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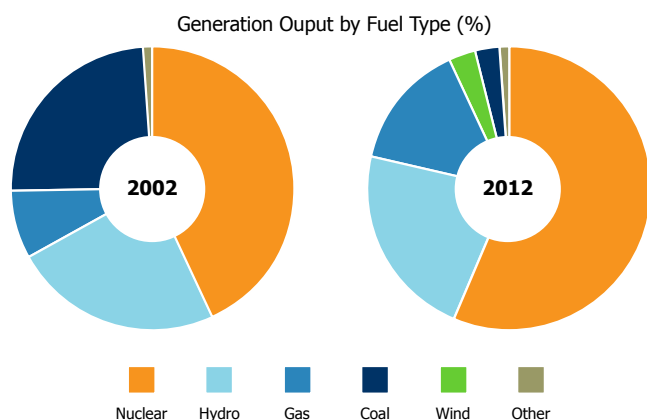
Annual Statistics Reveal Changes in Ontario's Electricity Sector

Ontario's electricity sector has undergone incredible change in the past decade. The IESO recently released its annual review of electricity data in the province, which shows that for the first time, wind output exceeded coal fired generation.

Supply

Comparing Ontario's electricity supply mix from 2002 to 2012, one can appreciate the magnitude of change.

Nuclear units remain the cornerstone of Ontario's supply mix while gas and hydroelectric units provide the important flexibility by ramping production up and down in response changes in demand and wind output.



What's particularly striking is that wind generation exceeded the output of Ontario's coal plants in 2012. Wind has grown to become a mainstream resource within Ontario's supply mix with production representing 3.0 per cent of total output - up from 2.6 per cent in 2011.

Demand

Electricity demand patterns in Ontario continued to change; peaks in demand fell far below historical highs, while the growth in overall consumption remained in check.

In response to price signals and programs such as the OPA's DR3 and peaksaver PLUS, Ontario's consumers had a direct impact on reducing the year's summer peak. For example, industrial,

commercial and institutional consumers helped reduce at least 400 megawatts (MW) during the year's demand peak on July 17, helping to bring the peak down to 24,636 MW. This peak was lower than the previous year's, when record-breaking heat and humidity pushed hourly demand to 25,450 MW.

Total annual electricity consumption stayed virtually flat at 141.3 TWh. Factors constraining growth include the current economic conditions, the growth in embedded generation capacity (which reduces demand for electricity from the bulk power system) and ongoing conservation and demand management initiatives.

Price

The total cost of power in 2012 was 7.39 cents per kilowatt hour (kWh), up from 7.16 cents/kWh in 2011. This cost includes the average weighted wholesale market price of 2.41 cents/kWh and the average Global Adjustment of 4.98 cents/kWh.

IESO's First Stakeholder Summit

The IESO's first stakeholder summit is to be held on March 4th, 2013. The purpose of this summit is to bring stakeholders together with experts from across North America to focus on issues facing Ontario's electricity market and the opportunities emerging to address them. Perspectives from this summit will help shape future discussions among the IESO's Stakeholder Advisory Committee over the next few years.

Due to an overwhelming response from stakeholders, the summit filled up quickly. If you have missed the opportunity to attend, look for a post summary of the event including key learnings at www.ieso.ca/summit. For any further information on the IESO's stakeholder initiatives visit www.ieso.ca/se.

Innovation in Ontario's Electricity Market

Ontario power system continues to evolve. With Ontario's supply mix, it's an increase in renewable generation and the elimination of coal fired generation. On the demand side it's market based initiatives that reduce peak demand and encourage load shifting. With advances in technology, it's new ways to manage increasingly variable generation.



As the power system evolves, so too must grid operation. The IESO, as Ontario's grid operator, must take advantage of opportunities that strengthen the cornerstone of grid operation - maintaining reliability.

With this in mind, the IESO has selected three new alternative providers of regulation service, paving the way for new technologies and methods of regulation to be commercially introduced on the grid.

Regulation, an ancillary service necessary for grid operation, is the second-by-second response to small, sudden variations in power system frequency. This response works to quickly balance power flows and maintain reliability of the power system.

Three competitively selected vendors will provide differing methods of regulation service, a move that not only enhances power system diversity and flexibility but allows the IESO to acquire experience with a range of technologies.

The successful vendors are ENBALA Power Networks Inc., NRStor Incorporated and Renewable Energy Systems Canada Inc. (RES Canada).

ENBALA Power Networks will provide four megawatts of aggregated load regulation. Aggregated load regulation is made possible by networking together a number of large-scale electricity users who have a small amount of spare capacity available. ENBALA contracts with large-scale electricity users – commercial, industrial and institutional organizations – for their participation in ENBALA's regulation network.

"We are excited to work with the IESO to deliver regulation service to Ontario," said Ron Dizy, President and CEO, ENBALA Power Networks, "The ENBALA Network has been operating and

delivering regulation services to the PJM market for more than a year, and we are eager to deliver the same economic and environmental benefits to Ontario stakeholders and businesses."

NRStor Inc. will deliver two megawatts of regulation service to the grid using energy flywheel technology. Flywheels have the ability to change from power input to output or vice versa very quickly, offering an advantage over traditional generation sources of regulation.

Flywheel storage systems convert electrical energy into rotational energy. This is done by accelerating a flywheel to a very high speed (power input). When energy is taken from the system, the speed of the flywheel is reduced (power output). High performance technologies such as this have the potential to reduce the total amount of regulation service needed on the grid.

"We are thrilled that NRStor, in partnership with Temporal Power and Ontario Power Generation, has been awarded this contract with the IESO," said Annette Verschuren, Chair and CEO of NRStor.

Renewable Energy Systems Canada Inc. (RES Canada), part of the RES Group, a leading international renewable energy developer, will deploy a battery storage unit in southwestern Ontario. They will use a four megawatt power management and energy storage system designed specifically to participate in a frequency regulation market.

"We are delighted to have won the IESO's competitive tender for regulation service, and look forward to delivering Ontario's first battery regulation service," said Peter Clibbon, VP of Development for RES Canada.

The IESO is a not-for-profit organization that manages the reliability of Ontario's power system and operates the wholesale electricity market where the hourly price of electricity is set. Through its market education program, the IESO works with consumers paying the market price by creating educational material on the market and providing opportunities for consumers to learn about the electricity sector and how they can better manage electricity costs. For more information on the IESO's market education program, please contact:

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