Ellensburg's Renewables Park

By Beth Leader, Project Communication Manager, City of Ellensburg
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To help meet the future energy needs of its customers, the City of Ellensburg is taking advantage of two its most abundant energy resources, the sun (more than 300 days of sunshine a year) and wind. The City intends to demonstrate the costs and benefits of centralized renewable energy generation to the utility and to customers.

Since being accepted as a participant of the Pacific Northwest Smart Grid Demonstration Project, the City has installed 54KW of thin-film nano-technology solar panels and one of eight small wind systems. The City already had installed 58KW of poly-crystalline solar panels prior to joining the project.

By late Spring 2012, the Ellensburg Renewables Park will include the remaining small wind systems (a variety of vertical and horizontal access systems ranging from 1.2KW-30KW), 30KW of concentrating solar dishes, and a large meteorological tower to collect weather data. Ultimately, a new SCADA system also will collect all the data from the various generating resources and feed it back to the demonstration project's regional control center in Richland, Wash. In the meantime a Fat Spaniels data monitoring system provides real time and historical electrical generation data to the interested public via the internet at http://view2.fatspaniel.net/Ellensburg/project/EndUserView.html.

The City also will be developing comparative data of the relative efficiencies of the various types of renewables, supporting research and K-12 curricula development by professors and graduate students at Central Washington University, and demonstrating the ability of centralized small renewables to, cost effectively, help mitigate regional over-generation (high-wind, high-water events) by using the project's transactive control system to automatically take the Ellensburg Renewables Park off and on-line as necessary.

Ellensburg aims to demonstrate that a smart, centralized renewables park is beneficial to utilities and customers.

The City says utilities will benefit from the ability to better predict and control overall quality of power delivery, and better control crew safety during utility outages. Customers will benefit from the accrual of energy savings over time --- the solar and wind systems require virtually no annual maintenance and ongoing capital investment.

Pictured: Solar panels at the Ellensburg, Wash., Renewables Park