6911 Southpoint Drive (B03)
Burnaby, BC
V3N 4X8

November 24, 2025

[redacted]

via email: [redacted]

RE: CEAP IR #110 – [redacted] **– Interconnection Feasibility Study**

Dear [redacted]

Enclosed is the Interconnection Feasibility Study for the proposed Interconnection Request (IR), [redacted] submitted under Attachment M-2: Transmission Service and Interconnection Service Procedures for Competitive Electricity Acquisition Process (CEAP) of the Open Access Transmission Tariff (OATT). This letter provides a non-binding good faith estimate of the cost and time to construct the facilities required to interconnect your project to BC Hydro's Transmission System, being the Network Upgrades, based on the findings of the Interconnection Feasibility Study.

Open Access Transmission Tariff

The OATT defines Network Upgrades as additions, modifications, and upgrades to BC Hydro's Transmission System required at or beyond the Point of Interconnection to accommodate the interconnection of the Generating Facility to the BC Hydro's Transmission System. Pursuant to the OATT, BC Hydro will design, procure, construct, install, and own the Network Upgrades. While BC Hydro will pay the costs for the Network Upgrades, the Interconnection Customer provides security for such costs.

Interconnection Study Costs

The Interconnection Customer is responsible for paying the full cost of all Interconnection Studies in cash. Interconnection Study costs vary depending on the scope, complexity, and other factors such as whether any scope is shared with another Interconnection Customer (not applicable to this Interconnection Feasibility Study). The deposit amounts specified in the OATT are not proxy Interconnection Study costs. If actual Interconnection Study costs exceed the deposit amount, the Interconnection Customer must pay the remaining balance in cash. Please refer to the answer for question no. 53 in the posted Questions & Answers for 2025 Call for Power for typical study cost ranges.

Cost Estimate

Based on the Interconnection Feasibility Study, the non-binding good faith estimated cost (typical accuracy range of +150%/-50%) for Network Upgrades required to interconnect your project is $132.3 M.

Major Scope of Work Identified:

- Acquire adequate property and construct a new 500kV, three-circuit breaker ring bus switching
- Substation on 5L11
- Construct a new control building and other required substation facilities and infrastructures
- Cut the existing 5L11 and loop into/out the substation

- Terminate 500kV line of [redacted] project at the station
- Supply and install required Protection, Control and Telecommunications equipment

Exclusions:

- GST
- Permits
- Right-of-Way & property costs

Key Assumptions:

- Construction by contractor
- 24 months of construction is considered
- No construction during winter months
- Execution of early Engineering and Procurement Agreement
- Ability to acquire adequate property for a new switching station close to the existing transmission line 5L11
- No expansion of existing stations or control buildings to accommodate new equipment
- Impact Benefit Agreements with First Nations are not considered
- Assumed new station layout is 100m x 160m

Key Risks:

- Cost and ability of obtaining new property for the new switching station may be higher than estimated which may increase the Network Upgrade cost estimate and schedule.
- Expansion of the existing substation and/or control building may be required leading to increased costs and/or a longer project schedule
- Major equipment delivery presents potential project cost and schedule risks, based on variance in equipment lead times
- No defined supply chain strategy; construction costs may increase depending on delivery method
- Project schedule may be longer than expected, leading to increased overhead costs
- Ground improvements may be required leading to increased construction costs
- Contaminated soil may be encountered leading to increased construction costs
- Cost of materials and major equipment may be affected by market conditions and escalation

Study Limitations and Exclusions

Protection, Control, and Telecommunications

The Interconnection Feasibility Study does not include a detailed review of the protection, control, and telecommunications system requirements specific to your Interconnection Request. Based on a high-level review, we have identified proxy costs for protection, control, and telecom Network Upgrades drawn from comparable interconnection projects with similar scope and complexity; these proxy costs have been included solely for indicative budgeting purposes. The relative interconnection cost determined by the Interconnection Feasibility Study includes a telecommunications component based on an assumed solution to deliver teleprotection and telecontrol circuit requirements necessary for the Interconnection Request. Protection, control, and telecommunications system requirements will be reviewed in detail in the System Impact Study if you are a successful participant of the CEAP and meet applicable requirements.

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For Interconnection Feasibility Study purposes, it is assumed that any applicant-proposed works that could obstruct or impair the performance of existing BC Hydro microwave systems or new links from the proposed Interconnection Customer Interconnection Facilities (ICIF) to the BC Hydro microwave system would be identified and either relocated or repositioned as determined in a System Impact Study if you are a successful participant of the CEAP and meet applicable requirements. Such works may include, but are not limited to, towers, turbines, dams, support structures, panels, surface materials deposited or redistributed, water surface changes, or vegetation.

Generation Shedding/Curtailment Scheme and Electromagnetic Transient (EMT) Studies

The generation shedding/curtailment scheme reviews (e.g., Remedial Action Scheme (RAS), and a direct transfer trip for anti-islanding scheme) and EMT studies are completed in a System Impact Study. The outcomes of these studies may result in additional requirements, which could include Network Upgrades or ICIF. Any costs associated with completion of these studies, and resulting requirements, are not included in the Interconnection Feasibility Study cost estimate.

Revenue Metering

Please note that revenue metering requirements have not been determined with the Interconnection Feasibility Study. As such, any costs associated with revenue metering and other interconnection components are not included in the cost estimate provided above. Once these requirements are defined, costs that are attributable to the Interconnection Customer are to be paid in cash. For more details on revenue metering requirements and responsibilities, please refer to:

https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/distribution/standards/ds-rmr-complex-revenue-metering.pdf.

Schedule

Based on the Interconnection Feasibility Study, the non-binding good faith estimated in-service date for your Interconnection Request's Network Upgrades is Quarter 3 2033 (calendar year). To achieve this timeline, we may need to expedite certain activities, including engineering design and procurement of long-lead equipment.

Timely actions required from you to minimize risks to the schedule:

- Submission of additional technical data required for the System Impact Study and Facilities Study
- Submission of any required information or document such as demonstration of Site Control
- Execution of Combined Study Agreement and Standard Generator Interconnection Agreement
- Financial commitments and securities

Please note that changes to your Interconnection Request or delays in data submission or financial commitments may also impact the target in-service date.

If you have any questions, please contact the BC Hydro CEAP team at ceap2025@bchydro.com.

Sincerely,

[redacted]

[redacted]

Manager, Customer Interconnections

BC Hydro

Encl.: CEAP_2025_IR110_[redacted]_Feasibility_Study.pdf

[redacted]

Interconnection Feasibility Study

BC Hydro EGBC Permit to Practice No: 1002449

2025 CEAP IR #110

Prepared for: [redacted]

Prepared by: [redacted]

Specialist Engineer, Planning Coordinator & Bulk Planning

[redacted]

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Accepted by: [redacted]

Manager, Transmission Asset Planning

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Title:	Engineering Team Lead, Planning Coordinator & Bulk Planning
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Revisions

Revision	Date	Description
0	2025 Nov	Initial release
1	2025 Nov	Correction of power injection and terminology updates

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Sr. Engineer, Transmission Line Engineering

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Executive Summary

[redacted], the Interconnection Customer (IC), requests to interconnect its [redacted] (2025 CEAP IR #110) to the BC Hydro (BCH) system. [redacted]r project has one-hundred-seventy-six (176) [redacted] solar inverters, with a maximum power injection of 673 MW into the BC Hydro system at the Point of Interconnection (POI). The Point of Interconnection (POI) is on BCH's 500kV line 5L11, approx. 127km from Kelly Lake substation (KLY). The IC's proposed commercial operation date (COD) is July 7, 2030.

To interconnect the [redacted] project and its facilities to the BCH Transmission System at the proposed POI, this Feasibility Study has identified the following conclusions and requirements:

1. A new 500 kV switching substation (temporarily referred to as "P110W") on 5L11 is required to interconnect the customer's generating project to the BCH system. With the new switching station P110W, the existing line 5L11 will be segregated into two circuits: the existing name 5L11 is retained for the line segment from Williston substation (WSN) to P110W, and the line segment from P110W to Kelly Lake substation (KLY) is temporary designated as 5L11_x. These temporary line designations will be replaced by permanent ones at a later stage of interconnection study.

2. The station work at the switching station 'P110W' includes acquiring property near transmission line 5L11, constructing a new outdoor 500kV three-breaker ring bus switching station and associated supporting infrastructure such as control building, cutting and looping the existing 5L11 line into the new substation, and terminating the 500kV line from the [redacted] project at the station.

3. The study does not find performance violation under system normal, such as thermal overload, voltage performance violation or voltage stability concern, caused by connection of [redacted] project.

4. The study finds that the [redacted] project could exacerbate the thermal overload (and/or transient stability) issues on BC Hydro 500kV bulk systems under single contingencies or circuit breaker related contingencies. To address these issues, the new [redacted] project is required to participate in the existing GMS Area Gen-shedding

RAS. BC Hydro will develop the details of the RAS to address system constraints during the next stage of the study.

5. [redacted] project is required to install anti-islanding protection within its facility to disconnect the IC's generating plant from the grid when an inadvertent island with the local load forms. The anti-islanding protection shall be configured in the manner that does not compromise the required ride-through performance.

6. [redacted] project is required to have the dynamic reactive power capability at a minimum of +/- 33% of its MPO from the plants at the high-voltage side of the IC's switchyard over the full MW operating range, per BC Hydro's TIR Section 6.4.2. The [redacted] Project does not meet the reactive capability requirement above. Installation of at least 46.5 MVAr reactive power equipment is required at the customer facility to meet the requirement. This requirement needs to be addressed if the project proceeds to the next stage of the interconnection process.

7. The "reactive power at zero output" function (such as "reactive power at night mode" for solar inverter) is required so that each invertor can provide reactive power capability at zero MW output including during nighttime.

The above conclusions are made based on the IC's input data and study assumptions listed in Section 4, which represent the best available information on October 14, 2025.

A non-binding good faith cost for required network upgrades and estimated schedule for construction are included in a separate letter to the IC.

Please note that, this Feasibility Study report does not include the descriptions of Protection, Control, and Telecommunications requirements and the associated upgrade scopes; however, as discussed in Section 2 "Purpose and Scopes of Study", the associated cost implications are captured and delivered in the cover letter to the IC.

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Appendix B Power Flow Study Results

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Acronyms

The following are acronyms used in this report.

BCH	BC Hydro
CEAP	Competitive Electricity Acquisition Process
COD	Commercial Operation Date
DTT	Direct Transfer Trip
ERIS	Energy Resource Interconnection Service
FeS	Feasibility Study
IBR	Inverter-Based Resources
IC	Interconnection Customer
IR	Interconnection Request
MPO	Maximum Power Output
NERC	North American Electric Reliability Corporation
NRIS	Network Resource Interconnection Service
OATT	Open Access Transmission Tariff
POI	Point of Interconnection
RAS	Remedial Action Scheme
TIR	BC Hydro "60 KV to 500 kV Technical Interconnection Requirements for Power Generators"
WECC	Western Electricity Coordinating Council
WTG	Wind Turbine Generator

1 Introduction

[redacted], the Interconnection Customer (IC), requests to interconnect its [redacted] project (2025 CEAP IR #110) to the BC Hydro (BCH) system. [redacted] has one-hundred-seventy-six (176) [redacted] solar inverters, adding a total installed capacity of 704 MW with a maximum power injection of 673 MW into the BCH system at the Point of Interconnection (POI). The POI is on BCH's 500kV line 5L11, approx. 127km from Kelly Lake substation (KLY). The IC's proposed commercial operation date (COD) is July 7, 2030.

Table 1-1 below summarizes the project reviewed in this Feasibility Study.

Table 1-1 Summary of Project Information

Project Name	[redacted]	
Name of Interconnection Customer (IC)	[redacted]	
Point of Interconnection (POI)	On 5L11, 127km from KLY	
IC's Proposed COD	July 7, 2030	
Type of Interconnection Service	NRIS ☒	ERIS ☐
Maximum Power Injection (MW)	673 MW (Summer)	673 MW (Winter)
Number of Inverters	176 x 4.0 MW WTGs	
Plant Fuel	Solar	

Figure 1-1 shows the Central Interior Regional transmission system diagram, where the 500kV bulk system and the [redacted] (P110) project are highlighted. Line 5L11 is part of BC Hydro's major 500 kV transmission corridor that delivers power from the Peace region to the South Interior. It serves as one of the key backbone paths of the provincial transmission network and is equipped with approximately 50% series compensation to enhance power transfer capability and improve system stability.

A new 500 kV switching station (temporarily referred to as "P110W") on 5L11 is required to interconnect the customer's generating project to the BCH system. With the new switching station P110W, the existing line 5L11 will be segregated into two circuits: the existing name 5L11 is retained for the line segment from Williston substation (WSN) to P110W, and the line segment from P110W to KLY is temporary designated as 5L11_x. These temporary line designations will be replaced by permanent ones at a later stage of interconnection study.

In the Central Interior region, lines 2L96, 2L354, and 2L95 form the 230 kV transmission path from WSN to Soda Creek (SCK) substation via Red Bluff (RBF) substation. From SCK, there are two 230kV transmission paths to KLY: 1) 2L94 that directly connects SCK from KLY, and 2) Lines 2L352 and 2L86 that connect KLY from SCK via Hundred-Mile-House (HMH) substation, as shown in Figure 1-1. Customer's system topology behind the Point of Interconnection is provided in the Appendix, Figure A-1.

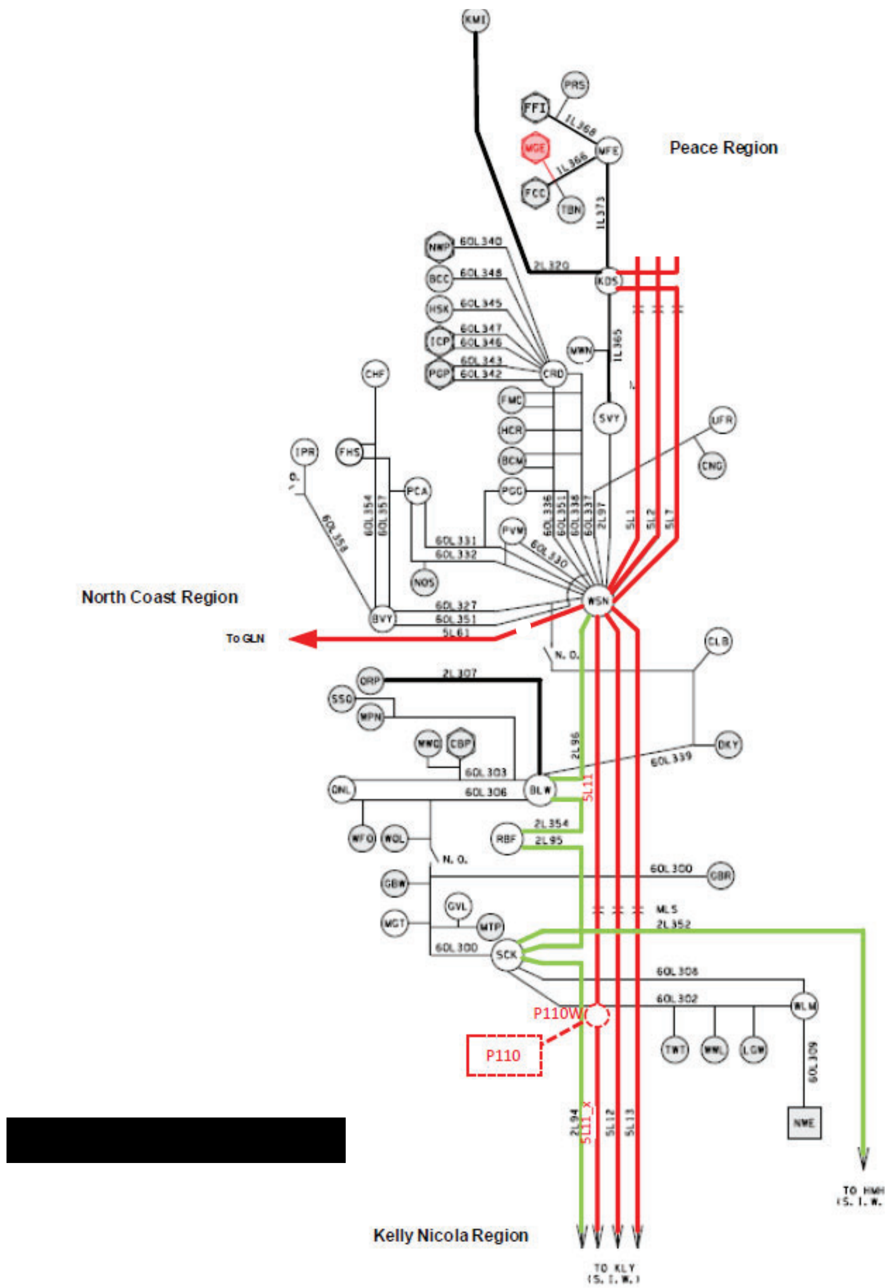

Figure 1-1: Central Interior Regional Transmission System Diagram

2 Purpose and Scopes of Study

This Feasibility Study is a preliminary evaluation of the system impact of interconnecting the proposed project to the BC Hydro system based on power flow and short circuit analysis in accordance with BCH's Open Access Transmission Tariff (OATT) and produces the estimated cost of required Network Upgrades and the implementation schedule.

Per OATT, the Feasibility Study is performed individually for each of the participating projects in the CEAP process and focuses specifically on the BC Hydro regional transmission system where the proposed generating project is connected and affects.

This is a "limited scope" study which is restricted to power flow studies of P0, P1 and P2 planning events as defined in TPL-001-4 and short circuit analysis. The study does not address other technical aspects such as transient stability and switching transients and impact of multiple contingencies. These subjects will be addressed in subsequent System Impact Study if the project proceeds further. In addition, any potential impacts to the adjacent external systems to BC Hydro would be addressed in subsequent detailed and coordinated studies with the relevant adjacent entities if the proposed generator project proceeds further. Given the proximity of the inverter-based generation to the series-compensated transmission segment, potential sub-synchronous interaction (SSI) risk has been identified and will require further detailed electromagnetic transient (EMT) analysis as part of the subsequent System Impact Study if the project proceeds further.

Please note that, due to the compressed study timeline for CEAP 2025 Feasibility Study, this report does not include the descriptions of the Protection, Control, and Telecommunication requirements and the associated upgrade scopes. Instead, the network upgrades associated with Protections, Controls and Telecommunications are incorporated with cost estimates in a separate cover letter to the IC.

3 Standard and Criteria

The Feasibility Study is performed in compliance with the North American Electric Reliability Corporation (NERC) and Western Electricity Coordinating Council (WECC) reliability standards, and the BCH interconnection requirements in the TIR, and upon the ratings of the existing BCH transmission facilities described in Operating Orders, specifically:

- NERC standards: TPL-001-4 and FAC-002-3 relevant to the scope of this Feasibility Study.
- WECC criteria TPL-001-WECC-CRT-4 Transmission System Planning Performance, July 1, 2023.
- BC Hydro's 60 kV to 500 kV Technical Interconnection Requirements for Power Generators, Rev 2.1.1, Effective: Sept 22, 2025.
- BC Hydro Operating Order 5T-10, Ratings for All Transmission Circuits 60 kV or Higher, Sept 17, 2025.
- BC Hydro Operating Order 5T-14, Ratings for All Transmission and Distribution Transformer, Sept 22, 2025.
- BC Hydro System Operating Order 7T-22 System Voltage Control, October 7, 2025.

4 Assumptions and Conditions

This Feasibility Study is performed based on the IC's submitted data and information available to BC Hydro on Oct 14, 2025 for the study purpose. Assumptions are made wherever the IC's input is unavailable. Appendix A shows the schematic diagram of the IC's Project IC's project used in the study model.

The power flow study cases used in this Feasibility Study are established based upon the BC Hydro's base resource plan and load forecasts available at the time of performing the study, which includes existing and future generators, transmission facilities, and loads in addition to the subject interconnection project in this study. Applicable seasonal conditions and the appropriate study years for the study planning horizon are also incorporated. Additional assumptions are listed as follows.

1) The generation in the study area are dispatched to the patterns that stress the transmission system in the study area. In these patterns, the associated generators are typically set to their Maximum Power Outputs (MPO) unless otherwise specified.

2) Use of the latest August 2025 distribution load forecast, reference system coincident forecast and reference TVC.

3) Use of Feb 2025 NITS BRP generation dispatch.

4) For the purpose of this feasibility study, approximately 680 MW injection at the IC-proposed POI on 5L11 is achievable and used based on proponent's total installed capacity of 704 MW.

5 System Studies and Results

Based upon the IC's submitted information and the area system conditions, a new 500 kV switching station (referred to as "P110W") on 5L11 is required to interconnect the customer's generating project to the BCH system.

With the new switching station P110W, the existing line 5L11 will be segregated into two circuits: the existing name 5L11 is retained for the line segment from Williston substation (WSN) to P110W, and the line segment from P110W to KLY is temporary designated as 5L11_x. These temporary line designations will be replaced by permanent ones at a later stage of interconnection study.

5.1 Power Flow Study Results

Power flow studies were performed to evaluate whether the IC's generating project would cause any unacceptable system performance (e.g. equipment overloads, steady-state voltage violation and voltage instability) and to determine the reinforcement requirement based on steady state performance analysis.

The study focuses on the 2031 light summer (31LS) system condition which is typically a stressed condition for a generation interconnection project, taking into considerations of factors such as load conditions, seasons and generation patterns. The 2031 heavy summer (31HS) and 2030 heavy winter (30HW) cases are also checked to capture any possibility of performance violations under heavy load scenarios.

The studies are performed for system normal conditions and under critical system contingencies specified in the P1 and P2 events by NERC TPL-001-4. Study results are summarized below.

5.1.1 Thermal Overload Analysis

The study shows that the addition of [redacted] project would not cause any thermal overloads under system normal conditions (P0).

For the base scenario - when the dispatchable generation in the Peace Region is reduced by 680 MW after adding the customer's generation at P110W, the study finds that in light/heavy summer loading conditions (31ls, 31hs), the [redacted] project will cause thermal overload (and/or transient stability) issues on BC

Hydro 500kV bulk systems under single contingencies (e.g., 5L12, 5L13, 5L11_x) or breaker contingencies (e.g., WSN 5CB5/7/15/17, KLY 5CB1/3/5/11/13/15).

To address these issues, the new [redacted] project is required to participate in the existing GMS Area Gen-shedding RAS. BC Hydro will develop the details of the RAS to address system constraints during the next stage of the study.

Tables 5-1 summarizes the thermal overload concerns identified in the study for the base scenario. Appendix B, Table B-1 contains the details of thermal overload analysis results.

Table 5-1: Summary of Thermal Overload Study Results

Case	Peace and CI Regional Generation/ Load	IPP's Generator Output	Contingency		Most Limiting Branch Loadings		
			Cate-gory	Description	MLS 5CX1	MLS 5CX2	MLS 5CX3
31LS	4019 MW / 839.6 MW	233.37 MW	P1/P2	5L12 CTG, or WSN 5CB5 or 5CB15, or KLY 5CB3 or 5CB13	1161.6 MVA 69%	-	1769.5 MVA 105%
			P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	1179.4 MVA 70%	1755.9 MVA 104%	-
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	709 MVA 42%	1825 MVA 108%	1846 MVA 109%
31HS	4019 MW / 915.2 MW	233.37 MW	P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	1179.4 MVA 70%	1755.9 MVA 104%	-
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	711 MVA 42%	1711.5 MVA 101%	1732.5 MVA 103%
Note 1. Continuous ratings for all facilities are used for both pre and post contingency power flow cases. Note 2. Existing GMS Area Gen Shedding RAS allows gen shedding GMS/PCN/STC units. Tripping the new [redacted] project helps addressing/mitigating the overloads.							

Also note that the [redacted] project injects power to 5L11, which creates power flow imbalance on the transmission lines between WSN and KLY as seen in Tables 5-1.

5.1.2 Steady-State Voltage Performance

With the connection of the IC's project, the stead-state voltage performance under system normal and single contingency conditions is acceptable for all the studied load conditions (30HW, 31LS, 31HS). Appendix B, Table B-2 show the details in the steady-state voltage study results.

5.1.3 Reactive Power Capability Evaluation

The BC Hydro TIR requires IBR power plant to have the dynamic reactive power capability at a minimum of +/- 33% of its MPO at the high voltage side of the IC's switchyard over the full MW operating range.

Based on the PSS/E power flow data submitted by the IC, the proposed [redacted] project does not meet the above requirement and installation of minimum of 46.5 MVAr reactive power equipment is required at the customer facility to meet the requirement. This capability needs to be addressed if the project proceeds to the next stage of the interconnection process.

In addition, according to the IC-provided reactive capability data, the proposed solar inverter would provide +/-2.64 MVAr per inverter for reactive capability at the zero MW output if the inverter's "reactive power at zero output" is enabled. This function needs to be re-confirmed if the IC's project proceeds to next stage of the interconnection process.

5.1.4 Anti-Islanding

[redacted] project is not arranged for islanded operation. In addition, the IC is required to install anti-islanding protection within its facility to disconnect the IC's wind farm from the grid when an inadvertent island with the local loads forms.

5.2 Fault Analysis

The short circuit analysis in the FeS is based upon the latest BC Hydro system model, which includes the generating facility information and associated impedance data provided by the IC. A more detailed study will be performed at the System Impact Study stage if needed.

5.3 Stations Requirements

A new outdoor 500kV, 3-circuit breaker ring bus switching substation (referred to "P110W" temporarily) will be built at POI, close to the existing 500kV transmission line 5L11. The existing transmission line 5L11 will be cut and looped in to, and 500kV line of [redacted] project will be terminated at the new substation.

The station upgrade scope at the new switching station P110W is as follows.

- Acquire adequate property for a new substation close to the existing transmission line 5L11.
- Construct a new outdoor 500kV, three-circuit breaker ring bus switching substation. Refer to the one-line Sketch in Appendix C for details.
- Construct a new control building and other required substation facilities and infrastructures.
- Cut the existing 5L11 and loop into/out the substation.
- Terminate 500kV line of [redacted] project at the substation.

5.4 Transmission Line Engineering Requirements

The scope of work for BC Hydro Transmission Line Engineering involves designing and constructing the connection interfaces (ingress and egress) between the existing 500kV overhead transmission line 5L11 and the new switching station P110W proposed for this project.

6 Cost Estimate and Schedule

The non-binding good faith estimated cost and time to construct the Network Upgrades required to interconnect the proposed project will be provided in a separate letter to the IC. 7

7 Conclusions

To interconnect [redacted] and its facilities to the BCH Transmission System at the POI, this Feasibility Study has identified the following conclusions and requirements:

1. A new 500 kV switching substation (referred to as "P110W") on 5L11 is required to interconnect the customer's generating project to the BCH system. With the new switching station P110W, the existing line 5L11 will be segregated into two circuits: the existing name 5L11 is retained for the line segment from Williston substation (WSN) to P110W, and the line segment from P110W to Kelly Lake substation (KLY) is temporary designated as 5L11_x. These temporary line designations will be replaced by permanent ones at a later stage of interconnection study.

2. The station work at the switching station 'P110W' includes acquiring property near transmission line 5L11, constructing a new outdoor 500kV three-breaker ring bus switching station and associated supporting infrastructure such as control building, cutting and looping the existing 5L11 line into the new substation, and terminating the 500kV line from the [redacted] project at the station.

3. The study does not find performance violation under system normal, such as thermal overload, voltage performance violation or voltage stability concern, caused by connection of [redacted] project.

4. The study finds that the [redacted] project could exacerbate the thermal overload (and/or transient stability) issues on BC Hydro 500kV bulk systems under single contingencies or circuit breaker related contingencies. To address these issues, the new [redacted] project is required to participate in the existing GMS Area Gen-shedding RAS. BC Hydro will develop the details of the RAS to address system constraints during the next stage of the study.

5. [redacted] project is required to install anti-islanding protection within its facility to disconnect the IC's generating plant from the grid when an inadvertent island with the local load forms. The anti-islanding protection shall be configured in the manner that does not compromise the required ride-through performance.

6. The [redacted] project is required to have the dynamic reactive power capability at a minimum of +/- 33% of its MPO from the plants at the high-voltage side of the IC's switchyard over the full MW operating range, per BC Hydro's TIR Section 6.4.2. The [redacted] Project does not meet the reactive capability requirement above. Installation of minimum of 46.5 MVAr reactive power equipment is required at the customer facility to meet the requirement. This requirement needs to be addressed if the project proceeds to the next stage of the interconnection process.
7. The "reactive power at zero output" function (such as "reactive power at night mode" for solar inverter) is required so that each invertor can provide reactive power capability at zero MW output including during nighttime.

Appendix A Schematic Diagram of the IC's Project

Figure A-1 shows the schematic diagram for the [redacted] Project.

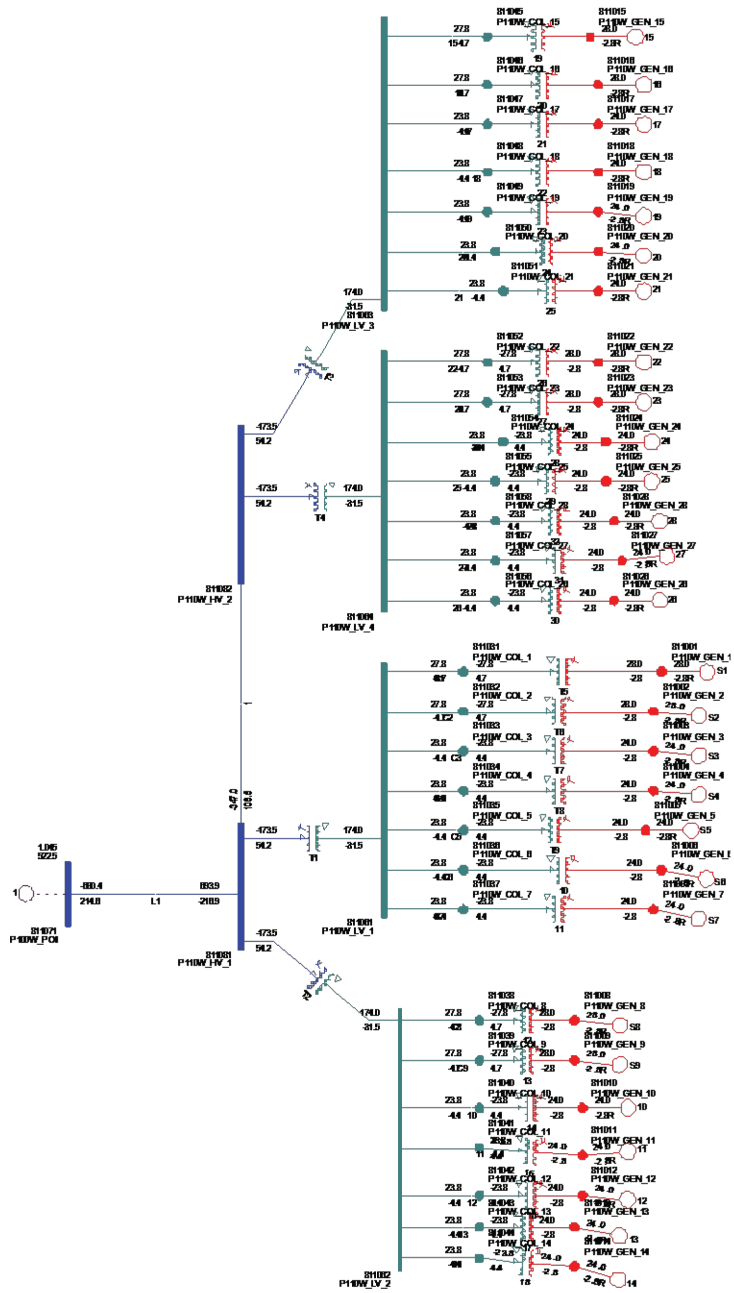

Figure A-1: [redacted] Plant (P110) Schematic Diagram.

Appendix B Power Flow Study Results

Base Scenario (30HW/31HS/31LS)

Table B-1: Thermal Overload Study Results

Case	Peace and CI Regional Generation/ Load	IPP's Generator Output	Contingency		Most Limiting Branch Loadings		
			Cate-gory	Description	MLS 5CX1	MLS 5CX2	MLS 5CX3
31LS	4019 MW / 839.6 MW	233.37 MW	P0	System Normal	645 MVA 38%	1176.9 MVA 70%	1194.6 MVA 71%
			P1/P2	5L12 CTG, or WSN 5CB5 or 5CB15, or KLY 5CB3 or 5CB13	1161.6 MVA 69%	-	1769.5 MVA 105%
			P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	1179.4 MVA 70%	1755.9 MVA 104%	-
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	709 MVA 42%	1825 MVA 108%	1846 MVA 109%
31HS	4019 MW / 915.2 MW	233.37 MW	P0	System Normal	577.3 MVA 34%	1101.8 MVA 65%	1118.7 MVA 66%
			P1/P2	5L12 CTG, or WSN 5CB5 or 5CB15, or KLY 5CB3 or 5CB13	1059 MVA 63%	-	1655.4 MVA 98%
			P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	1179.4 MVA 70%	1755.9 MVA 104%	-
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	711 MVA 42%	1711.5 MVA 101%	1732.5 MVA 103%
30HW	4019 MW / 955.5 MW	233.37 MW	P0	System Normal	498 MVA 30%	1011.2 MVA 60%	1027 MVA 61%
			P1/P2	5L12 CTG, or WSN 5CB5 or 5CB15, or KLY 5CB3 or 5CB13	937.4 MVA 56%	-	1519.6 MVA 90%
			P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	954.2 MVA 57%	1507.4 MVA 89%	-
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	716 MVA 42%	1576.3 MVA 93%	1596.7 MVA 95%

Note 1. Continuous ratings for all facilities are used for both pre and post contingency power flow cases.
Note 2. Existing GMS Area Gen Shedding RAS allows gen shedding GMS/PCN/STC units. Tripping the new [redacted] helps addressing/mitigating the overload.

Table B-2: Steady-State Voltage Study Results

Case	Peace and CI Regional Generation/ Load	IPP's Generator Output	Contingency		Bus Voltage (PU)		
			Cate-gory	Description	WSN_500	P110W_500	KLY_500
31LS	4019 MW / 839.6 MW	233.37 MW	P0	System Normal	1.053	1.055	1.061
			P1/P2	5L12 CTG, or WSN 5CB5 or 5CB15, or KLY 5CB3 or 5CB13	1.033	1.032	1.051
			P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	1.033	1.032	1.045
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	1.025	1.05	1.031
31HS	4019 MW / 915.2 MW	233.37 MW	P0	System Normal	1.052	1.056	1.06
			P1/P2	5L12 CTG, or WSN 5CB5 or 5CB15, or KLY 5CB3 or 5CB13	1.032	1.028	1.035
			P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	1.032	1.025	1.032
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	1.027	1.051	1.032
30HW	4019 MW / 955.5 MW	233.37 MW	P0	System Normal	1.053	1.032	1.037
			P1/P2	5L12 CTG, or WSN 5CB5 or 5CB15, or KLY 5CB3 or 5CB13	1.034	1.032	1.037
			P1/P2	5L13 CTG, or WSN 5CB7 or 5CB17, or KLY 5CB5 or 5CB15	1.036	1.033	1.034
			P1/P2	5L11_x (5L11 segment from P110W to KLY), or KLY 5CB1 or 5CB11	1.031	1.054	1.035

Appendix C One-Line Sketch for New Switching Substation

Figure C-1 shows the Stations Planning One-Line Sketch for the New Switching Substation P110W.

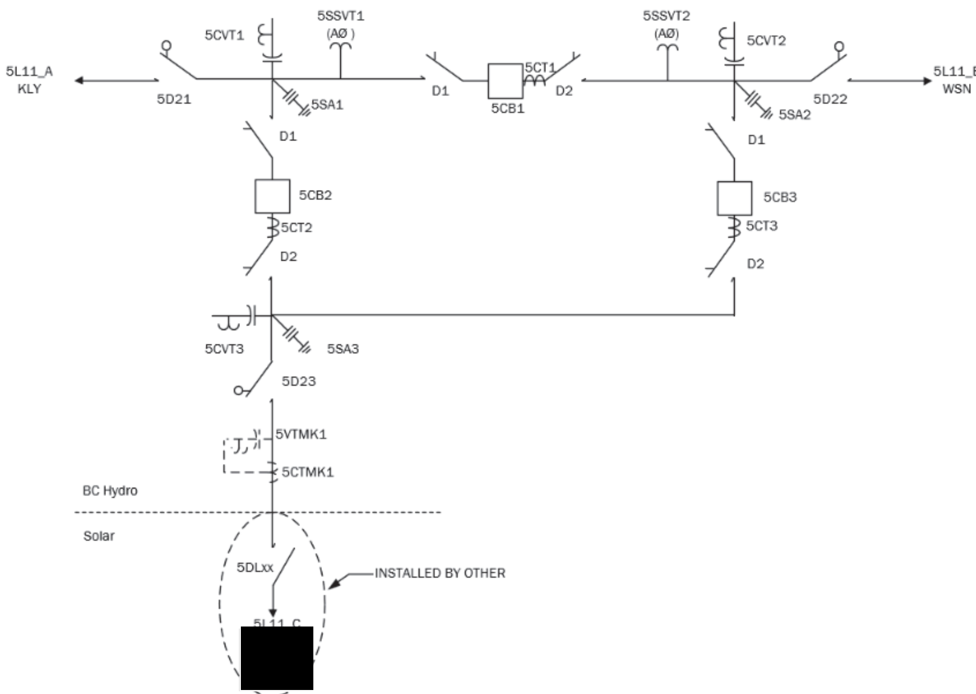

Figure C-1: Stations Planning One-Line Sketch for the New Switching Substation P110W.