

Case Study

Proposed Carbon Accounting Changes Could Increase Energy Costs for Everyone



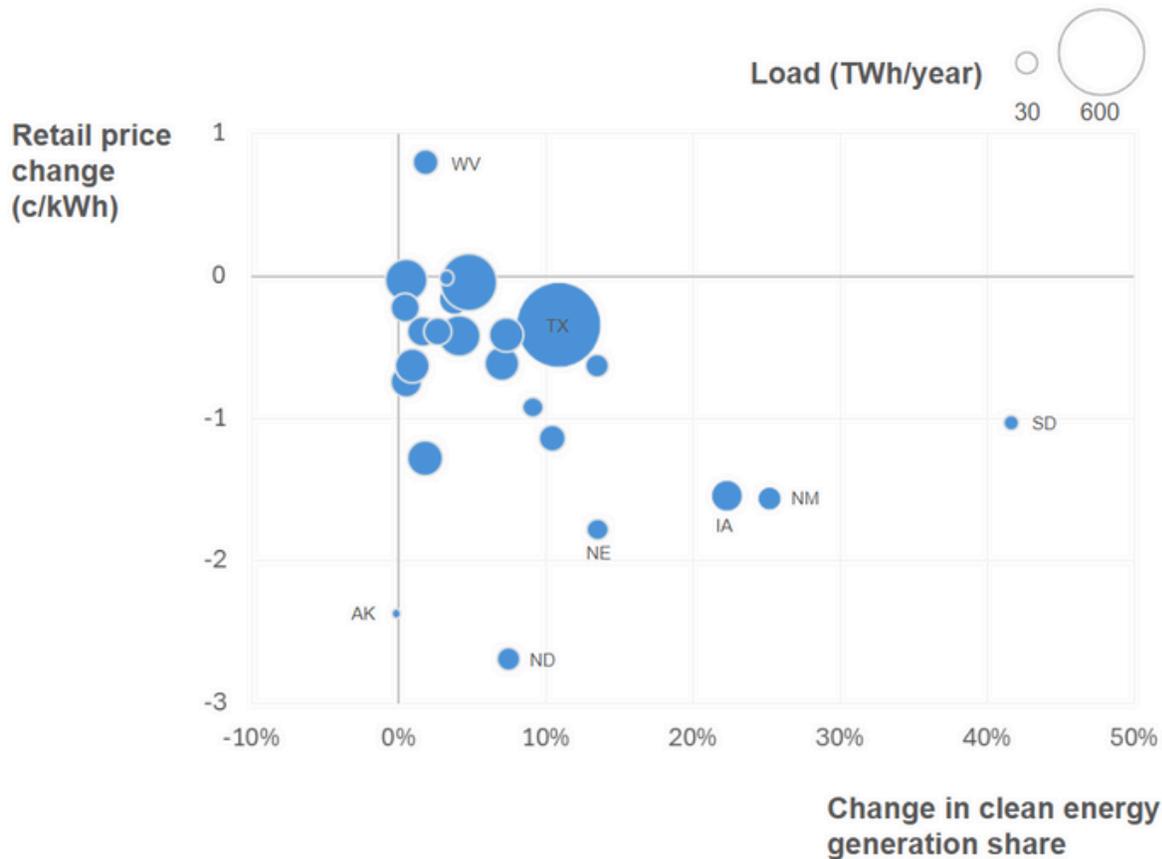
Retail energy costs have been increasing

Retail energy costs in the US have been increasing, up 23% in the last 5 years, pushed steadily higher primarily by macroeconomic inflation and aging distribution infrastructure.[1] One of the few forces pulling down on prices has been the rapid expansion of low cost solar and wind power. The US has added 164 GW of wind and solar power capacity in the last 5 years, equivalent to the total generation capacity of France or Canada.[2]

Clean energy lowers retail costs, due to voluntary procurement

States with more clean energy generally have lower retail power prices. Specifically, 75% of states with above-average clean energy penetration have below-average retail power prices.[3] The exceptions are states that struggle to import fuel (HI, which ships in petroleum, and MA, VT, and ME, which have limited gas pipeline capacity) or have seen large cost increases from wildfires (CA).

Clean energy build out is driven by renewable portfolio standards (RPS) and voluntary procurement, which are responsible for 25% and 75% of growth respectively.[1] RPS legally mandate that utilities generate a certain portion of their energy from clean sources. Voluntary procurement comes from corporations choosing to commit to long-term clean energy purchases that guarantee revenue, unlock debt financing, and help get new projects built. In states where voluntary procurement solely drives clean energy (i.e., no RPS), nominal retail energy costs have dropped up to 15% over the past 5 years.[1] Corporate support injects clean energy supply and drops prices.



Influence of clean energy on retail electricity prices in the last 5 years

Adapted from LBNL[1] and Breakthrough[4], data per EIA for 2019-2024. Retail prices are real (adjusted for inflation). Shows only states with voluntary procurement (no RPS, except those that have already been met).

Voluntary procurement is shaped carbon accounting rules

Voluntary procurement is driven by carbon accounting rules, which determine how much clean energy a company can claim to have used. Companies fund clean energy projects, or buy the renewable energy credits (RECs) produced, to match their clean energy generation against their electricity use in their carbon accounting ledger.

The most commonly used carbon accounting rules are set by the Greenhouse Gas Protocol (GHGP) Scope 2 carbon accounting standard. The GHGP has [proposed revisions](#) to the Scope 2 standard that would mandate matching clean energy hour-by-hour, rather than annually, and within smaller market boundaries.

Proposed rule changes could increase voluntary procurement costs 2-4x

Research shows that the proposed hourly matching changes would increase voluntary procurement costs 2-4 times higher than current levels, driven by the need for more expensive clean energy generation like geothermal, nuclear, and battery storage to provide carbon-free energy when the sun isn't shining and the wind isn't blowing.[5]

Voluntary procurement is just that - voluntary - so buyers are understandably cost sensitive. If prices double or quadruple, most buyers won't be able to pay the higher costs and will be forced out. Without this voluntary support, less wind and solar will get built.

In turn, retail energy costs could increase by 26%

Generation is just one piece of retail cost, alongside transmission and distribution, so the retail cost change would be smaller, but still significant. According to a recent McKinsey study, if voluntary procurement is focused on hourly matching, "residential customers could pay 26 percent more", or \$34/MWh, as build out becomes less efficient.[6] Similarly, Brattle group experts recently testified that hourly matching would be at least \$32/MWh more expensive than current levels.[7]

Avoid retail cost increases with rigorous, scalable carbon accounting rules

The GHGP could avoid these cost increases by making hourly matching optional, instead of mandatory, and adopting its proposed alternate consequential accounting methodology that focuses on carbon emissions, not MWhs.

This would let some companies pursue hourly matching, where it makes sense, while also codifying the most cost effective carbon accounting methodology for more widespread adoption.[8]

Then we can keep building clean energy, to cut emissions and electricity bills.

Sources:

- [1] [LBNL](#), 2025, Factors Influencing Recent Trends in Retail Electricity Prices in the United States
- [2] [EIA](#), 2025, New US Generating Capacity Additions
- [3] [Zero Carbon Analytics](#), 2025, The myth of renewables pushing up power prices
- [4] [Breakthrough Institute](#), 2025, Do Renewables Lower Electricity Prices
- [5] [WattTime](#), 2025, Evaluating the Impacts, Costs, and Consequences of Proposed Scope 2 GHG Emissions Reporting Standards
- [6] [McKinsey](#), 2025, Rethinking Your Company's Clean Power Strategy
- [7] [Brattle](#), 2025, Expert Testimony before the Minnesota Public Utilities Commission
- [8] [TCR](#), 2023, Paths to Carbon Neutrality