

# Site C: It's not too late to hit pause

New research suggests that Site C could incur hundreds of millions in unnecessary costs. Refer it to the BC Utilities Commission for a full review.

[Gordon Christie](#), [Rick Hendriks](#), [Philip Raphals](#), [Karen Bakker](#)

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Site C is an \$8.3-billion hydroelectric project in the early stages of construction by BC Hydro, the provincial power utility, on the Peace River in northeastern British Columbia. It is designed to produce 1,100 megawatts of capacity and 5,100 gigawatt-hours per year of energy, starting in 2024. Supporters of the project have promoted it as a “[clean, renewable energy](#)” project. They have also argued that Site C is the most cost-effective way of meeting forecast increases in electricity demand, while being the preferred way of contributing to meeting British Columbia’s and Canada’s climate change objectives.

Our [research](#) at the University of British Columbia’s Program on Water Governance (comprised of five reports written on Site C assessing First Nations issues, the regulatory process, greenhouse gas emissions, environmental impacts and economic issues) shows these claims are incorrect.

Site C is not the *greenest* option. Meeting future electricity requirements with Site C would create higher greenhouse gas emissions than the alternative plan that BC Hydro originally put forward. Site C will also have more significant adverse environmental impacts than any project ever approved under the history of the Canadian Environmental Assessment Act.

Site C is also not the *cheapest* option. Moreover, forecasts of future electricity requirements have dropped. As a result, the business case for Site C is questionable, as it is considerably more expensive than cheaper, more environmentally benign alternatives. BC Hydro could have chosen a less expensive alternative path, combining additional electricity conservation, wind power and pumped storage. Site C will be hundreds of millions – and perhaps even up to \$1.5 billion – more expensive than this alternative.

Another good reason to hit pause: the federal and provincial governments have proceeded with Site C despite ongoing court challenges by Indigenous groups concerned about infringement of treaty rights. Government officials claimed that Indigenous rights would be handled fairly by the regulatory process. This too has not proven to be the case. The way that the interests of First Nations have been handled belies the federal and provincial governments' stated commitment to meaningful reconciliation with Indigenous peoples in Canada.

The Site C project was entirely exempt from review of economic issues (such as the relative cost of Site C versus other alternatives) by the BC Utilities Commission, despite such a review being recommended by the federal and BC governments' own Joint Review Panel (which examined environmental issues, as part of a review process under the Canadian Environmental Assessment Act). So the project has not received a full, transparent review of the issues we have identified. Our [research](#), summarized here, partially fills this gap and indicates that it is not too late to hit pause on the project.

### **Site C: A weak business case**

If the review of Site C took place today, the project would not, in our view, be approved, for three reasons: the significant decline in the cost of alternative sources of electricity; the significant decline in export market prices; and the dramatic drop since 2012 in BC Hydro's forecast electricity needs.

### **Falling demand and rising costs**

BC Hydro's [forecast of future electricity demand](#) has gone down substantially over the past four years. The result: electricity from Site C will be 100 percent surplus upon commissioning in 2024. Site C electricity will not be fully required for nearly a decade thereafter, and potentially much later depending on actual future electricity requirements.

This overestimation of demand is unsurprising. Our research demonstrates that BC Hydro has overestimated future electricity demand in 85% of the load forecasts that they have produced over the past 30 years. In 1981, BC Hydro forecast that electricity demand would almost double in just 10 years, and the Site C project was proposed on that basis. Yet, more than 35 years later, demand still has not doubled. In the run-up to the Site C approval process, BC Hydro's demand forecasts increased annually until the year of the Site C environmental review. Since the project's approval in 2014, they have dropped significantly.

Exports are not an option for avoiding this significant burden to BC ratepayers. Innovation in the energy market has pushed prices in other jurisdictions lower than the cost of energy from Site C.

As a result, the surplus produced by Site C will have to be sold at a loss. We estimate these future losses to be on the order of \$950 million, and potentially well over \$2 billion if the surplus-yielding period is longer.

Meanwhile, the costs of alternative resources have fallen substantially. For example, the cost of electricity from wind power has dropped by 20 percent since 2012, and [Bloomberg](#) and the [International Renewable Energy Agency](#) are expecting wind power costs to fall by another 20 percent — at least — by 2030. As a result, Site C will be between \$500 million and \$1.5 billion more expensive than the alternative plan we compared it against, which is an updated version of a plan previously considered by BC Hydro consisting of a combination of additional conservation, wind power and pumped hydro storage.

The good news for BC is that it is not too late to change course, according to our detailed modelling. Although BC Hydro has already started construction, it would still be cheaper to cancel the project rather than complete it. We therefore recommend that BC Hydro immediately suspend work on the project and that the government refer the project to the BC Utilities Commission for further review.

### **Site C is not as “clean and green” as 21st-century renewables like wind**

The Site C reservoir, like all reservoirs, will have significant greenhouse gas emissions. BC Hydro has estimated the range as between 5 and 7 million tonnes over the first 30 years of operations (or the equivalent of adding 50,000 passenger vehicles to BC roads over that period). Our analysis shows that Site C's emissions would actually be larger than those from the alternative portfolio. Moreover, Site C's emissions would peak dramatically after commissioning in 2024 – precisely at the time that we are trying to reduce emissions.

Some proponents argue that decarbonizing the economy by using electricity to replace fossil fuels (in electric cars, for example) will create enough demand for electricity to justify Site C. Our research shows that this “electrification” of the economy will not produce enough demand to justify Site C on the current timeline. BC Hydro's own forecasts indicate that electricity demand from electrification will be relatively modest into the 2030s; by that time, other cheaper, less environmentally damaging renewables could be developed.

Our research also reveals that Site C will also have more significant adverse environmental impacts than any other project approved in the 25-year history of the *Canadian Environmental Assessment Act*. The unprecedented scale of these impacts is due to the vital role that the Peace River Valley plays in the ecology of the region. The alternative plan would have far fewer environmental impacts, and none of them would be as significant as those from Site C.

### **Site C makes a mockery of the commitment to reconciliation**

Over the last half century, non-Indigenous society has increasingly interfered with the ability of Indigenous communities to live in the Peace River watershed. Dams were built within the watershed in 1967 and 1980, flooding vast stretches of the valley, creating North America's largest

reservoir and displacing First Nations without environmental assessment or compensation, which was not given until decades later. First Nations signatories were promised upon signing Treaty 8 in 1899 that they could live as they did before and enjoy their treaty rights to hunting, fishing and cultural uses of the river and its valley.

Indigenous communities have repeatedly pointed to the fact that Site C would flood most of the remaining valley and severely harm treaty rights. However, the question of treaty rights infringement was excluded from the Joint Review Panel's mandate by the provincial and federal governments, forcing the affected Treaty 8 First Nations to pursue the matter in court. But the BC Court of Appeal and the Federal Court of Appeal both [recently ruled](#) that the Crown has the ability to proceed without being forced to consider the matter of treaty rights. As these two decisions came out a week apart (in late January and early February) it is too early to know if they will be appealed up to the Supreme Court of Canada (and whether any such appeal would be granted by the Court).

In the meantime, the government's "build first, litigate during and compensate after" approach to development has been condemned by Indigenous leaders across Canada. In essence, it is a double standard: First Nations are forced to engage in lengthy and expensive litigation in order to require the government to fulfill its constitutional obligation to assess and protect the full scope of their treaty rights, while the Crown is allowed to simply act as it pleases. Governments are playing a legal shell game, where the key goal is to have Site C proceed without any meaningful assessment of whether the project infringes on First Nations' Treaty rights.

The bottom line is that the federal government has committed to reconciliation with Indigenous peoples. And it has adopted the UN Declaration on the Rights of Indigenous Peoples — which requires free, prior and informed consent on the part of Indigenous peoples before resource development is pursued — with the promise of changing the status quo. But the actions of both the provincial and federal governments have contradicted their commitments. This, in our view, is another key reason to hit pause on the Site C project.

### **What should we do?**

The answer is simple. Since we are not past the economic point of no return, it is just common sense to hit pause and refer the project to the BC Utilities Commission for a full review.

Furthermore, hitting pause would provide the necessary time for one of two processes: either the federal Department of Justice could conduct a full assessment of the effects of the dam on constitutionally protected treaty rights, or a dialogue could be established between the treaty parties to settle this matter through fair negotiations. Either path would allow both levels of government to fulfill their stated promise of working toward reconciliation with First Nations by answering a basic question: Does the dam project infringe upon the constitutionally protected rights of the Treaty 8 First Nations?

The merits of the business case and infringement on Treaty rights should have been assessed before Site C was approved. This is simple common sense.

Our research indicates that proceeding with Site C may result in hundreds of millions or even billions of dollars of unnecessary costs, for a project that will have an unprecedented environmental impact. It is imperative that the Site C Project be referred to the BC Utilities Commission, so that we can take a sober second look.

Photo: Local Liberal candidate Dan Davies looks on as Liberal leader Christy Clark makes a campaign stop at Inland Concrete in Fort St. John, B.C., Tuesday, April 18, 2017. THE CANADIAN PRESS/Jonathan Hayward

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[\(514\) 985-2461](tel:(514)985-2461)

[irpp@irpp.org](mailto:irpp@irpp.org)

1470 Peel St. #200

Montreal, Quebec

Canada H3A 1T1