

# GENESEE 3 FACT SHEET

**Name:** Genesee 3

**Location:** Warburg, Alberta, Canada

**Fuel source:** Coal

**Year commissioned:** 2005

**Type of facility:** Supercritical coal-fired steam

**Owned capacity:** 258 MW\*

*\*516-MW facility jointly-owned with TransAlta, operated by Capital Power*

**% Owned/Operated:** 50/100

## Genesee 3 (G3)



**Genesee 3 is one of the most advanced, fuel-efficient, and environmentally-progressive coal-fired facilities in Canada.**

- Built and operated by Capital Power and jointly-owned with TransAlta. G3 was built on time, on budget, and with one of the best safety records for construction in the industry.
- 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 generation in Alberta.
- One of the lowest variable-cost, baseload generators in Alberta.
- Enjoys a competitive position in a market with shrinking reserve margins and planned coal-unit retirements.
- Dispatches a minimum (net) 176 megawatts (MW) of power to the grid. Above that minimum, Capital Power and TransAlta each independently dispatch their 50% share of power.

- Capital Power's share of generated power contributes to the company's pool of electricity to sell on Alberta's wholesale electricity market.
- Environmental performance is enhanced by supercritical combustion and clean air technologies, which achieves greater efficiency and lower CO<sub>2</sub>, NO<sub>x</sub> and SO<sub>2</sub> emissions per MW compared to older technologies.
- G3'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%

## Genesee 4 & 5

- Capital Power and ENMAX Corporation have executed a purchase and sale agreement in support of a joint venture to jointly develop, construct, and operate Genesee Generating Station Units 4 & 5. The natural-gas-fired units will be located on a site adjacent to the existing Genesee facility.
- The joint venture will provide provisions for, among other things, an agreement for ENMAX to purchase approximately 225 MW from Capital Power for eight years.



**Rendering of the proposed G4 and G5 natural gas-fired units.**