



Official Submission to the Ministry of Environment and Climate Change Canada

Response to “A Clean Electricity Standard in support of a net-zero electricity sector: Discussion paper”

Introduction

We are pleased to provide ideas and recommendations to the Ministry of Environment and Climate Change Canada (ECCC) on the recently released Clean Electricity Standard (CES) discussion paper.

The Business Council of Alberta (BCA) is a non-partisan, non-profit, for-purpose organization composed of the chief executives and leading entrepreneurs of Alberta’s largest enterprises. Our members represent the majority of Alberta’s private sector investment, job creation, exports, and research and development. We are dedicated to building a better and more prosperous Alberta within a strong Canada.

BCA and its membership recognize that creating long-term, sustainable prosperity includes significantly reducing Canada’s greenhouse gas (GHG) emissions economy-wide. We also recognize Canada’s existing competitive advantage from having affordable, reliable, and 82% non-emitting electricity generation. If well-executed, continued progress on reducing emissions in this sector can help situate Canada as a preferred supplier of low-carbon goods.

However, the CES discussion paper leaves more questions unanswered than answered and lacks clarity on the federal government’s intention to strike the proper balance between electricity affordability, reliability, and cleanliness—especially in the broader context of business competitiveness and implications for ratepayers. Getting this policy right is necessary for ensuring a competitive economy in every region in the country—especially in Alberta where the emissions abatement burden is disproportionately higher.

To these ends, this submission includes a set of key considerations that BCA believes require more integration into the CES policy design process.

Context

For most of Canada’s history, two major pillars have guided the electricity sector’s buildout in each province: affordability and reliability. These continue to be vital pillars for Canada’s electricity systems—all consumers, including businesses, require cheap, on-demand electricity. This historical two-pillar framework for the electricity system buildout has meant that each province’s geographical, technological, and natural resource availability constraints have determined the characteristics of their grid.

In provinces like British Columbia, Quebec, Manitoba, Newfoundland & Labrador, and Ontario, their significant hydroelectric potential has led to a proliferation of hydroelectric

power. In provinces like Alberta and Saskatchewan, an abundance of cheap, accessible coal and natural gas has led to grids designed around fossil fuel combustion.

In recent years, however, society has grown to expect a third major pillar alongside the other two: cleanliness. In large part, clean electricity is tied to having a low emissions profile. This relatively new, additional, pillar has been easier to incorporate in provinces already producing affordable and reliable low-emitting power. For provinces like Alberta without the same natural resource endowment and geographic advantages, the addition of the cleanliness pillar has necessitated, and will continue to necessitate, a major transformation to the basic infrastructure dominating the power production, transmission, and distribution landscape.

Without a proper balance, the addition of the cleanliness pillar can clash with the other pillars and create unintended consequences. In Europe, for example, the transition to lower carbon power has not been smooth. Reliability and affordability—having been taken for granted—have come into crisis. As a result, businesses competitiveness has been severely impacted and life for everyday Europeans has become significantly more expensive. Similarly, Texans saw firsthand in late-winter 2021 how deficiencies in their grid’s reliability led to massive price spikes and deadly outages. Getting the three-pillar balance right matters.

Through the CES, Canada is seeking to transition the electricity grid to net-zero by 2035. In doing so, the CES is elevating the cleanliness pillar into a much more prominent position within what must be a three-pillar balance. As the discussion paper itself states, it remains unclear how this will play out, especially given the pace of change needed. But elevating the cleanliness pillar adds many new variables into all aspects of grid design modeling. The impacts on grid reliability and power affordability become uncertain and increase the likelihood of significant downstream impacts on ratepayers and businesses.

Key Considerations to Inform CES Policy Design

The CES will disproportionately impose electricity grid changes onto provinces like Alberta. While building out the province’s low-carbon generation infrastructure will create new opportunities, more clarity is needed about policy design in light of the broader economic impacts on Alberta businesses and ratepayers.

It is the government’s stated intention in the discussion paper to balance electricity affordability, reliability, and cleanliness. Given this mandate, BCA suggests that the federal government incorporate the following considerations into its CES policy design:

Clarity in defining vital terms such as ‘affordability’ and ‘reliability’:

Though the discussion paper alludes to balancing affordability and reliability within a net-zero electricity grid by 2035, there is no clear measure or definition for what the government considers ‘affordable’ or ‘reliable’ power to mean. Without holistic definitions for ‘affordable’ and ‘reliable’ that account for the full infrastructure buildout required—from power generation through to transmission and distribution—as well as the distribution of costs on both industry and regular ratepayers, achieving the net-zero generation goal within the stated timeframe could have adverse impacts on economic competitiveness.

The discussion paper shifts much of the conversation about the affordability and reliability pillars to the provinces with little regard for the degree to which a major shift in federal policy on the cleanliness pillar will impact the other two. All three pillars must be considered together. While jurisdictional responsibilities over the electricity sector need to be respected, they cannot result in any one jurisdiction ignoring how each pillar impacts the others.

As a starting point, discussions on CES design should have very clear definitions for ‘affordability’ and ‘reliability’, working backwards from those definitions to ensure that policy designed to reduce emissions is consistent across the three pillars. Given Alberta’s unique electricity market design, the definitions of these terms within the CES should be mutually agreed upon across Alberta’s key industry players and its provincial policymakers and sector regulators prior to policy design.

Thinking clean means building big:

As stated in the discussion paper, the energy transition is likely to require a doubling of existing electricity generation. In Alberta, this means that a buildout for a net-zero grid by 2035 will require a significantly larger capital layout than elsewhere because generation capacity will have to significantly increase while, at the same time, traditional sources of power will need to either be replaced or retrofitted. Poor policy design can result in stranded assets, added costs, and an infrastructure buildout larger than what the existing grid’s assets suggest are needed given their economic life.

What’s more, doubling generation in Alberta, where intermittent renewables will make up a growing part of the provincial power portfolio, likely means a capacity buildout that is 2-3 times greater than what presently exists. Even with a substantial buildout of renewables, Alberta still requires technologies to provide reliability during long stretches of cold weather when renewables may not provide significant generation. While there are a number of technologies emerging to smooth over this intermittency challenge—including energy storage, hydrogen, and CCUS—all of these technologies are currently uneconomical at scale. It is critical that the federal government provide technology-neutral support to enable investment in these technologies and associated infrastructure.

However, none of the emerging technologies noted above have been proven at the scale, duration, flexibility, and reliability required to safely operate an electricity system, and

some—such as CCUS—represent additional costs to baseload power sources that do not exist in other provinces. Moreover, without improved technologies, intermittency challenges can require a transmission infrastructure buildout much larger than what is required to handle traditional baseload power generation today, adding further costs that ratepayers in many other provinces will not have to bear. It is critical that ECCC consider how natural gas generation can play a role in providing reliability post-2035.

These additional costs must be factored into the ‘affordability, reliability, and cleanliness’ balance calculus alongside electricity generation costs. As has been well-documented, lower wholesale power generation costs [can paradoxically lead to significantly higher costs for ratepayers](#). Impacts of cost increases along the entire grid’s value chain must be considered, and ratepayer and business competitiveness must be top-of-mind.

Furthermore, the distribution of the grid buildout resulting from a CES will not be equal across provinces. Federal support for electricity buildout and modernization should be proportionate to the distribution of the regional costs imposed by the policy. Seeing as Alberta—largely due to the historical affordability and accessibility of its fossil fuel resource base—is home to a large percentage of the nation’s electricity sector emissions, federal support to reduce these emissions should be concentrated accordingly. Interprovincial transmission can help, but not unless existing regulatory and market structures that make east-west electricity trade physically and economically infeasible are addressed. The federal government must avoid significant price disparities for ratepayers from one province to the next.

Fostering an integrated, all-of-government(s) approach:

As previously mentioned, a CES will have spillover impacts on electricity reliability and affordability that, as a stand-alone policy, it will not be able to address. Every effort should be made to ensure that all three pillars are addressed in a coordinated fashion. A siloed approach won’t cut it; an integrated strategy across all relevant departments, governments, and stakeholders is required so that policy changes to any one of the three pillars is met with simultaneous, proportionate measures on the others to maintain the balance.

For these reasons, BCA stresses the importance of ensuring that policy in this space is not developed in silos. Rather, it must be formulated, developed, and implemented such that federal policy (including inter-departmental responsibilities) and provincial policy are pulling in the same direction, following a unified plan with shared objectives across all three pillars, and in close consultation with stakeholders at every step of the way.

According to the discussion paper, ECCC is consulting on the development of a CES, whereas NRCan will be leading future discussions on supportive policy measures. BCA believes that these processes must be coordinated and integrated into a single, unified electricity policy framework. The level of federal financial support that will be needed for infrastructure buildout in Alberta should inform, and be informed by, the scope, breadth, and stringency of the CES.

Furthermore, it is not appropriate for the federal government to separate the development of a CES from the input of provinces tasked with the largest components of ensuring an affordable and reliable grid. Everyone needs to be at the table, and a stringent CES should not be implemented without regard for the technological and economical feasibility of designing a provincial regulatory framework that addresses the downstream effects of federal policy changes—especially for the most affected provinces like Alberta.

Avoiding barriers to, and unintended consequences of, rapidly achieving net zero:

The 2035 timeframe for this policy is ambitious, and one that must respect Alberta's past and present efforts to decarbonize the electricity grid if ongoing efforts are to be successful, technologically feasible, and economical.

First, the scope and pace of the infrastructure buildout in Alberta will be unprecedented. If it is going to be possible, the federal and provincial governments must find ways to accelerate project approval and permitting processes; and the labour force's capacity to ramp up must be addressed. Once final regulations for the CES are implemented, there will likely only be about ten years left before 2035. Policy design should consider, for example, the time it takes to license and build a new small modular nuclear reactor, or the impact assessment timeframe for pumped hydro storage.

Second, many billions of dollars have been invested in lower-carbon electricity generation under previous provincial and federal electricity policy regimes. These investments were made in good faith and with great success. The credits generated by investments made under current policies should be respected. Moreover, if the CES fundamentally alters these projects' economics over their lifespans, it will create a lack of trust in future policy development and deter future investments needed to achieve net zero.

Finally, careful consideration should be given to the impact CES policy, and associated time constraints, has on capital allocation efficiency. The discussion paper is clear that the CES intends to be technology agnostic, but also that many technologies capable of solving the energy storage problem are not economical or are still in early stages of development. Policymakers need to be considerate that net-zero timelines can have consequential impacts on investment decisions when the pathway to get there may not be clear. Once made, major investments in suboptimal, expensive technology are locked in, and those costs impact ratepayers and economy-wide business competitiveness for the long term.

Crafting flexible mechanisms for reaching compliance:

Placing CES regulations under the *Canadian Environmental Protection Act* means that the non-compliant are held criminally liable. This heightened consequence raises many questions about who will be found liable for non-compliance given the policy's stated goal of a net-zero national grid and not net-zero companies—especially in Alberta's deregulated market. More clarity is needed.

The severity of consequences for non-compliance places an impetus on the federal government to create as many compliance mechanisms as possible, up to and including reviewing the feasibility of compliance with CES regulations on an iterative basis and adjusting policy as needed. Offsets should be generous, and policy should be designed such that reliable baseload and peaking technologies can maintain grid stability and affordability throughout the decarbonization process. The goal needs to be net-zero, not 'zero'.

Moving Forward

BCA wishes to thank the Ministry of Environment and Climate Change Canada for the opportunity to submit comments during this early consultation phase. We look forward to working collaboratively with the government to craft policy to drive down emissions in Alberta's electricity sector while preserving the province's economic competitiveness.