NOVA Chemicals Joffre Site

About the Cogeneration Plant (Cogen)

Jointly owned by ATCO Power (40%), Capital Power (40%) and NOVA Chemicals (20%), Cogen is the largest cogeneration facility in Canada. ATCO Power leads the operation of the facility and, along with Capital Power, markets surplus power to the Power Pool. Cogen also meets substantial steam and electric energy needs of site petrochemical facilities.

Cogeneration is the production of electricity and heat energy (hot water or steam) from a single fuel source. Here at Joffre, the fuel source is natural gas. The natural gas is burned in gas turbines to produce electricity while the waste heat generated is captured and converted into useable forms of energy -- additional electricity and process steam.

Responsible operations – The use of clean-burning natural gas, together with the efficiency of the cogeneration process, results in a highly efficient power plant that produces electricity and steam in an environmentally responsible way. Compared with tradition coal-fired electrical generation, Cogen has about 50% fewer emissions, along with an increase in energy efficiency of more than 50%.

- Initially synchronized to the provincial power grid in March 2000.
- Average output is 416 megawatts.
- Joffre Site facilities use about 128 megawatts, with the remainder available to meet growing provincial needs.
- Increases amount of electricity generated in Alberta by 4%.