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New Nuclear at Wesleyville Project  
Impact Assessment Agency of Canada  
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## Re: Ontario Power Generation New Nuclear at Wesleyville Project

Dear IAAC

I have reviewed the Initial Project Description of a Designated Project New Nuclear at Wesleyville Project and make the following comments.

### Background

I have researched and published extensively on electricity, energy and climate change issues in Ontario over the past two decades. My major publications relevant to this project are listed at the end of this submission. I note, in particular, that I was the Principal Investigator of what remains the only independent life-cycle sustainability of assessment of nuclear energy in Canada ([Nuclear Power in Canada: An Examination of Risks, Impacts and Sustainability](#) (Pembina Institute 2006)). I have also published and commented specifically on the province's electricity system planning processes in a sustainability assessment framework.

### Comments

The assessment of the proposed project under the *Impact Assessment Act* is simply premature at this stage. The project, which would be by far the largest nuclear construction project in Canadian history, was only identified one year ago, there having been no specific mention of a major nuclear project at Wesleyville in previous provincial planning or policy documents. Key elements of the project remain undefined, including the specific reactor technology to be employed at the site. The project description does little more than identify the potential site for the project, provides some basic sense of its potential scale (10,000MW capacity), and the projected project timelines and lifetimes.

A meaningful assessment of the project cannot be undertaken on this basis. Without the identification of basic information regarding the reactor technology to be employed, any meaningful assessment of the construction, operational, accident, human health and environment risks, the likely nature of the waste streams produced, and the security, safety, environmental and nuclear weapons proliferation risks and impacts associated with fuel supplies and cycles, are simply impossible. In these circumstances, the initial project description should be rejected as incomplete, and the proponent asked to submit a complete project description, when such a document, identifying the specific reactor technologies to be used, and outlining the risks and impacts associated with them, including areas of uncertainty, particularly if reactors design with no previous operational history, are proposed. To proceed otherwise would be reckless and potentially dangerous to public health and safety, the environment and Canada's energy security.



In the event that the proposal is permitted to proceed, the parameters for the assessment as per section 22(1) of the Impact Assessment Act (IAA), should include:

- A full examination of the purpose of and need for the designated project, including:
  - its technical and economic viability (IAA s.22(1) (d)), including costs, and environmental (atmospheric, water, landscape, waste management, accident and catastrophic accident) impacts and risks relative to alternative pathways for meeting future electricity needs in Ontario, (IAA s.22(1)(f)), while decarbonizing the province's electricity system (IAA s.22(1)(l)) and advancing sustainability (IAA s.22(1)(h)); and
  - assessments of the reliability of projections of future electricity grid demand underlying the project and the uncertainties associated with those projections and the key variables that may affect them.
- The examination of alternatives to the project that may provide technically and economically viable means of meeting future electricity needs in Ontario (IAA s.22(1)(f)), while decarbonizing the province's electricity system (IAA s.22(1)(l)) and advancing sustainability (IAA s.22(1)(h)) in an environment of very high economic, technological and environmental uncertainty.
- The examination of alternative means of carrying out the designated project, including its location, and the specific technological choices made in relation to the project in terms the technical and economic feasibility of the project and alternatives to it (IAA s.22(1)(e)).

These considerations are particularly important given the absence of any form of external or independent review of the Province of Ontario's electricity and energy system planning processes and decisions in economic, technological, risk management or environmental terms. Ontario's electricity system, and the choices made with respect to it, including the pursuit of the Wesleyville project, are governed entirely by [political directives](#) issued by the Minister of Energy, with which the relevant provincial agencies, including the Ontario Energy Board, and the Independent Electricity System Operator (IESO), must comply and endeavour to implement.

The implication of this situation is that provincial policy statements cannot be relied upon as providing reliable and evidence-based foundations for understanding the purpose and need for the proposed project, or the technical, economic and environmental viability of alternatives to it. My commentary on the Pathways to Decarbonization study, which the province asserts provide the foundation for the rationale for the Wesleyville project – although there is no reference in the document to the Wesleyville project - is available [here](#).

I note in that submission that there has been more modelling on alternative electricity pathways for Ontario than any other jurisdiction in Canada. These independent studies, and even work done by the province's own Independent Electricity System Operator, point in very different directions from the pathways document and the Wesleyville new build project. Rather they have emphasized that pathways rooted in energy efficiency and productivity, renewable energy resources coupled with new energy storage technologies, and distributed energy resources (such as networks of household and facility-scale rooftop solar and energy storage assets), as offering cheaper, lower-risk and more flexible and adaptive pathways to decarbonization and energy sustainability.

Any assessment of the project must also include a full review the changes to the environment or to health, social or economic conditions and the positive and negative consequences of these changes that are likely to be caused by the carrying out of the designated project throughout its full life and fuel cycles (IAA s.22(1)(a)). This must include consideration of the effects of malfunctions or accidents that may occur in connection with the designated project (IAA s.22(1)(a)(i)). These considerations are of particular importance given the location of the proposed project in proximity to the largest urban settlement area in Canada. It is important to reiterate that none of these questions can be answered meaningfully without knowledge of the specific reactor type and design being proposed for the Wesleyville site.

The proposed project would have major implications for the sustainability of the Ontario's electricity system and economy. The proposed project potentially represents the highest-cost, -risk, and negative-impact option for meeting the province's future electricity needs. It requires the highest possible level of scrutiny as a result. In the absence of any provincial process capable of providing such scrutiny, a comprehensive and public assessment must be conducted under the federal Impact Assessment Act. Such an assessment must be conducted independently, but in a coordinated manner, from the Canadian Nuclear Safety Commissioner's technical licencing process for the project.

I would be pleased to respond to any questions you may have regarding my comments on the Initial Project Description for the Wesleyville Nuclear Project.

Yours sincerely,

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Faculty of Environmental and Urban Change  
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Steering Committee Member, Ontario Network on Sustainable Energy Policy (ONSEP)  
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## List of related publications:

### Selected Refereed Publications

- Winfield, M., et al., [\*Nuclear Power in Canada: An Examination of Impacts, Risks and Sustainability\*](#) (Drayton Valley: Pembina Institute, December 2006).
- Winfield, M., Gibson, R., Markvart, T., Gaudreau, K. and Taylor, J., "Implications of Sustainability Assessment for Electricity System Design: The case of the Ontario Power Authority's Integrated Power System Plan," [\*Energy Policy\*](#), 38 (2010) 4115-4126
- Winfield, M., Mulvihill, P., and Etcheverry, J., "Strategic Environmental Assessment and Advanced Renewable Energy in Ontario: Moving Forward or Blowing in the Wind?" [\*Journal of Environmental Assessment Policy and Management\*](#), Vol.15, No.2, June 2013, 1-19.
- Winfield, M., "Electricity Planning and Sustainability Assessment: The Ontario Experience," for R.B. Gibson, ed., *Sustainability Assessment: Applications*, (London: Earthscan, 2016)
- MacWhirter, R., and M.Winfield, "[The Search for Sustainability in Ontario Electricity Policy.](#)" in G.Albo and R.MacDermid eds., *Divided Province: Ontario Politics in the Age of Neoliberalism* (Kingston/Montreal: Queens-McGill University Press 2019)
- Winfield, M., and Saherwala, A., "[The Ontario Coal Phase-Out](#)" for M.Howlett, E. Lindquist, G.Skogstad, G.Tellier and P.'t Hart eds., *Successful Public Policy: Lessons from Canada* (Toronto: Oxford, 2022).
- Winfield, M., Hill, S., Gaede, J., eds., [\*Sustainable Energy Transitions for Canada: Challenges and Opportunities\*](#) (UBC Press November 2023). Co-Author of following chapters: Introduction; Climate and Energy Policy Intersections; Ontario and Conclusions.
- Winfield, M. "Assessing Ottawa's paths to net zero through an energy sustainability lens," for D.VanNijnatten, ed., *Canadian Environmental Politics and Policy (5<sup>th</sup> edition)* (Oxford University Press 2024).
- Winfield, M., and Kaiser, K., "Ontario and Climate Change," for J. Onusko and D. Anastakis, eds., *Ontario Since Confederation: A Reader* (Toronto: University of Toronto Press 2025).
- Winfield, M., "Institutions, Infrastructure and Energy Transitions: Climate Change, Electricity and Federalism in Canada, C.Metcalf, *Effective Climate Institutions* for McGill-Queen's UP, in peer review – for publication 2026.

### Recent Commentaries

- Winfield, M., "Ontario faces high cost and high-risk nuclear future," [\*Canadian Dimension\*](#), November 17, 2025.
- Winfield, M., "Hey Australia, Ontario is no model for energy and climate policy," [\*Policy Options\*](#), October 4, 2024.
- Winfield, M., "Avoiding hard questions about what is 'getting done' in Ontario," [\*Policy Options\*](#), March 25, 2024.
- Winfield, M., "Finding pathways out of Ontario's hydro and climate mess" [\*Policy Options\*](#), May 29, 2023
- Winfield, M., and Whitmore, J., "Is Ottawa's 'clean' industrial and climate strategy putting energy production ahead of energy productivity?" [\*Policy Options\*](#), April 23, 2023.