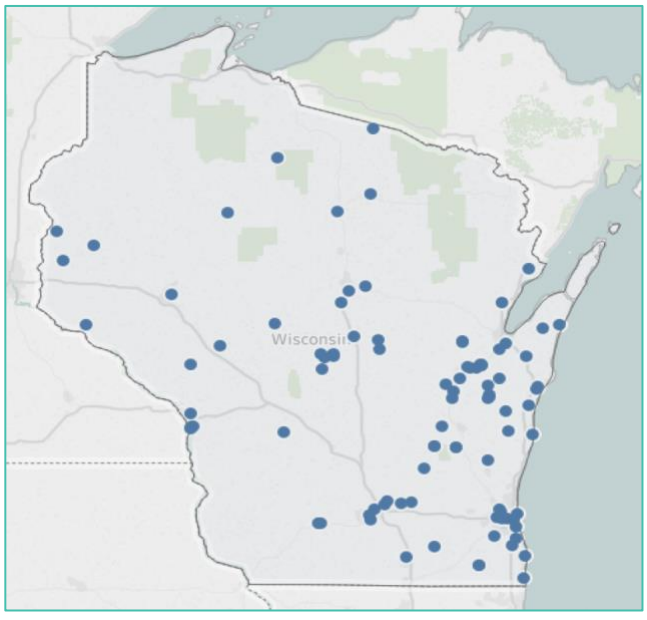
Combined Heat and Power (CHP) Snapshots – Wisconsin

Midwest CHP Technical Assistance Partnership (TAP) Quick Facts

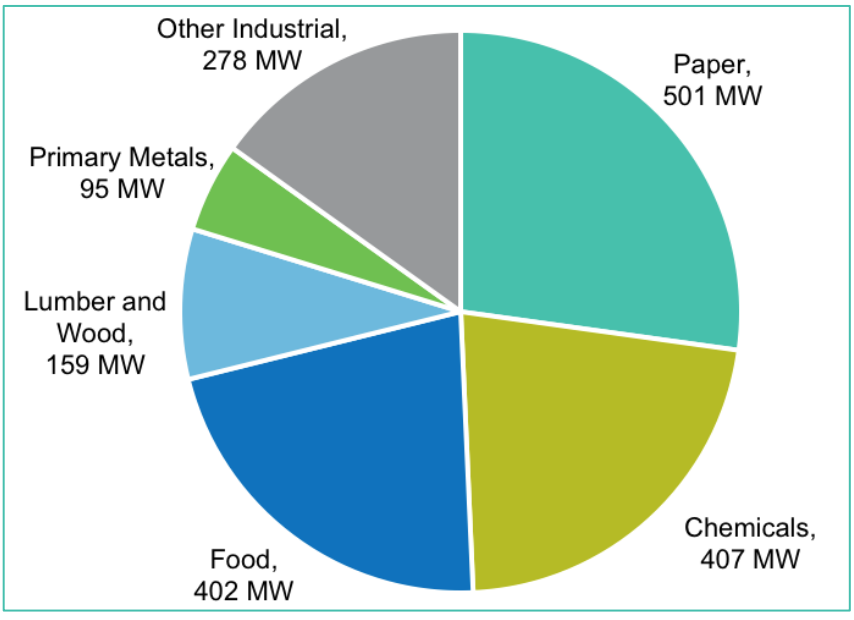
- The Midwest CHP TAP works with regional partners to promote and assist in transforming the market for CHP, waste heat to power, and district energy technologies throughout the midwestern region of the U.S.
- The Midwest CHP TAP serves the states of Illinois, Indiana, Michigan, Minnesota, Ohio, and **Wisconsin**.

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
Illinois	125	1,232	13,717	7,464	73	55	23
Indiana	37	2,457	7,273	4,610	13	14	7
Michigan	87	3,382	10,370	4,987	19	16	9
Minnesota	56	1,003	6,326	4,310	30	18	17
Ohio	65	532	13,194	7,288	31	20	13
Wisconsin	**98**	**1,619**	**7,008**	**3,474**	**9**	**7**	**2**
Total	468	10,225	57,888	32,133	175	130	71

Wisconsin CHP Installations



CHP Technical Potential by Industrial Sector



Wisconsin CHP Project Snapshots

- **Crave Brothers Farm (Waterloo, WI) –** In 2009, the Crave Brothers Farm installed an upgraded 633 kW CHP system, operating on anaerobic digester gas from cow manure. The electricity generated from the system is sold to a local utility (WE Energies) and the recovered heat is used to maintain the temperature of the facility, in addition to providing the heat and hot water needs for the farm. The CHP plant saves the farm $250,000-$300,000 each year in energy costs.
- **SC Johnson Waxdale Plant (Racine, WI) –** SC Johnson uses two 3.2-MW CHP gas turbines. One runs on natural gas and the other on landfill gas generated by a nearby landfill site. The combined 6.4-MW system provides the base load of electricity for the 2.2-million sqft manufacturing facility (equivalent to the annual energy use of 3,200 homes), and up to 40,000 lbs/hr of steam for the plant processes. The CHP system operates year-round, achieving overall electrical and thermal efficiency of greater than 70%.

Testimonials from CHP TAP Beneficiaries in Wisconsin

"Between 2008 and 2014, Gundersen Health System implemented a number of energy efficiency and renewable energy projects to reach our Energy Independence Goal, including a 1.1-MW landfill-gas-fueled CHP system at our Onalaska Campus in 2012 and a 500 kW biomass fired boiler backpressure gas turbine CHP system at our La Crosse Campus in 2013.... [The Midwest CHP TAP] staff's knowledge and expertise in the technical and policy areas of CHP in the Midwest through [the TAP] Center's management of the Midwest CHP TAP has been an important source of information for our organization."

Corey Zarecki, Director of Engineering and Operations
Envision, Gundersen Health System
La Crosse, WI

"Our businesses in Wisconsin have utilized [the Midwest CHP TAP's] services and benefited from [the TAP] staff's expertise and knowledge in the technical area of CHP through [the TAP] Center's management of the Midwest TAP. [The TAP's] staff have been instrumental in helping educate Wisconsin stakeholders and customers about the benefits of CHP."

Maria Redmond, Director of Wisconsin Office of Energy Innovation
Public Service Commission of Wisconsin
Madison, WI

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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).