Better Buildings®
U.S. DEPARTMENT OF ENERGY

Fact Sheet

COMBINED HEAT AND POWER FOR RESILENCY ACCELERATOR

The Better Buildings Initiative is a national leadership initiative calling on state and local officials, corporate chief executive officers, university presidents, utilities, and other leaders to make commitments to improve the energy efficiency of their buildings and plants, save money, and increase competitiveness. The U.S. Department of Energy (DOE) is expanding this Initiative to engage leaders in a set of Better Buildings Accelerators designed to demonstrate specific innovative approaches, which, upon successful demonstration, will accelerate investment in energy efficiency.

Natural and man-made disasters, like Superstorm Sandy or Hurricane Katrina, focus attention on securing critical infrastructure (CI) for national or regional security, economic continuity, and/or public health and safety. Virtually every community in the U.S. has facilities that fall within the definition of critical infrastructure, needing uninterrupted electricity and heating or cooling services. States and municipalities spend considerable time planning for and reinforcing their critical facilities and seeking resources to install the best economic solution; however, a key technology solution – combined heat and power – is often overlooked.

Combined heat and power (CHP) has proven effective in ensuring uninterrupted electric service through multiple major disasters in hospitals, schools, and places of refuge. CHP systems simultaneously generate electricity and produce thermal energy, maintaining needed power, hot water and space conditioning services on—site at high efficiency. And, unlike diesel back-up generators, CHP typically does not require over-land fuel deliveries. The US Department of Energy is launching the **Combined Heat and Power for Resiliency Accelerator** to support and expand the consideration of CHP solutions by states, communities and utilities for their critical infrastructure needs. As a collaborative effort with states, communities, utilities, and other stakeholders, the Accelerator will examine the perceptions of CHP among resiliency planners, identify gaps in current technologies or information relative to resilience needs, and develop plans for communities to capitalize on CHP's strengths as a reliable, high efficiency, lower emissions electricity and heating source for critical infrastructure.

More specifically, the **Combined Heat and Power for Resiliency Accelerator** partners will work to:

- **Establish** a dialogue on the current and/or planned usage of CHP in resiliency planning for critical infrastructure (CI), the value propositions for using CHP in CI, and any barriers for CHP in CI at the state, community, and utility levels.
- **Expand** existing or new resiliency plans to include CHP as a solution, including:
  - Identify any technical, policy or economic barriers impending CHP installations in CI.
  - Promote the merits of CHP and, in particular, CHP's value proposition in resiliency planning.
  - Identify and assess the appropriateness of CHP for critical facilities in their jurisdiction.
  - Establish solutions to overcome barriers and increase CHP usage in their community.
- **Share** resiliency action plans that include CHP as a solution option with other communities.
- **Document** replicable models for using CHP as a resiliency strategy based on the experience of partners.
- **Create** a decision support tool for assessing and prioritizing the appropriateness of CHP for critical infrastructure facilities within a jurisdiction.
- **Publish** a toolkit to support communities in utilizing CHP as a resiliency solution in critical infrastructure.

CHP & Resiliency in Critical Facilities

Critical infrastructure resiliency is the ability to maintain operations in hospitals, water and wastewater treatment facilities, 911-call/data centers, places of refuge, etc. during natural or man-made disasters. CHP is an efficient and clean approach to generating on-site electric power and useful thermal energy from a single fuel source. Therefore, independent of the resiliency value, CHP can efficiently generate clean, local energy, while also reducing carbon and other air emissions. Either when planning for the worst or planning one's energy future, CHP is a clean energy solution.

Benefits to Accelerator Partners:

- **Exchange** lessons learned with other leading Partners on critical infrastructure planning and the technologies, policies and solutions in place and available.
- **Be leaders** in resiliency planning, introducing CHP solutions to local critical infrastructure with support from DOE in assessing strategies to overcome local barriers.
- **Bring** developed tools and resources back to the community that will lead to increased resiliency while also maximizing economic and environmental benefits.
- **Receive national recognition** for leadership, innovation, and commitment to CHP and resiliency.

The U.S. Department of Energy Agrees To:

- **Convene** and facilitate Partners to work collaboratively to accomplish the goals of the Accelerator.
- **Create** networking opportunities to help Accelerator Partners share innovative approaches among peers.
- **Provide** CHP technology and policy expertise, including providing economic and technical screenings of Partner facilities.
- **Create** a forum for the collection of best practices, tools and technology templates to facilitate support for developing robust resiliency plans that include CHP.
- **Provide** support to Partners as they develop resiliency plans incorporating CHP.
- **Develop** decision support tools and other toolkit materials to enable replication of partner-identified best practices elsewhere across the country.

Accelerator Partner Agrees To:

- **Appoint** a lead to coordinate the Partner's involvement in the Accelerator.
- **Convene or actively participate** in a local dialogue around the value proposition for CHP in resiliency planning.
- **Identify** barriers in your community to including CHP in resiliency planning for critical infrastructure (within 6 months, take action to help overcome at least one barrier; within 18 months, implement solutions).
- **Develop** a community resiliency action that incorporates CHP in resiliency planning for critical infrastructure and identifies specific facilities where CHP can provide a solution.
- **Share** processes and procedures utilized to support replication in other communities.

Interested in participating? Contact CHP@ee.doe.gov to learn more about this transformative Initiative.