

# Interconnection request



Please provide information in all fields in each section, if applicable. Do not leave any fields blank. If any particular field is not applicable to your project please write N/A (not applicable).

## Interconnection customer information

Project name		Company name		Contact name	
Phone	Fax	Email			
Address	Unit/suite	Town/city	Province/state	Country	Postal/zip code

## Interconnection service information

The interconnection request is for (check one)

A proposed new facility    An increase in capacity of an existing facility    A material modification to an existing facility

The interconnection request type is (check all that apply)

Generation    Transmission    End user (load)

## General facility information

Address or location or the proposed new facility site or, the name and specific location of the existing facility

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Maximum rating of the proposed new facility or, amount of capacity increase of an existing facility in MVA

Winter (Oct. – April): \_\_\_\_\_ Summer (July – Sept.): \_\_\_\_\_ Spring (May – June): \_\_\_\_\_

General description of the equipment configuration for the facility

Proposed in-service date (YYYY/MM/DD)

Approximate location of the proposed point of interconnection

## Additional submission information

Check the boxes below to confirm each applicable document is being provided, along with this form:

Generation    Transmission    End-user (load)

### This interconnection request must be submitted via email or mail as follows:

Email: <a href="mailto:electricity.customerservice@fortisbc.com">electricity.customerservice@fortisbc.com</a> , cc: <a href="mailto:dane.gretchen@fortisbc.com">dane.gretchen@fortisbc.com</a>	Mail: FortisBC - Electricity 300 – 750 Vaughan Ave Kelowna, BC, V1Y 7E4	Attention: Key Account Manager – Shared Services, Energy Solutions
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The undersigned Interconnection Customer submits this request to interconnect its facility with the FortisBC Electrical System pursuant to the FortisBC Electrical Tariff and FortisBC Facility Connection Requirements.

### This interconnection request is submitted by:

Name (please print) \_\_\_\_\_ Signature \_\_\_\_\_ Date (YYYY/MM/DD) \_\_\_\_\_

## FortisBC USE ONLY

Received by \_\_\_\_\_ Date and time received \_\_\_\_\_ Signature \_\_\_\_\_

# Transmission facility technical data



Please provide information in all blue shaded fields in each section, if applicable. Do not leave any fields blank. If any particular field is not applicable to your project please write N/A (not applicable). Use additional forms if additional facility information is required.

## Overhead line or underground cable information

Nominal voltage (kV)	Length (km)	Conductor type	Conductor size
Conductor code name	Overhead ground wire type	Overhead ground wire size	Overhead ground wire code name
Pos-seq resistance $R_1$ (Ohms/km)	Pos-seq reactance $X_1$ (Ohms/km)	Zero-seq resistance $R_0$ (Ohms/km)	Zero-seq reactance $X_0$ (Ohms/km)
Summer continuous rating (MVA)	Summer emergency rating	Winter continuous rating (MVA)	Winter emergency rating (MVA)

Provide a description of the protection systems

Provide a description of the communications systems

Check the boxes below to confirm each mandatory document is being provided, along with this form:

Route map  Single line diagram including all electrical and all protection equipment

## Reactive compensation device information (if applicable)

Connection location			Rated voltage (kV)
Type	Rating (MVAR)	Configuration	Switching device type

Provide a description of the protection systems

Provide a description of the criteria for automatic switching

## Transformer information (if applicable)

Primary voltage rating (kV)	Secondary voltage rating (kV)	Tertiary voltage rating (kV)	Primary connection configuration
Secondary connection configuration	Tertiary connection configuration	Positive sequence impedance (%)	Zero sequence impedance (%)
Summer continuous rating (MVA)	Summer emergency rating	Winter continuous rating (MVA)	Winter emergency rating (MVA)
Tap changer location (HV or LV)	Tap changer type	Number of taps	Tap step voltage (%)

Provide a description of the protection systems

## Additional information

Provide a description of any additional applicable information, if required

# Generation facility technical data



Please provide information in all blue shaded fields in each section. Do not leave any fields blank. If any particular field is not applicable to your project please write N/A (not applicable). Use additional forms if additional facility information is required.

## Generator information

Maximum generator rating (MVA)	Maximum turbine rating (MW)	Rated voltage (kV)	Rated power factor (PU)
Rated amperes (A)	Rated speed (RPM)	Rated frequency (Hz)	Number of phases
Short circuit ratio	Type of generation (synchronous, induction, etc.)	Amortisseur windings connected	Synchronous condenser <input type="checkbox"/> Yes <input type="checkbox"/> No
Connection (delta/wye)	Type of grounding	Grounding resistance	Turbine and generator inertia constant (H)
Turbine and generator moment of inertia ( $WR^2$ )		Energy source (water, steam, wind, etc.)	

Provide a description of the protection systems

Provide a description of the communications systems

Check the boxes below to confirm each mandatory document is being provided, along with this form:

- Site plan(s) showing the location of the customer's facility and the proposed point of interconnection.
- Single line diagram(s) which include all electrical and protection equipment.
- Governor and exciter (including power system stabilizer, if applicable) model block diagrams and data sheets provided in a WECC approved model and in PSSE format.

## Impedance information (per-unit values on machine base kV and base MVA)

Base MVA		Base kV	
<b>Unsaturated values</b>		<b>Saturated values</b>	
D-Axis Synchronous Reactance ( $X_{di}$ )	D-Axis Transient Reactance ( $X'_{di}$ )	D-Axis Synchronous Reactance ( $X_{dv}$ )	D-Axis Transient Reactance ( $X'_{dv}$ )
D-Axis Sub-Transient Reactance ( $X''_{di}$ )	Q-Axis Synchronous Reactance ( $X_{qi}$ )	D-Axis Sub-Transient Reactance ( $X''_{dv}$ )	Q-Axis Transient Reactance ( $X'_{qv}$ )
Q-Axis Transient Reactance ( $X'_{qi}$ )	Q-Axis Sub-Transient Reactance ( $X''_{qi}$ )	Q-Axis Synchronous Reactance ( $X_{qv}$ )	Negative Sequence Resistance ( $R_2$ )
Negative Sequence Reactance ( $X_{2i}$ )	Zero Sequence Reactance ( $X_{0i}$ )	Q-Axis Sub-Transient Reactance ( $X''_{qv}$ )	Zero Sequence Resistance ( $R_0$ )
Leakage Reactance ( $X_{lm}$ )		Armature Resistance Per Phase ( $R_a$ )	Field Winding Resistance ( $R_f$ )

## Time constant information (seconds)

<b>D-axis values</b>		<b>Q-axis values</b>	
Open Circuit Transient ( $T'_{do}$ )	Open Circuit Sub-Transient ( $T''_{do}$ )	Open Circuit Transient ( $T'_{qo}$ )	Open Circuit Sub-Transient ( $T''_{qo}$ )
Short Circuit Transient ( $T'_d$ )	Short Circuit Sub-Transient ( $T''_d$ )	Short Circuit Transient ( $T'_q$ )	Short Circuit Sub-Transient ( $T''_q$ )

## Transformer information (if applicable)

Primary voltage rating (kV)	Secondary voltage rating (kV)	Tertiary voltage rating (kV)	Primary connection configuration
Secondary connection configuration	Tertiary connection configuration	Positive sequence impedance (%)	Zero sequence impedance (%)
Maximum continuous rating (MVA)	Maximum continuous rating (MVA)	Tap changer location (HV or LV)	Tap changer type
Number of taps	Tap step voltage	Current tap setting	

## Additional information

Provide a description of any additional applicable information, if required

# End-user (load) facility technical data

(Transmission service: for load connection requirements greater than 63kV or distribution service: for loads >5 MVA to be connected at 25kV and under)



Please provide information in all blue shaded fields in each section. Do not leave any fields blank. If any particular field is not applicable to your project please write N/A (not applicable). Use additional forms if additional facility information is required.

Interconnection voltage (kV)	Total connected load (kVA)	Proposed future connected load (kVA)	Existing peak demand (kW)
Additional expected peak demand (kW)	Load factor (%)	Expected power factor (%)	Electric heating load (kW)
Lighting load (kW)	Motor load (kW)	Other load (kW)	Hours of operation per day
			Days of operation per week

Provide a description of the loads that are included in the 'Other load' total above

Provide a description of the type of business or operation

Check the boxes below to confirm each mandatory document is being provided, along with this form:

- Site plan(s) showing the location of the customer's facility and the proposed Point-of-Interconnection.
- Single line diagram(s) clearly showing the connection of all major electrical equipment.

## Motor information (if applicable)

Provide the following information for all motors 50Hp and larger (attach a list if required).

Type (induction, synchronous)	Nameplate size (Hp)	Nameplate voltage (kV)	Starting (VFD, soft, direct)	Running (VFD, direct, etc.)	Comments

## Generation information (if applicable)

The customer facility has onsite generation for the following purposes (check all that apply)

- Emergency generation only, not to be paralleled with the FortisBC system
- Onsite generation paralleled with the FortisBC system, with no intent to export.
- Onsite generation paralleled with the FortisBC system, with intent to export.

Generator size (MW)

## Reactive compensation device information (if applicable)

Connection location	Type	Configuration
Rated voltage (kV)	Rating (MVAR)	Switching device type

Provide a description of the protection systems

Provide a description of the criteria for automatic switching

## Transformer information (if applicable)

Primary voltage rating (kV)	Secondary voltage rating (kV)	Tertiary voltage rating (kV)	Primary connection configuration
Secondary connection configuration	Tertiary connection configuration	Positive sequence impedance (%)	Zero sequence impedance (%)
Summer continuous rating (MVA)	Summer emergency rating	Winter continuous rating (MVA)	Winter emergency rating (MVA)
Tap changer location (HV or LV)	Tap changer type	Number of taps	Tap step voltage (%)

Provide a description of the protection systems

## Additional information

Provide a description of any additional applicable information, if required