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Submitted via email to mark.bergman@ontario.ca

RE: STAKEHOLDER FEEDBACK ON 'ACCELERATING GROWTH IN HYDROGEN ENERGY THROUGH ELECTRICITY RATE OPTIONS' (ERO 019-5381)

Energy Storage Canada

Energy Storage Canada (ESC) is the national association for the energy storage industry in Canada. Our membership includes a diverse cross-section of the energy storage value chain – technology providers, project developers, investors and operators, utilities, electricity distribution companies, as well as NGOs. We serve some of the largest energy corporations in Canada, along with some of the smallest and most innovative clean-tech companies. Our technology-agnostic approach allows us to promote the growth and market development of the sector through advocacy, education, collaboration, and research.

Feedback on Proposed Rate Options

Energy Storage Canada appreciates the opportunity to provide feedback regarding the proposed of reduced electricity rates for hydrogen production in the province. As a medium of safe, clean, and long-duration energy storage, hydrogen is of great interest to our membership, and we remain highly motivated to support the Government of Ontario in developing this nascent sector.

We recognize the three proposed options as strong opportunities to address distinct barriers facing prospective hydrogen producers. If implemented, these guidelines would establish a strong foundation for the growth low-carbon hydrogen in Ontario. Moreover, these policies would provide greater confidence in the cost and availability of low-carbon hydrogen for prospective consumers, thereby enabling a virtuous cycle of sustained growth in the hydrogen economy.

To that end, ESC strongly encourages the Ministry of Energy to implement all three proposed options at the earliest opportunity. We would also put forward the following considerations:

• **Option 1:** expanding eligibility to 50 kW and allowing for immediate enrollment in the ICI program would greatly expand opportunities for distributed electrolysis and drive adoption of hydrogen technologies. However – given the complexities of the ICI program and lack of industry familiarity

with hydrogen products – we would encourage the IESO to explore opportunities to develop informational resources and proactively engage with prospective consumers to educate them on ICI participation to maximize this uptake of this rate option.

- **Option 2:** allowing for the co-location of electrolysers with generation facilities could expand hydrogen production while making more efficient use of our existing and future energy infrastructure. However, many of Ontario's renewable assets are not suitable for co-locating electrolysers on-site, for example due to remote locations, sensitive geography, permitting constraints, etc. Therefore, the opportunities under Option 2 would be significantly expanded by also allowing for virtual agreements between renewable generators and electrolysers. This should include multi-party agreements, whereby larger, lower-cost utility-scale electrolysers could be supplied by multiple renewable assets (i.e., separate wind and solar farms), thereby taking advantage of disparate curtailment schedules and increasing output frequency.
- **Option 3:** interruptible rates are highly amenable to electrolysis, especially if available at rates on par with or below those available through the ICI. However, the single biggest barrier to the development of hydrogen production facilities and therefore adoption of hydrogen technology by consumers is the volatility of provincial electricity prices. Dramatic fluctuations throughout the past decade have greatly increased the risk premium for prospective investors.

This challenge could be resolved through the introduction of short-term (i.e., 10-years), fixedprice, interruptible rate electricity contracts for hydrogen production. The contracts should recognize the system-wide benefits of hydrogen generation facilities designed to operate offpeak and adjust, eliminate, or compensate for the demand charge as appropriate.

Furthermore, to encourage early adoption and accelerate economies of scale, enrollment in the hydrogen stream interruptible rate pilot could be restricted to a limited window – for example, in alignment with the federal government's refundable investment tax credit for carbon capture, utilization and storage (CCUS) through 2030. A predictable cost of electricity for electrolysis would significantly increase foreign and domestic interest into our hydrogen economy. Additionally, not only should the cost of electricity be predictable, it should be comparable to those in neighbouring jurisdictions to ensure hydrogen produced in Ontario is competitive.

In conclusion, ESC applauds the Government of Ontario's support for the hydrogen economy, and we look forward to working closely with the Ministry of Energy in realizing it's full potential.

Sincerely,

Justin Rangooni

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