C&I Energy Savings Program

Combined Heat and Power FAQ

1. What is CHP?

A Combined Heat & Power System (CHP) is an efficient and clean approach to generating electric power and useful thermal energy from a single fuel source. The CHP equipment sequentially produces electricity and useful thermal energy to replace or supplement conventional separate heat and power (SHP) systems such as central station electric via the grid and an onsite boiler or heater.

2. What are some examples of "Useful Thermal Energy"?

These best examples of useful thermal energy are units and facilities that require moderate temperature all-year-round. Some examples are:

- Domestic hot water such as heated swimming pools
- Space heat that is needed for 8 to 12 months
- Processed heat at a manufacturing plant
- Chilled water that is produced in a heat-powered chiller if the chilled water is needed for at least 8 to 12 months.

3. What types of CHP Systems exist?

Type	Generating Capacity (kW)	Likely Capacity (kW)	Packaged
Reciprocating Engine	5 to 3,000	50 to 1,000	Yes
Gas Turbine	500 to 50,000+	500 to 2,000	No
Microturbine	30 to 250	30 to 250	Yes
Boiler & Steam Turbine	200 to 100,000+	500 to 2,000	No
Fuel Cell (5 Subtypes)	5 to 250	200 to 250	Yes

4. What are the characteristics of the most economic CHP projects?

A constant or nearly constant electric and thermal load at a moderate temperature.

- Facilities that would benefit with a CHP project are:
- Hospitals
- Nursing Homes
- Multi-family with common domestic hot water (DHW) system
- Fitness Centers
- 3-shift Industrial plants

5. Why are Pepco and Delmarva Power offering the CHP program?

To help achieve the 2015 EmPOWER Maryland energy savings goals. Pepco and Delmarva recognizes that CHP can have excellent potential for electricity savings**.**

6. What are the Key Program Rules?

- The host facility must be energy efficient
- The CHP system must be at least 65% efficient
- All electricity must be used by the Host Facility
- 5-year warranty is required
- The facility must satisfy all utility safety, environmental, and regulatory requirements

7. Can I submit an application for an Energy Study that examines the feasibility of a CHP installation?

Yes, but the study must be comprehensive, identifying and analyzing all electricity-saving measures, and not be limited to only CHP. It must also examine alternative CHP technologies.

8. How is the criterion for host facility electricity efficiency quantified?

Pepco and Delmarva Power will require all measures with a payback period of less than three years be implemented.

9. Is there a "Buy American" requirement to purchase system(s) or equipment?

No, there is no requirement to "Buy American" equipment.

10. I have a number of multi-family buildings. To help me recover the cost of a CHP system that I install, can I charge my tenants for their share of the electricity and thermal energy the system produces?

PHI believes this question is outside of the scope of the Pepco and Delmarva Power Combined Heat & Power program's terms and conditions. Since this question could have legal implications, we suggest that your legal representatives consult the Code of Maryland regulations and the Public Utilities Code.

11. What if we have a conversation after 10/15 with an owner who would like to apply and don't submit an Intent to Apply by the deadline, are we still able to submit for a grant?

Yes, you may apply up to and including January 21, 2013 for Pepco and January 24, 2013 for Delmarva Power regardless if you have provided PHI with an "Intent to Apply" form. The 10/15/12 date is not a final deadline. PHI is attempting to gauge the number of potential customers and projects that are expressing interest. We encourage customers and developers to provide us early feedback via the Intent to Apply form on projects that are "in the works." For example, if we receive information on more projects than the present program budget will support we would present that information to the Maryland PSC staff for discussion on extending program funding.