

Answers to Commonly Asked Questions Regarding Renewable Energy

by Diane Zipper

What's wrong with our current electricity system?

Generating electricity is a significant source of air pollution and a major cause of smog, acid rain and habitat destruction. Over 40% of the electricity consumed in the Northwest comes from burning fossil fuels, such as coal and natural gas. These and other conventional methods of electricity generation harm human health, degrade ecosystems and are major contributors to global warming. Shifting our electricity system towards clean resources such as wind, solar and geothermal power, help keep the air clean and preserve our quality of life.

Why switch to renewable energy?

By investing in the abundant potential of renewable energy, we can protect our environment, encourage price stability for electricity rates, strengthen our economy and create long-lasting jobs.

Is there enough renewable energy potential in the Northwest?

Yes! The Northwest is blessed with abundant renewable resources, and receives enough sunlight to meet its entire annual power needs. Montana wind resources alone could supply 15 percent of the electricity needs of the United States.

Are there renewable energy projects currently operating in the Northwest?

Yes! Wind and solar projects serve customers throughout the Northwest, and several geothermal projects are in the planning stages. Currently there are ten wind projects up and running,

creating 782 megawatts (MW) of power serving over 120,000 Northwest households. And, over 3,000 MW of wind power is in various stages of development in the region.

What are the environmental benefits of renewables?

Solar, wind and geothermal resources neither harm fish nor create the air, water or land pollution associated with fossil fuels. If natural gas or coal were used to generate the same amount of power as the Stateline Wind Energy Center in eastern Oregon and Washington (serving 72,000 households), they would emit 330,000-tons of carbon dioxide per year, as well as other air pollutants and acid rain precursors. Fossil-based generation can also consume large quantities of water and degrade our water resources. Adding renewables to our energy system improves regional air quality and helps maintain our quality of life.

What are the economic benefits of renewables?

Renewable energy keeps good-paying jobs and dollars in the Northwest, unlike gas-fired generating plants, which create a fraction of the jobs and send millions of dollars outside the region to pay for fuel. Solar, wind and geothermal have no fuel costs and therefore eliminate the uncertainty and expense of fuel price increases. They lower our dependence on imported fuel supplies, diversify our energy portfolio and stabilize rates for the long term.



Wind projects in particular boost economic growth in some of our more rural areas. A report on the economic impacts of the Klondike wind project in Sherman County, Oregon (see RNP web site on page 30), shows that employment from development, construction, and operations stimulated regional businesses and continues to provide personal income in the county. Sherman County as a whole receives substantial tax revenues, and individual farmers receive additional income from royalty payments while continuing farming operations unhindered. All of these benefits will drastically increase as the Klondike project is expanded in the coming years. In a county where farming is a way of life, wind has provided value and stability to the economy.

Who supports renewable energy?

Over 70,000 utility customers are buying nearly 400 million kilowatt hours of green power in the Northwest. This is about the same amount of power as 151 one MW wind turbines produce annually – half the number of turbines at the Stateline wind farm. Businesses, both large and small, are shifting all or part of their electricity usage to renewable resources. And many faith-based organizations, environmental groups and government agencies are also supporting renewable energy. See the RNP and EPA web sites on the following page for more complete listings.

What can I do to support renewable energy?

Sign up for green power through your utility or other retail provider, at home

and at your business. You can also use the power of your dollars by supporting businesses who are buying green power. You can send a letter to your utility and let them know that you want them to purchase renewable energy on behalf of all customers. And finally, consider investing in a small renewable energy system for your home or business.

Where does my money go when I buy renewable energy from my utility or other provider?

When you sign up for green power from your utility, they are required to buy renewable resources on your behalf. It costs more than your regular electric bill, and you can generally expect to pay between \$3-\$7 more per month, depending on the program and the amount you choose. Most of the costs go towards the actual purchase of power, with some going to the administrative costs of running the program.

Why doesn't my utility buy renewable energy on behalf of all customers?

Most utilities are required by their state public utility commissions and/or shareholders to purchase least cost power for all customers, and renewable energy usually costs more than traditional sources. While some renewable resources are becoming more cost competitive and utilities are beginning to acquire more, voluntary programs allow customers the opportunity to choose a more significant portion of their electricity to come from renewables.



“ENERGY TRUST GAVE US THE SUPPORT WE NEEDED TO DESIGN A TRULY HIGH PERFORMANCE BUILDING.”

Mike Irish,
Facilities & Planning Director
Portland State University

Going Green = Getting Green

When Portland State University designed its new Northwest Center for Engineering, Science and Technology, project director Mike Irish understood the benefits of green design.

Mike asked the Energy Trust New Building Efficiency program for design support, and received a \$200,000 incentive for energy efficient design and construction. Energy savings at this 130,000 square foot laboratory, classroom and office building come from ground source heat pump chillers, waste heat recovery and natural ventilation. Energy Trust estimates PSU will save 2.7 million kilowatt hours of electricity every year.

Mike's building, now under construction, will exceed the Oregon building code by at least 20 percent.

Find out how to incorporate energy efficiency into your remodel or new building design, and get ready to go green in more ways than one.

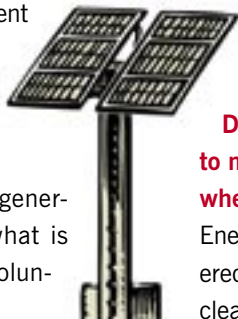


Put us to work. Call 1-866-ENTRUST (368-7878)
or log onto www.energytrust.org/newbuildingefficiency

Energy Trust programs serve Oregon customers of Pacific Power, PGE and NW Natural.

How do I know that the utility is actually buying renewable energy when I participate in their green power program?

These programs are generally monitored by the state public utility commissions, as well as public interest groups that serve as watchdogs. Additionally, there are certification programs, like “Green-e,” run by the Center for Resource Solutions which audit and verify some voluntary green power programs. Look for the Green-e label or ask your utility to get certified. Most utilities also understand that in order to maintain customer confidence, they need to offer a program that uses customer dollars effectively. There are tracking systems in use and in development that will help public utility commissions, utilities and others track where renewable energy is being generated and sold, and what is being purchased for voluntary customers.



Why does renewable energy cost more? I thought it was getting cheaper.

While renewable resources continue to become more cost effective, they are still more expensive than most utilities’ overall system mix, and so cost more than their basic service rate. Additionally, some renewable resources have costs beyond the cost of the energy that make them a bit more expensive – such as integration costs or transmission costs associated with remote resources. Many utilities are beginning to integrate renewables into their long term resource plans, which hasn’t happened consistently in the past. When considering the long range needs of customer electricity demand, renewable energy becomes quite cost effective.

Does “green power” really come to my home? Will my lights go out when the wind isn’t blowing?

Energy delivered into our grid is delivered to the closest load, but when more clean energy from renewable resources

is delivered into our grid, that means dirtier, more costly resources can be turned off or run less often. Your utility will provide the same reliable electricity service to you if you chose renewable energy. When the wind is not blowing they will supplement with other electricity resources. But you can be assured that when you buy a certain amount of renewable energy from your utility they will deliver it to the grid on your behalf. ☺

About the Renewable Northwest Project:

The Renewable Northwest Project (RNP) is a non-profit organization located in Portland, Oregon. In 1994, a broad coalition of public-interest organizations and energy companies created the Renewable Northwest Project to actively promote development of the region’s untapped renewable resources. RNP has proven to be a forceful advocate for expanding solar, wind and geothermal energy in the Northwest.

FIND MORE INFORMATION ON RENEWABLE ENERGY AND YOUR GREEN POWER OPTIONS AT THESE WEB SITES:

www.epa.gov/greenpower

The US EPA Green Power Partnership provides purchasing assistance and recognition to organizations that demonstrate environmental leadership by choosing green power.

www.RNP.org

The Renewable Northwest Project web site has a list and map for Pacific Northwest wind, solar and geothermal projects, information on Northwest utility green power programs, a list of regional commercial customers making significant green power purchases, and general information on renewables.

www.green-e.org/your_e_choices/trcs.html

The Center for Resource Solutions lists certified green tag or Tradable Renewable Certificate (TRC) providers. If you can't purchase green power through your utility, or if you want something other than what your utility offers, consider buying green tags from one of the certified retail providers listed here.

www.eere.energy.gov/greenpower

The U.S. Department of Energy Efficiency and Renewable Energy (EERE) has comprehensive listings of state policies regarding renewable energy and information about utility green power programs throughout the nation.