

Standing Committee on Environment and Sustainable Development
House of Commons
Sixth Floor, 131 Queen St.
Ottawa ON, K1A 0A6
By email: ENVI@parl.gc.ca

June 11, 2021

Re: Canadian Electricity Association's brief to the Standing Committee on Environment and Sustainable Development for its study on Freshwater

The Canadian Electricity Association (CEA) is the national voice for reliable, affordable and sustainable electricity in Canada. CEA has members in every province and territory in Canada, from coast to coast to coast. Canada's electricity system is one of our strategic advantages, being one of the most reliable and lowest-carbon emitting systems in the world. As we tackle the systemic risks posed by climate change to Canada, electricity will be even more essential to our economy.

Over 60% of Canada's electricity is currently generated by hydroelectricity on freshwater river systems. Freshwater is equally important for Canada's nuclear power industry, which provides almost 20% of Canada's electricity. Together, these two generation types provide four-fifths of our electricity with almost no greenhouse gas (GHG) emissions. The health and management of Canada's freshwater resources is of paramount importance to Canada's ability to produce reliable, low emission electricity.

CEA recognizes the challenges related to freshwater management. CEA fully supports the goal of improving Canada's ability to ensure that all Canadians including Indigenous peoples have access to clean water for personal, agricultural and industrial uses.

The electricity sector is also active improving Canada's ability to adapt to the changing climate and mitigate the worst effects of extreme weather. Climate change can impact water supply and demand, and so our members are working to ensure they can manage their water needs now and in the future. Lower water availability may reduce a company's ability to generate electricity, which impacts electricity sales and revenues; higher water availability may provide opportunities for additional generation or may heighten flood risk.

Hydro generation relies on a resource that often has competing uses: lakes and rivers are also used for fishing, recreation, transportation, water consumption, irrigation, etc. A change in water availability or level (such as an extended drought in the summer) may impact several uses at once, creating the potential for conflict. To help our members navigate these challenges, CEA recently published our climate adaptation guide: [*Climate Change & Extreme Weather: A Guide to Adaptation Planning for Electricity Companies in Canada*](#).

Recently, the federal government shared its intentions for the proposed Canada Water Agency (CWA). CEA provided comments on this proposal earlier this year, and because the subject matter overlaps, in this submission we will reiterate some of these comments and build on others.



We appreciate the opportunity to share our perspectives on freshwater in Canada, and hope that you find them useful. We would welcome the opportunity to come speak with you, to answer your questions, and to dialogue further on this important topic.

Federal policy regarding freshwater in Canada

Over twenty federal departments, and many more at the provincial level, have overlapping responsibilities over freshwater. We do not perceive a lack of regulation on freshwater management, protection, allocation and planning, including watershed planning in Canada. However, there are opportunities to better coordinate existing actions that would potentially achieve better outcomes while reducing the effort required.

For example, CEA notes that a great deal of data is gathered within various the Federal and Provincial regulatory systems. Prioritizing the use of existing data sources can reduce duplication of effort for governments and for industries, while providing a service that would add value to existing programs. CEA made this recommendation in its submission on the CWA, noting that a CWA could be an appropriate Agency to coordinate this effort.

This coordination role is a significant opportunity. Benefits would accrue for those who use the resource, as well as those who are responsible for managing it. The CWA could take the lead role of knowledge and data integrator. This would avoid duplicating efforts being made elsewhere while also helping to make that knowledge more widely available. Freshwater management by governments of all levels, industries, the public and Indigenous peoples will be aided by such a focus on coordination.

CEA also agrees with comments made by Members of Parliament in the House of Commons that the CWA not have a regulatory function – as noted, CEA perceives no lack of regulation of waters in Canada, but rather sees opportunities for better coordination with reduced reporting burden.

The Need for Compliance Mechanisms

In past years, CEA members have noticed a lack of compliance mechanisms in new pieces of legislation or regulations. For example, at the time of this writing it has been two years since the passage of the updated Fisheries Act 2019. In that time, there has been no meaningful progress made on appropriate compliance mechanisms. The lack of real progress is resulting in delays and uncertainty for routine and necessary work.

Freshwater in Canada is regulated by various legislations and government departments. Proponents of near- or in-water projects are strictly regulated, which is problematic due to this lack of compliance mechanisms. We recommend Government to ensure adequate compliance mechanisms are put in place for new regulations, and that industry is appropriately consulted in their development.

Indigenous Peoples

CEA members work closely and partner with Indigenous communities. There are several overlapping federal roles with regard to federal and provincial involvement with Indigenous peoples and development. We believe that all parties are better served when there is clarity of purpose, and so care should be taken not to add to uncertainty with additional layers of regulation or permitting.



The level of care required to achieve such clarity is significant. CEA suggests that because of the potential scope and complexity of the relationships at the center of these discussions that additional time be allocated to engage stakeholders and rights holders before any decisions are made.

Electricity and Healthy Freshwater Systems

Freshwater resources are immensely important to Canada's electricity sector, which uses the energy of falling water and steam to power much of Canada's economy and homes. Hydro and nuclear power provide stable, reliable, and very low-GHG emission power, and both rely on access to freshwater. As such, hydropower should be considered a reliable and climate-friendly freshwater technology that is essential to Canada's efforts to meet its carbon reduction goals under international agreements.

We support technology development and deployment of tools to protect biodiversity, wetland health and natural ecosystem functions for use in mitigating impacts of development on fish, and in the creation of offsets for meeting other obligations (for example, fisheries offsets under the Fisheries Act).

Finally, hydroelectric dams are an essential part in flood control and prevention. They thus play an important role in preventing loss of life and property during extreme weather events. Hydroelectric dams also support water-based recreational activities that many Canadians enjoy.

CEA notes that your committee has posed a series of questions in the Guidelines for Briefs. We have provided our responses to those questions, attached to this letter.

CEA appreciates the opportunity to participate and provide feedback. We hope that you will find it useful. We look forward to engaging with you again on this matter and hope to have the opportunity to appear before the committee as part of this study.

Kind regards,



Jay Wilson

Director, Generation and Stewardship
CEA





Appendix

CEA's answers to questions in ENVI's *Guidelines for briefs - Freshwater study*

1. Introductory information

a) **Which issues related to protecting and managing freshwater does your organization work on?**

- The electricity sector and freshwater management in Canada are interdependent. Each relies on the other.
- Dams, including hydropower dams, are an integral part of freshwater management in Canada. In addition to providing extremely low-carbon electricity, these dams mitigate the effects of storms and floods, and help to keep water available during times of drought. Dams are an important part of provincial water management plans.
- 60% of Canada's electricity comes from hydropower, which emits almost no greenhouse gases. Much of the remainder of Canada's power is generated by heating freshwater into steam to drive turbines. Hydropower dams are located on many Canadian rivers, and thermal generating stations that use steam (including nuclear, oil, coal-fired and many natural gas power plants) tend to be located next to large bodies of freshwater.
- Power plants can impact freshwater ecosystems, including the fish and fish habitat (FFH) that exists there. CEA members make significant investments to mitigate and where possible eliminate their impacts on fish, such as the installation of fish ladders, stocking fish and the creation of fish habitats.

2. Interaction and collaboration with federal departments and agencies

a) **Does your organization interact with federal departments and/or agencies on freshwater issues? If so, on which issues and with which departments and/or agencies?**

- CEA and its members work closely with the following departments on these issues:
 - Department of Fisheries and Oceans (DFO) on managing fish and fish habitat.
 - Impact Assessment Agency of Canada (IAAC) where proposed projects may impact freshwater.
 - Environment and Climate Change Canada, Health Canada and Transport Canada (ECCC) on the use, storage, disposal and transport of chemicals used in electricity operations regulated under the Canadian Environmental Protection Act (CEPA) and Transportation of Dangerous Goods (TDG) regulations.
 - ECCC and Canadian Wildlife Service (CWS) on the management of Species at Risk including fish under the Species at Risk Act (SARA), and the management of birds and waterfowl under the Migratory Birds Regulations (MBR) of the Migratory Birds Convention Act (MBCA).
 - Natural Resources Canada (NRCan) on climate change adaptation (including participating in NRCan's Adaptation Platform), the Small Modular Reactor (SMR) and Hydrogen Roadmaps.



- b) Do the specific freshwater issues targeted by your organization fit within the mandate of a given federal department and/or agency or do they relate to more than one department and/or agency? If more than one, have you been able to identify a lead department and/or agency with which to engage?**
- The Canadian electricity sector is subject to overlapping mandates on freshwater from at least twenty federal departments and agencies, and similar overlaps occur in each province and territory with government Ministries in those jurisdictions.
 - At least 80 federal acts and regulations impact electricity sector operations.
- c) Have you encountered notable successes in engaging with the federal government on freshwater issues? If so, please specify. If you have not had success in doing so, what in your opinion is the reason (e.g., no program available tailored to your needs, no identifiable service or unit within a department and/or agency with which to engage)?**
- CEA values the engagement opportunities that federal departments and agencies have provided. We have a long-standing Memorandum of Understanding with DFO, which was valuable for helping our members interpret fisheries policy and develop compliance mechanisms. Since the FA 2019 received Royal Assent, DFO has been less willing to engage meaningfully with CEA and little progress has been made on key issues.
 - Because of the number of overlapping mandates, it is common for our members to be “caught in the middle” of competing objectives. For example, we mentioned above that hydropower provides over 60% of Canada’s electricity, with almost no GHG emissions. This resource is rightly acknowledged as being key to Canada’s ability to meet decarbonization goals, including the Net Zero by 2050 goal – but key federal Acts and Regulations (such as the Fisheries Act, 2019) make it increasingly difficult to not only build new hydroelectric dams, but also to even operate and maintain existing dams.
 - Likewise, the MBRs under the MBCA are an important tool for managing bird numbers and habitat, but recent proposed changes that are intended to offer added protections to certain nesting sites will severely impact electricity companies’ ability to maintain their existing transmission and distribution poles and rights of way, and could delay new developments in clean electricity by years. This has potentially severe consequences for safety, reliability and cost, as well as reducing the ability for electricity companies to help in the transition to a lower-carbon economy.
- d) Do you foresee engaging with the new Canada Water Agency? If so, in what way? What are your organization’s expectations with respect to the Agency?**
- CEA submitted comments to the CWA discussion paper. Many of our comments here are similar to those in that submission.
 - Given our experiences with the number and scope of laws, regulations, departments and agencies, CEA strongly supports a coordination (rather than a regulatory) role for the CWA. A CWA that is able to knit the existing framework together would be beneficial.



And in contrast, additional layers of regulation or approval would be a significant hindrance to industry in Canada, as described above.

3. Federal water legislation, policies and regulations

a) Does your organization interact with federal departments and/or agencies on policies, legislation, regulations, or funding programs related to freshwater? If so, please specify.

- As mentioned above, we interact with federal departments on the following:
 - Fisheries Act 2019 – Department of Fisheries and Oceans (DFO)
 - Migratory Birds Convention Act (MBCA) & Species at Risk Act (SARA) – DFO, Environment and Climate Change Canada (ECCC) and Canadian Wildlife Service (CWS)
 - Canadian Environmental Protection Act (CEPA) – ECCC, Health Canada (HC), Transport Canada (TC)
 - Navigable Waters Act, Transportation of Dangerous Goods Regulations – TC
 - Project approvals – Impact Assessment Agency (IAAC), DFO, ECCC/CWS

b) Can you identify any current gaps in federal water legislation, policies, regulations, and/or initiatives, or in general across jurisdictions? If so, please specify.

- We do not see gaps, so much as significant overlapping responsibility and – often – competing objectives.

c) Do you feel the federal government could play a more effective role in protecting watersheds in Canada? If so, which watersheds and how?

- CEA would support a more cohesive approach to water management generally. The federal government could play a more effective convening role, linking together and aligning the various mandates and objectives across the federal and provincial policy landscape.
- As mentioned above, CEA does not perceive a need for additional regulation, rather, a more coordinated and less duplicative approach would be called for.

d) Are there areas of freshwater policy, legislation and/or regulation where you feel the federal government should play a greater role?

- The federal government should play a greater role in providing the policy frameworks that encourage investments needed to meet different objectives such as achieving economy-wide carbon emissions reductions and ensuring infrastructure needs can be met.
- Focusing on outcomes (rather than process and prohibitions) for fish and fish habitat, water management, navigation, resiliency and climate change adaptation.

e) Are there areas of freshwater policy, legislation and/or regulation that you feel the federal government should vacate and leave to another level of government or to the private sector?





- Care should be taken to neither over- nor under-regulate. Consistent, non-duplicative pathways for regulatory compliance are important for industry's ability to build, operate and maintain infrastructure.
- CEA recommends that the federal government acknowledge the overlaps in mandates and competing objectives with regard to freshwater management, and take steps to ensure that policies aimed at addressing freshwater do not hinder other important goals such as reaching a net zero economy by 2050.
- CEA recommends the federal government defer to provincial water management regimes, especially where provinces have worked with their stakeholders to develop official Provincial Water Management Plans.
- CEA recommends working through the Canadian Council of Ministers of the Environment (CCME) to ensure that existing and proposed federal policy does not overlap with provincial or territorial policy.

f) Are you aware of instances where federal freshwater policy, legislation, regulations, and/or initiatives have clearly benefitted from your organization's input?

- As mentioned above, CEA has a decades-long MOU with DFO (which now includes Waterpower Canada), within which we were until 2019 able to meaningfully address concerns and improve outcomes for industry and fish and fish habitat.

4. Collection of information and data

a) Do you believe that there is sufficient data collected and made available publicly about freshwater in Canada?

- There is a great deal of data that is available, but improvements are possible.

b) Do you believe there should be improvement in freshwater-related data-sharing?

- Yes, and CEA recommended that this could be a function of the Canada Water Agency.

5. International and business issues

a) Should Canada play a greater role internationally in helping find solutions, either through government and/or the private-sector involvement, to the challenge of global freshwater security?

- Canada could be well-placed to be a leader in finding international solutions to freshwater challenges. Finding solutions to our current challenges – such as aligning the need for infrastructure to meet future needs with effective environmental practices to address current impacts – would further cement Canada's leadership position in freshwater management.

b) Do you feel Canadian private-sector companies, including financial institutions, can and should play a role internationally?





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- CEA is generally supportive of helping people in other countries benefit from the expertise and resources that Canadian private companies can provide, wherever those companies are willing to do so.
- c) **What role can the federal government play in better supporting freshwater-related academic research, R&D, businesses, products, and services?**
- CEA encourages direct federal support for freshwater-related academic research and R&D, especially research that helps electricity system planners understand future supplies and demand for freshwater.

