

# From Aspiration to Action

## How Ontario's Energy Transformation Is Taking Off

### Ontario Energy Network (OEN) Luncheon

February 2, 2024

Lesley Gallinger

President and CEO, The IESO

#### **CHECK AGAINST DELIVERY**

### From Aspiration to Action

Good afternoon everyone, and thank you to the OEN for inviting me to speak.

My last address here was in November of 2022, which means it's been more than a full calendar year since we've had a chance to connect under this banner.

Now here we are, in February 2024, where I also find myself at the helm of the IESO for the better part of three years now.

I think you'll agree with me that we have come a long way together, as a sector, over the past few years.

In May of 2021, we knew we had a large supply gap emerging mid-decade and a framework was in place to guide us.

But we had yet to take any solid steps forward.

Emissions were in the spotlight and calls to phase out gas by 2030 were pressing.

But we had yet to explore when and how we could get to a decarbonized electricity system.

We began with a simple question: could we aspire to get rid of natural gas generation by 2030?

The answer was, simply, no.

However, that did not stop us from taking action.

Instead, we immediately shifted our focus to achieving what is possible.

Grounded in what we can and should be doing to achieve real emissions reductions without compromising our core tenets of reliability and affordability.

We looked at options and approaches, through pragmatic and practical lenses.

To develop a realistic course of action to eliminate emissions from the grid.

Laying out a pathway to decarbonization, anchored in a series of no-regret actions.

And in just over a year, many have taken root.

Our aspirations have now turned into action.

And the good news is this: actions that are underway will address Ontario's supply needs out to the mid-2030s, which is when our forecasts also show emissions will begin to decline.

Which brings me to the essence of my remarks.

While our outlook has improved based on actions underway, there is a lot of work ahead in 2024 to collectively deliver.

I want to begin by talking about the procurements and other supply-related activities.

Second, I'll talk about the foundational changes that are a critical area of focus this year to maintain reliability and affordability for decades to come.

And finally, I'll touch on the broader conversations that are taking place, which include:

- working together to build infrastructure,
- partnering with municipalities and Indigenous Nations, and
- thinking holistically as we engage and build out the system – together

## Our Current Outlook: A Pathway to Reduced Emissions

In about a month's time, we will release our latest *Annual Planning Outlook*, which will demonstrate the progress being made to address our supply needs.

This year we've integrated the *Annual Acquisition Report* into the *APO*.

Which will provide a more complete picture of future reliability needs and how we're going to meet them.

Some of the underlying assumptions in our demand forecast have been updated, but the picture we are seeing is the same.

Demand growth is anticipated to continue at a rate of about 2 per cent annually for the next 25 years.

This affirms the path that we're on to support economic development and electrification by building out our system.

Over the course of the past year, we were quite pleased with the response to our Medium-Term RFP and Expedited Long-Term 1 RFP, which are reflected in the *APO*.

We are about to wrap up LT1 – which will help us complete the largest energy storage procurement ever in Canada.

Another key building block that moves us closer to a decarbonized grid.

And we know our peers across North America are watching to see how we integrate storage at this scale.

As we review the Long-Term 1 Request for Proposals, we are concurrently preparing the Long-Term 2 RFP.

Which, notably, seeks non-emitting supply and eligible Distributed Energy Resources.

This will be the first procurement where DERs under one megawatt will be able to compete with larger, traditional resources.

A major milestone in our energy transformation.

Engagements are underway and, as always, the IESO wants input that will lead to action.

We plan the system to serve the province, while also meeting unique regional needs.

When we develop regional plans, we look at local drivers that will impact electricity requirements and evaluate a variety of options to meet them.

To that end, we're engaging with purpose across the province to understand urban, rural, and Indigenous perspectives.

And we appreciate sector feedback on design considerations, revenue models and siting, amongst many other things.

Diversity of supply is our strength and procuring wind, solar, hydro and biomass will complement the batteries we are building to further reduce emissions.

While storage and renewables will change the dynamic of how our grid operates, and move us closer to decarbonization, one of the biggest reasons we see emissions declining is nuclear.

Refurbishments of our fleet have been a defining characteristic of the 2020s.

And in the 2030s our existing nuclear fleet will return to full strength - with more on the way.

Small modular reactors are expected to come online in 2029.

Development work has commenced on Bruce C.

And as we learned this week, the work to refurbish Pickering will move forward, which means thousands of megawatts of clean, reliable baseload power.

While much of this work was outlined in the IESO's *P2D* report, and the Province's subsequent *Powering Ontario's Growth* plan, one area of continued uncertainty is the Clean Electricity Regulations.

I want to make it clear that we share common ground, and even common language, with our colleagues in Ottawa.

Our primary concern, however - which we have expressed publicly and privately - is that there must be a more flexible approach to federal regulations.

Optimistically, there is a lot of work well underway at the IESO, and throughout the sector at large, to achieve net zero and meet federal – and international – objectives.

As I've mentioned, additional nuclear, wind, solar, hydro, and storage is underway.

And we are investing in conservation.

Thanks to our energy efficiency programs, energy demand is 15 per cent lower today than it otherwise would be.

But we're certainly not able to count our chickens yet.

So, the ensuing question what's next?

While emissions declining in the 2030s is notable, the hardest work remains before us.

To get to a point where we can simply use gas generation in a more limited way – emergency back-up only – we'll need to work with communities and discuss replacement options.

New transmission lines may need to run through population centres.

Communities will need to support alternative generation sources in their jurisdictions.

Municipalities, businesses, LDCs and aggregators will need to bring DERs to the table.

This means that regional planning will be vital in the months and years ahead and we look forward to engaging throughout that process.

## Foundational Changes: 2024 Activities to Set Up the Next Decade

As we continue to procure new non-emitting supply, we are focused on foundational changes that will contribute to reliability and affordability.

Since the electricity market opened in 2002, we have gained a lot of experience procuring additional resources and providing opportunities for them to compete.

As well as replacing resources entirely.

Over the course of 2024, we are building on this institutional knowledge in a few ways.

First, I will note that the North American Electric Reliability Corporation – NERC – observed an improved reliability outlook for Ontario in a recent assessment.

Which stems from our Resource Adequacy Framework that sets out a long-term competitive strategy to acquire resources.

And, secondly, that encourages competition to drive down ratepayer costs.

With non-emitting supply soon to compete through LT2, we will have closed the loop to provide opportunities for all resource types.

Because it is important that we facilitate customer choice and tap into potential, our Grid Innovation Fund pilots are uncovering the increasing potential of DERs.

And we continue to work toward market integration by 2026.

Because innovation is central to the energy transformation.

We also understand that dispatchable small-scale supply, storage and load flexibility supports reliability – and affordability – of the system at large.

The IESO's Enabling Resources Program will open participation models for DERs in the wholesale market, further increasing competition and driving down system costs.

It will also open up revenue opportunities for businesses, communities, aggregators and LDCs.

Recognizing how our system of tomorrow will be different because of these significant changes.

And thirdly, over the next year, we are winding up our current conservation framework, with an eye to implementing a more enduring model, providing certainty to service providers and customers.

We also recognize the valuable relationships LDCs have with their customers.

And believe there is opportunity for more collaborative partnerships as we deliver demand side management programs and initiatives.

Last, but not least, we are gearing up for the Market Renewal Program to go live in 2025, which will be more cost-effective and provide a stronger foundation for existing and new entrants to participate in Ontario's electricity market.

These foundational changes I've mentioned will ensure our procurements, programs and markets are ready to facilitate opportunity, innovation and customer choice in the years to come.

## Sector Challenges and Meeting Them for the Big Build

The strong foundation I just described will allow us to prepare for the Big Build needed to support the province's ongoing prosperity.

From small-scale, distributed resources, to new nuclear – we are tapping into all available options.

And looking ahead, this diversity of supply will be critical.

Electricity is a key element in many facets of society: industrial activity, housing plans, community economic development and decarbonization.

Traditionally the individual domain of provinces, we are now seeing the federal government and municipalities take a more active role in electricity planning, as well as inter-provincial considerations.

And Indigenous Nations are partners whose participation in our energy future has significant benefits for communities and the system at large.

While we will remain grounded in our respective areas of expertise, it is crucial to be mindful of the many intersecting developments.

The Electrification and Energy Transition Panel, led by David Collie, made its recommendations public last month.

All 29 recommendations have merit from the IESO's perspective, and we look forward to working with the Province to put them into action.

Including galvanizing collaboration amongst parties.

The importance of broader engagement and collaboration across sectors is something I also discuss with my peers on the Canada Electricity Advisory Council.

For those who aren't familiar with the council, we were appointed to advise the Minister of Energy and Natural Resources.

Appraising the moves needed to enable Canada's electricity sector to decarbonize and grow significantly in support of national emissions-reduction goals.

We issued an interim, progress-based report to Minister Wilkinson, and work continues on the full report.

As a multi-stakeholder group representing the provinces in a variety of capacities, it was an interesting microcosm of confederation.

It also led to many healthy debates around the table without always achieving consensus on outcomes.

What we did agree on, however, was a need to compromise effectively.

And to put partisanship and business preferences aside to get to the best outcome for all Canadians, no matter their political leaning or geographic location.

Which also mirrors what the IESO is asking of the sector at large in Ontario.

Our work is impacting a broader audience, and the expectations of communities and Indigenous Nations continue to evolve and increase.

As a sector, we need to be clear and deliberate in our actions.

We also need to know our influence points.

Where can we be of assistance to inform conversations at all levels of government, with Indigenous Nations, amongst the broader public, and in other industries.

The amount of engagement we will need to do as a sector in the years ahead will be unlike anything we've ever had to do.

Across the province, the work has started to build out our electricity infrastructure and we appreciate the community support we've received.

And we anticipate many more communities – municipal and Indigenous – will be involved as we grow the electricity system into the foreseeable future.

Which requires serious and sincere discussions and decision-making.

That means co-ordinating as a sector to avoid engagement fatigue and confusion among broader and overlapping audiences.

And leveraging key multi-stakeholder venues like the IESO's Strategic Advisory Committee.

There are active opportunities to effectively collaborate, and reach required consensus where possible.

We must also focus on Indigenous partnerships and continue to increase their role in projects.

And looking back on the results of the E-LT1 – where nine of 15 projects had over 50 per cent Indigenous ownership – it's proof positive that momentum is building.

Because to achieve the Big Build, we need to think big.

We know we need to at least double our system's capacity by 2050.

And build more transmission so that electricity travels freely around the province to where and when it's required.

Because our electricity consumption patterns and expectations have changed.

We want – and need – electricity to do more and more every day.

I know there are diverse opinions about how we prepare for the electricity system of tomorrow.

I read it and hear it every day.

But our authority and our licence to act is driven by the people of this province.

Which is why we are committed to informing, involving and collaborating with communities.

Leading to meaningful outcomes.

## Staying Connected

Which leads me to a maxim I'd like to share with you: if you want to go fast, go alone; if you want to go far, go together.

And this is applicable on many levels.

We've started the build out, on a grand scale, and, while we've accomplished a lot already, some of the hardest work lies ahead.

It's a marathon, not a sprint, and we need to keep a strong, steady pace so that we keep our options open without getting ahead of demand.

We also need to be mindful of our place in larger societal discussions taking place.

And lend our expertise as a sector to inform and support conversations and decisions.

We need to engage meaningfully and extensively.

Because our success in getting infrastructure built cannot – and will not – depend solely on alignment in this room.

We need the support and partnership of municipalities and Indigenous communities in every corner of the province.

So, as the electricity sector, and the primary stakeholders within it, we need to stay connected as we move forward.

Together.

To ensure there is shared awareness and collective problem-solving of the many challenges that will arise.

Whether supply chain, labour issues, or otherwise

The IESO also has a unique vantage point, as system planner and operator, with our bird's eye view.

So, as always, please, share with us how we can help you.

Lastly – despite the challenges ahead – let's find time to take a deep breath.

And enjoy this incredibly important and exciting moment in time.

We have a huge role to play in the prosperity of this province.

With the expertise in this sector, and in this room, I'm confident that our industry is in good hands.

And more importantly, let's continue to encourage and develop future leaders, who, on behalf many of us, will be carrying the baton 25 years from now and into the second half of the century.

Today is "Student & Young Professional Day at OEN" and there is an after-luncheon opportunity for students and emerging professionals to speak with representatives from member organizations.

With that, I would like to acknowledge our future leaders at the IESO-sponsored WiRE Student Table, and to the cohort of the IESO's own co-op students.

Who, on their very first day, had the opportunity to meet Premier Ford in-person when he toured our control room last week.

And on behalf of the rest of us here, and the many others you will meet to help guide you along your career path.

I can tell you from personal experience that we take our roles and responsibilities seriously.

It is also our responsibility to ensure that you are equipped with the tools – and knowledge – to build on our groundwork.

So, to my industry veterans: thank you for your time and continued mentorship as we support the next generation of energy sector professionals.

And to our future leaders, learning is a continuous process.

I hope today's event, and the work of our sector, offers inspiration, and that we all play a role in our energized future.

Thank you.