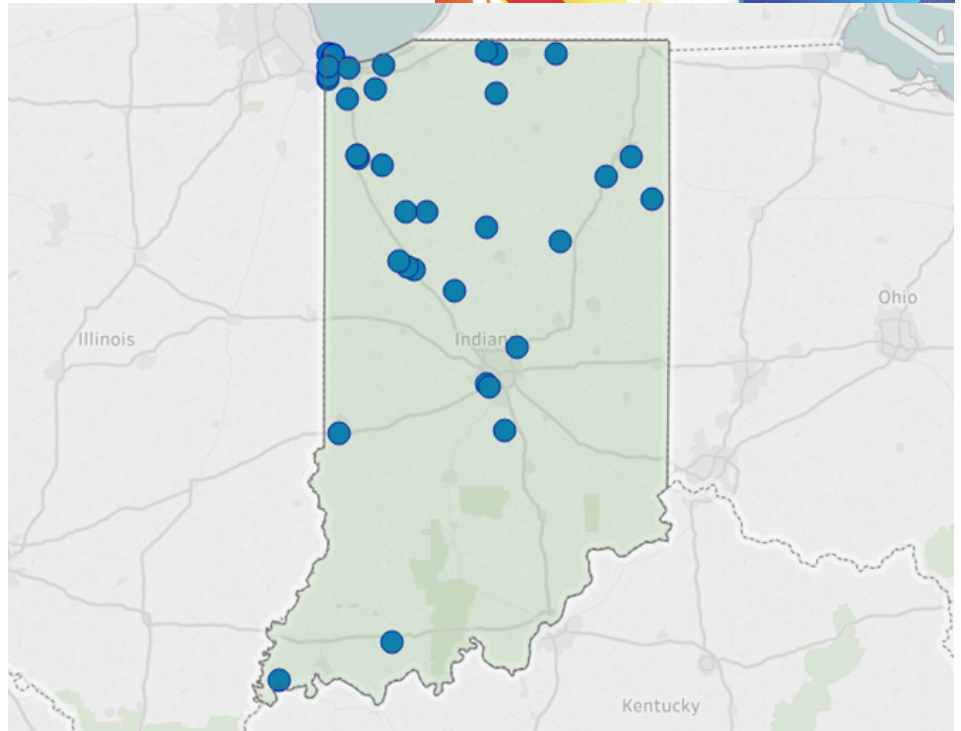


The State of CHP: Indiana



Combined heat and power (CHP) – also referred to as cogeneration – is an efficient and clean approach to generating on-site electric power and useful thermal energy from a single fuel source. The information in this document provides a general overview of the state of CHP in Indiana, with data on current installations, technical potential, and economics for CHP.



Map of current CHP installations in Indiana. Illustration from ICF.

Indiana: Installed CHP

U.S. DOE Combined Heat and Power Installation Database

The DOE CHP Installation Database is a data collection effort sponsored by the U.S. Department of Energy. The database contains a comprehensive listing of combined heat and power installations throughout the country, including those in Indiana, and can be accessed by visiting <https://doe.icfwebservices.com/chp>.

CHP Project Profiles

The Midwest CHP TAP has compiled information on certain illustrative CHP projects in Indiana. You can access these by visiting the Department of Energy’s CHP Project Profiles Database at <https://betterbuildingssolutioncenter.energy.gov/chp/chp-project-profiles-database>.

Midwest CHP Technical Assistance Partnership

For assistance with questions about specific CHP opportunities in Indiana, please consult with the Midwest CHP TAP by visiting mwchptap.org or contacting the CHP TAP director.

Indiana Existing CHP

Sector	Sites	Capacity (MW)
Industrial	18	2,398
Commercial/Institutional	15	97
Other	6	11
Total	39	2,507

Midwest CHP TAP Director

Cliff Haefke

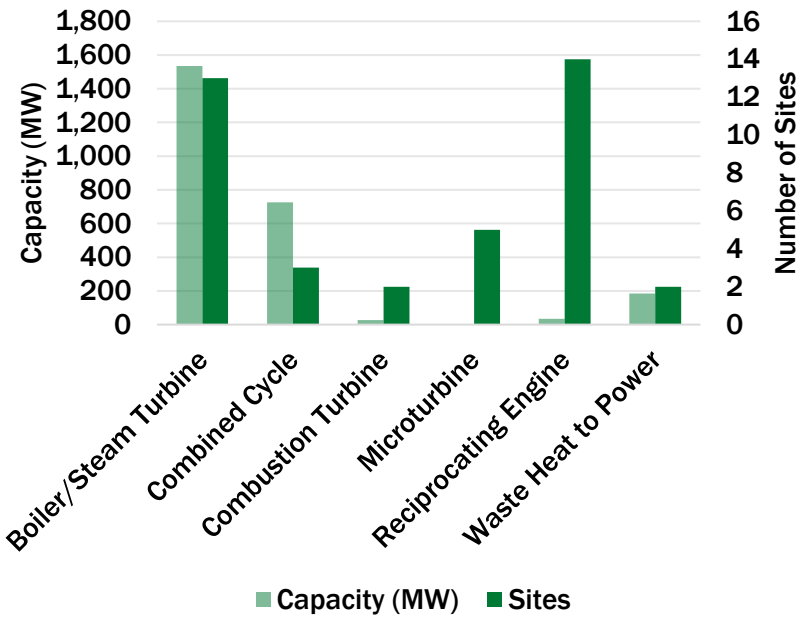
- University of Illinois at Chicago
- chaefk1@uic.edu
- 312-355-3476

MIDWEST

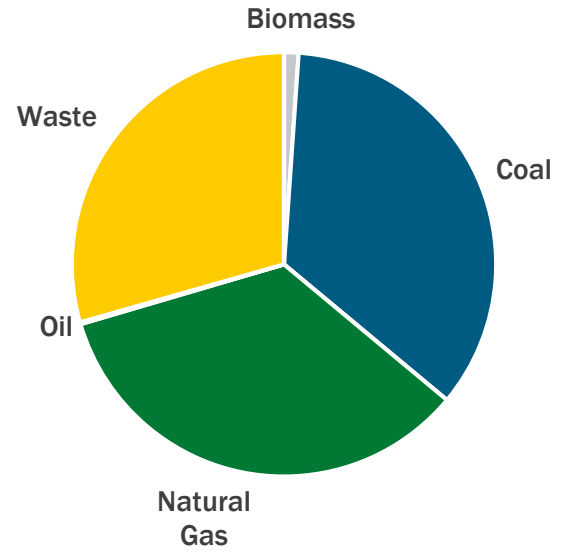


CHP
TECHNICAL ASSISTANCE
PARTNERSHIPS

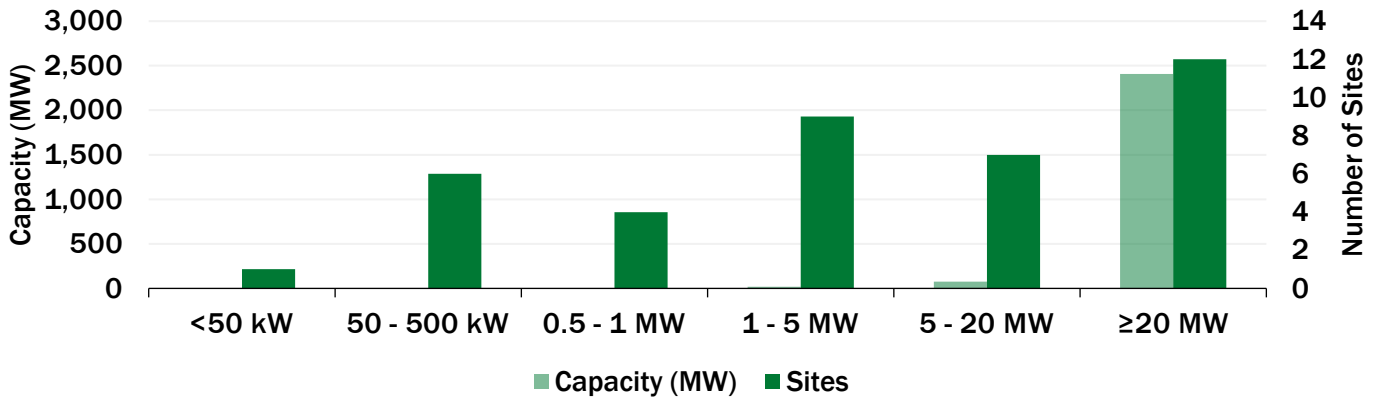
Indiana CHP by Technology



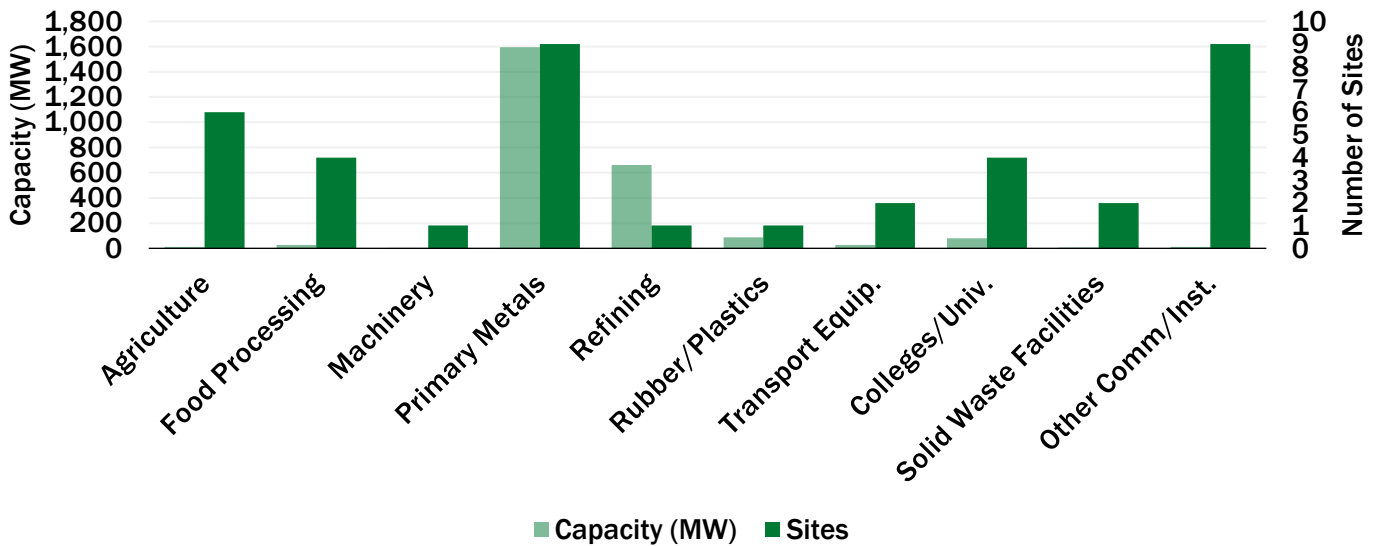
Indiana CHP Capacity (MW) by Fuel



Indiana CHP by Size Range



Indiana CHP by Application



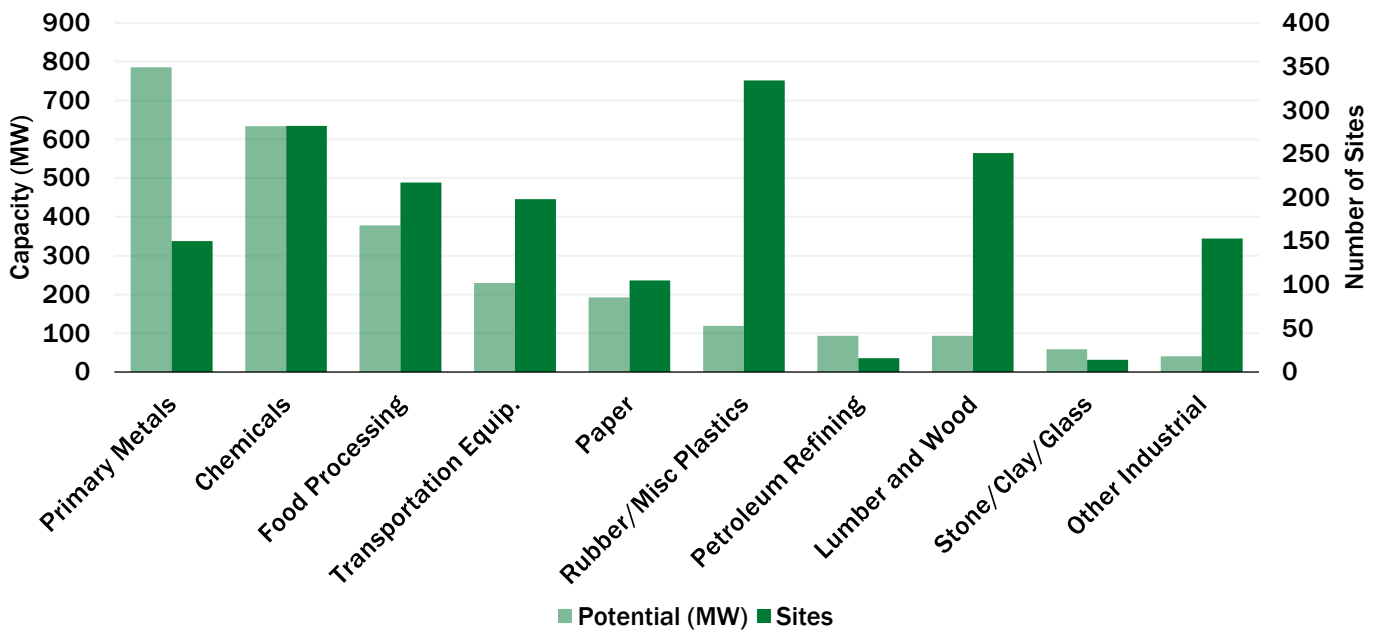
Indiana: Technical Potential for New CHP Installations

The “Combined Heat and Power (CHP) Technical Potential in the United States” market analysis report provides data on the technical potential in industrial facilities and commercial buildings for “topping cycle” CHP, waste heat to power (WHP) CHP, and district energy CHP in the U.S. Read the report [here](#).

Indiana CHP Technical Potential

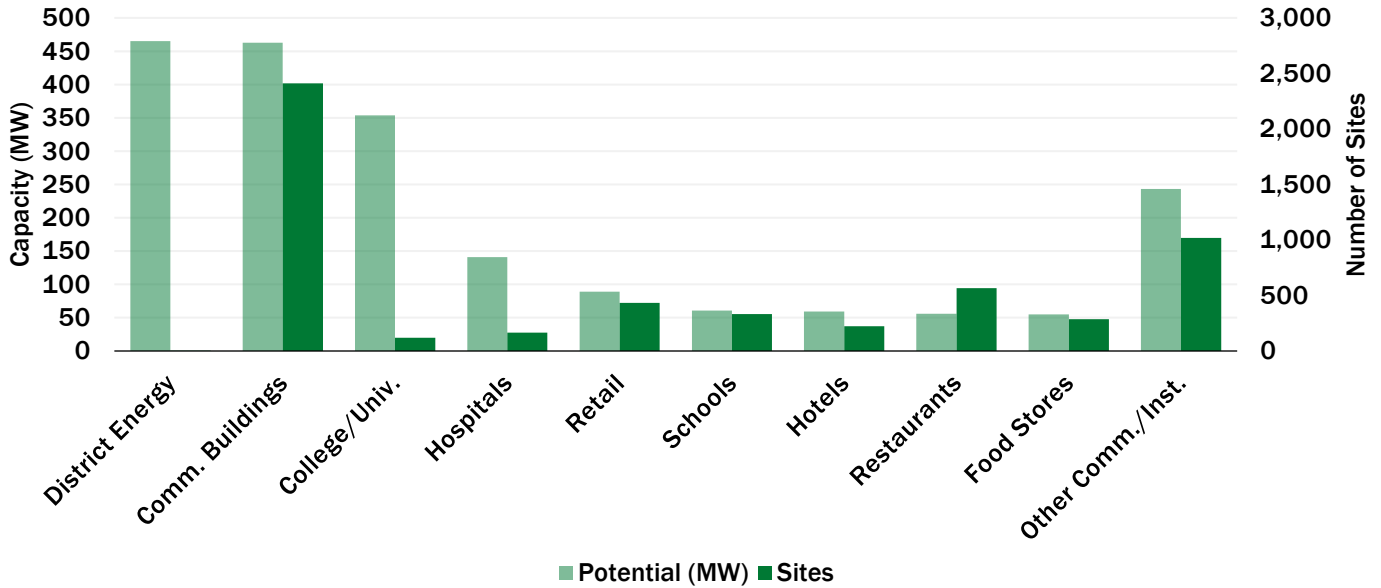
Sector	Potential Sites	Potential MW
Industrial	1,720	2,624
Commercial/Institutional	5,553	1,986
Total	7,273	4,610

Indiana Technical Potential (MW) for Industrial CHP Applications



Application	50-500 kW		0.5 - 1 MW		1 - 5 MW		5 - 20 MW		>20 MW		Total	
	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Total Sites	Total MW
Primary Metals	60	12	26	18	26	57	29	298	9	399	150	785
Chemicals	148	27	33	24	69	158	27	204	5	220	282	634
Food Processing	135	29	25	18	43	77	8	67	6	187	217	378
Transportation Equip.	121	22	27	19	38	71	12	117	0	0	198	230
Paper	59	15	13	9	21	43	11	105	1	21	105	193
Other Industrial	626	108	79	56	55	119	7	64	1	59	768	405
Total	1,149	212	203	145	252	525	94	856	22	887	1,720	2,624

Indiana Technical Potential (MW) for Commercial/Institutional CHP Applications



Application	50-500 kW		0.5 - 1 MW		1 - 5 MW		5 - 20 MW		>20 MW		Total	
	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Sites	MW	Total Sites	Total MW
Commercial Buildings	1,542	77	675	270	193	116	0	0	0	0	2,410	463
College/Univ.	67	12	3	2	32	92	11	103	5	145	118	354
Hospitals	88	20	32	22	43	83	2	16	0	0	165	141
Retail	382	55	46	28	5	6	0	0	0	0	433	89
Schools	320	52	11	7	1	1	0	0	0	0	332	61
Other Comm./Inst.	1,947	282	108	65	46	84	5	43	0	0	2,426	474
Total	4,346	446	864	387	319	381	18	162	6	610	5,553	1,986

Department of Energy CHP Accelerators

Packaged CHP Accelerator

Standardized packaged CHP systems can reduce risk for both CHP users and suppliers by reducing design errors, limiting uncertainty about performance, shortening project development time, and reducing overall costs. Accelerator partners will validate the installation, performance, and economic and resiliency benefits of packaged CHP systems, evaluate the integration of new technologies and packaged CHP, and identify R&D challenges. For more information, visit <https://betterbuildingssolutioncenter.energy.gov/accelerators/packaged-chp>

CHP for Resiliency Accelerator

The U.S. DOE collaborated with cities, states, utilities, and other stakeholders who are actively pursuing CHP as a consideration in resiliency planning for critical infrastructure in their jurisdictions. This included defining resiliency, identifying critical infrastructure, and assessing CHP opportunities. This process was documented in the DG for Resilience Planning Guide and the CHP for Resilience Screening Tool. For more information, visit <https://betterbuildingssolutioncenter.energy.gov/accelerators/combined-heat-and-power-resiliency>

Indiana: CHP Economics

The most important indicators for CHP economics are electricity and gas prices. For most potential CHP installations, natural gas and electricity rates for host facilities will fall within the range of average commercial and industrial prices. Lower energy prices may be possible for large CHP applications.

Indiana Natural Gas Prices

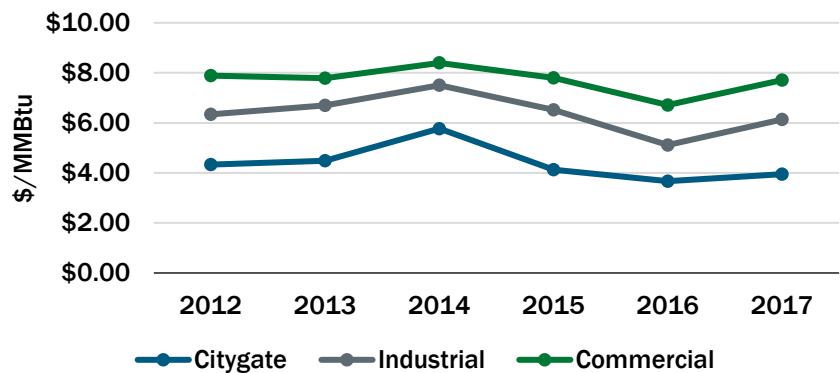
The EIA industrial natural gas price is a full tariff rate, and most large consumers are purchasing gas commodities from marketers at a lower rate.

Indiana Average Gas Prices (\$/MMBtu) - 2017

Sector	IN Price	U.S. Price
Citygate*	3.95	4.26
Industrial	6.14	4.20
Commercial	7.71	8.08

*Citygate is a point or measuring station at which a distributing gas utility receives gas from a NG pipeline company or transmission system.

Indiana Average Natural Gas Prices



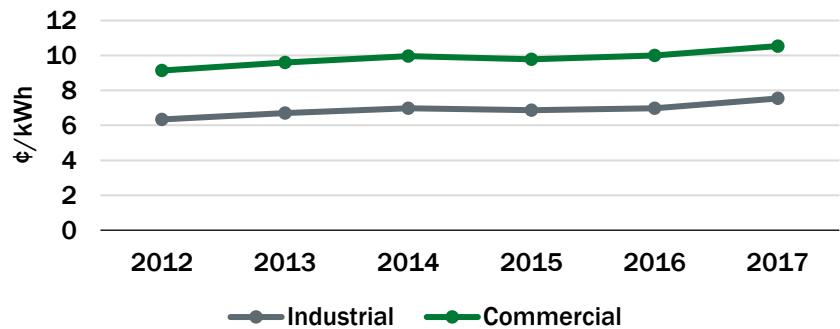
Indiana Electricity Prices

Electricity rates can vary greatly by utility and facility size range. The rates below from EIA represent general averages; individual facility rates may vary.

Indiana Average Electricity Prices (¢/kWh) - 2017

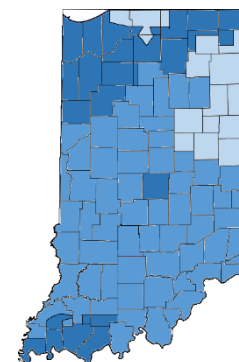
Sector	IN Price	U.S. Price
Industrial	7.54	6.88
Commercial	10.54	10.66

Indiana Average Electricity Prices



Indiana Average Delivered Electricity Prices by Utility

Utility	Industrial Price (¢/kWh)	Commercial Price (¢/kWh)	Average Price (¢/kWh)
Northern IN Public Service	7.39	13.26	10.32
Vectren	7.85	12.49	10.17
Indianapolis Power & Light	8.78	11.54	10.16
Duke Energy Indiana	7.26	9.42	8.34
Indiana Michigan Power	6.40	8.92	7.66



- Indiana Michigan Power
- Duke Energy
- IPL / NIPSCO / Vectren