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Advancing Industrial Electrification in Oregon

Oregon is home to a robust manufacturing sector, producing everything from paper products to frozen french fries. It also has one of the cleanest electric grids in the country, which puts Oregon in a unique position to lead on *industrial electrification*. Electrifying Oregon's industrial heat can generate long-term economic benefits for Oregonians, provide cleaner air for communities, and help the state reach its climate goals.

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Industrial electrification at nine of Oregon's largest manufacturing facilities…

CUTS
11.5 million
metric tons of GHG emissions through 2050

DELIVERS
$390–$520 mil.
in cumulative health and economic benefits through 2050

ELIMINATES
52%
of Climate Protection Program-covered emissions at studied facilities

THE CLEAN HEAT OPPORTUNITY

Advanced manufacturing technologies are ready to deploy. Like vehicles and home heating, manufacturing is being transformed by advanced electric technologies. Systems like high-temperature heat pumps, electrode boilers, and thermal batteries use less energy and are safer for workers than fossil fuel combustion. Investing in this equipment will put Oregon's manufacturers at the technological frontier and could support up to 26,500 jobs through 2035, according to a recent study.[1]

Electrifying industrial heat means cleaner air for Oregonians. Burning fossil fuels to make heat for industrial manufacturing leads to significant GHG emissions and local air pollution. We estimate that eliminating pollution with electrification would generate **$390–$520 million** of cumulative health and economic benefits for Oregonians through 2050 and reduce onsite fossil fuel emissions from process heat by up to **52%** at nine of Oregon's largest manufacturing facilities.

Industrial electrification can be cost effective today. The higher cost of electricity relative to natural gas in Oregon is a challenge. But, we find that best-case opportunities in sectors like pulp & paper and chemicals could approach lifetime cost competitiveness with fossil fuel technology. And this does not have to mean higher prices – we estimate that energy costs from electrification would add just 0.5-0.9% to total product costs.

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POLICY TO MODERNIZE OREGON MANUFACTURING

1 Support clean heat capital investments

State incentives for electrification technologies through grants, rebates, and low-cost financing can reduce upfront costs and shorten payback periods. State officials should also work with the legislature to establish a durable financing mechanism to supply low-cost capital for electrification. Alternatively, the legislature could fund investments with an investment tax credit or establish a risk-sharing mechanism.

2 Address electricity costs

State officials should work with the Oregon Public Utility Commission and consumer-owned utilities to establish a beneficial tariff for facilities that electrify. Setting strict qualification criteria and encouraging off-peak consumption can help ensure electrification does not strain the grid or raise rates for other rate classes.

3 Design smart pollution regulations

Oregon is currently undergoing a rulemaking process to determine emissions intensity benchmarks for emissions-intensive trade-exposed (EITE) industries under the Climate Protection Program (CPP). Oregon should set strong sector-wide benchmarks from standard baseline data years and uniform reduction schedules of a minimum of 2.5% annually. Electrifying low-medium temperature process heat makes these targets achievable, as we estimate that electrification would eliminate 52% of CPP-covered emissions across the nine large EITE facilities we studied.

4 Facilitate deployment

Education and convening efforts with industry, technical support, and government could help facilitate interest from industry and encourage the uptake of electrification. Oregon can also help facilitate the development and deployment of novel and emerging technologies such as geothermal, data center waste heat, industrial symbiosis, thermal energy storage, and other pilot projects.

SOURCES

1. Renewable Thermal Collaborative. Powering American Industry: The Economic Opportunity of Industrial Electrification. June 23, 2026.
2. Su, E., Mariano, N., Thomas, E., Quinn, O., Stokes, L., and Masanet, E. Advancing Industrial Electrification in Oregon. The 2035 Initiative. 2026.
3. U.S. Environmental Protection Agency. GHGRP FLIGHT. 2023.
4. U.S. EIA. Electric Sales, Revenue, and Average Price (Table 8). October 2025; Natural Gas Monthly Report (Table 22). November 2025.
5. Oregon Department of Environmental Quality. Climate Protection Program.

READ THE REPORT