

Feedback Form

2024 Annual Planning Outlook – April 23, 2023

Feedback Provided by:

Name: Linda Heron

Title: Chair

Organization: Ontario Rivers Alliance

Email: info@ontarioriversalliance.ca

Date: 2024-05-06

To promote transparency, feedback submitted will be posted on the Long-Term RFP engagement page unless otherwise requested by the sender. If you wish to provide confidential feedback, please mark "Confidential".

Following the APO Information Webinar on April 23, 2024, the Independent Electricity System Operator (IESO) is seeking feedback and comments from stakeholders on the items discussed. The webinar presentation and recording can be accessed from the [engagement web page](#).

Please submit feedback to engagement@ieso.ca by May 7, 2024.

Future Considerations

Topic	Feedback
Do you have any comments regarding information to include in future outlooks?	<p>There needs to be a continuing assessment of the likelihood of electric vehicles meeting IESO's expectations in relation to resource adequacy. I live in the north and am waiting for a hydrogen fuel cell technology to be feasible in northern Ontario. Until then I will continue to use a gas-fired vehicle.</p> <p>Climate change also needs to be a primary consideration in determining the future planning of electricity resources.</p>

General Comments/Feedback

Risks & Uncertainties

As Climate Change progresses, Hydropower will become more Intermittent & Unreliable:

Recent hydropower shortages in BC, Alberta, Manitoba and Saskatchewan have highlighted its vulnerabilities in the face of the extremes of climate change. Hydropower is reliant upon water availability, so during the low-flow season or in times of drought, it can become intermittent and unreliable. As noted above, ongoing drought is already affecting hydropower output, and many provinces are being forced to import power or turn on the coal and natural gas facilities. Reliable hydropower does not bode well for the future.

In fact, in 2015 the IESO reported run of river efficiency to be as low as 15 to 30% of Installed Capacity. To further highlight this point, that analysis was to determine the best means of electricity connection to remote First Nation communities and to enable forecasted growth of the Ring of Fire mining operations in northern Ontario. The analysis at that time, concluded that "*Northern hydroelectric generation is an energy-limited resource known to have significantly reduced output and availability during drought conditions of the river system supplying these generating units.*"ⁱ In fact, the recommendation of IESO's report was to not build any new hydroelectric facilities but primarily to build new transmission lines.

So, what has changed between 2015 and 2024? Why should IESO change its determination when climate change is demonstrating that its report was accurate?

Climate change will bring increasing numbers and volumes of extreme rain events and/or atmospheric rivers with sudden flooding that can cause dam failure and place life and property at risk. Scientists are starting to realise that the climate models they have been using to predict the rate of global warming are wrong as it becomes clear temperatures are rising faster than predicted. The world has just registered its hottest year on record, hotter than expected by the climate models, and as a heatwave sweeps the world this spring coupled with sea temperatures already smashing all-time highs set only last year, it appears this year is going to be even worse than last year, Berkely Earth reports in its [temperature tracker](#).ⁱⁱ So, we are already in uncharted territory.

The IESO must therefore also consider the impacts and stresses of hydropower amplifying its many negative effects in a future of increasing temperatures, extreme rain events and droughts on the sustainability of riverine ecosystems and the health of our freshwater supply.

And, as stated in my previous comments on this subject, as temperatures rise, so too will methane emissions be generated by microbes feasting on biomass in the hydropower reservoirs and beyond. Copious amounts of methane emissions will be spewed out into the atmosphere over the next 100 years, or until the dam is removed, either by flood or perhaps a responsible proponent will remove it with their own dollars.

The reason ORA and its members stopped all those hydroelectric proposals between 2011 and 2016 is because of a proponents' intrinsic drive for profits and an absolute failure to follow environmental policy and process. However, it will be different this time because the Ontario Waterpower Association has lobbied this government to weaken environmental protections and public consultation to the point where the public is no longer assured of having a say in the planning and approval process of hydropower developments. This is a travesty at a time when public scrutiny has never been more important.

ORA recommends that no new hydropower projects be built. We must protect our freshwater resources to save our future with water.

Electric Vehicles:

The IESO has listed several risks and uncertainties; however, the largest risk that is not mentioned is the likelihood of an inaccurate IESO forecast based on society's non-compliance with the provincial and federal expectations of the uptake of electric vehicles (EVs) by its citizens.

Until the range anxiety factor and battery capacity and recharging times are addressed with EVs quickly, citizens will not comply in large numbers. Batteries are unreliable, degrade quickly, take too long to charge, and don't have the capacity for long trips. For example, to drive to my son's home in Guelph, it takes 5 ½ hours and a tank of gas. Travelling that same distance with an electric vehicle would take 2 or 3 stops to charge at roughly 40 minutes to an hour per stop if a charger is available – so add another 2 hours at a minimum to the trip. EVs are just not practical in northern Ontario!

A larger concern is what happens when we are stopped on the road for 2 to 4 hours in winter as we are stranded on the road or waiting for it to be cleared of an accident or a heavy snowstorm and your battery runs out?? These scenarios are the reason for range anxiety as they could result in fatalities. The banning of gas-fired vehicles in favour of electric vehicles will be an expensive and unwise bet against the future. EV technology is just not ready to replace gas-fired vehicles.

ⁱ *North of Dryden Integrated Regional Resource Plan – January 27, 2015, by OPA/IESO. P-56 & 124. Online: <http://www.noma.on.ca/upload/documents/north-of-dryden-report-2015-01-27.pdf>*

ⁱⁱ *The climate models are wrong, climate change is accelerating faster than predicted. By Ben Aris, Berlin, 25 April 2024. Online: <https://www.intellinews.com/the-models-are-wrong-climate-change-is-accelerating-faster-than-predicted-317180/>*