HIRD WAY

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On the Grid: Changing the Game 5/12/23





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The United States' current energy policy has taken slings and arrows from many comers in the past two weeks. The Right has criticized it as too focused on "green" energy, and some on the Left have criticized it for including carbon capture and nuclear, <u>using the Strategic Petroleum Reserve</u> to bring oil prices down, or being <u>too reliant on the private sector</u> for deployment of clean energy.

Our team noted that these attacks really show that underneath all the rhetoric, the US is now as close to a truly "All of the Above" energy policy as we may have ever had. This is an issue of increasing geopolitical, as well as economic, importance as global supply chains fracture between authoritarian and democratic nations, and petro-states try to use their influence on oil and gas prices for political gain.

Ultimately, this optionality will lead to a lot more domestic clean energy being more removed from the wild price swings of fossil fuels. That will have big cost savings for the US economy as well.



The Environmental Protection Agency (EPA) released the first draft regulations this week to limit greenhouse gas emissions from new and existing power plants. The proposed rule would require gas-powered plants, except those running part-time, to <u>capture</u> 90% of their carbon emissions by 2035. Coal-fired power plants, which release more carbon pollution, face a tighter deadline to <u>capture</u> 90% of their emissions by 2030 if they plan to stay open in 2040.

To meet this goal, utilities have the flexibility to decide, power-plant-by-power plant, how to meet the new standard; they can make significant cuts to generation, retire the plants, *or* deploy carbon capture sequestration technology to reduce emissions. Here are three things to keep in mind:

- 1. Rather than forcing a one-size-fits-all approach, the ruling gives states the flexibility to develop and execute a more tailored implementation plan, empowering states to adapt and work within their own resources and circumstances.
- 2. Reasonable and pragmatic, the EPA's proposed regulation recognizes the diversity of power plants in operation, offering different strategies for round-the-clock plants and those that run intermittently to meet peak demand.
- 3. Above all else, the ruling would have huge health implications, significantly improving the air quality of communities living near power plants.

Part of a larger technology-inclusive approach to clean energy, these regulations will decarbonize a significant portion of our electrical grid by 2040, putting us on track to reaching net-zero. We expect to hear criticism from some environmentalist groups on the left, who see carbon capture as a false solution, and from the right, who will claim the regulations will have a severe <u>economic</u> <u>impact</u>. Regardless of the anticipated legal battles reminiscent of the Obama-era Clean Power Plan, this rule is a pragmatic solution to one of the industry's most stubborn problems.

You can read our <u>Twitter thread</u> unpacking the details.



Third Way, in collaboration with ClearPath, RePlant, and Potential Energy Coalition, released a new set of <u>public opinion research</u> examining attitudes toward different energy sources across eight countries, Poland, France, Sweden, the United Kingdom, South Korea, the United States, Germany, and Japan. The research found, contrary to conventional wisdom, that a majority of those surveyed support nuclear energy as a source of electricity in their country. This was particularly surprising for Germany and Japan, countries whose populations have long been perceived to be anti-nuclear.



Figure 1: Support significantly outnumbers opposition across the globe

"I support the use of the latest nuclear energy technologies to generate electricity, alongside other energy sources." (5-point scale from strongly disagree to strongly agree)

It's worth reading the full report to understand what is shifting public opinion, which is different in every country. What we have found, however, is that the combination of climate change and shifting perceptions on energy security are prompting many people to look at energy differently than ten, *and even five*, years ago.

Source: The World Wants New Nuclear, May 2023



This week, White House Senior Advisor for Clean Energy Innovation and Implementation, John Podesta, warned that the US would not realize its clean energy goals if we keep one hand tied behind our back by not addressing permitting reform.

At an event at the Bipartisan Policy Center, Podesta reiterated the Biden Administration's support for some of <u>Senator Manchin's permitting reform bill</u> and that the Manchin bill was just the tip of the iceberg. As they move forward with removing the regulatory roadblocks impeding clean energy development, the White House has identified a concrete set of <u>priorities</u> to focus on. These include:

- Accelerating Transmission Deployment: The Administration's proposal to streamline interstate and offshore transmission connections, reform the interconnection queue, and establish regional transfer requirements will help build and deploy transmission lines at <u>the rate</u> we need to reach net-zero.
- **Revitalizing Critical Mineral Supply Chains:** With the <u>vast majority</u> of critical mineral supply chains located overseas, our clean energy future is alarmingly vulnerable to disruptions and threats. The Administration's goal to expand and accelerate responsible domestic critical mineral mining will reduce our dependence on other countries and bolster American energy independence.
- Improving Permitting Efficiency and Predictability: Regulatory roadblocks and permitting delays
 significantly impede clean energy deployment, adding *years* to <u>project</u> timelines. The Biden
 Administration hopes to streamline this process through smart moves like improving
 interagency coordination, cutting duplicative reviews, and more expanded and responsible
 categorical exclusions.

As Podesta stated, "If we can't build some new things in a few backyards, the climate crisis will destroy everyone's backyards—along with the livelihoods, communities, wildlife, and biodiversity we all want to protect." From our perspective, the most important thing is that any reforms net out to very significant scaling of clean energy and reduction in carbon emissions—even if some fossil fuel projects are accelerated to get the overall package done. Congress should be able to get this

done. But Congress should also not be getting anywhere close to a default on the national debt, Yet, here we are.



<u>Helion Energy</u> announced this week that it intends to deploy a commercial nuclear fusion facility in Washington within 5 years.

While there has been a lot of progress in recent years made by private fusion companies like Helion as well as Commonwealth Fusion, TriAlpha, and others, we have some serious reservations about Helion's announcement.

First, fusion facility designs like Helion's would endure an immense amount of stress during highenergy reactions. It is difficult to anticipate how durable the materials used in this facility would be, how often they would have to be replaced, and what the cost of production or replacement would be.

Second, Helium-3, the fuel source for the Helion design, is not only rare-it has no existing supply chain. This makes commercializing a fusion power plant within any kind of budget in a highly competitive environment by 2028 very difficult.

As <u>Todd Allen</u>, Third Way's Senior Visiting Fellow for Nuclear Energy, stated, "Helion is to be congratulated for attempting a different pathway towards commercialization of fusion technology." says. "That risk-taking is important to innovation. There are many engineering challenges required for them to transition to affordable and reliable power production and if Helion meets their announced schedule, it would be very impressive."



- <u>Shannon Osaka</u> in *The Washington Post* argues that heat pumps' lackluster name has left the low-carbon heating and cooling appliances largely unnoticed.
- <u>Emily Pontecorvo</u> in *Heatmap*, provides a comprehensive breakdown of the EPA's proposed regulations and how that has shaken up previously established positions on carbon capture technology.
- Jason Bordoff on the Columbia Energy Exchange podcast series sits down with Larry Fink, Chairman and CEO of BlackRock, the world's largest asset manager, to discuss the economics of energy and how the Inflation Reduction Act is catalyzing millions of dollars in investment.



Senior Resident Fellow <u>Dr. Ellen Hughes-Cromwick</u> gives a lesson in economics, outlining what the newest inflation data can tell us.



#Econtwitter #Energytwitter @jennifermharris and I think you two need to unite! Like this morning when we got the **@BLS_gov** data on April **#inflation** data. Even though gasoline prices are up, overall energy prices are down by 5.1% for the last 12 months... 1/

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