

The Great Grid Hardware Shock

A new index tracks rising costs for everything from cable to transformers. Add in higher labor costs and spiraling gas-turbine prices, and it's a perfect recipe for soaring electricity bills.



An electrical arc at a switchyard near Boulder City, Nevada. Credit: Capturedlightning.com

Soaring electricity prices are a major political issue across the country. And for good reason.

According to the latest numbers from the Energy Information Administration, the average price of residential electricity in the US is now 18 cents per kilowatt-hour. In 2021, that same amount of juice cost 13.7 cents per kWh. That's a 31.3% increase in just five years. For comparison, the overall Consumer Price Index from July 2021 to July 2026 increased by 22.3%.

Don't expect electricity prices to come down any time soon. Why? Power providers are spending record amounts of money, and a major chunk (most?) of

that cash is being spent to meet surging demand from data centers. This year, capital expenditures for US investor-owned energy utilities will total a record \$259 billion, up 29% from 2025. In all, investor-owned utilities will spend about \$1.3 trillion between 2026 and 2030. Now add in the capex by electric cooperatives and publicly owned utilities, which are expected to spend about \$35 billion this year. Then add President Trump's tariffs and rising commodity prices (copper is up 32% over the past 12 months and aluminum is up 16%), and it's easy to see why inflation is raging across the electric sector.

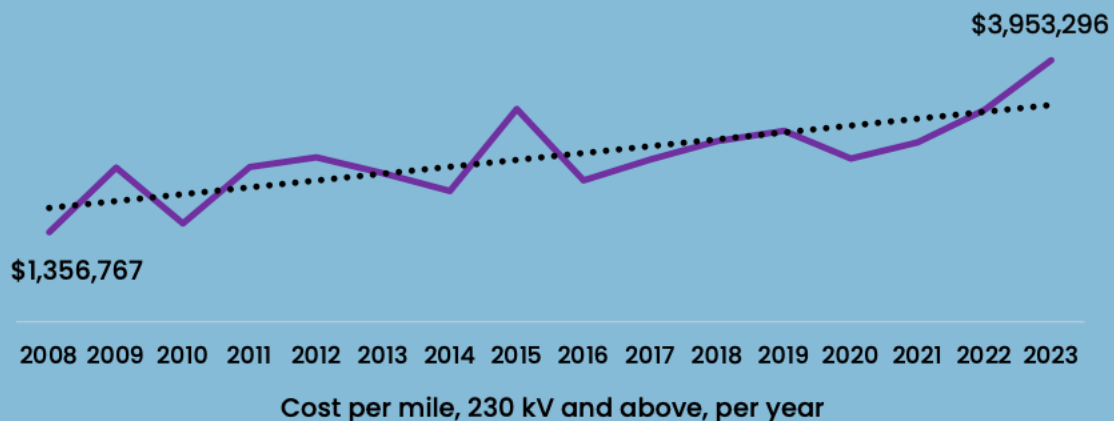
A new index published this week by the National Rural Utilities Cooperative Finance Corporation spotlights soaring prices for utility hardware. Meanwhile, the cost of building high-voltage transmission lines and prices on new gas turbines are headed for low Earth orbit.

Here's a look at the grid inflation shock, with three charts, two of which are brand new. And don't forget, I'm offering a 30% discount on new annual subscriptions. To get the discount, which ends this weekend, please [click here](#).

This week, the National Rural Utilities Cooperative Finance Corporation released its long-awaited Grid Price Index. The new index tracks changes in the cost of electric distribution equipment and is based on actual purchase data obtained from cooperative suppliers across the country. It measures inflation across several hardware categories, including transformers, conductors, switchgear, utility hardware, and enclosures.

The index is unique. I'm not aware of anything similar published by investor-owned utilities or public power entities. The Grid Price Index builds on years of price tracking done by Matt Brandrup, the president and CEO of the Wisconsin-based Rural Electric Supply Cooperative, or RESCO. (In 2023, I interviewed Brandrup on the Power Hungry Podcast. During that episode, Brandrup talked about the "staggering increases" he was seeing in the cost of transformers and other utility products.)

Between 2008 & 2023, The Per-Mile Cost Of New HV Transmission Tripled



Source: C Three Group

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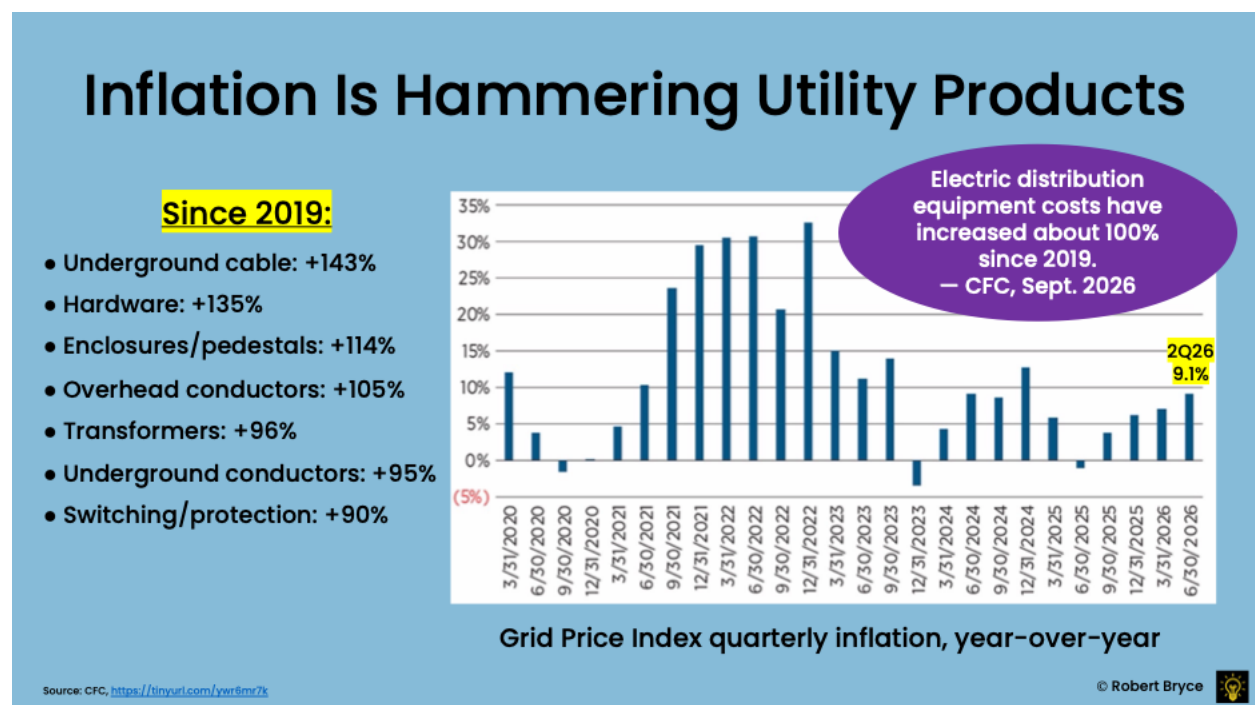
To be clear, the costs associated with expanding the US power grid have been rising for many years. In 2024, I published “[Out of Transmission Revisited](#),” in which I highlighted the soaring cost of building new high-voltage capacity. As the chart above shows, the cost of building new high-voltage transmission capacity tripled between 2008 and 2023. What drove those increases? As C Three’s president and founder, Jean Reaves Rollins, told me in 2024, a big factor was the “soaring cost of acquiring right-of-way and dealing with permits and regulatory compliance.”

But equipment costs were also a major factor. In 2024, Brandrup told me that over the prior three years, transformer costs had jumped by 50 to 75%. The surge in costs has continued. In a [September 29 press release introducing the Grid Price Index](#), NRUCFC noted, “By the first quarter of 2026, transformers still cost approximately 93% more than in 2019.” It added that the costs of underground and overhead conductors, underground cable accessories, and utility hardware had all risen dramatically.

NRUCFC says that several factors are driving the cost increases. “Utilities are replacing aging infrastructure, strengthening reliability and preparing for load

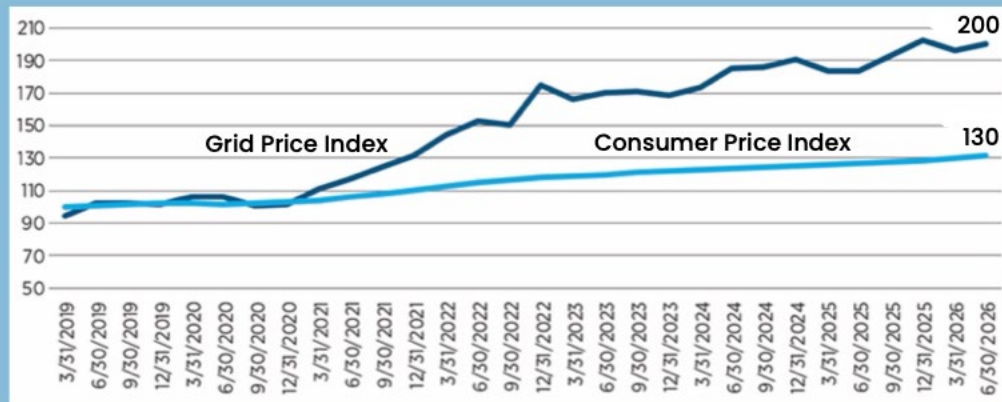
growth. Manufacturers also face higher labor, energy, material, and financing costs.” The group also points to trade policies, noting that “tariffs on many steel and aluminum imports increased from 25% to 50% in June 2025, and subsequent measures expanded the tariff exposure of additional metal products and derivatives.”

Higher interest rates are also fueling the surge in costs. Electric utilities have to borrow enormous amounts of money to finance power plants, transmission lines, and other equipment. When borrowing costs rise, the cost of financing new construction and refinancing existing debt rises with them. In short, higher rates increase the all-in cost of the electric grid, which means higher prices for ratepayers.



The chart above shows the Grid Price Index from early 2020 to the second quarter of 2026. As NRUCFC explains, “As of the second quarter of 2026, the GPI shows electric distribution equipment costs have increased about 100% since 2019, while the year-over-year inflation rate reached 9.1%, up from 7.1% in the first quarter.”

Electric Distribution Equipment Prices Are Rising Far Faster Than Consumer Prices



Grid Price Index vs. Consumer Price Index, 2019 to 2Q26

Source: CFC, <https://tinyurl.com/4psbot7c>

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The NRUCFC also produced a graphic showing that the cost of electric distribution equipment is rising faster than consumer prices. As shown above, between early 2019 and the second quarter of 2026, the GPI increased about 54% faster than the CPI.

There's little doubt that the soaring inflation seen in the GPI will continue. Why? In addition to the hardware costs, labor costs and gas turbine costs are soaring.

On Thursday, I talked to a friend who works for a large US-based construction firm. He told me that labor costs "are insane. It varies by region, but over the past two to three years, we've seen up to a 40% increase." My friend added that in some areas, labor costs are rising by low single digits *every month*. He also said employers have to pay higher per diems to keep workers on the job.

My friend also pointed out that the surge in demand for new generation capacity has fueled a stunning increase in the price of gas turbines. The gas-turbine sector market is dominated by just three companies — GE Vernova, Siemens, and Mitsubishi Heavy Industries — and wait times for delivery of large new

turbines are now five years! In March, an analysis by the Electric Power Research Institute found that the average price of gas turbines had jumped nearly 50% to about \$3 million per megawatt, over the previous six months. In April, Wood Mackenzie reported that by the end of 2027, gas turbine prices could triple compared with 2019 levels.

Those increases will mean bigger electricity bills. In May, Duke Energy began construction on a 1.5 gigawatt gas-fired power plant in Indiana that is expected to cost \$3.3 billion. According to a recent Reuters article, that price is “\$900 million more than it assumed for new gas-fired capacity in general in 2024.”

The bottom line is obvious: The cost of nearly everything involved in producing and delivering electricity — from labor and copper to gas turbines and transformers — is rising. That means that electricity consumers are paying more for power. And unfortunately, there’s no end in sight to the inflation driving those prices ever higher.

From The Robert Bryce Substack