

Wind and solar receive the lion's share while producing less power

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A new paper from the Energy Alliance highlights one of the biggest causes of rising unreliability on the electricity grid—subsidies. The report's author, Bill Peacock, highlights the myriad problems that federal electricity subsidies have created.

Subsidies for unreliable power sources, namely wind and solar, have created a situation in which it's often more profitable to build facilities that have few benefits for the grid rather than the dispatchable capacity that is direly needed. Another issue with these subsidies is that they give the federal government significant control over the makeup of regional power grids by allowing them to shift the economics of power production in favor of their preferred technologies.

The gap between government subsidies for wind and solar and those for reliable thermal power units like natural gas, nuclear, and coal is massive, and thanks to the Inflation Reduction Act (IRA), it's growing.

According to the paper, from 2010 to 2019, federal subsidies for wind were more than \$36.7 billion with more \$34.3 billion for solar, while subsidies for natural gas and oil were \$25 billion, with \$12.8 billion going to coal, and \$15.4 billion for nuclear. In the perfect world, no energy sources would receive government subsidies, federal or otherwise. The very existence of these subsidies creates false incentives in the market and causes facilities that would otherwise not be financially workable to be built in place of more reliable ones.

The imbalance between appropriations for wind and solar, and those for everything else are even more extreme when viewed per MWh of power produced. According to Peacock, “The success is predicated on the fact that renewable energy



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subsidies are not only larger than subsidies for thermal generation in absolute terms but even larger on a per unit of electricity generated.”

Between 2010 and 2019, the per MWh subsidy for natural gas and oil was \$.39, for coal it was \$.73, and for nuclear \$1.93. Meanwhile, wind received \$18.86 for every MWh of power it produced, and solar received \$82.46. This is an astronomical difference and very clearly demarcates the producers from the produce-nots.

Subsidies on this scale allow the federal government to have an outsized influence on the economics of power production. In the paper, Peacock emphasizes this influence, “These taxpayer-funded, government-guaranteed returns are the reason that renewable generation is swamping the U.S. electric grid and pushing investment in reliable thermal generation to the side. Investment in renewables grew from \$29.4 billion in 2010 to \$55.4 billion in 2019 as investors chased subsidized profits.”

As though this subsidy situation weren't already bad enough, enter the IRA. The IRA inflates the subsidies for wind and solar by an incredible degree. According to the paper, before the IRA, federal wind and solar subsidies were expected

to be \$7.4 billion in 2023, after the IRA that figure nearly doubled to \$14.6 billion. Over the period from 2023 to 2029 the IRA is expected to “inflate” wind and solar subsidies from \$66 billion to more than \$108 billion. This will inevitably further shift the economics of power generation.

This matters because grid reliability is already faltering during the coldest and warmest days in many regions. As demand increases in the coming years reliable capacity will be needed to meet demand. These subsidies are a threat to reliability and opposing them should be a priority for anyone who uses electrical power. This starts but certainly doesn't end with repealing the IRA subsidies that have made matters worse.

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