

## ***Solar Plan for Oregon***

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Solar energy can be used to substantially reduce Oregon's greenhouse gas (GHG) emissions, while also reducing the cost of Oregon's electric utility system and producing other benefits. The new report, *Solar Plan for Oregon*, by Chris Robertson & Associates, LLC, details the economics and recommends the leadership and policy requirements necessary to achieve these benefits.

To meet Oregon's commitments to reduce GHG emissions we need to burn less coal and natural gas to produce electricity. The state's electric utility system needs to be about 80% based on renewable energy. This electric utility "de-carbonization" will require substantial investments in new zero-carbon energy technology.

This *Solar Plan for Oregon* is a planning scenario in which 20 percent of Oregon electricity would eventually be produced by solar energy. We would invest about \$10 billion in solar photovoltaic (PV) generation capacity over the period 2015-2030. Half would be built on buildings as distributed PV (DPV) and half on land as utility-scale power plants (UPV). The economic results of this scenario are summarized here. The benefits are based on the 2013 avoided costs of Portland General Electric (PGE) and PacifiCorp (PAC).

### **Cost and Benefit Results in 2012 \$ (Billions)**

#### **Life Cycle Costs**

Distributed PV on Buildings	\$3.87
Willamette Valley Utility Scale	\$1.74
Sunny Oregon Utility Scale	\$1.41
Total Cost	<u>\$7.02</u>

#### **Benefits (Based on 2013 PGE & PAC Avoided Cost Rates)**

Distributed PV on Buildings	\$4.21
Willamette Valley Utility Scale	\$2.58
Sunny Oregon Utility Scale	\$2.07
Total Benefit	<u>\$8.86</u>

**Net Present Value in 2012 \$ (Billions)** \$1.84

**Greenhouse gas pollution reduction** The *Solar Plan for Oregon* would reduce greenhouse gas emissions by 108 million tons over the life of the solar installations. Other pollution caused by fossil fuel power plants would also be reduced. The cost of this carbon and other pollution reduction is negative – it is better than free.

**Share the benefits** A large-scale solar program can produce these and other net economic benefits for Oregon. The role of regulators and policy makers can then become that of allocating benefits among utility customers and shareholders, rather than allocating costs.

Access the *Solar Plan for Oregon* at [chrisrobertsonassociates.com/publications](http://chrisrobertsonassociates.com/publications)