

Regional electricity demand projected to rise nearly 25% in next decade

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Demand for electricity in the Northwest is expected to grow at its fastest pace in decades due to increasing industrial use, followed by the electrification of transportation, homes and businesses.

Demand for electricity in the region is projected to rise about 2.5% annually, and by nearly 25% within the next decade, according to an annual report on expected electricity demand. The report, Northwest Regional Forecast of Power Loads and Resources, is released each year by an industry trade group called the Pacific Northwest Utilities Conference Committee. For more than 70 years, the group has aggregated and analyzed annual demand projections from utilities in Oregon, Washington, Idaho and Montana to paint a larger picture of future demand for electricity throughout the region.

The largest driver of demand during the next five to 10 years will be industry, the report finds, including data centers and semiconductor manufacturing.

The latest projections the trade group collected from the region's utilities surprised Crystal Ball, the group's executive director. Last year's forecast showed demand for electricity in the region would grow a little less than 1% per year during the next decade.

Now, just a year later, it appears the region's utilities are preparing for growth that is more than twice that.

"This rate of projected growth we haven't seen in decades. It's quite remarkable," Ball said.

She said the utilities will need to identify and invest in more energy sources to meet demand. Currently, Oregon gets most of its electricity from hydropower, followed closely by natural gas and then other renewables such as solar and wind.

"There are resources in our region that have been retired, that will be retired, fossil fuels will need to be replaced with cleaner resources, with more wind and solar. We're going to have this steep step up in demand, and it's not enough to just replace what's retired, we need new resources to meet projected demand," she said.

While many utilities are planning to expand the amount of energy they source from sun and wind to meet electricity demand, energy storage and transmission remain central challenges, according to the report.

Impact of electric cars.

Aaron Orlowski, a spokesperson for the Eugene Water and Electric Board, which participates in the annual forecast, said the utility is looking at both diversifying its energy sources and trying to reduce demand during peak periods. The board – which is the largest consumer-owned utility in Oregon – predicts about 2% growth in electricity demand annually starting in 2030, largely due to an increase in electric cars.

About 75% of the utility's customers currently heat their homes with electricity from renewable energy, primarily hydropower, Orlowski said.

"If half of the people currently using natural gas in our area switch to electric, then that demand rises a lot quicker and we need more sources," he said.

Diversification of energy sources for the utility includes investing in more solar and wind as well as power generated from the burning of biomass, such as wood and animal products, and small modular nuclear reactors. The latter is likely a bit further off. Only one design, by the nuclear power company NuScale based in Tigard, has been approved by the U.S. Nuclear Regulatory Commission.

Beyond diversification, Orlowski said part of the utility's future planning involves trying to change consumer habits and reward reduced consumption.

The utility's customers could reduce demand and stress on the grid caused by electric vehicle charging by 40% if they charged their vehicles overnight after 10 p.m. when electricity used for other activities – such as air conditioning and lights – is much lower. He said the utility is also looking at the impact of improving energy efficiency in buildings as a way to curb demand that exceeds energy available.

“Making homes and businesses more efficient is the best first choice. If we don’t need to use the energy, that’s all the better,” he said.

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