To the Impact Assessment Agency of Canada
Email: wesleyville@iaac-aeic.gc.ca

Re: **New Nuclear at Wesleyville Project** (89802)

Thank you for the opportunity to comment on the draft Integrated Tailored Impact Statement Guidelines for Ontario Power Generation's New Nuclear at Wesleyville Project.

First, I would like to state that it was good news that the Impact Assessment Agency of Canada (IAAC) decided that more assessment of the New Nuclear at Wesleyville Project was required. There are many complex technical, security, economic and environmental justice issues. With the production of highly radioactive nuclear fuel waste, the project has repercussions for generations into the future. An Impact Assessment is the best way for public awareness, scrutiny and input to this project.

I have provided comments on some of the sections of the draft Integrated Tailored Impact Statement Guidelines (the draft guidelines).

Section 2.5 Project Overview

The draft guidelines state that the proponent will:

- describe the project, key project components and ancillary activities (both nuclear and non-nuclear), scheduling details, the timing of each phase of the project, the total lifespan of the project and other key features. If the project is part of a larger sequence of projects, the Impact Statement must outline the larger context;
- …
- state the estimated project budget, for each project activity, and the amount that is expected to be spent locally over the life of the project; and…

We note that in the past budgets for nuclear power plants final costs typically greatly exceeded initial estimates. The long-term management the nuclear waste is a direct consequence of a nuclear power plant and it is not clear if it is part of the sequence of projects. The estimated project budget should include the budget for the long-term management of high, medium and low-level radioactive waste.

Recommendation:

The budget should have sufficient detail, including the assumptions made, so that it can be scrutinized by others. The budget should specifically include decommissioning and long-term management of the radioactive waste.

2.5.1 Decommissioning and Post-Closure Management

The guidelines state that"

> "The Impact Statement must describe anticipated used nuclear fuel quantities, storage methods, duration of on-site storage, and reasonably foreseeable long-term management pathways (e.g., transfer to an authorized disposal facility or continued monitored storage), sufficient to support the assessment of potential adverse federal effects across the full project lifecycle.
>
> The Impact Statement must assess potential long-term and post-closure effects on relevant valued components, including groundwater, surface water, the biological environment, and Indigenous Rights, and describe proposed monitoring, follow-up, and financial assurance mechanisms applicable to decommissioning and post-closure phases.

Nuclear power plants have generated nuclear waste for decades without an acceptable plan for the radioactive nuclear waste. It continues to be stored next to nuclear power plants (except for the waste from Gentilly 1 which was recently moved to the Canadian Nuclear Laboratory site for interim storage). No permanent disposal site for nuclear fuel waste is currently operating in the world.

Canada's proposal by the Nuclear Waste Management Organization for a deep geological repository is undergoing an Impact assessment and it has not yet been determined that this project will proceed.

Many uncertainties remain around the underground storage of high-level nuclear waste. These are outlined in many scientific articles such as *Corrosion processes affecting coppercoated used fuel containers for the disposal of spent nuclear fuel: critical review of the state-of-knowledg*e, Harper et al., Nature Publishing Group Materials Degradation, (2024) 8:124). In the extensively researched analysis *Rock Solid II* (A Genewatch UK consultancy report, November 2025) the executive summary states that: "There are concerns …. casting significant doubt on the wisdom of making a commitment to a costly major infrastructure project at a particular site at the current time

In addition to these technical concerns there are issues of adequate consultation to all the affected communities, both Indigenous and non-Indigenous in the region of the proposed repository and along the transportation route. There are a number of environmental justice issues that have not addressed or resolved for people living now and in the future.

Geological disposal has been referred to by Edwin Lyman, director of nuclear power safety at the Union of Concerned Scientists as “the least bad option”. In the future there is hope for a better option, as there is increased research on improved management methods of the waste but this is not guaranteed.

Until a better option exists a proposal to generate more radioactive nuclear waste should be given serious consideration. A reasonable approach is not to generate more highly radioactive waste. There are viable methods of generating electricity from non-nuclear low-carbon sources.

Recommendation:

Ontario Power Generation (OPG) should have a specific waste management plan and location for the radioactive waste so that the impacts can be assessed.

2.6.1 Plant Parameter Envelope Approach

The guidelines state that:

> In applying a bounding envelope, the proponent’s Impact Statement must provide:
>
> - the derivation, analysis, and justification of the PPE parameters used with adequate level of detail to:
>   - …
>   - ensure a transparent and robust assessment of the effects of the project and development of appropriate mitigation measures, including:
>   - the pathways of effects for each technology, including a clear description of the differences among them; and
>   - a description of the manner in which reactor technologies could differ in their impact on the environment throughout the project life cycle (i.e., site preparation, construction, operation, decommissioning, and abandonment);

Ontario Power Generation has indicated in their Response to Summary of Issues that they will consider the supply chain.

Recommendation:

The guidelines should clearly include describing the supply chains involved in obtaining the fuel for the reactors and what other countries are involved in those supply chains. Security of fuel supply is an important consideration.

2.8.2 Need for the project

The guidelines state that:

> "The Impact Statement must describe the underlying opportunity or issue that the project intends to seize or solve from the perspective of the proponent, such as demand for a resource or support for a federal or provincial government objective, provide a rationale that the project is a warranted response, and consider the perspectives of First Nations and other Indigenous communities, the public and other participants."

On page 1 of OPG's Response to Summary of Issues, OPG states that it is "committed to continuing to decarbonize Ontario's energy supply to meet Canada's climate change goals".

In Table 1, Key Issue number 8, OPG states that:

> "A preliminary assessment of how the NNW Project will support Canada's Net Zero goal is provided in Sections 2.2 and 5.9 of the IPD. During the Impact Statement phase , OPG will consider the NNW Project's contributions to Canada's greenhouse gas emissions reduction commitments. The assessment will be undertaken in accordance with the Strategic Assessment of Climate Change (SACC) and the technical guides related to the SACC developed by the federal government. This will inform the understanding of how the project contributes to Canada's climate change obligations."

Related to the goal of helping to meet Canada's 2030 and 2050 climate commitments is section **10.1.2 Climate change commitments** where the guidelines state that:

> "The Impact Statement must:
>
> - assess the project's GHG emissions and emissions intensity as described in sections 3 and 5 of the SACC and section 2.1 and 2.5 of the Technical Guide; and provide an explanation of how the project may impact

> Canada's efforts to reduce GHG emissions, in Canada and globally as described in section 5.1.3 of the SACC and in the Technical Guide.

These calculations are very important as many energy analysts indicate that new nuclear cannot be built quickly enough to address the climate emergency. (This is not to suggest that new nuclear power plants should happen quickly. New nuclear takes time as there are important regulatory and licensing requirements that help to ensure safety which should not be fast-tracked as well there is a long construction time.)

A number of energy analysts also indicate viable alternatives to new nuclear power that reduce emissions more quickly.

Recommendations:

The greenhouse gas emission calculations need to be sufficiently detailed (with indication of the assumptions made) so as they can be carefully scrutinized and so that the public can assess if this new nuclear project helps to meet Canada's 2030 and 2050 climate commitments.

The guidelines should also:

- indicate that OPG provide an annual timeline of greenhouse gas emissions for this project, from mining of the fuel, to construction and then during operation, decommissioning and long-term nuclear waste management
- The guidelines should ask also for clarity regarding the "avoided" greenhouse gas emissions stated by OPG in their IPD emission calculation. The meaning is not entirely clear. It appears that they are describing avoided emissions in comparison to another non-nuclear scenario, but it is not clear as to what that is.
- Ideally the greenhouse gas emission timeline should be compared to other reasonable non-nuclear low carbon scenarios.

2.8.3 Alternatives to the project

The guidelines state that:

> "IAAC will rely on the proponent's Initial Project Description demonstrating that there are no alternatives to the project that are technically and economically feasible to meet the need for the project and achieve its purpose. The selection of electricity generation technologies and the broader energy supply mix in Ontario are matters determined through provincial energy planning and policy processes, including Ontario's Integrated Energy Plan.

> The federal impact assessment will focus on the potential effects of the designated project and the proponent's rationale for the selected technology and site. It will not reassess provincial energy policy or determine the appropriate electricity generation mix for the province. On this basis, the information provided in the Initial Project Description is considered sufficient to address alternatives to the project for the purposes of these Integrated Guidelines, and no additional information is required."

It is noted with dismay that the IAAC will rely on the proponent's Initial Project Description demonstrating that "there are no alternatives to the project that are technically and economically feasible to meet the need for the project".
Does this meet the requirement of the Impact Assessment Act? While there is not the expectation that the IAAC reassess provincial energy policy or determine a precise mix, there is an expectation by the public that this is the critical time for public input and it is the time when the impacts of the proposed project are compared with reasonable alternatives.

A decision to proceed with new nuclear is being made in the context of numerous reports that state:

- there are alternatives to the new nuclear that provide low carbon energy.
- investment in new nuclear does not help address the climate emergency in a timely fashion
- investing in new nuclear is among the most costly if not the most costly.

Recommendations:

At a minimum the guidelines will ensure that the proponent's rationale for the selected technology, which is that it helps to meet Canada's 2030 and 2050 climate commitments, is possible.

The guidelines should require that the proponent provide an assessment of reasonable non-nuclear alternatives that are permitted by the provincial government. This assessment is for the benefit of overall public interest and should include considerations an alternative that maximizes positive benefits and minimizes harmful impacts on the environment and on present and future generations.

5.7.2 Groundwater and surface water

The guidelines state that the Impact Statement must:

- describe the effects of the project on surface and groundwater, including effects related to:
    - project use of surface water or groundwater resources;
    - changes to water flow or watercourse diversions; and
    - discharge of water, effluent, wastewaters or other substances to the environment, including those from waste storage areas, such as irradiated fuel bays;
- describe how the effects of climate change are taken into account in the evaluation of the project effects;
- …
- changes to surface water from thermal plumes associated with nuclear power generating activities, including …"

Recommendations:

The guidelines should indicate that it is also important to consider the cumulative effect of climate change. For example, the cumulative impact of climate change on water temperatures compounded by thermal plumes.

Potential impacts on ground and surface water of the final nuclear fuel waste management plan is also to be included.

10.2.1 Extent to which the likely effects of the project contribute to sustainability

New nuclear power has a number of detrimental impacts on many of the value components due to radioactive nuclear fuel waste, safety issues and costs.

The highly radioactive nuclear fuel waste needs to be isolated from the environment for at least 100,000 years. Although there has been progress in understanding the technical challenges of a deep geological repository too many uncertainties remain at this time.

The burden of highly radioactive used nuclear fuel raises many environmental justice issues. Only two communities have expressed their interest in continuing in the siting process for the Nuclear Waste Management Organization's deep geological repository proposal. There are, however, many other communities in the area, and along the potential transportation routes. Many of these communities are Indigenous communities

“whose rights and consent are recognized by the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and required under Canadian law” (Legal Advocates for Nature’s Defence).

In conclusion, I urge the IAAC to ensure that the new nuclear project demonstrate that it can help meet Canada’s 2030 and 2050 climate commitments, that the cost predictions are accurate and complete for all aspects of the project including the radioactive waste long-term management and that environmental justice is achieved.

Sincerely,
Kerstin Muth