

## SITE C CLEAN ENERGY PROJECT

### SITE C AT A GLANCE

The Site C project is a third dam and hydroelectric generating station on the Peace River in northeast British Columbia.

Site C received federal and provincial environmental approvals in 2014 and the Province of B.C. announced a final investment decision on December 16, 2014.

Construction of Site C is **more than four years underway**. It started on July 27, 2015, and the project will be in service in 2024.



Excavations of the diversion tunnels are substantially completed. They will be temporarily coated with shotcrete until the permanent concrete liner is installed.

#### Benefits

- BC Hydro expects a growing need for both energy and capacity for the province, and Site C is the best option to meet those needs over the long term.
- Site C will provide 1,100 megawatts of dependable capacity and generate about 5,100 gigawatt hours of energy each year — enough to power the equivalent of 450,000 homes.
- Many renewable energy sources — such as wind and solar — are intermittent. This means they are not always available to generate electricity and may not be available at times of peak demand. Site C will always be available to provide electricity when needed and will add capacity to B.C.'s system.
- The project benefits from the upstream storage of the W.A.C. Bennett and Peace Canyon dams – this means that the same water is used three times to generate electricity. The project will generate approximately one-third of the Bennett Dam's energy, with a reservoir about five per cent the size of Williston reservoir.

#### Construction highlights to date

- 1,750 room worker accommodation.
- The project has substantially completed the excavation on the north bank slope and the components of the dam and powerhouse are well underway. North and south cofferdams are complete.
- The first diversion tunnel was started from the inlet portal in August 2018; the second diversion tunnel was started in September 2018. In December 2019, excavations of the tunnels were substantially completed.
- The powerhouse buttress was completed in October 2018. On top of this concrete structure, the generating station is being built. The dam buttress is scheduled to begin in 2020.
- The generating station and spillway civil works contractor mobilized to site in spring 2018 and began initial concrete placement for the generating station in August 2018. On October 30, 2019 roller compacted concrete placements in the upper spillway buttress was completed.
- Transmission line construction continues, and is focused on the western portion of the corridor.
- The turbines and generators parts continue to be manufactured and shipped to site by rail for final manufacturing at a specialized facility on the south bank.
- The substation is nearing completion.

### **Project budget**

- Work is underway on the realignment of Highway 29 on segments at Cache Creek West, Cache Creek embankment, Halfway River and Lynx Creek.
- The project budget is \$10.7 billion. This is a capital cost estimate of \$9.992 billion, which includes \$858 million in contingency, plus a \$708 million project reserve held by Treasury Board to account for events outside of BC Hydro's control (e.g., higher than forecast inflation or interest rates).
- Taken together, the contingency and the project reserve are in place to address potential risks to project costs.

### **Financial commitments**

- As of December 31, 2019, the project has spent approximately \$ 4.7 billion
- As of December 31, 2019 BC, Hydro has financial commitments — contracts and agreements — for the Site C project totalling \$7.5 billion.
- Community agreements have been reached with the City of Fort St. John, District of Taylor, District of Chetwynd and District of Hudson's Hope.
- A 70-year Regional Legacy Benefits Agreement has also been signed with the Peace River Regional District and its member communities.

### **Employment**

- As of December 2019, there were 4,330 people working on Site C, including 3,197 workers from B.C. (74% of workforce), with 689 from the Peace River Regional District.

### **Indigenous relations**

- BC Hydro has been consulting and engaging with Indigenous groups since 2007.
- BC Hydro has reached agreements with a number of First Nations affected by the project. While specific agreements are confidential, they could include elements such as cash payments, land transfers, land protection measures, and business opportunities during construction.
- In December 2019, there were 336 Indigenous workers on the Site C project.

### **Agriculture**

- More than 99 per cent of Class 1 to 5 agricultural lands (land capable of crop production) in the Peace Agricultural Region will not be affected by Site C.
- Overall agricultural production in the region is expected to benefit from mitigation measures, including a \$20 million agricultural compensation fund that will support agricultural programs and projects such as irrigation and drainage improvements.

### **Properties**

- About 90 per cent of the fee simple land required for the project is owned by BC Hydro and the Crown; the remaining 10 per cent is privately owned.
- In most cases, only a small portion of the remaining properties that are privately owned need to be acquired. There are fewer than 20 homeowners who may not be able to remain on their property as a result of Site C.

### **Procurement**

- The majority of the major Site C contracts have been awarded, including the main civil works, generating station and spillway civil works, transmission line construction, and substation.
- The procurement for the balance of plant contract is underway.
- Future procurements include Highway 29 and various supporting works.