



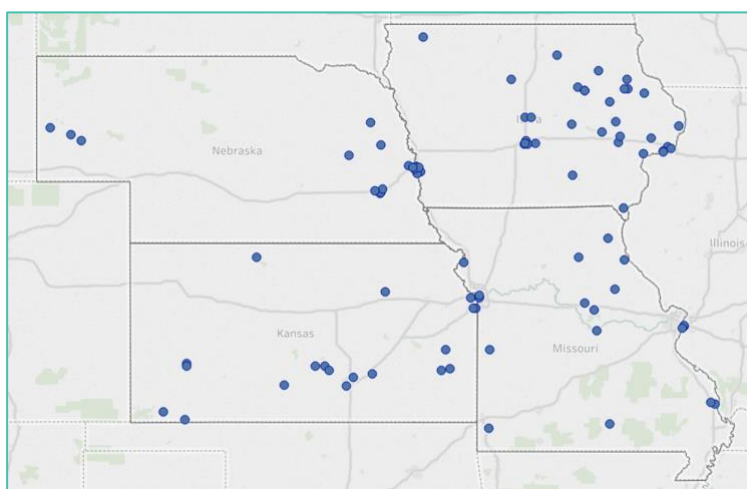
Combined Heat and Power (CHP) Snapshots – Missouri

Central CHP Technical Assistance Partnership (TAP) Quick Facts

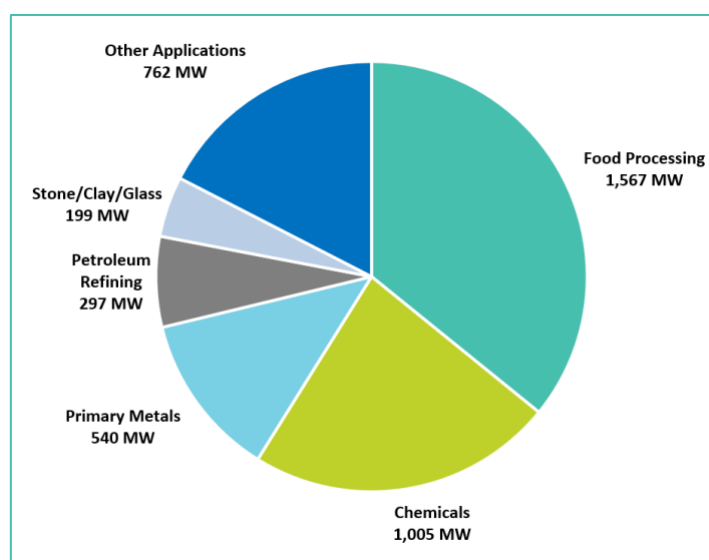
- The Central CHP TAP works with regional partners to promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies throughout the central region of the U.S.
- The Central CHP TAP serves the four central states of Iowa, Kansas, **Missouri**, and Nebraska.

State	Number of Current Sites	Total CHP Capacity (MW) Deployment	Number of Potential Sites	Total CHP Technical Potential (MW)	CHP TAP Activities (2014-2017)		
					Technical Assistance	End-User Education	Policymaker Education
Iowa	35	766	3,723	1,993	13	17	11
Kansas	20	189	3,158	1,909	7	5	0
Missouri	21	279	6,384	3,290	73	13	16
Nebraska	15	106	2,067	984	1	4	0
Total	91	1,340	15,332	8,176	94	39	27

Central CHP Installations



CHP Technical Potential by Industrial Sector





Central CHP Project Snapshots

- ◆ **East Kansas Agri-Energy (Garnett, KS)** – East Kansas Agri-Energy (EKAE) installed a 1.6 MW steam turbine in 2005, becoming the first ethanol plant in the U.S. to incorporate a combined heat and power steam turbine to generate electricity as part of its daily operations. The turbine produces one-third of the plant's required electricity, and the steam is utilized in the distillation process and in the evaporators of the plant. Since its completion, the project has saved EKAE approximately \$180,000 per year in electrical costs.
- ◆ **Sievers Family Farms (Stockton, IA)** – As a family owned cattle farm looking to expand production while limiting its carbon footprint, Sievers Family Farms implemented a 1 MW combined heat and power system in 2013. The system runs on the methane produced from the anaerobic digestion of biogas (cow manure and other substrates), and supplies enough electricity to power the entire feedlot. The project was awarded Biogas Project of the Year by American Biogas Council in 2014.

Testimonials from CHP TAP Beneficiaries in the Central Region

“The information and technical assistance [the Central CHP TAP] has provided is a unique resource that is not available from any other organization or source working in Iowa and we have deeply appreciated and valued [the TAP's] work.”

*Ralph Rosenberg, Executive Director
Iowa Environmental Council
Des Moines, IA*

“[The Central CHP TAP] has assisted us in examining regulatory policies that can encourage CHP, provided information on incorporating CHP into energy efficiency programs, conducted screenings of CHP for several public and private entities in the state, and participated in a major conference for Missouri hospitals. At our request, and in conjunction with a stipulated agreement with Liberty Utilities/Empire District, we anticipate that the TAP will complete CHP screenings for customers of the newly merged gas companies. [The TAP's] efforts also support us in our participation in the U.S. DOE CHP for Resiliency Accelerator program.”

*Kristy Manning, Director, Division of Energy
Missouri Department of Economic Development
Jefferson City, MO*

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¹ U.S. DOE, December 2016, “Combined Heat and Power Installation Database” (<https://doe.icfwebservices.com/chpdb/>).

² U.S. DOE, March 2016, “Combined Heat and Power (CHP) Technical Potential in the United States” (<https://energy.gov/eere/amo/downloads/new-release-us-doe-analysis-combined-heat-and-power-chp-technical-potential>).