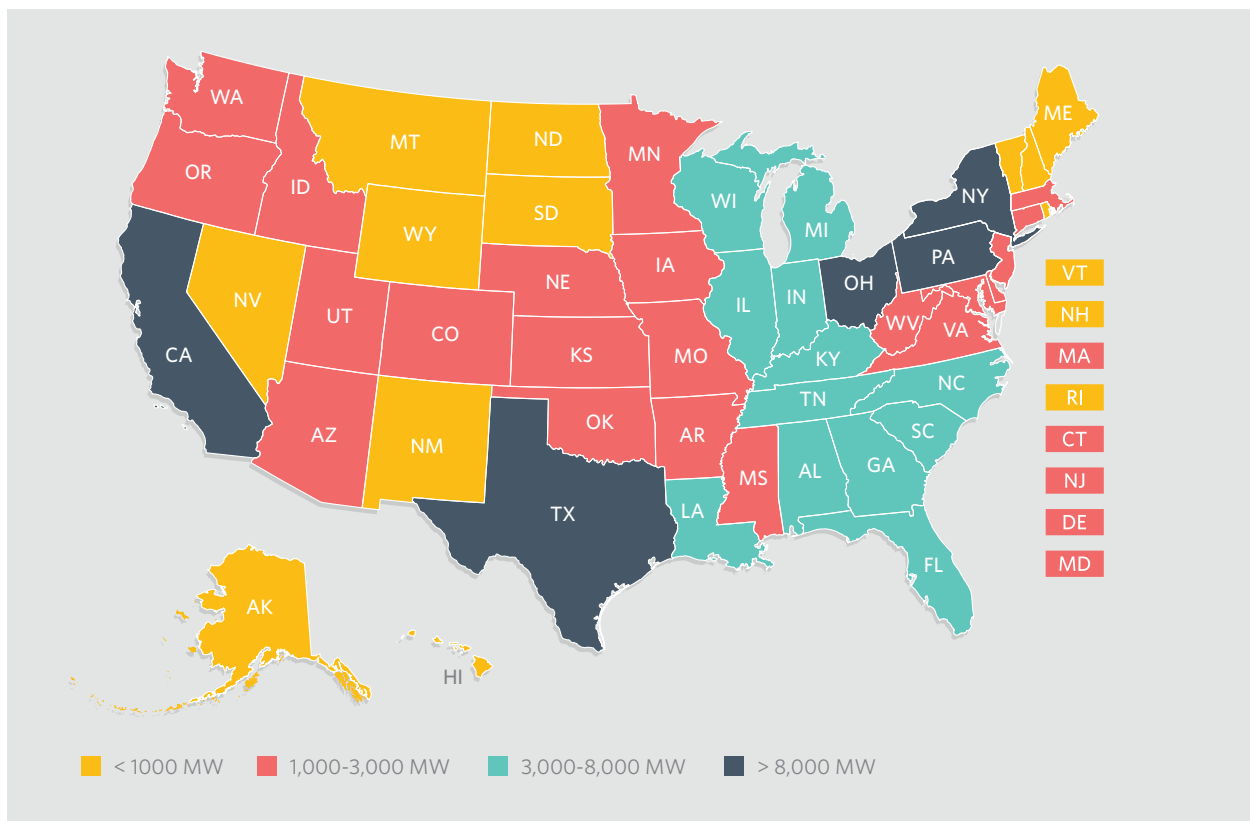


# Industrial Energy Efficiency in Indiana

## Overview

Combined heat and power, or CHP, technologies provide reliable electricity, mechanical power, or thermal energy by capturing heat that is wasted during electricity generation. District energy takes heat from a CHP system to heat or cool entire complexes such as a university campus, office park, or downtown area. More recently, a process called waste heat to power, or WHP, has been used to capture heat released during industrial processes that convert raw materials into products. These on-site technologies allow businesses to achieve energy efficiencies of up to 80 percent. Technologies such as CHP and WHP represent tremendous potential to reduce energy consumption in Indiana’s industrial sector, saving manufacturers money and creating energy businesses and jobs.

## CHP Technical Potential



Source: U.S. Department of Energy

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## State and regional statistics

Indiana has 38 CHP sites across the state with a total generating capacity of 2.27 megawatts.

Source: U.S. Department of Energy

Indiana's strong manufacturing sector accounts for 30 percent of the total gross state product and employs over 17.3 percent of the nonfarm workforce. Manufacturing produces 98.5 percent of the state's exports.

Source: National Association of Manufacturers

Indiana was ranked fourth in the nation in industrial energy use in 2012. The industrial sector uses 46.8 percent of the total energy consumed statewide.

Sources: U.S. Energy Information Administration State Energy Data System Rankings and U.S. Energy Information Administration Indiana Profile

Still, Indiana can do more to take full advantage of this potential. The state has added only 10 CHP sites since 2005.

Source: U.S. Department of Energy

## State policies support industrial energy efficiency

In December 2009, Indiana established an energy efficiency resource standard (EERS). The Indiana Utility Regulatory Commission (IURC) set a goal of a 2 percent reduction in utility electricity sales by 2019, with yearly targets starting in 2010 at 0.3 percent and increasing each year by 0.2 percentage points. In 2010, utilities were required to submit three-year plans to the IURC on their progress and procedures to reach the yearly goals. CHP is an eligible technology under Indiana's EERS.

Source: Database of State Incentives for Renewables & Efficiency

In May 2011, Indiana established a clean energy portfolio standard through Senate Bill 251. The rule sets a voluntary goal for utilities of 10 percent clean energy by 2025, based on the level of energy that utilities supplied in 2010.

Source: Database of State Incentives for Renewables & Efficiency

The Midwestern Governors Association in 2009 set a goal of doubling the installed CHP capacity in the Midwest by 2030 through a group it convened, the Energy Efficiency Advisory Group. The governors association embraced this recommendation because of its economic importance, stating that industrial energy efficiency would "make Midwestern manufacturing increasingly efficient and competitive."

Sources: Midwestern Governors Association, 2009 and Midwestern Governors Association, 2011

Financing assistance is needed in the Midwest. As noted by a leading industry trade publication, "CHP developers in the Midwest say the region has been hard hit by the economic recession, and businesses are therefore hesitating to invest in new capital projects."

Source: *Cogeneration and On-Site Power Production, Buyer's Guide*

## CHP improves energy security

Reducing strain on the electrical grid with energy-efficient technologies increases power reliability during electrical outages that result from extreme weather and other causes.

Indiana experienced 74 power outages in 2014, resulting in nearly 32 hours of blackout affecting 154,244 people across the state.

Source: Blackout Tracker

## Examples of CHP Facilities in Indiana

City	Facility	Application	Year operational	Capacity (kW)	Fuel type
Hammond	Cargill Inc.	Food processing	2000	16,000	Natural gas
Reynolds	Bio Town Ag Inc.	Agriculture	2011	3,300	Biomass
Burns Harbor	ArcelorMittal Steel	Primary metals	1969	177,720	Waste
Munster	Munster landfill	Solid waste facilities	2009	130	Biomass

Source: U.S. Department of Energy

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### For further information, please visit:

[pewtrusts.org/industrialefficiency](http://pewtrusts.org/industrialefficiency)

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