

# NW solar, wind developments could impact vast swaths of ag land

By **MATTHEW WEAVER**  
Capital Press

Up to 146,000 acres of the Northwest — much of it farmland — could be converted to solar production by 2050, according to a recent study.

In addition, wind power production could directly impact nearly 8,800 acres.

The American Farmland Trust used National Renewable Energy Lab data to study several scenarios, said Addie Candib, Pacific Northwest regional director for the trust. AFT is a non-profit that works to protect and conserve farmland.

The cost of solar developments will impact the number and size of them, Candib said. The lower the cost, the bigger the developments.

The AFT projects solar developments will be built on a maximum of 42,000 acres in Idaho; 75,000 acres in Oregon and 29,000 acres in Washington.

Land used for wind power developments is split into two categories, direct permanent impact and total area impact.

Direct impact is the land area altered by wind energy development. The total impacted area is defined as the entire footprint of a wind farm.

Using the lowest-cost scenario, the direct impact of wind generation would be 953 acres in Idaho; 5,600

acres in Oregon and 2,755 acres in Washington, according to AFT.

The estimated total area impacted by wind farms is 953,000 acres in Idaho; 5.6 million acres in Oregon and nearly 306,000 acres in Washington.

The numbers reflect the projections for all land expected to be converted to solar or wind by 2050, not necessarily just agricultural land.

Agricultural land, however, stands to be disproportionately impacted by energy development because it is typically flat and easy to build on, Candib said.

Those projections don't "sound like a lot," Candib said, but Washington lost about 90,000 acres of ag land from 2000 at 2016 to all uses, including urban development and low-density residential development.

"Assuming we stay on the track that we're on ... you're tacking on an additional 20 to 30%," she said. "It is concerning."

Land can be leased to solar or wind developers for more than it can be leased for agriculture, so landowners may be tempted to consider energy developments, Candib said.

She used the example of solar leases on Washington Department of Natural Resources-owned land, which can bring in as much as \$300 per acre, while graz-



**The size of solar and wind power developments will likely depend on the cost of building and operating them, according to the American Farmland Trust.**

ing leases bring in \$2 to \$3 per acre.

"So there's a significant financial incentive for DNR to lease to solar developers," Candib said.

Several power developments are underway in the Northwest.

One in southern Idaho would cover roughly 1,000 acres.

In Oregon, about 31,000 acres are slated for solar projects, 48,000 acres for wind projects and 62,000 acres for combined wind and solar projects under the state's jurisdiction.

The Washington Utilities and Transportation Commission lists up to 13,342 acres slated for solar and wind projects.

Numerous other wind and solar projects have been

approved or constructed at the county level, representatives of the state agencies say.

The AFT supports renewable energy development and investing in technology to reduce greenhouse gas emissions, Candib said, but it also recognizes the importance of food production and the community, economic and environmental benefits of agriculture.

"There are paths forward to develop renewable energy that doesn't compromise our best agricultural land, but it requires some intentional planning and policy making," she said.

The organization recommends building solar development on marginal land or land that won't compromise or displace agriculture.

## Washington proviso a 'game-changer' for wind and solar development

By **MATTHEW WEAVER**  
Capital Press

Agricultural stakeholders, tribes and wildlife advocates in California's San Joaquin Valley worked together to find appropriate sites for solar development.

American Farmland Trust, which works to protect farmland across the West, advocates a similar "least conflict" process in the Columbia Basin as more solar developments are planned.

The Washington Legislature has approved a \$500,000 proviso for Washington State University to lead that process.

Addie Candib, Pacific Northwest regional director for the organization, calls the move a "game-changer."

"It is possible for us to have it all," she said. "It's possible for us to build the renewable energy we need, to achieve our greenhouse gas emissions goals, while also protecting our most productive and versatile farmland."

Prime farmland should be protected, she said.

If solar projects are proposed for prime soils, she said they should be dual use, in which solar panels are installed in a way that allows agriculture such as livestock grazing around them.

"Solar projects on farmland should be farmer-led and developed in partnership with the agricultural community," she said.

In theory, solar land can be mitigated and returned to agriculture when the life of a solar project ends, Candib said.

"That said, I don't think we have a lot of examples

even to look at to see what does it look like for that solar energy to be removed and (the land) returned to ag production successfully," she said.

Taking land out of ag production can have "ripple effects" in the farm community and economy, Candib said.

"Thirty years from now, you could take the solar panels off and make it open space again, but is there still a farmer who wants to farm it? Are there still farm retailers available to support that business? Is there still a marketplace for the products they're going to grow?" she said.

# Researchers seek farmers to experiment with buckwheat

By **MATTHEW WEAVER**  
Capital Press

Washington researchers are seeking growers interested in experimenting with buckwheat on their farms.

Buckwheat is a "cash crop, cover crop and something in between," said Rachel Breslauer, a graduate student in Washington State University's sustainable seed systems laboratory.

"Not only will you be able to actually experience a new crop and have some of the wiggle room to try something new with the support of this project, you'll be able to get connected with potential buyers and start to develop your own marketing for this crop if you end up really liking it," she said.

Breslauer spoke during the recent Grains Week, sponsored by Cascadia Grains, the Culinary Breeding Network and WSU's food systems program, among others.

Common buckwheat is the variety most often grown. Products are made from the groats, which are the de-hulled seeds. Toasted groats are called kasha, which can be boiled and used in porridge, ground into grits or milled into flour.

Most buckwheat seed production is in North Dakota, with 11,700 acres; Washington, with 6,200 acres; and Minnesota, with 2,900 acres.

All buckwheat seed production in Washington is concentrated in the central region and is grown in rotation with potatoes.

Farmers use buckwheat as a cover crop to provide a canopy to suppress weeds. Its flowers attract pollinators and provide phosphorus for following crops.

Most commercial buckwheat production is under contract, Breslauer said. If a farmer wants to raise buckwheat without a contract, the options are limited.

Contract prices can vary from \$10 to \$15 per bushel, about 50 pounds, and yields can range from 750 to 1,200 pounds or higher per acre, Breslauer said.

WSU's More Bang For Your Buckwheat Project is considering potential trade-offs between growing it as a cash crop or cover crop, with trials for two years in western Washington. They'll survey farmers who raise buckwheat on a commercial scale, more than 20 acres.

The university's Diversifying Northwestern Fields and Palates project includes buckwheat as it works to

connect farmers with processors and consumers.

"After growing one crop of buckwheat, a whole host of weeds just seem to go away for a while," said Klaas Martens, a Penn Yan, N.Y., organic grain farmer. "Quackgrass is one it's especially hard on."

Frustrations growing buckwheat include the fact that the crop is indetermi-

nate, meaning it will keep growing, with ripe seeds as it still blooms. Martens swathes the crop, which he recommends.

Martens used buckwheat to break up a root disease and nematode complex that had built up after several years of raising dry beans.

"We don't grow it because we're going to make a lot of money on this one crop,"

he said of buckwheat. "We grow it because it will make our system stronger, more resilient and overall more profitable."

The Washington Grain Commission recommends not following buckwheat with a wheat crop, due to concerns about volunteer plants in the following wheat crop, commission CEO Glen Squires said.



Rachel Breslauer/WSU

**Washington State University researchers are looking for farmers with more than 20 acres to experiment with buckwheat.**

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