

Environment and Climate Change Canada

Fontaine Building 12th floor
200 Sacré-Coeur Blvd
Gatineau, QC
ECD-DEC@ec.gc.ca

Re: Proposed Frame for the Clean Electricity Regulations

August 17, 2022.

Thank you for the opportunity to provide feedback. The Atmospheric Fund (TAF) is a regional climate agency based in the Greater Toronto Hamilton Area (GTHA). Our focus is on carbon emissions from the building and transportation sectors, and as such we support the Clean Electricity Regulation (CER). The CER will make Canada's electricity system lower carbon, more efficient, reliable, and affordable, insulating consumers from the increasing costs of natural gas.

TAF supports the Government of Canada's direction on the CER as an important signal to domestic industry and other countries. We particularly approve of the proposals to set a mandatory carbon intensity standard (tonnes per gigawatt-hour), the exemption for small and remote communities to protect their economic interests, and the exemption for emergency situations.

However, TAF has four concerns and recommendations to strengthen the regulation before it progresses to Canada Gazette I.

Recommendations

1. Implement a 2030 interim target. 2035 is more than a decade away, and there will be billions of dollars in investments into the electricity system before then. Moreover, the long lead time produces considerable uncertainty due to changing governments. Electricity producers may delay investments in clean energy due to political uncertainty. Interim 2030 policy requirements are critical in order to achieve near-term emissions reductions and provide clearer short term policy signals to avoid carbon lock-in. If the government does not include interim performance standards in the CES, then it should achieve this by lowering the OBPS benchmark for existing electricity generation facilities. This will help to indicate to electricity producers and system operators that they will need to build the shift into their business plans sooner and before the next round of long-term energy planning.

Under the current OBPS and many provincial equivalents, most emissions from existing natural gas power plants are effectively unpriced due to a relatively weak intensity

standard that is not currently scheduled to decline over time. The resulting market signal is insufficient to incentivize displacement of natural gas derived electricity with lower carbon sources. The government should update the OBPS carbon intensity benchmark for electricity, setting out a schedule similar to for new generation facilities where the benchmark declines swiftly over time (reaching zero by or before 2035).

2. Carbon offsets for compliance should be high-quality and additional. The CER will have both a mandatory carbon intensity standard (tonnes/GWh) and a financial compliance mechanism for any remaining carbon emissions. Carbon offsets are the ideal form of financial compliance as they would allow the policy to achieve the stated goal of a net-zero electricity system. However, it is critical that any carbon offsets used for compliance purposes are high-quality, additional, and unique. Carbon offsets should be based on projects that would not have occurred without the purchase of the offset. This means disallowing offsets based on projects required by other federal or provincial regulations, or projects producing offsets or equivalents for other regulated or unregulated markets. Additionally, the government should consider mechanisms to limit the ability of obligated parties to transfer the costs associated with offsets (or other financial compliance mechanisms) to electricity consumers. In order to achieve the policy goal of discouraging unnecessary use of fossil fuels for electricity generation, the cost of financial compliance must remain with the obligated parties.

3. Apply the CER to “behind-the-fence” industrial cogeneration. As noted in the framework presentation, excluding cogeneration entirely could lead to overinvestment in new fossil fuel cogeneration capacity, which is incompatible with a net-zero future. While there are some circumstances in which new cogeneration projects could reduce emissions, it could also increase emissions and create carbon lock-in. It is important to address this, for example, by applying the carbon intensity requirements to behind-the-fence cogeneration units commissioned after 2030.

4. Implement full lifecycle analyses for the use of hydrogen. Hydrogen types vary in their carbon intensity. Grey hydrogen, which represents most of the hydrogen produced and used in Canada, is created from fossil fuels using processes that generate significant greenhouse gas emissions. The substitution of grey hydrogen for natural gas in electricity generation would significantly increase total greenhouse gas emissions. Blue hydrogen, while cleaner, is also expected to come with a wide range of carbon intensities. Given the variance in their carbon intensity, all hydrogen types shouldn't be treated equally. Treating all hydrogen as zero emissions under the CER would also undercut incentives for industry to invest in cleaner hydrogen production technology, and for obligated parties to purchase cleaner hydrogen. Hydrogen quantification methodologies for the recently released Clean Fuel Regulation can be repurposed to support lifecycle analysis of hydrogen for the CER. Given the high carbon intensity of grey hydrogen, at a minimum, it should be excluded from use as a compliance mechanism for this policy.

Conclusion

TAF strongly supports the Clean Electricity Regulation and the key design features outlined in the framework. We applaud the government for the rapid regulatory development process to date and the goal of publishing a draft regulation this year. Moving swiftly and decisively is critical to preventing further investment in unmitigated natural gas fired generation facilities that would subsequently become stranded assets. To ensure success of the regulation, our four key recommendations are: setting interim targets for 2030 to assist in industry for planning for 2035; a robust consideration of carbon offsets, addressing the potential for “behind-the-fence” industrial cogeneration emissions, and factoring in variances for the types of hydrogen. Finally, a successful transition to a net-zero electricity system will require a range of complementary federal actions, including investments in clean energy infrastructure and distributed energy resources.

About the Atmospheric Fund

The Atmospheric Fund (TAF) is a regional climate agency that invests in low-carbon solutions for the Greater Toronto and Hamilton Area (GTHA) and helps scale them up for broad implementation. Please note that the views expressed in this submission do not necessarily represent those of the City of Toronto or other GTHA stakeholders. We are experienced leaders and collaborate with stakeholders in the private, public and non-profit sectors who have ideas and opportunities for reducing carbon emissions. Supported by endowment funds, we advance the most promising concepts by investing, providing grants, influencing policies and running programs. We’re particularly interested in ideas that offer benefits in addition to carbon reduction such as improving people’s health, creating local jobs, boosting urban resiliency, and contributing to a fair society.