

Environmental Registry of Ontario

Gabriel Weekes
Ministry of Energy, Conservation and Renewable Energy Division
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November 1, 2024

Re: 2025—2036 Electricity Energy Efficiency Framework – [ERO #019-9235](#)

Dear Mr. Weekes,

The Atmospheric Fund (TAF) appreciates the opportunity to provide feedback on the proposed 2025—2036 Electricity Energy Efficiency Framework (the Framework). As a regional agency dedicated to accelerating low-carbon solutions in the Greater Toronto and Hamilton Area (GTHA), TAF strongly supports enhancing Ontario's energy efficiency programs. A robust framework will be essential to maximize the impact of these programs on affordability and decarbonization. In this context, **TAF recommends that the province prioritize efficient electrification, pursue all cost-effective energy efficiency and demand-side measures, extend programming to include new construction, and optimize utilization of existing grid infrastructure.** Below are our key recommendations:

Recommendation 1: Ensure a process for continuous improvement and adaptation

With Ontario's electricity demand [projected to increase by 75% by 2050](#) due to electrification and economic development, effective energy efficiency and demand-side management programs are critical to ensuring a reliable and affordable electricity system. The long-term scope of the Framework will provide much-needed clarity, funding certainty, and stability for these programs. However, it is critical that the long-term of the framework not limit the potential to adapt and evolve programming in response to technological advancements and evolving market conditions. For example, Ontario cannot afford to wait until a mid-term comprehensive review in 2030/31 to establish new programs or adjust budgets to meet evolving needs.

TAF recommends that the Framework ensure that the proposed three-year program planning cycle include a robust process to review market trends and needs, consult stakeholders, and consider adjustments to budget envelopes. There is currently a high-degree of uncertainty in the pace of demand growth, and rapid evolution of energy efficiency technologies and even the definition of what constitutes electricity demand side management. The IESO should retain operational flexibility to refine programs or create new programs in response to emerging technologies and market changes while ensuring these updates align with the Framework's long-term objectives. This approach will ensure Ontario's efficiency programs are responsive, effective, and aligned with future electricity needs. Additionally, these program planning cycles should include a mandate for stakeholder engagement, offering opportunities for feedback on program effectiveness and allowing adjustments based on emerging insights.

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Recommendation 2: Target all cost-effective energy efficiency and demand side management, and provide a budget to match (>\$500M annually)TTAF recommends that **the Framework target all cost-effective electricity consumption and demand savings.**

These targets should be informed by the IESO's [Achievable Potential Study](#) (APS), and subsequent updates/editions of the study through the term of the Framework. Furthermore, we note that the APS likely understates the achievable potential because it only considers conventional CDM measures and does not include distributed energy resources.). Providing the IESO with a mandate to pursue all cost effective savings, with a budget aligned to that goal, will ensure that Ontario is positioned to take full advantages of the energy system and societal benefits of efficiency.

To ensure transparency and alignment with broader provincial goals, we recommend annual public reports detailing budget allocations, targets, and achieved reductions for the overall Framework. This reporting approach will help create a robust, results-oriented framework that drives energy savings and supports Ontario's broader energy and economic objectives.

Minister Lecce recently unveiled the Ministry of Energy and Electrification's policy vision for the province's upcoming Integrated Energy Plan (IEP), which is currently open for consultation. The IEP will address the province's long-term energy needs, focusing on maintaining a reliable, affordable, and sustainable energy system to support economic growth, decarbonization, and rising demand. A key priority outlined in this vision is to **expand energy efficiency programs to increase affordability**. As a result, the Framework will play an important role in reducing energy consumption, helping both families and businesses to reduce their bills while easing demand on the grid. To meet these expansion commitments, and achieve all cost effective savings, a significant increase in energy efficiency investment is needed. The 2022 APS study update recommended an average annual budget of \$400M. Adjusting for inflation and the exclusion of most Distributed Energy Resources from the analysis, **we recommend a minimum of \$500 million in 2025**, with future budgets informed by updated estimates of achievable potential..

Recommendation 3: Integrate Distributed Energy Resources (DERs) into the Framework

Increasing the use of smart devices and distributed generation is a cost-effective way to meet Ontario's future capacity needs using existing grid infrastructure. The [IESO's DER Potential Study](#) showed that DERs have the economic potential to meet all incremental peak capacity needs over the next decade, with a return of up to seven dollars for every dollar invested.

The IESO and OEB are implementing initiatives to integrate and compensate DERs for their value to both transmission and distribution grids. While some resources, like load shedding from large industrial users, can or are already compensated via the Industrial Conservation Initiative (ICI) and annual capacity auctions, the Framework should incorporate other cost-effective DERs unlikely or unable to participate in the IESO-administered market (IAM). This could also include compensation for behind-the-meter consumer generation and storage. **We recommend that the Framework incorporate all small-scale DERs unlikely to participate in the IAM to leverage their full potential in meeting Ontario's capacity and energy needs.** In doing so, the Framework should define which types of DERs are eligible to provide stakeholders with clarity on which technologies and solutions can participate. We note that including DERs within the scope of the Framework would align with the OEB's recently updated Non-Wires Solutions

Guidelines for Electricity Distributors. This alignment would be helpful to the Framework's goal of enhancing LDC engagement in energy efficiency programming.

The success of Ontario's Peak Perks program highlights the critical role of demand management in the province's energy system. With over 125,000 households participating, the Peak Perks demonstrates the potential for broader engagement in DER programs. By expanding to include other residential loads, such as EV chargers, heat pumps, water heaters, and battery storage, the program could tap into an even larger resource. Additionally, new homes should be automatically enrolled, with the option for homeowners to opt out without penalty, which could significantly boost participation and amplify program benefits.

Finally, TAF also supports the proposed direction for local flexibility within the framework. Allowing Local Distribution Companies (LDCs) to tailor programs to meet the needs of their customers is crucial for addressing regional energy challenges effectively. LDCs should be given maximum flexibility to include DERs, ensuring that communities can leverage resources well-suited to local circumstances. Further, while we agree that local LDC programming should not duplicate province-wide programming, LDCs should have the flexibility to provide local enhancements to province-wide programs (including additional incentives) where the same measures can meet localized needs.

Recommendation 4: Extend Efficiency Programming to New Construction

Ontario's commitment to building 1.5 million new homes over the next decade will require integrating energy efficiency and demand flexibility into new construction to ensure the long-term affordability of this housing and reduce strain on the grid. The IESO's [Pathways to Decarbonization Study](#) forecasts heating loads in new buildings as a major driver of future energy and capacity needs. Despite this, there is currently no electricity efficiency program available for new construction.

Historically, efficiency programs for new construction have yielded significant benefits. For example, the High Performance New Construction program provided an average of six dollars in benefits for every program dollar invested between 2016-17, making it the most cost-effective of all Ontario CDM programs over that period. Simply put, the most cost-effective time to integrate energy efficiency in a building is when it is being built. Efficiency programs for new construction would also boost the affordability of new housing by allowing for greater efficiency and lower operating costs without increasing home prices.

We recommend that the Framework establish a program(s) for new construction, focused on above-code insulation, airtightness, HVAC system efficiency, and demand response. These measures offer significant, low-maintenance savings over the building's lifetime and are far more cost-effective when implemented during construction than retrofitted later.

We also recommend that eligible measures include ground-source heat pumps (GSHPs). GSHPs can have a low incremental cost in new construction and offer up to 58% lower peak heating loads compared to air-source heat pumps. The ground-loop itself has a 50+ year life, ensure that the energy savings will persist to 2050 and beyond.

Recommendation 5: Integrate Beneficial Electrification into the Framework

Beneficial and efficient electrification of transportation, space heating, water heating, and industrial processes currently powered by fossil fuels is key to meeting Ontario's

climate goals and transitioning to a low-carbon economy. Measures that both lower emissions and energy costs for consumers can and should be facilitated through coordinated program delivery within the Framework.

For example, the Clean Home Heating Initiative first launched in 2022 has proven to be a successful model, and we support its expansion to more areas of the province, particularly northern areas where backup heating is required for an air-source heat pump. Furthermore, we recommend creating a new hybrid heating program for commercial and multi-residential buildings across the province. Combining electric heat pumps with legacy gas-fired equipment can provide tremendous savings in larger buildings. In one of our [recent multi-residential projects](#), we were able to reduce carbon emissions from heating by 60% with a hybrid system, at only one-fifth of the capital cost of a full fuel switch. A hybrid heating program for larger buildings could also evolve to include demand response fuel switching to alleviate winter peaks.

Further Recommendations for Conservation and Demand Management Programs

In May 2024, TAF submitted a letter to the Minister of Energy outlining our key recommendations for enhancing Conservation and Demand Management in Ontario. We appreciate that the proposed Framework has further developed the policy directions we welcomed at the time. Specifically, we are pleased to see the Framework expanded to include a broader range of sectors and customers, dedicated programs for income-qualified households and on-reserve First Nations communities, and the creation of a single-window program delivery system for residential customers.

We have since updated our letter to reflect new developments and insights relevant to the evolving energy landscape, offering program recommendations to support the development of the 2025—2036 Framework. For your reference, please find the updated letter attached.

Notes:

Sincerely,
Bryan Purcell



VP of Policy & Programs
The Atmospheric Fund

About the Atmospheric Fund

The Atmospheric Fund (TAF) is a regional climate agency that invests in low-carbon solutions for the Greater Toronto and Hamilton Area (GTHA) and helps scale them up for broad implementation. Please note that the views expressed in this submission do not necessarily represent those of the City of Toronto or other GTHA stakeholders. We are experienced leaders and collaborate with stakeholders in the private, public and non-profit sectors who have ideas and opportunities for reducing carbon emissions. Supported by endowment funds, we advance the most promising concepts by investing, providing grants, influencing policies and running programs. We're particularly interested in ideas that offer benefits in addition to carbon reduction such as improving people's health, creating local jobs, boosting urban resiliency, and contributing to a fair society.