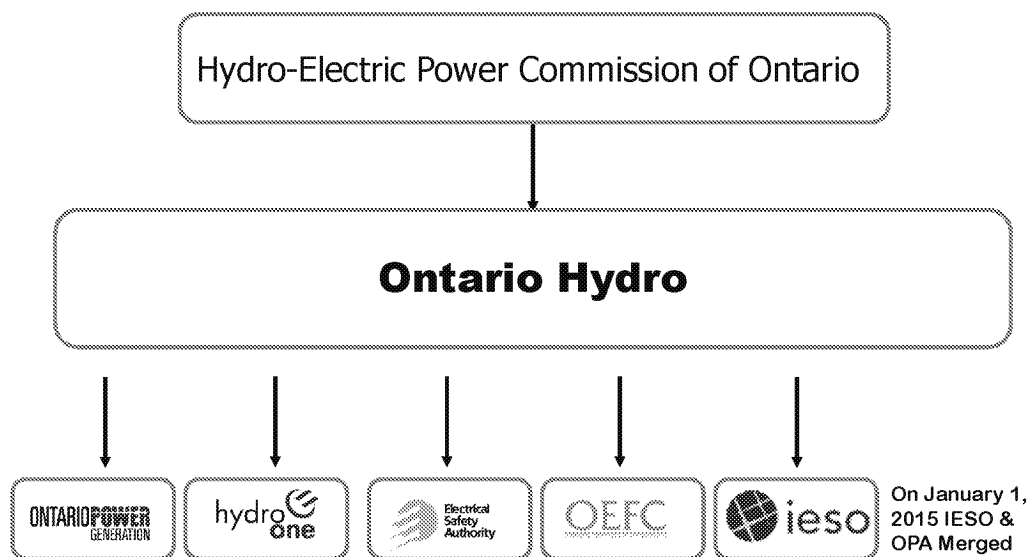
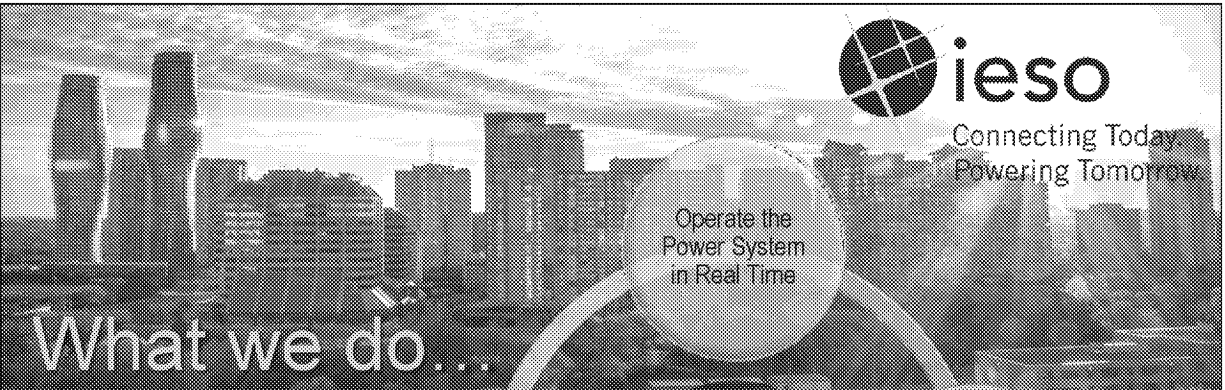


Where did the IESO Come From?



History and Regulations

- 1962-1963 – the industry creates an informal, voluntary organization of operating personnel to facilitate coordination of the bulk power system in the US and Canada.
- 1965 – blackout triggers development of legislative framework.
- 1981 – North American Electric Reliability Council (NERC) is named to recognize Canadian participation.
- 2001 – NERC standards become mandatory in Ontario.
- 2003 – blackout triggers further development of legislative framework.
- 2007 – North American Electric Reliability Corporation (NERC) becomes the “electric reliability organization” and compliance with their Reliability Standards become mandatory across the interconnection.



ieso
Connecting Today.
Powering Tomorrow.

What we do...

The IESO works at the heart of Ontario's power system ensuring there is enough power to keep the lights on, today and into the future...



ieso
Connecting Today.
Powering Tomorrow.

3

INDEPENDENT **ELECTRICITY** **SYSTEM** **OPERATOR**

- Not-for-profit corporation established in 1998 by the Electricity Act of Ontario
- What we do is defined by legislation
- The IESO does not buy or sell electricity, own electricity infrastructure or generation
- Fee regulated by the Ontario Energy Board



4

Millions of dollars a day

Don't keep the money everything we take goes back out

Legislation – take out coal, manage wind (first wind was not dispatchable)

Fee – get fee

Funded by rate payers

Ontario Hydro was the official name from 1974 of the Hydro-Electric Power Commission of Ontario which was established in 1906 by the provincial Power Commission Act to build transmission lines to supply municipal utilities with electricity generated by private companies already operating at Niagara Falls.

Ontario Hydro

It soon developed its own generation resources by buying private generation stations and then becoming a major designer and builder of new stations. As most of the readily developed hydroelectric sites were exploited, the corporation expanded into building first coal fired generation and then nuclear power. It had become one of the largest, fully integrated electricity corporations in North America by the 1990s.

In 1999, Ontario Hydro was split up into 6 successor companies.

Ontario Power Generation

Ontario Power Generation (OPG) produces almost half of the electricity that Ontario homes, schools, hospitals and businesses rely on each day.

At Dec. 31, 2016, OPG's generating portfolio had an in-service capacity of 16,177 megawatts.

We own and operate:

2 nuclear stations

Pickering

Darlington

66 hydroelectric stations on 24 river systems

2 biomass stations

Atikokan GS has been converted from coal to use biomass

Thunder Bay GS, which was the last station to run on coal, now uses advanced biomass as fuel.

1 thermal station

Lennox Generating Station

Canada's largest oil/gas-fuelled electricity generating station

1 wind turbine

Located at the Pickering Nuclear Generating Station

1.3 million distribution customers

Hydro One

Hydro One Limited owns and operates essential energy infrastructure that powers Canada's biggest and most diverse provincial economy

29,000 circuit kilometres of transmission lines

Electrical Safety Authority

The Electrical Safety Authority (ESA) is an administrative authority mandated by the Government of Ontario to enhance public electrical safety in the province. We are both a safety regulator and advocate.

Ontario Electrical Finance Corporation

Managing its debt, financial risks and liabilities, including the debt of the former Ontario Hydro;

Managing the former Ontario Hydro's contracts with non-utility generators (NUGs);

Receiving all payments and administering other assets, liabilities, rights and obligations of the Corporation that were not transferred to another of the former Ontario Hydro successor corporations and disposing of any of these items as it deems appropriate or as directed by the Minister of Finance;

Providing financial assistance to the successor corporations of Ontario Hydro;

Entering into financial and other agreements relating to the supply and demand management of electricity in Ontario; and

Performing any additional objects specified by the Lieutenant Governor in Council.

OPA

They ensure that electricity needs are met for the benefit of Ontario both now and in the future. They plan and procure electricity supply from diverse resources and facilitate the measures needed to achieve ambitious conservation targets.

On January 1 2015 OPA and IESO merged