

Solar Assists Louisville Senior Residents in Saving Money on Hot Water Heating Bills

SunWind Power Systems recently installed a solar hot water system in Louisville for St Denis Senior Apartments. Sixteen 32 ft² collectors mounted on the rooftop at Cane Road, will provide solar hot water for 34 apartments for elderly residents with very low income. An expected savings of approximately \$160 a year is anticipated per resident.



Housing Partnership Inc. (HPI) and Catholic Charities of Louisville worked together to make this project possible.

In 2007, these non-profit organizations were awarded funds from Louisville HUD (US Department of Housing and Urban Development) office to buy and renovate the old building for low income housing. HPI's aim is to create affordable housing opportunities, counseling and foreclosure intervention to those in need. They are dedicated to building homes and apartments that are not only affordable, but ones which are built with high standards.

In fact, St Denis was renovated with efficiency in mind and is the first multi-family, Energy Star-rated building in Louisville. Overall, 1.93 million pounds of recycled materials was used in the construction including 20 tons of metals, 254 tons of concrete which was crushed and reused, and 691.7 tons of asphalt from an existing parking lot. This is all in line with HUD's green-building pilot program aimed at encouraging homeowners of affordable housing to incorporate sustainable principles and in their every-day life.

The addition of a solar hot water system fits in with the non-profits' goal to keep utility costs low in order to make it affordable for renters. The advantage of a renewable energy system is that the upfront investment in solar equipment will pay dividends for decades as residents receive a significant portion of their hot water through free, clean energy from the sun. The decision to invest in a renewable energy system will shield residents from an expected 4-8% annual increase in purchased energy costs. Depending on the actual increases, the annual gas savings provided by the solar hot water system could reach \$4,300-\$7,500 during the life of the system!

In addition to the quality-of-life payback that residents will receive from low utility costs, they can also be proud of the environmental benefits that their building provides. As one of Kentucky's largest solar hot water installations, this system will keep more than 450,000 pounds of carbon dioxide out of the atmosphere over the life of the system. That is the carbon equivalent of 40 passenger vehicles burning more than 23,000 gallons of gasoline, and it would take an acre and a half of pine forest to sequester that much carbon. With decades of financial and environmental benefits along with easy integration into a commercial renovation, this project shows that there is nothing "alternative" about solar...it's going mainstream!