



POWER TO PROFIT

IS COMBINED HEAT AND POWER RIGHT FOR YOUR PROPERTY?

Combined heat and power systems offer property owners a way to lower their energy costs, avoid power outages, and demonstrate commitment to the environment. But not all buildings and businesses are a good match for this proven technology. Is yours?

CHP, also called cogeneration, works particularly well in hotels, nursing homes, hospitals, colleges, fitness centers, multi-family complexes, factories and similar facilities because they typically require a continuous supply of hot water. We list the specific criteria that facilities must meet to benefit from CHP, so that you can decide if your property is a good candidate.

DEFINING CHP

As the name implies, combined heat and power systems provide both heat and electricity for your property. CHP systems work by producing electricity with an engine-driven generator, typically fueled with natural gas. The system creates heat as a byproduct, and that heat is captured and used to warm rooms, as well as water used for domestic hot water, laundry, swimming pools, spas, industrial processes, and other purposes.

EFFICIENCY YOU CAN TAKE TO THE BANK

So CHP offers you two forms of energy – heat and power – from one source of fuel. This makes CHP highly efficient, so much so that energy planners categorize these systems as “energy efficiency measures,” much like Energy Star appliances or building insulation. Because CHP is so efficient, it provides a range of benefits. CHP lowers your energy and operating costs and increases the lifespan of existing mechanical plant equipment, such as boilers, since they do not need to run as often.

A PROVEN TECHNOLOGY

A tried-and-true approach, CHP has been around since Thomas Edison’s time. Today, its popularity is on the rise because it offers significant economic and environmental benefits; plus, CHP helps solve many contemporary energy problems, such as rising costs, limited generating capacity, and increased demand for heat and power.





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GOOD FOR THE ENVIRONMENT, GREAT FOR BUSINESS

In addition, CHP “greens” your operation because it reduces harmful emissions and greenhouse gases. A 300-bed nursing home using CHP offsets about 1,200 tons of carbon dioxide each year, the equivalent of removing 250 cars from the road. Going “green” also can increase your property’s value. In fact, the US Green Building Council has found that “green” buildings enjoy a 6.8% to 10.9% property value premium.

Further, using CHP is an act of good corporate citizenship because it decreases everyone’s energy costs. The utility plant that now supplies your property is probably located miles away, but a CHP system would be located onsite. So by installing CHP, you reduce the community’s need to build high-voltage transmission lines, structures which add to electricity rates — and also may disrupt sensitive environmental and scenic rural areas.

And finally, because CHP generates power on your premises, it guarantees your electricity continues to flow even when storms or malfunctions knock out grid power.

THE RIGHT-FIT CHECKLIST

To gain many of these benefits, your CHP system must be sized correctly for your property and you must have a suitable thermal load — which is why it is important to hire a reputable CHP developer. You’ll also want to be sure at least some of the criteria below describe your property. The more characteristics that apply, the better the fit.

- The property has more than 120 beds, rooms or units.
- Natural gas is available on-site or nearby and the property uses a minimum of 4,000 therms per month (especially during the summer months).
- A central boiler plant provides domestic hot water.
- A central plant supplies space heating with hydronic distribution.
- The property has an on-site laundry, food service area, or a heated swimming pool.
- The property has a central electric meter.
- The local utility charges more than 10 cents/kWh.
- The property spends more than \$10,000/month on electricity and \$3,000/month on natural gas.

Exceptions exist, but in the United States, CHP often works well for businesses in the Northeast, California, and Hawaii, where electricity prices are high. The Gulf Coast also represents strong markets for CHP, according to the American Council for an Energy Efficient Economy.





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IS YOUR PROPERTY A GOOD CANDIDATE FOR CHP?

If so, you probably have some questions, before you get started. What will a CHP installation cost? Are there favorable financing terms? Who will maintain and operate the system? Fortunately, an outsourcing approach exists that makes financing and using CHP as easy as purchasing energy from your utility.

WOULD YOU LIKE TO KNOW MORE?

Register now to receive the next installment of our 6-part educational series on CHP: *CHP ownership and financing options*. Or contact us at info@americandg.com or 877-292-2343.

