

Comments on IESO Pathways to Decarbonization Study

ERO 019-6647

Overview

Established in 1969, Pollution Probe is one of Canada's longest serving and most respected environmental organizations. Pollution Probe has a proven track record of working in successful partnerships with industry and government to develop practical solutions for shared environmental challenges. Its approach is to define environmental problems through research, to promote understanding through education, and to press for practical solutions through advocacy.

The Ontario Government and the IESO should be commended for producing the Pathways to Decarbonization (P2D) study. But this report needs to be seen as the first step, and not as the end. This report should be updated regularly. Before any operational plans are developed it is necessary for wider stakeholdering and for the Province to provide greater policy clarity on the future of energy in Ontario and to introduce more cost-effective, more collaborative and more holistic planning processes.

Questions

- The IESO's Pathways Study recommends beginning work on planning and siting for new resources like new long-lived energy storage (e.g., pump storage), nuclear generation and waterpower facilities.*

What are your expectations for early engagement and public or Indigenous consultations regarding the planning and siting of new generation and storage facilities?

We have no time to spare as we prepare for a net-zero energy system by 2050, and a net-zero electricity system by 2035. As such it is important that work on siting needs to begin now. Consultations should be based on a clear integrated all-energy plan developed with stakeholder consultation, including communities. There needs to be clear needs and assessed and prepared in an open fashion. The IESO's P2D study is a good start, but is not sufficient for communities to feel that the path and need is clear.

Communities need to be engaged today. Community engagement in areas where development could occur should start immediately with information provided on why and what could be done. Community members should help develop guidelines for development within their community, with the various tradeoffs clearly expressed. This could help identify willing host communities where infrastructure such as transmission lines could be pre-developed to facilitate investment, as was done in several US states. But equity needs to be a consideration, and the burden of hosting infrastructure should not be placed in low-income areas.

- The IESO's Pathways Study shows that natural gas-fired generation will need to continue to play an important role in the system for reliability in the short to medium term. The IESO's assessment shows that most of the projected Ontario demand in 2035 can be met with the build out of non-emitting sources, but some natural gas will still be required to address local needs and provide the services necessary to operate the system reliably.*

Do you believe additional investment in clean energy resources should be made in the short term to reduce the energy production of natural gas plants, even if this will increase costs to the electricity system and ratepayers? What are your expectations for the total cost of energy to customers (i.e., electricity and other fuels) as a result of electrification and fuel switching?

As seen in every jurisdiction, the lowest cost source of power currently is wind and solar power. There is no reason to assume that Ontario will be different in this respect. While wind and solar cannot replace gas-fired generation directly given their different operating parameters, there are opportunities to use wind and solar to reduce costs.

Due to the nature of the electricity system, past costs have been added to ratepayers for decarbonization efforts, while no such costs have been added to natural gas companies. The Province needs to assess how to balance costs and tariffs to ensure that electrification is a feasible option for companies and individual.

- 5. The IESO's Pathways Study recommends that for a zero-emissions grid by 2050, investment and innovation in hydrogen (or other low-carbon fuels) capacity could be required to replace the flexibility that natural gas currently provides the electricity system.*

Do you have any comments or concerns regarding the development and adoption of hydrogen or other low-carbon fuels for use in electricity generation? What are your thoughts on balancing the need for investments in these emerging technologies and potential cost increases for electricity consumers?

Hydrogen investment is potentially risky. While there is great potential, there is also great uncertainty. The Province should support hydrogen innovation, but it cannot be relied upon to be as large a resource as in the P2D study, especially as the source for hydrogen was not considered, which would either require large renewable investments for producing green hydrogen or a large CCS program if blue hydrogen is used. Rather, the Province should focus near-term system investment on technologies that have been proven to work in other jurisdictions – such as wind, solar and storage. Other innovative technology, such as hydrogen or small modular reactors, should also be supported, but their limitations and risks need to be taken into account.

- 9. Do you have any additional feedback on the IESO's "no-regret" recommendations?*

One of the primary limitations of P2D is that it is focused on the bulk system and does not consider the role that distributed resources could play. Distributed resources could include the following: solar and storage, local capacity markets (such as the York Region pilot currently underway by the IESO), energy efficiency and demand reduction, the ability to control the charging of EVs. The IESO released its DER Potential Study shortly before the P2D, which shows that there is large potential for DERs to provide system benefits, and the results from that study should be incorporated into future P2D studies.

What is clear is that there any move to a net-zero grid will require significant change in the Ontario electricity system. These changes should be managed to ensure that all consumers are protected, and that all Ontarians can benefit. In addition, the IESO is conducting a large number of other, parallel, policy consultants, such as such as on market reform, capacity auctions, DER implementation, and others. These initiatives should be developed with the understanding that it will contribute to achieving a net-zero grid. It should be questioned whether the IESO is the best body to produce such long-term

planning. As the system and market operator, the IESO is concerned with short- and medium-term problems. Long-term thinking is not a priority. Generally, such long-term plans are prepared by government or by government agencies that are not involved in the day-to-day operation of the system.

As such, a third-party organization or advisory committee should be established to improve planning, and to allow for a more integrated approach that can cost-effectively include all forms of energy, including electricity, heat and transportation, and that can incorporate community energy plans. Given the limitations of existing organizations as they focus on only form of energy, and the lack of capacity at the Ontario Energy Board to undertake such a process, it is difficult to see how such a plan could be prepared given present organizational structures. A lack of such an integrated plan will lead to delays, higher costs and more inconveniences to customers to achieve decarbonization targets.

We would like to thank the Ontario Government for the opportunity to comment on the proposal, and we look forward to collaborating on developing future energy system that is fit for Ontario for the coming years. Please do not hesitate to reach out if you would like to further leverage Pollution Probe's diverse experience and partnerships in this area.