

CASE STUDY

ELLENSBURG COMMUNITY SOLAR PROJECT

Ellensburg, Washington

Outside a city renowned for its fertile farms, ranches and orchards, a unique structure works quietly, cleanly producing a valuable commodity of its own. In 2006, the City of Ellensburg municipal utility installed a 36 KW community Photovoltaic (PV) system, the first of its kind in the nation. In plain English, a giant free standing solar paneled structure straight out of the future. Leave it to the rodeo city to lasso and harness the 300 days of renewable sunshine and corral it into electrical power ready to be used in home and businesses.

What's more, everyone in Ellensburg now has the opportunity to invest in this locally produced clean electricity. The project uses an innovative and unique financing approach—people in the community are asked to partner with the city to help fund the project. In exchange for their financial support, the city gives the contributors a dollar credit on their electric bill for the value of the electricity produced by the solar system. For instance, if a customer contributes 3% of the total funds contributed by local residents and businesses, that contributor will receive the dollar value of 3% of the power produced by the solar project.

Using the sun's energy is not a new idea, but has not yet been mainstreamed. Why aren't solar panels already on the roofs of all buildings? Barriers to installing solar panels have been cost (installing solar panels can run \$25 -\$30,000), lack of qualified installers, maintenance issues and the reality that your neighbor's oversized maple could potentially shade your newly installed, very costly, high maintenance panels.

Gary Nystedt, Resource Manager for the City of Ellensburg and brain father of the Solar Community Project thinks, with public demand, solar panels on all buildings could someday be an affordable and cost saving reality, encouraging your neighbor to keep his maple trimmed ." Look at cell phone technology" Gary says, " in 1988, cell phones sold for over \$800, they were about the size and weight of a brick...If no one had ever purchased the original cell phones..well, we wouldn't have what we have today." The rising public call for sustainable practices in the building and development industry, clean energy, renewable resources and increasing green collar jobs...

Students and Professors at Ellensburg's Central Washington University (CWU) have participated in the project since its initial conception. Most too young to remember or even imagine a brick sized cell phone, they are thrilled to contribute time, energy and ideas for a future of renewable energy:



The sun is a constantly renewable resource in Eastern Washington, shining an average of 300 days out of the year.



SUSTAINABILITY FOUNDATION

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- Students assisted in writing the grant applications to fund Phase I of the project.
- An Engineering student designed a rotating racking system to help improve system efficiency
- Graphic Arts students designed the project logo and signage
- Advertising and Marketing students helped draft some material for 2008-09 marketing campaign and are working on an ESC web page.
- The staff and administration at CWU have also provided ongoing support and involvement:
- Professors in the Engineering, Geography, Education and Science Departments have made renewables a significant part of their curriculum, taking their students on tours of the solar project quarterly.
- CWU offers students the opportunity to receive a minor in energy studies and have added new classes specifically on the study of energy.
- CWU staff assisted the Bonneville Environmental Foundation with an all day teacher training on solar and wind for twenty-three Ellensburg elementary, junior high and high school teachers and interns.
- CWU partnered with NWSEED, BEF, Foster Pepper and the City of Ellensburg to host a Community Solar Seminar "Harvesting the Sun".

Key Elements

- Overcomes many of the barriers that have, in the past, held up the promotion of solar
- Provides a new and innovative funding approach for everyone in the community
- Provides a valuable educational tool for the Ellensburg School District
- Generates electrical power where it's locally used (distributed energy resource)
- Helps the Ellensburg Municipal Utility meet the 15% renewables mandate by 2020. Over 85% of the project funding will come from local residents and business contributions – not out of the utility rate base.
- Helps to keep Ellensburg's utility dollars in the community
- Gives Ellensburg's residents the opportunity to support efforts to reduce air pollution and global warming
- Encourages other surrounding communities to utilize and promote renewable energy



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