

Reynolds School District Leading the Way: Pilot Projects Save Energy, Save Money and Build Healthier Schools

News Release from **Reynolds Sch. Dist.**

Posted on FlashAlert: March 2, 2018

The Reynolds School District is leading the way in using green building design to create healthier, more sustainable schools and *save money* in the process. The District has been working with sustainability specialists EcoREAL Solutions and Hodaie Engineering, project architects BLRB Architects, and owners representative Day CPM, to design and construct schools that require less energy and provide healthy environments that encourage better learning.



Wilkes Elementary will reduce energy by using strategic window placements that enable passive solar heating and provide more natural light.

Exceeding Requirements, Earning Incentives

Statewide Pilot Project

Oregon requires that 1.5% of public building construction costs go toward green energy technology. This is often achieved by putting solar panels on the roof or providing geothermal heating. However, new

sustainable design practices have shown evolving technology to enhance energy and cost savings. So, Reynolds explored other ways for the new schools to meet and exceed the requirement.



Creating healthy, energy efficient schools took work and dedication, according to Reynolds School District Superintendent, Linda Florence, but financial incentives made the choice a “no brainer.” She hopes the pilot projects pave the way for similar approaches on other schools and public buildings.

The schools are a pilot project – the third such project to be included as a pilot for the passive green energy technology requirement. The goal of the pilot was to determine the contribution of the passive solar design elements in meeting the green energy technology requirements. The new buildings are designed with highly insulated walls and roofs, requiring less heating in cool weather and less cooling during warm weather. Strategic placement of windows enables passive solar heating and natural daylighting. Passive cooling strategies use operable windows for natural ventilation and include air shafts that remove warm air from classrooms. **The result of the passive green energy strategies is a nearly 20% reduction in**

energy use, which will save the District money over the long term by reducing heating and cooling costs.

As for solar panels, the schools are built “future ready” to accept panels should an additional energy savings option be implemented.

Energy Trust Path to Net Zero

The extensive passive design strategies qualified the new schools for the Energy Trust’s Path to Net Zero program, which provides incentives for furthering energy efficiency goals. The incentives paid for an eco-charrette meeting between the sustainability specialist, school district, stakeholders, and project

team members to formulate a strategic path to meeting these goals within the project budget. Based on energy models created during this process, the Wilkes Elementary School project has been approved as satisfying the Path to Net Zero's stringent goals. Similar energy models for Fairview and Troutdale Elementary Schools are being submitted to the Energy Trust in the coming weeks.



Healthy Schools Improve Learning

The new schools are also designed to support better learning by providing lots of daylight and fresh air. Issues ranging from asthma to low test scores have been attributed to unhealthy indoor environmental quality, such as poor lighting and high CO₂ levels. The District's passive design approach not only reduces school energy demand and carbon footprint, but also provides students with the types of indoor learning environments shown to support cognitive function and better health.

Green energy incentives paid for an eco-charrette that helped stakeholders develop a plan for meeting further energy efficiency goals.

The Dollars and Sense

The District's proactive and sustainable approach to school design has proven a good financial investment. Energy efficient schools save money for the life of the buildings and the District is also receiving grants and incentives thanks to their innovative approach. **In total, the incentives of the green energy measures will be approximately \$400,000 once the projects are completed.**

Leading the Way

The District's groundbreaking approach to green energy will help inform projects across Oregon that are considering a similar path. District administrators are planning to share program information with other public agencies, to make it easier for them to receive grant funding and work towards green energy requirements.

Go online to find out more about the program, including a breakdown of financial benefits:

<http://bit.ly/RSDGreenEnergy>.