EnergyTrust of Oregon, Inc.

Solar Electric: **Residential Solar**

David Baasch has the most powerful roof in the neighborhood. His solar panels are generating approximately 25 percent of his home's electricity needs.

Going Solar, One Roof at a Time

David Baasch is setting the solar standard for his southwest Portland neighborhood. In May 2003, he "powered up" a 3 kilowatt solar electric (photovoltaic) array on his roof and began generating power courtesy of the sun. He expects the system to produce approximately 3,000 kilowatt hours each year – about one quarter of the electricity he uses in his home.

PROJECT OVERVIEW

Who: *Homeowner David Baasch and Energy Trust of Oregon, Inc.*

What: *Roof-mounted photovoltaic system installed on a single-family home*

When: *Began operating May 2003*

Where: *Portland*

Benefits:
- *Generates clean, renewable power*
- *Reduces electricity costs*
- *Reduces the environmental impacts of power generated from fossil fuels*

Annual Generation:
Estimated at 3,000 kilowatt hours

Going solar wasn't a new idea for Baasch. "I've been interested in the environment, and it's something I've been thinking of doing for a long time," he says. "The prices finally got down to the point where it seemed like the right thing to do. It won't have a fast payback, but somebody's got to do it first. I figured I'd be the first in the neighborhood."

When he contacted Mr. Sun Solar, he learned installing solar panels could be even more affordable than he expected. "I thought about doing it myself, but I figured I'd support the local solar people and at least go through them for parts. I called John Patterson at Mr. Sun and he told me that if I had a certified installer do it, I could get a big chunk of it paid back from the Energy Trust. That sounded like a good idea to me."

Mr. Sun Solar worked with Baasch to design a solar system that would perform well given the siting of his home and his needs. They chose to install 18 Sharp polycrystalline panels, which are mounted flush on the south side of Baasch's roof. Mr. Sun Solar handled all the details of applying for the Energy Trust incentive and deducted the amount directly from the bill for the system.

While the system provides power for the Baasch home, it is also designed to feed excess power directly into the power grid. When that happens, the electric meter runs backward as electricity goes to Portland General Electric for use elsewhere. In effect, PGE pays Baasch the retail rate for the power he doesn't use.

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One month during the summer, when his family was away on vacation for two weeks, his solar system actually produced more power than his home used during that month.

Old solar panels were often bulky and unsightly, but modern panels like the ones Baasch has are sleek and out of sight. "One of the neat things about this system is, because of the orientation of the house, it's totally invisible," he says. "Driving by on the street, you wouldn't even know it's there. You don't notice it unless someone points it out."

The 18 roof-mounted Sharp polycrystalline panels on the Baasch home are invisible from the street.

Baasch's enthusiasm for generating clean, renewable energy is contagious. He's convinced a neighbor to install solar panels and a solar hot water system when he begins work on a major remodeling project soon. And he's working on a few other people. He also has ideas for more ways to make a difference in his corner of the world.

"Since now I have this nice glass roof, I'm thinking of using it to collect potable water," Baasch says. "You don't want to do that off a composition roof, but now I have all this square footage of glass. That could really make a big difference in water use." ■

How can we help YOU?

Are you interested in installing a solar electric or water heating system on your home? The Energy Trust provides direct incentives to lower costs, supports a network of solar installers and provides standards to ensure quality.

Do you have an idea for a small wind, hydro, biomass or geothermal project? The Energy Trust may be able to provide funding for these, too.

To find out more, call 1-866-ENTRUST (368-7878) or log onto www.energytrust.org.

The Energy Trust of Oregon, Inc., is an independent nonprofit organization dedicated to energy efficiency and renewable energy development. Our mission is to change how Oregonians produce and use energy by investing in efficient technologies and renewable resources that develop new sources of clean energy, help Oregonians lower their energy bills, stimulate the economy, and protect the environment. The Energy Trust serves Oregon customers of Pacific Power, Portland General Electric and NW Natural.

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