Generation Facility Technical Data

Columbia Basin trust

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). 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 sped (RPM)	Rated frequency (Hz)	Number of phases
Short circuit ratio	Type of generation (synchronous, induction, etc.)	Amortisseur winding connected	Synchronous condenser ☐ Yes ☐ 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 communication system

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	
Unsaturated values		**Saturated values**	
D-Axis Synchronous Reactance (Xdi)	D-Axis Transient Reactance (X'di)	D-Axis Synchronous Reactance (Xdv)	D-Axis Transient Reactance (X'dv)
D-Axis Sub-Transient Reactance (X"di)	Q-Axis Synchronous Reactance (Xqi)	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 (Xqv)	Negative Sequence Resistance (R_z)
Negative Sequence Reactance (X_z)	Zero Sequence Reactance (X_0)	Q-Axis Sub-Transient Reactance (X"qv)	Zero Sequence Resistance (R_0)
Leakage Reactance (X_m)		Armature Resistance Per Phase (Ra)	Field Winding Resistance (Rf)

Time Constant Information (seconds)

D-axis values		**Q-axis values**	
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 charger location (HV or LV)	Tap charger type
Number of taps	Tap step voltage	Current tap setting	

Additional Information

Provide a description of any additional applicable information, if required