

Co-Generation— Combined Heat and Power



Is Co-Generation Feasible for You?

Who are good candidates for Co-Generation?

Hospitals, Universities, Nursing Homes, Health Clubs, Hotels and Data Centers are typically good candidates for CHP.

If the responses to the following questions are positive, your facility is a likely candidate for a Co-Generation system.

- Do you use a lot of hot water for laundry, showers, heated pools or industrial processes?
- Does your facility heating system use hot water or steam heat?
- Are you spending more than \$250,000 per year to meet your energy needs?

Why a Co-Generation unit?

Clean, Environmentally Friendly Energy

All co-generation units run on natural gas, which is the cleanest fossil fuel, helping to qualify this equipment as a Green Energy Solution. The quality of power generated at your site is cleaner and more consistent than from utility lines.

More Efficient

Utility companies can lose up to 25% of their energy during the electrical delivery process. Onsite generation eliminates these losses and has proven energy efficiency exceeding 88%.

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Prices of energy from utilities also include the cost of the overhead, capital, losses from generation and transmission and their profits—all costs that an on-site energy solution source avoids.

35%

Savings produced by one on-site CHP system.

Reduces Costs

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What is Co-Generation?

Co-Generation, also known as CHP (Combined Heat and Power), is the on-site production of two kinds of energy—electricity and heat—from a single source of fuel—usually natural gas. Fuel Cells are also a form of CHP. CHP often replaces the traditional need to buy multiple forms of energy including electricity from the power grid and natural gas for your boiler. While the traditional method of purchasing power from the grid is convenient, it is very inefficient. More than two-thirds of the energy in the original fuel is wasted due to heat and transportation losses. Utility customers, of course, pay for those losses in their electric rates—and always have.

On-site CHP systems not only produce energy more efficiently than utility power stations (80% efficient vs. 30%), cogeneration systems capture and use nearly all of the heat that is normally wasted. Depending on the application, the integration of power and heat production into one on-site CHP system can often produce savings up to 35% on total energy expenditures.

Financials

Multiple layers of incentives can meaningfully reduce the out of pocket costs!

- Federal 10% investment tax credit
- Accelerated depreciation
- State utility grants up to 50%
- LRECs (low emission renewable energy credits)

Purchasing options

In addition to cash purchases and equipment finance options, many large power users are acquiring CHP installations via a PPA or Power Purchase Agreement.

What is a Power Purchase Agreement? (No out-of-pocket expenditures, guaranteed savings!)

A Power Purchase Agreement (PPA) is an arrangement in which a third-party developer funds, operates, and maintains the CHP system, and a “host” (customer) agrees to site the system on its property and purchase the system’s energy output at a guaranteed discount.

For more information:

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