

OREGON'S CLEAN ENERGY INDUSTRY

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ECONOMIC IMPACTS AND BENEFITS

What does expanded clean energy production mean for Oregon communities? This factsheet summarizes economic impacts associated with the state's expanding clean energy sector, with a focus on solar, wind, and geothermal production. It details the ripple effect from energy investments and purchasing; the jobs created and supported; and the industry's direct contributions to counties—including some of Oregon's most rural and economically hard-hit areas.

The headline? Oregon communities that host wind, solar, and geothermal energy projects enjoy new, good-paying jobs, increased county revenue, and expanded economic activity.



A GROWING CLEAN ENERGY INDUSTRY

Oregon's clean energy industry includes renewable energy sources like wind, solar, and geothermal, as well as energy efficiency investments, biomass, and light hydro production. All told, Oregon's clean energy sector has the capacity to produce over 4,000 megawatts of energy, providing clean, renewable energy to businesses and homeowners. Expansion of Oregon's clean energy sector results in huge investments in local communities. **This fact sheet primarily focuses on the economic impacts of Oregon's wind, solar and geothermal industries, detailing local investments, job creation, and contributions to public services.**

Payments counties receive in the form of taxes and other fees from renewable energy projects reduce the burden on local taxpayers and support investments in local schools, fire protection, healthcare, roads, and other local priorities.

Between 1999 and 2020, wind, solar, and geothermal energy industries contributed **over \$348 million** in taxes and other payments to Oregon counties. Counties receiving the largest share of renewable energy payments include some of Oregon's most sparsely-populated and economically hard-hit areas.



RENEWABLE ENERGY COUNTY PAYMENTS: TOP OREGON COUNTIES

County	1999-2020 Contributions	Percent County Budget in 2020
Sherman County	\$149,581,884 total	17.8%
Gilliam County	\$113,892,481 total	14.8%
Umatilla County	\$34,703,479 total	2.3%
Morrow County	\$26,923,286 total	4.0%
Union County	\$6,438,852 total	1.0%
Malheur County	\$5,946,191 total	3.2%
Lake County	\$2,283,412 total	8.2%
Klamath County	\$1,579,104 total	0.9%

Payments by renewable energy companies to Oregon counties in 2020 totaled \$37 million, the highest annual total in Oregon's history. This demonstrates a trend of upward growth in renewable energy revenue.



ONE COUNTY'S WINDFALL

Renewable energy investments can have an outsized impact in sparsely-populated rural counties. Take Morrow County, located in north central Oregon. For every 1,000 employable residents, 38 are currently employed in the renewable energy sector. Morrow County has received over \$26 million in tax payments from renewable energy projects, lessening the tax burden on other residents to support schools, healthcare, roads, and other infrastructure.

THE RIPPLE EFFECT

Money invested in renewable energy production creates a ripple effect in Oregon communities. This includes purchasing of goods and services by renewable energy companies and economic expenditures by employees and contractors and the local businesses and workers those expenditures support. Every \$1 spent in the renewable energy sector stimulates \$1.62 in economic activity. This is called the multiplier effect, and the added economic activity contributes to job creation in associated industries.

DIRECT, INDIRECT, AND INDUCED EFFECTS IN RENEWABLE ENERGY



Every industry has a multiplier effect—it's a question of how much. For example on the low end, wholesale petroleum and petroleum products have a multiplier effect of 1.3. On the high end, high tech software and manufacturing industries have an output multiplier effect ranging between 1.5 and 1.7, meaning that every dollar invested translates to between \$1.5 and \$1.7 dollars in economic activity. Oregon's renewable energy industries are on an even higher end of the scale for their positive multiplier effect on the economy, ranging between 1.6 to 1.8.

"Renewable energy production is providing complementary income for local farmers and has been a huge benefit in our county."

Morrow County Commissioner, Don Russel

JOBS

Thanks to the multiplier effect, for every job created in the clean energy sector, another 5.25 jobs are supported. As of 2019, solar, wind and geothermal production in Oregon were together responsible for over 400 direct jobs and 2,600 jobs overall. This is in addition to over 42,000 jobs associated with the energy efficiency sector. Clean energy jobs are found in every part of the state, and about half of the jobs associated with solar, wind, and geothermal energy production are located outside of the Portland Metropolitan area.

A GROWING RENEWABLE ENERGY WORKFORCE

Direct jobs associated with the wind, solar, and geothermal industries include wind technicians, engineers and site managers. Indirect jobs supported by the industry include auto mechanics, restaurant workers, retail employees, bank staff, and construction workers.



"With the decline in our region's aluminum and timber industries, wind and solar energy have provided a vital new source of family-wage jobs for Mid-Columbia residents. These are local careers that allow people to stay in our rural communities, which in turn supports our schools, our public services, and our way of life in rural Oregon and Washington."

Daniel Spatz, Columbia Gorge Community College, Capital Projects and Community Relations Director

METHODOLOGY AND SOURCES CITED

In preparing this fact sheet, Renewable Northwest compiled information from county planners and tax collectors in all Oregon counties and reviewed solar and wind energy data provided by the National Renewable Energy Laboratory, including:

Solar: https://atb.nrel.gov/electricity/2021/utility-scale_pv

Wind: https://atb.nrel.gov/electricity/2021/land-based_wind

In addition to the U.S. Energy Department's Land-Based Wind Market Report: https://www.energy.gov/sites/default/files/2021-08/Land-Based%20Wind%20Market%20 Report%202021%20Edition_Full%20Report_FINAL.pdf

Other sources referenced include: Old Wind Farm Life Extension: <u>https://www.mdpi.com/1996-1073/14/12/3678</u>

