

Joe Biden is about to floor it to a green future - can he meet his goal?

Vince Bielski

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Joe Biden needs to put the pedal to the metal as he races toward his goal of ridding America's energy sources of carbon emissions by 2035. But the president-elect's headlong rush toward a green future may be slowed by a snarl of political speed limits in the states.

One of Biden's most ambitious aims is to completely clean up the electrical grid, today powered mostly by fossil fuels, in only 15 years. Many energy executives consider that goal quixotic because it would require a breathtakingly fast transformation of the massive power industry -- from replacing hundreds of dirty power plants to upgrading thousands of miles transmission lines.

To do that, Biden needs to engineer a major expansion of federal power over the regulatory authority of the states – a daunting political task. States control energy policy and their mishmash of requirements to boost wind and solar power don't go far enough to achieve Biden's 2035 goal. That is why he is expected to push for a federal clean electricity standard – a law forcing utilities to provide a lot more power from carbon-free sources.

A federal standard – perhaps the single most important piece of Biden's sweeping climate plan – is likely to face stiff opposition in Congress. Major utilities, even those voluntarily pursuing clean energy, don't like to have their hands tied by government mandates and have successfully opposed them in the past. Lawmakers from states dependent on fossil fuels have shot down proposals for a federal standard, including one backed by the Obama administration, on concerns that their residents would see their bill rise to pay for clean power purchased from regions rich in wind and solar energy.

This undated photo shows the Arctic National Wildlife Refuge in Alaska. President Trump is rushing to auction drilling rights in the Refuge before President-elect Joe Biden is inaugurated. (US Fish and Wildlife Service/Getty Images/TNS) TNS

“A federal standard is so important because it provides the incentive to investors and developers to scale up those renewable resources, which we need to do at a much faster clip to achieve a safe climate future,” says Mike O'Boyle, director of electricity policy at Energy Innovation. “But the politics around a standard can be very difficult.”

Many items on Biden's long climate to-do list are low-hanging fruit for his new team, led by former Michigan Gov. Jennifer Granholm, nominated to be secretary of energy, ex-Secretary of State John Kerry, who will serve as climate czar, and New Mexico Rep. Deb Haaland, who is slated to head the Interior Department. Biden will have the authority to mandate the federal

purchase of zero-emission vehicles, rejoin the Paris Agreement, restrict energy drilling on public lands, and restore stringent fuel economy standards for cars and trucks.

But the truly transformational part of his agenda, greening the grid by 2035, would require an almost fantastical acceleration of the rollout of wind and solar farms across the nation with buy-in from Congress and the states. Last year developers installed 13 gigawatts of new solar capacity and 9 gigawatts of wind power – a pace that would have to more than triple starting immediately for Biden to come close to hitting his goal, according to a study by the Goldman School of Public Policy at the University of California, Berkeley.

As the coronavirus economic slump drags on, Biden is selling his climate agenda as a job creator. It would require developers to build hundreds of additional massive wind and solar farms annually for the next 15 years. Employment in the energy industry alone would increase by the equivalent of about 8.5 million jobs lasting a year as positions in the renewable sector more than replace those lost in retrenching coal and natural gas operations, the UC study says.

Biden's ambition is roughly in keeping with the findings of climate scientists who say the U.S. economy needs to be carbon-free by 2050 as part of a global effort to stave off the worst effects of climate change. To achieve that, the grid must be cleaned up first to enable the other big sources of carbon pollution – transportation and industry – to slash emissions too. Plugging an electric car or “green” assembly line into a dirty grid amounts to running in place.

In a sign of how much the landscape has shifted in just the last decade, the struggle between Biden and the power industry isn't over whether it needs to end emitting carbon into the atmosphere. The issue is how quickly it must act.

A growing number of power companies, including Arizona Public Service and Duke Energy of North Carolina, have announced voluntary goals to be carbon-free by 2050, or 15 years after Biden's target. They consider the president-elect's goal to be too aggressive. Some utilities have recently invested billions in natural gas plants and pipelines that have a lifespan of several decades, making a quick shift to wind and solar energy potentially costly to consumers who pay for the infrastructure.

“Some utilities have been receptive to federal and state standards, but on balance the industry has been a major force resisting them,” says Matto Mildenerger, a political scientist at UC Santa Barbara who researches the politics of climate change. “They have power generating assets that are dependent on coal and gas and their business model has been threatened by wind and solar.”

Even companies that are rapidly expanding clean energy fear Biden's goal is too ambitious. The head of Vistra Corp., a Texas-based diversified power generator, recently told the media that the 2035 plan will lead to skyrocketing electricity costs and unreliable electricity because of the spotty performance of wind and solar farms. California's rolling blackouts in August, caused by extreme heat and poor planning by regulators, show how tricky the fast conversion to clean energy can be in such a large state.

But recent studies suggest that the industry may be overplaying its objections to the faster adoption of renewable power. The UC study examined the cost and reliability of a grid that is 90% clean by 2035, roughly in line with Biden's goal. With prices of wind and solar energy expected to continue to fall, wholesale electricity in 2035 would actually be cheaper over the long haul. And recently improved battery storage, in combination with energy from the

remaining natural gas and nuclear plants, would supply juice when the sun isn't shining and the wind isn't blowing, making the grid reliable, the study says.

“Prices for renewables have come down so fast that the utilities haven't really taken this fully into account in their planning,” says David Wooley, an author of the study who has worked in energy policy for three decades. “There is momentum in the system toward gas because that's the way the utilities have done it for years.”

The greening of electricity has a long way to go. Natural gas generates almost 40% of America's power, twice coal's contribution. Wind and solar energy have been expanding rapidly for a decade, but along with hydropower and biomass, provide only 18% of the nation's juice. Add nuclear power and America's grid is about 38% clean today.

Without a federal standard, a haphazard mix of forces will continue to compel utilities to gradually go green. Mandates in 30 states have been the biggest driver and federal tax credits, a market approach Republicans favor over a federal standard, have spurred renewable development too. Lately, Big Tech firms like Apple and Microsoft have added to the pressure, demanding that states and utilities make commitments to green power to serve their data centers and other operations.

Even as some utilities embrace green power, they are running into roadblocks that a federal standard won't resolve. From New York to California, homeowners and county officials concerned about the noise, look and environmental impact of massive wind and solar farms are slowing construction and sometimes defeating the projects. Ohio lawmakers set rules so strict that they effectively banned wind farms from the state.

All told, today's government policies will get Biden only about halfway to his 2035 goal, according to the UC report. “States have varied ambitions with clean energy standards,” says O'Boyle of Energy Innovation. “Many are cautious or almost indifferent in their renewable energy policies. That's why there is a need for a federal standard.”

The strength of state mandates varies greatly, depending on a state's political tilt, energy resources and willingness to pay about 2% more on average for electricity in the short term. Conservative-leaning Montana and fracking-focused Pennsylvania set low goals, seeking less than 20% of their energy mix from renewable power. Sunny California and liberal New York are among about 10 states plus the District of Columbia that plan to completely slash carbon emissions in the next few decades.

Many of the 20 states without requirements, like Florida, are home to powerful monopoly utilities that prefer to set their own voluntary clean energy goals. A decade ago as Florida's governor, Charlie Crist pushed for a standard only to be rebuffed by the state legislature. “Charlie pled with the House leadership, but the Republicans are just not in favor of mandates and they are certainly not going to push the utilities around,” says Stephen Smith, executive director at the Southern Alliance for Clean Energy.

Florida Power & Light, the state's biggest utility, decided to finally join the green energy march after engaging in a fierce ballot battle with residents to limit the growth of rooftop solar power four years ago. The utility projected last year that 40% of its electricity will be carbon-free by 2030. FP&L didn't respond to a request for comment.

Ohio, which produces only 3% of its electricity from renewable sources, has become exhibit A in the case for Biden's federal standard. Last year Ohio abolished its renewable energy standard, becoming one of the few states to backtrack on a mandate, as a result of the biggest political bribery scandal in its history. Democrats who are trying to restore the state standard say it's unlikely they can overcome Republican opposition.

"At this point, investors in renewables will have to determine if there is enough demand to make a profit without a standard," Democratic Rep. Kristin Boggs says.

Biden's attempt to win a federal standard would likely run into the kind of political obstacles that defeated earlier initiatives. The politics are divisive because utilities in different states don't have the same ability to generate green power. Utilities in the West, where solar and wind resources are typically stronger, have greater access to cheap clean power than companies in parts of the Midwest and Southeast that are dependent on fossil fuels.

These regional differences doomed a proposal for a standard in the Senate in 2007 that had passed the House. The trade group Edison Electric Institute and state regulators in the Southeast warned that utilities in states that couldn't meet the federal requirements would have to buy green power or credits from other regions rich in renewable energy, possibly costing consumers billions in extra charges. Three years later, a similar political dynamic in the Senate led to the collapse of President Obama's cap-and-trade climate plan that contained a modest federal standard.

While details of Biden's proposal haven't been released, two Democrats – Sen. Tina Smith of Minnesota and Rep. Ben Ray Lujan of New Mexico – have introduced a bill calling for a federal standard. The measure is designed to reduce the issue of regional differences in solar and wind resources that doomed earlier efforts by making most utilities gradually increase their supply of clean energy by about 3% a year, starting at their current levels. After reaching 60% carbon-free power, the annual increases taper down on the path to a clean grid by 2050.

"The cost of clean energy has declined dramatically since Congress considered a clean energy standard a decade ago," Smith told RealClearInvestigations. "The time is right for a federal standard because it will result in a cheaper, more reliable, and more efficient electric system than if we continue to rely solely on a hodgepodge of state and utility-level policies.

This time, a federal standard may face less resistance in Congress as states like Arizona jump onboard, showing that Republicans can get behind mandates too. In October, the Republican-led Arizona Corporation Commission approved a 100% carbon-free mandate by 2050 because, it said, it was good for the economy as well as the environment.

Amid years of public acrimony between renewable advocates and Arizona Public Service, the plunge in the price of solar energy, making it cheaper than gas in that state, forced the commission to act. "It became a no-brainer," says Amanda Ormond, formerly the director of the Arizona Energy Office and now a clean power consultant. "If the clean stuff is less expensive, the argument shifts from 'solar is good for air quality' to 'what is your reason for not using the lowest cost resource?'"

In another sign of the shifting economics of the grid, Arizona sees its new mandate as key to luring investment from companies -- including Amazon and Google -- that seek to run their businesses with clean energy. Without an aggressive carbon-free energy plan, Arizona could lose

out to neighboring states like Nevada and New Mexico. “It was certainly on my mind that other states are targeting 100% clean energy and how attractive that makes them to certain industries versus other states,” says Lea Marquez Peterson, one of the Republican commissioners who supported the standard.

Biden’s standard will be easier to sell in the Democratic-controlled House and should garner some Republican support in the Senate because of the competitive pricing of renewable power. Sen. Chuck Grassley, a champion of wind power from Iowa, has been one of a handful of Republicans to support a federal standard in the past.

“I don’t think a federal standard is completely outside the realm of possibility because we have Republican supporters of renewables and that support is growing,” says Wooley of UC Berkeley. “Senator Grassley is a good example of that.”

But the U.S. has enacted only a handful of environmental and energy laws in the last three decades, an indication of the difficulties that Biden’s plan would face no matter which party controls the Senate after the Georgia runoffs on Jan. 5. If Mitch McConnell, a steadfast fossil-fuel supporter from the coal state of Kentucky, continues as the majority leader, then a federal standard is likely dead on arrival in the chamber.

“Even with a 50-50 split in the Senate, it would be unlikely that Biden could get a clean electricity standard approved,” says Peter Van Doren, an expert on environmental and energy regulation at the Cato Institute. “Even the best designed bill would run into opposition in many states over the potential rise in energy prices.”