pu)
J	2	3	Ki	Reactive power PI control integral gain (pu)
J	3	0	Tft	Lead time constant (s)
J	4	0.05	Tfv	Lag time constant (s)
J	5	0.9	Vfrz	Voltage below which Sate s2 is frozen (pu)
J	6	0	Rc	Line drop compensation resistance (pu)
J	7	0	Xc	Line drop compensation reactance (pu)

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility or a project passing
- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

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It is not to be relied upon for construction.

APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Plant Cor	PSSE	REPCAU1

Description

Array	#	Value	Description	
J	8	0	Kc	Reactive current compensation gain (pu)
J	9	0.05	emax	Upper limit on deadband output (pu)
J	10	-0.05	emin	Lower limit on deadband output (pu)
J	11	0	dbd1	Lower threshold for reactive power control deadband (<=0)
J	12	0.0	dbd2	Upper threshold for reactive power and control deadband (>=
J	13	0.6	Qmax	Upper limit on output of V/Q control (pu)
J	14	-0.6	Qmin	Lower limit on output of V/Q control (pu)
J	15	0.5	Kpg	Proportional gain for power control (pu)

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility

or a project passing

- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

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APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Plant Cor	PSSE	REPCAU1

Description

Array	#	Value	Description	
J	16	0.25	Kig	Proportional gain for power control (pu)
J	17	0.25	Tp	Real power measurement filter time constant (s)
J	18	-0.0006	fdbd1	Deadband for frequency control, lower threshold (<=0)
J	19	0.0006	fdbd2	Deadband for frequency control, upper threshold (>=0)
J	20	999	femax	Frequency error upper limit (pu)
J	21	-999	femin	Frequency error lower limit (pu)
J	22	1	Pmax	Upper limit on power reference (pu)
J	23	0	Pmin	Lower limit on power reference (pu)

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility

or a project passing

- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

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APEGA Permit-to-Practice:

Project Number and Energization; or Facility Code: 2611

Power System Simulation

Equipment	Control System	Programme	MODEL
1162SG1, G2	General Renewable Plant Cor	PSSE	REPCAU1

Description

Array	#	Value	Description	
J	24	0.5	Tg	Power Controller lag time constant (s)
J	25	20	Ddn	Droop for over-frequency conditions (pu)
J	26	0	Dup	Droop for under-frequency conditions (pu)

Data submitted in this engineering document represents the electrical system components to a level adequate for powerflow, short-circuit, and dynamic modeling of (select one below):

- ☐ An operational facility

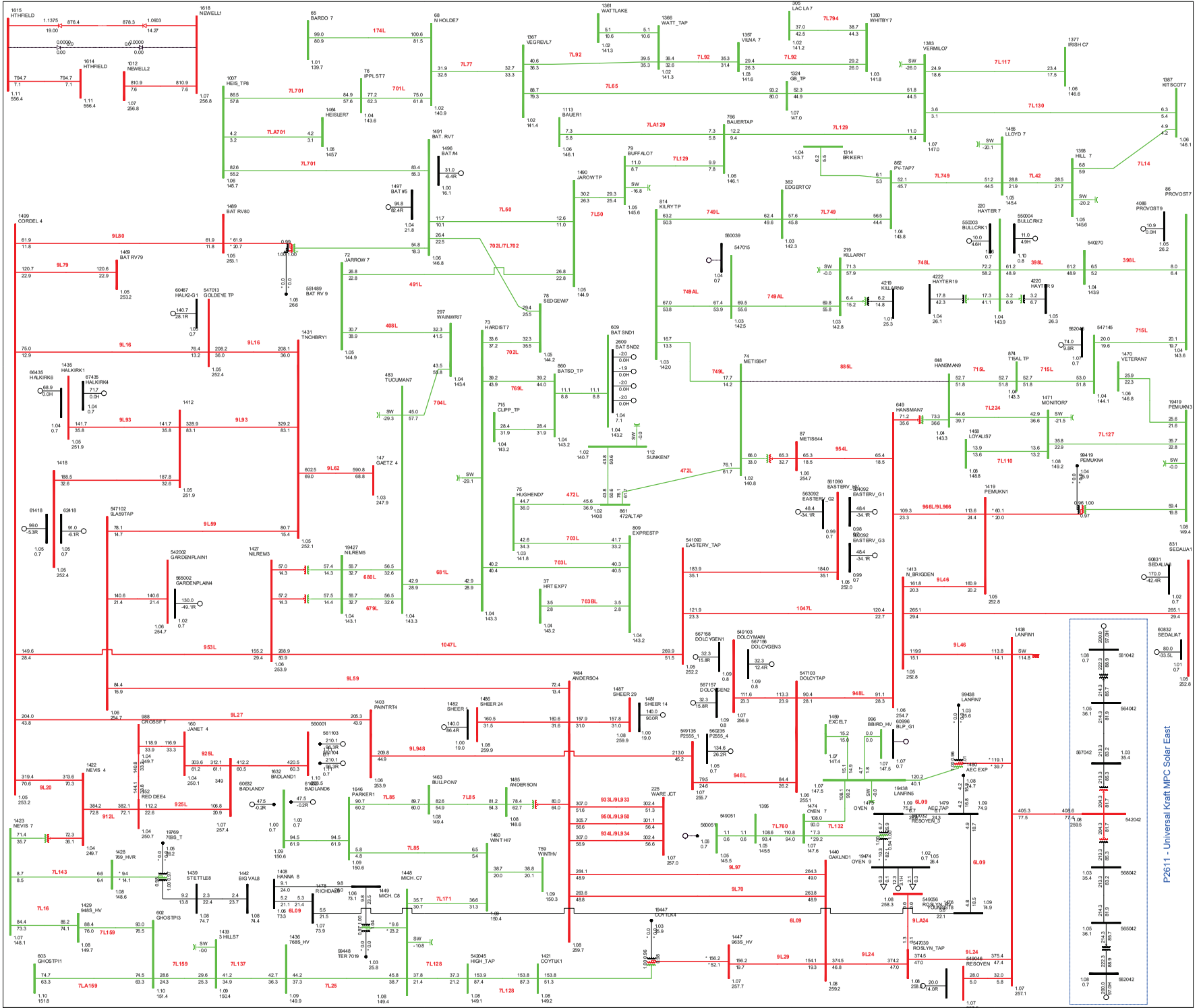
or a project passing

- ☐ Gate 1
- ☐ Gate 2
- ☑ Gate 3
- ☐ Gate 5

of the AESO project process, and is subject to change as project design proceeds and as-built data becomes available.
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APEGA Permit-to-Practice:

Attachment A6
Post-Mitigation Power Flow Diagrams



P2611 - Universal Kraft MPC Solar East

BC Import: -792.8 MW

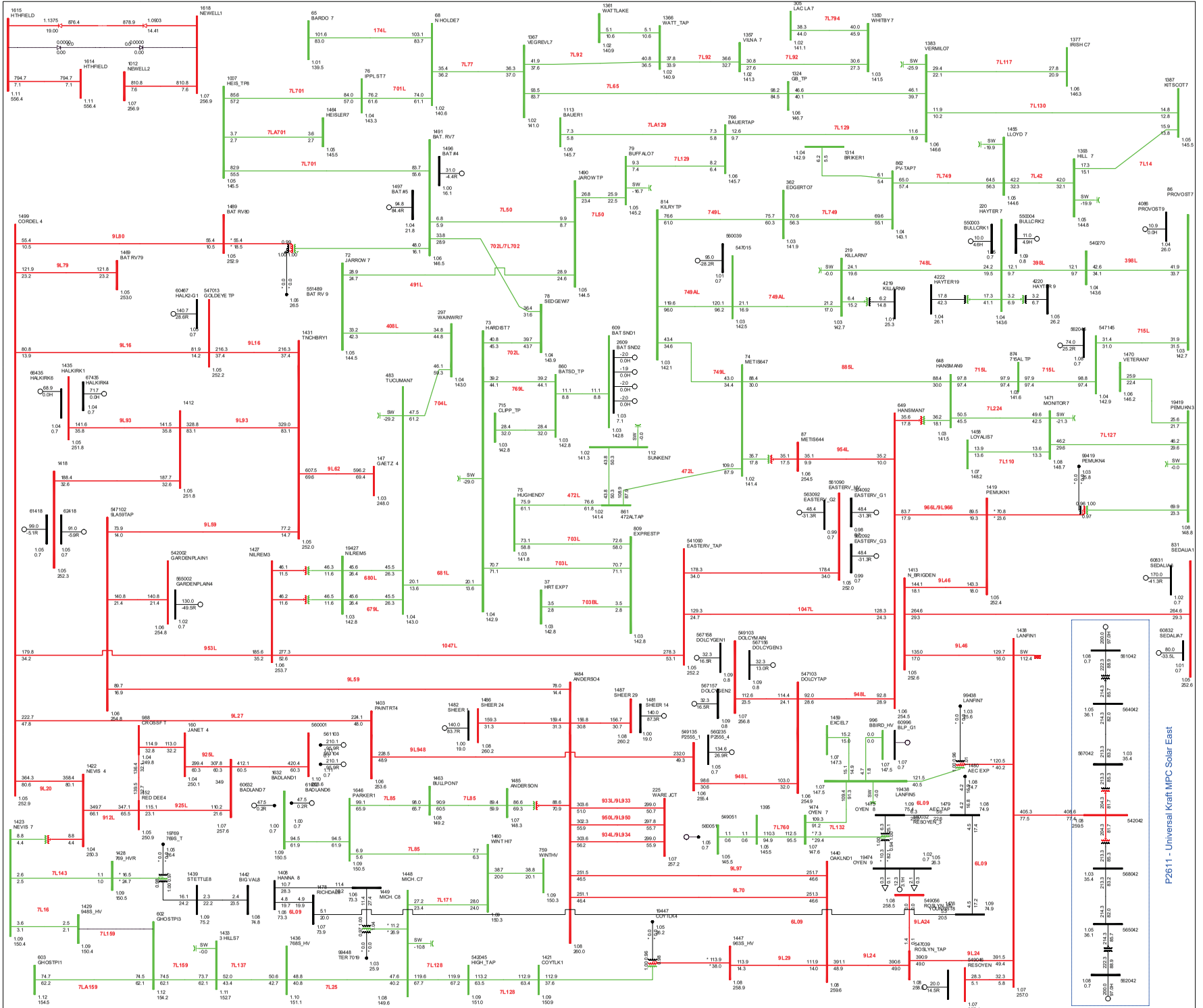
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-PR-1: SCN4-SP-POST-PR.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
MON, SEP 08 2025 1:06

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -765.8 MW

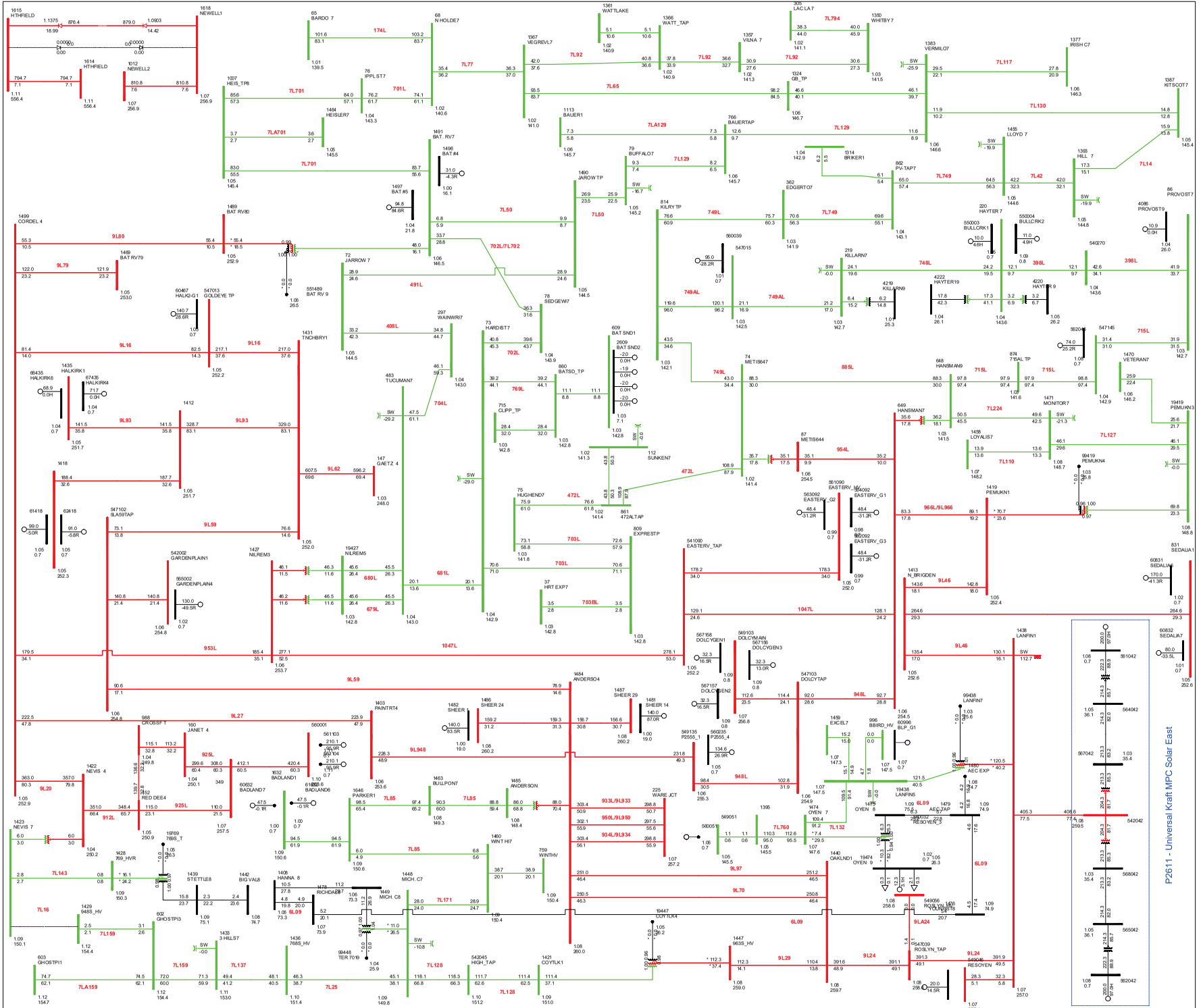
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-PR-2: SCN4-SP-POST-PR.SAV
CATEGORY B - 7L159 (GHOST PINE 114S TO HEATBURG 948S)
MON, SEP 08 2025 1:06
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -766.3 MW

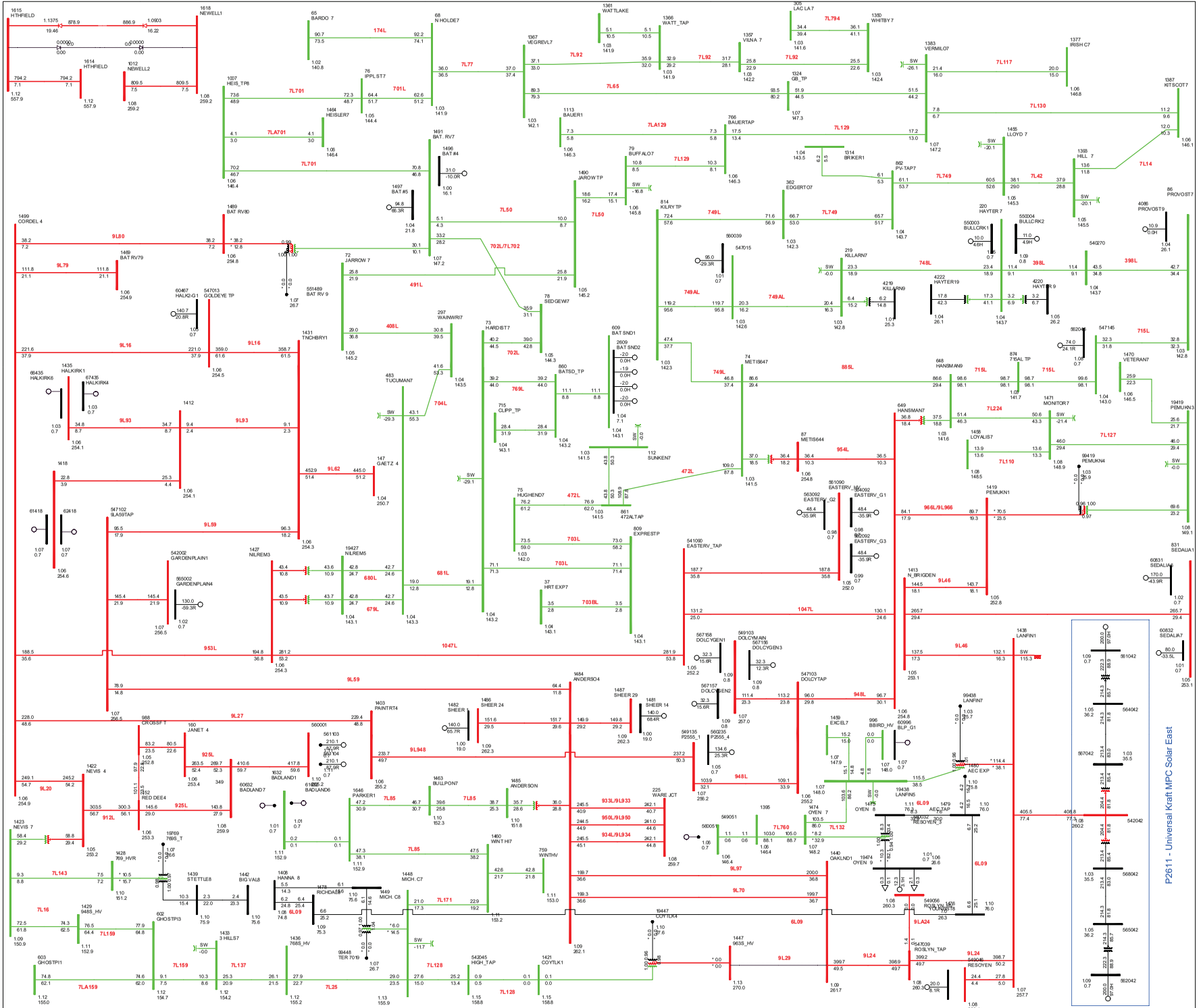
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-PR-3: SCN4-SP-POST-PR.SAV
CATEGORY B - 7L16 (HEATBURG 948S TO NEVIS 766S)
MON, SEP 08 2025 1:07
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -420.4 MW

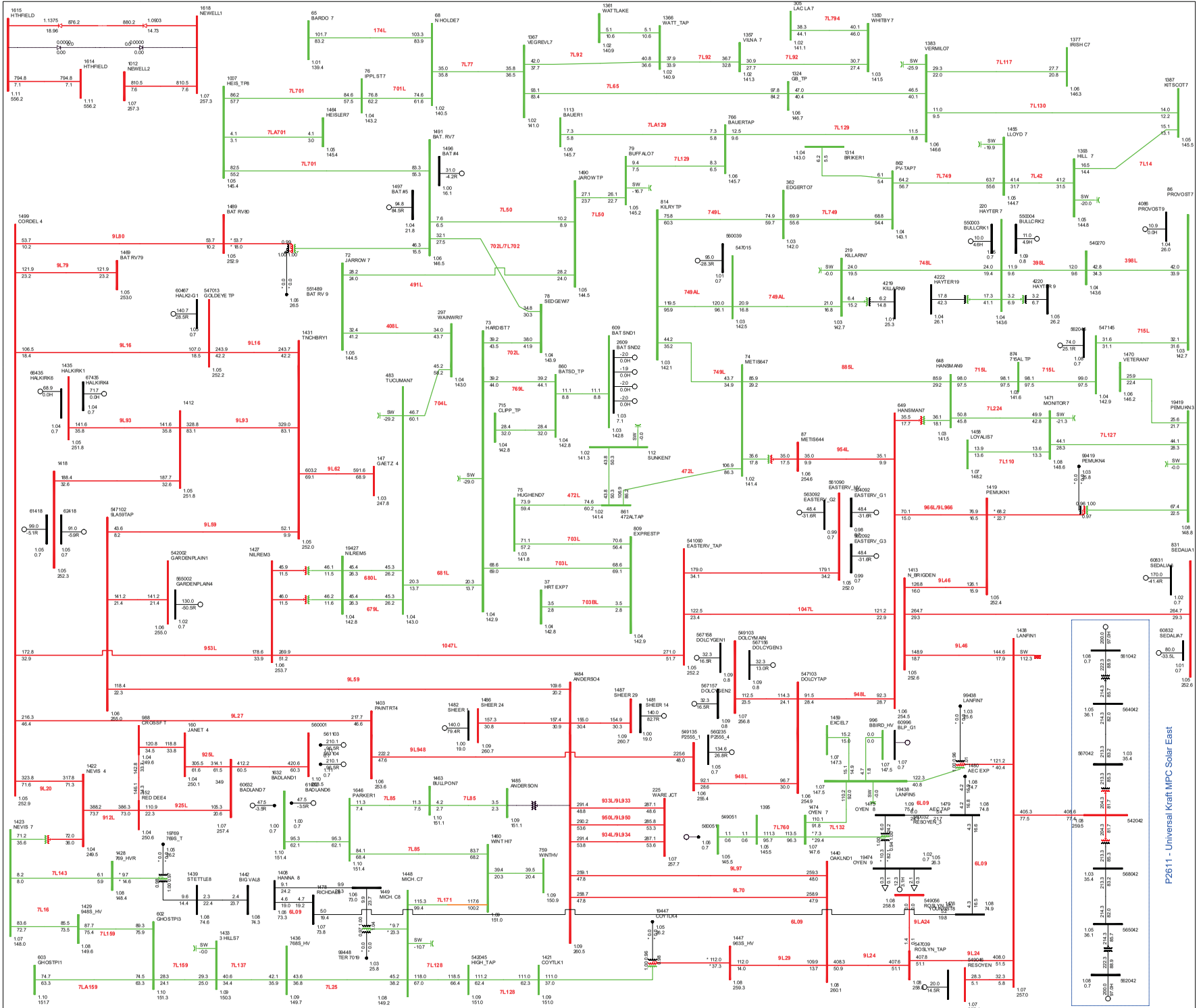
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-4-PR-4: SCN4-SP-POST-PR.SAV
CATEGORY B - 9L29 (OAKLAND 946S TO COYOTE LAKE 963S)
MON, SEP 08 2025 1:08
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -764.9 MW

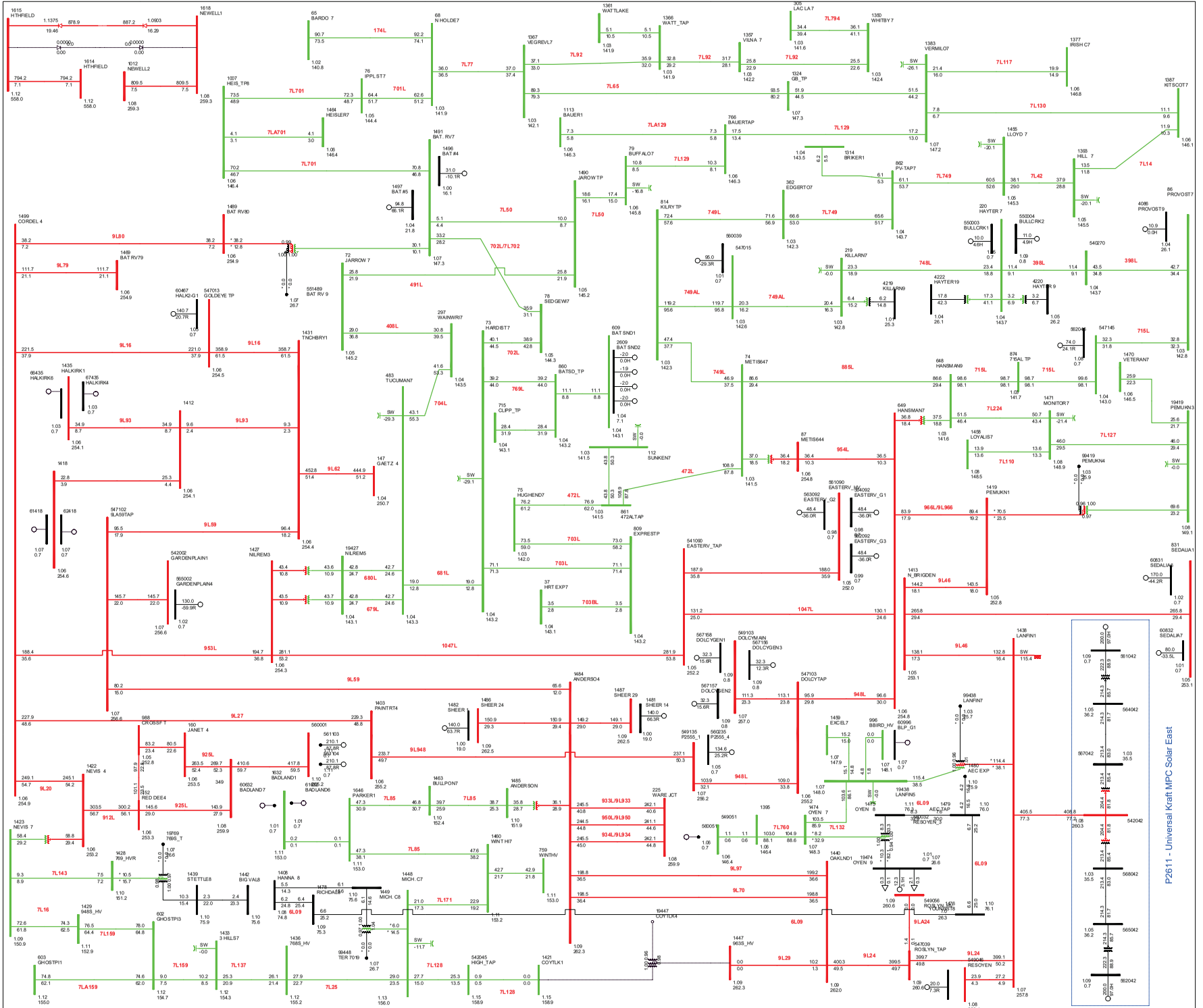
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-PR-5: SCN4-SP-POST-PR.SAV
CATEGORY B - 801S (ANDERSON 801S TRANSFORMER T1)
MON, SEP 08 2025 1:08
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -420.5 MW

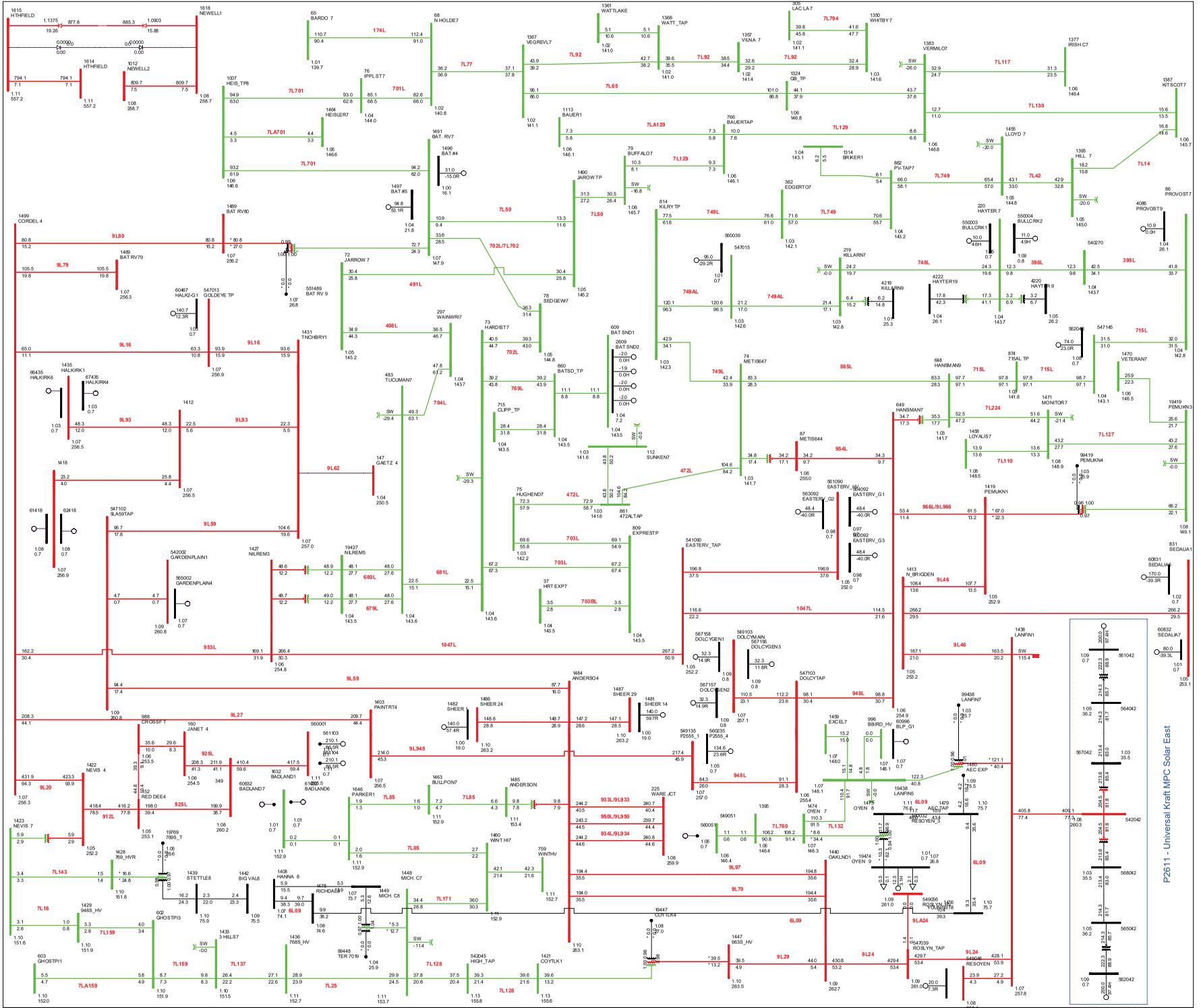
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-4-PR-6: SCN4-SP-POST-PR.SAV
CATEGORY B - COYOTE LAKE 963S – 901 TRANSFORMER
MON, SEP 08 2025 1:09
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -117.5 MW

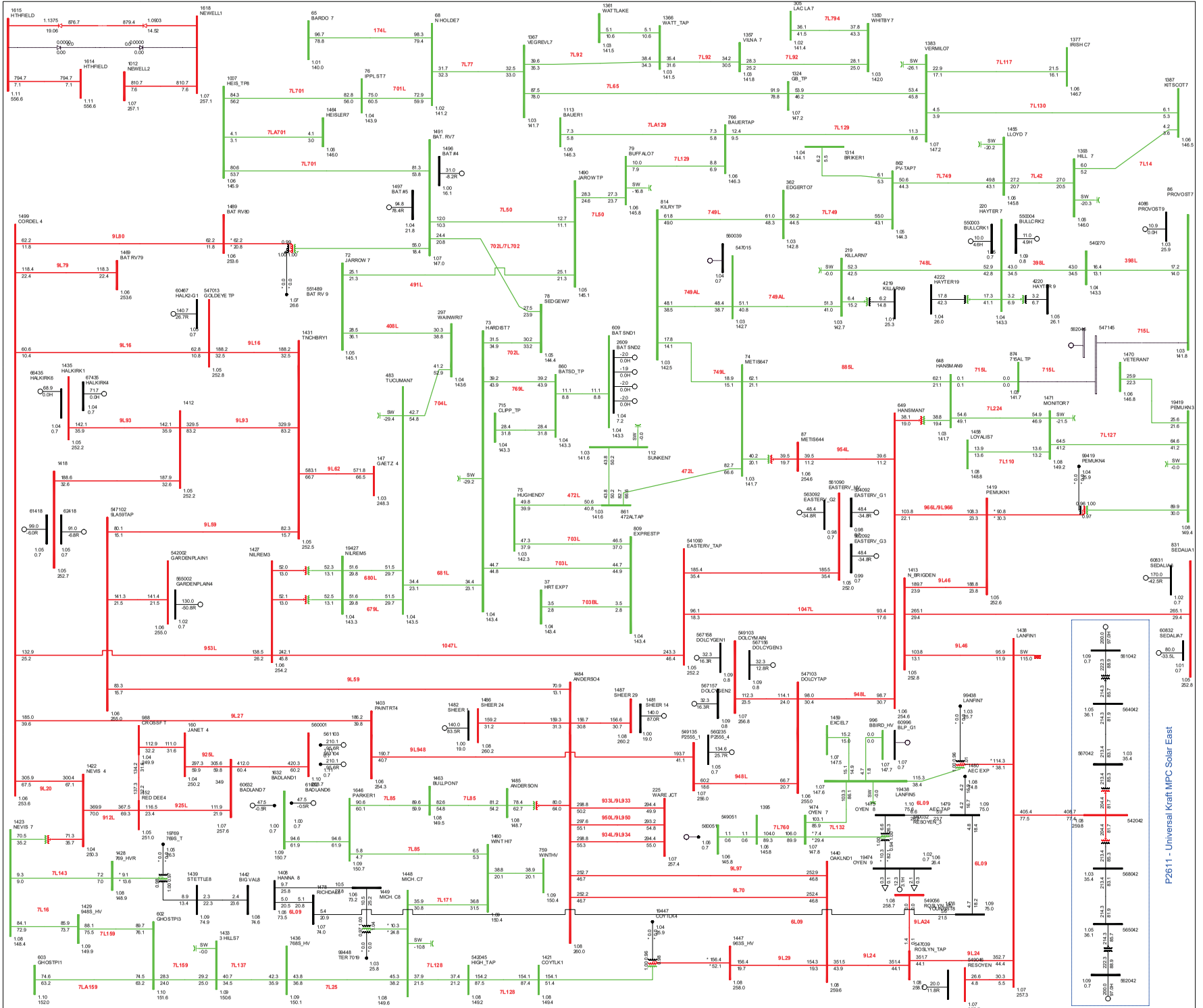
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-4-PR-7: SCN4-SP-POST-PR.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
MON, SEP 08 2025 1:10
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -736.6 MW

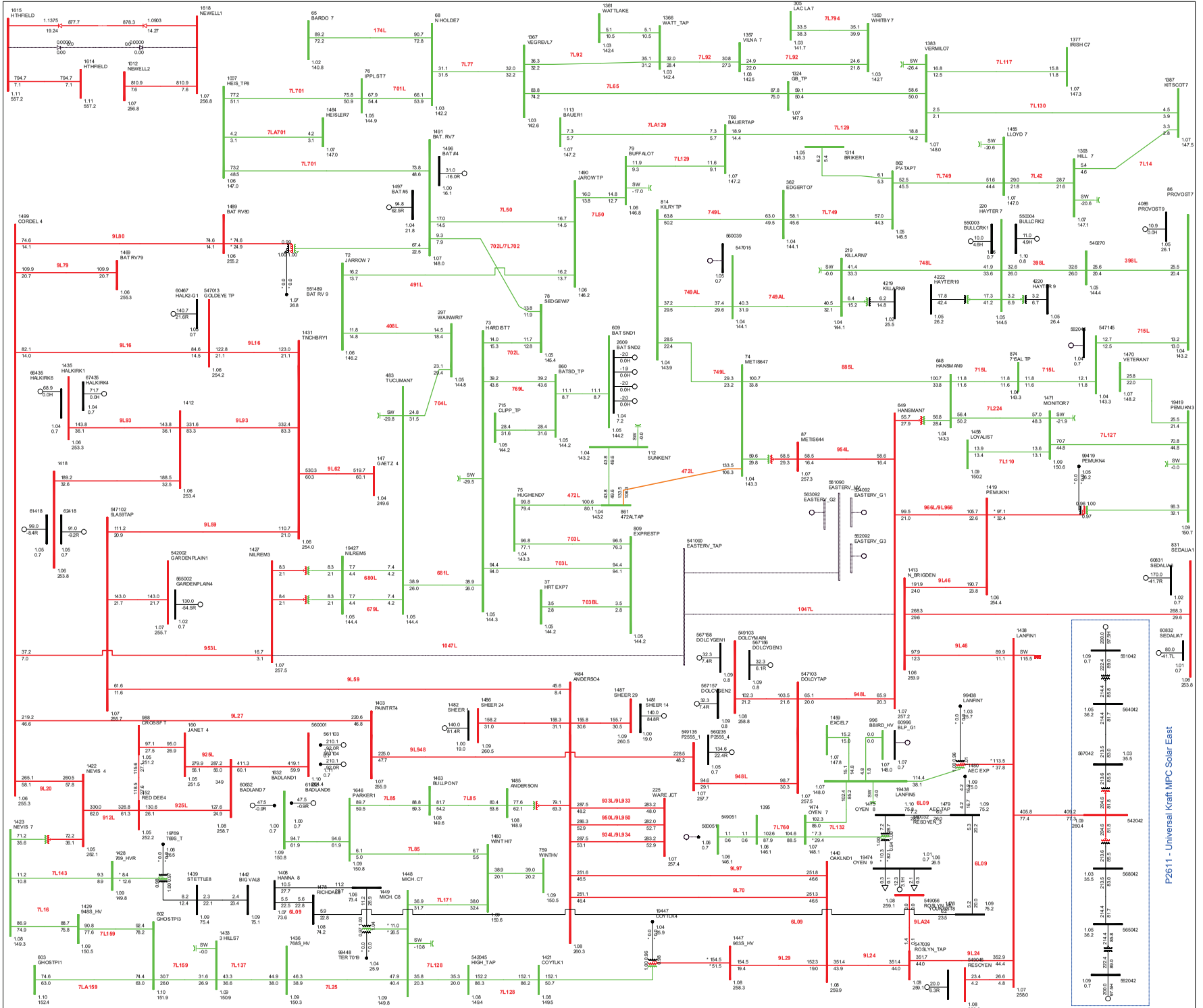
Sask Import: 150.9 MW

MATL: 186.9 MW

FIGURE B-4-PR-8: SCN4-SP-POST-PR.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
MON, SEP 08 2025 1:11
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -603.6 MW

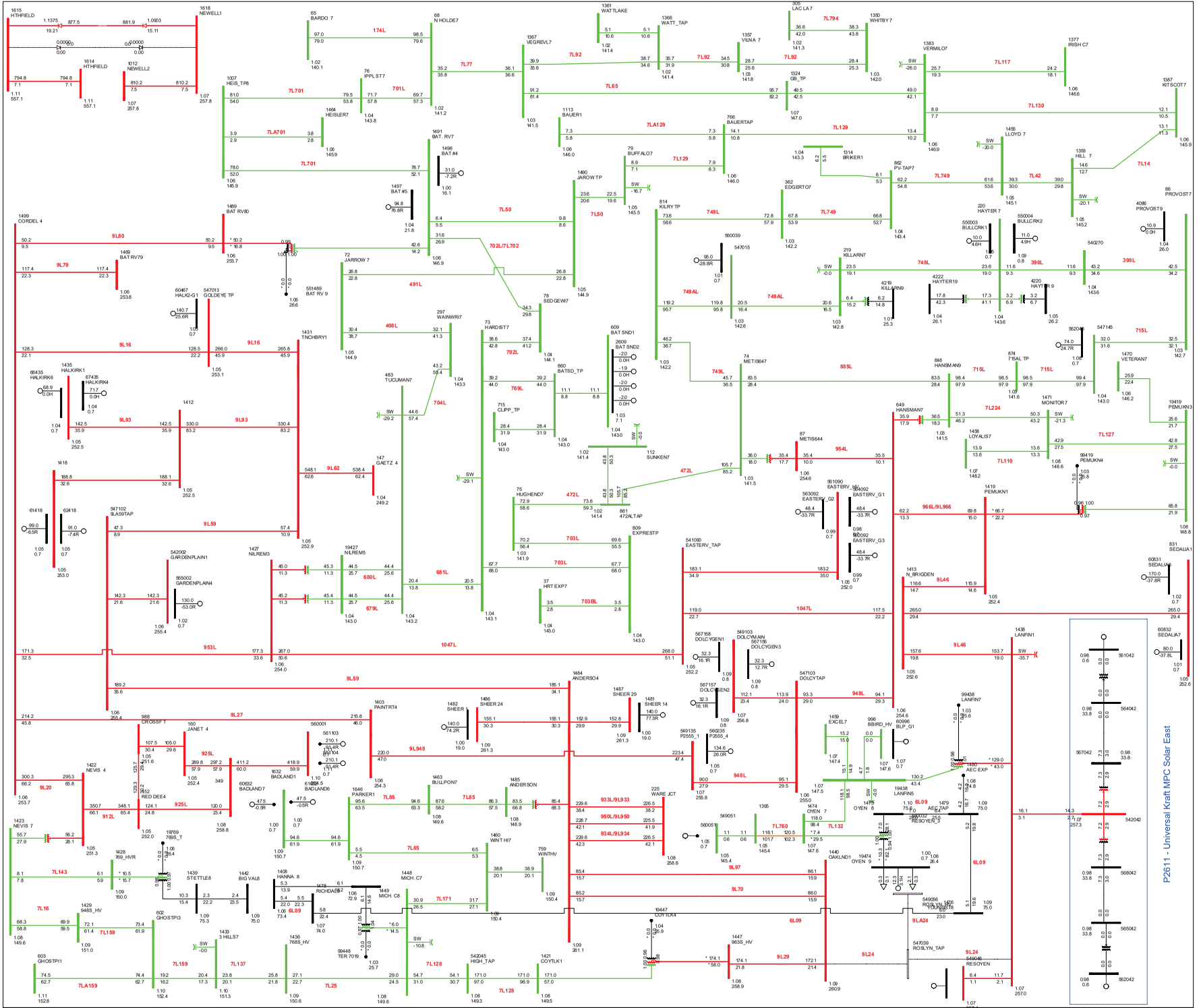
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-4-PR-9: SCN4-SP-POST-PR.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
MON, SEP 08 2025 1:12
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -510.4 MW

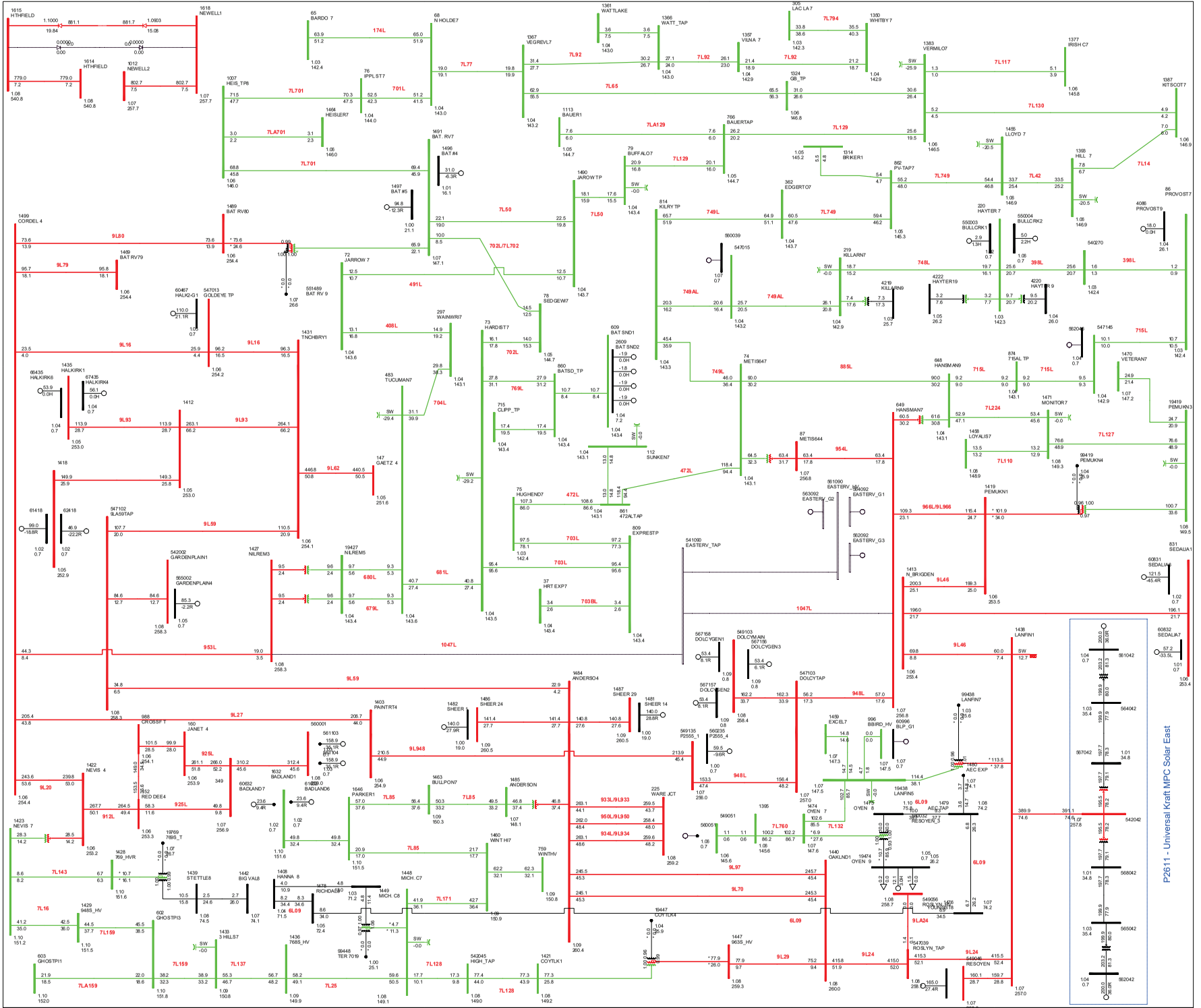
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-4-PR-10: SCN4-SP-POST-PR.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
MON, SEP 08 2025 1:21
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -570.1 MW

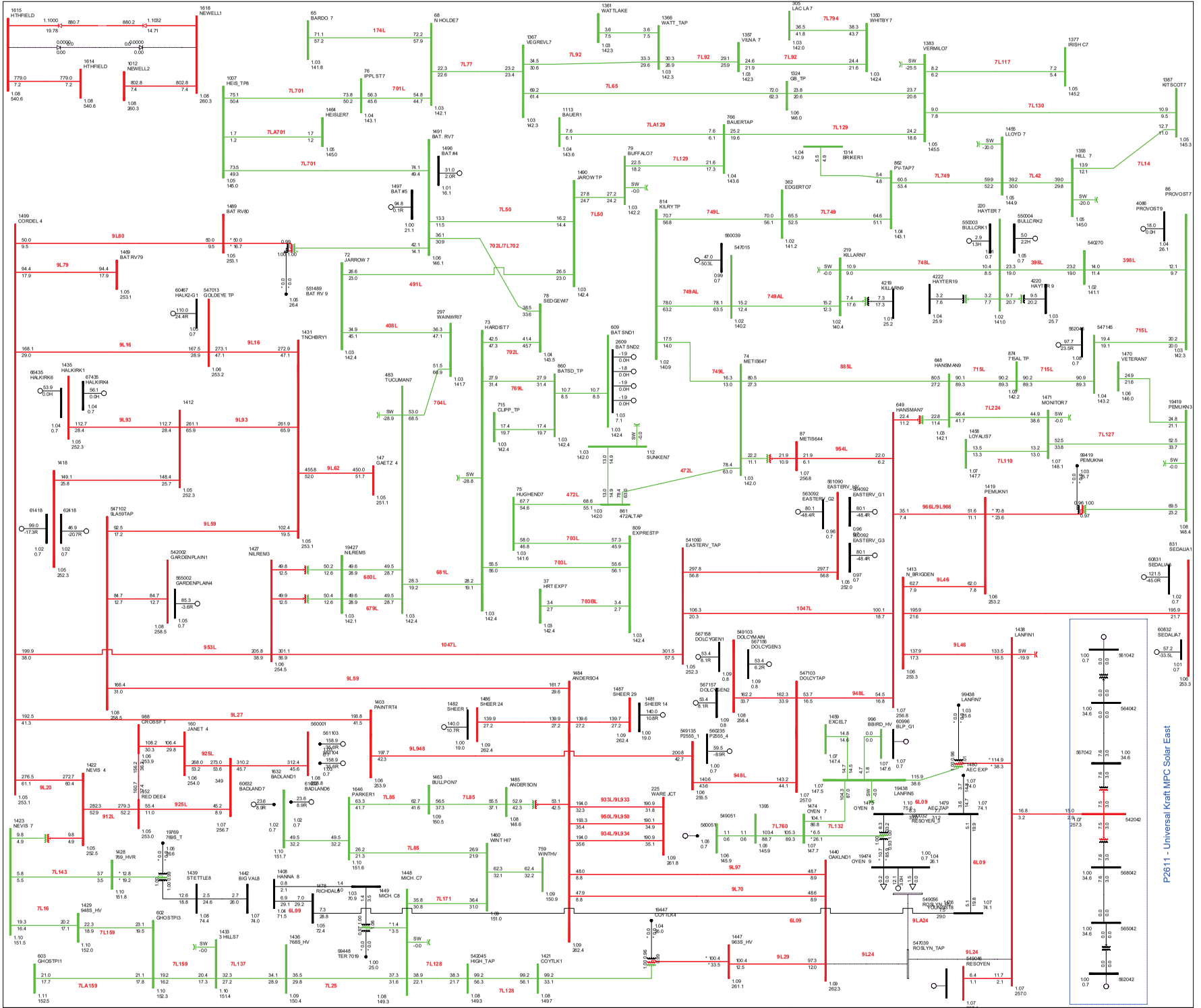
Sask Import: 0.1 MW

MATL: 186.6 MW

FIGURE B-5-PR-1: SCN5-SL-POST-PR.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
MON, SEP 08 2025 1:21
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -421.4 MW

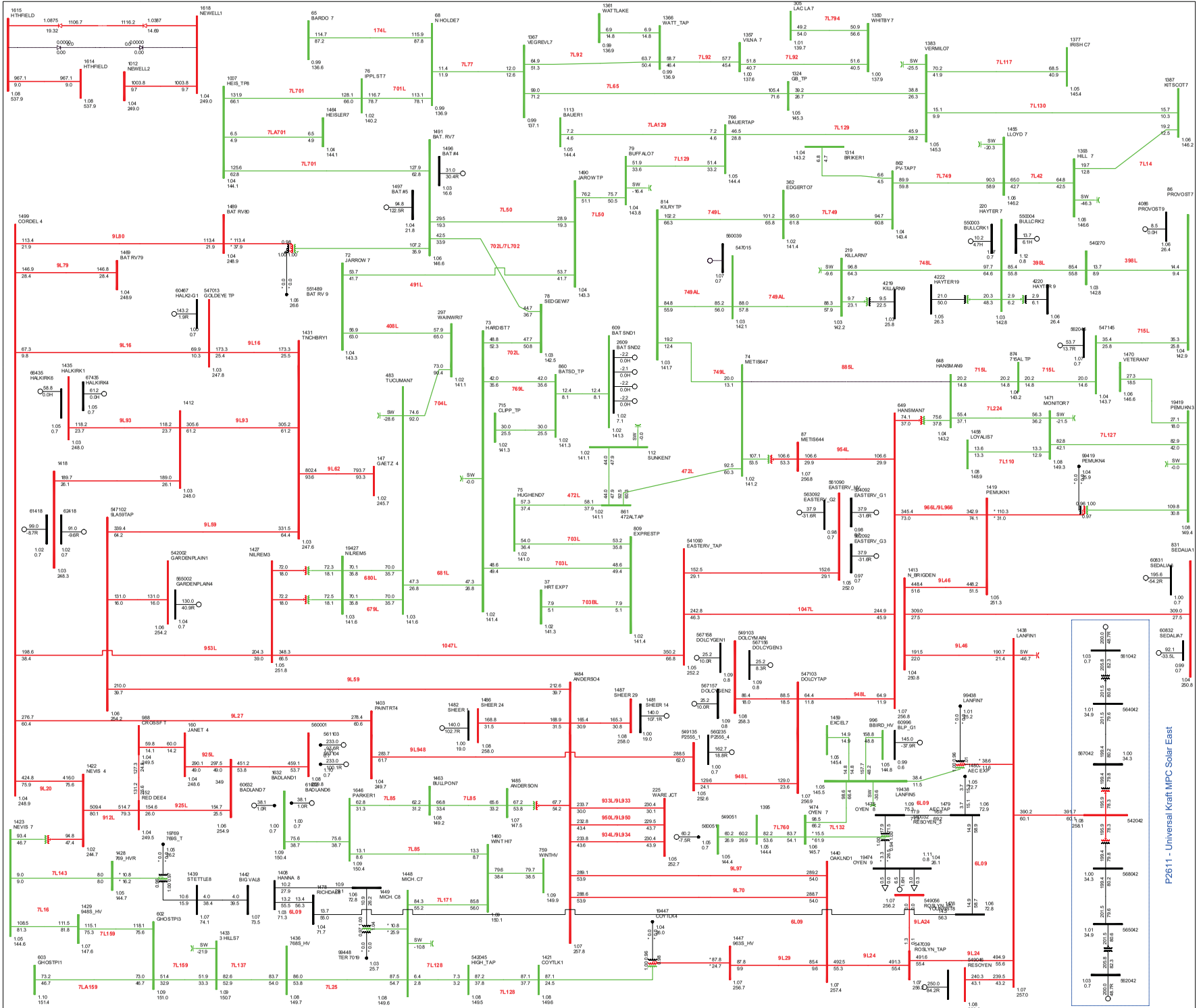
Sask Import: 0.1 MW

MATL: 186.5 MW

FIGURE B-5-PR-2: SCN5-SL-POST-PR.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
MON, SEP 08 2025 1:22
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -1020.6 MW

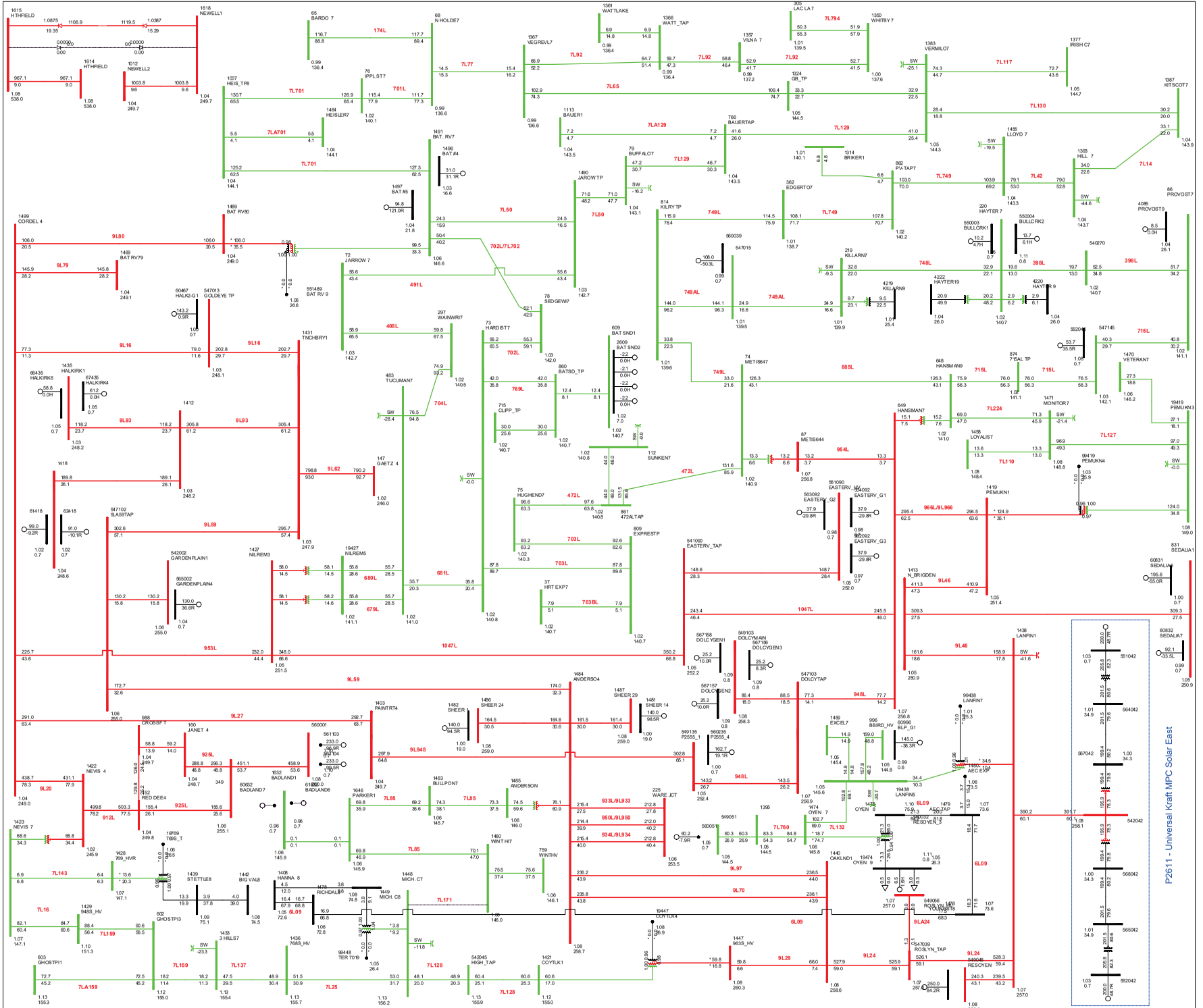
Sask Import: 151.1 MW

MATL: 186.9 MW

FIGURE B-6-PR-1: SCN6-WP-POST-PR.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
MON, SEP 08 2025 1:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -974.7 MW

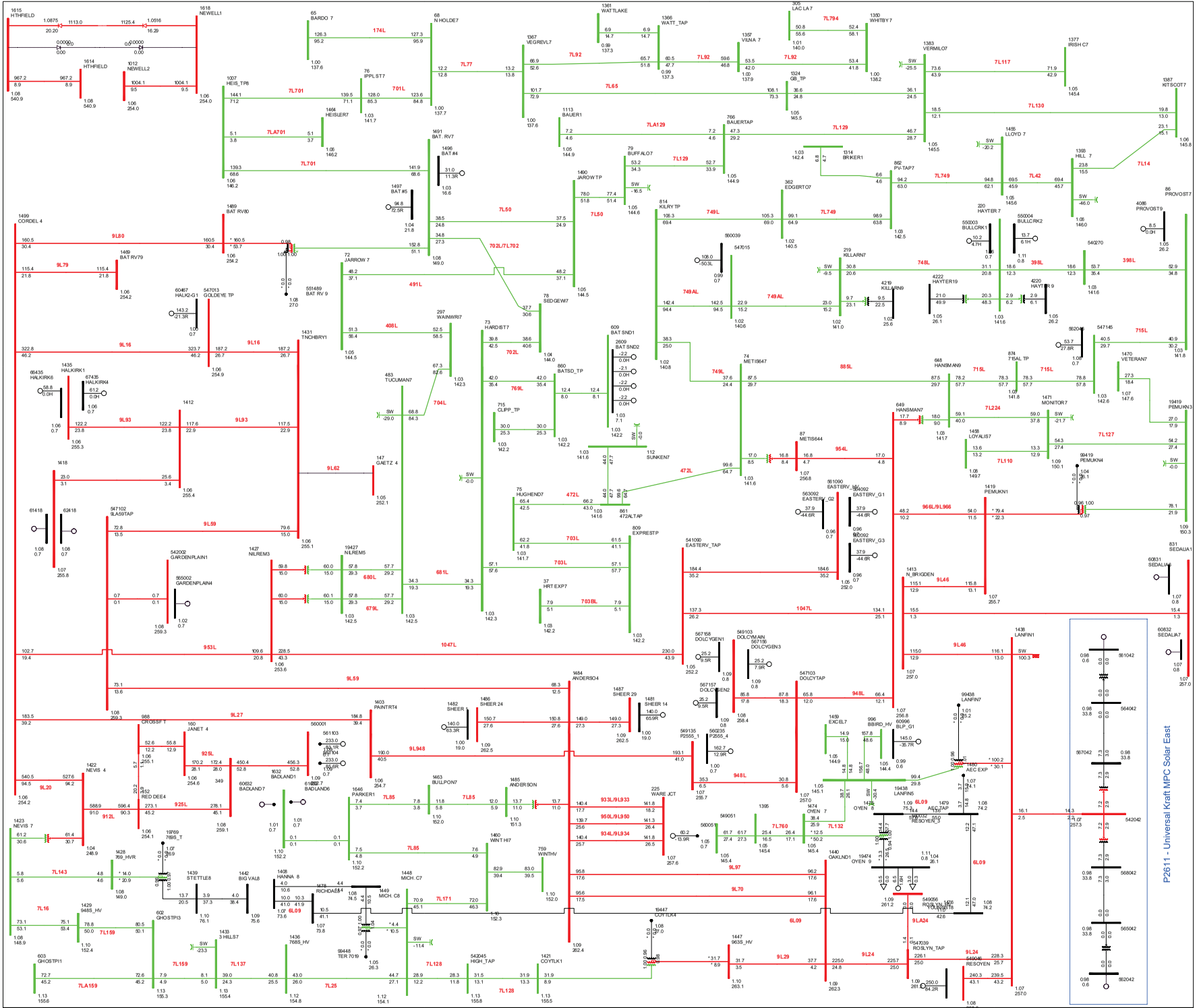
Sask Import: 151.1 MW

MATL: 186.8 MW

FIGURE B-6-PR-2: SCN6-WP-POST-PR.SAV
CATEGORY B - 7L171 (MICHICHI CREEK 802S TO WINTERING HILLS 8
MON, SEP 08 2025 1:23
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -127.9 MW

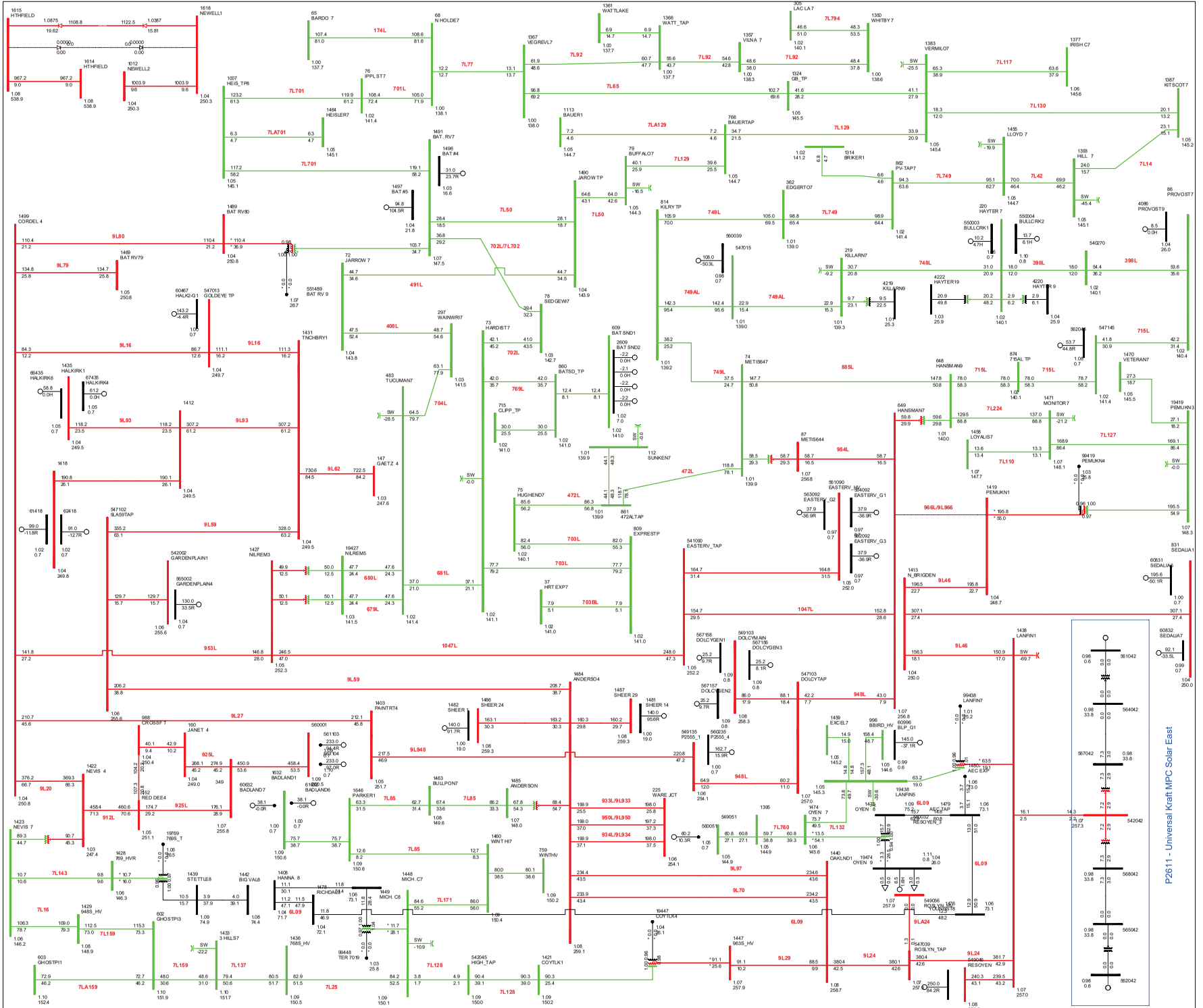
Sask Import: 151.0 MW

MATL: 186.7 MW

FIGURE B-6-PR-3: SCN6-WP-POST-PR.SAV
CATEGORY B - 9L62 (GAETZ TO 972S TINCHEBRAY)
MON, SEP 08 2025 1:24
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -819.6 MW

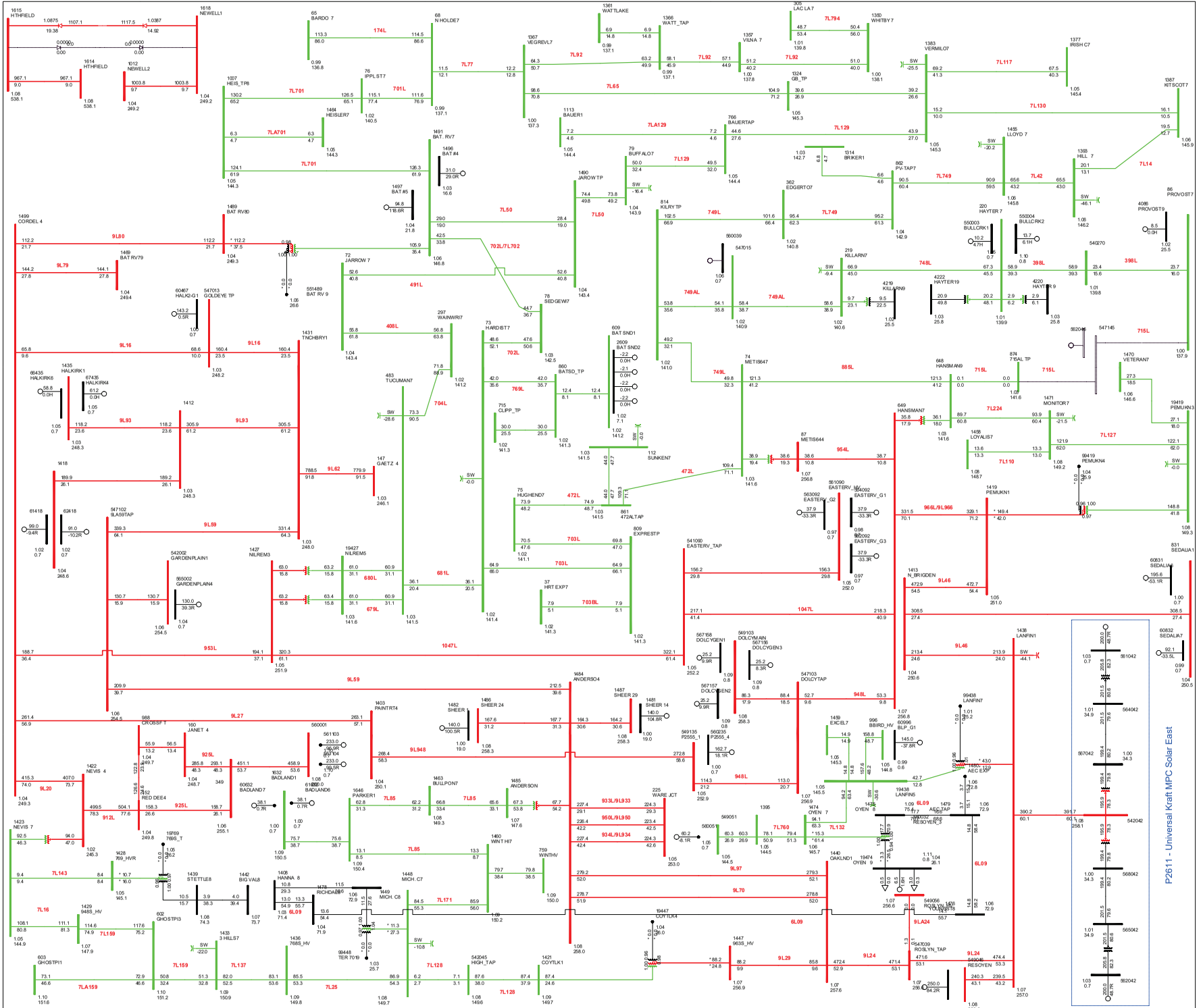
Sask Import: 151.0 MW

MATL: 186.8 MW

FIGURE B-6-PR-4: SCN6-WP-POST-PR.SAV
CATEGORY B - 966L (HANSMAN LAKE 650S TO PEMUKAN 932S)
MON, SEP 08 2025 1:24
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -983.3 MW

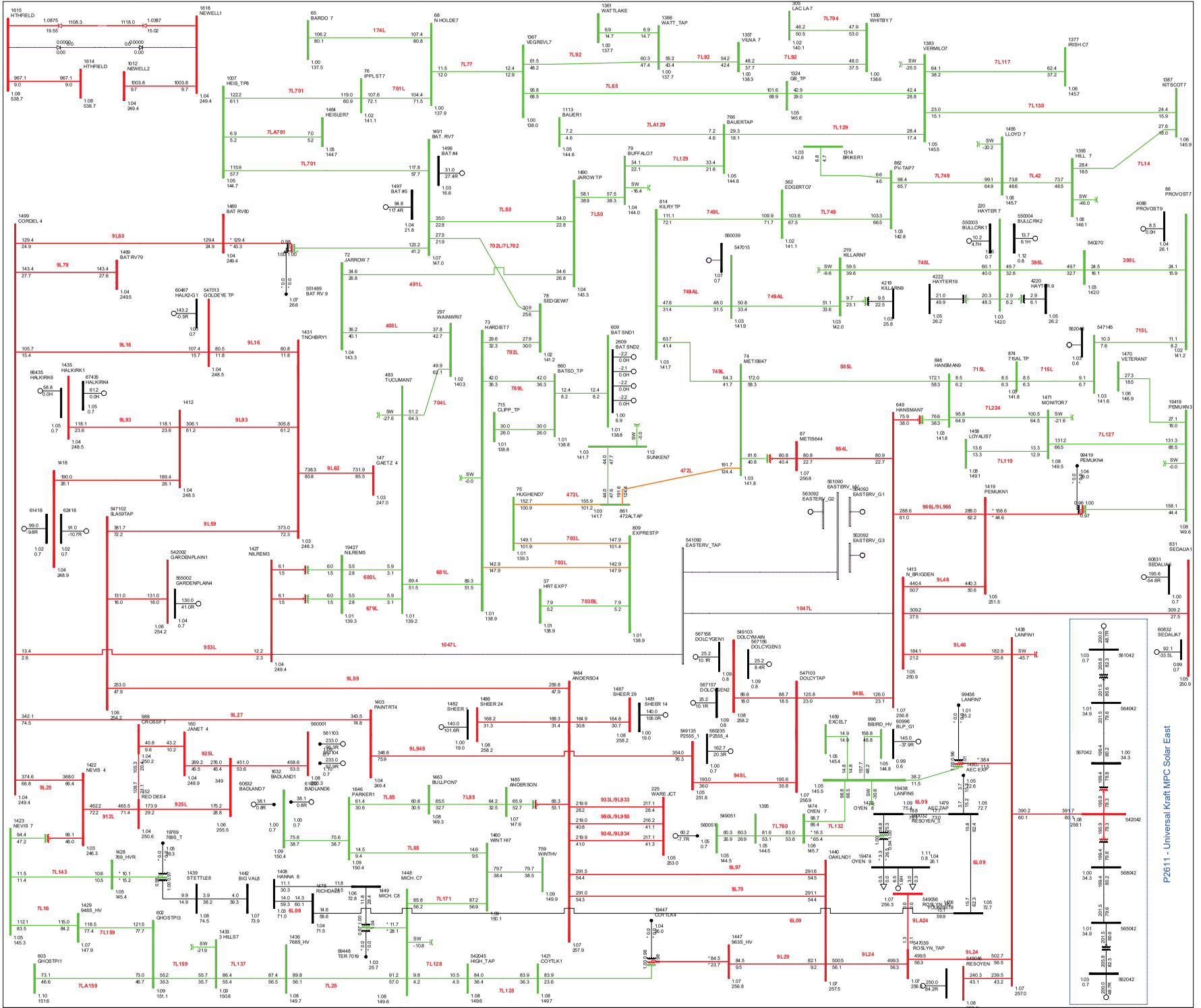
Sask Import: 151.1 MW

MATL: 186.8 MW

FIGURE B-6-PR-5: SCN6-WP-POST-PR.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
MON, SEP 08 2025 1:25
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -885.1 MW

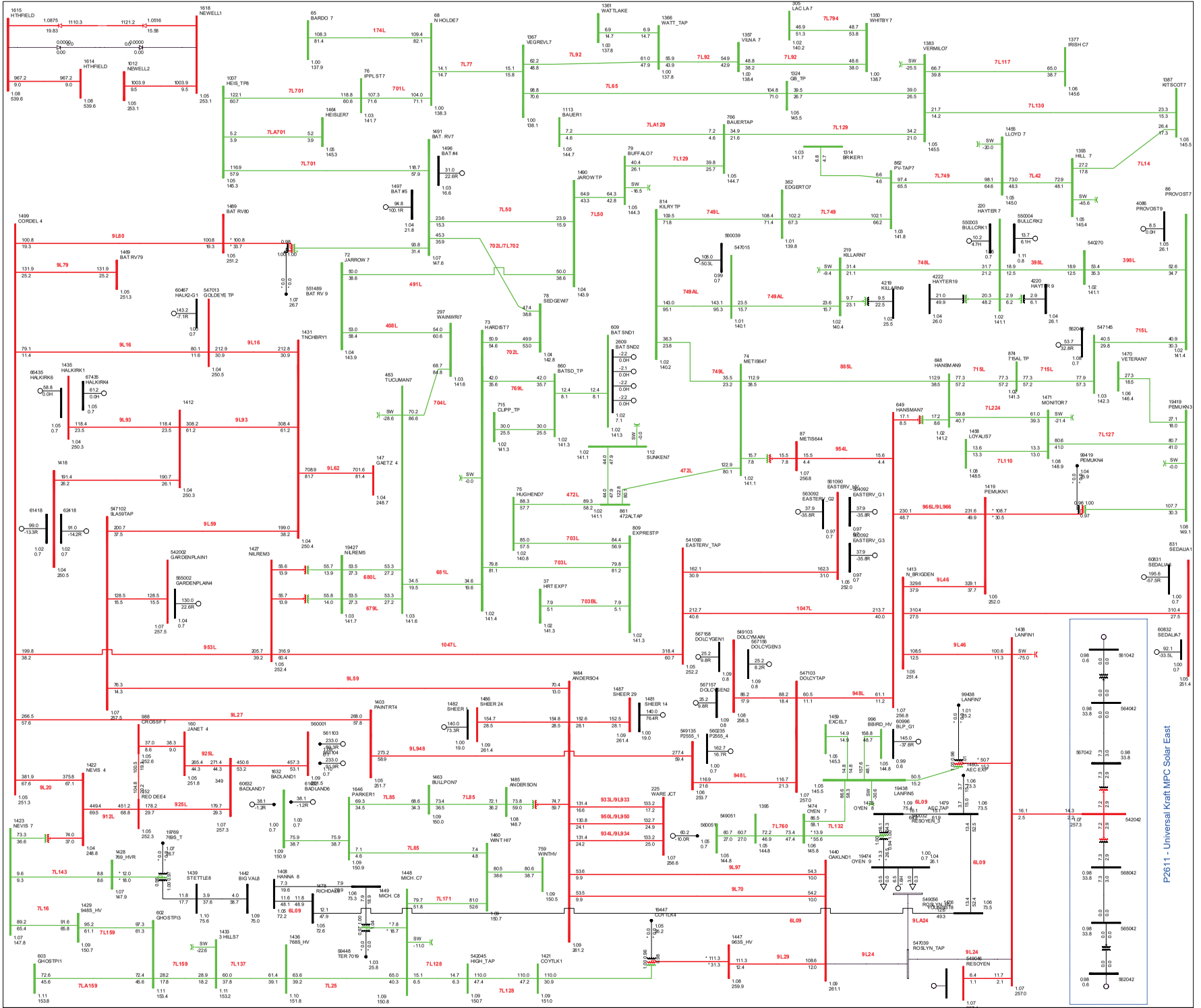
Sask Import: 151.1 MW

MATL: 186.8 MW

FIGURE B-6-PR-6: SCN6-WP-POST-PR.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
MON, SEP 08 2025 1:26
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -642.4 MW

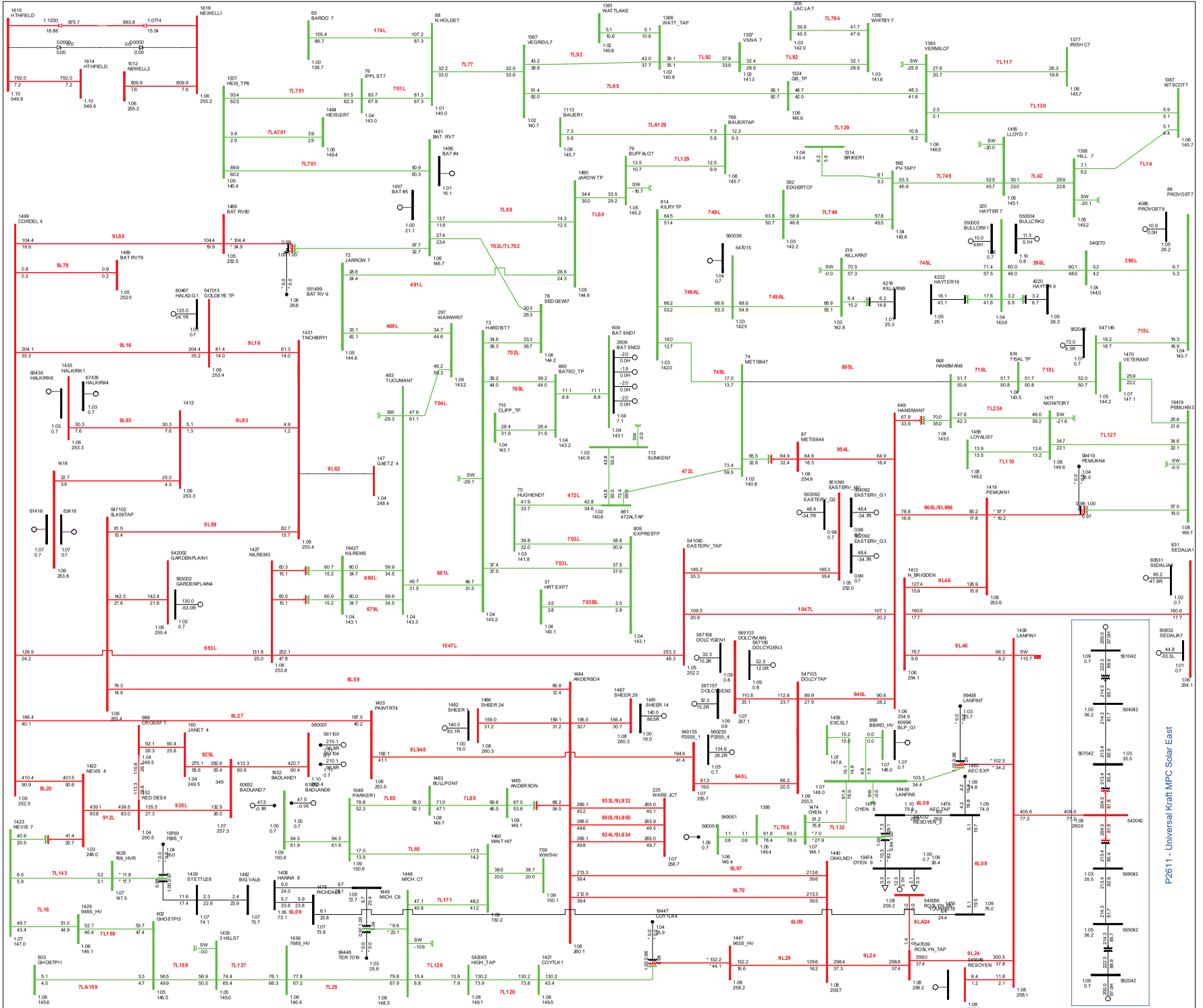
Sask Import: 151.0 MW

MATL: 186.7 MW

FIGURE B-6-PR-7: SCN6-WP-POST-PR.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
MON, SEP 08 2025 1:26
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE2
Equipment - MW/Mvar
100.0%RATE2

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -852.0 MW

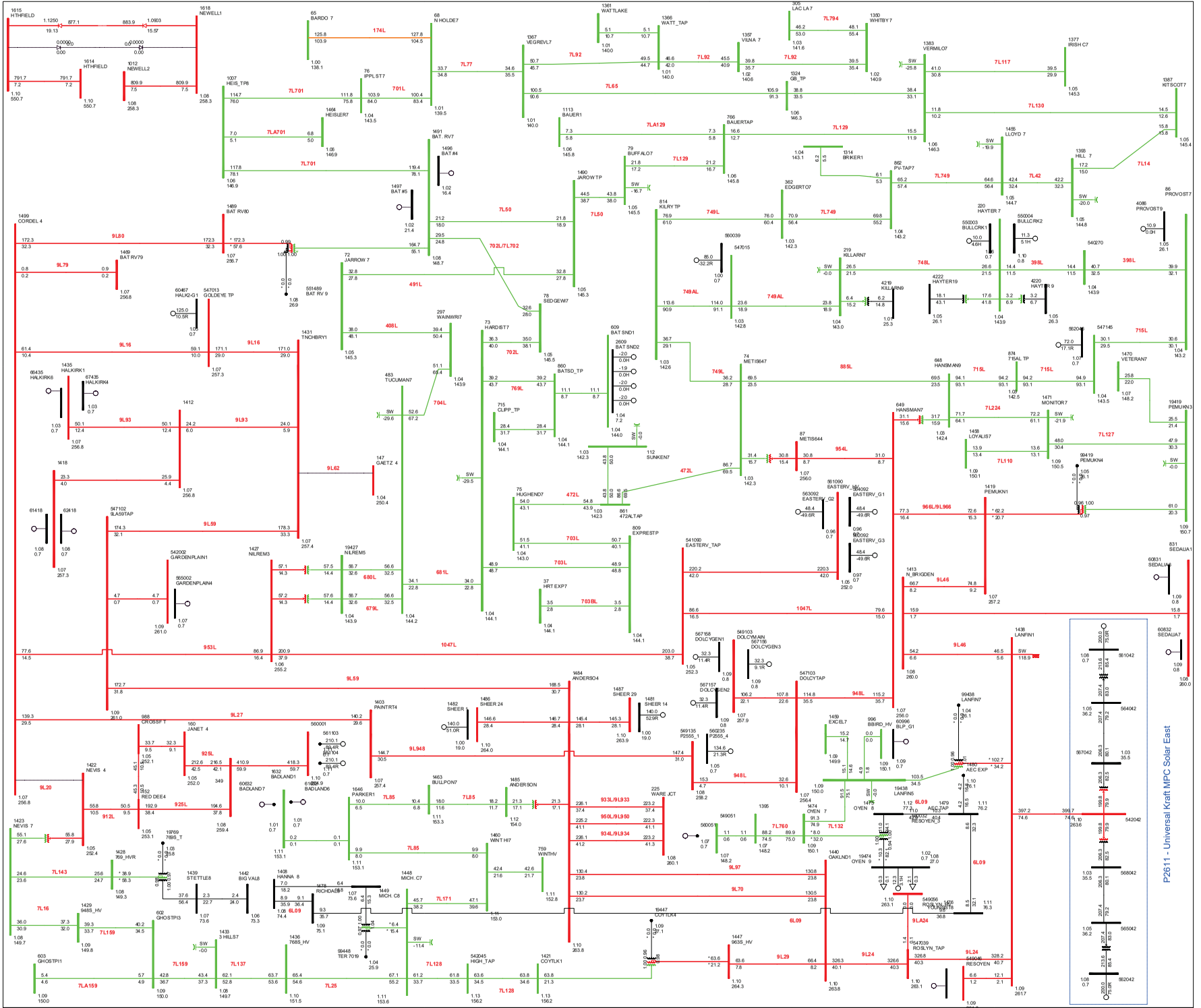
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-1: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - 885L (HANSMAN LAKE 650S TO METISKOW 648S)
MON, SEP 08 2025 1:29
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -427.7 MW

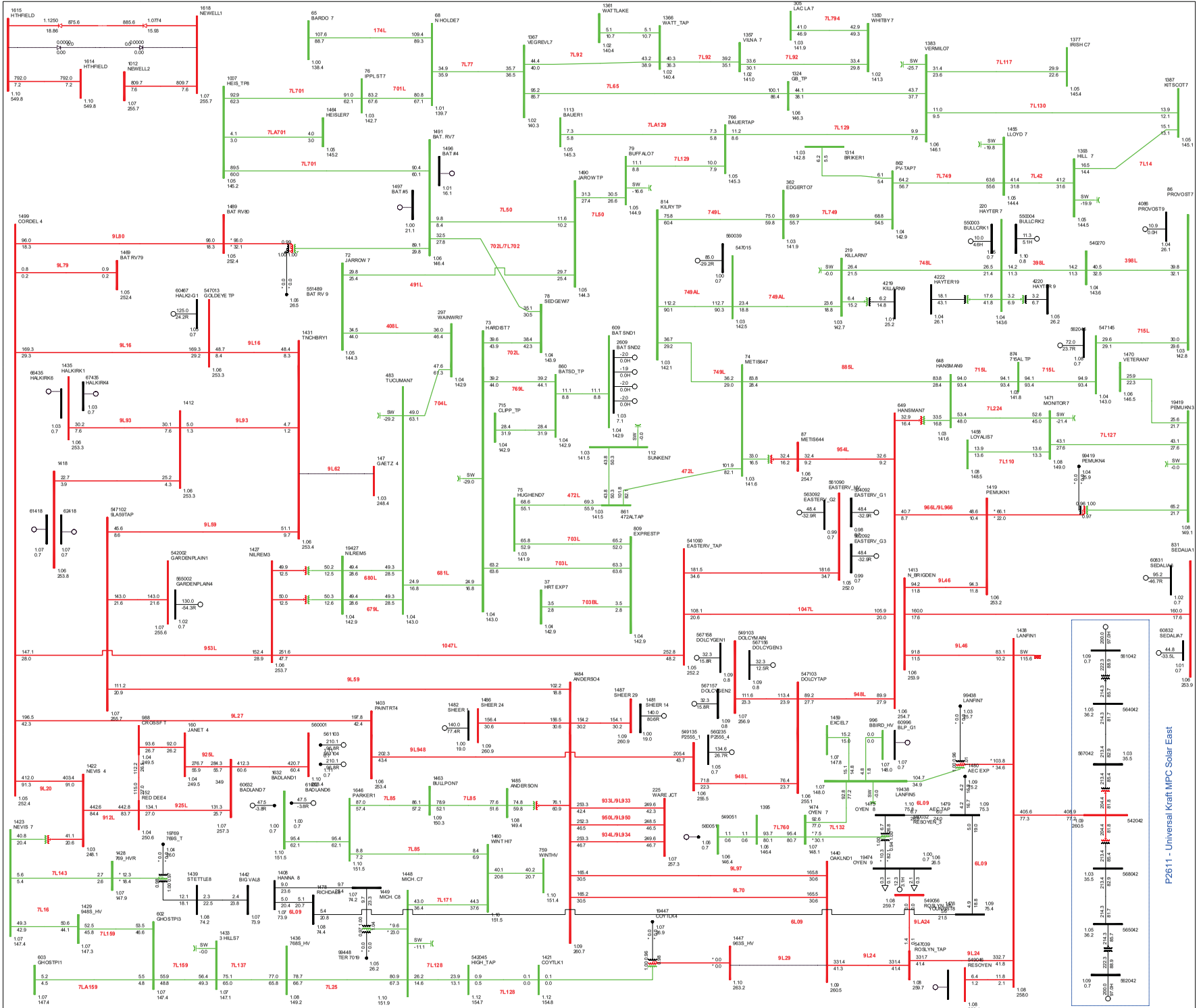
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-2: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - 9L20 (NEVIS 766S TO CORDEL 755S)
MON, SEP 08 2025 1:29
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -822.6 MW

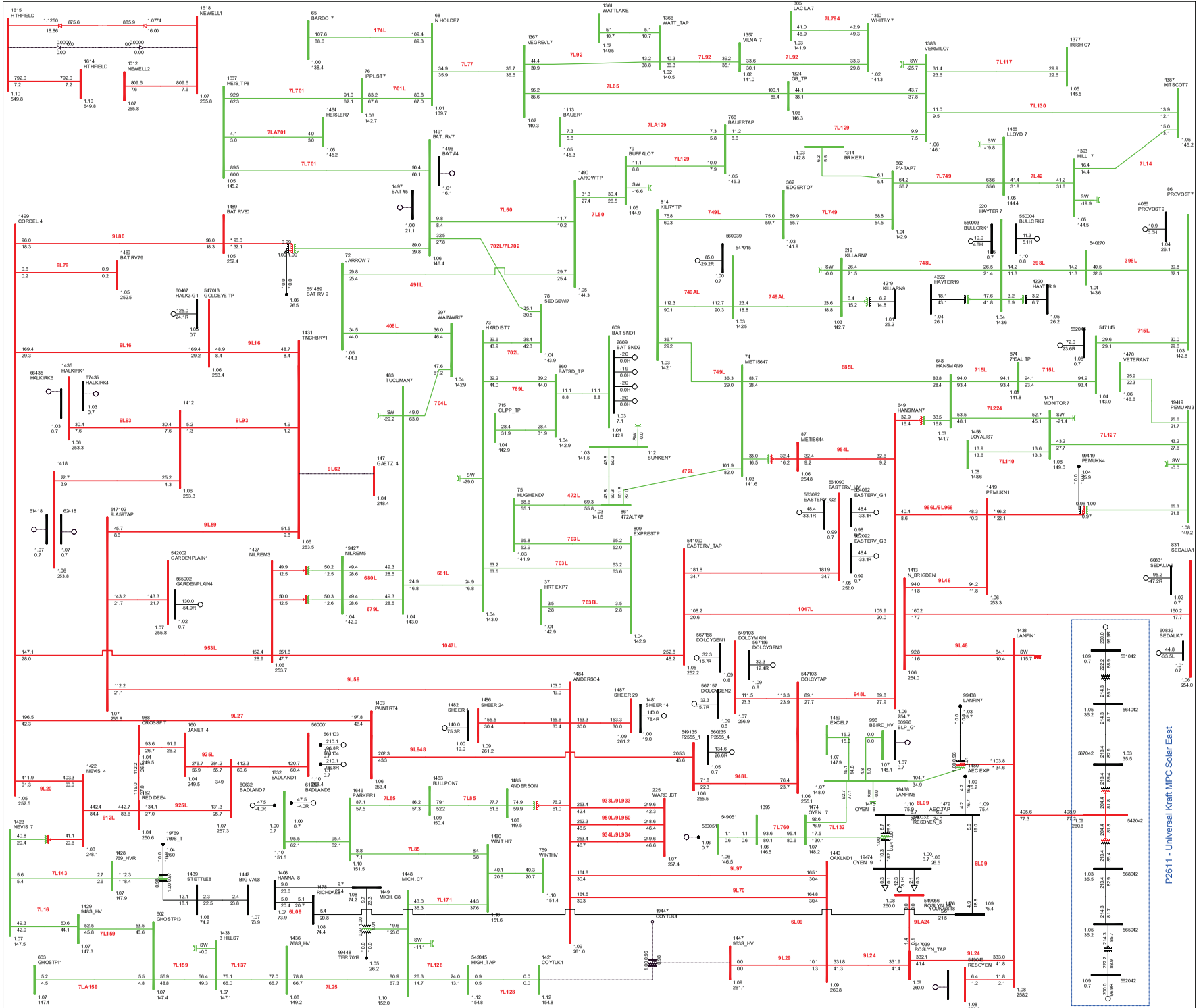
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-3: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - 9L29 (OAKLAND 946S TO COYOTE LAKE 963S)
MON, SEP 08 2025 1:30
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -822.6 MW

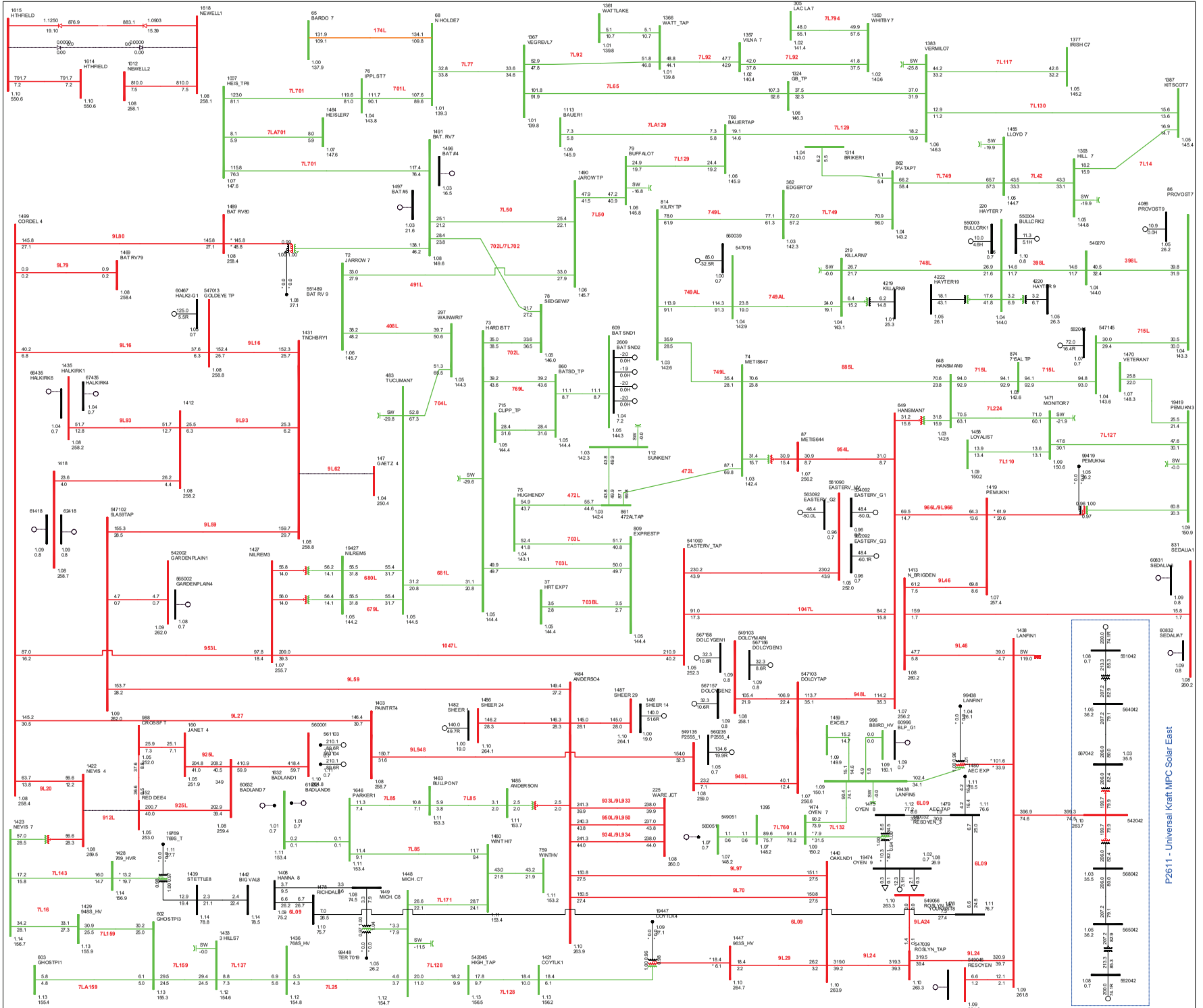
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-4: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - COYOTE LAKE 963S – 901 TRANSFORMER
MON, SEP 08 2025 1:31
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -428.6 MW

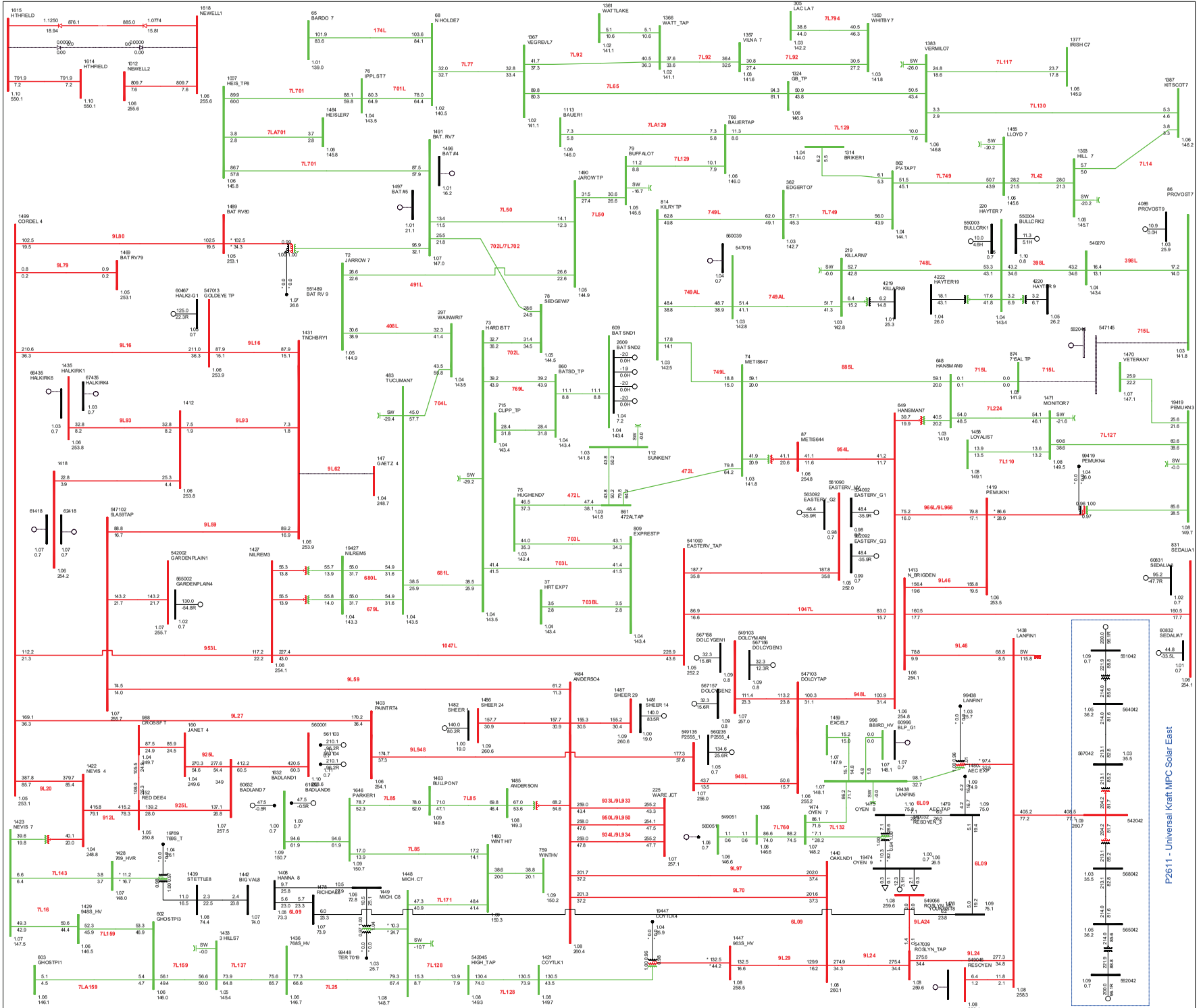
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-5: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - 912L (NEVIS 766S TO RED DEER 63S)
MON, SEP 08 2025 1:31
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -798.8 MW

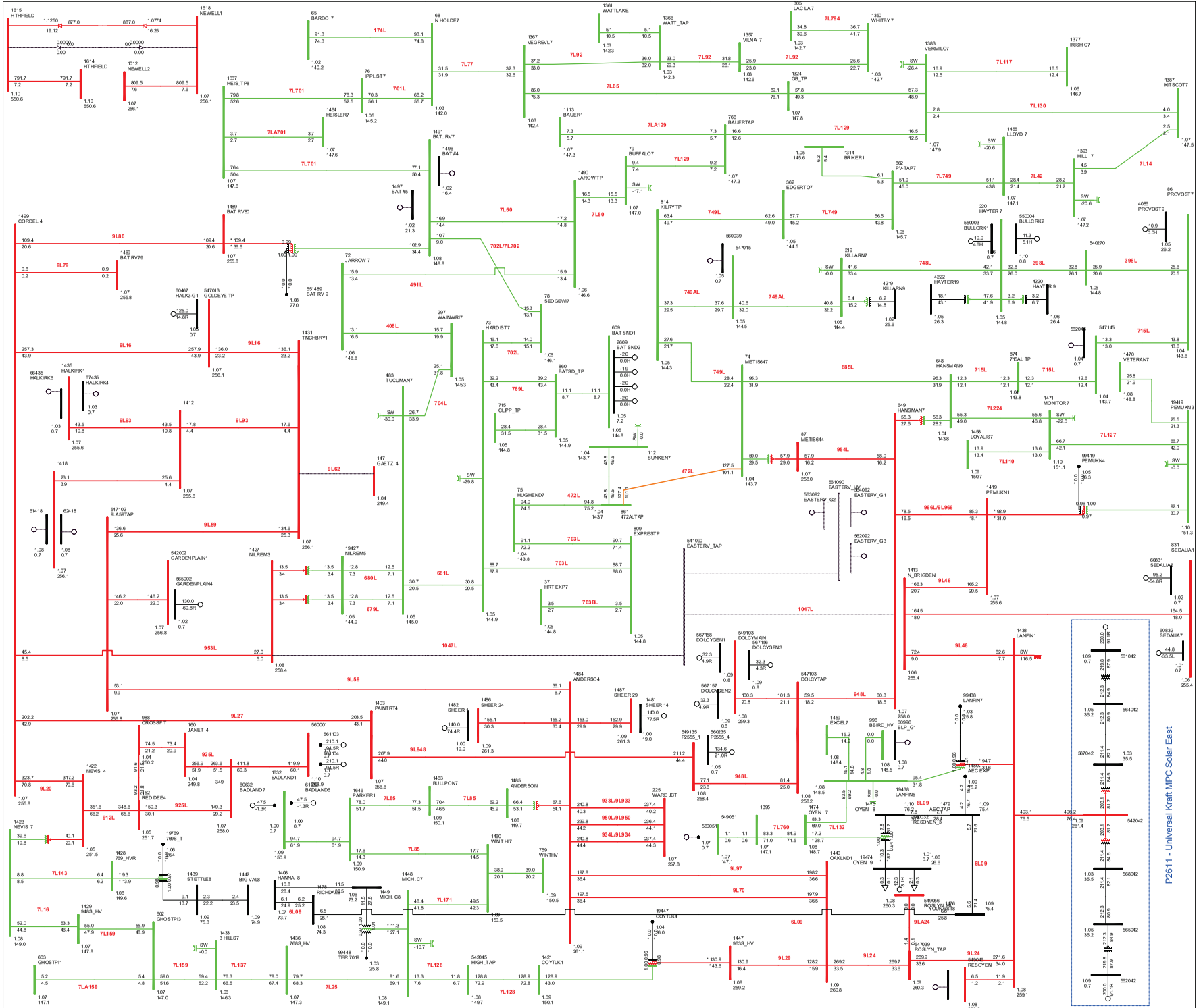
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-6: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - 715L (PROVOST 545S TO HANSMAN LAKE 650S)
MON, SEP 08 2025 1:32
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -680.5 MW

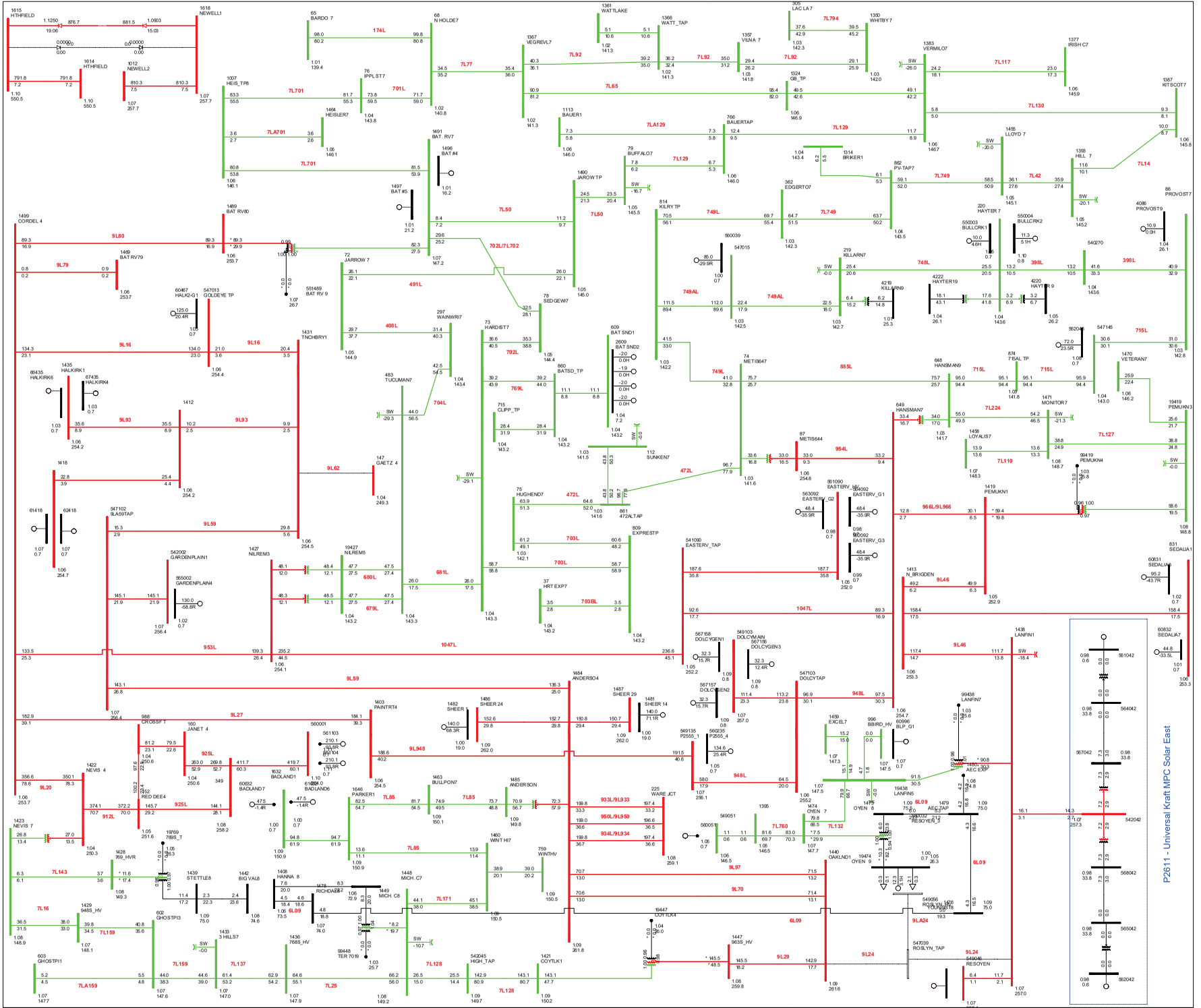
Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-7: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - 1047L (HANSMAN LAKE 650S TO NILREM 574S)
MON, SEP 08 2025 1:32
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000



P2611 - Universal Kraft MPC Solar East

BC Import: -603.2 MW

Sask Import: 150.9 MW

MATL: 186.8 MW

FIGURE B-9-PR-8: SCN9-SP-SEN-POST-PR.SAV
CATEGORY B - 9L24 (LANFINE 959S TO OAKLAND 946S)
MON, SEP 08 2025 1:33
New Diagram

Bus - Voltage (kV/pu)
Branch - MVA/% RATE1
Equipment - MW/Mvar
100.0%RATE1

kV: >0.000 <=0.200 <=0.400 <=69.000 <=138.000 <=240.000 <=500.000 >500.000

Attachment A7
Constraint Effective Factors Table

| 0.36, 0.07 0.11 0.1 0.1 0.1