



**APPrO**

ASSOCIATION OF  
POWER PRODUCERS  
OF ONTARIO

# Achieving Excellence in Electricity Planning – a Roadmap for Ontario

A Submission to the Ministry of Energy, Northern Development and Mines

Re: ERO 019-3007 Review of Ontario's Long-term Energy Planning Framework

By

The Association of Power Producers of Ontario (APPrO)



## About APPrO

The Association of Power Producers of Ontario (APPrO) is pleased to provide its comments on the Ministry of Energy, Northern Development and Mines review of Ontario's long-term energy planning framework.

APPrO is a trade association founded in 1986, focusing exclusively on the business issues of power producers in Ontario. Its generator member companies build, own and operate power projects in Ontario, across Canada and elsewhere in the world, and produce more than 90% of Ontario's electricity from clean and renewable resources including hydro-electric, nuclear, natural gas, wind, and solar energy.

APPrO's goal is the achievement of an economically and environmentally sustainable electricity sector in Ontario that supports the business interests of electricity suppliers, ratepayers and the provincial economy. APPrO plays a leadership role in the formation of electricity policy and rules to facilitate investment in sustainable electricity infrastructure and the clear and transparent pricing of electricity in Ontario.

APPrO's comments are designed to respond to the Ministry's goal to reform the approach to long-term energy planning and "promote transparency, accountability, and effectiveness of energy planning decision-making, increase investment certainty, and ensure the interests of ratepayers are protected"<sup>1</sup>.

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<sup>1</sup> Ministry of Energy, Northern Development and Mines: ERO 019-3007 Review of Ontario's Long-term Energy Planning Framework, January 27, 2021

## Executive Summary

APPRO has approached this opportunity to provide comments by asking: “What does Ontario’s framework need in order to empower expert technical planners to plan the most reliable and cost-effective system?”

In addressing the question, APPRO has considered both the substantive purposes of the framework, and the governance required to support achievement of sound planning decisions and effective and affordable implementation of overarching policy goals.

A reliable electricity system requires ongoing investment, both to maintain existing assets, and to build new assets as they are required. This makes effective planning a critical issue in electricity system investment and operation.

It is through this lens that APPRO has identified the core challenge with the existing framework, and potential reforms that would serve to embed the necessary incentives within a framework designed to drive accountability, independence and transparency in agency decision-making.

Unquestionably, government has the authority to direct electricity system planning and procurement. But substituting its judgement through over-reliance on directives instead of utilizing the technical expertise of the Independent Electricity System Operator’s (IESO) system planners and procurement officials short-circuits the expert capacities our agencies are capable of delivering, and seems both short-sighted and inefficient.

Government must give the IESO room to work with market participants and other stakeholders to fashion a plan considering various scenarios and resource portfolio alternatives to achieve broad policy direction at lowest cost, while looking at sensitivities where warranted to provide further information to guide the plan.

Transparency, stakeholder engagement, accountability, effectiveness and affordability should be the foremost objectives in the planning framework.

However, the current planning framework lacks comprehensive and objective standards and criteria against which the IESO’s planning activities are measured.

The lack of objective standards also undermines efforts to improve regulatory oversight.

Further there is no specific requirement or process for government to set broad objectives for the sector, before the planning process starts.

APPRO’s proposed framework also ensures that the individual, short-term decisions of the IESO support the long-term energy planning strategy and goals of government. APPRO also recommends an OEB review of the IESO’s proposed implementation plan to ensure that it is consistent with the goals and objectives explicitly listed in the government’s long-term energy policy and subsequent directive to the IESO.

With minor legislative amendments, each step in the proposed framework leads logically to the next in creating a better understood long-term energy planning process by all Ontarians.

## Achieving Excellence in Electricity Planning – a Roadmap for Ontario

APPRO has approached this opportunity to provide comments by asking: “What does Ontario’s framework need in order to empower expert technical planners to plan the most reliable and cost-effective system.” In addressing the question, APPRO has considered both the substantive purposes of the framework, and the governance required to support achievement of sound planning decisions and implementation of overarching policy goals. It is through this lens that APPRO has identified the core challenge with the existing framework, and potential reforms that would serve to embed the necessary incentives within a framework designed to drive accountability, independence and transparency in agency decision-making.

Unquestionably, government always has the authority to direct electricity system planning and procurement. But substituting its judgement through over-reliance on directives instead of utilizing the technical expertise of IESO system planners and procurement officials short-circuits the expert capacities our agencies are capable of delivering, and seems both short-sighted and inefficient.

### The Challenge

#### **1) The current planning framework lacks comprehensive and objective standards and criteria against which the IESO’s planning activities are measured.**

- a) There is a gap between how the IESO undertakes and develops planning and generally accepted and well established planning principles: i.e., clearly reflects public policy goals, open and transparent processes, clear and measurable timelines and deliverables, demonstrably economically rational and affordable.
- b) This absence undermines transparency and accountability and stands in the way of achieving sector-wide goals.

#### **2) The lack of objective standards also undermines efforts to improve regulatory oversight.**

- a) Regulatory oversight is missing, but oversight can only be effective where there is a framework setting out the criteria against which decisions will be measured.
  - i) This is a key part of the governance improvements required to permit long-term investment decisions to be made on their own merits and lessen the extent to which premiums for political risk are necessary.



“Planning is the function of management that involves setting objectives and determining a course of action for achieving those objectives. Planning requires that managers be aware of environmental conditions facing their organization and forecast future conditions. It also requires that managers be good decision makers<sup>2</sup>.”

## Planning

Why is planning important?

A reliable electricity system requires ongoing investment, both to maintain existing assets, and to build new assets as they are required. This makes effective planning a critical issue in electricity system investment and operation.

The owner of every existing asset faces a recurring choice: continue to invest in the asset, liquidate it, or convert it to other uses if they are economically beneficial.

The need for new assets from time to time requires a pool of available developers and investors with the necessary expertise, capital and desire to participate in a particular market.

The electricity business is global, and the practically available pool of developers and investors with the relevant attributes may be limited at any given time or in any region.

Therefore, de-risking investment and ownership by providing a longer line of sight and greater clarity in part through long term planning is critical, as over short timespans costs can be high or low based on constantly varying or cyclical factors. Systemic efficiencies are only evident when business cycles, resource price cycles, interest rates and other short-term effects can be smoothed.

Planning can reduce uncertainty about the longer term by considering a clear set of objectives, scenarios and sensitivities that results in a coordinated, systematic road map for future electricity supply investment and operations, at the optimal economic result.

General Dwight D. Eisenhower is famously reputed to have said, *“Planning is everything, plans are nothing.”* But, although planning can be and frequently is overtaken by events outside the control of the planners and implementers, the act of planning itself should reflect clear and measurable objectives and strategies, and provide insight and alternatives for tactical adaptation if necessary.

In Ontario’s electricity sector, planning is critical because Ontario continues to rely on a mix of regulated and competitive investment. But open and transparent long term planning processes and resulting plans in which investors have confidence is essential for future competitive investment in Ontario.

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<sup>2</sup> Project Management: University of Minnesota

## Policy

Electricity is a unique commodity which has played a foundational role in Ontario's economy for over 100 years. It is vital to human welfare in the province. Consequently, there is an inherent and significant element of public policy associated with electricity planning and development. The public's interest in how electricity is procured and priced will only increase as we transition to an economy that further relies on electrification to serve its core energy and climate change mitigation requirements.

Ontario's electricity market is in a single political jurisdiction, so it is fully and directly exposed to the decisions of provincial political leadership. In fact, there is a long history of direct intervention by government into all facets of electricity policy, and which has led to the creation of a "Hybrid Market", where regulation, directives, long term contracts and a real-time energy market co-exist. Additionally, there is direct government ownership of a substantial portion of electricity generation and transmission assets, and a long established close connection between government industrial and economic policies, and specific electricity policies.

Over the years, there has been significant variation in policy outlook between Ontario's political parties. Successive governments have translated their own policy priorities into changes of direction in electricity institutions. This has not been without cost to ratepayers and taxpayers.

In APPRO's view, many of the shortfalls in the current framework have been a result of these regular "changes of direction".

However, these shortfalls could be avoided by each of the Government, IESO, and the OEB by accepting prudent limitations on their important respective roles and responsibilities in energy decision-making and long-term planning:

- Clearly the electricity system is a social good for which government has the ultimate responsibility by setting clear policy direction and goals and objectives, and assuming responsibility for the outcomes. It does not interfere with system reliability, planning, procurement or day-to-day operations.
- The IESO is responsible for real-time operations of the electricity grid through energy markets, and system planning and procurement. Planning is an important and ongoing activity, identifying needs on a quarterly, annual, and a longer term cycle (3 or 5 years). Planning should begin once the government's policy direction is formally provided. Stakeholder participation in this as in other aspects of the IESO's work is critical.
- The Ontario Energy Board (OEB) is the independent regulator of Ontario's energy sector; its core purpose is to regulate Ontario's energy utilities and other sector entities in the public interest.

Significant variation will continue to exist in policy outlook between political parties. But good planning can provide a longer term bridge to optimal outcomes over time by taking proper account of policy directions in the early stages and permitting long-term investment decisions to be made on their own merits, lessening the extent to which premiums for political risk are necessary.

## Planning Criteria

Good planning requires a methodical process that clearly defines the steps that lead to optimal solutions. This process should reflect the following principles:

- **Comprehensive** – all significant options and impacts are considered.
- **Efficient** – the process should not waste time or money; cost-benefit analysis should be included.
- **Inclusive** – people affected by the plan have opportunities to be involved.
- **Informative** – results are understood by stakeholders.
- **Integrated** – individual, short-term decisions should support strategic, long-term goals.
- **Logical** – each step leads to the next.
- **Transparent** – everybody involved understands how the process operates, and how decisions are made.

Transparency, stakeholder engagement, accountability and effectiveness should be the foremost objectives in the planning framework. And, the Government must be clear in setting broad objectives for the sector, before the planning process starts.

This should be done transparently and at the beginning of a mandate, or at the beginning of an IESO planning cycle. This direction should contain objectives at a high level within the framework of an appropriately-run electricity sector (e.g., reflecting NPCC and NERC reliability standards, ratepayer impacts, climate change goals, jobs and economic and/or industrial policy, Indigenous participation, made in Ontario considerations, competitive processes as the rule, not the exception, etc.). Stability in the electricity sector is a critical consideration for investors, owners and operators. Hence, the direction should be reasonably enduring, since short term directions and frequent changes in policy direction increase the perception of risk among investors in long-lived assets, and ultimately lead to higher costs than necessary for ratepayers.

These objectives are key to not only providing direction but establishing a reference point to measure the performance of the electricity policy.

Government should then give the IESO room to work and create an effective planning environment, but technical experts at the IESO working with market participants and other stakeholders through a Planning Working Group should then together fashion a plan considering various scenarios and resource portfolio alternatives to achieve that direction at lowest cost, while looking at sensitivities where warranted to provide further information to guide the plan.

The framework<sup>i</sup> should identify and develop scenarios, resource options and commercially sound implementation strategies while acknowledging that future resource portfolios might change under different conditions.

The framework should also prioritize affordability for consumers and system flexibility to account for potential increases or decreases in future demand and technological and innovative changes in supply sources. In addition, it should evaluate the ability of the electricity system to support the transition towards a net-zero economy – including evaluating both the direct emissions in the electricity sector as well as displaced emissions resulting from increased electrification.



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Stakeholder participation and feedback is essential, but can only be effectively incorporated into planning when there is involvement from the very beginning. Like a good game plan, information must be shared before the game to have an impact. Engagement after plans have been finalized does not lead to more effective planning, it simply leads to dialog around why stakeholders have disagreements with the already-chosen course of action. While post-game quarterbacking does have some transparency benefits, it is not an efficient way to reach optimal outcomes. This could take the form of a “Policy Direction Letter”. It would be a public document, published on the IESO website, obliging the IESO to take into consideration certain policy objectives and directions. These could include objectives related to affordability, conservation and demand management, emissions targets, economic, social or industrial policy etc.

The planning process would then evaluate these scenarios within the mandated parameters (e.g., ratepayer cost, environmental and economic performance) to drive optimal decisions as to the actions to be taken. It would not be prescriptive with respect to specific actions, which would be left to the IESO’s technical expertise to develop with stakeholders.





## Proposed Renewed Framework:

### Overview

The government shall retain the exclusive authority to issue a long-term energy policy setting out its goals and objectives during each term as prescribed by regulation.<sup>3</sup> It is recommended that such a policy be based on a minimum 20 year planning horizon and formally be refreshed every 3 to 5 years. In developing a long-term energy policy, the government shall continue to rely on the IESO's expertise by continuing to require the IESO to submit a technical report for identifying the adequacy and reliability of electricity resources.<sup>4</sup> The IESO, together with stakeholder input, shall also develop an implementation plan outlining the steps it intends to take to meet the objectives prescribed in a long-term energy policy.<sup>5</sup> The government should leverage the OEB's already existing public interest mandate, by way of minor legislative amendments, to enable the OEB to publicly review the IESO's proposed implementation plan to ensure it is consistent with government policy goals and objectives and that competition - which is critical to ratepayer interests - is maintained.

### Step I

The process would begin by the government posting its proposed draft policy proposal for long-term energy planning in Ontario on the Ontario Environmental Registry (ERO) for public feedback<sup>6</sup>, including for the purpose of identifying any other goals and objectives pursuant to subsection 25.29(2)(g) of the Electricity Act, i.e. any other matters that should be addressed in a long-term energy plan/policy. The government would also request the IESO to submit a technical report for identifying adequacy and reliability of electricity resources pursuant to subsection 25.29(3) of the Electricity Act, which report shall be publicly posted as required under subsection 25.29(3)(b).

As required under subsection 25.29(3) (a) of the Electricity Act, the government shall consider the IESO's technical report in developing a final long-term energy policy, consistent with the government's specified long-term energy planning goals and objectives.

Based on the IESO's technical report and other stakeholder input received under subsection 25.29(4) of the Electricity Act, the government would then issue its final long-term energy policy explicitly including the goals and objectives against which the IESO's proposed implementation will be subsequently reviewed by the Ontario Energy Board (as explained further below).

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<sup>3</sup> Electricity Act, subsection 25.29(1).

<sup>4</sup> Electricity Act, subsections 25.29(3).

<sup>5</sup> Electricity Act, subsection 25.31(1).

<sup>6</sup> Electricity Act, subsection 25.29(4).



## Step II

The IESO would then (as it already does) stakeholder, develop and assess options for government policy implementation including procurement. This approach is consistent with current legislative objectives of the IESO to “engage in activities in support of the goal of ensuring adequate, reliable and secure electricity supply and resources in Ontario”<sup>7</sup>; “forecast electricity demand and the adequacy and reliability of electricity resources for Ontario for the short term, medium term and long term”<sup>8</sup>; and conduct independent planning for electricity generation, demand management, conservation and transmission”<sup>9</sup>.

Currently the IESO is required under subsection 25.31(1) of the Electricity Act to then submit to the Minister an “implementation plan” including an outline of the steps the IESO intends to take to meet the requirements in the government’s policy directive - including the development of processes for entering into procurement contracts.

APPRO proposes that subsection 25.31(1) of the Electricity Act be amended so as to require the IESO to instead submit its proposed implementation plan to the OEB for review.

## Step III

The OEB’s review<sup>10</sup> of the IESO’s implementation plan would be subject to a public hearing process, including providing notice to all potential stakeholders who may want to participate in the review process. The OEB’s review would be focused on the determination of whether the IESO’s proposed implementation plan is consistent with the goals and objectives explicitly listed in the government’s long-term energy policy and subsequent directive to the IESO.

Following its review process, the OEB shall either approve the IESO’s implementation plan, with or without changes, or otherwise reject the implementation plan and refer it back to the IESO for further consideration and resubmission to the OEB.<sup>11</sup> If and once the OEB determines that the IESO’s proposed implementation plan is consistent with the government’s specified policy goals and objectives, then the IESO may proceed with its proposed implementation plan - including processes for entering into procurement contracts. Any subsequent amendments to the implementation plan proposed by the IESO would also be subject to OEB review.<sup>12</sup>

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<sup>7</sup> Electricity Act, subsections 6(1)(j).

<sup>8</sup> Electricity Act, subsections 6(1)(k).

<sup>9</sup> Electricity Act, subsections 6(1)(l).

<sup>10</sup> In order to maximize efficiencies and reduce costs associated with the public hearing process, the OEB review of the implementation plan could be conducted as part of the IESO’s regular filing submission to seek approval for its costs. The intent is to simplify any new process as much as possible.

<sup>11</sup> This would require associated amendments section 25.31 of the OEB Act.

<sup>12</sup> Again, this would require the associated amendments to subsections 25.31(4) to (6).



## Benefits of the Renewed Framework

This proposed framework increases “transparency, accountability and effectiveness of energy planning and decision-making<sup>13</sup>” by providing stakeholders with an opportunity to assess whether or not the IESO plan is an “integrated, least-cost framework that considered multiple views of the future to determine how potential power-generation resource portfolios could perform in different market and external conditions<sup>14</sup>”, and ensure that the IESO’s procurement processes are subject to rigorous and robust cost/benefit analysis including alternative procurement mechanisms.

This proposed framework delineates clear roles and facilitates continued participation by each of the Government, the IESO, and the OEB in energy decision-making and long-term energy planning.

Specifically, the proposed framework allows the Government to retain exclusive jurisdiction over directing energy policy and approving long-term energy planning, while still being informed by industry stakeholders and the technical planning expertise of the IESO, and leveraging the OEB’s oversight role and adjudicative processes.

The proposed framework could be implemented with relatively minor amendments to section 25.31 of the Electricity Act so as to ensure that implementation plans developed by the IESO are subject to additional scrutiny through the OEB review process.

This approach is consistent with observations made by APPRO members and other industry stakeholders for the need of a more robust regulatory review of IESO decision-making that has a direct impact on ratepayers, as set out above.

The proposed OEB review process requires the IESO to demonstrate that all significant options and impacts were considered as part of its implementation plan development. The proposed public hearing process provides a transparent forum which permits stakeholders to be included in the long-term energy planning process and informed of its results. The proposed framework also ensures that the individual, short-term decisions of the IESO support the long-term energy planning strategy and goals of government. With minor legislative amendments, each step in the proposed framework leads logically to the next in creating a better understood long-term energy planning process by all Ontarians.

We thank the Ministry for providing APPRO members the opportunity to provide these comments, all of which is respectfully submitted.

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<sup>13</sup> Tennessee Valley Integrated Resource Plan 2019 Executive Summary

<sup>14</sup> Ibid.



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<sup>1</sup> Typically, robust planning will result in an “integrated, least-cost framework that considers multiple views of the future to determine how potential resource portfolios could perform in different market and external conditions.”

The Tennessee Valley Authority (TVA) uses an Integrated Resource Planning (IRP) process, which could be adapted as a model for Ontario.

“TVA used an integrated, least-cost framework that considered multiple views of the future to determine how potential power-generation resource portfolios could perform in different market and external conditions (emphasis added). We conducted the IRP process in a transparent, inclusive manner that provided numerous opportunities for public education and participation. Stakeholders and the public provided invaluable input that helped shape the IRP. The analysis performed in this IRP study relied on industry-standard models and incorporated best practices while using an innovative methodology to more fully evaluate the role of distributed energy resources as resources in our power supply. Resource cost and performance input data were independently validated. TVA’s goal with the IRP was to identify an optimal energy resource plan that performs well under a variety of future conditions, taking into account cost, risk, environmental stewardship, operational flexibility and Valley economics. Per the National Environmental Policy Act (NEPA), TVA also prepared an Environmental Impact Statement<sup>1</sup> (EIS) to analyze the 2019 IRP’s potential impacts on the environment, economy and population in the Tennessee Valley.”(TVA IRP 2019 Executive Summary)

Among the important activities undertaken in the TVA Integrated Resource Plan (IRP) are the following:

- 1) **Scoping:** working at the beginning of the process with stakeholder through an IRP Working Group to identify issues of importance to market participants and other stakeholders, the government and public which are foundational for developing the plan.
- 2) **Model Inputs and Framework,** including identifying and developing scenarios, resource options and business strategies to evaluate how a future portfolio might change under different conditions.
- 3) **Analysis and Evaluation,** including sensitivities and developing and evaluating the technical and cost performance of the selected resource portfolios. In Ontario’s case, APPRO and others have argued consistently for much greater use by the IESO of publicly accessible, cost-benefit analysis in its work, for example.
- 4) **Presentation of Initial Results:** release of the draft IRP and Environmental Impact Statement.
- 5) **Public Comment Period.**
- 6) **Additional Analysis,** in response to stakeholder and public comments.
- 7) **Completion of the Study,** including a Recommendation with follow up actions, and the final environmental assessment.
- 8) **Review of the Plan,** to ensure that it meets the objective planning standards and is a cost effective and reasonable approach.
- 9) **Publication of the Decision** and posting.