

# Feedback Form

Northern Hydro Program – January 29, 2026

**Feedback Provided by:**

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Date: 6 February 2026

Following the January 29, 2026 Northern Hydro Program webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the items discussed.

The referenced presentation and supporting materials can be found under the January 29, 2026 entry on the [Northern Hydro Program](#) webpage.

To promote transparency, feedback submitted will be posted on the Northern Hydro Program page unless otherwise requested by the sender. If you wish to provide confidential feedback, please mark “Yes” below:

- Yes – there is confidential information, do not post
- No – comfortable to publish to the IESO web page

**Please provide feedback by February 6, 2026 to [engagement@ieso.ca](mailto:engagement@ieso.ca).** Please use subject: *Feedback: Northern Hydro Program.*

## ORA General Comments/Feedback:

The Ontario Rivers Alliance (ORA) submits that the Northern Hydro Program (NHP), as designed, represents a significant failure of climate-informed electricity planning and exposes the IESO, the Province, and participating proponents to **substantial financial, reputational, and legal risk**.

While framed as a neutral mechanism to “*extend the life of existing northern hydroelectric facilities*,” the Program in fact functions as a 20-year revenue guarantee for large hydro (>10 MW) assets, extending to 2050, that locks ratepayers into long-term payment obligations **without any contractual re-opener, off-ramp, or performance protection** in the event that climate-driven changes to hydrology and freshwater availability render these facilities unable to reliably fulfill their contracts. This omission is not benign—it is material.<sup>1,2,3,4,5</sup>

In effect, the Program socializes climate risk while privatizing revenue certainty: proponents are protected from hydrologic failure, while ratepayers are not; thereby transferring foreseeable climate-driven performance failure directly onto ratepayers, who have no ability to exit, renegotiate, or mitigate that risk.

Hydropower is fundamentally dependent on freshwater flows. Ontario’s own climate science, the **Ontario Provincial Climate Change Impact Assessment (2023)**, makes clear that **those flows are becoming less reliable, more volatile, and increasingly seasonal**. Proceeding with long-term contracts that deliberately insulate proponents from hydrologic risk while transferring that risk to ratepayers is neither prudent nor defensible.<sup>6</sup> This risk transfer is compounded by the continued mischaracterization of hydropower as “clean” and “non-emitting”.

The NHP effectively assumes static hydrology to mid-century. That assumption is blatantly false. In fact, the Minister of Energy and the IESO have a public trust obligation that is not being reflected in the structure or safeguards of this NHP or other bulk planning and procurement activities.

## Greenwashing, Misrepresentation, and Future Liability:

The NHP perpetuates the longstanding mischaracterization of hydropower as “clean” or “non-emitting” by disconnecting contract eligibility and compensation from measured environmental performance. The **draft contract explicitly allows proponents to retain and monetize “Environmental Attributes”—including clean energy credits and emission reduction credits—without any obligation to measure or publicly report or disclose actual greenhouse gas (GHG) emissions from their reservoirs**.

This is classic greenwashing and raises material concerns of misrepresentation. Reservoir-based hydropower produces methane, carbon dioxide, and nitrous oxide for the full life-cycle of the dam.<sup>7,8,9</sup> Treating these facilities as non-emitting because they do not combust fossil fuels is scientifically deceptive and increasingly indefensible, particularly given decades of peer-reviewed evidence on reservoir methane and other greenhouse gas emissions that have been repeatedly brought to the attention of system planners and policymakers. It reflects a continued reliance on a narrative that no longer withstands scrutiny.

High-resolution laser-based spectrometer mapping of surface water, including technologies originally developed through NASA-supported research programs, has demonstrated the ability to quickly and accurately quantify and map a range of surface water emissions, including carbon, methane and nitrous oxide at fine spatial and temporal scales and should inform future federal expectations for publicly available emissions reporting for reservoir-based hydropower.<sup>10</sup> The availability of these technologies

eliminates any credible justification for continuing to treat reservoir emissions as unmeasurable or speculative in public electricity contracts.

By allowing unverified environmental claims to be embedded in 20-year public contracts, the IESO and government are exposing themselves and participating proponents, including Indigenous communities, to future **regulatory correction, legal challenge, and reputational damage**. If environmental benefits claimed today are later found to be overstated or false, those benefits may have to be unwound or repaid. This also raises serious ethical concerns regarding informed consent, transparency, and intergenerational equity in public planning.

**Buyer beware applies here—and the buyer is the Ontario ratepayer.**

#### **Stranded Assets and Ratepayer Risk:**

The NHP's Enhanced Power Purchase Agreement model explicitly shields proponents from:

- Hydrologic variability,
- Negative market pricing,
- Congestion impacts, and
- Declining system value under climate stress

At the same time, ratepayers are locked into:

- Long-term fixed revenue obligations,
- Declining energy output during drought and low-flow periods,
- Increased reliance on backup resources during summer peak demand, and
- The risk that these assets become **functionally stranded** well before contract expiry.

This is not risk mitigation. It is **risk displacement**.

- **“Rate shock is a foreseeable outcome.”**
- **“Costs are being locked in faster than affordability is being protected.”**
- **“The Province is embedding long-term costs while treating climate risk as optional.”**

**You don't get an affordable energy future by inflating demand forecasts** for political branding and then asking ratepayers to finance climate-vulnerable infrastructure to meet it. In other words, this isn't Energy for Generations; it's cost deferral from governments and cost transfer to ratepayers who have not been meaningfully informed or consulted.

Ontario ratepayers are already absorbing escalating costs from multiple electricity procurement programs. Locking in additional long-term hydro contracts without climate stress-testing will compound that burden and undermine public confidence in the electricity system.

#### **Forecast Inflation, Political Direction, and Ratepayer Exposure:**

The Northern Hydro Program cannot be assessed in isolation. It is part of a broader, policy-driven escalation of Ontario's electricity procurement commitments that is already locking in long-term costs and exposing ratepayers to significant and avoidable financial risk.

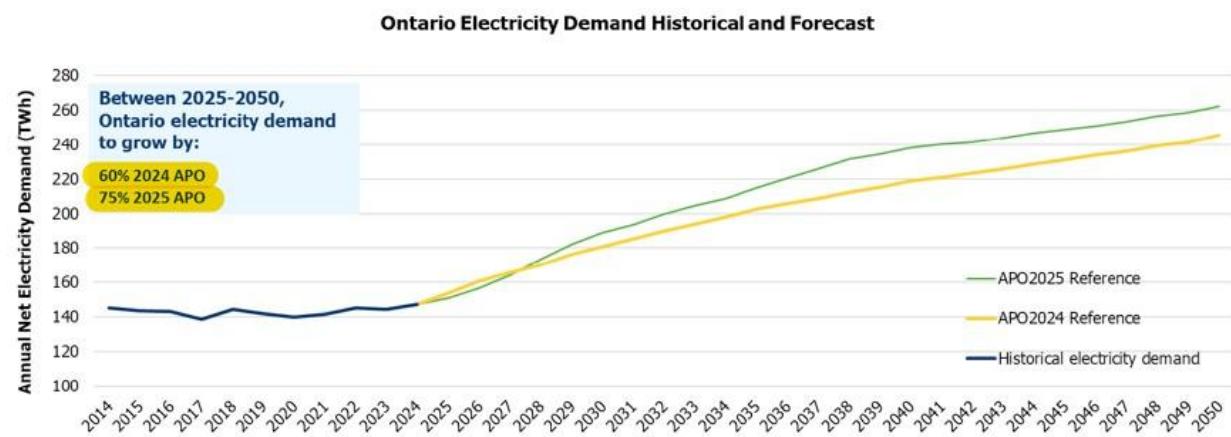
The IESO's 29 May 2025 Quarterly Bulk Planning engagement webinar presented Ontario's long-term electricity demand forecast to 2050, comparing the 2024 and 2025 Annual Planning Outlook (APO)

reference cases. The 2024 APO projected ~60% growth in electricity demand by 2050, while the 2025 APO revised that projection upward to ~75% growth—a 15 percentage-point increase in projected demand growth.<sup>11</sup>

As a regular participant in IESO's Bulk Planning and forecasting engagements between May 2024 and May 2025, ORA was consistently presented with long-term electricity demand growth in the range of ~60% by 2050. The abrupt upward revision to approximately 75% in the 29 May 2025 APO therefore came as a surprise, particularly given that no advance notice, interim briefing, or supporting disclosure of new population forecasts, electrification mandates, or climate-driven load analysis was provided to participants prior to the 29 May 2025 engagement.

This significant upward revision did not reflect a sudden change in population, electrification mandates, or climate analysis. Rather, within days of that engagement, the Minister of Energy released *Energy for Generations*, explicitly reframing Ontario's electricity system around becoming an "Energy Superpower."<sup>12</sup> The timing and magnitude of the 15-percentage-point forecast revision strongly suggest a policy-driven escalation tied to the Province's Energy Superpower agenda, rather than new technical evidence. This strategic shift was not part of the government's 2025 electoral platform, nor were ratepayers consulted on the resulting electricity affordability implications.

## Ontario's Changing Electricity Landscape



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That increase is not benign. **Inflated demand forecasts drive inflated infrastructure decisions.** The additional 15% is now being used to justify:

- Expanded and accelerated **hydropower contracts** (including the NHP),
- **Nuclear refurbishments**,
- **New nuclear generation**,
- **Small modular reactors (SMRs)**,
- **2 Major transmission projects—Red Lake and Greenstone Transmission Projects**, and
- "Fast-tracking" that pre-empts full planning review.

Once demand is overstated, every high-cost supply option appears necessary — regardless of climate vulnerability, cost, or system flexibility.

This matters profoundly for ratepayers. Electricity planning decisions translate directly into **multi-decade capital commitments**, financing costs, and contract payments recovered through regulated rates. When forecasts are politically inflated, **ratepayers—not industry—absorb the consequences**.

### **Hydropower as a High-Risk Bet Under Climate Change and an Inflated Forecast:**

The risk is compounded by the Province's reliance on hydropower to help meet this inflated demand trajectory.

Hydropower is not fuel-free. Its fuel is **freshwater**, and Ontario's own climate science makes clear that freshwater systems are becoming **more volatile, less predictable, and increasingly constrained during summer peak-demand periods**.<sup>13</sup>

Yet, the NHP:

- Does not climate-stress-test water availability,
- Assumes static hydrology to mid-century, and
- Instead of prioritizing public trust, it explicitly shields proponents from hydrologic and market risk.

When low water reduces hydro output, ratepayers still pay the contract—and then pay again for backup supply. This is not resilience; it is **systemic risk loading**.

Locking in long-term hydro contracts based on a politically inflated demand forecast, while ignoring climate impacts on water availability, is a textbook recipe for **stranded assets, affordability shocks, and public backlash**.

### **The Price of Political Ambition:**

The Minister of Energy has framed the “Energy Superpower” agenda as ensuring that “our kids, and their kids, inherit an affordable, secure, reliable and clean energy system.” In reality, it’s the exact opposite—the risk will be transferred to our kids and grandkids.

### **Ontario ratepayers are being asked to underwrite:**

- Inflated demand assumptions,
- Long-lead-time megaprojects,
- Climate-vulnerable resources, and
- Decades of fixed costs, at a time of growing economic uncertainty and recession risk.

This is not prudent planning. It is a **cost deferral for the government and a cost transfer to households**.

You do not build an affordable energy future by inflating demand forecasts for political branding and then ask ratepayers to finance climate-vulnerable infrastructure to meet them. If these assumptions

prove wrong—and climate science suggests they will—Ontarians will pay a very high price for today's political ambition.

### **Political Direction and Regulatory Capture:**

The political influence shaping the NHP must also be understood in the context of a broader, policy-driven inflation of electricity demand forecasts and procurement commitments.

The program appears to be the product of:

- Ministerial pressure on the IESO,
- Alignment with the Ontario Waterpower Association's lobbying objectives, and
- A willingness to subordinate ratepayer protection and climate science to industry preferences.

This dynamic erodes the IESO's credibility as an independent system planner and risks transforming procurement policy into a mechanism for protecting legacy assets at the ratepayer's expense.

### **What Happens If Climate Reality Is Ignored:**

If current trends continue, the consequences are predictable:

- Declining water availability,
- Increasing operational constraints,
- Over-credited "clean" attributes,
- Stranded hydro investments, and
- A future reckoning where today's decisions must be corrected at far greater cost.

The Province will not avoid accountability by ignoring climate impacts on freshwater systems. It will simply **defer and magnify the cost**—financially, environmentally, and politically.

### **Recommendations:**

Since these hydropower facilities are already in place, ORA recommends that the IESO:

1. **Pause finalization of the Northern Hydro Program** until climate-adjusted hydrologic analysis is incorporated, using Ontario's Climate Change Impact Assessment and regional projections.
2. **Significantly shorten contract terms and include mandatory climate re-opener clauses** tied to demonstrated water availability, system performance and system value.
3. **Require measured, facility-specific greenhouse gas emissions reporting** ( $\text{CH}_4$ ,  $\text{CO}_2$ ,  $\text{N}_2\text{O}$ ) using continuous or high-resolution monitoring methods, with full public disclosure.
4. **Prohibit monetizing environmental attributes unless emissions are measured and publicly reported** to prevent greenwashing and future liability.
5. **Re-centre ratepayer protection** by aligning procurement with the least-cost, and most climate-resilient alternatives, rather than entrenching methane-emitting legacy hydro assets.

### **Closing:**

Ignoring climate change does not make it go away. It simply guarantees that the costs will be higher when reality can no longer be deferred. The bulk of those costs will be borne by ratepayers.

The Northern Hydro Program, as designed, asks Ontario ratepayers to underwrite that gamble. ORA strongly urges the IESO to rethink this approach before long-term damage—financial and environmental—is locked in.

Hydropower is not ‘fuel-free.’ Its fuel is freshwater. A hydro contract that does not climate-stress-test water availability is not a clean-energy plan—it is a long-term source of methane emissions and a significant risk to ratepayers’ affordability.

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<sup>1</sup> [Is Hydropower’s Potential Drying Up? By Ariel Cohen, 5 July 2024](#)

<sup>2</sup> Clarke, L., Y.-M. Wei, A. De La Vega Navarro, A. Garg, A.N. Hammann, S. Khennas, I.M.L. Azevedo, A. Löschel, A.K. Singh, L. Steg, G. Strbac, K. Wada, 2022: Energy Systems. In IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [P.R. Shukla, J. Skea, R. Slade, A. Al Khourdajie, R. van Diemen, D. McCollum, M. Pathak, S. Some, P. Vyas, R. Fradera, M. Belkacemi, A. Hasija, G. Lisboa, S. Luz, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA.

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<sup>3</sup> [Power corp says low water levels could extend into third year. Emily Blake, Cabin Radio, 21 December 2023.](#)

<sup>4</sup> [The demand for power might make one of Canada’s cleanest grids dirtier. By Julia-Simone Rutgers, March 28, 2024, The Narwhal. Online: https://thenarwhal.ca/manitoba-electricity-grid-natural-gas-reliance/](#)

<sup>5</sup> [World Energy Outlook 2022, International Energy Agency. P-293/524](#) Online:  
<https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf>

<sup>6</sup> [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](#)

<sup>7</sup> [DelSontro, Tonya, McGinnis, Daniel F., Sobek, Sebastian, Ostrovsky, Ilia, Wehrli, Bernhard, 2010, Extreme Methane Emissions from a Swiss Hydropower Reservoir: Contribution from Bubbling Sediments. Online: https://pubs.acs.org/doi/full/10.1021/es9031369](#)

<sup>8</sup> [Maeck, A., DelSontro, T., McGinnis, D.F., Fischer, H., Flury, S., Schmidt, M., Fietzek, P., and Lorke, A., 2013. Sediment Trapping by Dams Creates Methane Emission Hot Spots, Environmental Science and Technology, 8130-8137, Online: http://www.dx.doi.org/10.1021/es4003907](#)

<sup>9</sup> [Soued, C., Harrison, J.A., Mercier-Blais, S. et al. Reservoir CO<sub>2</sub> and CH<sub>4</sub> emissions and their climate impact over the period 1900–2060. Nat. Geosci. 15, 700–705 \(2022\). https://doi.org/10.1038/s41561-022-01004-2](#)

<sup>10</sup> [Grilli, R., DelSontro, T., Garnier, J., Jacob, F., & Némery, J. \(2023\). A novel high-resolution \*in situ\* tool for studying carbon biogeochemical processes in aquatic systems: The Lake Aiguebelette case study. Journal of Geophysical Research: Biogeosciences, 128, e2022JG007200. Online: https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022JG007200](#)

<sup>11</sup> [May 29, 2025 Quarterly Bulk Planning Studies Update, Part 1: Northern Ontario Bulk Plans, Eastern Ontario Bulk Plan, IESO Transmission Planning, Independent Electricity System Operator. Slide 6/43. Online: https://ieso.ca/ieso/transmission-planning/bulk-planning/quarterly-bulk-planning-studies/](#)

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<https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/bulk-planning/BP-20250529-presentation-part1.pdf>

<sup>12</sup> June 2025, *Energy for Generations, Ontario's Integrated Plan to Power the Strongest Economy in the G7, Ontario*. P-5/152. Online: <https://www.ontario.ca/files/2025-07/mem-energy-for-generations-en-2025-07-18.pdf>

<sup>13</sup> *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>