



Atikokan

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.



Atikokan Generating Station

Atikokan Generating Station (GS) is located near the Town of Atikokan in northwestern Ontario. It has one coal-fuelled generating unit that produces up to 211 megawatts (MW) of electricity, using low sulphur lignite coal from Western Canada. In the past decade, annual electricity production has been as high as 1 billion kilowatt-hours (kWh), enough to supply about 83,000 homes for a year. More recently, due to economic downturn, off-coal and emission regulations, Atikokan GS's role has changed to providing reliability during peak demand times and back up electricity generation when other sources are not available. The plant currently employs about 90 people from the Atikokan area. Their skills and experience are essential to safe and reliable operation.

Looking to the future, OPG is moving ahead with planning and approvals for repowering Atikokan GS from coal to wood-fibre biomass in 2013. Ontario's Minister of Energy has directed the Ontario Power Authority (OPA) to negotiate a Power Purchase Agreement with OPG for biomass-generated electricity from Atikokan GS. OPG is evaluating proposals for fuel supply and plant modifications, and working towards a Power Purchase Agreement with the OPA and environmental approvals. Biomass, in the form of wood pellets, is recognized around the world as a renewable source of energy with climate change benefits. OPG's biomass program requires fuels to be from sustainable sources. For more information visit opg.com.

Caring for the Environment



Painted turtles

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

- Atikokan GS uses only low sulphur lignite coal from western Canada to reduce sulphur dioxide emissions to the air, and is working toward repowering the station from coal to biomass to further reduce emissions.
- Special burners reduce smog - causing emissions. More than 99 per cent of small particles are collected before they enter the air.
- Atikokan GS is certified to the internationally recognized ISO 14001 Environmental Management standard, which promotes continuous improvement.
- The Wildlife Habitat Council has certified Atikokan's site biodiversity plan.

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.



Restoration of fish population in local lakes



Biomass pellet



Commitment to the Community

As a large company and a major employer in many Ontario communities like Atikokan, 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.



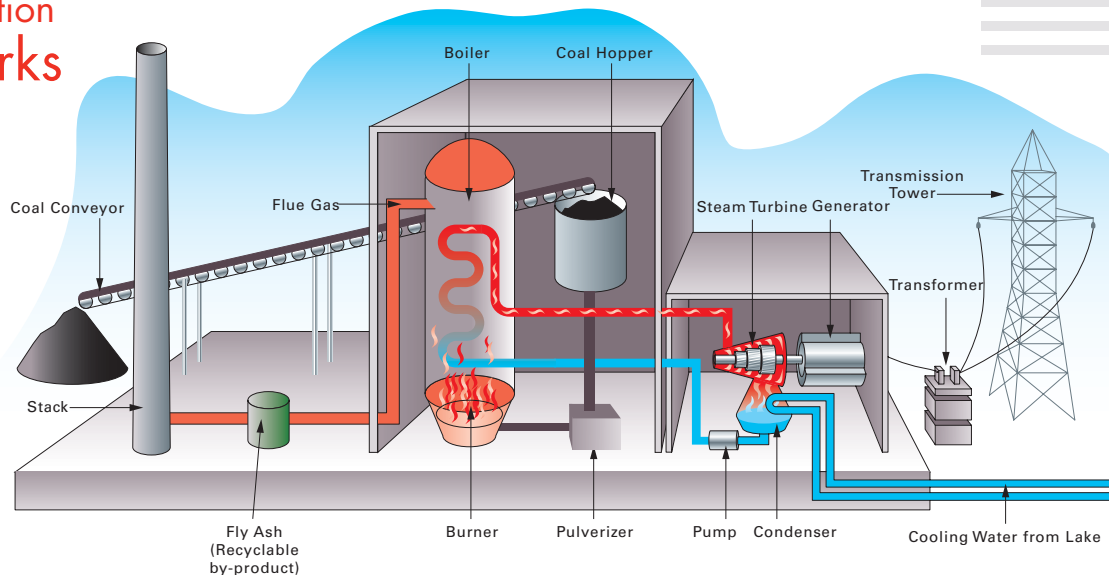
Supporting local community youth activities



Celebrating 25 years with an Open House

Thermal Generation How It Works

In a coal-fuelled station, finely crushed coal is burned in 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. These 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 a lake or river, 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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