



# SOLAR MAKES SENSE FOR YOUR BOTTOM LINE

The energy choices you make for your organization are based on what's best for your situation. And if it doesn't make economic sense, it's a hard sell.

The combination of rising utility costs and decreasing solar-equipment costs means that solar water heating and electricity make more sense than ever. Property owners with a long-term financial perspective could find solar to be a great choice.

That's why more than 700 businesses, municipalities and industrial facilities in Oregon generate their own electricity or heat their water with a free resource: sunshine.

Cash incentives from Energy Trust of Oregon, coupled with federal solar tax credits and accelerated depreciation, helped reduce their net cost, as well as payback time. And after they recover their investment, they'll enjoy savings on energy costs for years to come, because of long solar technology lifetimes.

## Is solar right for your facility?

A solar electric or water heating system could be a cost-effective investment if one or more of the following statements are true of your situation:

- You have a long-term business objective to control operating expenses
- You have capital available to invest, access to funding or could consider a third-party ownership model
- Your organization has sustainability or green-building goals that support renewable power
- Your facility has an annual electric water heating load of at least 4,000 kilowatt hours, and/or a year-round and daily water heating load that totals at least 10 million BTU per year
- The facility has roof or ground space available with non-shaded southern exposure (east- or west-oriented roofs may work as well)

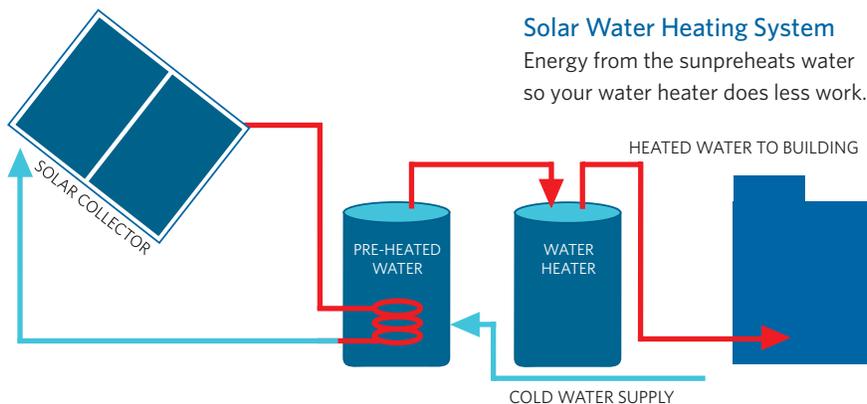
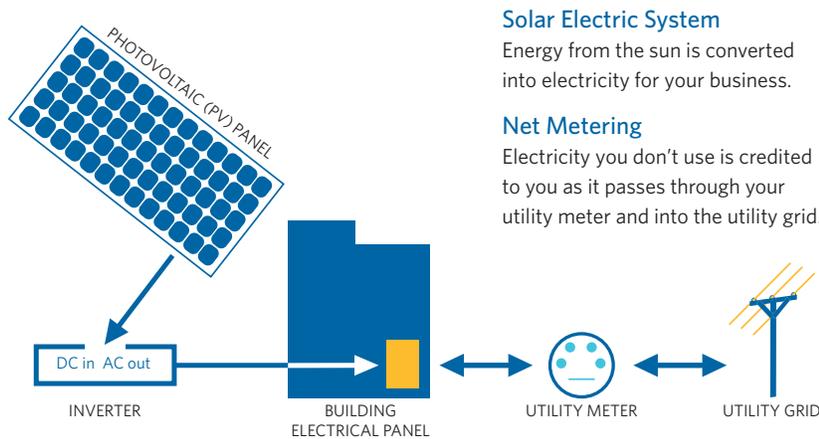
## Going Solar with Energy Trust

Energy Trust has technical expertise and financial incentives to help your organization make the move to solar.

### How solar systems work

Solar electric systems convert the sun's energy into electricity, which feeds through your utility meter into the power grid. Using a net-metering system, the power you generate is credited to your account. Systems are flexible and can be sized and expanded to meet any percentage of your facility's electricity needs.

Solar water heating systems use rooftop collectors to preheat water for building systems, and work for both electric and natural gas utilities. Solar water heating systems are typically sized to meet 50 to 70 percent of your water heating load.





## PACIFIC CREST AFFORDABLE HOUSING DESIGNS SOLAR INTO NEW PROJECTS

When your passion—and your business—is building affordable housing for seniors, you need to keep a sharp eye on the bottom line effect of each decision, including energy.

Rob Roy and John Gilbert, co-owners of Pacific Crest Affordable Housing, are green developers who focus on building sustainability into their properties. But their decision to include solar energy components in everything they build is more financial than philosophical.

Pacific Crest has built several “lodge-style” housing developments in central Oregon. Residents are seniors with incomes less than 30 to 50 percent of the area’s median income. As a requirement of their project funding sources, rents are below-market and tied for 60 years to the area’s median income. “The main thing that forces projects like these into financial difficulty is rising energy costs over time,” Roy explained.

To address this, Pacific Crest developments have at least one clean-energy system, and the crown jewel of their properties, Little Deschutes Lodge in La Pine, has a solar water heating and solar electric panels, plus a ground-source heat pump system. The rooftop elements provides up to 70 percent of all the water heating needs for the tenants, while the heat pump provides heat in the winter and cooling in the summer.

Utility costs are built into each unit’s rent, and for the entire building of 26 units, the total utility bill—heating, cooling, electricity and water heating—is about \$900 a month—about \$35 a month per unit.

Results like that make the payback formula pencil out for Pacific Crest. “Our long-time horizon makes the difference,” Roy said. “With incentives, our payback is less than 15 years.”

Little Deschutes Lodge received a \$4,014 Energy Trust solar water heating incentive. Roy referred to Energy Trust incentives as “awesome—we couldn’t have done these projects without them.”



**We wanted a way to hedge against future increases in utility costs, and generating as much of our own energy as possible will keep us out of bankruptcy.**

**Rob Roy, co-owner  
Pacific Crest Affordable Housing**





**A municipality depends on general revenues to fund operations; it's hard to manage as funds dry up. Renewable energy is another way to conserve and manage utility costs—so we can redirect dollars to other areas.**

Greg McKown, facilities manager  
Medford Parks and Recreation



## MEDFORD PARKS AND RECREATION RETROFITS WITH SOLAR

When managers for City of Medford's Santo Community Center finished up an energy-efficiency upgrade under budget, they had a pretty good idea about what to do with the surplus funding.

"If there were dollars left over, we had to use them for something tied to the scope of the original project," said Greg McKown, facilities management supervisor, Medford Parks and Recreation. The core project was an energy efficiency upgrade funded through a federal American Recovery and Reinvestment Act stimulus grant administered by the Oregon Department of Energy. The city's community center had been previously identified as a promising candidate for solar energy.

Medford had completed one solar energy project through Pacific Power's Solar Incentive Program, a feed-in tariff option. Based on that experience, the city learned how to add solar electric panels to the community center without having to upgrade the building's infrastructure. Finally they installed a 10.56-kilowatt solar electric system. Energy Trust supported the city's newest solar array with a \$13,475 incentive.

"First and foremost, we're a public entity," said McKown. "How we spend tax dollars is important. If we can provide more services at the same cost—do more for the same amount—then we should."

“

More than half our units have solar hot water. We always manage with an eye toward sustainability—things that improve the homes in the long run, and offer good value to the tenants.

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Travis Marshall  
property manager  
VZA Homes



## VZA HOMES MANAGES RENTAL PROPERTIES WITH AN EYE TOWARD SUSTAINABILITY

VZA Homes has a simple formula for making decisions about their rental-housing properties: “We like to bring our homes up to a quality we’d like to live in ourselves,” said Travis Marshall, property manager, VZA Homes.

The company, owned by Carl VanderZanden, manages about 40 units of market-rate single-family, duplex and larger multifamily rental housing. Over the last 10 years, VZA Homes has installed solar water heating at properties as they are acquired.

For VZA Homes, a solar water heating system is a good solution. “Installing solar is the most expensive thing we do,” Marshall explained. “The payoff for solar hot water is only about 10 years; solar electric takes longer. And solar hot water is the easiest system to share with all the tenants in a building.”

VZA Homes’ emphasis on adding sustainable features is part of its overall ownership philosophy, but it has benefits beyond energy savings—it helps business. “We always thoroughly insulate and weatherize our homes and install vinyl windows,” Marshall said. “That’s very important in Portland. People always mention that they noticed that in our ads.”

## Financing Options for Solar

### Energy Trust solar electric incentives

Cash incentives are available to customers of Portland General Electric and Pacific Power, based on a per-watt rate, with an overall project cap. For more information on current incentive levels, visit [www.energytrust.org/solarelectricforbusiness](http://www.energytrust.org/solarelectricforbusiness).

### Third-party ownership for solar electric

You may have the option to contract with a third-party system owner to install, own and operate a solar electric system on your property. You would likely agree to purchase the electricity generated by the system from the third party. Typically the third-party company will provide a turn-key installation. The amount of initial cost, if any, to your organization depends on the investment and ownership model offered by the third party. The financial incentives, including Energy Trust incentives, will be claimed by the third-party owner of the system. For more information, visit the Third-party Ownership tab at [www.energytrust.org/solarforbusiness](http://www.energytrust.org/solarforbusiness).

### Oregon's new solar incentive option (feed-in tariff)

The Oregon legislature passed a law in 2009 establishing a new solar incentive option (feed-in tariff). Oregon customers of PGE, Pacific Power and Idaho Power can apply to be part of the program as capacity is available. A feed-in tariff is an incentive program in which the electric utility pays the owner of a solar electric system a fixed premium rate for every renewable kilowatt-hour generated over a period of time. Those payments allow the owner to recoup their investment over time. For more information, visit [www.solaroregon.org](http://www.solaroregon.org).

## Energy Trust solar water heating incentives

Energy Trust offers cash incentives for commercial solar water heating projects—incentives vary based on calculated energy savings, depending on the water heating source and average 10-15 percent of the total project cost. Incentives are capped at 35 percent of project cost. For more information, visit [www.energytrust.org/solarwaterheating](http://www.energytrust.org/solarwaterheating).

## Qualifying for Energy Trust incentives

To receive Energy Trust solar incentives, you must be a customer of PGE or Pacific Power (electric or water heating) or NW Natural or Cascade Natural Gas (water heating). All system components must be new, and electric systems must be grid-tied. Have your Energy Trust incentive application pre-approved and work with an Energy Trust trade ally contractor to install the system.



## Put the Sun to Work

Call Energy Trust at **1.866.368.7878** or visit [www.energytrust.org/solarbusiness](http://www.energytrust.org/solarbusiness) for more information.