

# Creating Energy Solutions with Expert Training and Technical Assistance

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WSU's willing and readily available expertise and mentoring have been cornerstones to our corporate greenhouse gas reduction and energy efficiency efforts.

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*Don Sturtevant, PE  
Corporate Energy Manager  
JR Simplot Company, Boise, Idaho*

## 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 over 100 people (energy engineers, energy specialists, technical experts, software developers, energy research librarians, and more) 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.

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Energy Program  
WSUEEP08-025 Rev. 6 • November 2012



*A WSU Energy Program engineer performs an energy use assessment at a plywood plant.*

The Washington State University (WSU) Energy Program provides training and technical assistance to meet evolving energy challenges in the Pacific Northwest, across the U.S. 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, and
- In-depth research to establish best practices and influence public policy.

## Our Customers

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

## Our Program Areas

- Building efficiency
- Resource conservation management
- Industrial efficiency
- Agricultural efficiency
- Renewable energy
- Technology development and evaluation
- Energy information
- Workforce and economic development

## 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 energy-efficient 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's laboratory to test the heat, air and moisture-transport characteristics of exterior walls.

## Resource Conservation Management

- Advocate resource conservation, environmental best practices and re-use of surplus/salvage materials through our Plant Operations Support Consortium, which provides guidance to state agencies, educational facilities, municipalities, port districts and non-profit organizations.
- Provide guidance and support to resource conservation managers employed at public agencies to reduce utility costs and increase energy efficiency.
- Provide technical assistance to improve energy efficiency and indoor air quality in schools and tribal facilities.

## Industrial and Agricultural 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 for agricultural operations across Washington state and develop farm energy software that is the centerpiece of the Washington Farm Energy Program, which we implement in cooperation with the U.S. Department of Agriculture and the Washington State Department of Agriculture, Conservation Commission and Dairy Federation.



*A WSU Energy Program building efficiency expert trains weatherization workers to use a blower door in a residential energy audit.*

## Renewable Energy

- Operate the U.S. DOE's Northwest Clean Energy Application Center to promote combined heat and power, district energy, and waste energy recovery.
- Provide technical expertise in certifying solar energy systems that qualify for production incentives.
- Lead the Pacific Region Bioenergy Partnership to encourage the development of bioenergy in Alaska, Hawaii, Idaho, Montana, Oregon and Washington.
- Work with the U.S. DOE's Western Washington Clean Cities Coalition to expand the use of biomethane in transportation. Research cost-effective ways to upgrade and prepare biogas to meet standards, analyze potential sources of biogas, explore marketing opportunities, and lead workshops about developing biomethane projects.

## 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+*, *MotorMaster+*, *HeatMap* and *RELCOST Financial*. *MotorMaster+ International* is now available in six languages, including simplified and traditional Chinese.

- Our EECO-MOST application – already available in Mandarin – evaluates potential energy savings and greenhouse gas emissions reductions from replacing standard motors with Premium Efficiency motors.

## Energy Information Centers

- Serve as an energy information hub for the U.S. DOE and Western Area Power Administration, answering nearly a quarter million national inquiries since 1990 and receiving very high marks for customer satisfaction.
- 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 full-service libraries nationwide dedicated to energy-related research. Our librarians profile emerging trends in weekly *Energy Newsbriefs*.

## Workforce and Economic Development

- Evaluate workforce, education and training initiatives and policies that support energy workforce development.
- 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 businesses and develop the workforce. Administer funds from the American Recovery and Reinvestment Act and the Washington State Legislature to support these programs.

## For More Information

To learn more about WSU Energy Program expertise in training and technical assistance, contact:

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