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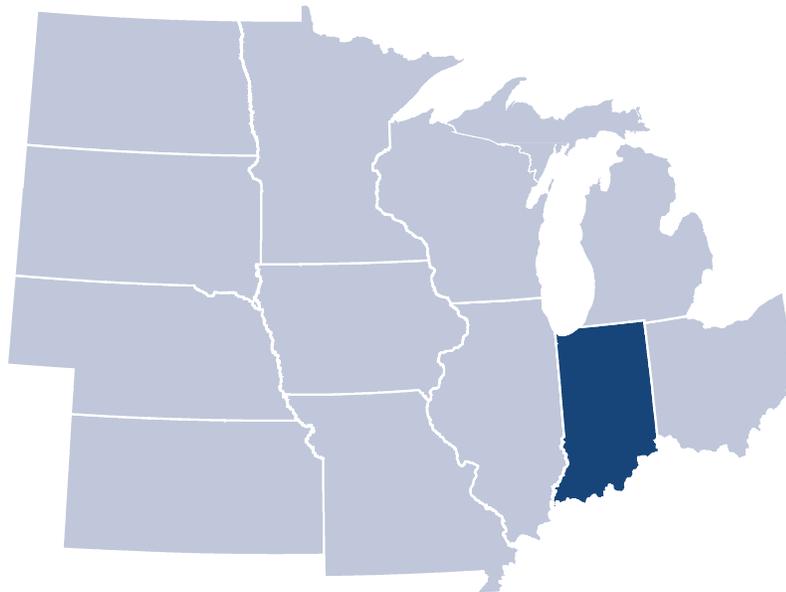
MIDWEST MANUFACTURING SNAPSHOT: INDIANA

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This state handout is an excerpt from the WRI working paper entitled “Midwest Manufacturing Snapshot: Energy Use and Efficiency Policies”. The working paper presents comprehensive manufacturing energy-use and economic-activity data along with state-by-state policy summaries for the 10 member states of the Midwestern Governors Association (MGA).¹ For more information on Midwest region manufacturing, the methods used to derive the data, and policy background, please see the full working paper at: <http://www.wri.org/publication/midwest-manufacturing-snapshot>.

1. Member states of the MGA are Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio, South Dakota, and Wisconsin.

INDIANA



In 2006 Indiana consumed 2.8 Quads of energy—making it the fourth-highest energy using state in the Midwest. Industry plays a central role in Indiana energy use, economic activity, and employment. Figure IN-1 shows the breakdown of statewide energy used for fuel and feedstock. Industry consumed 47% of total energy (including feedstocks) in Indiana—far more than any other end-use sector. Coincidentally, manufacturing accounted for 47% of Indiana industry energy use in the same year.

Within manufacturing, primary metals, chemicals, and petroleum and coal product manufacturing accounted for the largest share of Indiana’s energy use in 2006.

Indiana has 2.3 GW of total installed CHP capacity^{IN-1}, which is equivalent to 8% of total installed electricity generation capacity, equivalent to the national average of 8%. Within total CHP, the remaining technical potential for industry CHP in Indiana is estimated to be equivalent to two-thirds of currently installed industrial capacity (Hedman, 2010).

IN-1 This number is higher than the installed CHP capacity number in Figure 9 because it includes all CHP installations (i.e., industrial, commercial, and institutional).

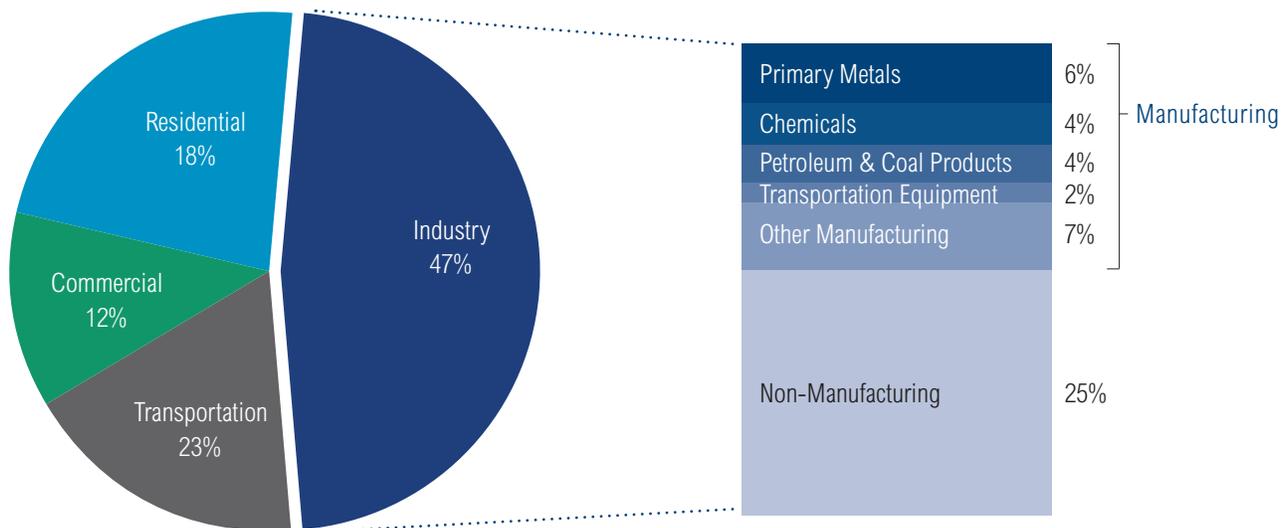
Between 2000 and 2010, the index of manufacturing energy costs (shown by “cost of fuels & electricity” in Figure IN-2) rose more quickly than the value of shipments index (Figure IN-2). The average difference between these two series over the period is 19%. By 2010 Indiana manufacturing energy expenditures had increased by 32%, while the total value of shipments rose by 28%, relative to year 2000 levels. Over the same 10-year period, Indiana manufacturing employment dropped by 31%--from 674,000 to 462,000, compared to the national manufacturing employment decline of 37% over the same period (Figure 1).

Table IN-1 | **Indiana Industry Delivered Energy Annual Average Prices (2010)**

| | ELECTRICITY (cents/kWh) | NATURAL GAS (\$/1,000 ft ³) | COAL (\$/short ton) |
|-----------------|----------------------------|--|------------------------|
| Indiana | 5.87 | 5.65 | 71.69 |
| Midwest average | 6.19 | 6.66 | 50.68 |
| U.S. average | 6.77 | 5.49 | 59.28 |

SOURCE: U.S. Energy Information Administration; for details see Appendix.

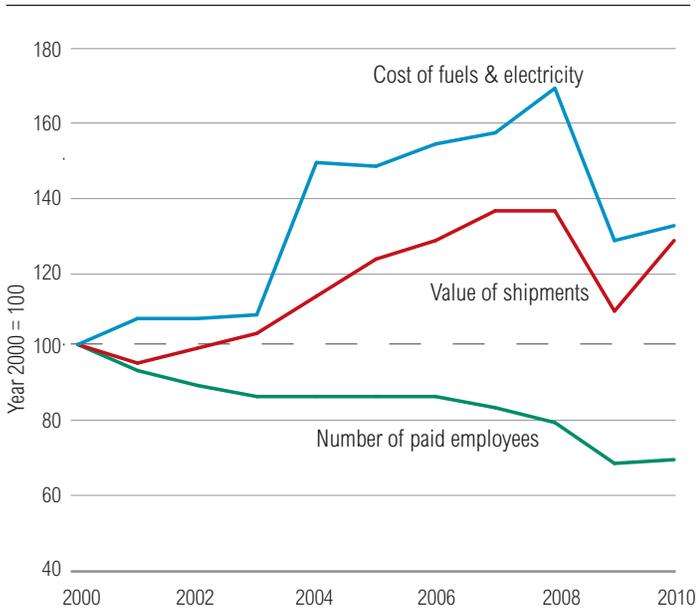
Figure IN-1 | **Indiana Total Energy Use, 2006**



Total Energy Use: 2.8 Quads

SOURCES: MECS; ASM; SEDS.

Figure IN-2 | **Index of Indiana Manufacturing Energy Cost, Value of Shipments, and Employment (2000-2010)**



SOURCE: ASM; BEA (employment)
NOTE: 2002 ASM values were linearly interpolated due to a gap in the published data.

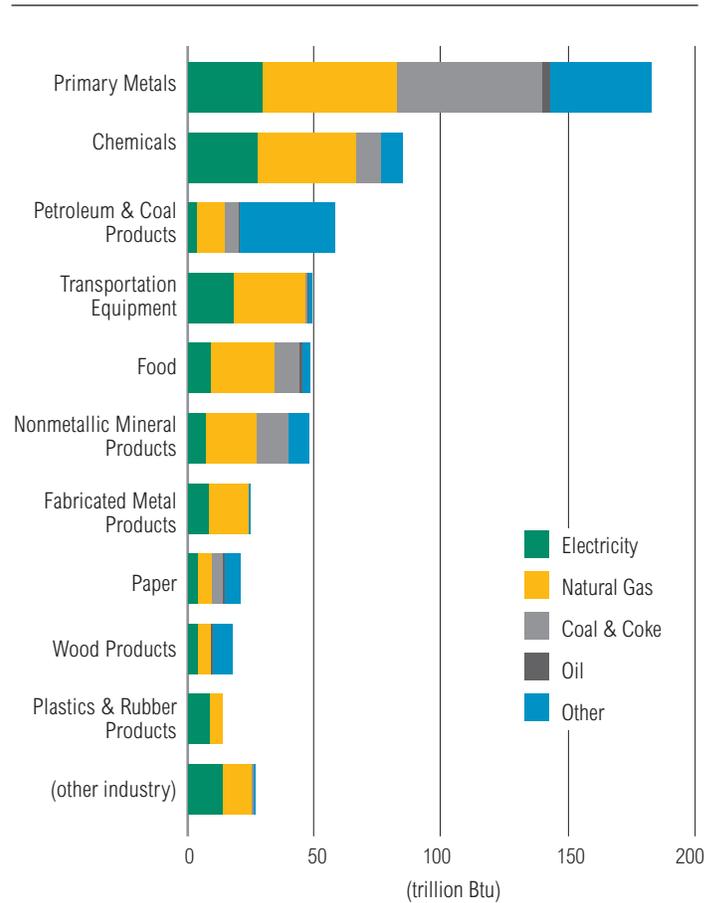
Energy prices (Table IN-1) influence demand and end-use efficiency. Whereas reported Indiana electricity prices were 13% lower than the national average, delivered natural gas and coal were more expensive than the national average by 3% and 21%, respectively. Prices vary by end user and time of use, but this snapshot of 2010 prices suggests that Indiana industry faces a mixed picture among different fuels.

In 2006 Indiana manufacturing consumed 560 trillion Btu^{IN-2} of energy for fuel use. Natural gas was the most-consumed fuel for manufacturing. Figure IL-3 shows the breakdown of Illinois manufacturing fuel use by subsector (not including energy used as feedstocks). Primary metals manufacturing accounted for 32% of Indiana manufacturing fuel use in 2006.

Core pillars of Indiana’s energy efficiency policy were ordered by the Indiana Utility Regulatory Commission (IURC), in 2009, pursuant to its own authority and without detailed legislative action. After a multiyear

IN-2 For energy unit conversion, 1,000 trillion Btu is equivalent to 1 Quad of energy.

Figure IN-3 | **Indiana Manufacturing Fuel Use by Sector, 2006**



SOURCES: MECS; ASM.

investigation of demand-side-management issues, first initiated in 2004, the IURC ultimately determined that effective DSM programs can reduce energy costs and yield overall economic benefits. The result was the state’s EERS and a set of related core EE programs, implemented by investor-owned utilities in coordination with third-party administrators.

Table IN-2 | **Indiana Key Energy and Environmental Policies**

| INDIANA | |
|---|--|
| REGULATORY ENVIRONMENT | |
| Renewable energy standard | Indiana's S.B. 251, passed in May 2011, includes a Clean Energy Portfolio Standard (CPS), which sets a voluntary goal for each electricity provider to obtain, by 2025, clean energy supplies in an amount that is greater than 10% of its delivered electricity in 2010. Investor-owned utilities must apply to the IURC to participate in the program, thus becoming eligible for related incentives. CHP & WHR are qualifying technologies (DSIRE). |
| Energy efficiency Resource standard | In December 2009, the IURC ordered all jurisdictional electric utilities to submit 3-year demand-side management plans, beginning in July 2010. Utilities must explain how they intend to achieve annual electricity savings of 0.3% in 2010, increasing gradually to 2% in 2019 (ACEEE). ^a |
| Emissions control programs | Indiana's State Implementation Plan for CAIR includes set-asides for EE, for which CHP is an eligible technology. Under the plan, CHP systems are regulated using output-based standards (ACEEE). However, these rules are to be phased out in 2012. ^b |
| Alternative business models | There are no currently active alternative business models that would serve to advance industrial EE (ACEEE). |
| Grid access | Indiana's interconnection standards (adopted 2005) for distributed power generation require applications and agreements to be approved by the IURC and are applicable to CHP units. The standards include a three-tier structure (up to 10 kW; up to 2 MW; over 2 MW), the lower two of which are consistent with IEEE 1547 and UL 1741 technical standards (DSIRE). |
| FINANCIAL AND TECHNICAL ASSISTANCE | |
| Grants, loans, or tax incentives | There are no Indiana state loans or tax incentives available for industrial EE. |
| Technical assistance | Purdue University's Technical Assistance Program ^c provides no-cost technical assistance to companies, including for EE-related measures. Purdue is also home to the local Manufacturing Assistance Partnership, which provides a range of programs, from training to technical assistance. ^d Purdue also houses an Industrial Assessment Center, providing qualified manufacturers with free assessments and recommendations to improve energy efficiency. ^e |
| UTILITY PROGRAMS | |
| Customer EE programs, with cost-recovery | The IURC 2009 order requires each utility to offer EE services through five core programs, including one for industrial and commercial customers that provides incentives for common technologies such lighting and high efficiency motors and pumps. ^a |
| EE as a resource | There is currently no policy in place that treats EE as a resource. |

SOURCE: "ACEEE" refers to the American Council for an Energy Efficient Economy website: <http://www.aceee.org/sector/state-policy> (February, 2012); "DSIRE" refers to the Database of State Incentives for Renewables and Energy Efficiency website: <http://www.dsireusa.org>. (February, 2012).

a <http://www.in.gov/iurc/2571.htm>. (February, 2012).

b The first compliance phase for CAIR's replacement, the Cross-State Air Pollution Rule (CSAPR), had been scheduled to go into effect in January 2012. In December 2011, the United States Court of Appeals for the D.C. Circuit stayed CSAPR and is scheduled to hear the case in April 2012. Meanwhile, EPA is facilitating a transition back to CAIR. <http://epa.gov/airtransport/>

c <http://www.tap.purdue.edu/>. (February, 2012).

d http://www.mep.purdue.edu/prod_services/energy/default.aspx. (February, 2012).

e <http://www.engr.iupui.edu/IAC/> (February, 2012)