



Backgrounder Toronto Hydro and Campbell Company of Canada Combined Heat and Power Project

Campbell Company of Canada has installed a Combined Heat and Power (CHP) project at its production facility in Etobicoke.

What is CHP?

CHP projects are sometimes referred to as “co-generation” projects as they provide an on-site source of energy independent of the electricity grid.

The CHP project at Campbell Canada’s site uses a natural gas turbine to drive a generator, which produces electricity. The hot combustion gas is then delivered to a secondary system which is integral to the CHP plant. Hot exhaust air produced by the turbine is then delivered to a heat recovery steam generator, which uses the heat energy to produce steam at a pressure which is suitable for Campbell Canada’s needs. The power output of the generator is 4.6MW, and the steam – which is used for cooking the manufactured soup product – is generated at a rate of up to 90,000 lb/hour, at 165 psi.

The Campbell Canada facility remains connected to Toronto’s electricity grid and Toronto Hydro will continue to supply a small amount of electricity on a daily basis, as well as full power when necessary. Staying connected to the grid is essential, as it allows Campbell Canada to draw electricity when the CHP turbine is not running; this makes for easy repairs and does not disrupt soup production.

Total Costs

The cost of the CHP project was \$12 million. Making the project attractive was \$5 million in incentives made possible by Toronto Hydro through the [saveONenergy^{OM}](#) program. Factoring in the incentives, the project had a net cost of \$7 million.

CHP requirements

Those customers who might find CHP to be an attractive capital investment opportunity all share the following characteristics:

- They draw power from the electricity grid of at least 500 kW each month
- They have a year-round need for hot water or steam
- They operate their facility for at least 6,000 hours a year

CHP is applicable to the manufacturing, commercial, and institutional business sectors.