

# Ashland Solar Programs

By  
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# Ashland's Solar Milestones

Adopted one of the first Solar Access ordinances in the nation in 1982.

Rebates for Solar Hot water since 1996 and Solar electric systems since 2001

Net Metering since 1996

# Solar Access Ordinance

This ordinance has been updated a number of times over the years and currently ensures that that newly built structures will cast a shadow no higher than 6 feet on the south adjoining property line.

# Rebates for Solar Hot water and Solar electric systems

\$1,000 for qualifying solar water heaters

\$0.75/ W for residential PV (\$7,500 maximum)

\$1.00 /W for commercial PV (\$7,500 maximum)

# Net Metering

Simplified connection standards and monthly excess solar electric kWh's credited back to generator's account; annual excess purchased (1,000 at retail balance at wholesale)



# “Solar Pioneer ” Program

30 KW's of Solar PV was installed in 2000 under the “Solar Pioneer” program. We partnered with the Bonneville Environmental Foundation, BPA, ODOE, Avista, Southern Oregon University, the Oregon Shakespeare Festival and the citizens of Ashland to fund the four site system to promote and educate Ashlanders about solar electric generation.

# Original Solar Pioneer Project



# 69 Solar Water Heater Installations



# Residential Solar Water Economics

## Simple Economics of a Residential Solar Water Installation in Ashland

<b>2,500 kWh System (typical installed cost)</b>	<b>\$8,500</b>
<b>City Rebate per (1,000 maximum) @ \$0.40 per annual kWh savings (rated)</b>	<b>= \$1,000</b>
<b>Federal Tax Credit @ 30% of cost basis (cost - city rebate)</b>	<b>= \$3,750</b>
<b>Oregon State Tax Credit (\$1,500 maximum) @ \$0.60 per annual kWh savings (rated)</b>	<b>= \$1,500</b>
<b>Net system cost</b>	<b>= \$2,250</b>
<b>Annual production 2,500 kWh (\$0.084 per kWh)</b>	<b>= \$210</b>
<b>Simple payback (does not include the sale of RECs)</b>	<b>= 11 years +/-</b>

# 92 Solar Electric Installations



# Including Several Commercial Installations



# Residential Solar Electric Economics

## Simple Economics of a Residential PV Installation in Ashland

<b>2880 Watt System (installed cost of \$5.50 per Watt)</b>	<b>\$15,840</b>
<b>City Rebate per Watt (7,500 maximum) @ \$0.75 per Watt</b>	<b>= \$2,160</b>
<b>Federal Tax Credit @ 30% of cost basis (cost - city rebate)</b>	<b>= \$4,275</b>
<b>Oregon State Tax Credit (\$6000 maximum) @ \$2.10 per Watt</b>	<b>= \$6,000</b>
<b>Net system cost</b>	<b>= \$3,405</b>
<b>Annual production 3,744 kWh (\$0.084 per kWh)</b>	<b>= \$314.82 +/-</b>
<b>Simple payback (does not include the sale of RECs)</b>	<b>= 11 years +/-</b>

# Ashland Commercial Solar Economics

## Simple Economics of a Commercial PV Installation in Ashland

<b>7,500 Watt System (installed cost of \$ 5.50 per Watt)</b>	<b>= \$41,500</b>
<b>City Rebate @ \$1.00 per Watt (7,500 maximum)</b>	<b>= \$7,500</b>
<b>Federal Tax Credit @ 30% of cost basis (cost - city rebate)</b>	<b>= \$10,200</b>
<b>Net system cost</b>	<b>= \$23,800</b>
<b>Annual production 9750 kWh (\$0.082 per kWh)</b>	<b>= \$779.5 +/-</b>
<b>Simple payback (before depreciation; does not include the sale of RECs)</b>	<b>= 30 years +/-</b>

# Rogue Solar Program



*Bringing the power of the sun to you* ←



# Many Ashland Homes are Shaded



**Many don't have \$16,000 - \$18,000 to invest their own PV system.**



**But people want clean, renewable solar electricity. So What?**



# Solar Pioneer II

In July, 2008 the City of Ashland energized the system.



# Solar Pioneer II: The System

A 63.5 kW PV power system

363 Solar World 175 mono-crystalline modules

UniRac flush rack system

Solectria 60 kW inverter

System Cost: \$442,000 = \$6.96 per Watt

## Solar Pioneer II

We are offering to the citizens and businesses of Ashland, the opportunity to purchase output from the system. A single panel currently costs \$701.75. Half, 1/4 or multiple panels can be purchased. A once a year credit of the output of their share of the system (about \$20 per panel) will be applied to their electric bills.

# Solar Pioneer II



# Questions and Contact Info

Call Larry Giardina at (541) 552-2065

Email me at : [giardin@ashland.or.us](mailto:giardin@ashland.or.us) - if I can be of assistance in helping your important renewable energy efforts.

**Thanks!**