Ontario Power Generation (OPG) appreciates the opportunity to make a submission to the Senate Standing Committee on Fisheries and Oceans (FOPO Committee).

As mentioned in previous submissions, OPG is Ontario’s largest clean energy generator. The company’s electricity generation portfolio has an in-service capacity of over 17,000 megawatts (MW). It operates two nuclear generating stations, two biomass-fueled thermal generating stations, one oil/gas-fueled thermal station, 66 hydroelectric generating stations, and one wind power turbine. As of 2019, our power continues to be more than 99 per cent free of carbon emissions and maintains a critical role in Canada’s greenhouse gas emission reduction targets. OPG has also been actively involved in all aspects of the federal government’s review of the Fisheries Act (the Act) up to this point. This includes written and oral submissions to the FOPO committee, appearing before the House of Commons’ committee on C-68 and supporting the development of remarks and submissions from the Ontario Waterpower Association (OWA), Canadian Nuclear Association (CNA), Waterpower Canada (WPC) and the Canadian Electricity Association (CEA).

OPG endorses the detailed submissions and amendment packages from these associations. In particular, we believe that the legislative amendments proposed by CEA are comprehensive, thoughtful and will afford both government and industry the opportunity to develop a regime – through subsequent regulations and codes of practice – that best serves the interests of all parties.

Rather than repeating CEA’s proposals here, we will simply offer a few thoughts on our two major concerns: 1) the “water flow” issue (Amendment 2(2)); and 2) C-68’s focus on impacts to individual fish (as opposed to fish population). Put simply, these issues pose a serious threat to the viability of existing and new hydroelectric generation.
1. The effect on flow:

The objections to C-68's revised fish habitat definition (adding 'quality, quantity and timing' of water flow) are well known, having been effectively communicated by industry members and associations. This addition to C-68, made at the last minute during House Committee hearings, was not stakeholdered, let alone appropriately tested or studied to better understand potential effects.

As CEA points out, this addition is unrealistic and ignores the practical workings of hydroelectric generation facilities. The quantity and timing of release of water by dams and other structures is determined by a variety of factors, not just fish and fish habitat. These include public safety and water security (protecting against floods or droughts), electricity system needs and responding to emergencies. Such operational realities could be seen as 'affecting water and fish habitat' and thus result in a contravention to the Act.

As pointed out by other industry associations, such effects would likely result in an increased reliance on other dispatchable generation assets, including coal or natural gas facilities. Which, in turn, would materially increase GHG emissions from the electricity sector, reversing over a decade of progress in climate change mitigation.

At its essence, including this expanded fish habitat definition could mean that hydropower reservoirs across the country are no longer fully utilized, limiting hydro power's ability to meet baseload and peak electricity demand. To better understand this, OPG performed some preliminary analysis on the potential effects of implementing changes to flow regimes. The impacts include, among other things:

- Adding flow to the definition of fish habitat could result in massive flooding. Using one common definition of ecological flow — where 80%-85% of natural flow must be passed through a dam (bypassing storage/flood mitigation) — would cause catastrophic effects. OPG expects the flood peaks experienced in Thunder Bay, for instance, to double or triple under such a regime. This would likely cause hundreds of millions of dollars in damages, not to mention threaten public safety.
- Currently, hydropower provides significant peaking capability, balancing energy supply and demand in real-time. The aforementioned interpretation empowered by Bill C-68 would endanger Canadian energy security by removing this service from the energy grid. The only viable existing technology to meet this energy need is carbon emitting gas and coal plants. Based on OPG's impact analysis this would come at a cost to the Ontario ratepayer of $243M/year in terms of replacement gas fired generation.

For these reasons, OPG fully supports the submissions made by CEA on this topic. Bill C-68's current wording will have significant negative effects on hydroelectric generation, and effectively ignore the established approach to water management in Ontario, which supports public safety and grid stability.
2. Unsustainable focus on individual fish impacts:

As CEA argues, the purpose of the Act should remain focused on fisheries as a resource (i.e. managing populations) rather than the current purpose statement in C-68, which can be interpreted to conserve and protect individual fish. If not corrected, this will create conflict between the purpose of the Act and the reasonable authorization by DFO of productive activities that may incidentally kill or harm fish or fish habitat. Despite many assurances from DFO staff – including remarks made before the Senate Committee – that they are only interested in "population-level effects", this is not how the Act reads. This lack of clarity will lead to an irregular application of the Act by DFO staff in different offices and regions across Canada. Clearly the driving purpose of such legislation should allow for a nuanced, tested approach – one where the government balances the needs of the environment with the benefits of clean generation (including decreased carbon emissions). The Act should not be a blunt instrument; rather, it should account for the needs of all parties who benefit from the protection of fish populations and the waters upon which they depend (e.g. First nations, industry and the public).

Similarly, the proposed duty to notify provision in Bill C-68 could oblige reporting the death of any fish, even where death may occur in the normal course of the responsible and licensed operation of a power plant. Such a requirement is unjustifiably burdensome and will result in needlessly lengthy administrative processes for both proponents and the regulator.

As CEA points out in its submission, there is an unfortunate reality that must be acknowledged in the context of this legislative review. While it can be argued that the terms of a permit or authorization would address such concerns, the fact remains that many hydropower facilities across Canada are not currently permitted. This is because many facilities were built before the current habitat protection provisions came into law and the current authorization process is still largely unsuited for addressing the unique circumstances of these facilities (i.e., facilities that have low impacts and long-established practices developed in partnership with DFO). Due to this unfortunate reality, this provision will force existing facilities to err on the side of caution and notify DFO for each and every fish death that is observed, inundating their offices and DFO officials with a significant administrative burden. It must also be recognized that the Authorization process itself – which can take between 1-2 years and cost hundreds of thousands of dollars per facility – will create a crushing administrative and technical burden for proponents, and likely dominate countless resources for government.

It is OPG’s hope that this can be avoided by thoughtful stakeholdering for the regulations and codes of practice. But the legislation itself must allow for such analysis to take place. And CEA’s proposed additions to sections 38.4 and 34.2 (defining “incidental take”) will afford stakeholders the ability to create a regime that applies an appropriate “case by case” analysis.
SUMMARY

OPG remains committed to making significant capital investments in low carbon infrastructure and electrification in the near future, and – like many other proponents commenting on Bill C-68 – permitting certainty and regulatory clarity are of paramount importance for our planning and operating processes. While OPG applauds the government’s efforts to implement modern safeguards into the Act, we believe that additional amendments are required in order to properly balance environmental protection with the interests of end use customers and to maintain Canada’s leadership in low carbon electricity generation. The legislation must serve Canada’s environmental goals without delaying, impairing, or preventing entirely, the construction and operation of crucial, clean energy infrastructure. Indeed, knowing the government is keen to reduce carbon emissions, it seems counterproductive to put in place legislation that makes it difficult to build or operate projects that support these goals.

While we do hope that the government engages in extensive consultation on subsequent regulations and codes of practice to address concerns well in advance of Bill C-68 coming into force, the government must correct some major flaws in the Act now. The issues described above will cause enormous headaches for industry and government alike.

It is important to point out that the amendments proposed by CEA are not wholesale removals of environmental protections, nor should they be seen as purely industry-positive or focused. On the contrary, they will help the Act: 1) address material risks to fish populations and fish habitat; 2) create a transparent and predictable process; and 3) aid the government in achieving its environmental goals.

Again, we thank you for taking the time to discuss these topics. We look forward to collaborating on the regulations and codes of practice, and would be more than happy to meet again or provide any additional information you might require.

Sincerely,

[Signature]

Mike Martelli
President, Renewable Generation
Ontario Power Generation Inc.