Ontario Energy Network (OEN) Luncheon: Notes for Remarks

November 18, 2022 Lesley Gallinger President and CEO, IESO

CHECK AGAINST DELIVERY

Introduction

Good afternoon everyone. It's nice to see all of you.

As many of you know, it's tradition for the President and the CEO of the IESO to kick off the first OEN event of the year, providing our view of the year ahead.

But instead, with the incredible amount of interest there is on what the IESO is doing right now, and on our sector as a whole, there really is no time like the present.

And that's why, given that we are approaching the end of the year, I'm going to frame my remarks with a view to the past, that has shaped our present, and that will inform our future.

A future that every single one of us here has a very important stake in.

As members of the energy sector, we have a responsibility to each other, to ratepayers, governments, investors, environmental advocates, and communities to safeguard and evolve our electricity system.

As individuals, we want to do our best so future generations can build on the foundation we're putting in place today. A foundation that will chart the course to attain net zero emissions by 2050 across every sector.

And with the energy sector – world-wide – accounting for three-quarters of greenhouse gas emissions today we are a very important piece of the puzzle.

Right here at home, the Government of Canada is also currently consulting and developing a clean electricity standard to reach a net-zero electricity grid by 2035.

These are two very bold and ambitious goals. Every day I ask myself, how can we meet them?

For me, actions speak louder than words. And our actions today are charting a course to make achieving these goals possible.

Ontario already has one of the cleanest electricity grids in the world, with more than 90 per cent of the electricity that Ontarians use coming from non-emitting sources.



But as we all know, the world is changing.

Our grid is transforming. Demand is increasing. Supply is under pressure. Technology is evolving.

And the spotlight on our sector is growing brighter by the day.

So today, I'm going tilt that spotlight on to the IESO, and what we are doing right now to ensure reliability, sustainability and affordability at this pivotal point for the electricity system.

Reminders of the Past That Set Today's Stage

To understand how we are approaching today's challenges, we need to understand how our past has set the stage for where we now stand.

As I just mentioned, we are already ahead of the game in many ways with a much shorter pathway to future decarbonization compared to others.

When we break it down by province, we know that Ontario is one of the cleanest jurisdictions in Canada, as well as across North America.

This is, in large part, because Ontario was the first jurisdiction in North America to eliminate coal generation.

And as a result, our electricity system accounts for just three per cent of the province's total GHG emissions.

We didn't get to here without some bumps and bruises, but more importantly, we learned many lessons along the way.

As the saying goes, in order to know your future, you must understand your past.

Roughly two decades ago, coal power represented one-sixth of our generation.

In 2014, with coal phased out, we made up the difference with natural gas, non-hydro renewables and nuclear generation, and our most valuable resource: conservation and demand management.

So what did we learn from this? Transformation at this scale is costly and it takes time.

The transition off coal required the entire sector – and so many others – to work together, and to pivot to incorporate the flexibility needed to replace coal in an orderly manner.

And in the midst of all this significant change, we were still able to maintain a reliable electricity service for all Ontarians.

Our Present Landscape

Taking into account this past experience has influenced our thinking as we prepare for the next great challenge.

The IESO's mandate is to address supply needs in an environment of growing demand, which we now anticipate to grow an average of two per cent a year for the next twenty years.

In a few weeks' time, we will release the 2023 Annual Planning Outlook, which will show that we are seeing a lot of economic development and an increased focussed on electrification in a number of energy-intensive sectors, including agriculture in the southwest, steel making, auto manufacturing, and mining in the north.

Concurrently, supply is under pressure with various contracts expiring, and Pickering coming offline mid-decade.

All of this together leads to significant system needs: 6,000 MW by 2027, and increasing in the years after. We've already taken numerous steps to significantly reduce this gap.

And we're doing that responsibly – and transparently – through our Resource Adequacy Framework.

The framework sets out a long-term flexible and competitive strategy to acquire resources: balancing ratepayer and supplier risks, and recognizing the unique characteristics and contributions of different resource types.

We've seen great success with this framework thus far:

- Our annual capacity auction is currently taking place to secure 1,200 MW for this summer and 750 MW for next winter:
 - It continues to attract a diverse group of resources.
 - And we are increasing the amount we procure each year through this mechanism.
 - This has proven to be an important avenue for large consumers providing demand response to participate in our markets, as well as energy storage and generation.
- Our medium-term RFP is providing opportunities for existing resources with expiring contracts to continue to play a role.
- Longer-term, the IESO recently announced that we will procure 4,000 MW of capacity, including up to 2,500 MW of storage and 1,500 MW of gas generation.

We also see renewed vigour and importance in conservation and demand management as a stable resource that offers benefit not only in the long-term, but in day-to-day operations.

Just last month, the Ministry of Energy accepted our recommendation to roll out new and expanded energy efficiency programs, which we know are among the fastest and most cost-effective ways of meeting system needs.

To that end, beginning in the spring of 2023, we're rolling out: a Residential Demand Response Program; targeted support for greenhouse growers in Southwest Ontario, and enhancements to existing programs that provide support for businesses, municipalities, and institutions to reduce their energy usage and bills.

These initiatives come in the midst of our review of our 2021-24 CDM Framework, which we are currently finalizing for submission to the ministry in December.

And I do really want to stress, your input and participation to address our current and future needs will continue to be critical.

We had insightful feedback from associations and LDCs, municipalities, and other stakeholder groups for the mid-term review.

And it's that sense of involvement and shared commitment that we need as we issue future procurements – seeking feedback from all of you as we go.

Right now, all of us need to pull in the same direction, to focus on what is possible despite the many challenges we face, and I take very seriously my responsibility to ensure that your voices are heard, and you have the opportunity to contribute.

Active consultations and engagements – and compromise – will allow us to move forward because there are so many of us involved.

It's developers working with communities to get approvals for siting.

It's innovative service companies helping to develop and connect consumers with emerging technologies.

And it's those of us in this room – working at the heart of the sector – to leverage our collective expertise and tackle the big challenges in front of us.

Looking into the **Future** and Preparing for What's Next

So I've talked about the past, and addressed where we stand today.

Now I'd like to talk about the future.

As we look ahead, the long-term procurement I mentioned is a significant step on our pathway toward a decarbonized future.

It's a step that will see us innovate and integrate a significant amount of new energy storage, while also continuing to depend on gas generation as a transitional resource for a period of time to ensure reliability and affordability.

To transform our electricity grid in today's reality we must simultaneously respect the need to support economic growth and broader decarbonization efforts for tomorrow's future.

The good news, as we strive for an ultimate goal of net zero, is we have experience phasing out emitting resources. This is something that we can, and will, do again.

As you may know, the IESO is responding to the Minister of Energy's request to evaluate a moratorium on the procurement of new natural gas generation.

And to develop an achievable pathway to achieve zero emissions in the electricity system.

While we are currently dotting the I's and crossing the T's on the report to send to the ministry, what I can tell you is that the IESO is looking at this request from a system operator and planner's perspective.

Which means we are looking for a cost-effective approach to maintain grid reliability as we work to reduce emissions.

That's why the Pathways to Decarbonization report takes a broader view than our more traditional planning process.

It looks beyond what is "known" and prepares and analyzes for what "could be".

It looks at a series of "what ifs" that include a high electrification scenario where demand could come close to tripling.

So what must we consider now to prepare for then?

Conservation and demand management remains the most valuable resource and tool.

And to highlight a few key early insights from our report: innovation will be critical, especially as we look for long-term storage.

And low carbon fuels or hydrogen solutions will need to further commercialize.

In addition, we anticipate it is more efficient and reliable for northeastern grids to decarbonize together.

At the same time, we need to be mindful that decarbonizing jurisdictions will all need to make significant investments in infrastructure.

Which means increased competition for capital, labour and resources as the transition occurs immediately in our neighbouring jurisdictions and all around the world.

There is a lot of heavy lifting involved to decarbonize our system in a reliable and orderly manner.

All under the shadow of ambitious federal commitments that I mentioned earlier.

So it's important that we keep moving, that we build momentum together, and that we keep our options open as we look to support the energy transition that is underway.

And that's been one of our hallmarks at the IESO: being actively part of the dialogue, providing solid advice and designing solutions to help inform government as they look to make future policy decisions that will serve as a thoughtful path to an increasingly electrified economy.

Customer choice, technologies, and government policy will continue to evolve. And we must to be nimble and ready to adapt as needed.

That's why we're taking concrete steps today, through our procurements, while also maintaining the flexibility to adapt each year as circumstances change, to prepare for tomorrow.

When you see the Pathways to Decarbonization report, you will read recommendations about what we need to focus on now.

And specifically, what "no regrets" preparations we can undertake to ensure that as we make decisions about the future supply mix and transmission needs, that we can act on them quickly without limiting possibilities for the future.

We don't want to start down this pathway and box ourselves in by making decisions and investments that preclude us from taking advantage of new technologies or options that emerge later on.

We have options that will keep us nimble, and along the best path.

There's a lot of exciting and innovative work happening, and we're pleased with the progress being made to integrate emerging technologies into the grid.

Our past experience phasing out coal, as I mentioned earlier, will be incredibly helpful for the future.

Conclusion

So in closing, I'd like to stress that decarbonization must be a collaborative effort.

We recognize that decarbonization has become a priority for businesses, communities, First Nations, sector stakeholders and governments at all levels.

It is for the IESO as well.

Often, at various speaking engagements with an audience who might not be as familiar with us as you, I liken the IESO's role to that of air traffic controllers: controlling the production and movement of power across the province.

And, right now, the IESO has a lot of planes in the air that are all scheduled for landing.

Our Pathways to Decarbonization report, Annual Planning Outlook, and Mid-Term Review of our CDM Framework are all close to completion.

We just submitted our work to create a pilot program to integrate low-carbon hydrogen technologies into the grid, which included program options, timelines, and costs.

And with these reports, along with all our other engagements, we look to hear each and every voice, and take them into consideration.

Because that's how we will address – and overcome – barriers, and keep us all on the same page.

And the best way to do that is to reframe the conversation.

From my perspective, a lot of discussion about emissions from our sector focussed has been focussed on what we can't or shouldn't do.

I want to change the discussion to focus on what is possible, grounded in what we can and are doing.

That is a dialogue that we can build on to drive outcomes. And all of us in this room can be leaders on the pathway to decarbonization

So let's look at where we can get ahead, building on learnings from the past and decades of continuous improvement, to make the right plans and investments today, to facilitate an efficient and orderly transition into the future.

Everyone has a role to play in designing solutions.

We must to come together with creative ideas about how to tackle this challenge, and engage in productive discussion about what can – and will – be done to balance reliability and affordability with sustainability to achieve net zero.

Thank you.