May 11, 2023

Ministry of Energy, Energy Supply Policy Division
7th floor, 77 Grenville Street
Toronto, ON
M7A 2C1

Re: IESO's Pathways to Decarbonization (P2D) Study
Response to ERO #019-6647

The Industrial Gas Users Association (IGUA) represents the largest industrial natural gas consumers from the chemicals, refining, steel, forest products, mining and manufacturing sectors in Ontario and Quebec. IGUA members are committed to environmental stewardship and take pride in having lower emissions intensity than many of their competitors. All IGUA members have aggressive carbon reduction plans for 2030, and most have committed to net-zero by 2050. IGUA members have publicly committed to decarbonization, while ensuring that Canada's industries are globally competitive throughout the transformation of our energy system.

Transition pathways for decarbonizing heavy industry are complex and facility-specific. Unlike residential space heating, simple electrification is not realistic or cost effective. Each facility will have a unique solution, based on the industrial processes, location, investment cycles, and how technology evolves. Industrial electrification will prioritize cost effective pathways to achieve decarbonization. To support this effort, electricity costs must remain competitive to provide viable business cases for electrification projects.

We appreciate the opportunity to provide comment for consideration regarding the Independent Electricity System Operator's (IESO) P2D study, and are encouraged by their focus on managing costs through the transition:

- "prudently so that costs do not discourage electrification, negatively affect the economy, or place an undue burden on people with low incomes."
- "Costs must be carefully managed to ensure the actual impact on total energy costs is affordable and that they do not diverge significantly from those of our neighbours. Rapidly rising electricity costs could discourage electrification, stifle economic growth or hurt consumers with low income."

IGUA is supportive of the **no regret actions,** in a cost competitive manner. These forward thinking actions are pragmatic and help provide the foundation necessary to support a successful energy transition. Specifically, industry will need a simple, fast, and effective permitting process to support electrification projects. We ask that IESO maintain a strong focus on addressing customer needs.

Our comments will primarily relate to the following consultation question:

> "Do you have any comments or concerns regarding the development and adoption of hydrogen or other low-carbon fuels for use in electricity generation?"

The IESO found that it is difficult to replace the flexibility offered by natural gas for power generation. IGUA's members also value the flexible services that natural gas provides. If the province decides on a

path to use clean fuels for the electricity grid's decarbonization, such as hydrogen and renewable natural gas, IGUA urges caution when considering allowing such a monopoly buyer to enter the market for scarce clean fuels, and urges that customer affordability and the resources needed to fuel our economy are not places in jeopardy.

Furthermore, in P2D, hydrogen was assumed to be imported as needed, and we encourage the Ministry and IESO to diligently examine such an assumption in future work, and to cautiously plan for resources being mindful of the upstream, midstream, and downstream infrastructure needed to transition to cleaner fuels.

IGUA members will increasingly look to the same scarce clean fuels to contribute to industrial decarbonization. Were the IESO to use those fuels without growing clean fuel supply, they would effectively be putting the entire electricity ratebase in competition with other fuel consumers for the same clean fuel volumes; with the IESO being able to pass on costs to captive ratepayers, while other fuel consumers do not have that luxury.

Reliable access to cost-competitive hydrogen and renewable natural gas can facilitate decarbonization of heavy industry. Industrial applications have the highest potential for growing and sustaining a market for hydrogen, in particular, by providing "anchor" customers. Potential industrial customers have:

- Higher GHG reduction potential,
- Large and stable demand, and
- Greater environmental and economic impact than in other economic sectors.

That said, hydrogen should not be blended into an industrial users' gas stream involuntarily. Hydrogen is not methane and, for a number of industrial processes, that difference is critical. Hydrogen policy should be industry-focused, and the strategy should prioritize industrial access to hydrogen and the creation of hydrogen hubs. To enable a green hydrogen future, the government should aggressively grow green electrical capacity so that it is abundant and affordable.

We look forward to the future work of the Ministry and IESO on decarbonization and energy transition. IGUA and its members are available to assist and advise as needed. Do not hesitate to contact me if you require clarification or additional information.

Regards,

Shahrzad Rahbar, PhD
President, Industrial Gas Users Association