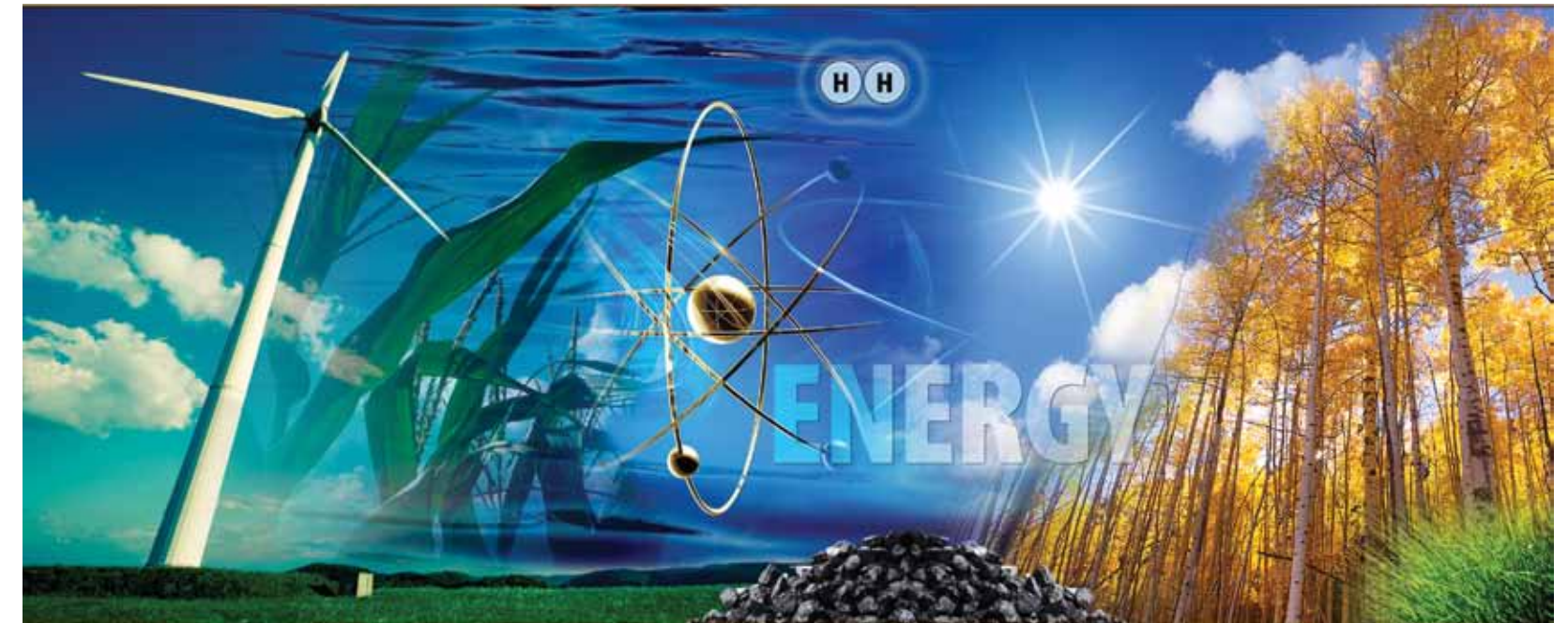


HEADQUARTERS:

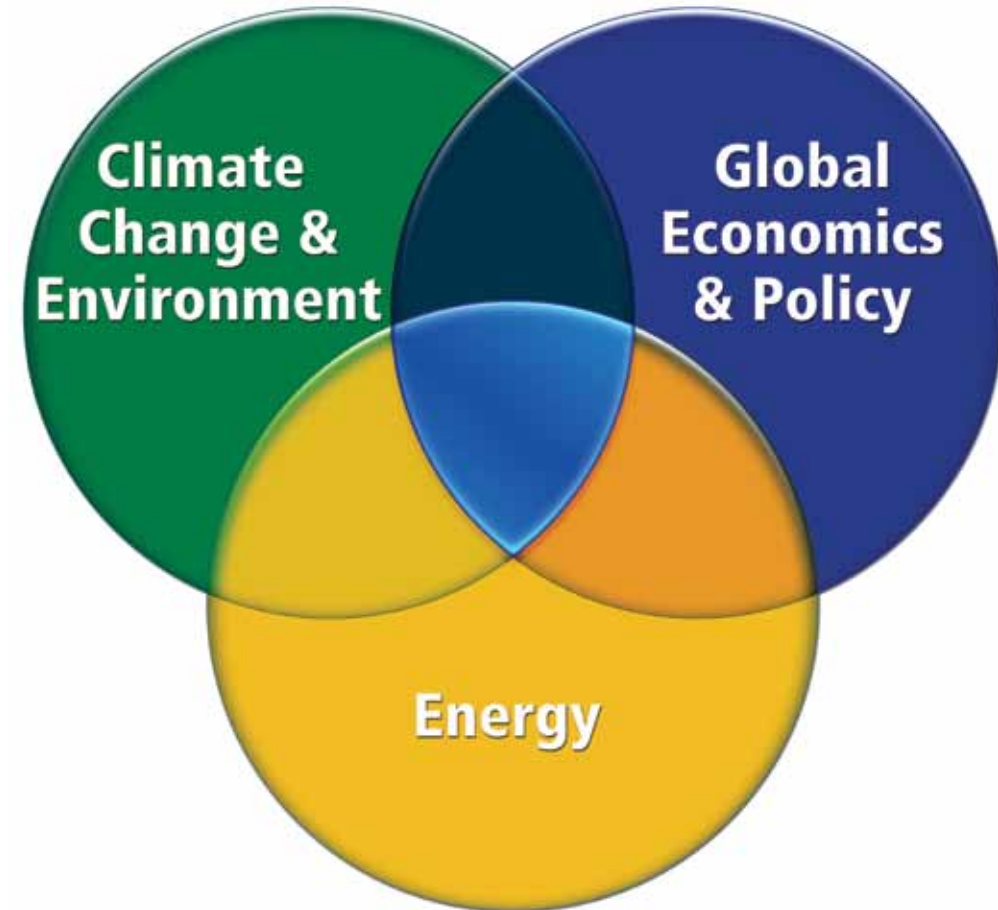
Potter Engineering Center, Room 322
500 Central Drive
West Lafayette, Indiana 47907
(765) 494-1610
energy@purdue.edu
<http://www.purdue.edu/dp/energy>

- 185 faculty affiliates from seven colleges, three Purdue campuses, and 35 organizational units.
- Inception to date research awards \$39.6 million.
- Actively working to upgrade and expand Purdue University system-wide energy assets.



The Energy Center at Discovery Park facilitates high-impact, multidisciplinary projects in support of Purdue's vision to be one of the global leaders in energy.

Working at the INTERSECTION



PURDUE ENERGY RESEARCH

Recognizing the grand-challenge problems of exponentially growing global energy demands and associated national security implications, with gathering evidence of climate change and broader environmental impacts, Purdue is building on a rich history of research, education and outreach activities. The Purdue activities span all sources of energy ranging from fossil fuels including coal and nuclear to renewable sources such as solar, wind and bio energy. The activities: are in the context of socio-economic and political aspects of energy (SEPAE); cover a broad range of disciplines including agriculture, science, technology and engineering; draw on the strengths at our Calumet, Indianapolis (IUPUI), and West Lafayette campuses; include strong collaborations with Indiana University, Notre Dame University as well as Indiana State Government; US DOE Laboratories, such as Sandia National Laboratories (SNL) and Argonne National Laboratories (ANL), and global corporations, such as ADM, BP, Cummins, General Atomics, GM, Rolls Royce, and others; and global partnerships.

SELECTED PURDUE ENERGY RESEARCH HIGHLIGHTS

Awards from Federal and State agencies and from corporations make energy one of the key fields of research, education and outreach at Purdue.

- Purdue has received a multi-million dollar US DOD MURI award and a \$1 million US AFOSR award for research in fuels.
- Purdue has a \$1 million DOE funded research program in lignin biosynthesis to promote ease of bio fuel production.
- Purdue leads a \$17.5 million Predictive Science Academic Alliance Partnerships (PSAAP) Center awarded by the DOE NNSA for design of Micro Electro Mechanical Systems (MEMS).
- The Energy Center's Hydrogen Systems Laboratory has received DOE and GM support approaching \$5 million over three years to establish experiments for advanced chemical and metal hydride based storage.
- The US DOE has funded Purdue's multi-million dollar activities in Catalyst Design by Discovery Informatics.
- The Purdue yeast for ethanol production from cellulose has received a \$5 million US DOE award in collaboration with the Archer Daniels Midland Corporation.
- A \$1.6 million award from NSF and USDA for socio economic and political aspects of energy use and policy.
- US DOE supported multi-million dollar experimental and theoretical high-energy physics program.
- Multi-million dollar US DOE and BP supported research at Purdue University Calumet is helping North West Indiana steel and petroleum industry improve efficiency, the local economy and the great lakes water quality.

ENERGY ASSETS ACROSS PURDUE UNIVERSITY

- Bowen Laboratory
- Calumet Center for Energy Efficiency and Reliability
- Cummins Engine Laboratory
- Engineering Research Center for Energy Efficient Fluid Power (MAHA Laboratory)
- Horticulture Plant Growth Facility
- Hydrogen Systems Laboratory
- IUPUI Lugar Energy Center
- Laboratory of Renewable Resource Engineering (LORRE)
- Maurice J. Zucrow Laboratories
- Ray W. Herrick Laboratories
- Rolls Royce University Technology Center
- Wind Turbine Prognostics and Diagnostics Lab

FUTURE IMPACT

Purdue University is positioned to expand its campus wide energy, environment, and climate change research through:

- Leveraging the \$350+ million bio and nano facilities at Discovery Park (DP).
- Planned modernization of agricultural research facilities.
- Planned strengthening of transportation and propulsion research facilities.
- Strong interactions between Purdue campuses and other academic institutions, government laboratories and industry.
- Four new Endowed Chair Professorships in Energy.
- Implementing new ideas like: an energy efficient futuristic crops greenhouse for CO₂ sequestration; application of nano and info technologies in an integrated manner to future vehicle systems; an energy markets, security and systems analysis center; an advanced nano-electronics based lighting, computer chips, and energy recovery center; and a sustainable energy literacy, education, and global outreach center.

<http://www.purdue.edu/dp/energy>