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July 5, 2022

Mark Bergman  
Team Leader, Pricing  
Electricity Policy, Economics and System Planning Branch  
Ministry of Energy  
77 Grenville Street, 7<sup>th</sup> floor  
Toronto, ON M7A 2C1

**Re: Accelerating Growth in Hydrogen Energy Through Electricity Rate Options (ERO#: 019-5381)**

Dear Mr. Bergman,

On behalf of Ontario's more than 3,000 environment and cleantech firms, the Ontario Environment Industry Association (ONEIA) is writing to provide our comments on the Ministry's Accelerating Growth in Hydrogen Energy through Electricity Rate Options.

#### **About ONEIA**

Ontario is home to Canada's largest group of environment and cleantech companies. The most recent statistics from the federal government show that Ontario's environment sector employs more than 226,000 people across a range of sub-sectors. This includes firms working in such diverse areas as materials collection and transfer, resource recovery, composting and recycling solutions, alternative energy systems, environmental consulting, brownfield remediation, and water treatment – to name just a few. These companies contribute more than \$25-billion to the provincial economy, with approximately \$5.8-billion of this amount coming from export earnings.

ONEIA members are committed to engaging with governments as they develop policies and regulations that are consistent with our principles of sound science, a sound environment, and a sound economy. To that end, we convened a working group of ONEIA members drawn from across the energy sector to review the discussion paper and develop this submission.

In conjunction with *Ontario's Low-Carbon Hydrogen Strategy – A Path Forward*, we reviewed the material on the Environmental Registry of Ontario related to Accelerating Growth in Hydrogen Energy through Electricity Rate Options. The Ministry's proposal features three electricity rate options to promote growth in Ontario's low-carbon hydrogen economy and ONEIA is pleased to provide our feedback and recommendations on the various options.

#### **Option 1**

Under Option 1 of the proposal, as we understand it, the Ministry would amend the Industrial Conservation Initiative ("ICI") rules to adjust the eligibility criteria such that all hydrogen producers with an average monthly peak demand of above 50 kilowatts would become eligible to participate.

**We believe Option 1 will lead to suboptimal outcomes** and this would not be the preferred option for ONEIA member companies. In our view, electrolysis infrastructure would become more difficult to finance under this option. While Global Adjustment charges could be avoided, the hydrogen producer would remain exposed to the Hourly Ontario Energy Price (HOEP). Given the uncertainty of HOEP in the future, hydrogen producers will be challenged to create a sufficiently robust business plan to support investments in electrolysis infrastructure. Given the high capital costs of such infrastructure, it would become more difficult to finance with the risk of shifts in HOEP over the asset's life. We believe that any private sector hydrogen infrastructure provider would face financing barriers under Option 1. Since the goals of the Hydrogen Strategy include unlocking private sector capital investment and growing the green economy, we feel that Option 1 will prove to be ineffective.

### **Option 2**

Under Option 2 of the proposal, businesses would be able to co-locate hydrogen electrolyzers at electricity generation facilities to make use of curtailed generation. The developer for the hydrogen production facility would be required to be a separate legal entity from the one that owns or operates the electricity generation facility. The hydrogen developer would be required to pay the electricity generator for the electricity supply.

**We believe Option 2 will lead to suboptimal outcomes.** ONEIA understands that Option 2 is focused largely on Ontario's hydroelectric infrastructure with a prime focus on supporting Ontario Power Generation and its subsidiary Atura. Such a focus would be suboptimal since it would reduce eligible projects to a small subset of the total potential pool. Eligibility would be limited by geographic location and would require one-off agreements with the electricity generator. ONEIA believes that these limitations will cause Option 2 to have limited applicability, and we would encourage the Ministry to not pursue this option.

If the government does pursue this option, then we would ask that the Province require majority ownership from non-crown organizations to facilitate the potential for direct private investment in the Province.

### **Option 3**

Under Option 3 of the proposal, the interruptible rate pilot currently under development with the Independent Electricity System Operator (IESO) would include a dedicated stream for hydrogen producers, which could consider their unique circumstances and the importance of the hydrogen sector. Under the proposed pilot, participants would be given advance notice by IESO to reduce demand over a fixed number of hours several times per year.

**We believe that Option 3 would deliver the most optimal outcomes** as it would support a significant build-out of hydrogen infrastructure in Ontario and would more fully engage the private sector than Options 1 and 2. An interruptible rate would allow hydrogen producers to operate with the reduced electricity costs required to produce hydrogen while curtailing operations when other users need electricity.

ONEIA would ask the Province to consider implementing a **Fixed Rate** for the duration of the pilot. This would give hydrogen producers the electricity cost certainty required to support robust business planning and attract necessary investments in hydrogen infrastructure.

### **Detailed Comments on Interruptible Rate Design**

ONEIA offers the following comments regarding the design of an interruptible rate that considers the unique circumstances of hydrogen producers.

**Tacoma Power offers a blueprint:** We believe that the IESO should examine and consider developing a program similar to Washington's Tacoma Power which provides a specific capacity allocation (i.e., 600 MW) called the Electrofuel Tariff. The Tacoma program offers electricity at a low-cost **Fixed Rate** in exchange for curtailment rights, and thereby offers certainty to prospective electrofuels producers.

See the following links for more information on the Tacoma Power Electrofuel Tariff

<https://www.mytpu.org/tacoma-power-announces-the-nations-first-electrofuel-tariff/>

[https://www.mytpu.org/wp-content/uploads/EF\\_2021.pdf](https://www.mytpu.org/wp-content/uploads/EF_2021.pdf)

**Time is of the essence:** There are several projects in development in the Province and the specifics under Option 3 are critically important for key stakeholders to understand prior to committing investment, so we would encourage the Ministry and the IESO to expedite their consultation process. Ontario is competing with other jurisdictions for project funding and product offtake agreements. The sooner the specifics of Option 3 are advanced, the better the prospects of delivering hydrogen projects in Ontario, and advancing Ontario as a global hydrogen hub.

### **Recommended key details for an interruptible rate**

Based on feedback from our members, ONEIA recommends the following parameters for consideration to achieve an interruptible rate that suits the unique circumstances of hydrogen producers:

- A hydrogen facility should be allocated at least 7,760 hours of production at full capacity. This provides 1,000 hours of potential interruption/curtailment.
- The pilot should offer rate certainty for 15+ years to hydrogen producers. A short-term pilot with fewer than 15 years of certainty would create challenges in attracting investment and with overall hydrogen project feasibility.
- Clarity is needed on the Clean Electricity Credit program and the ability to source clean energy credits (CECs) and, in particular, CECs tied to renewable assets is critical for the success of an interruptible rate pilot in Ontario. Many buyers of clean hydrogen and product derived from clean hydrogen will not allow the inclusion of nuclear energy in their supply mix.
- The pilot should provide the option for Hydrogen producers to operate in an islanded mode through the use of on-site distributed energy technologies such as microgrids or battery energy storage.
- Should a facility opt to utilize energy storage technologies, the process to become a dispatchable load under IESO market rules should be streamlined to enable new revenue generation opportunities when loads are not interrupted.

**Closing Comments**

ONEIA appreciates the opportunity to provide our comments and suggestions and is ready to work with the Ministry and other areas of the government to advance implementation of Ontario's Low-Carbon Hydrogen Strategy. We welcome the opportunity to discuss our position and recommendations further. Please contact our office at [info@oneia.ca](mailto:info@oneia.ca) or at (416) 531-7884 should you have any questions.

Yours truly,

A handwritten signature in black ink that reads "Michelle Noble". The signature is written in a cursive style with a large, stylized "M" and "N".

Michelle Noble,  
Executive Director, ONEIA