

On the Grid: A Building Consensus for Tech-Inclusive Solutions 1/28/22



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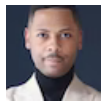
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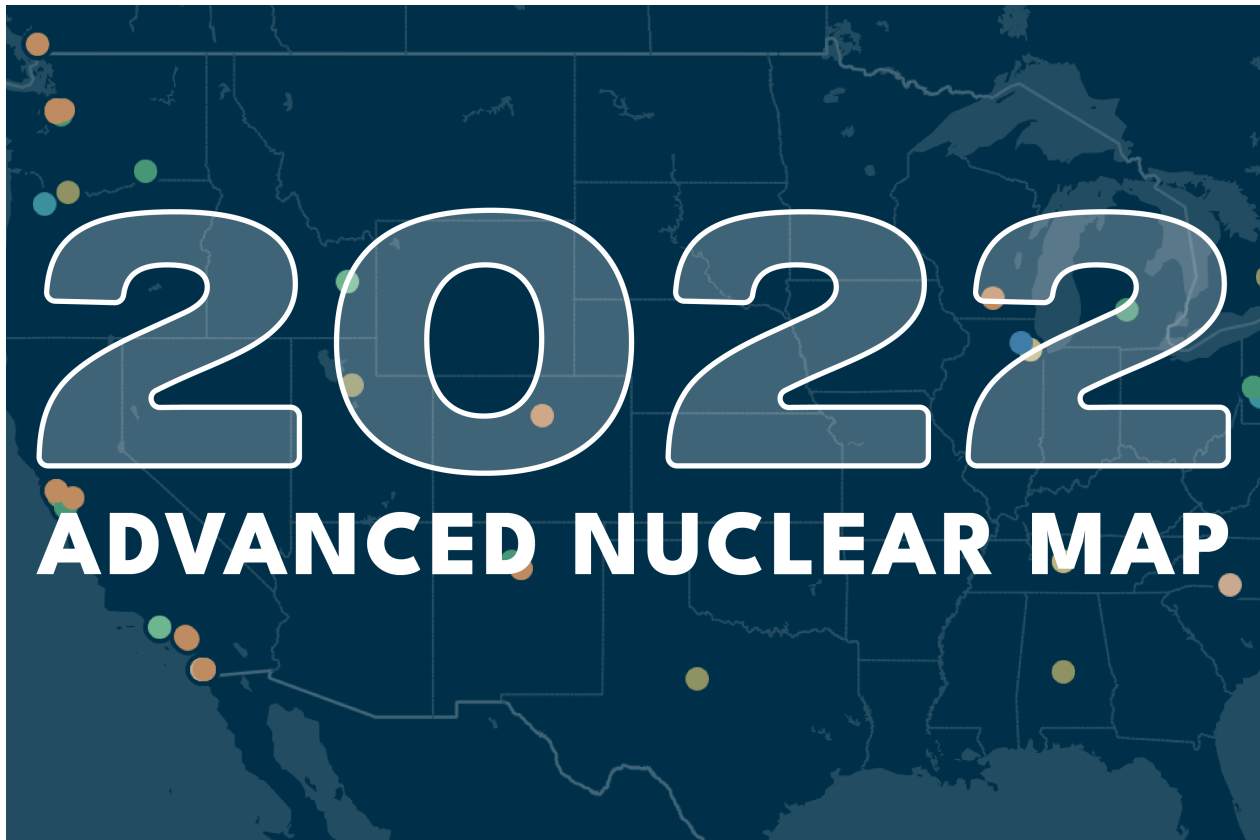
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There's a huge energy angle in **Russia's aggression in Ukraine**. Europe, particularly Germany, is reliant on Russian gas and oil. One-third of [Germany's gas and crude oil came from Russia](#) in Q4 2021. Germany is particularly susceptible because it closed its nuclear plants and is reliant on gas to generate electricity when the sun isn't shining or wind is not blowing. This is contributing to Germany's refusal to join the US and United Kingdom against Russia's threat to invade Ukraine. It is also preventing the EU from presenting a united front against Russia.

Even before this crisis, we've been hearing directly from a number of Eastern European countries who want to work with us to get US advanced nuclear energy as a way to secure energy independence from Russia and eliminate their use of coal. It helps that President Biden is standing firm and working to provide US and Middle Eastern sources of gas to Europe in case Russia stops its exports. If Russia does invade, we could see Eastern Europe and even Scandinavian countries move closer to the US, including on energy issues

1. 2022 Advanced Nuclear Map



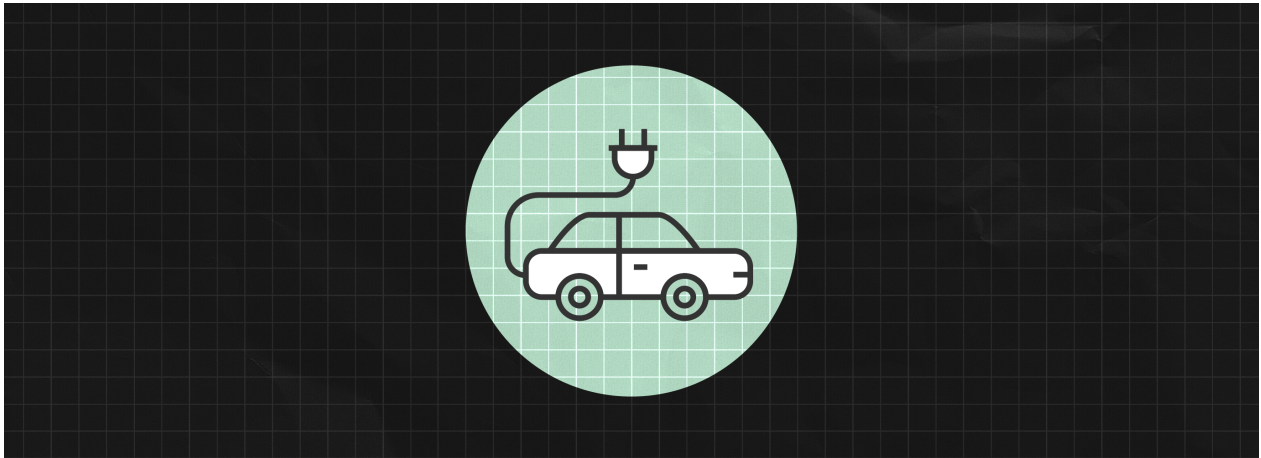
We just released an updated version of our [Advanced Nuclear Map](#), which tracks the evolution and growth of global advanced nuclear innovation projects. We've updated the map every year since 2015, and our latest edition includes over 155 projects around the world.

In the US, with federal funding and support for nuclear innovation increasing, we saw a lot of movement this past year on advanced nuclear projects: several companies announced sites for their first reactors, including [X-energy](#), [Kairos](#), and [TerraPower](#), and projects received a boost from the US Department of Energy's Advanced Reactor Demonstration Program.

As projects continue to accelerate around the globe, the market for advanced nuclear energy is heating up. Global investment in nuclear energy is [predicted to rise](#) in the next several years. And the race to deploy and commercialize this clean technology has major implications for American competitiveness and national security as we work to maintain our leadership in this strategic industry.

Learn more and explore the map yourself: [2022 Advanced Nuclear Map: Charting a Breakout Year](#)

2. Good Morning, GM

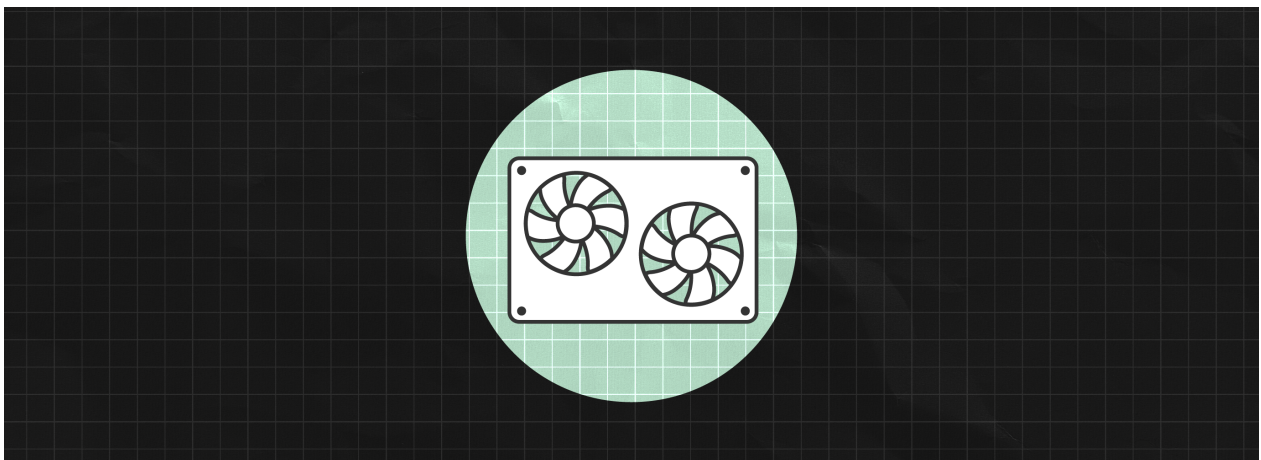


This week, General Motors announced it would be investing \$7 billion to build a new EV battery plant in Michigan and retool an existing plant to begin producing electric pickup trucks, which together will support 5,000 new jobs in the state.

We've spent the past several months chronicling the steady cascade of new investments in domestic electric vehicle manufacturing. As US automakers chart their course toward electrification, it's also crucial for auto manufacturers to invest in securing the domestic supply chain for EVs. That's why this investment in a new battery factory is so critical: because it helps shore up our domestic capacity to produce EV batteries.

The market for EVs has already exploded in China and Europe, and as we race to catch up with our foreign competitors, we are presented with a unique opportunity. Not only are efforts to build out an EV and EV parts manufacturing industry vital to reduce transportation-related carbon emissions, but they also represent a long-term investment in American jobs, communities, and families for decades to come.

3. Now Hiring For: Carbon Removal



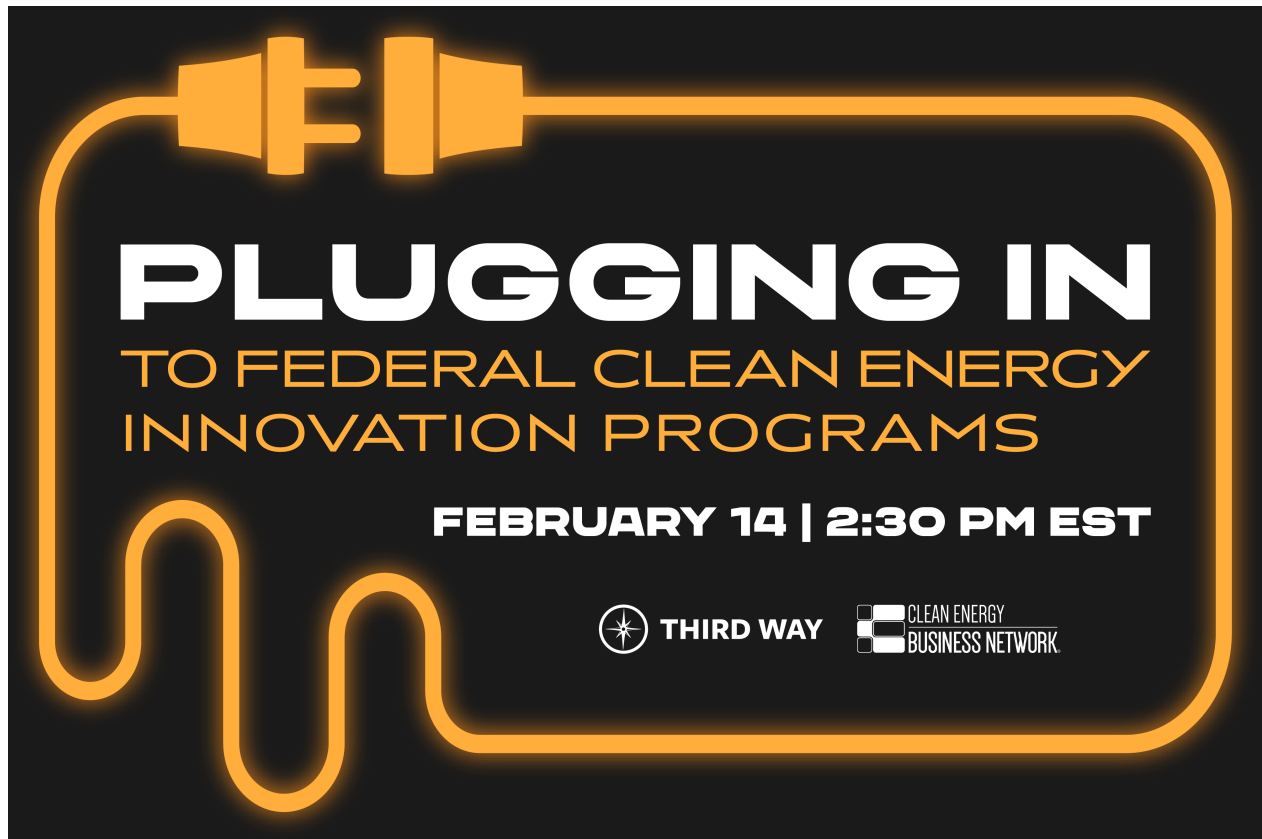
In *Canary Media* this week, writer Maria Galluci explored the growing enthusiasm around career paths in carbon dioxide removal (CDR). There are literally hundreds of startups working on advancing CDR technologies—and workers across the country are seeking meaningful work in clean tech.

We've long advocated for direct air capture (DAC), one kind of carbon removal solution, as a critical carbon pollution tool, and that's because scientists agree—we've emitted so much carbon already that only replacing fossil fuels and cutting emissions won't be enough, we also have to physically remove some of the carbon dioxide that already exists in the atmosphere. The good news is this creates an unprecedented opportunity to build out new industries and technologies that will create thousands of jobs and create economic benefits for decades to come.

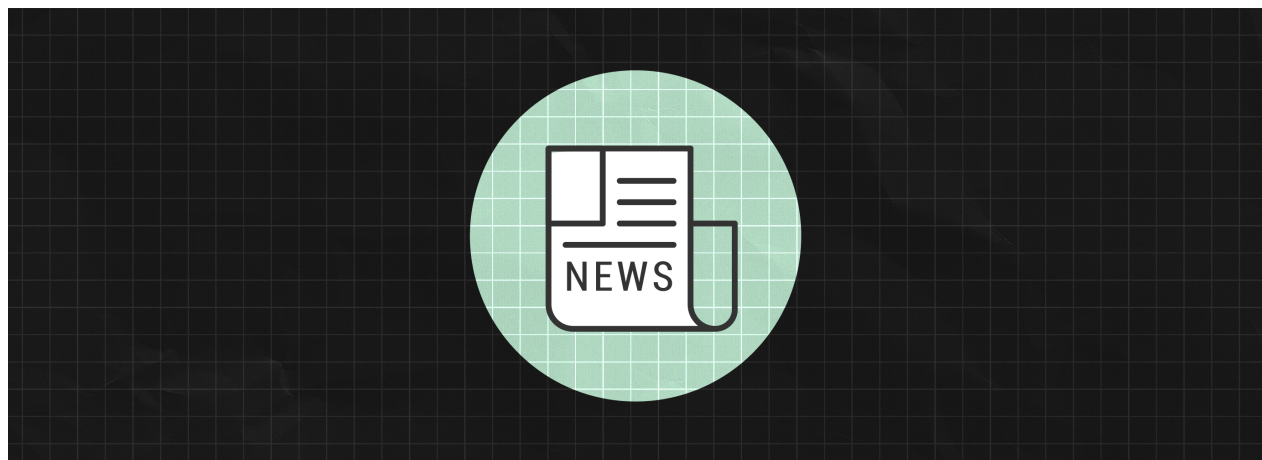
That's why we need to invest heavily upfront in CDR research, development, demonstration, and deployment, so we can overcome the stumbling blocks on the path to commercialization and ensure these technologies are brought to market as soon as possible.

Stay tuned for more work from us on the future of DAC technology and how federal investment in innovation will support its deployment.

4. Make sure to register for Plugging In To Federal Clean Energy Innovation Programs, an event showcasing various innovation programs within the Department of Energy.



5. What We're Reading



- In *New York Magazine*, [Eric Levitz](#) explains why “we don’t have the luxury of forgoing imperfect tools in our quest for mutually assured decarbonization,” and why nuclear power is essential to support decarbonization alongside renewables.
- In *Axios*, [Andrew Freedman](#) reviews two new reports that demonstrate that while transitioning the global economy to net-zero will have high upfront costs, it will yield tremendous economic benefits and payoffs in the long run.

- In *Power Magazine*, [Sonal Patel](#) breaks down the DOE Loan Programs Office’s new \$1 billion loan guarantee for a “turquoise hydrogen” project, which uses methane pyrolysis to convert natural gas into carbon black and hydrogen, both of which can be used as alternative inputs for hard-to-abate industrial practices.