



Business Council *of*
British Columbia

**Submission
to the
Cabinet
Committee
on
Climate Action
and Clean Energy**

January 26, 2010



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The Business Council of British Columbia is pleased to provide the Cabinet Committee on Climate Action and Clean Energy with our comments and recommendations on a number of the issues considered by the Green Energy Advisory Task Forces appointed by the provincial government in November 2009.

By way of background, the Business Council is an association representing 260 large and medium-sized employers with a significant presence in British Columbia. Our members are drawn from all major sectors of the provincial economy, including forestry, manufacturing, construction, mining, financial services, energy, agriculture, retail, transportation, advanced technology, telecommunications, tourism, engineering, utilities, education, health care and the professions. Taken together, the Business Council's corporate members and affiliated associations account for approximately one-quarter of all paid jobs in the province.

Owing to the diverse mix of industries represented in the Business Council, our organization has a variety of interests in provincial energy policy. Most of our members are primarily consumers of energy products and services – for them, the price of purchased energy is one of the factors affecting the overall cost of doing business. Other Business Council members are producers and developers of energy, while still others are providers of infrastructure, engineering and other key inputs used by the energy sector. In preparing this submission, we have endeavoured to take into account the various energy-related interests reflected within the broad BC business community. We have also considered how provincial energy policy can best advance the objectives of economic development and improved competitiveness – important goals for both the Business Council and the provincial government.



‘Green Energy’: The Need for A Broader Economic Focus

The Business Council is supportive of the government’s stated desire to leverage British Columbia’s rich energy resources to spur economic development and expand the province’s role as a producer of ‘green energy’.

The Green Energy Advisory Task Forces have made a number of suggestions to streamline and reduce the costs of the existing power procurement model and related regulatory processes; to increase the province’s capacity to export renewable energy; and to encourage greater participation by First Nations in energy development. There is broad agreement in the business community that these are sensible policy directions.

A main objective of this submission is to provide input to the Cabinet Committee on Climate Action and Clean Energy that looks beyond the limited mandate set for the Green Energy Advisory Task Forces. Among other matters, we want to touch on:

- a preferred approach to development of energy policy;
- specific opportunities to expand and improve existing energy and environmental policies;
- the need to understand the value proposition and to manage risks associated with electricity policy, including the scope for exports.

In addressing these matters, there are a number of important principles that government must consider as it looks to establish appropriate policies.

Reconciliation and integration with neighbouring jurisdictions. To begin with, provincial energy policy must be grounded in the recognition that British Columbia is a (very) small open economy, accounting for less than 1% of North America’s combined population and gross domestic product. As such, the policies adopted and the actions taken by other jurisdictions need to be carefully considered in BC’s policy development on energy matters. British Columbia is not in a position to set prices for energy commodities in continental and international markets. It is not a dominant producer and in fact is essentially a price-taker in virtually every commodity market it serves. Further, BC will rely on corresponding policy development in neighbouring



jurisdictions to support trade access and to facilitate any domestic value-added beyond commodity values. As a consequence, energy policies implemented in BC need to reflect both provincial and extra-provincial circumstances – and BC needs to be vested in being an effective voice in how energy policies are developed in other, relevant jurisdictions.

Risk management. In this time of economic uncertainty, a primary concern for BC policy-makers should be to establish and support an energy vision with goals that can be achieved in part by the prudent management of risks. These risks encompass economic security – risks to growth of investment and employment; social – risks to improvements in health and education outcomes; environmental – climate change, land and water use and food production risks; and energy security – supply diversity and price risks

Effective management of risks depends on a clear understanding of these risks, sound policy and market structures, and the assurance that mechanisms and regulations are in place to support risk mitigation, serve the broad public interest and enable markets to function properly. Developing appropriate market and regulatory structures requires that governments integrate their policies and regulations. For example, energy policy should comprehensively address all types of energy, price and regulatory risks for all inputs and outputs. And it should be set in a context that recognizes environmental, economic and social risks. As well, government should actively engage the private sector in defining the risks and the appropriate risk mitigation mechanisms, especially since the private sector will be called upon to invest in the BC policy framework to support realization of government’s stated policy goals.

Establishing the value proposition. As in other realms of public policy, in the case of energy policy economic efficiency and the public interest are best served if benefits exceed costs. Economic analysis tools have advanced significantly and can illuminate the nature and impact of risks, while being executed with reasonable effort and on a timely basis. Currently, there appears to be little or no benefit-cost analysis performed by the government in assessing and mandating energy policy options. By contrast, in the United



States it is normal practice in the Executive Branch¹ that policy options are supported by a range of timely economic analyses and that such analyses are made publicly available.

The Business Council recommends that the government support energy policy options and decisions with appropriate economic analysis that assesses risk-adjusted benefits and costs. This information should be made available to the public in a timely manner to help inform legislators, industry and other stakeholders.

Policy and regulatory alignment and clarity. Government policies depend on market and regulatory mechanisms to achieve desired outcomes. Domestic energy markets commonly feature significant levels of regulation. In this province, the British Columbia Utilities Commission (BCUC) plays a vital role in the electricity and natural gas markets. The Commission can only function independently and effectively if government defines its mandate by setting out timely and comprehensive policies.

The independence of the BCUC is necessary to ensure the proper functioning of markets for all types of energy in British Columbia, whether or not the production or distribution of a specific type of energy is directly regulated by the Commission. An example is the market for alternatives to electricity for heating residential and commercial buildings. If there are policy and regulatory delays or uncertainty, or an implicit bias toward the use of electricity for heating buildings, investment in other energy types will be discouraged.

The Business Council recommends that the provincial government continue to support the independence of the BCUC by ensuring that the relevant policies are sufficiently well defined and comprehensive to permit the Commission to operate with a clear understanding of policy.

Of equal importance is a clear provincial policy that clarifies whether use of electricity is preferred over other types of energy. Until this aspect of policy is clarified, BC Hydro will continue to market the use of electricity in residential and home heating applications and argue

¹ Even in the case of Congress, the independent Congressional Budget Office routinely undertakes and publishes reviews of the costs and benefits of different legislative proposals.



that this is preferable to other energy sources. We question whether this approach is in the best interest of ratepayers, as the cost of renewable electricity is typically higher than other types of energy for heating applications, even after the cost of GHG emission credits is accounted for. That said, we recognize that there is debate over the appropriate valuation of BC renewables, as well as differing views on the future value proposition for these energy sources. At a minimum, policy-makers need a good understanding of these issues, coupled with access to credible, timely information on the economic aspects of renewable energy versus other sources.

As we understand it, the Cabinet Committee on Climate Action and Clean Energy is focused on a sub-set of energy and environmental policies, mainly having to do with the development of policies and measures to encourage the growth of electricity production for both domestic and export markets. The current BC Energy Plan is also heavily oriented toward electricity. Yet British Columbia is endowed with other valuable energy resources which also warrant attention as policy is formulated in the areas of climate action and clean energy. We believe there is both an opportunity and a need for government to refocus on not just one, but all types and uses of energy produced, imported or exported into and from British Columbia, and to demonstrate how these policies align with BC's climate action legislation as well as with the province's broader economic and fiscal objectives.

To our knowledge, no other jurisdiction in North America mandates a specific electric utility to source 90% of new production exclusively from renewable resources. California, which is viewed by some as a leader in energy and environmental policy, requires one-third of new electricity production to be sourced from renewable resources. As well, California is actively exploring how it will meet its own climate action and GHG reduction objectives. Over time, the juxtaposition of current BC and US state policies is likely to result in investments by California and other states in natural gas-fueled generating plants, using natural gas produced in British Columbia but that cannot readily be converted to electricity here. It cannot readily be converted to electricity in BC as it suffers from both a small local market opportunity (no more than 10% of all new resources) and an economic penalty. Natural gas used in electricity production is subject to the province's carbon tax, and the associated GHG emissions must be fully offset with acquired credits. These costs should not be additive; but at present, the total costs amount to a self-imposed economic penalty relative to neighbouring jurisdictions, where



only the cost of offset credits is (or likely soon will be) imposed. As a consequence, California – and perhaps other western US states – are likely to benefit from investments in natural gas generating plants using natural gas imported from British Columbia.

In our view, BC's overall environmental objective should be to contribute to the mitigation of risks of climate change by reducing global GHG emissions rather than looking solely at emissions within British Columbia. In addition to a strategy based on addressing global GHG reductions, BC should be striving to minimize the total costs and maximize domestic investment and employment as a key part of its energy and climate policies across all energy sources. Lack of support for the conversion of natural gas to electricity for domestic use may result in lower investment and employment in BC, higher electricity costs for consumers and businesses, and no reduction in global GHG emissions. In our view, this is not a desirable outcome.

Accordingly, the Business Council recommends that the Cabinet Committee invest additional effort to lead the implementation of policies that result in:

- *Investments in energy efficiency and conservation activities that improve overall economic efficiency by minimizing total energy costs and reducing energy consumption, leading to global GHG reductions. Investments in energy efficiency and conservation are critical given that in BC electricity is priced well below its marginal cost and that there is strong evidence suggesting that efficiency and conservation can be realized at half the cost of new renewable electricity production.*
- *Utilization of the most appropriate energy type for each direct-use application, from a cost, energy intensity and global GHG reduction perspective, rather than focusing exclusively on the objective of creating local demand for electricity.*
- *Support for investments in all types of energy (including natural gas, geothermal, solar thermal, biogas, and biomass) and in transportation technologies that can achieve both economic and environmental security benefits. Support for such investments would include ensuring that policies encouraging growth in electricity usage do not impede investments in other types of energy.*



- *Development of integrated community energy solutions, encompassing an array of end-use energy types, resulting in long-term solutions and further freeing up existing BC-produced electricity and natural gas for value-added applications and export opportunities.*

The Business Council understands that provincial energy and climate change policy is implicitly directing BC Hydro to acquire, as soon as commercially possible, resources that are low or zero carbon. This means BC is establishing a regime that is not reliant on the use of fossil fuels. However, the neighbouring markets in which BC Hydro is participating have marginal electricity prices which are set by fossil fuels – prices which in the near and intermediate term are expected to be lower than those for renewables. Certainly as an importer, but arguably also as an exporter of electricity, BC Hydro’s short-term market values will likely be based on marginal prices set by the use of fossil fuels for another decade or longer.² While this is not necessarily an argument to abandon an objective of sourcing electricity from low or zero carbon fuels, the provincial government needs to reconcile the economic costs associated with the pursuit of its objective. It also needs to demonstrate the economic value of this strategy by assessing the benefits and costs under realistic scenarios.

There is concern in large parts of the business community that the cost of the province’s policy will be borne by ratepayers, taxpayers and investors in the province, including existing energy-intensive industries such as pulp and paper, wood products manufacturing, mining, and other manufacturing industries. Stated simply, it is problematic, from an economic perspective, to increase electricity costs for many of our key export industries in order to achieve GHG emission reductions in BC, given that natural gas imported from BC is being used by other North American jurisdictions to produce relatively low-carbon electricity at a cost that is lower than the cost of procuring additional renewable electricity here in BC. The implications for business and industry in BC of shouldering this extra cost and thus becoming less economically viable must be carefully considered as part of the province’s energy policy development.

² It is important to note that i) the United States currently relies on coal-fired generation for roughly half of its domestic electricity, and ii) forecasts indicate that a majority of new and replacement generation developed in the US over the next 15-20 years will rely on natural gas.



Until it is clear that the marginal electric resource is an affordable renewable resource, the province should support the use of all types of renewable and clean energy that reduce the consumption and increase the efficient use of electricity. An example is the use of natural gas as a transportation fuel, thereby displacing marginal fossil fuel generated electricity and the GHG emissions of gasoline and diesel. Only after the North American electricity market is based on renewable resources, or until future users of electric vehicles pay the cost of acquiring renewable resources, should the province increase its support for electrification of vehicles.

The Business Council recommends that the Cabinet Committee broaden the focus of its work on energy and climate issues to address all types and uses of energy, and that it formulate energy policy in the context of the full spectrum of economic, social, and environmental security considerations.

Electricity Exports

We anticipate that the provincial government will soon implement policy and enact legislation to support the export of electricity (via long-term contracts) generated in British Columbia to buyers in the Pacific Northwest and California, and that BC Hydro (or Powerex or a new crown corporation) will acquire electricity from IPPs. The acquired electricity will be stored, shaped, sold and exported under long-term firm electricity contracts.

Exporting clean, renewable electricity can strengthen BC's export base and lead to productive investments in the province as well as lower global GHG emissions: a potential 'win-win.' Developing a successful clean energy export sector would provide a welcome source of additional export earnings at a time when the province's overall export performance has been lagging for several years. Clean energy development can stimulate job creation and new economic activity in several regions of the province and open up more opportunities for First Nations to participate in and benefit from economic growth via equity partnerships, revenue-sharing agreements, and other mechanisms.



The challenge is to structure investments so that the value of existing heritage assets is optimized without redirecting benefits in a way that favours parties outside of the province or that disproportionately benefits domestic renewable producers. In the event that the existing benefits of heritage assets are drawn upon to support a broader provincial economic development objective, compensating measures must be established to protect the economic position of BC ratepayers. An additional, related challenge is to rationalize BC Hydro's policy of acquiring a significant long-term surplus of electricity to meet both self-sufficiency and insurance requirements, as well as obtain new resources to support export market commitments. BC Hydro has faced criticism over its ability to efficiently and cost-effectively acquire resources, and there is some question how a large acquisition program would be managed to support both objectives (self-sufficiency and long-term exports).

There may be an opportunity to rationalize both policies. For example, in implementing self-sufficiency, BC may be able to leverage off the fact that California's demand is counter-cyclical. However, in the absence of being able to structure long-term arrangements recognizing values beyond pure spot values, the cost to domestic ratepayers of the acquisition of self sufficiency and insurance requirements based on a 90% renewable portfolio standard will be significant. At this point, these resources by definition cannot be exported as long-term firm energy and are expected to be sold, at a risk of financial loss, as short-term, non-firm and seasonally shaped energy. The obligation of BC Hydro to fully compensate IPPs for the purchase of electricity not needed but paid for by ratepayers, which follows from the Energy Plan's self-sufficiency and insurance requirements, risks placing an unnecessary economic burden on existing BC electricity ratepayers. To our knowledge, government has not presented evidence why such a large surplus of electricity is needed to ensure domestic energy security, nor has it demonstrated that the aggregate economic benefits of pursuing this policy will exceed the costs. This represents a flaw in the province's existing energy policy framework.

The Business Council recommends that the government provide additional information on the issues identified in the above paragraph, drawing on – and where necessarily supplementing – the work of the Green Energy Advisory Task Force, and that it do so prior



to making policy decisions that involve long-term commitments with potentially significant economic consequences.

We believe principles should be established to ensure that the development of effective policy, legislation and commercial electricity export contracts will not result in significant cost increases for domestic consumers. Risks associated with exporting electricity and that are retained by BC taxpayers need to be mitigated so that the overall economic benefits outweigh the costs under all reasonable scenarios.

Accordingly, we propose the following principles to guide the development of an export policy:

- All pertinent economic, environmental and social objectives and constraints should be defined in advance of structuring electricity export contracts.*
- A fully resourced and effective electricity acquisition program needs to be established to ensure that electricity resources will be acquired using timely, fair, transparent and competitive processes.*
- Electricity exports should not result in increased electricity prices for domestic ratepayers. Specifically, capacity of existing heritage storage and transmission assets should continue to be utilized to minimize the cost of the domestic electricity resource portfolio. In the event that such capacity is utilized to store and shape exported electricity, the replacement cost of the capacity should be credited to the account of BC Hydro ratepayers. A fair contribution to the cost of transmission reinforcements required to support exports must be recovered from export sales revenues over the term of export contracts. This does not preclude a contribution from the provincial government and BC taxpayers to assist in developing the infrastructure required to support electricity exports.³*

Mechanisms to mitigate risks of an export policy. As emphasized in a number of submissions to the Green Energy Advisory Task Forces, there may indeed be an



opportunity to build a value-enhancing electricity export industry in British Columbia. But there are also risks. To maximize overall value for the province, it is important that the risks linked to electricity exports are well understood and fairly allocated. In return for accepting risk, individual parties need to be satisfied that their share of benefits is sufficient compensation for acceptance of the risk.

Realizing the long-term export potential of renewable energy involves consideration of a number of other complex issues, such as transmission capacity and intertie upgrades; aggregation of different renewables; the development of long-term power supply contracts that serve BC's interests; and the implications of using BC's 'shaping' capabilities for renewables given that entering into long-term trade arrangements presumably will limit short-term trading opportunities. In this regard, the province would be well served to access private sector perspectives on how these elements need to be structured to address risks. Private sector expertise can also shed valuable light on what is required to engage private sector participation in terms of access to capital and development capabilities.

The development and construction risks for energy projects can be high, but experience shows they can be mitigated if properly managed. Operating risks tend to be more problematic. The challenge with high capital cost energy developments is that shareholders, ratepayers and taxpayers make large up-front investments that get paid off slowly over time. In this connection, it must be noted that the history of export commodity contracts between Canada and the United States is mixed -- particularly between Western provinces and California. The development of the continental natural gas and liquids markets has been marked by costly and disruptive interventions into long-term contracts by California law-makers and regulators. Canadian energy exporters have lost significant capital as a consequence. The risk of such actions against long-term electricity contracts may be exacerbated in the face of expected technology advancements and investments in alternative energy sources that could reduce both the demand for and the cost of electricity delivered to or generated by end-use consumers. As it is likely that future power import

³ This could be done via regulation where, once the basic economic test is met, the cost of infrastructure expansion is 'rolled in' with heritage costs, with rates then set to recover costs from all customers – the approach commonly used elsewhere in Canada for gas and electric transmission as well as pipelines.



contracts will be governed by California law (as is currently required by the state's legislature), Canadian interests will have to be defended in an external jurisdiction.

Again, the message is that it is critical to develop a balanced view on the overall export value proposition, incorporating input of parties that have the capital and the expertise to participate.

Accordingly, we propose two additional guiding principles for provincial policy concerning the development of electricity export markets:

- *Contractual short and long term risks should be allocated to the extent possible to parties other than BC Hydro ratepayers and BC taxpayers, with mechanisms that compensate ratepayers for any change in the allocation of benefits.*
- *Electricity export contracts must include provisions to allow for expeditious enforcement and delivery of defined payment obligations by parties in breach of contract, and the regulatory and political risks of contracts governed by extra-provincial jurisdictions should be fully priced.*

Conclusion

The Business Council shares with the government the goal of leveraging British Columbia's substantial energy resources to stimulate investment, jobs, wealth creation and economic development. Growing the renewable energy industry can and should be one element of pursuing BC's energy opportunity, but not the only one. The province's energy resources are not limited to renewables. A coherent Energy Plan needs to consider the full spectrum of BC energy resources, including natural gas, and the linkages and potential synergies among them. Finally, in thinking about how to further develop the energy sector, including 'green energy,' policy-makers must be mindful of the economic interests of BC taxpayers and the importance of safeguarding the competitiveness of the industries that represent most of the province's existing export base.
