

Site C Overview



The Site C project is the third dam and hydroelectric generating station on the Peace River and is located on the traditional territory of the Treaty 8 First Nations.

The project benefits from the upstream storage of Williston Reservoir (behind the W.A.C. Bennett Dam), which means that the same water is used three times to generate electricity.

Construction of Site C began in July 2015 and the project remains on track to have all six generating units in service by fall 2025.

Once completed, the facility will be a source of clean and renewable electricity for more than 100 years and it will produce about 5,100 gigawatt hours of electricity each year, (enough to power 450,000 homes, or 1.7 million electric vehicles in B.C.)

Recent construction milestones

Earthfill dam completion (July 2023)

- The earthfill dam is about 60 metres tall, more than one kilometre across the Peace River, and about 500 metres wide (at its base).
- 15.5 million cubic metres of earthfill material was used to construct the dam—enough to build a wall 1 metre high and 1 metre wide on both sides of the Trans-Canada Highway from coast to coast.

Tunnel conversion completion (September 2023)

- Since fall 2020, two tunnels have been diverting the Peace River to allow for earthfill dam construction.
- In summer 2023, we completed tunnel conversion which involved the installation of four large rings inside one of the tunnels to restrict the flow of water during the initial phase of reservoir filling.

Next major milestone: Reservoir filling

- Reservoir filling is targeted to begin in late summer, or early fall 2024.
- The fill is expected to take approximately four months, with water rising up to 3 metres a day.
- The Site C reservoir will be 83-kilometres long and on average, two to three times the width of the current river.

Site C reservoir benefits to the surrounding communities

- Improving six segments of Highway 29 between Fort St. John and Hudson's Hope (over a total distance of 30 kilometres), including building five new bridges.
- Three new boat launches and day-use recreation areas (currently under construction) in Hudson's Hope, Lynx Creek and Halfway River.

Did you know?

- Site C employment reached a peak of 6,069 workers in June 2023.
- The powerhouse will have six generating units, with a combined capacity of 1,100 megawatts.
- Once Site C is in full operation, the Peace River system will generate approximately 40% of BC Hydro's power.

Site C dam: Upstream



- 1 Diversion tunnel inlet
- 2 Diversion tunnel outlet

- 3 Earthfill dam
- 4 Roller-compacted concrete buttress

- 5 Powerhouse
- 6 Approach channel

Site C dam: Downstream



- 1 Spillways
- 2 Tailrace

- 3 Penstocks
- 4 Powerhouse

- 5 Permanent fish passage
- 6 Earthfill dam

LEARN MORE ABOUT THE PROJECT

Site C project: sitecproject.com
Reservoir filling: sitecproject.com/the-reservoir
News & information: sitecproject.com/news-and-information

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