



December 6, 2024

Gabriel Weekes  
Ministry of Energy, Conservation and  
Renewable Energy Division  
77 Grenville Street, 5<sup>th</sup> Floor  
Toronto ON M7A 2C1

**Re: Comments of the Ontario Association of Physical Plant Administrators on Electricity  
Energy Efficiency Programming to Promote Beneficial Electrification (ERO 019-9373)**

Dear Mr. Weekes

Jupiter Energy Advisors submits this letter on behalf of its client, the Ontario Association of Physical Plant Administrators (OAPPA). OAPPA is a not-for-profit organization whose membership includes the physical plant administrators for provincially assisted universities in Ontario. OAPPA members have been engaged in significant efforts to reduce energy consumption and have made significant commitments to carbon emissions from campus operations. Electrification is a key strategy for achieving these goals. Post-secondary institutions are facing severe challenges in their operating budgets, and access to incentives and financial support will be critical to future efforts to continue to enhance energy efficiency and expand electrification in campus operations. OAPPA appreciates the opportunity to provide these comments programming to support beneficial electrification.

In OAPPA's view, "beneficial" electrification is electrification that lowers – or at least does not materially increase – system costs, and results in a reduction of carbon emissions. Policies to promote electrification must be carefully considered if beneficial electrification is to be achieved.

**1. Offsetting the impact on the grid of the electrification of thermal demand**

OAPPA members have established challenging objectives to decarbonize their energy systems, in some cases committing to achieve net-zero as early as 2040. A central strategy in meeting these objectives is the electrification of campus thermal energy systems.

In a climate like Ontario's, the electrification of thermal demand will add significantly to electrical energy demand and to winter peak system demand. OAPPA members have in some cases been advised that the local utility grid cannot meet this demand. Electrification is not beneficial if it compromises security of electrical supply or imposes undue and unmanageable incremental

costs. Addressing such constraints in a timely and cost-effective way involves two key strategies of importance to OAPPA.

**Promoting Efficiency.** The first strategy is to ensure that resources installed to achieve electrification are as efficient as possible.

Reconfiguration of campus energy systems requires a large capital investment, and the assets installed will be long-lived assets.

Technologies like ground-source and air-source heat pumps are significantly more efficient than electric boilers, thus imposing lower demands on the grid, but are also much more expensive and involve more extensive system changes. Properly designed financial incentives for commercial and institutional customers must be offered to enable energy users to adopt more energy efficient technology as they implement their electrification strategy.

**Promoting Integration.** The second strategy involves adopting an integrated perspective on the energy system, to promote the most efficient use of resources, seeking alternatives to massive grid expansion. In general, campuses that will be electrifying will be maintaining legacy resources such as gas-fired boilers, cogeneration systems, battery electric storage systems, thermal storage assets and energy distribution infrastructure. These are Distributed Energy Resources (DERs) that can return value to the local utility if available to be operated in a way that enhances grid capacity and supports grid stability and reliability.

However, maintaining and operating these resources, especially if they are to be operated in consideration of grid conditions, will involve a cost. Policies and effective methodologies must be adopted that fairly compensate owner/operators of these DERs for the value provided to the grid and its other users. So, for example, rather than a Capacity Reserve Charge applicable to campuses with behind-the-meter generation, there must be developed a mechanism for discovering the fair value of that resource to the grid, and compensating the asset owner/operator for that value provided.

## **2. Offsetting the impact of electrification on carbon emissions.**

It must be acknowledged that, at present and for much of the next decade, the generation mix in Ontario means that electrification on a like-for-like basis will neither reduce operating costs nor result in lower emissions. For example, when the incremental electrical demand to supply an electric boiler comes from a gas-fired generator on the grid, total global emissions are higher than they would have been if the existing gas boiler met that thermal demand on campus.

Electrification that increases operating costs and increases global emissions delivers no benefit.

OAPPA acknowledges that the Independent Electricity System Operator is undertaking procurement programs to add non-emitting generation capacity to meet expected demand growth. The refurbishment of the nuclear fleet is ongoing. In time, these two initiatives together will bring additional capacity from a cleaner grid.

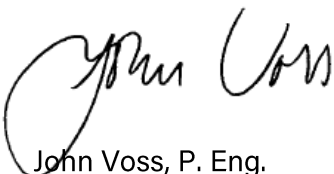
In the meantime, however, the only strategy to achieve beneficial electrification is to significantly increase the efficiency of energy conversion when a new electrical asset replaces an existing resource. As stated above, properly designed financial incentives for commercial and institutional customers are essential to enable energy users to adopt more energy efficient technology as they implement their electrification strategy.

### **3. Administrative simplicity to optimize delivery**

Simplicity in participation agreements that minimize burdensome legal obligations would contribute to the accessibility and efficient delivery of programs to promote beneficial electrification. Organizations do not have the staff resources to wrestle with extensive and detailed agreements and application or reporting requirements to access funding. Where possible, programs offered by different agencies should be integrated with a common point of entry so that energy users can easily identify the alternative programs available to them, and access the ones that are most suitable for their particular needs.

OAPPA would welcome the opportunity to further discuss or clarify the feedback presented here.

Yours truly,

A handwritten signature in black ink, appearing to read 'John Voss', is written over a large, stylized circular flourish.

John Voss, P. Eng.  
Principal

cc. M. Quintana, OAPPA Energy Committee Chair