

Pembina Institute Assessment of the B.C. Clean Energy Act

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1. Introduction

The B.C. government introduced the [Clean Energy Act](#) (Bill 17) on April 28, 2010. The Act repackages elements of existing policy and introduces a number of changes (some minor and some significant) to the way decisions about electricity supply and demand will be made in British Columbia. The provincial energy objectives that underpin the Act are largely positive, but there are several that will be contentious and merit further debate.

The Pembina Institute has assessed the Act against a set of [six recommendations](#) for clean electricity development that we co-authored in December 2009. The following table summarizes how the Act compares with those recommendations.

Original Recommendation	Relevant Changes in the Clean Energy Act	Comments	Further Discussion
Ensure that energy conservation and efficiency is the highest priority.	Commitment to meet 66% of new demand through conservation (up from 50%).	The increased commitment is welcomed, although it still short of B.C. Hydro's recent 72% proposal. The use of conservation rates, increased incentives and more stringent regulations will likely demonstrate that even more is possible.	4.1 and 4.2
Make B.C.'s electricity supply as clean, renewable and low-impact as possible.	<ul style="list-style-type: none"> - Commitment that 93% of electricity will come from clean or renewable sources (up from 90%). - Enables a feed-in-tariff for emerging electricity-generating technologies. 	The Act will increase the amount and diversity of clean electricity in B.C., but could do more to help ensure that new projects will be as low-impact as possible.	3.1 and 4.2
Adopt an electricity planning framework that limits environmental, social and economic impacts and maximizes public benefit.	Establishes an integrated resource planning process.	Until the scope, content, and level of public engagement and consultation is known, it is difficult to evaluate. Given the diminished role of the Utilities Commission, the Act could degrade the quality of electricity planning and decision-making.	2.1, 5.1, and 5.2
Reform water licensing, land leasing decisions and governance.	None.	The Act does not address this set of concerns. The Water Act Modernization could address some of them.	3.3 and 5.2
Strengthen environmental assessment process, address and manage cumulative effects, and improve monitoring and compliance.	Amends Environmental Assessment Act to allow consideration of cumulative effects.	The range of reforms sought has not been addressed, and other solutions are still needed. The integrated resource planning process could be an opportunity to address some of the remaining gaps if scoping includes regional scale planning.	5.2 and 5.3
Develop an informed consensus about the conditions whereby clean electricity could be exported from B.C., if at all.	<ul style="list-style-type: none"> - Establishes being a net exporter of electricity as a provincial objective. - Mandates B.C. Hydro to incorporate export opportunities into their plan. 	The Act presumes that a consensus about developing electricity for export already exists.	2.2

The remainder of this assessment is structured as follows:

- Section 2 discusses the major changes introduced in the Act.
- Section 3 highlights other notable changes introduced in the Act.
- Section 4 profiles positive elements of B.C.'s energy policy that have been strengthened in the Act.
- Section 5 details key issues that were not addressed by the Act.

2. The Major Changes that Deserve Further Debate

2.1. Diminished role for the B.C. Utilities Commission

The Act shifts decision-making power from the B.C. Utilities Commission to the B.C. Cabinet for most decisions about how much electricity will be produced in the province. Cabinet decisions in this regard are expected to be based on the results of an integrated resource planning process conducted by B.C. Hydro.

This is an important change because the Utilities Commission has been the forum for public scrutiny of past B.C. Hydro plans. The loss of this valuable oversight and review function is a cause for concern. As an administrative tribunal, the Utilities Commission has a level of expertise and insight that has generally resulted in a positive contribution to decision-making in the interests of British Columbians. Whether or not the integrated planning process can help fill this void will depend in large part on the quality of the planning process conducted by B.C. Hydro. If the planning process is robust and includes broad-based and meaningful input, the plans provided to government could approximate or, optimistically, improve the current approach. Alternatively, if the planning process is not broadly scoped and resourced, or if it doesn't seek and account for extensive public input, the plan presented to Cabinet will be weak relative to the current system.

It is difficult to predict exactly how B.C. Hydro will scope and conduct those planning processes because, apart from some specific elements (e.g. requirements for B.C. Hydro to provide a description of the consultations conducted and a description of export opportunities), the Act doesn't prescribe how planning should be conducted. The only current requisite for quality is that the plan be "consistent with good utility practice."

Three areas in which the planning process is likely to be inadequate are: 1) the decision to build Site C, 2) the decision to build the Northwest Transmission Line and 3) the decision to build electricity for export. While these decisions would likely be included in B.C. Hydro's planning process, the ability to debate them in that process will be severely hindered by the government's pre-determination that the projects will be moving ahead.¹ By prematurely making these decisions, the government is essentially defining the future of B.C.'s electricity system with no further public input at the planning stage or independent oversight and review. Unless addressed, these will be significant missed opportunities to develop a more cohesive provincial electricity strategy.

¹ Backgrounder – Pursuing Export Opportunities: <http://www.mediaroom.gov.bc.ca/DisplayEventDetails.aspx?eventId=490>
Fact Sheet – Northwest Transmission Line: <http://www.mediaroom.gov.bc.ca/DisplayEventDetails.aspx?eventId=490>
Fact Sheet – Site C: <http://www.mediaroom.gov.bc.ca/DisplayEventDetails.aspx?eventId=490>

2.2 Explicit objective to pursue electricity exports

B.C. has a longstanding history of trading electricity to take advantage of market opportunities because of the flexibility of the province's hydro-electricity. In the past decade, the trade balance of electricity has, on average, been declining and the amount of electricity produced in the province is currently close to the amount consumed. Existing policy to be electricity "self-sufficient" had already mandated B.C. Hydro to have a surplus equivalent to about 5% of demand. While this surplus would presumably be used for export, the new Act makes that objective much more explicit and suggests that a much larger surplus could be built for export.

The objective of building surplus resources in B.C. will be contentious, and rightly so because it is not a straightforward decision. There are economic opportunities and environmental benefits that could be associated with an export strategy, but whether or not those benefits materialize will depend in large part on the nature of the export contracts. For example, exporting clean electricity to other jurisdictions could help them reduce their greenhouse gas emissions if those jurisdictions have policies such as carbon taxes, cap-and-trade systems or renewable portfolio standards. Linked with this are the costs to B.C.'s environment, and a discussion about the trade-offs that will still be required. The needed public debate on this issue will be severely limited in any B.C. Hydro planning processes because the Act establishes being a net exporter of electricity as an objective, and mandates B.C. Hydro to incorporate export opportunities into their plan.

As part of the province's emerging export strategy, the Act intends to limit the likelihood that B.C. Hydro customers will be put in a position of subsidizing the development and transmission of exports through domestic rates. This is a sensible objective, but defining the costs associated with exports versus the costs associated with domestic use will be challenging. The Act leaves the task of determining this split to the B.C. Utilities Commission. Equally important questions are the degree to which the province will contribute to the costs, share the risks and share the benefits of an export strategy. The Act does not address these questions.

3. Other Notable Changes

3.1. Feed-in tariffs to encourage emerging technologies

The Act gives the government and B.C. Hydro the ability to implement feed-in tariffs (preferred pricing) for emerging clean electricity technologies that wouldn't be cost-competitive with resources such as wind or run-of-river projects. The Act doesn't provide details on what resources would qualify for the program, but possible examples could include geothermal or solar electricity. Additionally, no information is yet available on how much electricity will be contracted through the program. The program will be different from Ontario's feed-in tariff model, which is designed to encourage all types of renewable energy and be the province's primary purchasing tool for new supply. B.C. intends to continue its call for power process for more established types of renewable electricity.

3.2. Fuel-switching to reduce greenhouse gas emissions

An objective in the Act is "to encourage the switching from one kind of energy source or use to another that decreases greenhouse gas emissions in British Columbia." To achieve this objective, the Act authorizes Cabinet to define eligible fuel-switching programs or projects, after which, utilities could choose to implement eligible projects and recover the costs through their rates. Until those

prescribed programs and projects are determined, it is difficult to predict how it will actually influence utility planning and decision-making.

The objective is notable because it is the first time the government has moved away from a position of being agnostic on different fuel sources as long as the energy was being used efficiently. Having a fuel-switching objective could provide guidance to debates about switching between gas and electric heating, which has been an issue in past B.C. Hydro plans. This objective could also guide other discussions such as encouraging a switch to electric vehicles or taking this consideration further up the production chain and addressing the current pressure to develop new natural gas basins in B.C. Many of these decisions are not straight forward, and incorporating them into the integrated resource planning process would be welcome.

3.3 Creating a First Nations clean energy business fund

Part 6 of the Act creates a new account within the provincial government's budget called the First Nations Clean Energy Business Fund. The account will start with up to \$5 million dollars and can be added to from general government revenues and from the land and water rents generated from power projects in B.C. The funds in the account can be shared with First Nations and used to help First Nations people participate in the clean energy sector. The Act provides few details about how much money will actually be in the account over time or how it will be shared with First Nations. The emergence of those details will dictate the degree to which the fund can fairly share the benefits of clean electricity projects with First Nations and help them be active participants in the sector.

4. Continued Strengths

The Act affirms and strengthens two areas of electricity policy that have already seen significant improvement relative to the 2002 energy plan. Both could still be further improved, but the new steps are clearly positive ones.

4.1 Increased commitment to energy efficiency and conservation

The Act increases the commitment to energy efficiency and conservation. Two-thirds of all new demand must be met with conservation and efficiency, rather than by building new supply. This is up from a 50% requirement established in the previous energy plan, but still below the 72% proposed in B.C. Hydro's last long-term acquisition plan. While the Act does mention the use of rates to encourage efficiency and conservation, it also sends contradictory messages by emphasizing a promise to have the most competitive rates in North America. Until B.C. breaks out of the paradigm of needing the lowest electricity rates in North America, the province will continue to overlook important opportunities to use energy more efficiently.

4.2 Increased commitment to clean or renewable electricity

The Act increases the commitment to clean or renewable electricity from 90% to 93% of total supply. This policy direction has been partially responsible for the shift in B.C. away from the coal and natural gas proposals seen several years ago to a mix of predominantly wind, run-of-river and biomass projects. The 3% difference does not represent a huge change in terms of what B.C.'s electricity supply mix will look like, but the feed-in tariff previously mentioned will likely lead to some additional diversification.

5. Unaddressed Gaps

5.1. Limited ability to debate Site C and Northwest Transmission Line in a provincial context

Site C and the Northwest Transmission line proposals are of provincial relevance, but to date the B.C. government and B.C. Hydro have never consulted on them meaningfully within that context. An ideal opportunity to address these gaps would have been to include them as central parts of B.C. Hydro's integrated resource-planning process so that the projects' strengths and weaknesses could be assessed within the broader context of supply and demand options. As discussed in 2.1, while these decisions would likely be included in the planning process, the ability to debate them will be severely hindered by the government's pre-determination that the projects will be moving ahead.

5.2 Lack of regional planning for electricity development

While B.C. Hydro has a reasonably strong track record of developing provincial-scale electricity plans, there has never been any regional-scale planning for electricity development. Such an effort would allow communities to look at the cumulative impact of development in a region and make decisions to guide that development into appropriate areas. Crown leasing and water licensing could then be reformed to align with the planning outcomes. The absence of this type of planning has been one of the main sources of frustration for communities trying to engage in the development process. It has also been a source of frustration for proponents trying to find appropriate locations for development.

While regional planning has not been applied to electricity development, similar efforts have been used to resolve conflicts in B.C.'s forestry sector. Unfortunately, the Act does not point to the need for regional planning. That said, regional planning processes could be layered onto the provincial-scale planning that B.C. Hydro will be conducting – either as part of the Act or under existing legislation. This type of approach would align with recommendations of the Green Energy Task Force on Resource Development.²

5.3 Failure to address the issue of low-impact development

Missing from the Act is any attempt to ensure that the clean or renewable projects are also as low-impact as possible. The government has already taken the positive steps of removing nuclear and conventional coal-fired generation from consideration as options in B.C.'s electricity supply mix. Beyond this, ensuring that new supply is as low impact as possible is not as simple as picking one resource type over another. An effective integrated resource planning process could help address this issue, but it would need to clearly account for environmental concerns and also look at both provincial and regional resolutions.

5.4 Inadequate environmental assessment and monitoring

Many British Columbians have expressed concerns that renewable electricity projects are causing unacceptable environmental impacts, and there are two main underlying causes for this concern. First, is the lack of regional planning for electricity development described in Section 5.2, which, as discussed, has not been addressed. Second, is a lack of faith in the regulations that guide development and B.C.'s ability to monitor and enforce those regulations. While there is no silver bullet that will resolve this issue, the Act is silent on the concern and does not offer any possible solutions.

² <http://www.empr.gov.bc.ca/EAED/Documents/GreenEnergyAdvisoryTaskForce.pdf>, Page 13, Recommendation 4.