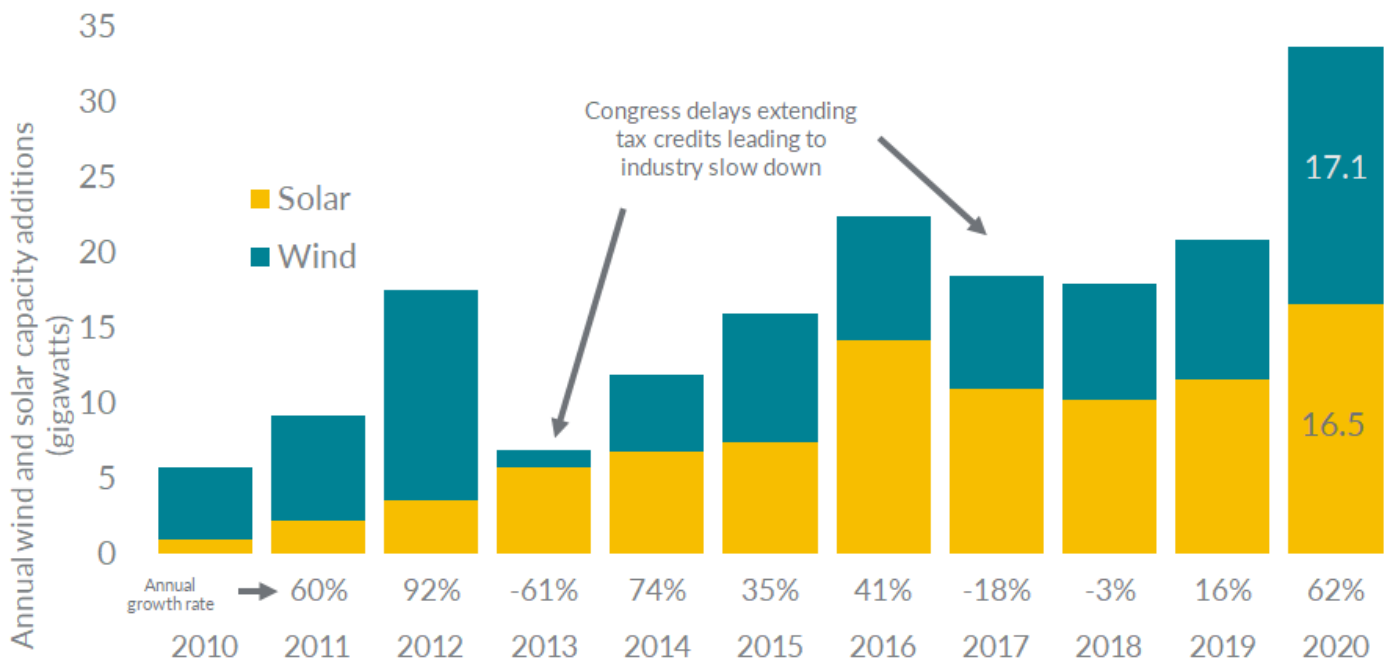


Historic investments to put us on the path to 100% clean energy: The time is now

We have the opportunity to achieve President Biden’s goal of a 100% clean electricity grid by 2035. To set the nation’s grid on that path requires historic investments in clean, renewable energy sources, including expanded tax credits for renewable energy and clean energy payments for utilities that achieve ambitious clean energy targets. These tools, along with ending subsidies for fossil fuels like gas and coal, are critical to transforming our grid and creating a system that will protect the climate, reduce energy bills, and reduce air pollution.

Annual wind and solar installations have grown nearly 20% per year from 2010-2020¹



To build a strong, affordable, 100% clean energy electric grid, we need to grow our annual installations of wind and solar by 20% every year for each of the next 10 years. In 2020, the US installed the highest amount of new clean energy in the country’s history, 34 gigawatts.² In 2021, we need to install that amount plus 20% more: 40

¹ Data from BloombergNEF Sustainable Energy Factbook. <https://bcse.org/factbook/>

² BloombergNEF Sustainable Energy Factbook. <https://bcse.org/factbook/>

gigawatts. In 2022, we need to add 48 gigawatts, and so on throughout the ensuing years. Growing renewable energy installations 20% each year will add up to roughly 1,100 gigawatts of new clean energy by 2030, enough to meet 70% of the nation's electricity demand, putting us on track to reach 100% clean electricity by 2035.

The US is very capable of sustaining this ambitious growth rate. On average, renewable energy installations grew nearly 20% each year from 2010 through 2020. Policy certainty is critical to spurring this kind of steady clean energy growth. When the US last fell into a recession in 2008, the American Reinvestment and Recovery Act (ARRA) spurred a growth in clean energy never seen before. Tax credits temporarily became direct cash payments and 2012 saw the biggest ever year for wind installations at the time. But when Congress delayed extending clean energy tax credits, the growth in wind and solar installations ground to a halt. As soon as tax credits were extended, the industry responded almost immediately, with wind and solar installations growing at 41% in 2016 and at 62% in 2020, despite the difficulties and delays caused by the pandemic.

Reliable and affordable

Researchers from the University of California studied the prospects of an American grid with 90% carbon-free electricity and 70% renewable energy. Their analysis included detailed production cost modeling for the entire electricity system in every hour of the year.³ This robust study found that a clean electrical grid would be:

- **Reliable:** Our nationwide electric grid could meet demand reliability in each hour of the year.
- **Affordable:** Wholesale electricity costs would be roughly 10% lower than they are today, before any increase in federal incentives.
- **No new gas plants needed:** Critically, the model also found that no investment in new gas power plants was needed. Additionally, existing gas plants will dispatch less over time.

Research published earlier this month looked at seven recent studies to corroborate these findings further. Specifically, this meta-analysis found: "All modeled technology-neutral policies are shown to drive deployments of almost exclusively wind, solar, and battery storage—rather than new nuclear, incremental hydropower, geothermal, biomass, carbon capture and storage (CCS), hydrogen, and even natural gas (where partial crediting is allowed)".⁴

At this pivotal moment for clean electricity, utilities and power plant operators across the country are proposing to build 250 new gas-fired power plants instead of moving expeditiously to add wind and solar, along with increased investments in energy efficiency and storage.⁵ An ambitious clean electricity standard is required to

³ UC Berkeley, GridLab, PaulosAnalysis. *2035 Report: Plummeting Solar, Wind, and Battery Costs Can Accelerate Our Clean Electricity Future.* <https://www.2035report.com/wp-content/uploads/2020/06/2035-Report.pdf>

⁴ Esposito, Dan. *Studies Converge on Benefits of a Rapid Clean Energy Transition.* Energy Innovation. <https://energyinnovation.org/wp-content/uploads/2021/07/Studies-Converge-on-Benefits-of-a-Rapid-Clean-Energy-Transition.pdf>

⁵ Sierra Club. *The Dirty Truth About Utility Climate Pledges.* <https://coal.sierraclub.org/the-problem/dirty-truth-greenwashing-utilities>

ensure high levels of renewable energy. Enhanced renewable energy tax credits and other programs can ensure the savings associated with clean energy are delivered to customers.

Investments in a clean electricity grid will have enormous benefits for public health. Researchers at Harvard University and Clean Energy Futures estimated that a 80% clean electricity standard by 2030 would avoid over 300,000 premature deaths from air pollution between 2020 and 2050, with benefits from reduced air pollution in every state in the US.⁶

These ambitious clean energy policies have already been enacted successfully in states around the country. In 2016, only 1 to 2 percent of the US population lived in places that had committed to run on 100 percent clean energy. Only a small band of activists even dared to demand that their city or town transition to 100 percent clean energy. Today, that figure has soared to 31 percent, thanks to an ever-growing coalition of faith leaders, students, environmental advocates, and many others. More than 100 million people in 179 cities, 14 counties, 8 states, Washington, DC, and Puerto Rico now live in places committed to 100 percent clean energy.

We can power the places we live with 100 percent clean electricity, reducing pollution, protecting community health, and mitigating the climate crisis. A clean, reliable, affordable grid that protects the public from dirty air and water is within our reach. But only taking bold climate action now can get us there.

⁶ Clean Energy Futures and Harvard C-CHANGE, "An 80x30 Clean Electricity Standard: Carbon, Costs and Health Benefits," 2021. <https://cdn1.sph.harvard.edu/wp-content/uploads/sites/2343/2021/07/CEF-80x30-7.15.21.pdf>

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