



Photo courtesy of OMSI

SOLAR LESSONS FROM OMSI

MUSEUM'S NEW SOLAR PROJECT DELIVERS CLEAN ENERGY AND HIGHLIGHTS HOW THE GRID IS EVOLVING

In the center of the Oregon Museum of Science and Industry (OMSI) sits an old generator, a hulking reminder that from 1929 to 1975 the site was originally home to Station L, a wood-burning, steam-powered Portland General Electric plant. Now electricity is once again being generated at the site, but this time it's clean energy from 500 rooftop solar panels.

It's not surprising that a museum devoted to science and technology has an interest in sustainability and renewable power. A decade ago, Energy Trust of Oregon incentives helped OMSI invest in energy-efficiency upgrades, including HVAC improvements and LED lighting. But the museum could not install solar until it dealt with a 520-ton problem overhead.

River rock—tons of it—served as ballast holding the building's roofing in place. When it came time to replace the 30-year-old roof, OMSI switched to an adhered roofing system that freed up load capacity and provided the opportunity to go solar.

"It's certainly important to us to make energy conservation and renewable methods part of the way we do business," said Clair Friskey, facilities project manager, OMSI.

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Part of our mission is to be a responsible steward of the environment. We can't be a science museum without addressing climate change and investing in renewable energy.

Clair Friskey, facilities project manager, OMSI

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PROJECT-AT-A-GLANCE

Overview

- 200-kW roof-mounted solar electric system
- 238,865 kWh solar energy generated annually

Project benefits

- More local renewable power
- Lower energy costs
- Supports carbon reduction goals

Incentives and savings

- \$377,622 total project cost
- \$1,800 Energy Trust solar development assistance incentive
- \$35,000 Energy Trust solar installation incentive
- \$18,608 estimated annual energy cost savings
- < 4-year return on investment

PGE provided additional funding assistance

Energy Trust trade ally solar contractor

- Imagine Energy

The solar project came online in January 2022 and will produce an estimated 238,865 kilowatt-hours of electricity annually, covering about 10% of OMSI's yearly usage. The solar output also erases 130 tons of carbon dioxide from OMSI's carbon footprint, which is equivalent to removing 28 cars from the road annually.

"This reduction helps OMSI on its journey toward the goal of net zero carbon emissions," said Friskey.

The PGE Renewable Development Fund—supported by PGE Green FutureSM renewable energy customers—awarded OMSI a nearly \$286,000 grant. The project drew support from PGE because it adds more local renewable energy and provides educational benefits for environmental justice communities. The educational components include new renewable energy classes and hands-on activities.

OMSI is also in the beginning phases of multi-year project to rework its Natural Sciences Hall, creating a place for communities across the Pacific Northwest to share their place-based knowledge, challenges around climate change and solutions to inspire others to climate action.

"It's important to OMSI to share educational exhibits and activities that inspire kids' curiosity about renewable energy," said Friskey.



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Diversity and equity in the solar field

OMSI relied on Imagine Energy, an Energy Trust trade ally, to design and install their solar array. Typically, about 50 to 60% of Imagine Energy crews are people of color, and the company has teamed up with local nonprofit Leaders Become Legends to help encourage more equity in the solar field.

Leaders Become Legends mentors young people of color affected by gun violence, including many who have been incarcerated, and helps them connect with solar careers and other green job opportunities.

"It's a great learning experience for everybody," said Pat Schellerup, director of business operations, Imagine Energy. "It has had good benefits for the employees who come through the program and good benefits for our company, too. A couple of people who started at entry level have been promoted and are now running their own rooftop crews here and taking leadership roles."