ONTARIO RIVERS ALLIANCE

379 Ronka Road
Worthington, ON P0M3H0
LindaH@OntarioRiversAlliance.ca
OntarioRiversAlliance.ca

26 June 2025

Garima Sodhi
Ministry of Energy and Mines
77 Grenville Street, 7th Floor
Toronto, ON
M7A 2C1

By email: Garima.Sodhi@ontario.ca

Re: ERO 025-0501 – Regulatory amendments to support financing for Ontario Power Generation's major nuclear projects

Dear Sirs:

The Ontario Rivers Alliance (ORA) is a not-for-profit grassroots organization with a mission to protect, conserve, and restore riverine ecosystems across the province. The ORA advocates for effective policy and legislation to ensure that development affecting Ontario rivers is environmentally and socially sustainable.

The ORA is pleased to comment on our key concerns and recommendations related to the Ministry of Energy and Mines' proposed amendments to Ontario Regulation 53/05 under the *Ontario Energy Board Act*, 1998. These changes would establish a Concurrent Cost Recovery (CCR) mechanism and authorize equity partnerships for Small Modular Reactors (SMRs) under the Darlington New Nuclear Project (DNNP). Despite being framed as financial regulatory amendments, these changes raise significant concerns around transparency, environmental oversight, economic risk, Indigenous rights and public accountability.

1. Transparency and Public Trust:

The proposal uses vague and non-binding language, asserting "*no environmental impacts*" to position this posting as a purely financial regulatory amendment. Additionally, it states that the SMRs and Pickering refurbishment are subject to "*additional provincial and federal nuclear regulatory approvals*". However, this lacks any explicit commitment to an environmental assessment (EA) under the Ontario *Environmental Assessment Act* (*EAA*) or Canada's *Impact Assessment Act* (*IAA*). This strategy avoids substantive public scrutiny and responsibility for environmental, climate, or health and safety assessments. This type of language circumvents the requirements under Ontario's *Environmental Bill of Rights* (*EBR*), which mandates consideration of proposals, decisions, and events that could affect the environment, including consideration of any social or economic effects, as well as any private, public, or governmental interest factors.[1]

Federal nuclear regulatory approvals via the Canadian Nuclear Safety Commission (CNSC) focus narrowly on safety, licensing, and operational compliance, not broad environmental, climate, or cumulative impact assessments. The CNSC process does not guarantee public participation, nor does it evaluate comparative energy alternatives, lifecycle greenhouse gas (GHG) emissions, climate resilience or Indigenous rights under s. 35 of the *Constitution Act*.

Recommendation 1: Defer any regulatory amendments until a comprehensive, independent EA is conducted under the *EAA* and/or *IAA*, which includes environmental, social, economic, and health risk assessment, and ensures public and Indigenous consultation.

2. Environmental Oversight

The claim of "no direct or indirect impact on the environment" is inconsistent with full lifecycle emission data for nuclear. Peer-reviewed life-cycle assessments (LCAs) report average emissions between 65 g CO_2-e/kWh for conventional reactors and up to 110 g CO_2-e/kWh, significantly higher than the ~15–25 g CO_2-e/kWh profiles of wind and other renewables[2]. Ontario has not completed a lifecycle GHG emission study for SMRs or refurbished reactors—this is a policy blind spot.

Recommendation 2: Mandate an independent EA under the *EAA* or *IAA* for DNNP and Pickering refurbishment, evaluating lifecycle GHG emissions, water use, waste management, and potential accident scenarios.

3. Economic and Financial Risk

CCR enables OPG to recover interest on debt before the project is operational. This exposes ratepayers to financial risk before any electricity is produced. Historical data shows average nuclear cost overruns of 102.5 %, amounting to $1.56 billion per project[3]. Darlington and Vogtle exemplify these recurring overruns—Vogtle (slated at $14 bn; actual $34 bn) and Darlington (initial $3.9 bn; final $14.4 bn)[4],[5].

Recommendation 3: Reject CCR until an independent financial risk assessment is completed and made public, including scenario modelling, sensitivity analyses, and ensuring risk remains with OPG, not ratepayers.

4. Ratepayer Impact

ORA strongly objects to ratepayers being exposed to the economic risk of this new, speculative SMR technology. By enabling upfront recovery of debt interest, ratepayers may pay before any benefit accrues. No cost–benefit breakdown or rate projections are disclosed. Again, not enough information is forthcoming. This represents a fundamental shift in risk from the proponent to the public, eroding accountability and violating the principles of prudent energy regulation. In addition, CCR could become precedent-setting, enabling early cost recovery across future energy projects. This is unacceptable, as the proponent reaps the profits; therefore, the proponent should bear the costs of the project.

Recommendation 4: Require OPG to carry the costs, and publish a full cost-benefit breakdown, including interest assumptions, sensitivity to delays, cost escalation, and demand alternatives, subject to OEB review and public and Indigenous consultation.

5. Indigenous Partnerships

Mention of equity partnerships with Indigenous communities lacks detail on governance, benefit allocation, or Free, Prior, and Informed Consent (FPIC) under s. 35. Indigenous partnerships also provide strong assurance that electricity projects will advance through to completion. It is also likely that SMRs will be sited near or on Indigenous lands, increasing risks to their communities, and this omission is unacceptable.

Recommendation 5: Any Indigenous engagement must follow structured FPIC processes, include transparent equity agreements, governance structures, shared decision-making, and early disclosure of potential environmental and socio-economic risks before equity commitments or capital is committed.

6. Regulatory Precedent

Adding equity-backed SMRs under O.Reg. 53/05 without ensuring safeguards and oversight creates a two-tiered risk model where private investors benefit and ratepayers cover the downside.

Recommendation 6: Ensure OEB retains full oversight over all equity-involved SMRs and require contractual protections (cost caps, clawbacks, penalties) to protect the public interest.

7. Climate Change Mitigation & Adaptation

The lack of climate resilience analysis ignores nuclear's high water consumption and thermal impacts during heat extremes. No comparative analysis with renewables, demand-side, or storage options has been provided. There was also no indication whether Ontario's own 2023 Climate Change Risk Analysis was taken into account. It emphasized energy system resilience, but nuclear refurbishment was not prioritized in the most urgent adaptation sectors.[6]

Recommendation 7: Require lifecycle GHG analysis and climate resilience testing before proceeding with DNNP or Pickering refurbishment.

8. Alignment with Clean Energy Strategy

A financial commitment to high-risk, slow-moving nuclear assets is incompatible with Ontario's need for agility in decarbonization. Investing in renewables (solar and wind), storage, and energy efficiency offers faster, lower-cost, lower-risk emissions reductions.

Recommendation 8: Prioritize public financing for clean technologies, storage, efficiency programs, and transmission upgrades before committing billions to nuclear refurbishment.

9. Summary

1. Withdraw regulatory changes until robust environmental, economic, climate, and Indigenous analyses are completed under the *EAA* and *IAA*.
2. Ensure transparency: require lifecycle GHG data, worst-case cost scenarios, and consumer-rate modelling.
3. Protect ratepayers: embed oversight through the OEB, and contract clauses to ensure the risk stays with investors or OPG—not the ratepayer.

4. Uphold Indigenous rights: require binding FPIC processes, equitable partnerships, and disclosure of environmental and socio-economic effects of project/s.
5. Realign energy strategy: pivot toward flexible, renewable/clean-based pathways that can deliver rapid emission reductions and resilience against climate uncertainty.

10. Conclusion

ORA strongly recommends that the Ministry either withdraw this proposed amendment or pause the amendment process and instead launch an *EAA*-compliant environmental review as noted above.

Thank you for this opportunity to comment.

Respectfully,

Linda Heron
Chair, Ontario Rivers Alliance
(705) 866-1677

References:

[1] *Environmental Bill of Rights, 1993, SO. 1993, Chapter 28. Consolidation Period: From February 22,2024 to the e-Laws currency date. Last amendment: 2023, c. 25, Sched. 2, s. 23*
[2] *Travis S. Carless, W. Michael Griffin, Paul S. Fischbeck, The environmental competitiveness of small modular reactors: A life cycle study, Energy, Volume 114, 2016, Pages 84-99, ISSN 0360-5442, https://doi.org/10.1016/j.energy.2016.07.111.*
[3] *Boston University Institute for Global Sustainability, *Investment Risk for Energy Infrastructure Construction Is Highest for Nuclear Power Plants*, May 2025. https://www.bu.edu/igs/2025/05/19/investment-risk-for-energy-infrastructure-construction-is-highest-for-nuclear-power-plants-lowest-for-solar/*
[4] *Wikipedia contributors, *Vogtle Electric Generating Plant*, Wikipedia, updated June 2025. https://en.wikipedia.org/wiki/Vogtle_Electric_Generating_Plant*
[5] *Wikipedia contributors, "Darlington Nuclear Generating Station, updated June 2025. https://en.wikipedia.org/wiki/Darlington_Nuclear_Generating_Station#Cost_overruns*
[6] *Ontario Provincial Climate Change Impact Assessment, Technical Report, January 2023. Online: https://www.ontario.ca/files/2023-11/mecp-ontario-provincial-climate-change-impact-assessment-en-2023-11-21.pdf*