

Why the Pacific Northwest
can't afford data centers

Resource Adequacy and the Energy Transition in the Pacific Northwest

Final Report

April 2026



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In April 2026, utilities such as Chelan PUD sponsored this study by the energy consulting firm Energy + Environmental Economics (E3) to evaluate the Pacific Northwest's energy needs and whether or not they are being met.

You can read the report yourself here:

ethree.com/wp-content/uploads/2026/04/E3-NW-RA-Final-Report_040826.pdf



We've highlighted a few key findings that show a core problem with data centers in the PNW.

Greater Northwest region faces a resource shortfall in 2026 and beyond

Greater Northwest Load and Resource Balance

Effective Capacity (ELCC) MW

	2025	2026	2027	2028	2029	2030
Total Resource Need*	49,245	50,737	52,499	54,184	55,879	57,195
Existing Portfolio w/ Retirements	46,716	45,666	45,395	45,388	45,098	44,757
Firm Imports	3,750	3,750	3,750	3,750	3,750	3,750
Reliability Position Surplus (+) / Shortfall (-)	+1,221	-1,321	-3,354	-5,046	-7,031	-8,689
ELCC from "In- Development"*** Firm Resources	-	296	407	580	770	1,114
ELCC from "In- Development" Wind, Solar and Battery projects	-	645	1,015	1,316	1,508	1,934

Available
resources includes
firm imports from
other regions

The region faces a
power supply
shortfall starting in
2026 that grows to
almost 9 GW by 2030

In development
resources amount to
only 3 GW of
effective capacity,
leaving 6 GW
shortfall

* Total Resource Need includes median peak load + 9% PCAP planning reserve margin as well as obligation to serve the Columbia River Treaty Regime

** In-development resources are based on WECC ADS 2034 facilities with confirmed project location, project name, or can be verified online

*** Centralia unit 2's repower from coal to gas was not in the WECC ADS data source and is not included here; it would bring down the shortfall by ~700 MW in 2029 and 2030

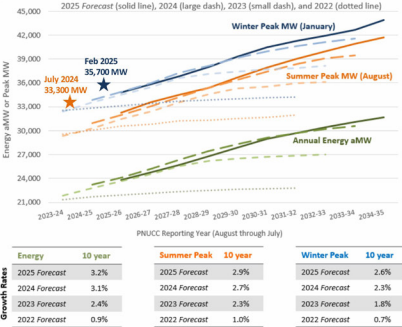
The Greater Northwest region is projected to have a power shortfall that grows to **almost 9 GW by 2030**.

Seattle uses an average of about 1 GW. We're on track to have a power deficit that is equivalent to 9 Seattles.

There simply isn't going to be enough energy to meet our anticipated energy needs.

Regional load forecasts continue to increase due to electrification, new large loads, and AC adoption

PNUCC 2025 Northwest Regional Forecast
Energy aMW or Peak MW Forecast



Load growth acceleration is attributable to multiple distinct drivers, despite impact of energy efficiency

Driver	Near-term Impact
Economywide energy efficiency	Small load reductions in both seasons
Higher-than-expected air conditioning adoption after recent heat waves	Small-medium peak load growth in the summer
Policy-driven electric vehicle adoption	Medium peak load growth in both seasons
Population growth and new building construction	Medium peak load growth in both seasons
Anticipated data center interconnection	Large average and peak load growth in both seasons

What’s causing the 9 GW power deficit? The main culprit by far is data centers.

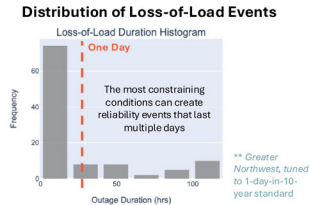
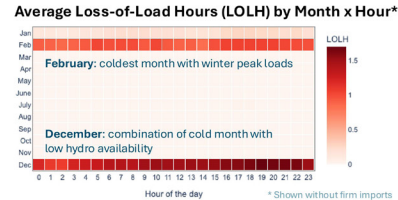
Anticipated data centers greatly increase the average power needed as well as peak power needed during the coldest and hottest times of the year.

In comparison, other growth sectors like electric vehicle adoption and population growth have only a small or a medium impact.

The region's biggest reliability challenge is a multi-day cold weather event that occurs during a low hydro year

- + About 50% of the region's energy comes from hydro, but its availability varies significantly from year to year
 - Water variability is critical for resource adequacy in our region → low water years create winter reliability risk
- + Most shortfall events occur during the cold winter months
 - Demand spikes while wind & solar produce less
- + Simulated reliability events can last multiple days (exceeding 50-100 hours)

Addressing these events requires resources that can reliably deliver energy over long periods



What does a power shortfall mean in practical terms? It means an increased possibility of "reliability events", which is a fancy term for **rolling blackouts**.

If we have a low water year, that means less hydropower coming from the dams. When that combines with increased demand for power during a multi-day cold snap, it can mean that someone's power has to get shut off.

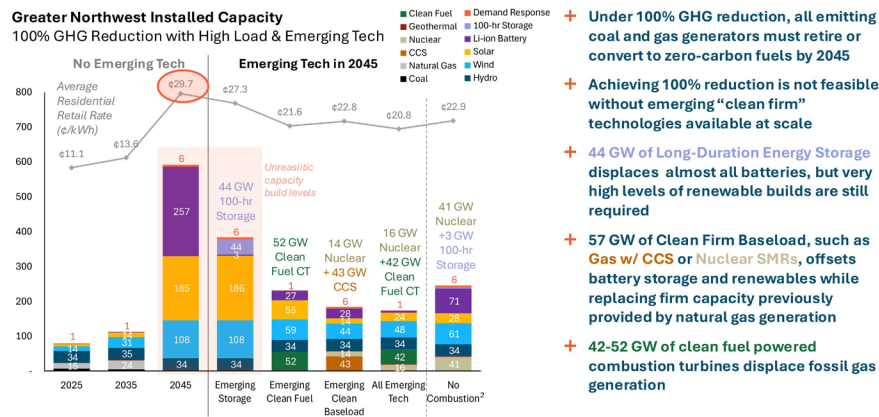
Large industrial customers like Wenatchee's Diamond Foundry (19 MW) can be shut off in an emergency. But what about a data center?

Whose power do you think is going to get shut off first, the power to your home, or the power to a data center which carries sensitive information that requires 24/7 access?

Achieving 100% carbon reductions is not feasible without at least one “clean firm” technology available at scale

Greater Northwest Installed Capacity

100% GHG Reduction with High Load & Emerging Tech



- + Under 100% GHG reduction, all emitting coal and gas generators must retire or convert to zero-carbon fuels by 2045
- + Achieving 100% reduction is not feasible without emerging “clean firm” technologies available at scale
- + 44 GW of Long-Duration Energy Storage displaces almost all batteries, but very high levels of renewable builds are still required
- + 57 GW of Clean Firm Baseload, such as Gas w/ CCS or Nuclear SMRs, offsets battery storage and renewables while replacing firm capacity previously provided by natural gas generation
- + 42-52 GW of clean fuel powered combustion turbines displace fossil gas generation

Washington’s Clean Energy Transformation Act (CETA) set the following mandatory targets:

2030 – All electric utilities must be greenhouse gas neutral

2045 – All electric utilities must generate 100% of their power from renewable or zero-carbon resources

But E3’s report concludes that we cannot possibly meet 100% of our region’s projected power needs with currently available renewable energy sources.

Fusion power like Helion is not considered a viable solution.

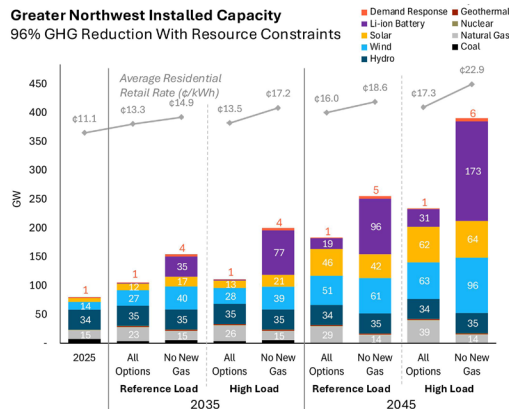
Where are they going to get the power, then?



If new natural generation is not allowed, costs and build requirements increase significantly

Greater Northwest Installed Capacity

96% GHG Reduction With Resource Constraints



+ In 96% GHG reduction cases with all resource options, new wind and solar decrease emissions by displacing generation from fossil resources while new natural gas capacity is added as a reliability backstop for extreme conditions

+ Not allowing new gas generation requires tens to hundreds of GW of additional capacity

- In 2035, ~35-77 GW storage, 5-8 GW solar, and 11-13 GW of additional wind is required to offset 8-11 GW of new gas generation
- In 2045, 196 GW of wind, solar and storage
- Without new gas generation, retail rates increase by 3-6 cents/kWh under 96% GHG reduction case

According to this report, the only way the PNW can meet our power needs is by adding more natural gas.

Without natural gas, we would need many more GW of additional power from renewable sources, and energy would get even more expensive for everyone.

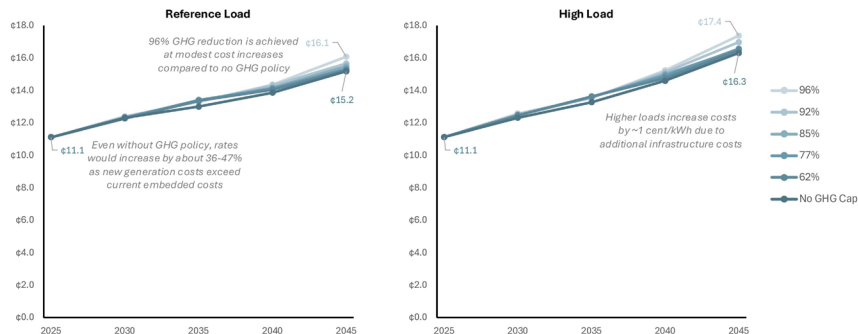
The fact that new natural gas generation isn't compatible with CETA's 2030 and 2045 clean energy targets is a contradiction that the report does not resolve.

E3's report doesn't even consider the obvious solution, which is simply having smaller data centers or fewer data centers.

This is why data centers are a climate problem. They are preventing us from making a clean energy transition.

Rates increase in all scenarios, while incremental costs to achieve up to 96% GHG reduction regionwide are modest

Greater Northwest Average Residential Retail Rates (¢/kWh)
GHG Reduction Scenarios



Energy+Environmental Economics

- Rate impacts shown in real 2024\$ terms; some utilities may see significantly different impacts than these regional values if they cannot access the regional diversity (for RA and clean energy) modeled in this study
- Policies are modeled at least-cost, achieved on a regional basis

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By the way, “rates increase in all scenarios”.

Their words, not ours.

Expect to pay more for electricity regardless of where it comes from, thanks to data centers increasing demand.

We are paying for these data centers both with our wallets and with our future.

When natural gas is used to generate power for data centers, we all pay the price in the form of increasingly worse wildfires and hotter summers.

Why should we have to shoulder the cost just to enrich the private profits of a handful of companies?



This zine was produced by No Data Centers NCW in September 2026.

For more information, or to print your own copies, visit

linktr.ee/NoDataCentersNCW



For statewide information and resources, visit

Washington AI Resistance at waair.net