



## Fact Sheet | Genesee Generating Station Units 3

### Facility Details

**Location:** Alberta, Canada

**Year Commissioned:** 2005

**Owned/Operated:** 100/100

Located west of Edmonton near Warburg, AB, the Genesee Generating Station consists of Units 1, 2 and 3 which provide over 1,300 MW of baseload generation.

The 516 MW Genesee 3 is one of the most advanced, fuel-efficient, and environmentally progressive coal-fired facilities in Canada and one of the lowest variable-cost, baseload generators in Alberta. This unit dispatches a minimum (net) 176 MW of power to the grid. Above that minimum, Capital Power dispatches power to sell on Alberta's wholesale electricity market.

### Quick Facts

- Genesee 3 is Canada's first power generation facility to use supercritical-combustion technology for greater fuel efficiency and lower emissions
- CO<sub>2</sub> emissions are approximately 24% lower than emissions from recently retired coal-fired generators in Alberta
- Environmental performance is enhanced by supercritical combustion and clean air technologies, which achieve greater efficiency and lower CO<sub>2</sub>, NO<sub>x</sub> and SO<sub>2</sub> emissions per MW compared to older technologies
- Genesee 3's clean air technology includes:
  - Fabric filters that stop 99.8% of particulate matter from reaching the atmosphere
  - A flue gas desulphurization unit that brings sulphur dioxide (SO<sub>2</sub>) emissions well below the provincial emission standard, and less than half the emissions produced by vintage facilities
  - Low nitrous oxide (NO<sub>x</sub>) burners that reduce NO<sub>x</sub> emissions by 70%
- We're maximizing the flexibility of the units to utilize both natural gas and coal as fuel, which reduces emissions and increases flexibility to respond to market conditions.

### Fuel Type(s)



Natural Gas



Coal

### Owned Capacity

**516 MW**

### Community Investment and Involvement

At Capital Power, we contribute to the communities in which we operate with the aim of building a sustainable future for all. We engage our neighbours, consider their interests and build real relationships. We aim to source supplies and services locally for our operations, as well as hire from the community. At the Genesee Generating Station:

- We employ more than 200 permanent employees.
- We pay approximately \$5,986,000 in property and linear tax each year, contributing annually to community tax bases, supporting the improvement of infrastructure, roadways, and community services.

We give back where we live and work by supporting local organizations and our employees' community participation through our corporate giving programs.

### Recent community giving:

- Pioneer Agricultural Society Heritage Day
- Community Easter Egg Hunt
- Family and Community Support Services (FCSS) – Volunteer appreciation; Seniors Week; Summer Programs
- Light Up Warburg
- Thorsby Jr / Sr High School Rodeo

"Genesee Generating Station consists of some of Alberta's youngest and most efficient thermal generations units. This reliable facility supports the Alberta energy market with baseload power supply and contributes to the economic well-being of the community it operates in. Work in recent years to improve plant efficiencies have made Genesee a world leader in the application of existing technologies resulting in a reduction of CO<sub>2</sub> emissions by as much as 10%."

**Sean Furey**  
VP, Solid Fuels