

PROJECT BENEFITS

VOLUME 1, SECTION 7

The Environmental Impact Statement (EIS) details the environmental assessment undertaken for the Site C Clean Energy project. The EIS includes the project rationale, identifies potential effects and proposes measures to avoid or mitigate these effects. The EIS also describes the benefits Site C would provide for customers, Aboriginal groups, northern communities and the province as a whole.

Site C would provide important benefits to British Columbians and Canada. Key benefits include providing energy, dependable capacity and system flexibility to help meet growing customer demand, along with regional economic development, job creation, increased government revenues, and benefits for communities and First Nations.

SYSTEM BENEFITS

- **Energy:** Site C would provide an average of 5,100 GWh of energy every year. Over 90 per cent of this average energy is firm energy, available to serve BC Hydro customers even in the driest historical weather conditions.
- **Dependable capacity:** Site C would add 1,100 MW of dependable generation capacity to the BC Hydro system. Dependable capacity is the maximum amount of power that can be reliably supplied to meet peak instantaneous customer demand.
- **Flexibility:** Due to the ability to store water in a reservoir, power produced from large hydroelectric resources like Site C can typically be adjusted to meet the needs of the overall power grid, such as the fluctuations in the system load or in response to varying levels of energy supplied by intermittent resources like wind and run-of river.
- **Optimizing existing facilities on the Peace River:** A key advantage of the Site C project is its location on the Peace River downstream of the existing W.A.C. Bennett and Peace Canyon dams and their respective Williston and Dinosaur reservoirs. The Williston Reservoir has a multi-year storage capacity. As a result, Site C would be able to produce approximately 35 per cent of the energy produced at the W.A.C. Bennett Dam, with five per cent of the reservoir area.

ECONOMIC AND EMPLOYMENT BENEFITS

- **Economic development benefits:** Construction and operation of the project would generate economic benefits at the local, provincial, and federal level due to the purchase of goods and services for construction, operations and sustaining capital investment. Economic development during the construction period is expected to add \$3.2 billion to the provincial GDP.
- **Employment benefits:** Construction of the project would create approximately 10,000 direct construction jobs, and approximately 33,000 total jobs through all stages of development and construction.
- **Economic benefits to Aboriginal groups and local communities:** BC Hydro is working to encourage Aboriginal and local participation through investments in training and education and promotion of job opportunities within the local community.
- BC Hydro is also continuing discussions with Peace region communities about legacy benefits from Site C, and engaging with some Aboriginal groups about impact benefits agreements.

BENEFITS TO RATEPAYERS AND TAXPAYERS

- **Benefits to BC Hydro ratepayers:** The project would provide cost effective, clean and reliable electricity for more than 100 years with stable and predictable costs for ratepayers.
- **Benefits to taxpayers:** Construction of Site C would result in a total of \$486 million for all three levels of government through taxation revenues generated by the project. Once operational, the project would contribute \$43 million annually to provincial and local governments through grants-in-lieu of taxes, school taxes, and water rental fees, in addition to a return on equity and contribution to dividend to the Province each year (\$220 million in the first year of operations).

ENVIRONMENTAL, SOCIAL AND SUSTAINABILITY BENEFITS

- **Greenhouse gases:** The project would have among the lowest emissions of GHG per unit of energy produced over the life of the project compared to other forms of electricity generation.
- **System reliability:** The proposed new substation would provide improved system reliability for BC Hydro customers in the project area by being more closely connected to the transmission system.
- **Road and highway infrastructure:** There would be long-term benefits from road and highway infrastructure improvements completed as part of the project.



ABOUT THE SITE C CLEAN ENERGY PROJECT

Site C is a proposed third dam and hydroelectric generating station on the Peace River in northeast B.C. Site C would provide 1,100 megawatts (MW) of capacity, and produce about 5,100 gigawatt hours (GWh) of electricity each year – enough energy to power the equivalent of about 450,000 homes per year in B.C.

Site C is undergoing a cooperative environmental assessment by the Canadian Environmental Assessment Agency (CEA Agency) and the British Columbia Environmental Assessment Office (EAO). The environmental assessment process commenced in August 2011 and is anticipated to take approximately three years to complete.

FOR MORE INFORMATION visit bchydro.com/sitec

PO Box 2218

Vancouver, B.C. V6B 3W2

Toll-free: 1 877 217 0777

Email: sitec@bchydro.com

Fax: 604 695 5290

Community Consultation Offices

9948 100th Avenue

Fort St. John, B.C.

V1J 1Y5

The Pearkes Center

10801 Dudley Street

Hudson's Hope, B.C. V0C 1V0