



2022 Ontario Energy Conference Blog

There was a palpable buzz in the room for the Ontario Energy Conference. Partly from the novelty of meeting people face to face after more than two years of pandemic-induced virtual meetings, partly from the pressing issues at hand. For the first time, the Association of Power Producers of Ontario (APPRO), joined forces with Ontario Energy Association (OEA) to co-host an event that brought together thought leaders and power industry professionals to share perspectives.

The theme, *Navigating to Net Zero-Ontario's Energy Transition*, produced enlightening presentations and conversations that outlined the complexity of the challenges ahead and the array of options available, while signalling the need for urgent and wise decision making.

The context was set by the first keynote speaker, Cynthia Leach, Assistant Chief Economist, Thought Leadership at RBC. She previewed a report that the bank would be releasing the next day, titled [The Price of Power: How to Cut Canada's Net Zero electricity bill](#).

The bill is daunting. RBC has already estimated the cost of reaching net zero as 2 trillion dollars.

“Ontario is key to the transition,” Leach told the conference. “You will soon be facing choices and they will affect long term prospects.”

She cited the upcoming shutdown of the Pickering Nuclear Generating Station, coupled with demand that is starting to grow again. Ontario will be losing a major supplier of electricity, one that produces no greenhouse gas emissions, even as we increasingly turn to electrification to fight climate change--all while several other generators' contracts are coming to an end.

Faced with those concurrent challenges, the RBC report offers several recommendations, including continuing with gas fired generation for now, while ramping up conservation programs and improving transmission capacity from provinces that have large hydro generation capacity. Meaningful collaboration with First Nations is also essential, particularly given that many of the sources of renewables are on Indigenous lands.

“Diversification is key to managing risk,” said Leach.

“The remain question: who pays for it. It’s going to cost a lot,” she added. RBC estimates power bills could rise by 30 per cent to meet net zero targets.

All those issues are on the mind of Lesley Gallinger, President and CEO of the IESO, who told the conference that demand is expected to increase by almost 2 per cent a year through 2040.

“Ontario’s electrical system is at a pivotal point. Unprecedented growth is challenging the system,” she said.

Gallinger said that the IESO proposes expanding conservation programs, with incentives for consumers and business. The system operator also faces a critical question about when to phase out natural gas, without compromising cost and reliability. The government has asked the IESO to prepare a report on de-carbonization, which is due in the fall.

“It’s important to get it right on the first try because in this sector there are no dress rehearsals,” said Gallinger.

Another keynote speaker, David Collie, is also preparing advice for the government as Chair of the Electrification and Energy Transition panel for the Ministry of Energy. He cited a word that might have been new to many in the room: “trilemma”.

The World Energy Council’s [Energy Trilemma Index](#) ranks countries on their ability to provide sustainable energy while balancing three elements: security, equity (including accessibility and affordability) and environmental sustainability.

“All three need to be in harmony,” said Collie.

Canada ranked 6th in the 2021 index, with Sweden number one and the United States 9th.

Collie’s report on long term planning for electrification is due in the spring of 2023 and he said he was anxious to hear opinions from the many experts in the room. He said one theme that is already emerging is the risk of much higher power bills—something that has long been a radioactive political issue in Ontario.

“It makes people nervous when we talk about costs, so we need to get a better handle on it,” he said.

The lineup of speakers reflected the consensus that the path to net zero requires a diversity of approaches. Hydrogen was often cited.

In a panel on the role of hydrogen, Kelly Grieves, Hydrogen Strategy Lead for Atura Power said: “Hydrogen is having a moment. The momentum is broad across North America and Europe.”

Earlier this year, Atura announced its Niagara Hydrogen Centre, which will tap into electricity from the Sir Adam Beck Generating Station to power a 20-megawatt electrolyzer to produce green hydrogen. Atura has a unique position because it proposes to be not only a producer, but a consumer, by blending hydrogen with natural gas to reduce emissions at its Halton Hills generating station. With the demands of the climate emergency, Grieves said hydrogen is not going away.

“I think we’re beyond the point of no return. We’re taking a leadership position,” said Grieves.

She and her fellow panellists stressed that challenges remain, led by costs.

“Generally, everyone loves hydrogen, up until the point when you talk about price. That’s the conundrum in getting it off the ground,” said Simon Paradis, Canada Energy Transition Program Manager, Shell.

The panellists agreed that Canada is well positioned, given our availability of renewable power, but that we face fierce international competition and at this early stage of the industry, public sector support is critical.

“We need govt to be involved for the duration of the project, not just one and done. We need a strategy backed by long term commitment to help move forward,” said Scott Dodd, Director Business Development, Enbridge Gas.

He added that the industry faces a critical shortage of workers, meaning there are emerging opportunities for high-paying jobs.

“Parents: tell your kids go to school to become hydrogen technicians,” said Dodd, as his fellow panellists nodded in agreement.

With multiple concurrent sessions, the conference boasted a broad variety of discussions about the path to net zero.

One of the most well-attended was on the *Role of Carbon Capture, Utilization and Storage (CCUS)*.

Sarah Petrean, Director of Sustainability, Cement Association of Canada, told the conference that the technology is essential for the industry she represents. While the industry is transitioning away from fossil fuels to power their plants, the challenge is that 60 per cent of the greenhouse gas emissions in cement manufacturing come from the chemical reaction that happens during production.

“It’s widely understood that the concrete industry can’t get to zero without CCUS,” said Petrean.

Dr. Dru Heagle, Research Scientist Natural Resources Canada explained that CCUS is not a new concept, the technology has been around for decades.

“We have lots of good knowledge about how to bring it online. And we have enough storage capacity (in Canada),” he said.

Heagle explained that CCUS requires a geology that allows for very deep and secure storage that must last for centuries, perhaps millennia. He said Ontario has potential sites, which need further study, while there are massive sites already identified in the prairie provinces.

Consistent with many other discussions at the conference, panellists stressed the need for decisive action.

“The resounding message to this room is the sense of urgency,” said Hilary Thompson, Director S & T Business Development, Enbridge Gas.

“It’s of utmost importance that we develop these solutions. We need alignment from government and the role it’ll play. The more that we can rally behind and test this technology and move it from study to actual reality, the more competitive we’ll be in supporting our businesses.”

It was a day infused with insights and perspectives from all aspects of the energy industry, from both producers and clients, all focused on some of the most pressing issues faced by humanity.

After the conference, the organizers said the initial feedback from attendees was very positive. It was a new format and a new collaboration between APPrO and OEA.

“Everyone seemed genuinely happy to convene in person again,” said Vince Brescia, President and CEO of the Ontario Energy Association.

“We had the whole sector there and what stood out for me was everyone’s commitment to doing their bit to see the transition happen.”

David Butters, President and CEO of APPrO, had a similar impression.

“It was a lot of fun, seeing people you hadn’t seen for a couple of years,” said Butters.

He was particularly struck by the session that focused on Indigenous opportunities.

“Getting to net zero and the energy transition are just massively big challenges with so many moving parts. I thought it was a great session to remind us of the necessity of providing economic opportunities for Indigenous communities,” he said.

Butters and Brescia agreed that the Energy Conference demonstrated the importance of continuing to convene essential conversations among all the players in the industry. Whichever path we take in navigating to net zero, electricity will play a central role.