ENERGY RESEARCH AT THE UW



Energy solutions for a sustainable planet

The University of Washington is a global leader in energy and sustainability. Working with strategic partners in science and technology, business and public policy, the UW is fostering new understanding, new approaches, and new ways to live and work. What better place to create a more sustainable future than here at the University of Washington.

AREAS OF EXCELLENCE

- Biofuels and bioproducts research
- Energy Storage
- Smart Grid
- Solar cell materials and architecture
- Tidal and marine energy research

BY THE NUMBERS



Energy award totals are calculated from the awards from faculty listed on the Energy website.

CENTERS AND INSTITUTES

- Clean Energy Institute
- Biofuels and Bioproducts Laboratory
- Northwest National Marine Renewable Energy Center
- Renewable Energy Analysis Laboratory
- Clean Energy Testbed Facility
- Photonics Research Facility
- Molecular Analysis Facility
- Joint Institute for the Study of Atmopshere and Ocean (JISAO)
- Center for Enabling New Technologies through Catalysis

MAJOR ENERGY GRANTS

- \$15.6M over 5 years from USDA Development and Sustainable Production of Regionally Appropriate Biomass Feedstocks (AFRI) program. Grant title: "System for Advanced Biofuels Production from Wooody Biomass in the Pacific Northwest." PI: Richard Gustafson
- \$1.9M over 4 years from NSF Sustainable Energy Pathways program. Grant title: "Sustainability of Tidal Energy." PI: Brian Polyage
- \$1.5M over 4 years from the DOE Next Generation Photovoltaic Technologies III program. Grant title: "Rapid Development of Hybrid Perovskites and Novel Tandem Architectures for 30% PCE." PI: Hugh Hillhouse
- \$1.3M over 2 years from the DOE's ARPA-E battery program. Grant Title: "Optimal operation and management of energy storage systems based on real time predictive modeling and adaptive battery management techniques." PI: Venkat Subramanian

Total Energy Awards FY2010-2015

Developing energy solutions that bend the curve of carbon



ENERGY PARTNERSHIPS

- Center for Air Quality, Climate, and Energy Solutions
- Smart Grid Demonstration Project
- Connected Campus Transactive Energy
- Seattle City Light Green Up Project
- Pacific Northwest Transportation Consortium
- NextFlex Founding Member (flexible electronics)
- UW-Tsinghua plus Washington Sichuan (2+2) Partnership
- Tribal Partnership Projects

STUDENT INITIATIVES

- The Green Coalition
- Sierra Student Coaliation
- Students Expressing Environmental Dedication
- UW Earth Club
- The CFL Exchange Project (a student-led energy saving project)
- Clean Energy Bridge to Research REU
- Diversity in Clean Energy Group
- Solar Ambassadors

ENERGY START-UPS

Sensor Network Utilizing Powerline (SNUPI)

(SNUPI) technology is an ultra-low-power, generalpurpose wireless sensing platform. Shwetak Patel (co-founder)

EnerG2

The Leading Manufacturer of Advanced Materials for Energy Storage. Aaron Feaver (co-founder)

Arzeda

expanding the horizons of Nature's chemical and enzyme-engineering capabilities to provide clever solutions for today's most pressing global needs. David Baker (founder)

Soluxra

Flexible photovoltaic materials. Alex Jen (founder)

Second Wind

Advanced wind resource assessment technologies. Second Wind was acquired by Vaisala in 2014.

FOR MORE INFORMATION

www.uw.edu/research/energy

Office of Research research@uw.edu 206.616.0804 CoMotion uwcomotion@uw.edu 206.543.3970 **Corporate and Foundation Relations** Joanna Glicker Assistant Vice President glickler@uw.edu 206.221.3095