

Transmission and Substation

Fact Sheet

This fact sheet provides preliminary information about the anticipated scope, procurement processes and timing for contracts associated with the transmission and substation components of the Site C Clean Energy Project.

TRANSMISSION AND SUBSTATION

The transmission and substation components of the Site C project will be procured through multiple contracts, including existing BC Hydro blanket contracts and agreements. The contract areas are outlined below.

Transmission Line: Construction

Two new 500 kV transmission lines will be built from Site C to the Peace Canyon Dam over a distance of approximately 75 kilometres. The lines will be located along an existing transmission right-of-way between the Site C dam and the Peace Canyon generating station.

It is anticipated that a single construction contract will be issued that could include the following:

- Preparation of access roads, work areas and tower sites:
- Supply and installation of new 500 kV transmission line foundations;
- Removal of existing 138 kV transmission lines;
- Assembly and erection of lattice towers and hardware;
- Stringing of conductors; and,
- Ancillary works such as site roads, site drainage and site restoration.

Transmission Line: Supply of Lattice Towers

It is anticipated that the contract could include:

- Detailing of lattice tower structures;
- Test assembly and load testing of newly designed towers as required; and,
- Manufacture and supply of lattice tower structures, including fasteners.

Transmission Line: Supply of Conductors

It is anticipated that the contract could include:

Manufacture and supply of ACSR conductors.



Transmission Line: Supply and Delivery of Grillage Foundations

 It is anticipated that the transmission line foundation supply contract could include the manufacture, supply and delivery of steel grillage foundations.

Site C Substation: Design and Supply of 500 kV Shunt Reactor

It is anticipated that the contract could include:

 Design, supply and manufacture of one 500 kV, 135 MVAR shunt reactor.

Site C Substation: Construction

It is anticipated that a single construction contract will be issued for both the 500 kV and 138 kV switchyards, which could include the following:

- Civil work including site preparation, fencing, foundations, oil containment and crushed rock surfacing;
- Construction and fit-out of the control building;
- Supply and installation of the storage building;
- Electrical work including steel erection, buswork, power and control cables, grounding, lighting and equipment assembly and installation;
- Installation of protection and control equipment; and,
- Installation of telecommunication equipment and tower.



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Site C Substation: Supply of Pre-Fabricated Control Building

It is anticipated that this contract could include the design, supply and fabrication of the control building for the Site C substation.

Site C Substation: Supply of 550 kV Disconnect Switches

It is anticipated that this contract could include the design, supply, testing and delivery of 550 kV disconnect switches for the Site C substation.

PROCUREMENT PROCESS

The transmission and substation components of the Site C project will be procured through multiple contracts, including existing BC Hydro blanket contacts and agreements.

Contract	Procurement start date	Contract award date	Construction timeline (subject to change)
Transmission line: construction	Spring 2017		2017-2022
Transmission line: supply of lattice towers	September 16, 2016		Supplied from 2017- 2019
Transmission line: supply of conductors, insulator, hardware assemblies, spacer dampers, compression dead ends and splices and guy wires, hardwares and assemblies	Spring 2017		Supplied in 2018
Transmission Line: supply of grillage foundations	December 2016		Supplied in 2017
Site C substation: design and supply of 500 kV shunt reactor	August 15, 2016	February 2017	Supplied in 2018
Site C substation: construction	Spring 2017		2017-2019
Site C substation: supply of pre- fabricated control building	December 2016	March 2017	Supplied in 2017
Site C substation: supply of 550 kV disconnect switches	December 6, 2016	March 2017	Supplied in 2017
Site C substation: supply of various high voltage equipment (blanket contracts)	Winter 2017		Supplied from 2017- 2018

The Site C Clean Energy Project is a hydroelectric dam and generating station under construction in northeast B.C. The project is being built to meet long-term electricity needs in B.C. Once complete in 2024, the project will provide clean, renewable and cost-effective electricity for more than 100 years.