



Did you know?

Ohio has the largest manufacturing facility of thin-film solar panels in the country.

Ohio is the #2 state in potential for manufacturing wind turbines and components.

Ohio is one of the few places where all phases of fuel cell development take place.

Ohio has the third most aggressive Renewable Energy Portfolio Standard that requires up to 6,000 megawatts (MW) of new renewable energy capacity by 2025 and is expected to create more than 30,000 jobs by 2030.

The Ohio School Facilities Commission is making more than \$4 billion available to partner with local districts to make sustainable and responsible facility construction of new schools a priority.

Ohio's innovative spirit and world-class advanced manufacturing infrastructure develops the products to meet the global energy needs of the future. Ohio-based companies are producing an increasing array of cleaner, greener and high tech energy solutions that the world is counting on. Ohio's advanced energy economy is leading the way.

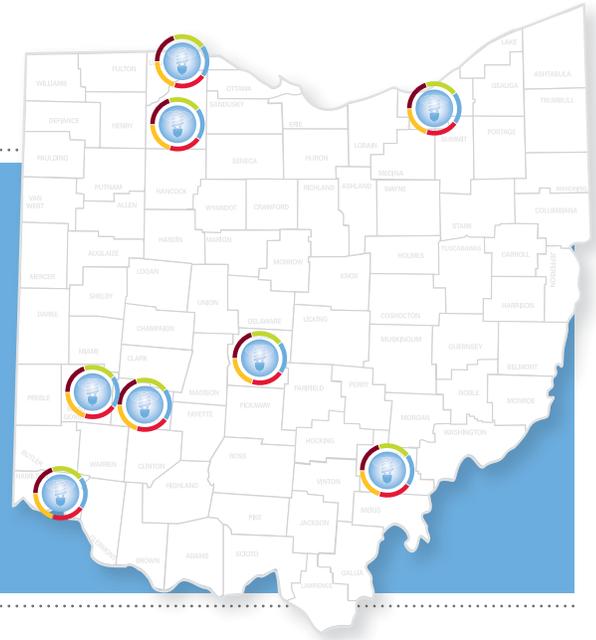
Ohio has invested more than \$150 million in energy technology development through the Ohio Third Frontier, bringing in more renewable energy facility projects than any other state. Ohio ranks #1 for renewable and advanced energy manufacturing, helping Ohio manufacturing companies create products for a globally competitive market. Ohio also ranks in the Top 5 in the U.S. for clean energy, energy efficiency and environmentally friendly production jobs and is ranked #1 in the Midwest for clean jobs and clean businesses.

The state is within 1000 kilometers of more than 63 percent of all U.S. and Canadian manufacturing facilities. Ohio-based manufacturers have maximized the state's manufacturing heritage and proximity to profitable markets to successfully shift from past inventions to tomorrow's innovations. New energy businesses can utilize these resources, combined with the Midwest's lowest taxes to grow and prosper.

A strong and prosperous business community requires an equally thriving system of colleges and universities. The University System of Ohio is the largest comprehensive public system of higher education in the nation. The system invests \$2 billion annually in research and development and is dedicated to training its workforce with the high-level knowledge, problem-solving, creative thinking and technology skills needed to be a leader in the innovation-based global economy.

Ohio also has two of the nation's top independent research universities, and combined with the University System of Ohio, eight schools are recognized as Centers of Excellence in advanced energy – Bowling Green State University, Case Western Reserve University, Central State University, University of Cincinnati, University of Dayton, The Ohio State University, Ohio University, and The University of Toledo.

Driving these universities' commitment to advanced energy is Governor Strickland's Senate Bill 221, a landmark energy reform bill that will ensure predictability of affordable energy prices and serve as a catalyst to enhance energy industries in Ohio, bringing new jobs while protecting existing jobs. The law requires that 25 percent of the energy sold in Ohio must come from advanced and renewable energy technologies—from clean coal to wind turbines—by 2025. These colleges and universities are dedicated to train "green collar" workers and invest significantly in research and development so that Ohio emerges as a national leader in sustainable energy.



Advanced Energy

Ohio's Centers of Excellence in Advanced Energy leverage the state's world-class advanced manufacturing infrastructure by stimulating innovations that produce an increasing array of cleaner, greener and high-tech energy solutions, helping Ohio meet its advanced energy goals.



Institution	Center of Excellence
Bowling Green State University	Sustainability and the Environment
Case Western Reserve University	Great Lakes Energy Institute
Central State University	Emerging Technologies
University of Cincinnati	Sustaining the Urban Environment
University of Dayton	von Ohain Fuels & Combustion Center
University of Dayton	Emerging Center of Excellence in Strategic Energy and Environmental Informatics
The Ohio State University	Climate, Energy and the Environment
Ohio University	Energy and the Environment
The University of Toledo	Advanced Renewable Energy and the Environment



Strategic Energy and Environmental Informatics

Benchmarks

- The Center was the top-ranked center in 2003, the first year that the U.S. Department of Energy established rankings, and has been consistently ranked in the top ten since

Goals

- 1 Establish a sustainable research emphasis on carbon emission, analysis and tracking
- 2 Successfully demonstrate first generation large scale (large installation to small city) energy efficiency and carbon emissions assessment tools
- 3 Develop substantial and sustained relationships with major energy utilities in Ohio and throughout the U.S.

Metrics

- 1 Number of peer reviewed publications
- 2 Annual research expenditures
- 3 Number of utilities supporting research
- 4 Cumulative energy savings for Ohio based businesses and residents

The University of Dayton's emerging Center of Excellence in Strategic Energy & Environmental Informatics builds upon two distinguished hubs on its campus. The first hub, the Industrial Assessment Center (IAC), is funded by the University's Department of Energy and is one of a unique set of programs in the nation to continuously receive funding throughout its 30-year existence. Most notably, the Center was the top-ranked center in 2003, the first year that the U.S. Department of Energy established rankings, and has been consistently ranked in the top ten since.

The second hub is the University's award winning Air and Water Research Program. This program also boasts more than 30 years of continuous growth and achievement. Academically, the University offers one of only two Master of Renewable and Clean Energy Programs in the United States.

Driving Economic Advancement

The Industrial Assessment Center, combined with the Air and Water Research Program, provides the research and academic strengths that enable the University to be responsive to the increasingly critical areas of research in energy efficiency, environmental impact and carbon emissions. The IAC has specifically saved Ohio industry an estimated \$500 million over the past 15 years.