



Indiana Combined Heat and Power Fact Sheet

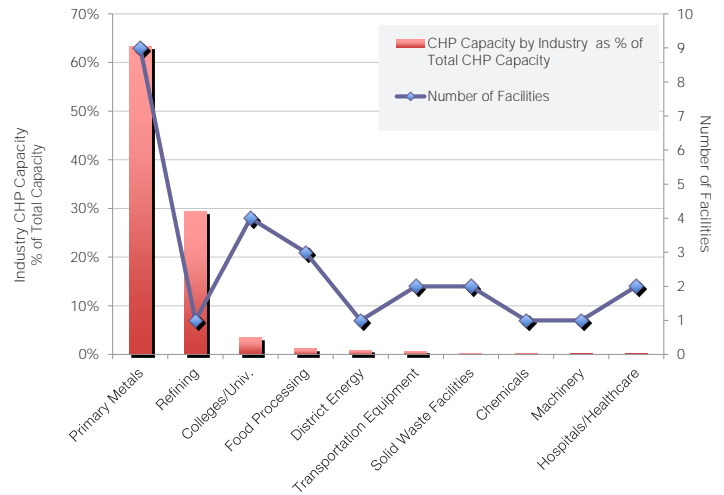
State Energy Profile

Energy consumption per capita: **440 mmBtu (2011)**
 Electric industry: **Regulated**
 Total electric generation capacity: **30,765 MW (2011)**
 Average retail electricity price:
 All sectors: **8.33 cents/kWh**
 Residential: **10.71 cents/kWh**
 Commercial: **9.35 cents/kWh**
 Industrial: **6.53 cents/kWh**
 Average retail natural gas price:
 Residential: **9.46 \$/MCF**
 Commercial: **8.04 \$/MCF**
 Industrial: **6.53 \$/MCF**
 Population: **6,483,802 people (2010)**
 State Real GDP: **\$255 billion**

(Statistics for the year 2012 unless otherwise noted)

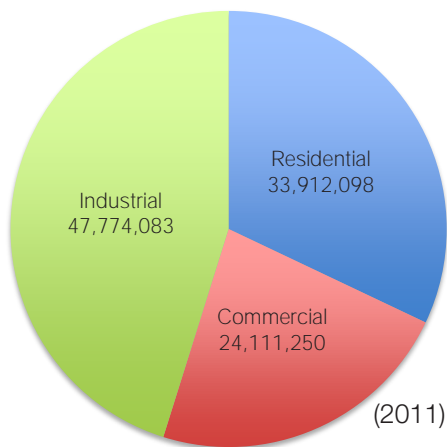
CHP Snapshot

Number of CHP facilities and capacity by industry as a percentage of total state CHP capacity



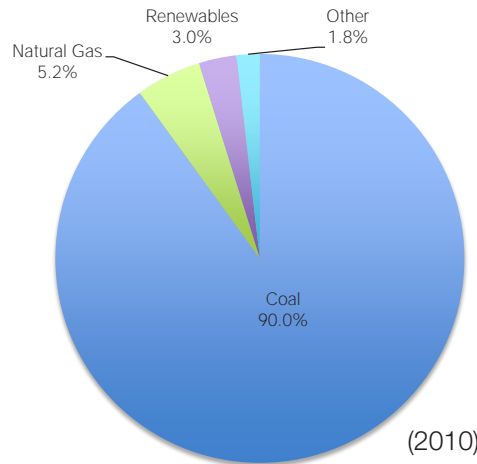
There are 37 CHP sites in Indiana, representing a total installed capacity of 2,262 MW. The largest CHP site in the state is Alcoa Smelting & Fabrication in Newburgh (755 MW) and the smallest site is Notre Dame Energy Center Remick Hall in Notre Dame (30 kW). There is one 95 MW facility that uses waste heat recovery as a primary mover. As the graph above illustrates, the number of CHP facilities by industry is not necessarily correlated to an industry's share of total CHP capacity. Nationally, according to ICF International, 87 percent of current Installed CHP generation capacity is found at industrial facilities with high electric and steam demands such as chemical, paper, refining, food processing and metal manufacturing. Natural gas has been the preferred fuel for CHP systems in the U.S., accounting for around 70 percent of existing CHP capacity.

Electricity Sales MWh



Source: EIA

Electricity Production



Source: EIA

The industrial sector represents almost half of total electricity sales in the state. All together, these three sectors represent 105,797,431 MWh in total electricity sales. Electricity generation from coal accounts for 90 percent of the state's electricity production while natural gas, renewables, and other energy sources make up the remaining 10 percent of generation.

State CHP Policies

Standby Rate Design	Interconnection Standards	Financial Incentives
<p>Duke Energy Rider 21 Standby service provided at the same rate as distribution service, plus expenses for required onsite meters. Distribution service has large demand component, low energy charges.</p> <p>Northern Indiana Public Service Company Rate 834 High demand component, low energy charge.</p> <p>Impact on CHP Development Neutral</p>	<ul style="list-style-type: none"> No system capacity limit specified. State IOUs required to provide 3 levels of interconnection based on capacity. Fees vary depending on nameplate capacity: \$0-100 initial cost plus \$1-2 per kWh plus other costs (e.g. engineering work <\$100/hour). Systems must comply with IEEE 1547 and UL 1741 standards. Rules account for a mutual indemnification provision and reasonable time limits on application review. Disputes between customers and utilities settled using IURC's consumer-complaint rules. 	<p>Production Incentives City of Bloomington - Sustainable Development Incentives</p> <p>Rebates NIPSCO Business EE Rebate Program</p>
		Portfolio Standards
		<p>EERS CHP systems explicitly mentioned as eligible. DSM electric savings goals. 0.3% annual electricity savings in 2010, 1.1% in 2014, leading to 2.0% reduction of electricity sales by 2019.</p>
Decoupling Utility Revenues	Output-Based Emissions Regulations	
<p>"Vectran Energy had a decoupling mechanism for gas and electric utilities, but decoupling was rejected for electric utilities in 2011. Vectren Energy has a reliability cost and revenue adjustment mechanism and Duke Energy Indiana has lost revenue recovery."</p>	<p>Indiana Administrative Code Title 326, Article 24 Allows EE set-asides as part of plan to reduce NOx levels. CHP that is at least 40% efficient can be eligible for the set-asides, but some technologies are required to be up to 60% efficient to be eligible. CHP systems are also regulated using output-based measures.</p> <p>Note: The EPA is developing new cross-state air pollution rules, and states will likely have to implement new plans that will replace the CAIR requirements outlined above.</p>	<p>RPS Voluntary goal of 10% clean energy by 2025, based on level of electricity supplied by the utility in 2010. Fossil-fueled and renewable-fueled CHP systems and WHR systems eligible.</p>
		Net Metering
		<p>CHP not listed as eligible technology.</p>

State CHP Technical Potential (MW)

Facility Size	50-1000 kW	1-5 MW	5-20 MW	>20 MW	Total
Industrial	331	422	427	299	1,480
Commercial	921	582	0	91	1,593
Total	1,252	1,004	427	390	3,073

Source: ICF

Technical potential is defined as the CHP electrical capacity that could be installed at existing industrial and commercial sites based on their electric and thermal needs (under the assumption that the facilities would utilize thermally loaded CHP systems sized to meet their electric demand).

Boiler MACT Affected Boilers

Facilities	160
Coal Units	32
Biomass Units	10
Gas Units	390
Heavy Oil Units	11
Light Oil Units	14
Total Capacity (mmBtu/hr)	50,349

Application	Units	Facilities	Capacity (mmBTU/hr)
Primary Metal Manufacturing	137	16	22,323
Petroleum and Coal Products Manufacturing	66	2	9,521
Chemical Manufacturing	31	13	4,402
Food Manufacturing	28	13	2,268
Transportation Equipment Manufacturing	27	19	1,123
Plastics and Rubber Products Manufacturing	25	17	300
Utilities	21	12	4,361
Printing and Related Support Activities	20	4	637
Educational Services	18	4	3,028
Wood Product Manufacturing	17	11	227

For more information on data sources, see CHP Factsheet Appendix at gpsid.net