Feedback Form

South and Central Bulk Planning Update Webinar

Feedback Provided by:

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Date: 21 May 2026

To promote transparency, the submitted feedback will be posted on the South and Central Bulk Plan engagement webpage unless otherwise requested by the sender.

The Independent Electricity System Operator (IESO) is seeking feedback following the April 30, 2026, presentation of the draft recommendations for South and Central Bulk Plan. A copy of the presentations as well as recordings of the sessions are available on the engagement web page.

Please submit feedback to engagement@ieso.ca by May 21, 2026.

South and Central Bulk Plan - Feedback

The April 30, 2026, webinar focused on the draft South and Central Bulk Plan recommendations as presented. With the plan objectives and scope established, we are seeking feedback on clarity, understanding, and considerations important to note as the plan moves toward finalization.

Question	Feedback
What additional data or context would help provide more clarity and for consideration in the final report?	ORA requests four categories of additional data: 1. A cumulative provincial cost analysis aggregating all concurrent electricity infrastructure programs, as the South and Central Bulk Plan (SCBP) does not stand in isolation from North of Sudbury and other Bulk Plans, Northern Hydro, Small Hydro, multiple Integrated Regional Resource Plans, new and refurbished nuclear, SMRs, the LT2 RFP, the Long Lead-Time RFP with its 20-year and 40-year contracts, 1,800 km of new transmission lines, and all associated costs; 2. Disaggregation of projected demand growth by driver (data centre commitments, industrial electrification, EV adoption, general load growth), with sensitivity ranges for each; 3. Climate-stress-tested water availability projections at P50 and P10 for all hydropower in the supply stack, consistent with the 2023 Ontario Provincial Climate Change Impact Assessment; and 4. Disclosure of whether Long-Duration Energy Storage alternatives to hydro-dependent recommendations were evaluated in the scenario modelling and, if not, why not.
What questions or concerns do you have about the draft recommendations that the IESO might consider in future planning activities?	ORA's primary concern is that substantial transmission investment is being committed against a demand forecast spanning a 90 TWh range by 2050, substantially driven by a high scenario anchored in the "Energy Superpower" policy ambition rather than confirmed load. The Essa-Kleinburg third line need date is listed as "TBD pending LT2 results," a direct acknowledgment that this commitment cannot yet be confirmed as necessary. ORA also notes that hydropower supply assumptions do not appear to have been climate-stress-tested, and that an active constitutional challenge by fourteen First Nations against Ontario Bill 5 and federal Bill C-5, the framework enabling fast-tracked approvals, represents a material planning uncertainty not disclosed in the draft.

Question	Feedback
What additional data or local considerations should the IESO be aware of in finalizing the draft recommendations, or for future planning?	ORA notes that the April 30 presentation (slide 17) references "early planning for decreased reliance on emitting resources, specifically in the GTA," while simultaneously listing the Northern Hydro Program and Small Hydro Program as supply initiatives "planned and underway" (slide 9). Positioning new reservoir-based hydropower alongside a plan to reduce emitting resources carries the clear implication that these programs are non-emitting. That implication is scientifically incorrect. Reservoir inundation of boreal soils generates substantial methane and carbon dioxide emissions over multi-decadal periods, documented in peer-reviewed literature. The IESO's own May 20, 2026, North of Sudbury Bulk Planning presentation also reinforces the reliability concern, acknowledging that the region's hydropower "is energy-limited and cannot be relied on at full output in all hours."

General Comments/Feedback

Ontario Rivers Alliance (ORA) places the following on the formal planning and procurement record. ORA does not ask the IESO to act beyond its mandate. The concerns below relate to ratepayer risk, procurement integrity, and the IESO's obligation to advise the Minister accurately on the basis of its own evidence of best value for money and the public interest.

ORA notes that at the April 30, 2026, webinar, ORA's Chair asked directly whether a comprehensive cost analysis had been conducted covering all proposed electricity infrastructure changes and their cumulative impact on ratepayers and taxpayers. IESO staff responded that electricity rates would be "fairly stable" on a per-unit basis because demand grows alongside infrastructure. That answer did not address the question asked. This submission formalizes that question, and the record requires a direct response.

1. The Missing Cumulative Ratepayer Cost Picture

The IESO's own Capacity Expansion Scenario, Costs, and Emissions Module, published alongside the 2025 Annual Planning Outlook and updated 10 February 2026,[1] projects total electricity system costs rising from $25.6 billion per year in 2025 to $46.5 billion per year by 2050, nearly doubling in absolute terms. The per-unit cost modestly declines, then rises again, which underlies the characterization of rates as "fairly stable." But stable per-unit costs against a doubling of the demand base means total annual electricity expenditure by Ontario households and businesses also roughly doubles. That is not stability. It is a sustained and substantial increase in the total cost of electricity to Ontarians, and it deserves to be stated plainly.

The SCBP alone carries a planning estimate of $9.8 billion, with the IESO's own methodology acknowledging a range of minus 50 to plus 100 percent, meaning actual regional costs could reach $19.6 billion. Alongside 1,800 km of new transmission corridor, the physical and financial scale is extraordinary. Yet this plan is presented to the public in isolation, in bits and pieces, without aggregation with concurrent programs: North of Sudbury and other Bulk Plans, Northern Hydro, Small Hydro, multiple Integrated Regional Resource Plans, new and refurbished nuclear, SMRs, the LT2 RFP, and the Long Lead-Time (LLT) RFP with its 20-year and 40-year contracts, and the financial exposure all that entails in the midst of a warming climate.

No cumulative figure for total provincial electricity infrastructure investment over the planning horizon has been placed before the public. Ratepayers and taxpayers are funding all of it.

ORA Recommendation 1:

Publish, or formally request from the Ministry, a cumulative ratepayer and taxpayer cost analysis covering all active and planned provincial electricity infrastructure programs, expressed in total capital terms and in projected ratepayer impact per kilowatt-hour and per average Ontario household, before the South and Central Bulk Plan is finalized.

2. IESO's Own Evidence Contradicts the Minister's Directive

The most significant fact on the record of this engagement is one that the IESO itself produced and was not permitted to act on. In August 2025, the IESO published its Hybrid Resource Equivalency Assessment,[2] which modelled portfolios of solar, wind, and battery storage as alternatives for meeting Ontario's future electricity needs.

The study's own methodology acknowledged a critical constraint: the modelling "does not adequately capture the dispatchability (e.g., gas turbines) and storage capability (e.g., hydroelectric reservoirs)"; accordingly, it did not compare these portfolios directly against hydroelectric reservoir resources. Within those parameters, the IESO's conclusion was nonetheless unambiguous: "a non-emitting, hybrid resource portfolio, in theory, shows significant promise. It can provide both baseload and peak power with reasonably high, albeit imperfect, reliability, and potentially at costs that are competitive with gas and nuclear generation." The hybrid resource portfolio option of wind, solar and battery storage is estimated to cost between $44 billion and $53 billion, with a build-out of 13,500 MW to 16,800 MW achieving 99.5 percent to 99.98 percent of the peak load served.

The IESO's own analysis demonstrated that non-emitting alternatives warrant serious evaluation before committing to hydropower procurement. Minister Lecce rejected the hybrid report on April 16, 2026, stating, “These resources [Long Lead-Time Hydropower] are deemed not well-suited to competing against resources with shorter development timelines and lifespans (e.g., wind, solar and inverter-based battery energy storage systems) but are able to offer unique benefits to Ontario’s electricity system through resource diversification.” He then directed the LLT RFP to proceed.[19] The SCBP was then initiated on 2025 Annual Planning Outlook assumptions and the "Energy for Generations" policy direction, both of which reflect the Minister's belief in a “non-emitting hydropower” preference, rather than the IESO's own technical analysis.[20]

The IESO's position has been consistent for more than a decade. IESO's 2015 North of Dryden Integrated Regional Resource Plan[3] documented that northern hydropower operates at firm capacity factors of only 15 to 30%, with development costs of $16 million to $66 million per megawatt and development timelines of 5 to 10 years. The IESO's own May 20, 2026, North of Sudbury Bulk Planning presentation[4] reinforces this consistently. Slide 24 states: "A large share of supply resources in the area is hydroelectric, which is energy-limited and cannot be relied on at full output in all hours." Slide 30 states: "Hydroelectric supply resources are energy-limited and cannot be relied on to meet demand in all hours or conditions." The IESO has been saying this for at least eleven years. Its own planning staff continue to say it. The persistent evidence that hydropower is an unreliable, energy-limited resource is not being heard.

ORA Recommendation 2:

Formally advise the Minister whether the August 2025 Hybrid Resource Equivalency Assessment was incorporated into the supply assumptions underlying this SCBP, and if not, disclose the ratepayer-risk implications of proceeding without that analysis, including the cost differential between hydropower procurement and the Long Duration Energy Storage (LDES) configurations the hybrid report identified as viable alternatives.

3. Four Consecutive Record Years: The Statistical Reality for Hydropower

Ontario's electricity planning must reckon with what has actually happened to hydroelectric generation in Canada over the past four years. This is not modelling or projection. It is the documented operational record, as reported by Statistics Canada.

In 2023, hydroelectric generation declined nationally amid record-high temperatures and low precipitation. Statistics Canada recorded its lowest overall electricity generation in years, describing the summer of 2023 as the hottest on record since 1940.[5] Hydro-Quebec began cutting electricity exports to preserve reservoir levels.

In 2024, hydroelectric generation reached a record national low of 341.8 million MWh, 4.9% below 2023 and 3.5% below the five-year average.[6] Quebec's hydro generation fell 6.4%, Manitoba's fell 8.9%, and Newfoundland and Labrador's fell 8.6%. Hydro-Quebec recorded $866 million in lost revenue from reduced exports. For the first time in recorded Canadian history, Canada became a net electricity importer in multiple calendar months.

In 2025, hydroelectric generation remained at 343.4 million MWh, marginally above the 2024 record low and still the lowest share of national generation (54.9%) since this data series was redesigned in 2016.[7] Drought conditions persisted across approximately 85% of the country. Canada again became a net electricity importer in multiple months. Environment and Climate Change Canada forecasts 2026 will be among the three hottest years on record.

These are not projections. Manitoba Hydro, a provincially owned utility comparable to Ontario's hydroelectric fleet, reported $157 million in drought-related losses in fiscal year 2023-24[8] and $63 million in fiscal year 2024-25.[9] Those are audited losses from an operating hydroelectric system, demonstrating that ratepayer exposure from hydropower underperformance is not theoretical. It is occurring now, at scale, across the country.

The risk ORA placed on this record in our June 19, 2025, SCBP submission has materialized precisely as was described.

ORA Recommendation 3:

Require that all hydropower included in supply-side assumptions for this plan are accompanied by climate-stress-tested generation projections using P50 and P10 water availability scenarios consistent with the 2023 Ontario Provincial Climate Change Impact Assessment[10] projections of increased drought frequency and hydrologic volatility, with ratepayer exposure from hydropower underperformance quantified and disclosed before the plan is finalized.

4. Hydropower is Not "Non-Emitting": A Material Misrepresentation on the Record

The April 30, 2026, presentation states that this bulk system plan will enable "early planning for decreased reliance on emitting resources, specifically in the GTA" (slide 17), while simultaneously listing the Northern Hydro Program and Small Hydro Program as supply initiatives "planned and underway" (slide 9).[11] Positioning new reservoir-based hydropower alongside a plan to reduce reliance on emitting resources carries the clear implication that these programs are non-emitting. That implication is scientifically incorrect. There are countless IESO documents referring to hydropower as non-emitting.

Characterizing reservoir-based hydropower as non-emitting in planning and procurement documents, when over three decades of peer-reviewed literature clearly establishes otherwise, constitutes a material misrepresentation to ratepayers, the public, and Indigenous communities being invited to make long-term consent and investment decisions and commitments. The IESO has a responsibility to ensure that its planning and procurement processes do not perpetuate this misrepresentation, including in any communications with prospective Indigenous partners under any hydropower programs. These dams and their reservoirs usually last for 100 years or more and will fuel climate change throughout their entire lifecycle. Failing to correct the record would leave the IESO complicit in this persistent and harmful misinformation.

ORA formally places on record that this mischaracterization should not appear in any IESO planning or procurement documents, and requests that the record be corrected accordingly.

Freshwater reservoir impoundments generate greenhouse gas emissions through three pathways: carbon dioxide from decomposing submerged vegetation; methane from anaerobic decomposition of organic matter in reservoir sediments; and nitrous oxide from denitrification at the sediment-water interface. These emissions are not speculative. They are documented in independent peer-reviewed studies.

Soued et al. (2022)[12] demonstrated that methane ebullition and degassing from reservoirs remain constant and increase with reservoir age. The GHG burden of a hydropower dam does not diminish over its operating life.

DelSontro et al. (2011)[13] documented extreme methane ebullition from a Swiss hydropower reservoir, establishing that sediment methane emissions can far exceed diffusive flux estimates, with significant implications for lifecycle GHG accounting.

Maeck et al. (2013)[14] found that sediment trapping behind dams creates methane emission hot spots, with sedimentation-driven methane emissions from dammed river sites potentially increasing global freshwater emissions by up to 7%.

Grilli, DelSontro et al. (2023)[15] employed high-resolution in situ laser spectrometry for fast, simultaneous, in situ, high-spatial-resolution measurement of dissolved methane, ethane, and the stable carbon isotope of methane in lake and reservoir surface waters. The methodology delivers high-resolution datasets within a limited amount of survey time and validates that single-point or low-resolution sampling, which has been the industry standard, grossly understates the variability in the littoral zone where the bulk of methane is produced. The tool is a state-of-the-science answer to the measurement problem that the hydropower industry at large has repeatedly cited as the basis for an inability to measure lifecycle GHG accounting.

The study noted that "The dissolved CH_4 [methane] concentration in the pelagic zone was 50 times larger than the concentration expected at equilibrium with the atmosphere, confirming an oversaturation of dissolved CH_4 in surface waters over shallow and deep areas." It further noted that prior practice was sparse sampling “because of the manual nature of these measurements, only a few or even just one sample is often taken in systems.” This methodological advancement indicates that existing inventories of reservoir methane emissions may systematically understate the true GHG burden over the life cycle of a dam.[15]

The proposed hydropower developments under these programs, including the Sudbury North Bulk Plan, consider the Nine Mile Rapids and Grand Rapids hydropower facilities in the Moose River Basin, which would be located in boreal river systems with organic-rich peatland soils. Inundation of boreal peat generates particularly high and persistent GHG emissions. Indigenous partner communities, including Taykwa Tagamou Nation and Moose Cree First Nation, who are being asked to make consent decisions that will bind their territories for 50 to 100 years, are entitled to accurate lifecycle GHG information before providing consent of any kind.

ORA Recommendation 4:

Ensure that all reservoir-based hydropower developments are **no longer characterized as clean or non-emitting** in any IESO planning or procurement documents.

ORA Recommendation 5:

That the IESO set the record straight by publicly recognizing the large body of evidence that hydroelectric reservoirs emit GHGs, including methane, which persist throughout the dam’s entire life cycle.

5. Indigenous Rights, Legal Uncertainty, and Constitutional Challenge

ORA draws the following to the SCBP, noting that the Moose River Basin facilities referenced below were identified in the May 20, 2026, North of Sudbury Bulk Planning presentation and fall within the North of Sudbury planning area.

ORA places this on the SCBP record because the constitutional and consent issues at stake are systemic: they apply to any IESO-administered hydropower procurement, and the SCBP process is not insulated from them.

The SCBP does not disclose a material planning risk. Fourteen First Nations are currently challenging both Ontario Bill 5 (the *Protect Ontario by Unleashing Our Economy Act*) and federal Bill C-5 in the Ontario Superior Court of Justice,[16],[17] seeking declarations that both statutes are unconstitutional and injunctions against their application. Both bills enable infrastructure development through approval pathways that can bypass standard environmental safeguards and, critically, free, prior and informed consent obligations. The First Nations' challenge argues that both statutes violate constitutionally protected rights.

Attawapiskat First Nation, whose territory includes the Moose River watershed, is among the First Nations seeking to intervene in this constitutional challenge.[18] Chief Sylvia Koostachin-Metatawabin stated publicly that the community's way of life "is not a pawn in some political game." The legal challenge directly targets the approval architecture that the Province intends to use for fast-tracked energy infrastructure development. If an injunction is granted or either bill is found unconstitutional, project approvals advanced under that framework face significant legal exposure. This risk is absent from the draft plan.

Economic participation agreements do not substitute for constitutionally sufficient consultation and consent. A community may accept an equity interest in a project and simultaneously maintain that the legal process enabling that project violated their rights. Courts have found both simultaneously. The IESO's planning must account for this distinction.

ORA Recommendation 6:

That the IESO formally acknowledge the constitutional challenge to Bill 5 and Bill C-5 as a material planning uncertainty and risk.

6. Demand Uncertainty and Stranded-Asset Risk

The SCBP's demand range spans 207 TWh at the low scenario to 297 TWh at the high scenario by 2050, a 90 TWh gap that exceeds Ontario's current total electricity consumption. Implementation-ready transmission investments with in-service dates of 2029 to 2034 are being committed primarily against the reference and high scenarios, both substantially driven by the "Energy for Generations" “Energy Superpower” policy ambition.

At the April 30, 2026, webinar, ORA asked what portion of the projected demand growth was based on confirmed load and what portion reflected “Energy Superpower” ambitions. The IESO confirmed that data centres, presented as a significant contributor to the 60% projected demand increase, do not account for "the lion's share" of projected growth but could not provide a disaggregated figure. That is a material gap in the public record. Ontario's electricity planning history includes significant demand overestimation events whose stranded-asset costs ratepayers continue to carry. If population and industrial growth do not follow the high scenario, ratepayers will carry the cost of 1,800 km of transmission built for a load that did not materialize.

The Essa-Kleinburg third line, one of the SCBP's major recommendations, has a need date listed explicitly as "TBD pending LT2 results." The IESO itself acknowledges it cannot yet confirm whether this investment is necessary. This is not a minor qualification. It is a direct acknowledgment, embedded in the plan's own documentation, that a significant transmission commitment is being advanced against unresolved planning conditions.

ORA Recommendation 7:

Publish a scenario-sensitivity analysis before the SCBP is finalized, identifying which specific draft recommendations are driven by the reference demand scenario versus the high demand scenario, and quantifying the stranded-asset exposure to ratepayers if demand tracks the low scenario through the planning horizon.

Conclusion:

The IESO's own evidence makes the case that ORA has been advancing since June 2025. The North of Sudbury Bulk Planning presentation states that "Hydroelectric supply resources are energy-limited and cannot be relied on to meet demand in all hours or conditions." The IESO's August 2025 hybrid report demonstrated that non-emitting portfolios of solar, wind, and battery storage can provide both baseload and peak power with high reliability, and at costs competitive with gas and nuclear generation.

Statistics Canada documents three consecutive years of record or near-record-low national hydroelectric generation, with Canada becoming a net electricity importer. Manitoba Hydro has recorded $220 million in drought-related losses across two fiscal years. And the IESO's own cost module shows total system expenditures nearly doubling in absolute terms by 2050, while the public is told rates are "fairly stable."

Ontario cannot build a genuinely reliable, affordable, and environmentally responsible electricity future on a supply resource its own planning documents describe as energy-limited and incapable of delivering at full capacity. The SCBP deserves a final report that answers the questions the evidence demands, not a document that defers them.

Respectfully submitted,

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End Notes

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9. *Manitoba Hydro. Annual Report 2024-25. Winnipeg: Manitoba Hydro, 2025. https://www.hydro.mb.ca/corporate/ar/2025/*
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