

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

November 24, 2025

[REDACTED]

via email: [REDACTED]

**RE: CEAP IR #84 – [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 \$117.8 M.

### **Major Scope of Work Identified:**

- Add one 230 kV line position and one line termination with associated substation equipment to terminate the customer's line at BC Hydro Barlow Substation (BLW)
- Thermal upgrades on both transmission lines; 2L95A Red Bluff substation (RBF) to Spanish Mountain Switching station (SMM), and 2L354, to a minimum summer rating of 770 Amps

- Fiber optic cable between RBF and BLW (approximately 9 km) on 2L354, with structure addition/replacement may be required
- Upgrade required substation facilities, infrastructures, and bus work to support new station equipment
- 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 season
- Execution of early Engineering and Procurement Agreement
- No expansion of existing stations or control buildings to accommodate new equipment
- Impact Benefit Agreements with First Nations are not considered
- Site expansion at BLW is required and has been considered at 92 m × 120 m
- For 2L354, line thermal upgrade is assumed to include the replacement of 5 structures, along with 25 mid-span structures for fiber installation.
- For 2L095, line thermal upgrade is assumed to include the replacement of 40 structures

**Key Risks:**

- Expansion of the existing control building may be required leading to increased costs and/or a longer project schedule
- Transmission scope may be different than assumed, including number of structure replacements  
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.

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](mailto:ceap2025@bchydro.com).

Sincerely,

[Redacted signature]

[Redacted name]

Manager, Customer Interconnections

BC Hydro

Encl.: CEAP\_2025\_IR84\_[Redacted]\_Feasibility\_Study.pdf



# Interconnection Feasibility Study

**BC Hydro EGBC Permit to Practice No: 1002449**

**2025 CEAP IR # 84**

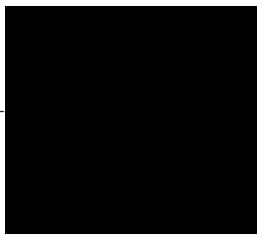
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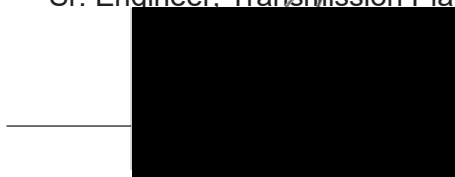
Prepared by:



Sr. Engineer, Transmission Planning



Reviewed by:



Technical Strategic Principle, Transmission Planning

Accepted by:



Division Manager, Transmission Planning

## Report Metadata

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## Revisions

Revision	Date	Description
0	2025 Nov	Initial release

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Entire report  
except listed  
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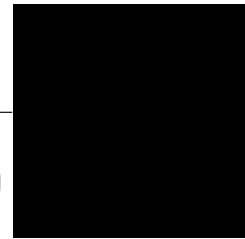
**Discipline:**

Transmission Planning

Contributed by:



Sr. Engineer, Transmission Planning



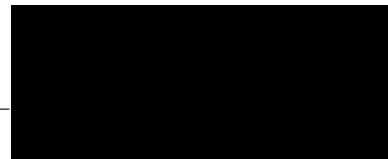
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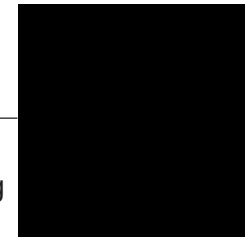
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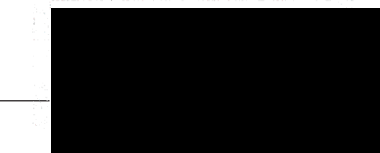
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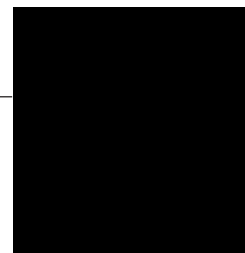
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**Discipline:**

Transmission Lines Engineering



Sr. Engineer, Transmission Lines  
Engineering



## Executive Summary

██████████, the interconnection customer (IC), requests to interconnect its ██████████ wind project (2025 CEAP Project Code: # 84) to the BC Hydro (BCH) system. ██████████ thirty-three (33) ██████████ type-4 wind turbine generators with total installed capacity of 204.6 MW. The proposed Point of Interconnection (POI) is at BC Hydro's Barlow Substation (BLW) 230 kV bus. The IC will build a new 43 km 230 kV circuit from the POI and connect its wind turbine generation project to BC Hydro transmission system. The IC's proposed commercial operation date (COD) is Dec 31st, 2031.

To interconnect the ██████████ wind project and its facilities to the BCH Transmission System at the proposed POI, this Feasibility Study has made the recommendations and conclusions as follow:

1. The proposed POI at the BLW substation 230 kV bus is acceptable to interconnect the IC's generating project to the BCH system.
2. A new 230 kV line position at BLW is required to accommodate the new 230 kV line to the IC's station. The station configuration should avoid the new line islanding with 2L307 or transformer T2 (or T3) caused by any circuit breaker fault at BLW.
3. The study identifies potential thermal overload constraints of 2L95A (RBF-SMM) and 2L354 under system normal and single contingencies as a result of the connection of ██████████.

A thermal upgrade on both of transmission line 2L95A (RBF-SMM) and 2L354 to a minimum summer rating of 770 Amps is required to accommodate the IC's wind project.

4. The IC's wind project would be islanded with the Transmission Voltage Customer (TVC) load or BCH loads for multiple contingencies, loss of 2L96 & 2L95, loss of 2L96 & 2L354 or BLW internal breaker fault.

A Direct Transfer Trip (DTT) protection scheme is required to isolate the IC's wind project at the IC's entrance circuit breaker to avoid potential islanding operations with the existing loads.

5. Anti-islanding protection is required for the [REDACTED] [REDACTED] wind project and shall be configured in the manner that does not compromise the required ride-through performance.
6. The proposed [REDACTED] wind 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 switchyard over the full MW operating range, per BC Hydro's TIR Section 6.4.2. Based on the IC-submitted PSS/E model, the proposed [REDACTED] [REDACTED] wind project meets the reactive capability requirement above.
7. The "STATCOM option" for [REDACTED] type-4 WTGs is required so that each turbine can provide reactive power capability at zero MW output including during turbine standstill.
8. Per BC Hydro's TIR Section 6.4.5, the [REDACTED] [REDACTED] wind project shall have the capability of providing Fast Frequency Response (FFR) to help improve the system frequency response performance. For typical performance metrics of the FFR provided by WTG based IBR plants, please refer to Section 6.2.3 of IEEE Standard 2800-2022. BC Hydro will work with the IC to establish the detailed FFR performance requirements under System Impact Study (SIS) stage.

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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## Appendices

Appendix A	Schematic Diagram of the IC's Project
Appendix B	Power Flow Study Results
Appendix C	One-Line Sketch

## 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
LAPS	Local Area Protection Schemes
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

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)	BLW 230 with 43 km new 230 kV circuit	
IC's Proposed COD	December 31 <sup>st</sup> , 2031	
Type of Interconnection Service	NRIS <input checked="" type="checkbox"/>	ERIS <input type="checkbox"/>
Maximum Power Injection (MW)	200 MW (Summer)	200 MW (Winter)
Number of Turbines	33 x 6.2 MW WTGs	
Plant Fuel	Wind	

[REDACTED], the interconnection customer (IC), requests to interconnect its [REDACTED] wind project (IR # 84) to the BC Hydro system. [REDACTED] wind project has thirty-three (33) [REDACTED] type-4 wind turbine generators, adding a total capacity of 204.6 MW with a maximum power injection of 200 MW into the BC Hydro system. The Point of Interconnection (POI) is at the BC Hydro's 230 kV Barlow Substation (BLW) 230 kV bus. The IC will construct a 230 kV transmission line from the POI, approximately 43 km in length, to connect the IC's wind project. The proposed commercial operation date (COD) is December 31st, 2031.

Figure 1-1 shows the Central Interior region 230 kV transmission system simplified one-line diagram. [REDACTED] wind project is to be connected at the BLW substation 230 kV bus.

There is one new wind farms, [REDACTED] with installed capacity of 144 MW, to be added in the Central Interior system on the 230 kV line 2L96 with a new switching station ([REDACTED]), which are the [REDACTED] projects from the 2024 [REDACTED]

The two wind farms and the connections are shown in Figure 1-1 below.

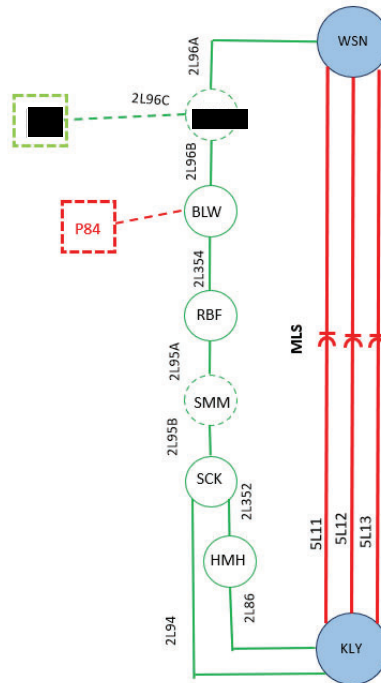


Figure 1-1: Central Interior Region 230 kV Transmission System One-line Diagram

## 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.

Please note that, due to the compressed study timeline for 2025 CEAP Feasibility Studies, 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, Sept 19, 2023.

## 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 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.

- 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.
- The 2024 Distribution Substation Load Forecast, 2025 Transmission Voltage Customer (TVC) Load Forecast and 2025 System Peak Forecast are used.
- September 2024 Base Resource Plan.
- 144 MW [REDACTED] wind project will be in service on December 1, 2030.
- 200 MW [REDACTED] will be in service on September 30, 2031, and 200 MW [REDACTED] will be in service on October 1, 2030.
- 31HW, 32HS and 32LS are used as base case in the study to evaluate system impact after [REDACTED] wind project interconnection.
- Three high-queued generating projects are included in the base cases.
- All BCH TVC load interconnection associated system reinforcements are considered in this study.

## 5 System Studies and Results

### 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 system reinforcement requirement based on steady state performance analysis.

Steady-state power flow studies have been conducted with the focus on the 32LS system condition, taking into considerations of factors such as load conditions, seasonal variation in ambient temperatures, and generation patterns that stress the transmission system. The 31HW and 32HS cases are also checked to capture any performance violations under high load conditions.

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

Thermal overloads on 230 kV transmission lines 2L354 and 2L95A (RBF-SMM) have been identified under system normal conditions (P0). Additionally, significant thermal overloads on both lines 2L95A (RBF-SMM) and 2L354 have been observed under single contingencies (P1). Appendix B contains the details of thermal overload analysis results.

For light summer and heavy summer scenario, both 2L354 and 2L95A (RBF-SMM) will appear overloading under normal operation after connecting IC wind turbine generation. It is required to thermally upgrade 2L354 and 2L95A (RBF-SMM) to a minimum 770 Amps summer rating or higher to accommodate the generation interconnection. For single contingency of loss of 2L96A WSN-██████ or loss of 5L11 (or 5L12, 5L13), both 2L95 and 2L354 will appear significant additional overloading. With taking the action plan of thermal upgrade for normal operation above, the thermal overloading under single contingencies will be addressed.

Details of the thermal overload analysis are provided in Appendix B.



The FFR settings should be determined in coordination with BC Hydro in the later stage of the call process.

## 5.2 Fault Analysis

The short circuit analysis in the FeS is based upon the latest BCH 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

The POI of the [REDACTED] will be 230 kV switchyard of the existing BLW substation. The scope of work in BLW is listed as follows:

- Add one new 230 kV circuit breaker with associated disconnects to create line position for the [REDACTED] customer.
- Terminate [REDACTED] 230 kV 2LXXX transmission line with associated disconnect, surge arrester and capacitor voltage transformer.
- Expand the control building, if required, to accommodate new P&C panels and other equipment.
- Other associated station work.
- No station expansion is required for the above mentioned station work.

Refer to the one-line diagram in Appendix C for details.

## 5.4 Transmission Line Requirements

A thermal upgrade on both of transmission line 2L95A (RBF-SMM) and 2L354 to a minimum summer rating of 770 Amps is required to accommodate the IC's wind project. Structure replacements may be required.

Fiber optic cable between Red Bluff Substation (RBF) and BLW (approx.9 kms) on 2L354, with structure addition/replacement may be required.

## 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 Conclusions

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

1. The proposed POI at the BLW substation 230 kV bus is acceptable to interconnect the customer's generating project to the BCH system.
2. A new 230 kV line position at BLW is required to accommodate the new 230 kV line to IC's station. The new line position shall have an independent protection and switching zone. The station configuration should avoid the new line islanding with 2L307 or transformer T2 (or T3) caused by any circuit breaker fault at BLW.
3. The study identifies potential thermal overload constraints of 2L95A (RBF-SMM) and 2L354 under system normal and single contingencies as a result of the connection of [REDACTED] wind project.

A thermal upgrade on both of transmission line 2L95A (RBF-SMM) and 2L354 to a minimum summer rating of 770 Amps is required to accommodate the IC's wind project.

4. The IC's wind project would be islanded with the TVC load or BCH loads for multiple contingencies, loss of 2L96 & 2L95, loss of 2L96 & 2L354 or BLW internal breaker fault.

A DTT protection scheme is required to isolate the IC's wind project at the IC's entrance circuit breaker to avoid potential islanding operations with the existing loads.

5. Anti-islanding protection is required for the [REDACTED] wind project and shall be configured in the manner that does not compromise the required ride-through performance.
6. The proposed [REDACTED] wind 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 switchyard over the full MW operating range, per BC Hydro's TIR Section 6.4.2. Based on the IC-submitted PSS/E model, the proposed [REDACTED] wind project meets the reactive capability requirement above.
7. The "STATCOM option" for [REDACTED] type-4 WTGs is required so that each turbine can provide reactive power capability at zero MW output including during turbine standstill.
8. Per BC Hydro's TIR Section 6.4.5, the [REDACTED] wind project shall have the capability of providing Fast Frequency Response (FFR) to help improve the system frequency response performance. For typical performance metrics of the FFR provided by WTG based IBR plants, please refer to Section 6.2.3 of IEEE Standard 2800-

2022. BC Hydro will work with the IC to establish the detailed FFR performance requirements under System Impact Study stage.

## Appendix A

### Schematic Diagram of the IC's Project

Figure A-1 shows the schematic diagram for the [REDACTED] wind project. Note that the proposed plant configuration includes a total of 40 MVar switchable shunt capacitors.

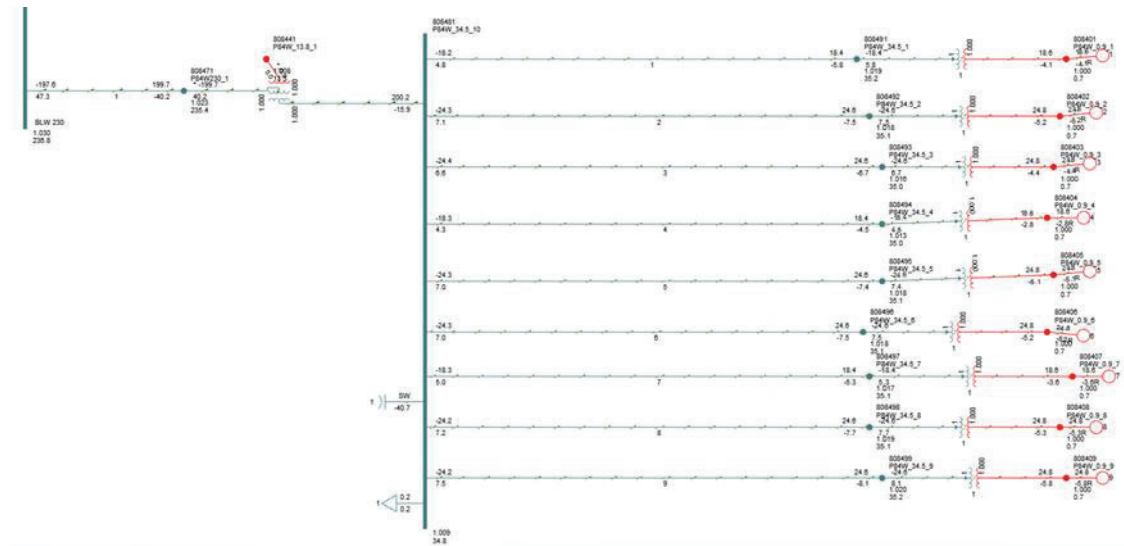


Figure A-1: [REDACTED] Wind Project Plant Schematic Diagram.

## Appendix B

### Power Flow Study Results

#### Base Scenario (31HW/32HS/32LS)

**Table B-1: Thermal Overload Study Results**

Cases	IC's Plant Output (MW)	Contingency		Branch Loading (MVA/% of its seasonal normal rating)				
				2L96A	2L96B	2L354	2L95A	2L95B
		Cat.	Description	WSN-█	█ BLW	BLW-RBF	RBF-SMM	SMM-SCK
Winter rating in MVA				471.7	471.7	318.7	318.7	318.7
31HW	Max	P0	System Normal	18 4%	148 31%	263 80%	234 72%	165 49%
		P1	2L96B	146 31%	N/A	120 36%	92 28%	53 16%
		P1	2L354	261 55%	117 24%	N/A	31 9%	117 35%
		P1	WSN-T4	24 5%	141 29%	256 78%	227 69%	158 47%
		P1	5L11	64 13 %	193 40%	308 94%	278 85%	207 62%
Summer rating in MVA				325.5	325.5	228.7	205.2	205.2
32HS	Max	P0	System Normal	40 12%	119 36%	238 101%	219 104%	154 73%
		P1	2L96A	N/A	143 43%	261 111%	242 115%	177 84%
		P1	2L96B	148 45%	N/A	121 51%	103 48%	40 19%
		P1	2L354	264 80%	120 36%	N/A	21 10%	87 40%
		P1	5L11	42 9 %	174 52%	292 125%	270 129%	205 97%
32LS	Max	P0	System Normal	45 13%	115 34%	250 106%	235 111%	170 80%
		P1	2L96A	N/A	143 43%	278 118%	263 125%	198 94%
		P1	2L96B	147 45%	N/A	137 58%	122 58%	64 30%
		P1	2L354	282 86%	137 41%	N/A	17 8%	75 36%
		P1	2L95A	267 81 %	121 36%	15 6%	N/A	66 30%
		P1	2L95B	205 62%	68 20%	83 35%	72 33%	N/A
		P1	WSN T4	33 10%	118 35%	252 107%	238 113%	173 81%
		P1	KLY T4	35 10%	120 36%	262 111%	247 117%	182 86%
		P1	5L11	31 9%	161 48%	296 127%	280 134%	212 102%

**Table B-2: Steady-State Voltage Study Results**

Case	IC's Generator Output (MW)	Contingency		Bus Voltage (PU)			
		Cate.	Description	WSN230	BLW230	SCK230	KLY230
31HW	Max	P0	System Normal	1.01	1.02	1.02	1.05
		P1	2L96A	1.02	1.02	1.02	1.05
		P1	2L96B	1.01	1.03	1.03	1.05
		P1	2L354	1.00	1.03	1.01	1.05
		P1	2L95	1.01	1.02	1.01	1.04
		P2	WSN_2CB7	1.01	1.02	1.02	1.05
32HS	Max	P0	System Normal	1.02	1.03	1.03	1.05
		P1	2L96A	1.02	1.02	1.02	1.05
		P1	2L96B	1.01	1.04	1.04	1.05
		P1	2L354	1.01	1.03	1.04	1.05
		P1	2L95	1.01	1.03	1.04	1.05
		P2	WSN_2CB7	1.02	1.02	1.02	1.05
32LS	Max	P0	System Normal	1.02	1.03	1.03	1.05
		P1	2L96A	1.02	1.02	1.02	1.05
		P1	2L96B	1.01	1.05	1.05	1.05
		P1	2L354	1.01	1.03	1.06	1.06
		P1	2L95	1.01	1.03	1.05	1.05
		P2	WSN_2CB7	1.02	1.02	1.02	1.05

## Appendix C

### One-Line Sketch

Figure C-1 shows the Stations Planning One-Line Sketch for the new line termination at BLW station.

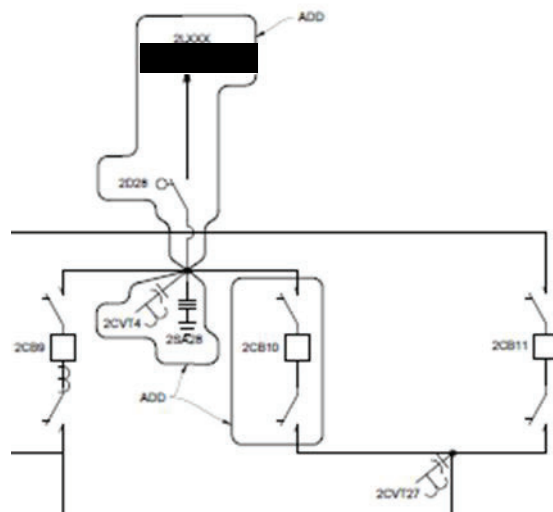


Figure C-1: Stations Planning One-Line Sketch