

Bear Creek cogeneration plant.

Background

Bear Creek is an industrial cogeneration plant situated on International Paper Grande Prairie pulp mill and International Paper saw mill complex. The power plant is configured around a 58 megawatt (MW) natural gas fired turbine. The turbine exhaust passes through a heat recovery steam generator to produce high-pressure and low-pressure superheated steam. The steam combines with steam from International Paper's wood waste fired boiler to power a 32 MW condensing steam turbine generator.

The Bear Creek project imports biomass-derived steam from the pulp mill to augment its power output, enabling International Paper to significantly reduce the amount of wood waste sent to landfill.

TC Energy Ltd. participates in Alberta's competitive electricity market.

Bear Creek cogeneration plant

The cogeneration plant is configured around a single 58 MW natural gas-fired Rolls Royce Trent gas turbine generator equipped with a wet low emissions system. The turbine exhaust passes through a heat recovery steam generator to produce high-pressure and low-pressure superheated steam. This steam combines with steam from International Paper's wood waste-fired boiler to power a 32 MW condensing steam turbine generator. Streams of medium- and low-pressure steam are returned to International Paper for use in the pulping process.

Bear Creek is an industrial cogeneration plant situated on International Paper Grande Prairie pulp mill and Weyerhaeuser saw mill complex.



Facility highlights

Configuration:

1 x 1 combined-cycle cogeneration with steam augmentation from a wood waste boiler.

Location:

International Paper Grande Prairie pulp mill and Weyerhaeuser saw mill complex, 10 km south of Grande Prairie, Alberta.

In-service date:

February 2003.

Capacity:

90 MW electrical and 75 tonnes/hr of steam.

Fuel:

Natural gas and wood waste.

Environmental features:

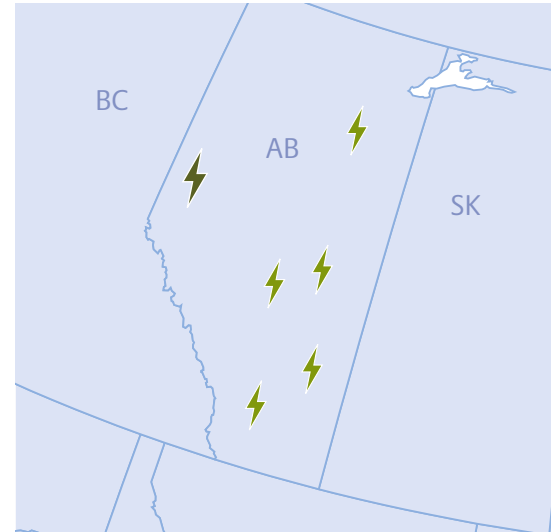
Highly fuel efficient – 60% at design conditions. Uses wood waste, that would otherwise be landfilled, to generate a portion of the electrical output. Wet low NOx combustion technology to minimize air emissions.

Owner:

TC Energy Corporation

Operator:

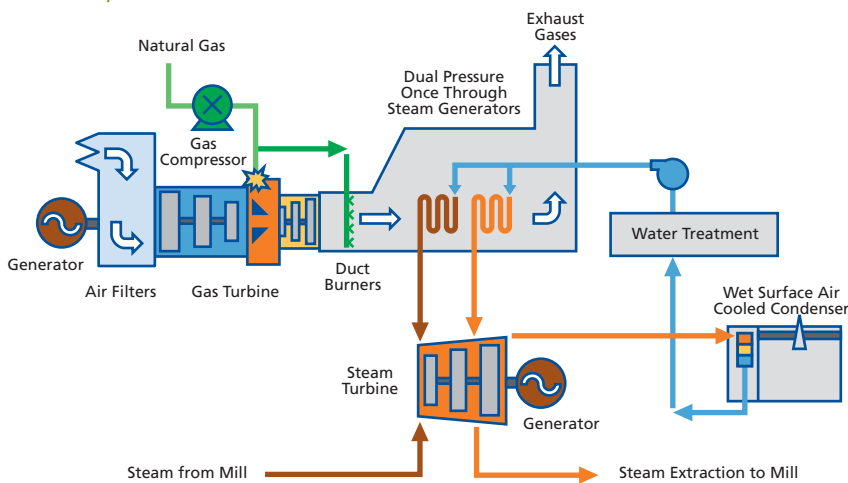
TC Energy Corporation (through contract with International Paper).



Bear Creek cogeneration plant ⚡

Power plants ⚡

Bear creek plant schematic



For further information on this facility:

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