



Wisconsin Energy Institute

UNIVERSITY OF WISCONSIN-MADISON

FORWARD IN ENERGY

Why energy?

Our reliance on fossil fuel-derived energy is causing a rise in world temperatures that is taking a toll on human health, the environment, and local and global economies. Fortunately, transitioning our energy systems to “clean” or low-carbon energy sources is both feasible, and full of opportunities for innovation. In pursuing a new suite of clean energy technologies, we create a dynamic marketplace and a more robust economy, protect the environment and its many benefits, and build healthier, more resilient communities.

Who we are

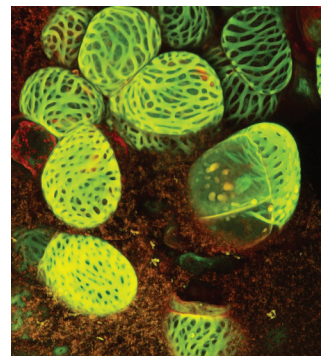
The Wisconsin Energy Institute (WEI) supports the energy-related research of more than 100 faculty and scientists on the UW-Madison campus. We seek to discover and deploy innovative energy technologies and public policy solutions; to provide a public forum in which to learn about and discuss energy challenges; and to engage industry in high-impact research collaborations.

Our vision is to increase Wisconsin’s leadership in identifying strategies for clean, efficient, and cost-effective energy, to advance economic growth for the state and the nation, and to continue UW-Madison’s legacy of solving large-scale societal challenges.

RESEARCH AREAS

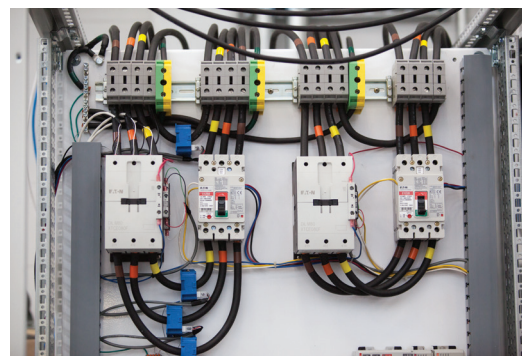
Advanced Biofuels & Bioproducts

We’re working to meet the nation’s need for a comprehensive suite of clean energy technologies, including converting non-food crops into next generation and drop-in fuels that can be used in today’s engines. Applying a sustainability lens to every technical challenge, our experts are developing a robust pipeline from biomass production to biofuel, while also discovering a host of valuable biochemicals and bioproducts.



Electricity & Grid Innovation

Wind. Solar. Biogas. Nuclear. By coupling these carbon-neutral technologies with energy storage solutions, our experts are configuring renewable systems that could support a much smarter energy grid. We’re also engaging with stakeholders and policymakers to ensure that these innovative technologies find a place and a purpose in the real world.



OUR PROGRAMS

Fostering collaborative energy research

We spur discovery and innovation by facilitating cross-disciplinary research. Opportunities for researchers include:

- Seed grant program
- Proposal writing support and grant administration
- Research interest groups

Cultivating public understanding and igniting future leadership

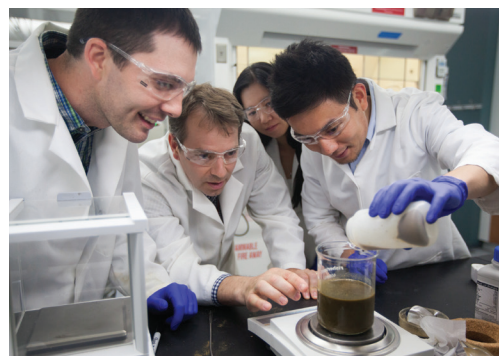
We take a comprehensive approach to education, outreach, and public engagement. Some of our resources include:

- Annual Energy Summit focusing on issues in energy
- Summer energy and bioenergy workshops for teachers
- K-16 classroom materials
- Undergraduate Certificate in Engineering for Energy Sustainability
- Student award competitions

Advancing economic growth

We develop innovative energy technologies and craft public policy solutions. Our activities include:

- Working with M-WERC to expand Midwest energy industry
- Giving rise to new start-up companies
- Fostering relationships with key policy stakeholders
- Direct policy outreach



OUR BUILDING

As the centerpiece of clean energy efforts at UW-Madison, this state-of-the-art building promises to be part inspiration, part collaboration magnet.

Located next to the College of Agricultural and Life Sciences, the College of Engineering, and in close proximity to the College of Letters & Sciences and the new Wisconsin Institutes for Discovery, WEI is strategically placed within a new campus research corridor— one that is ideal for collaborative renewable energy research and technology transfer to applications.

The laboratories, imaging and computational spaces allow researchers, scholars and scientists to work together developing future energy systems and real-world solutions. To support this collaborative work, our building's flexible design includes "plug and play" wet and dry laboratories that easily adapt to changes in research, teams or disciplines, and the first high-bay laboratory on campus capable of modeling large, integrated energy systems.



As the first in a two part plan, Phase I is on track to receive LEED® Gold certification. The facility houses a suite of high-throughput core facilities, an education and outreach space, and translational labs to build partnerships with collaborating institutions and industries beyond our front doors.