WASHINGTON STATE UNIVERSITY ENERGY PROGRAM

www.energy.wsu.edu

Our Mission

To advance environmental and economic well-being by providing unmatched energy services, products, education and information based on world-class research.

About Us

Our staff of energy engineers, energy specialists, technical experts, software developers, and energy research librarians work out of our Olympia, Spokane and satellite offices. Operating similar to a consulting firm, the WSU Energy Program is a self-supported department within the University.

Within WSU

We are part of the College of Agricultural, Human and Natural Resource Sciences. We report directly to the Dean of the College.

Contact

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Creating Energy Solutions

Deep history • Broad expertise • Innovative approach

The **Washington State University (WSU) Energy Program** provides training, on-site assessments and analytical tools to meet evolving energy challenges in the Pacific Northwest, across the United States and around the world.

Partnering with a wide range of agencies, organizations, institutions and businesses, our energy experts identify energy challenges and develop solutions based on world-class research.

To meet our customers' needs, energy experts in each of our program areas develop and deliver:

- Classroom and hands-on training
- Technical assistance based on site assessments
- Sophisticated analytical tools
- In-depth research to establish best practices and influence public policy



Our Program Areas

- Building efficiency
- Agricultural and industrial efficiency
- Renewable energy
- Workforce and economic development
- Facility support
- Technology development and evaluation
- Energy information

Our Customers

- Large and small businesses
- Public and private utilities
- Local and state governments
- Tribes
- Federal agencies and facilities
- Manufacturing plants
- Professional and trade associations
- Schools, universities and national laboratories
- Consumers











Building Efficiency

- Provide technical support to building department staff, builders, contractors and designers on residential sections of the Washington State Energy Code.
- Develop compliance tools and update the *Builder's Field Guide*.
- Design and evaluate energyefficient homes as part of the U.S. Department of Energy (U.S. DOE) Building America Industrialized Housing Partnership.
- Partner with the WSU Composite Materials and Engineering Center laboratory to test the heat, air and moisture-transport characteristics of exterior walls.

Agricultural and Industrial Efficiency

- Provide energy assessments, technical assistance and training to industrial facility staff in the U.S. and abroad to maximize the efficiency of industrial resource use.
- Perform energy assessments and provide funding resources for agricultural operations across Washington state. Develop farm energy software that is the centerpiece of the Washington Farm Energy Program. Implement this program in cooperation with the U.S. Department of Agriculture, Washington State Department of Agriculture, and the state Conservation Commission and Dairy Federation.
- Provide industrial plants in the Pacific Northwest with technical assistance, project support, energy-saving assessments and training at little or no cost.

Renewable Energy

• Operate the Northwest Clean Heat and Power Technical Assistance Partnership to promote combined heat and power, district energy, and waste energy recovery.

- Provide technical expertise to the Washington State Department of Revenue in certifying solar energy systems that qualify for production incentives.
- Lead the six-state Pacific Region Bioenergy Partnership to encourage the development of bioenergy.
- Completed a project with the U.S. DOE's Western Washington Clean Cities Coalition to expand the use of biomethane in transportation. Researched costeffective ways to upgrade and prepare biogas to meet standards, analyzed potential sources of biogas, explored marketing opportunities, and led workshops about developing biomethane projects.

Workforce and Economic Development

- Evaluate workforce, education and training initiatives and policies that support development of the energy workforce.
- Working in collaboration with the Pacific Northwest Center of Excellence for Clean Energy at Centralia College and Edmonds Community College, identify skills needed by industry and support workforce training offered by colleges and employers.
- Guide state-wide Community Energy Efficiency Programs that provide energy-efficiency upgrades to homes and small businesses and develop the energy workforce. Administer funds from the American Recovery and Reinvestment Act and the Washington State Legislature to support these programs.

Facility Support

 Home of the Plant Operations Support Consortium – comprised of state agencies, educational facilities, municipalities, port districts, and nonprofit organizations – to advocate resource conservation, environmental best practices and re-use of surplus/salvage materials.

- Successfully provided guidance and support to resource conservation managers employed at public agencies to reduce utility costs and increase energy efficiency.
- Provided technical assistance to improve energy efficiency and indoor air quality in schools and tribal facilities.

Technology Development and Evaluation

- Under contract with the Bonneville Power Administration, demonstrate the effectiveness of promising technologies that save electric energy to encourage market adoption.
- Develop software to analyze energy system improvements, including AIRMaster+, Motor-Master+, HeatMap and RELCOST Financial. MotorMaster+ International is now available in six languages on three continents.
- Our EECO-MOST application evaluates potential energy savings and greenhouse gas emissions reductions from replacing standard motors with Premium Efficiency motors.

Information Hub

- Provide technical assistance to utility staff and commercial and industrial customers of the Western Area Power Administration in 15 Western states.
- Deliver objective and timely information on energy efficiency and renewable energy via the Energy Experts and Microsoft[®] Hohm[™] websites.
- Home to one of the few fullservice libraries nationwide dedicated to energy-related research.