

PRATT'S

ENERGY LAW

REPORT



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Will the White House Deliver on Intentions to Eliminate Carbon Emissions by 2035 and How Could the Energy Industry React?

By Matthew M. Pitzarella*

The author believes that the energy industry has the experts, the scientists, the engineering innovators, and the hard-working front-line workers to meet the Biden administration's goals of reducing greenhouse gas emissions. But, he adds, it will take a collective effort—with funding and regulatory support from Washington, buy-in from the industry, and a realistic perspective on energy mix—to make it all possible.

As part of his campaign platform, President Joe Biden made transitioning to alternative energy sources a priority for his administration to, in theory, reduce greenhouse gas emissions. His goal¹ is to move the United States to 100 percent carbon-free electricity by 2035 and a net-zero-carbon economy by 2050. And while the bipartisan Infrastructure Investment and Jobs Act² does deliver some funding to help the country start the march towards this vision, there is significant—some might suggest daunting or even impossible—work still needed to eliminate carbon emissions in just the next 13 years.

WHAT SUPPORT DOES THE INFRASTRUCTURE BILL PROVIDE?

The recently passed infrastructure bill does offer significant investments for the Department of Energy ("DOE"), albeit less than many progressives were calling for. The deal includes more than \$62 billion for DOE in the form of investments in manufacturing and workforce development, increased access to alternative energy programs, funding to make our nation's power grid more resilient and efficient, and funding for alternative energy research and technologies. For the energy industry at large, there are a number of specific investments worth calling out:

- \$750 million grant program for advancing energy technology manufacturing projects in coal communities.
- \$700 million investment in existing hydropower facilities.

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https://www.reuters.com/article/us-usa-biden-clean-energy/white-house-will-seek-law-to-require-carbon-free-power-from-u-s-utilities-idUSKBN2BO6NV.

² https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/06/fact-sheet-the-bipartisan-infrastructure-deal/.

- \$21.5 billion in funding for energy research, including:
 - \$8 billion for hydrogen technology;
 - \$10+ billion for carbon capture, direct air capture and industrial emission reduction; and
 - \$2.5 billion for advancing nuclear energy.

While these numbers are not small, more support will likely be needed for the country to reach President Biden's stated goals. For the industry, including its nearly seven million workers³ and tens of millions expanded workers, adapting will likely require a collective effort from both fossil fuels and alternative interests alike.

WHAT IS REQUIRED: A BALANCED, ALL-OF-THE-ABOVE APPROACH

There is no question—achieving carbon-free electricity in less than two decades, even with these investments, is quite a lofty goal. Getting to a net-zero-carbon economy just 15 years later may be even tougher. But what do those goals actually mean, and how will they be quantified?

Simply put—achieving a net-zero economy cannot and should not be done overnight. We already have seen massive progress at a global scale—BloombergNEF4 found additional solar power generation capacity worldwide is expected to be around 180 gigawatts in 2021 alone, which is more than the combined record for coal and gas capacity additions this century. This is undoubtedly great news.

However, fossil fuels are a necessary part of the development and manufacturing of alternative energy sources in baseload generation, in the raw materials, and in feedstocks required to manufacture alternative energy sources, after all wind mills, solar panels and batteries do not grow on trees. Rapid progress is possible, but the approach must balance the need for cleaner energy with the reality of how we can make it possible.

If the United States wants to continue leading the world in reducing greenhouse gas emissions, it will require an even faster roll out and deployment of new technologies, greenhouse gas capture and sequestration, consistency in application of regulation, smart legislative policy (i.e., policy that incentivizes innovation while not punishing the producers of energy that are currently helping meet society's needs) and consistent reporting.

https://www.naseo.org/issues/energy-jobs/employment-report#:~:text=The%20U.S.%20energy%20market%20accounts,energy%20efficiency%3B%20and%20motor%20vehicles.

⁴ https://twitter.com/natbullard/status/1471530953176670214?s=21.

Of course, reducing our carbon footprint is a global issue, not just a national one. The correct approach must feature a balance between leading the global charge on going green while not hampering our own ability to grow as a country and putting us in the red. Part of managing that balance should mean encouraging more domestic exports of clean burning natural gas. As we all know, natural gas has allowed the United States to drastically reduce its emissions, while encouraging and supporting alternative energies and domestic job creation. Natural gas can do the same internationally, while supporting U.S. job creators at home. For many years, this was a shared strategy. Now, either due to politics or the desire for the "latest and greatest" that strategy seems to be forgotten by some. We must not forget about the potential advancements that can be achieved through expanded use of nuclear power either.

THE CHALLENGE WITH TOO FAST, TOO SOON

Look at what the industry has accomplished—that includes traditional fossil fuel companies, alternative energy companies, and everything in between—and the leaps in innovation are astounding. The perspectives are mixed, but even some fossil fuel trade groups are opening up to the idea of carbon pricing, which, just a few years ago, seemed unlikely to say the least. Change is coming, and the industry seems ready to embrace it with new ideas and technology. In fact, change and innovation almost always comes from industries in the private sector.

Further innovation can come from anywhere, be it large established companies or small startups. However, both sides of that spectrum need consistent, reliable and predictable regulatory approvals for their new innovations and technologies.

Generally speaking, everyone agrees with the importance of protecting the environment and ensuring all stakeholders have a seat at the table. Yet, the responsibility for making the leap to "carbon-free" electricity and eventually a net-zero-carbon economy is not shared equally.

The biggest challenge is that, while President Biden's goal is a U.S. policy, energy is consumed and traded globally. And with the worldwide population now expected to hit nearly 10 billion⁵ by 2050, the biggest barrier is in meeting the global energy demand while simultaneously advancing new technology and reducing emissions.

The companies risking the capital to make the necessary innovations possible need some reassurance their projects will be approved in a timely manner.

⁵ https://www.iea.org/reports/world-energy-model/macro-drivers.

Private industry has historically accepted the risks of investing to try new ideas, but what they don't need are additional barriers that might discourage those investments and ideas.

The industry is stepping up to the plate, but lawmakers in Washington should create the right rules to make it possible to meet these goals. The infrastructure bill, for many, is one step.

A NECESSARY BRIDGE (PERHAPS PERMANENT COMPONENT) AND THE ROLE INDUSTRY PLAYS

The United States has proven you can expand the economy during population growth while reducing emissions at the same time. This has largely been driven by clean-burning natural gas and the rapid advancement of alternative energy sources. This balance will continue to be necessary as we move closer to the 2035 "deadline."

Already, we are seeing alternative energy interests seeking and receiving greater incentive packages and regulatory predictability, while traditional energy producers are demonstrating immense advancements with new technologies that produce more energy, with fewer emissions, while meeting the demands of society. The United States is a global leader in the responsible sourcing of clean-burning natural gas, and the industry should continue to push for more exports of this climate-friendly solution as a safe, viable energy option.

Looking forward, technologies such as carbon capture, utilization and storage, of which the United States is the world leader⁶ with a dozen commercial-scale facilities in operation and many on the drawing board, will play a crucial role in this transition. Advancements are being made in smart grids and battery storage, and more utility-scale alternative energy facilities are in construction. The key will be where and how these technologies are deployed, how quickly they can go online considering regulatory approvals, and whether these technologies can be implemented strategically with existing baseload.

Ultimately, the energy industry has the experts, the scientists, the engineering innovators, and hard-working front-line workers to meet the 2035 and 2050 stated ideals. But it will take a collective effort—with funding and regulatory support from Washington, buy-in from the industry, and a realistic perspective on energy mix—to make it all possible.

 $^{^{}f 6}$ https://www.energy.gov/fecm/articles/energy-department-ranked-global-leader-carbon-capture-and-storage-research.