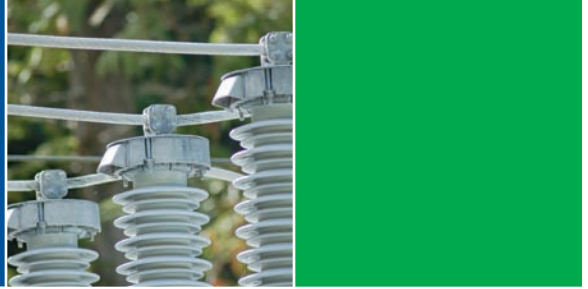


# Ravenswood Generating Station



Ravenswood Generating Station (Ravenswood), located in Queens, NY, is a 2,480 megawatt (MW) power plant that consists of multiple units employing steam turbine, combined cycle and combustion turbine technology.

The plant uses advanced technology and controls to minimize impact on the air and water. To reduce nitrogen oxide (NO<sub>x</sub>) emissions, Units 10, 20 and 30 have all been retrofitted with Close Coupled Over Air Fired systems. Unit 40 controls aimed at reducing the unit's environmental impact include a dry low NO<sub>x</sub> combustion system, selective catalytic reduction and a multi-cell air cooled condenser. The 2004 Combined Cycle Journal Award for Power Plant Efficiency and Environmentally Friendly Design was awarded to Unit 40 in recognition of these environmental controls.

Ravenswood has the capacity to serve approximately 21 per cent of New York City's peak load.

## Facility Highlights

### Configuration:

21 units employing steam turbine, combined cycle and combustion turbine technology:

- Units 10, 20 and 30 Gas/oil-fired boiler
- Unit 40 Dual fuel capable combined cycle unit
- 17 Dual fuel capable combustion turbines

### Location:

Long Island City, Queens, New York, USA

### In-Service Date:

- Unit 10 February 1963
- Unit 20 May 1963
- Unit 30 June 1965
- Unit 40 May 2004

### Capacity:

2,480 MW

### Fuel:

Natural gas, fuel oil and kerosene

### Owner:

TransCanada

### Operator:

TransCanada

### Customers:

New York Independent System Operator and ConEdison of New York

# Ravenswood Generating Station

Units 10 and 20 each have a single controlled circulation, dual furnace, balanced draft, Combustion Engineering boiler and a cross-compound General Electric turbine generator. Each unit is rated at 385 MW.

Two identical controlled circulation, balanced draft, divided furnace boilers by Combustion Engineering and an Allis Chalmers/Westinghouse cross-compound turbine generator produce 981 MW of power in Unit 30.

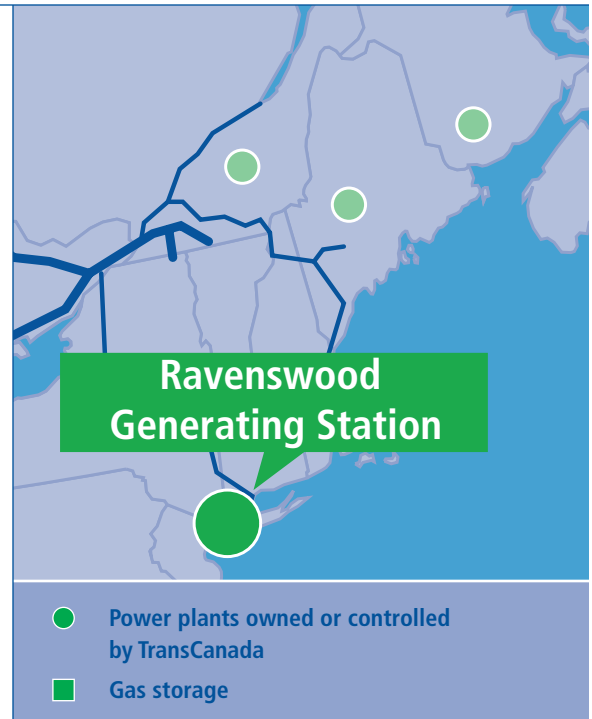
The boilers in Units 10, 20 and 30 are all capable of burning both No. 6

fuel and natural gas, which enables TransCanada to generate electricity with the most economic fuel mix to meet system demands.

Combined cycle technology was added to the Ravenswood station with the installation of Unit 40 in 2004. Unit 40 consists of a General Electric 7FA combustion turbine generator with an ALSTOM steam turbine generator, a Kawasaki heat recovery system generator, and an air-cooled condenser. Unit 40, a 250 MW unit, burns both natural gas and kerosene.

The combined cycle technology used in Unit 40 yields an operating efficiency 50 per cent higher than that of conventional steam technology.

Multiple combustion turbines are utilized in a simple cycle configuration to meet peak system demand.



## For further information on this facility, contact:

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