

INTRODUCTION

- Thank you [NAME] for that kind introduction.
- I also want to thank:
 - *Patricia Phillips, Executive Director of ESO, for the invitation to speak;*
 - *Other VIP acknowledgments*
- I'm pleased to say that this is the first sector conference I'm attending as Ontario's new energy minister.
- I want to say what a true honour it is to take on both the challenges and the opportunities that this portfolio offers.

- And I'm proud to be part of a government that is focused on the innovations ahead in our energy system:
 - in clean power;
 - in fighting climate change;
 - in distributed generation;
 - and in emerging technologies, like storage, that can help us on this path.
- Our commitment to these opportunities makes Energy a portfolio I'm excited to take on.
- But being part of this government also means I can take a look at the role this sector needs to play in ensuring that access to clean energy is affordable for everyone.
- In every region of this province.

- You will all no doubt have heard our Throne Speech last week and the media reaction that's followed.
- I'm sure you've noted our team has been quick to take action since I took over the portfolio in June, about 100 days ago.
- We know Ontarians need help with the cost of everyday living.
- And we know energy and electricity has a role to play.
- So, we've announced the rebate of provincial taxes directly electricity bills.
- And I know many folks in the sector were also interested in the modernization of the RRRP program for rural families, and the expansion of the ICI program for industrial consumers.

- These actions will build on the successful implementation of the Ontario Electricity Support Program, which has been helping vulnerable consumers with up to \$75 in on-Bill reductions.
- And the work we're doing to expand natural gas and electricity connections to previously isolated communities.
- Taken together, this plan represents our path forward as a sector under Premier Wynne's government; focusing on ensuring our system is working in the best interests of families and businesses.
- This is a goal I know each of you, and truly all elements of this sector, can work towards and play an important role in helping us achieve.

- This will be the focus of our work towards a renewed Long Term Energy Plan. A plan that will be focused on delivering affordable power to families and businesses, and operating a world-class clean, reliable grid.
- Consultations on that plan will begin later this fall, and I know each of you will take an active interest in how we achieve these goals.

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- With that focus in mind, I'd like to take a few moments tonight to review the role we see for emerging technologies, like energy storage, in Ontario's energy future.
- Firstly, there is no question that electricity storage will be a game-changer for the way we produce and consumer power in this province and around the

world.

- Since the days of Adam Beck, we've had no choice but to generate electricity for the moment we needed it. And we've had no choice but to build systems that can meet our needs in the hottest days of summer and the coldest days of winter.
- But now, new technologies are giving us a small taste of what's possible when we can store electricity and use it when we need it.
- And I have been particularly proud as an Ontarian to discover that so much of this technology is homegrown, with your companies leading the way.
- Locally led projects mean that companies designing and building storage understand both community and provincial needs.
- And it means that your industry is investing in our

province; creating jobs and growth right here in Ontario.

- Consider just four examples:
 - In Harriston, NRStor is using Temporal Power's flywheel systems to provide regulation services to the grid. This is the first mechanical energy storage project in Canada. And it's supporting XX jobs.
 - At eCamion and Toronto Hydro, we have the first energy storage system installed directly into an urban community, at the Roding Arena and Community Centre in North York. A system like this one, which can power a community centre, a light industrial complex or small residential street, can reduce the strain on the system at times when we're experiencing peak demand.

- **Underwater compressed air** is a utility-scale solution promising to hold power for weeks without losing capacity. Another Ontario company, HydroStor, is leading the way on this one, collaborating with Toronto Hydro on the world's first underwater compressed air storage project, located near the Toronto Islands.
- And finally, a time-honoured and large scale technology that is pumped storage. OPG's PGS facility is the largest and most flexible energy storage facility in Canada. The reservoir holds 20 million cubic metres of water, and can do the work of 600 MW of fossil fuel generation for up to eight hours. As you may know, work is underway right now to refurbish the Adam Beck Pump Generating Station. At this site, XX jobs are supported.

- Through these examples and others like them, we're getting a sense of how storage can play a role in our economy, our communities and at the end of the day, help make the grid more efficient and affordable.
- At the same time, we recognize there's still a lot to learn and a long way to go.
- The attributes of energy storage are much more complex than those for typical electricity supply or demand management.
- And, as is the case everywhere, new technology tends to be more expensive when first introduced. To put this in perspective, right now, Beck's PGS is the most cost-effective storage solution we have – and has been operating for just shy of 50 years. But we're not yet taking full advantage of the system benefits this facility can offer.

- This next Long Term Energy Plan provides a perfect opportunity to review and res-set our policies and practices as they relate to how we value energy storage technologies.
- Ontario's procurement and regulator practices were predicated on a electricity generator to transmitter to distributor to end user system or mindset.
- Energy storage allows for end users to behave as generators as well. With personal home storage and Electric Vehicle use predicted to rise, consumers will demand more flexible customer to commodity relationship with their utility.
- And this will have spill-over effects on our system operator and supply procurement agency – the IESO.

- know that Ministry and agency staff have already been engaging with you about addressing barriers that could limit the ability of storage to compete in Ontario's electricity markets, and I'm optimistic that these discussions will lead to a clear path forward on how to address some of these barriers.
- And it's why we want to look to opportunities for utilities and system operators to realize more value from distributed energy resources, and from new customer-utility relationships. We have been closely monitoring pilots, such as Oshawa PUC's Solar Energy Storage and Management Systems pilot, and PowerStream's PowerHouse pilot, both of which are investigating the customer and utility value streams for these energy systems. The PowerStream pilot is also aggregating solar and storage resources into a "Virtual Power Plant" that the utility can control in real time.

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- But to achieve the best value for ratepayers, and maintain our commitment to affordable power for people, we need to sharpen our pencils and determine the optimum price for consumers and value for system operation before we can make decisions about how and when storage should be implemented and how it should be financed.
- So, as we prepare for a renowned Long Term Energy Plan, we will take a look at the results of energy storage procurements.
- Our existing initiatives in this regard, and most particularly the 50 MW procurement completed by the IESO, will provide opportunities to learn about different storage technologies and the commercial mechanisms needed.
- We expect the lessons we all learn will help us identify opportunities, as well as challenges to be addressed.

- These lessons will help ensure that any future investments are made strategically, and thoughtfully, and where we can do the most good.
- This may mean examining procurement processes with a focus on delivering the best value for our system and for ratepayers.

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- Ontario began embracing energy storage technologies with Beck, in 1957.
- Today, our province is an energy storage leader, and we plan to ensure our policies maintain our position at the forefront of innovations in emerging technologies that can add value to our system.

- As we embark upon a process of examining our Long Term Energy Plan and the role energy plays in our economy and our lives; I know I can count on each of you to join in a conversation to promote innovation, to address barriers and to encourage seamless integration of new tech into Ontario's electricity market.
- It's a conversation I very much look forward to continuing.
- Thank you.