

Kentucky Industrial Resource Fact Sheet

Introduction

Kentucky's economy is ranked 27th in the nation in terms of 2008 gross domestic product (GDP), generating \$156 billion annually. Industrial manufacturing is an important sector of Kentucky's economy, providing the state with 76,257 jobs and supplying \$59,082 million worth of goods. The largest manufacturing sectors in the state are transportation equipment and primary metal manufacturing. Much of Kentucky's industry is energy-intensive, as evidenced by the state's industrial sector ranking 9th in the nation in terms of energy expended, accounting for 891.6 trillion Btu in 2007 or 44.1 percent of energy consumed statewide. In addition, the state's industrial natural gas consumption totaled 115.7 trillion Btu, which was 17th in the nation that year. Furthermore, the industrial sector accounted for approximately 20.33 million metric tons of carbon dioxide emissions.

Kentucky prides itself on having one of the lowest electricity rates in the country—45th among states in terms of dollars/million Btu. However, in 2006 Kentucky's electrical use per industrial customer was 427 percent above the national average (ranking third highest). To combat this discrepancy, Kentucky has increased efforts to enhance energy efficiency across the state. For example, in 2008 Kentucky established a comprehensive energy plan that mandated a 16 percent reduction in overall energy consumption by the year 2025. Industrial manufacturers will play a major role in whether or not that goal is met, considering the industrial sector accounted for 44 percent of the overall energy use in the state. Industrial manufacturers in Kentucky are increasingly being offered the opportunity to improve their energy efficiency and decrease their overall carbon emissions. Many resources are available throughout



the state that plant managers can consult for energy-efficiency information, or for assistance in financing energy-efficiency improvements at their facilities, which will ultimately help the state reach its 16 percent reduction goal.

Government Resources

State Government: In addition to the comprehensive energy plan, Kentucky state government provides incentive programs aimed at increasing energy efficiency and encouraging renewable-energy development. Programs include tax credits offered for the construction of renewable-energy installations and cash rebates for energy-efficient upgrades made to existing buildings.

Utility Resources

Power Administration: Tennessee Valley Authority (TVA) provides support, technology, expertise, and financial resources to existing businesses and industries to help them grow to be more efficient and profitable. These resources include technical assistance, low-interest loans, and other tools businesses need for successful operation.

Investor-Owned Utilities: Multiple investor-owned utilities (IOUs) in Kentucky offer industrial customers incentive programs to encourage energy-efficiency efforts. For example, Duke Energy provides industrial customers with a plethora of energy-efficiency incentive programs. Incentives include cash rebates offered on energy-efficient industrial processes, cooling systems, motors, pumps, lighting, voluntary demand reduction, as well as a various energy assessment and analysis tools. Other IOUs supplying industrial customers with energy-saving resources include Atmos Energy, Kenergy, and Louisville Gas & Electric. For example, Louisville Gas & Electric rewards customers who voluntarily reduce peak-hour demand with a cash rebate, in addition to supplying customers with energy audits and other assessment tools that will identify energy-efficiency opportunities. Similarly, Atmos Energy provides energy-analysis tools, while Kenergy provides no-cost energy audits to nonresidential customers

Public Power Utilities: Several public power utilities provide nonresidential customers with incentive programs aimed at reducing their energy usage. For instance, Russellville Electric Plant Board offers cash rebates and low-interest loans on the purchase of energy-efficient heat pumps. Another public power provider, Paducah Power System, offers industrial customers low-interest loans on HVAC units and insulation, in addition to providing energy audits.

Electric Cooperatives: Multiple electric cooperatives across the State of Kentucky provide industrial operations with incentives to implement energy-saving measures. For example, Grayson Rural Electric Cooperative offers cash rebates on electric thermal storage units. Financial assistance for energy-efficiency projects is offered by Salt River Electric and Southern Kentucky Rural Electric Cooperative, while various energy-assessment programs are offered by Grayson Rural Electric Cooperative, Pennyriple Rural Electric Cooperative, Warren Rural Electric Cooperative Corporation, and Blue Grass Energy. Finally, the Kentucky Association of Electric Cooperatives supplies cash rebates to customers who voluntarily reduce their energy use during peak demand.

Regional Resources

Industrial Assessment Center (IAC): While Kentucky itself does not possess an Industrial Assessment Center (IAC), it shares a close proximity to three others in the region. The University of Dayton, University of Michigan, and West Virginia University all offer IACs that provide no-cost energy assessments to small- and medium-sized manufacturers.

Combined Heat and Power Regional Application Center: The Southeast Combined Heat and Power (CHP) Application Center provides application assistance, technology information, and the educational support necessary to promote CHP.

Local Resources

Non-profit Organizations: The Kentucky Pollution Prevention Center provides no-cost energy audits to industrial operations within the state.

Manufacturing Extension Partnership (MEP): The Kentucky Manufacturing Assurance Center helps Kentucky manufacturers improve their production methods, advance their technical capabilities, and adopt best business practices. This organization's services include Lean Manufacturing, Environmental Management, and Benchmarking Assessments.

For More Information

DOE Industrial Technologies Program (ITP), <http://www1.eere.energy.gov/industry/index.html>

ITP Save Energy Now, <http://www1.eere.energy.gov/industry/saveenergynow/>

ITP State Activities Web site (Kentucky), http://www1.eere.energy.gov/industry/states/state_activities/map_new.asp?stid=GA

ITP State Incentives and Resources Database, http://www1.eere.energy.gov/industry/about/state_activities/incentive_search.asp

Energy Efficient Upgrades, <http://www.business.gov/expand/green-business/energy-efficiency/upgrades/office-equipment.html>

Kentucky Economic Development Finance Authority, <http://www.thinkkentucky.com/>

ATMOS Energy, <http://www.atmosenergy.com/business/energymatters.html>

Duke Energy, <http://www.duke-energy.com/kentucky-business/energy-management/cooling-incentive.asp>

Kenergy, <http://www.kenergycorp.com/comserve.aspx>

Louisville Gas & Electric, <http://www.eon-us.com/commaudit/default.asp>

Tennessee Valley Authority, <http://www.tva.com/greenpowerswitch/partners/>

Paducah Power System, <http://www.paducahpower.com/commercialaudit.htm>

Russelville Electric Plant Board, <http://russepb.com/heat%20pump.htm>

Grayson Rural Electric, <http://www.graysonrecc.com/Incentives.html#ets>

Pennyriple Rural Electric Cooperative, http://www.precc.com/precc/comm_loan_program.htm

Kentucky Utilities, <http://www.eon-us.com/commaudit/default.asp>

Warren Rural Electric Cooperative Corporation, <http://www.wrecc.com/commind.aspx>

Salt River Electric, <http://www.srelectric.com/products/comfortloan.htm>

South Kentucky Rural Electric Cooperative, <http://www.skrecc.com/financing.htm>

Blue Grass Energy, <http://www.bgenergy.com/industrialCommercialServices.aspx>

Kentucky Pollution Prevention Center, <https://louisville.edu/kppc/p2>

Contacts

Industrial Assessment Centers (IACs) for Region

University of Dayton
Director: Dr. Kelly Kissock
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Web site: <http://www.engr.udayton.edu/udiac/>

University of Michigan

Director: Dr. Arvind Atreya
Phone: (734) 647-4790
Web site: http://interpro-academics.engin.umich.edu/mfgeng_prog/IAC/

West Virginia University

Director: Dr. B. Gopalakrishnan
Phone: (303) 293-4607, ext. 3709
E-mail: bgopalak@mail.wvu.edu
Web site: <http://www2.cemr.wvu.edu/~wwwiac/>

Manufacturing Extension Partnership (MEPs) in Kentucky

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E-mail: lwitten@kmac.org
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Source: <http://blue.nist.gov/centers/KY>

Regional Clean Energy Application Center Southeast CHP Application Center

Director: Louay Chamra
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Web site: <http://www.chpcenterse.org/>
Source: http://www.eere.energy.gov/de/chp/chp_applications/chp_application_centers.html

DOE Regional Contact

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EERE Information Center

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www.eere.energy.gov/informationcenter