DEPARTMENT OF ENERGY RESEARCH

UW–MADISON: RANKED #8 NATIONALLY WITH $1.38 BILLION IN ANNUAL RESEARCH EXPENDITURES

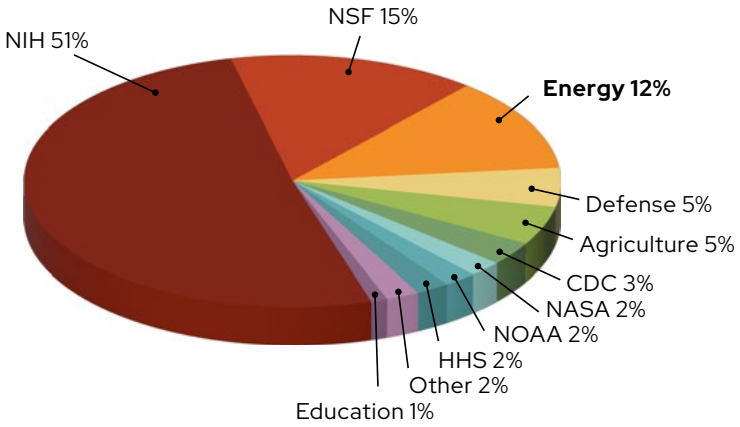
The Department of Energy (DOE)'s research programs—including the Office of Science and the Advanced Research Projects Agency–Energy (ARPA-E)—play a critical role in enhancing energy security, building our future economy, and ensuring America remains a leader in science and technology. The Office of Science is our country's largest supporter of foundational research in the physical sciences, helping advance the fundamental science knowledge base and train future scientists. DOE supports UW–Madison research into diverse energy sources, including nuclear and bioenergy.

$91.7 million

DOE federal research awards at UW–Madison in 2021–22

4th

in nation for research expenditures financed by DOE



EXAMPLES OF DEPARTMENT OF ENERGY RESEARCH AT UW–MADISON

Energy through Enzymes

Department of Biochemistry, Wisconsin Energy Institute, Great Lakes Bioenergy Research Center

UW–Madison researchers are uncovering how enzymes that control the composition of plant cell walls behave to inform the production of easily extractable, energy-rich aromatics in bioenergy plants. This research may lead to the discovery and validation of additional enzymes and products that contribute to increased drought tolerance, reduced insect feeding, and resistance to fungi and microbes in bioenergy crop plants. The work may advance sustainable technology breakthroughs to improve public health, address climate change, improve food and agricultural production, and create more resilient supply chains. More online.

Working Toward Efficient, Resilient Nuclear Reactor Fuel

College of Engineering

Many nuclear reactors currently in use are reaching the end of their lifespan, creating a need for new and more advanced nuclear reactors. Part of that effort includes understanding the fuel particles that will power these new nuclear reactors. UW–Madison researchers are working with a common type of nuclear reactor fuel to strengthen the fuel particle and make a more efficient, resilient energy source. A better understanding of the fuel particle will inform future design iterations. More online.

WHY UNIVERSITY RESEARCH MATTERS

By supporting DOE funding, you support research programs that ensure America remains a global leader in science and technology.

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