U.S. DOE launches seven new CHP Technical Assistance Partnerships

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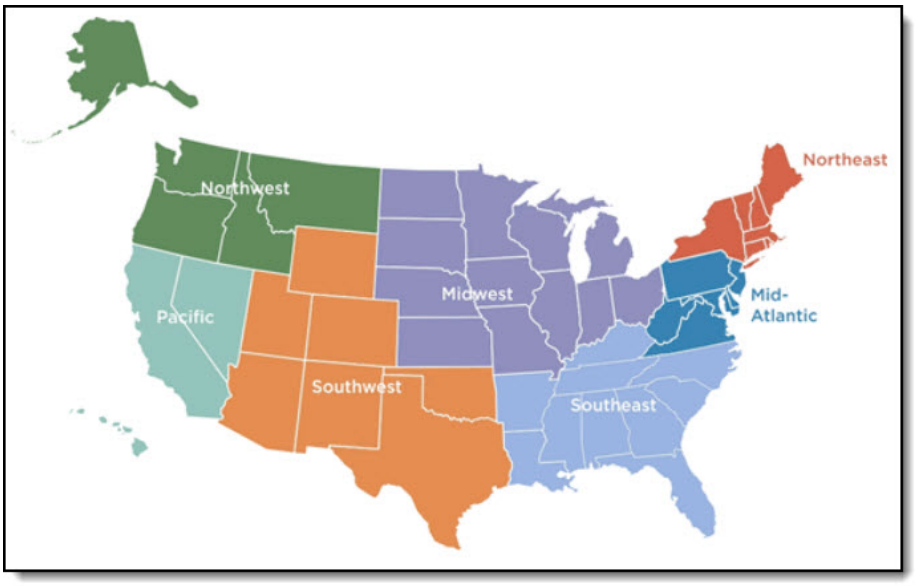
Underscoring President Obama's Climate Action Plan to cut harmful emissions and double energy efficiency, the U.S. Department of Energy (DOE) has announced that it is taking action to develop the next generation of combined heat and power (CHP) technology and help local communities and businesses make cost-effective investments that save money and energy.As part of this effort, the DOE has launched seven new regional Combined Heat and Power Technical Assistance Partnerships (TAPs) across the country to help strengthen U.S. manufacturing competitiveness, lower energy consumption and reduce harmful emissions.



DOE's regional CHP Technical Assistance Partnerships (CHP TAPs), formerly called the Clean Energy Application Centers (CEACs), promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies and concepts throughout the U.S. For example, the TAPs are offering technical assistance to the more than 550 major source facilities impacted by the Boiler MACT regulation. Click on the illustration to access more information about ongoing TAPs programs and projects.

Last year, President Obama established a new national goal of 40 gigawatts of new CHP capacity by 2020 – a 50 percent increase from today. Meeting this goal would help American manufacturers and companies save as much as $100 billion in energy costs over the next decade and reduce emissions equivalent to taking 25 million cars off the road. View this Energy Department infographic *"Top 10 Things You Didn't Know About Combined Heat and Power"*, which explains how CHP technology works and its environmental and economic benefits.

Six New CHP Technical Assistance Partnerships

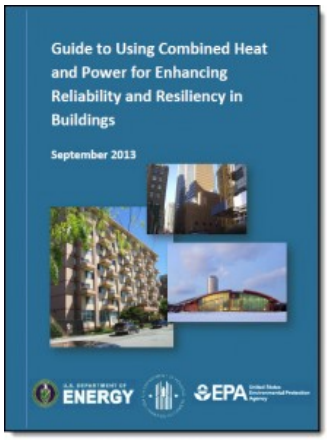
Since 2003, the Energy Department has supported a set of regional centers to help organizations understand how CHP can improve their bottom lines and lower energy bills. Between 2009 and 2012, the partnerships have provided technical support to more than 440 CHP projects — helping U.S. manufacturers, businesses, hospitals and universities understand how CHP can improve their bottom lines, lower energy bills, enhance energy

resilience and help protect our air and water.

Today, the Department is launching seven regional CHP Technical Assistance Partnerships – the next generation of these centers – to help further grow America's CHP market for commercial, institutional and industrial businesses, state agencies, utilities and trade associations. Located in California, Colorado, Illinois, New York, North Carolina, Pennsylvania and Washington state, these organizations will offer best practices for CHP project financing, management and state policies, market analysis tools and resources, and technical site evaluations.

Strengthening Infrastructure Reliability and Resilience

Combined heat and power technologies can also help make our nation's infrastructure smarter, stronger and better equipped to maintain power against increasingly severe weather events. During and after Hurricane Sandy, CHP helped hospitals, fire stations and multifamily housing in New York and New Jersey continue their operations when the electric grid went down.



DOE/HUD/EPA joint publication "Guide to Using Combined Heat and Power for Enhancing Reliability and Resiliency in Buildings." (Click illustration to download.)

The Energy Department, the Department of Housing and Urban Development and the Environmental Protection Agency recently issued a guide to help state and local officials determine if CHP is a good option for Sandy rebuilding efforts *(see illustration to the left)*. The guide includes practical information on financial, site and technical decision-making as well as how to operate and maintain these systems.

The Energy Department is also helping critical facilities across the country invest in CHP – providing affordable, reliable power and heat and ensuring that life-saving operations keep running. For example, in 2010, Thermal Energy Corporation (TECO) installed a new high-efficiency 48 megawatt CHP system to power and heat the University of Texas MD Anderson Cancer Center, Texas Children's Hospital and 16 other institutions at the Texas Medical Center. TECO is a member of the International District Energy Association (IDEA). The Energy Department invested about $10 million in this project, matched by $62 million in private funding.

In another example, last year the Midwest Clean Energy Application Center helped Gundersen Health system complete installation of a CHP system at its medical campus in Onalaska, Wisconsin. The new system is completely offsetting its electricity and steam needs and saving about $100,000 each year.

Developing Innovative CHP Technologies

In addition to technical assistance efforts, the Energy Department is supporting research, development and demonstration projects to help grow the CHP market, including finding CHP solutions that fit small- and medium-sized facilities and accelerating new product commercialization.

Industries with high and continuous demand for both electrical and thermal energy – such as food processing, paper manufacturing and metals production – are well suited for CHP installations but often face market and

technical barriers to deployment. With that in mind, the Department is supporting demonstration projects to test how these systems impact plants' operations and energy use and help identify financing and maintenance best practices. For instance, the Department partnered with Frito-Lay to install and test a CHP system at its Killingly, Conn.-based food processing facility. In addition to providing reliable, efficient power, the gas-fired system reuses excess heat to warm Frito-Lay's chip fryer oil – cutting costs and reduce harmful air pollution.

The Department is also supporting new CHP technologies that are cleaner, more efficient and can use a variety of fuel sources. The Gas Technology Institute is developing a new CHP burner technology that cuts greenhouse gas emissions while improving overall system efficiency. Capstone Turbine Corporation is designing a combined 65 kilowatt CHP system and biomass gasifier that can use stalks, grass and other material to generate gas and power a turbine. Capstone is also developing a 370 kilowatt CHP system that can save about 44 percent more energy over a traditional system while reducing carbon dioxide emissions by 60 percent and nitrogen oxide emissions by 95 percent.

Additional information:

- U.S. Dept. of Energy turns up the heat and power on industrial energy efficiency
- The Energy Department's broader efforts to boost combined heat and power technology
- **Contact:**(202) 586-4940

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About districtenergy
IDEA is a nonprofit association founded in 1909. Membership includes district energy and CHP system managers, engineers, consultants and equipment suppliers from 25 countries.
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