



Technical Assistance for Potential CHP Projects

U.S. DOE CHP Technical Assistance Partnerships

The U.S. DOE Midwest CHP Technical Assistance Partnership assists regional businesses and communities reduce their energy costs, improve efficiency, and strengthen their energy resiliency and reliability through the use of combined heat and power (CHP). The U.S. DOE Midwest CHP Technical Assistance Partnership (CHP TAP) is one of seven regional CHP TAPs formed by the U.S. Department of Energy to promote and assist in transforming the market for CHP throughout the United States.

We provide unbiased, fuel-neutral and technology-neutral resources and expertise to help industrial, commercial, federal, institutional, and other large energy users consider and evaluate CHP for their facilities. The Midwest CHP TAP assists facilities through the project development process, from initial CHP screening to project installation.

Take the First Step: CHP Screening / Site Qualification

CHP can provide enormous benefits to large energy users, utilities, communities, and other stakeholders, but it is not the right fit for every application.

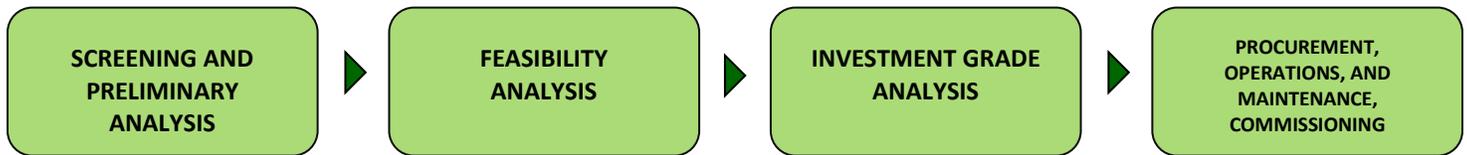
CHP experts at the U.S. DOE Midwest CHP TAP can help you determine if CHP is worth a closer look for your facility, both technically and financially. The first step is talking through a series of screening questions (shown to the right), combined with a first-cut qualification assessment of the economic and technical viability of CHP at your site, using basic site information. We help you evaluate if energy costs, thermal loads, site operating hours, and other key site characteristics show potential for a good, cost-effective CHP project. If the screening and site qualification suggest favorable CHP potential, we recommend continuing with a more detailed feasibility analysis.

Screening Questions

If you can answer "yes" to three or more of the following questions, your facility may be a good candidate for CHP! The U.S. DOE Midwest CHP Technical Assistance Partnership offers technical assistance to evaluate your site for CHP feasibility.

- Do you pay more than \$.06/kWh on average for electricity (including generation, transmission and distribution)?
- Are you concerned about the impact of current or future energy costs on your business?
- Are you concerned about power reliability? Is there a substantial financial impact to your business if the power goes out for 1 hour? For 5 minutes?
- Does your facility operate for more than 3,000 hours per year?
- Do you have thermal loads throughout the year (including steam, hot water, chilled water, hot air, etc.)?
- Does your facility have an existing central plant?
- Do you expect to replace, upgrade, or retrofit central plant equipment within the next 3-5 years?
- Do you anticipate a facility expansion or new construction project within the next 3-5 years?
- Have you already implemented energy efficiency measures and still have high energy costs?
- Are you interested in reducing your facility's impact on the environment?
- Do you have access to on-site or nearby biomass or waste heat resources (i.e. landfill gas, farm manure, food processing waste, excess industrial heat, etc.)?

CHP TAP Project Development Process



The Next Step: Feasibility Analysis

When the results of the screening show that CHP could be both cost-effective and technically viable, the next step is a Feasibility Analysis using more detailed site-specific information. The Midwest CHP TAP can assist you with this level of feasibility analysis.

This analysis is based on utility bills from the previous year, information on daily and seasonal electric and thermal load profiles, and insights into site-specific issues such as expansion plans or power reliability problems that may factor into CHP system selection or sizing. Different CHP technology or system options may be evaluated with budgetary pricing and economic analysis developed for each option. The results of the analysis:

- Provide a sense of the estimated economic, operational, reliability, energy security, and other benefits that CHP might offer your facility
- Help determine if investing in CHP can meet your facility's long-term goals
- Give you the necessary information to decide on investing funds in an investment grade audit and system design
- Help you understand the energy savings and emissions reductions from a potential project, and
- Help you understand other state or local energy policies which may affect the project.

More Advanced Technical Assistance

In addition to assisting with initial discussions, screenings, and feasibility analyses, the U.S. DOE Midwest CHP Technical Assistance Partnership offers additional technical assistance to help CHP projects in our region succeed, including:

- Expert Technical Advice providing unbiased information and solutions from the initial screening to project installation.
- Customized Presentations tailored to targeted end-users and/or upper management for understanding the opportunities, barriers, and benefits of CHP.
- Analyzing an Organization's Fleet of Facilities to provide a strategic course of evaluating and analyzing CHP opportunities pertaining to an organization's overall energy, environmental, and sustainability goals.
- Unbiased, Technical, Third-Party Reviews of vendor proposals and engineering-grade analyses.
- Understanding Current Regulations and Policies impacting CHP development at federal, regional and state levels.
- Identifying Financing, Grant, and Incentive Opportunities that promote the implementation of CHP.
- Development of Request for Proposals for CHP projects advancing to next stages of project development.
- Updates on New Technology or Operational Advancements that could affect project economics.

Get In Touch with Us to Get Started

**U.S. DOE MIDWEST CHP
TECHNICAL ASSISTANCE PARTNERSHIP**
Cliff Haefke, Director
312-355-3476, chaefk1@uic.edu
www.MidwestCHPTAP.org

**U.S. DEPARTMENT OF ENERGY
ADVANCED MANUFACTURING OFFICE**
Tarla T. Toomer, Ph.D., CHP Deployment Program Mgr.
202-586-7989, Tarla.Toomer@ee.doe.gov
www.energy.gov/chp