



**HYDRO ONE / ENERGY INNOVATORS**

# Combined Heat and Power



## THE HEIGHT OF EFFICIENCY

### Power and heat in one

Combined Heat and Power (CHP) is an on-site integrated energy system that generates both electricity and thermal energy. The heat may be used for space or water heating, or manufacturing processes. In order for CHP to be viable, you must have ongoing requirements for both types of energy.

### **ENERGY-EFFICIENCY IMPROVEMENTS OF 47%**

Generally, a CHP system is about 47%\* more energy efficient than the combination of power from the grid and heat from boilers. This means that less fuel is required to produce the equivalent amount of energy.

### **In addition to energy efficiency, CHP also provides:**

- Reliable power without the need to store fuel such as diesel onsite
- The ability to isolate totally from the grid in the event of major storms or emergencies
- Environmental benefits due to reduced greenhouse gas emissions



Partners in Powerful Communities



## Phases for CHP implementation

From initial consultation to in-service, a CHP system will take approximately two years to bring online.

- 1 Check this calculator to see if there is capacity to connect your facility to a Hydro One station or feeder: [www.HydroOne.com/Generators/Pages/StationCapacityCalculator.aspx](http://www.HydroOne.com/Generators/Pages/StationCapacityCalculator.aspx)
- 2 An initial consultation with Hydro One to determine if your facility is suitable for CHP.
- 3 A Detailed Engineering Study (DES), which will support capital decisions and be required for approval. We can help you secure funding up to \$50,000 for a consultant to conduct this study or you can complete with your own resources. Allow twelve weeks for a DES.
- 4 Based on the DES, we will work with you to complete the necessary agreements and apply for funding to build your plant. Typically, this takes approximately six months.
- 5 Upon approval, you can start construction. This phase takes approximately one year. Incentive payments are paid quarterly, starting 90 days after the build is complete.

## INCENTIVES INCLUDE

# 100%

Up to **\$50,000** for the cost of a Detailed Engineering Study (DES)

# + UP TO 40%

Of the **total project cost** for projects delivering up to 10 MW of electricity

## WHO IS THIS PROGRAM FOR?

Typical installations include:



**Industrial facilities** such as manufacturers and processors of chemicals, paper, food, minerals and metals



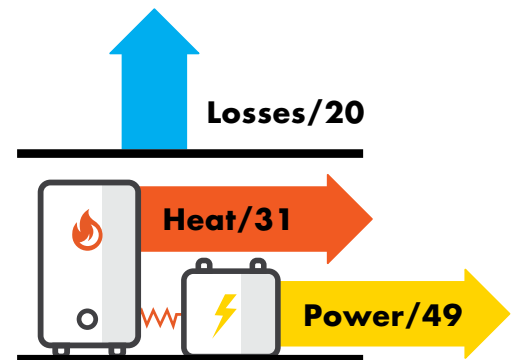
**Commercial buildings** such as hotels, nursing homes, offices and apartment complexes



**Institutions** such as hospitals, schools and universities



**Agricultural buildings** such as greenhouses



By transforming wasted heat into useful energy, a CHP system is up to 80% more efficient than traditional power generation.

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🌐 [www.HydroOne.com/CHP](http://www.HydroOne.com/CHP)

\*Source: <http://www.epa.gov/chp/basic/efficiency.html>. Subject to additional terms and conditions found at [www.HydroOne.com/Business](http://www.HydroOne.com/Business). Subject to change without notice. Save on Energy is powered by the Independent Electricity System Operator and brought to you by Hydro One Networks Inc. <sup>SM</sup>Official Mark of the Independent Electricity System Operator. Used under licence. The Hydro One & Design trade-mark is owned by Hydro One Inc. "Partners in Powerful Communities" is an Official Mark owned by Hydro One Networks Inc.