



# SITE C CAPITAL COST ESTIMATE

The Site C capital cost estimate of \$7.9 billion was developed in 2010 and included all construction, development, inflation and interest costs, as well as contingencies. The bottom-up estimate was completed by a team of internal and external engineering and construction experts, and underwent an external peer review by KPMG LLP to validate the methodologies and assumptions.

In 2014, BC Hydro conducted a cost refresh to reflect the advanced stage of project design and engineering and to prepare for a final investment decision by government. The refresh showed that while some costs had increased due to factors such as a longer environmental assessment process, enhancements to worker accommodation and larger diversion tunnels, the original cost estimate remained appropriate as these increases were largely offset by savings from lower than anticipated interest rates, efficiencies in project design and reduced excavation requirements.

As part of government's due diligence, the capital-cost estimate was reviewed and updated to \$8.335 billion. Government also decided to establish a project reserve of an additional \$440 million, to account for events outside of BC Hydro's control that could occur over an eight-year construction period, such as higher than forecast inflation or interest rates, for a total of up to \$8.775 billion. The reserve will be subject to provincial Treasury Board approval.

The increase to the capital cost estimate from \$7.9 billion to \$8.335 billion reflects:

- Costs associated with the change from the harmonized sales tax (HST) to the provincial sales tax (PST). If the capital cost estimate had not been updated to reflect this cost, BC Hydro would have been required to use funds from the project contingency budget. Government felt that it was prudent to increase the capital cost estimate so that the full contingency could be maintained.
- A revised construction start date of summer 2015 to allow more time to complete the permitting process. The revised start date results in a longer construction period which increases inflation and interest costs during construction.

As with other large capital projects, BC Hydro will be required to provide regular reports to both the British Columbia Utilities Commission and government, during construction.

#### Debt Impact

Site C will result in a net incremental increase to BC Hydro's forecast debt of approximately \$6.4 billion. This is less than the capital cost estimate for the project due to lower dividend payments to government and costs that have already been incurred.

For context, BC Hydro is currently investing an average of \$1.7 billion per year to maintain and upgrade its existing system. With Site C, BC Hydro's total capital spending will average about \$2.4 billion per year.

### **Due Diligence Reports**

In 2014, external peer reviews were completed to validate the methodologies and assumptions of the project's capital cost estimate. The full reports are available online at <a href="https://www.sitecproject.com">www.sitecproject.com</a>

#### **KPMG LLP**

KPMG conducted a review of the updated capital cost estimate and concluded that the level of care and diligence was consistent with an infrastructure project about to enter construction phase, that reasonable and appropriate processes were followed for developing the assumptions used in the Financial Model, and that the methodology behind the cost estimate was appropriate.

"Since the 2010 estimate, KPMG performed another thorough review of the 2014 cost estimate process and again we found the extensive process exemplary."

(December 2014)

"We have reviewed the Assumption development process and it shows a level of care and diligence consistent with an infrastructure project about to enter the construction phase."

(October 2014)

## **Panel of Independent Contractors**

An additional review of the project's estimate of direct construction costs was undertaken by a panel of experienced independent contractors. The panel was made up of individuals that each have 35 to 50 years of experience in management and construction of major projects.

The panel concluded that the capital cost estimate was sufficient for the proposed scope and schedule of the project, contained an appropriate level of accuracy for making a final investment decision and was at a level of detail comparable to a private sector contractor estimate. The panel also concluded that the updated contingency was sufficient to cover any reasonable cost increases.

"Overall, it is the panel's conclusion that the estimate is sufficient for the proposed scope and schedule of Site C. The estimate has an appropriate level of accuracy for making a final investment decision. Further, there are some opportunities for cost reduction available."

"The direct cost estimate has been prepared to higher level of detail than typical owner's estimates and at a similar level of detail as a Contractor in the Private Sector."

"The direct cost estimate appears to be sufficiently complete and adequate to cover all anticipated costs associated with constructing the works in the planned time schedule."

"The estimate has sufficient allowances/contingency to cover any reasonable increase in cost resulting from design development or cost estimate uncertainty."

(October 2014)

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