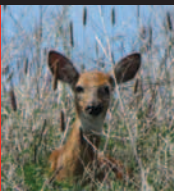




Lennox

Generating Station

Ontario Power Generation



ONTARIO **POWER**
GENERATION

Ontario Power Generation produces about sixty per cent of the electricity Ontario's communities need.

billions
of kilowatt-
hours

Ontario Power Generation (OPG) is owned by the people of Ontario and each year our 65 hydroelectric stations, three nuclear stations and five thermal stations generate billions of kilowatt-hours*. Our commitment to you is to provide safe, reliable electricity for families, communities, farms, businesses and industries across Ontario – now and in the future.

*an Ontario household will use around 12,000 kilowatt-hours of electricity each year.



OPG's thermal stations help Ontario meet peak electricity demand.

OPG's thermal stations contribute to a reliable supply of electricity by satisfying electricity demand that cannot be met by Ontario's nuclear, hydro and growing portfolio of wind and solar energy sources. OPG operates four coal-fuelled generating stations (GS): Atikokan GS and Thunder Bay GS



in northwestern Ontario, Lambton GS and Nanticoke GS in southwestern Ontario; and the oil/natural gas-fuelled Lennox GS in southeastern Ontario. OPG is also a partner in the natural gas-fuelled Portlands Energy Centre in Toronto, and Brighton Beach station in Windsor.

The balance between supply and demand on the electricity system needs to be maintained every second. Thermal

plants help maintain this balance by being able to quickly respond to sudden changes in demand while running, starting and stopping on short notice. This flexibility means that electricity production from these plants will vary from minute to minute and day to day.

OPG is making the transition to a lower carbon future and will phase out the use of coal by the end of 2014. We are committed to staffing, maintaining and operating our coal-fuelled plants as safe, reliable and environmentally responsible producers of electricity for as long as they are required.



Lennox Generating Station

Canada's largest oil/gas-fuelled electricity generating station, Lennox Generating Station (GS), is located on the north shore of Lake Ontario, in the Town of Greater Napanee, in eastern Ontario. With a generating capacity of 2,100 megawatts (MW), Lennox GS can produce enough electricity to meet approximately 8 per cent of the province of Ontario's needs. Historically, the station's annual electricity production has been as high as 3.16 billion kilowatt-hours (kWh), enough to supply about 263,000 homes for a year. Lennox GS's role is to provide reliability during peak demand times and back up when other sources are not available.

Lennox GS employs about 160 people from the surrounding community. Their skills and experience are essential to safe and reliable operation.

To improve environmental performance and to add fuelling flexibility, in 1997, Ontario Power Generation (OPG) and Union Gas Limited invested over \$40 million to build a natural gas pipeline and to convert the station's boilers to burn either oil or natural gas. This flexibility helps Lennox GS reduce air emissions and operating costs by taking advantage of spot market fuel prices. For more information, visit opg.com.

Caring for the Environment

OPG and its employees at Lennox GS are committed to caring for the environment and reducing our impact on it. Some examples are:



Certified Wildlife Habitat

- Using natural gas helps Lennox GS reduce greenhouse gas emissions (carbon dioxide) by approximately 30 percent and acid gas emissions (sulphur dioxide and nitrogen oxides) by more than 80 percent compared to using oil fuel.
- Lennox GS is certified to the internationally recognized ISO 14001 Environmental Management standard which promotes continuous improvement.
- Lennox GS uses ozone to control zebra mussels. Ozone is an environmentally friendly alternative to traditional chemicals, like chlorine, which are normally used to control this pest.
- The Wildlife Habitat Council has certified Lennox GS's site biodiversity plan.
- The station has replaced approximately 12,000 lighting fixtures with new high efficiency units, reducing lighting electricity requirements by almost 67 percent.

We share the concerns people have about carbon dioxide (CO₂), a greenhouse gas, and climate change. OPG is working to reduce emissions from all aspects of its business in a manner that is consistent with Ontario's regulatory framework. OPG's environmental performance is published in the annual Sustainable Development report found at opg.com.



Maintenance ensures reliability



Station tree planting program

Commitment to the Community

As a large company and a major employer in many Ontario communities like Greater Napanee, OPG and its employees believe we have a responsibility to be good corporate citizens and neighbours. That means operating our electricity generating facilities in a safe, efficient and environmentally responsible manner and giving back to the community. We want to make a positive difference by supporting community projects and events, youth recreation, educational and environmental initiatives. It doesn't stop there. Our employees contribute hundreds of hours of volunteer time to community organizations.



Commitment to the community

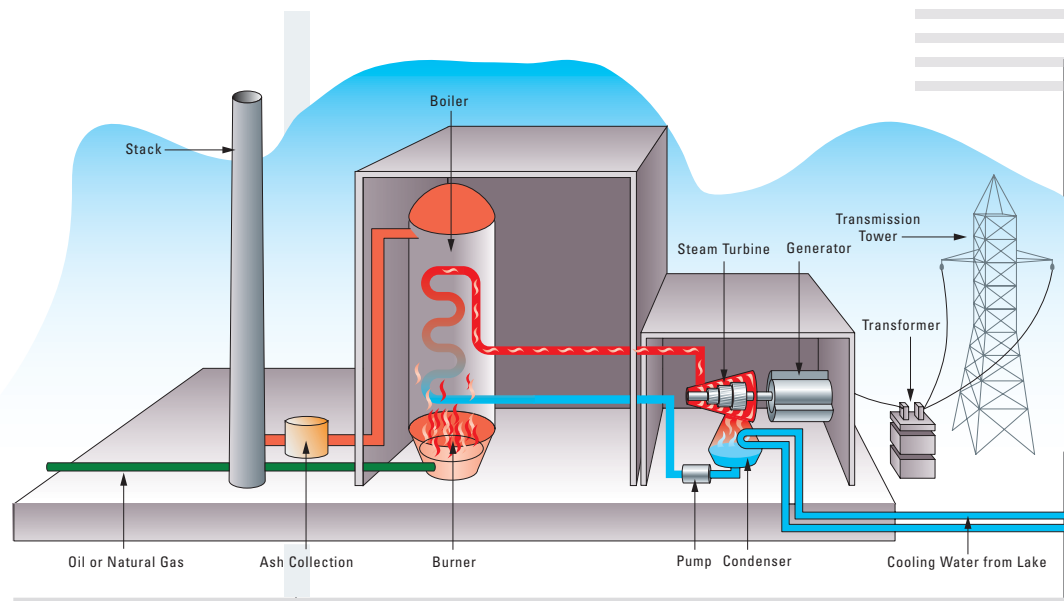


OPG sponsored biodiversity event

Thermal Generation How It Works

At Lennox GS either oil or natural gas is sprayed into a large industrial furnace surrounded by walls of water-filled boiler tubing. When this water turns to steam it moves at high speed to a turbine. There, it pushes the blades of the turbine, which is connected to a shaft or rotor, causing the rotor to spin. The spinning rotor is a large electromagnet that produces rotating magnetic fields.

The fields move across coils of wire in the generator, producing electricity that can be sent across transmission lines to customers. The steam from the turbine is



condensed back into water using cooling water from the lake, and reused in the boiler.

See the "How it Works" video at opg.com.

Safety is our Top Priority

OPG is committed to the safety of our neighbours and employees. Our primary objective is to promote excellence in public and employee safety through a corporate culture of safety across all of our generating stations.

In 2010, OPG became the first employer in Ontario to be awarded the Infrastructure Health and Safety Association's ZeroQuest® Platinum Safety Award, which recognizes excellence in Health and Safety Management.

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Materials used in this report are environmentally friendly. Cover and text stocks are recycled and recyclable, with a minimum of 30% post-consumer waste. Vegetable-based inks have been used throughout.

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