

# Creating Energy Solutions



*WSU Energy Program staff have assisted in developing and preparing a clean energy workforce.*

The **Washington State University (WSU) Energy Program** is a self-supported department within the University. Operating much like a consulting firm, we provide expert technical assistance to help our customers address energy challenges.

## Our Expertise

**Building Efficiency** • Provide technical support on residential sections of the Washington State Energy Code. Design and evaluate energy-efficient homes. Support residential and small commercial energy efficiency retrofits and upgrades.

**Industrial Efficiency** • Provide technical assistance to maximize the efficiency of industrial resource use. Lead the Northwest CHP Technical Assistance Partnership, promoting technologies and practices useful for industrial and commercial facilities.

**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 and Spokane offices. To learn more about the WSU Energy Program, contact:

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**Agricultural Efficiency** • Implement the Washington Farm Energy Program with federal, state and industry partners. Perform energy assessments for agricultural operations and develop farm energy software that identifies energy-saving measures.

**Renewable Energy** • Help certify solar energy systems that qualify for state production incentives. Lead the Pacific Region Bioenergy Partnership. Support the use of biofuels and electric vehicles.

**Public Facilities Support** • Home of the Plant Operations Support Consortium, which advocates best practices, organizational standards and use of surplus/salvage materials. Facilitate Resource Conservation Management programs. Assist schools and Pacific Northwest tribes in improving energy efficiency and indoor air quality.

**Software and IT Services** • Develop software to evaluate potential energy savings and greenhouse gas emissions reductions. Design and implement websites and databases.

**Workforce and Economic Development** • Evaluate workforce, education and training policies that support energy workforce development. Guide state-wide Community Energy Efficiency Programs that provide energy-efficiency upgrades and develop the energy workforce.

**Research and Evaluation** • Contract with the Bonneville Power Administration to identify new technologies that save electric energy. Research cost-effective ways to upgrade and prepare biogas to meet standards for use as vehicle fuel. Partner with the WSU Composite Materials and Engineering Center's laboratory to test the heat, air and moisture-transport characteristics of exterior walls.

**Energy Information** • Home of one of the nation's few full-service energy libraries. Operate national and regional energy information centers. Compile research about emerging energy trends of interest to industrial, agricultural, and public sector customers.





# IN THE SPOTLIGHT

## Promoting Solar Energy in Washington State

*Certifying solar energy systems and envisioning a solar future*

### Envisioning a solar future

At the request of Governor Jay Inslee, the WSU Energy Program is working with state agencies, utilities, solar manufacturers, installers, and other stakeholders to recommend an approach to significantly expand the use of solar energy in our state.

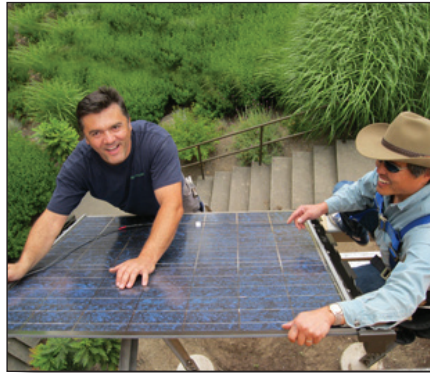
After reviewing current statutes, rules, policies and incentives that apply to solar energy, we will present the Governor with:

- Guidelines to ensure that effective state financial incentives are consistent with the benefits and costs of solar energy
- Strategies to better target those incentives
- A plan to make incentives available to a broader range of organizations and individuals
- Strategies to ensure consumer protection and continued grid reliability

### Supporting the growth of solar energy

Our staff provides technical expertise to certify solar photovoltaic (PV) energy systems that qualify for state incentives through the Renewable Energy System Cost Reduction Program (CRP).

In 2013, 8 megawatts (MW) of solar PV were installed under the CRP – a 54% increase from 2012. The cumulative installed capacity in



*Photo credit: Steve Allwine, Johnson Braund Design Group, Inc.*

the CRP is 29 MW from more than 5,600 systems.

CRP incentives are based on the amount of electricity produced. The incentive rate depends on project type, technology type and where the equipment was manufactured. Extra incentives are available for solar generating systems that use components manufactured in Washington.

### Supporting workforce needs

We are engaged in several workforce-related research projects, policy discussions and initiatives that address the growth of a green economy and job creation, including:

- Researching trends in the renewable energy and energy-efficiency industries in collaboration with the Center of Excellence for Energy Technology at Centralia College.

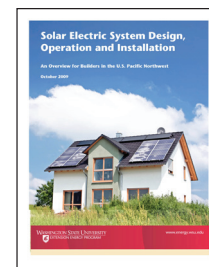
- Helping to develop the Clean Energy Technologies Program at Shoreline Community College.

### Providing technical assistance and resources

Electric utilities, solar installers and manufacturers of components, such as solar modules and inverters, can access our technical knowledge and the vast WSU Energy Library resources.

We manage the [www.EnergyExperts.org](http://www.EnergyExperts.org) website, which delivers information on energy efficiency and renewable energy, including a training calendar, software and the latest solar energy news.

We also published a valuable



resource document, **Solar Electric System Design, Operation and Installation: An Overview for Builders in the U.S. Pacific**

**Northwest**, available at:

[www.energy.wsu.edu/Documents/SolarPVforBuildersOct2009.pdf](http://www.energy.wsu.edu/Documents/SolarPVforBuildersOct2009.pdf)

For additional information, contact

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