THIRD WAY

NEWSLETTER *Published April 12, 2024 • 8 minute read*

On the Grid: Data Doesn't Lie 4/12/24

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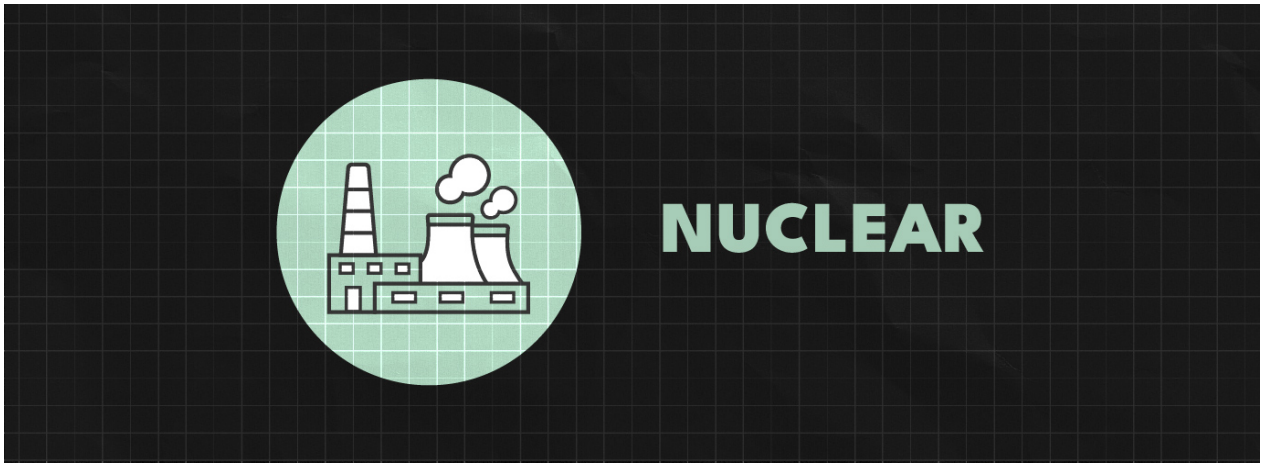
Welcome to *On the Grid,* Third Way's bi-weekly newsletter, where we recap how we're working to deploy every clean energy technology as quickly and affordably as possible. And we're cutting through the election year noise to parse out what this year means for clean energy and how we can push decarbonization forward today and into the future.

We're excited to have you join us!



Global demand for clean, reliable, and secure nuclear energy is soaring, yet the US is falling behind Russia and China in this market. These countries are hostile to US interests and values. This is a pressing national security concern that demands immediate attention. Here are the facts:

- Russia and China are building 70% of the nuclear reactors currently under construction around the world.

- Together, Russia and China are partnering with over 70 countries to construct, export, or offer services for nuclear power facilities. The US is behind, working with 58.

- 100% of the world's commercial advanced nuclear fuel capacity is in Russia.

It's time we build advanced nuclear power plants at home and popularize US safety standards around the world.

Senator Sheldon Whitehouse (D-RI), who joined Third Way for an event on nuclear deployment this week, said it best: "We need to be able to figure out how to take small modular, and advanced nuclear, and other technologies to repower the heating plants so the jobs, and the power sources, and the discount from having the grid already in place, all that works in consumers' advantage."

Senator Sheldon Whitehouse (D-RI), *left,* and Josh Freed, Senior Vice President for Third Way's Climate and Energy Program, *right.*

What We're Doing: To increase the urgency for the US to lead, we re-launched our 20x35 campaign, highlighting how our country is losing the advanced nuclear race to China and Russia and emphasizing a clear benchmark for restoring our nuclear energy leadership. By calling for a clear target to build at least 20 advanced reactors by 2035, we can foster innovation, encourage communities to embrace nuclear, and push the US to lead.

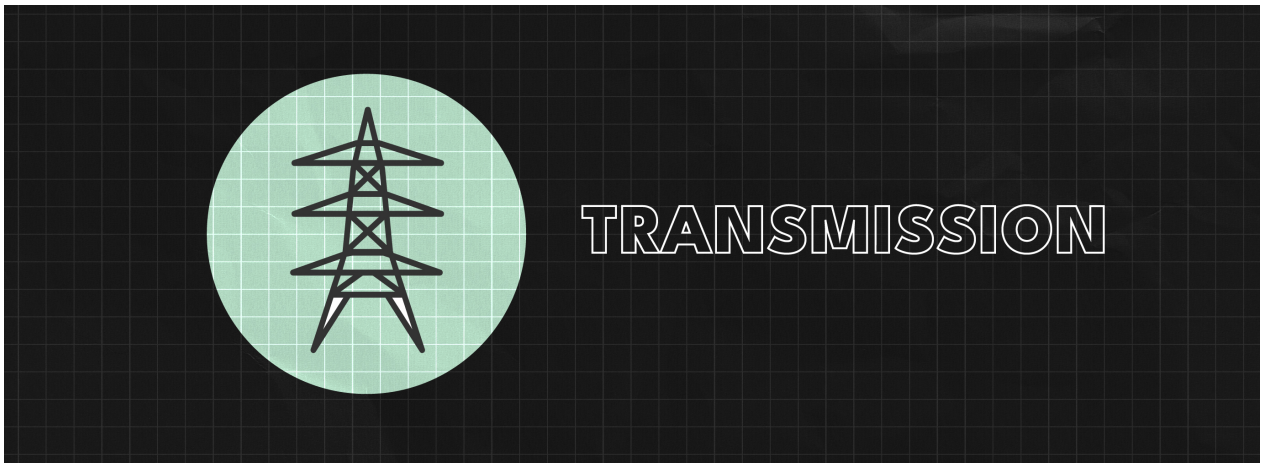
At the end of March, the Biden Administration awarded $4 billion in competitive 48C Advanced Energy Manufacturing Investment Tax Credits to over 100 qualifying projects in 35 states. The

program provides up to a 30% tax credit for capital investments to build new manufacturing facilities or update existing facilities to produce clean energy technologies.

Who Benefits?: The Advanced Energy Manufacturing Investment Tax Credits are technology-neutral, so any clean energy manufacturing project is eligible. Unlike most tax credits, it is also a competitive award that goes to projects that stand out because of exceptional job creation, advancing innovation, or support for local economies. $2.7 billion will support clean energy manufacturing and recycling, $800 million will support critical materials recycling, processing, and refining, and $500 million will support industrial decarbonization processes.

What We're Doing: We began working on clean energy manufacturing tax credits in 2019. Teaming up with United Steel Workers and industry leaders in 2022, we spotlighted the importance of the 48C tax credit for keeping the US competitive and creating economic opportunities across communities. We worked directly with Senator Manchin's team to develop legislation that was ultimately included in the Inflation Reduction Act. A total of $10 billion will go to manufacturing facilities that will produce materials necessary for the clean energy transition.

Of that total, $4 billion has been awarded, and an additional $6 billion in tax credits will be open for submissions this summer. We'll keep working with industry partners to help small- and medium-sized firms best capitalize on subsequent funding opportunities.



In recent weeks, the capacity and reliability of the US power grid have made major headlines. Some are warning that increasing demand from data centers, electric vehicles (EVs), and artificial intelligence (AI) are straining our grid, risking blackouts and grid failure. Others have suggested these concerns are exaggerated and that the grid is more than capable of meeting rising demand. Here's our take:

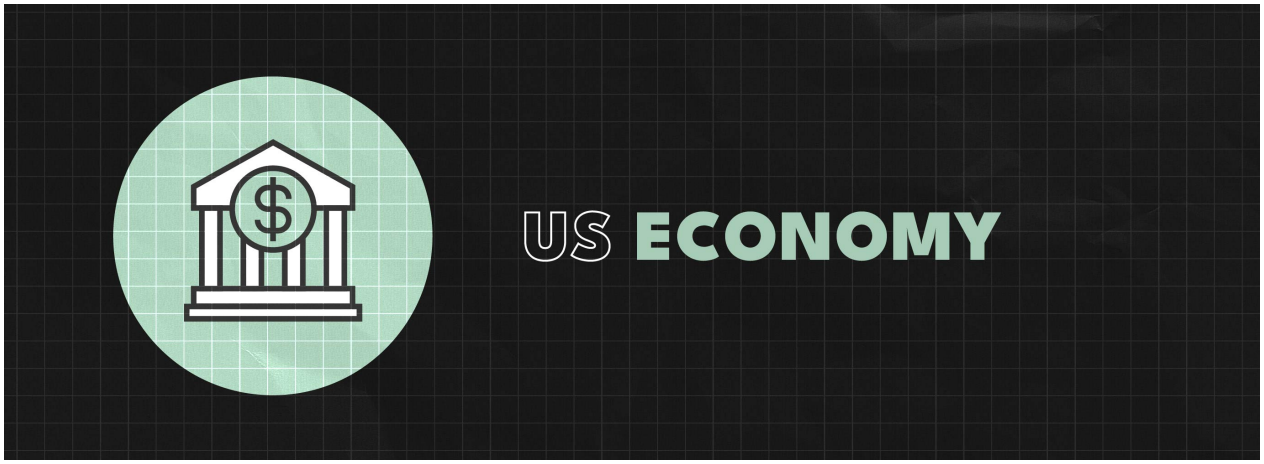
- **Demand is Back:** For the past two decades, innovation and technological efficiency have offset rising electricity demand, giving utilities and regulators little incentive to bolster the grid or expand generation capacity. Recent demand growth has canceled out on those efficiency gains, and our grid is now struggling to keep up.

- **It's Not All About AI:** Recent rapid progression in AI is certainly contributing to the surge in electricity demand, but demand growth goes beyond AI alone. Commercial and industrial electrification and a burgeoning US manufacturing renaissance have also driven demand up. The same is true for widespread EV deployment. Innovation and electrification are worth celebrating – but grid capacity has to grow to keep up.

- **We Knew This Was Coming:** Utilities, system operators, and regulators have long planned for greater electrification and ensuing electricity demand. The challenge we're facing today is not rooted in a failure to predict these new grid needs but rather in the timing. Demand is growing faster than anticipated.

What's Next: Addressing this will require expanding the scope, scale, and speed at which new clean capacity is added to the grid. This involves not just new infrastructure but leveraging existing resources and using innovative grid-enhancing technologies to increase the capacity of our current transmission system. Looking ahead, renewable sources and energy storage will not be enough to keep our grid stable and operating at low cost. A truly reliable grid will need more firm, non-intermittent power sources like nuclear energy.

What We're Doing: This is both a generation and transmission challenge and requires multiple policy, regulatory, and economic solutions. We released a new memo on how we can best tackle our ongoing electricity challenges and are working on a series of policy recommendations to best address these challenges.



Global oil prices are spiking–and fast. We're tracking three trends responsible for the increase:

- **OPEC Production Cuts:** As the global economy bounces back, OPEC+ is continuing to tighten production to 2 million barrels a day, fueling price hikes amid surging demand.

- **Geopolitical Instability:** Turmoil and uncertainty in the Middle East and Russia is pushing oil prices up.

- **Crude Oil Futures:** Trading in crude oil futures is spiking, signaling a surge in market speculations.

With global oil prices up, the US should, in theory, see the same increase at home. But prices have stayed relatively low, thanks to action from the Biden administration to spur production and keep prices low for consumers. That includes:

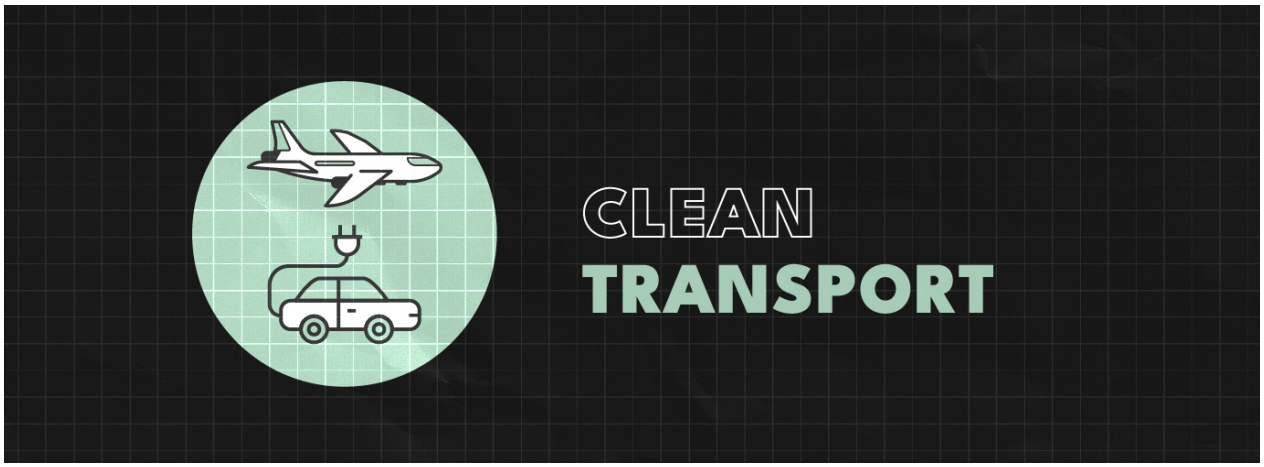
- Approving nearly 10,000 permits for oil and gas drilling;

- Breaking records with the highest level of oil production seen by any country *ever*;

- Hitting natural gas production highs, surpassing peak levels reached under the Trump Administration;

- And adding nearly 90 GW of reliable and clean power to our grid.

What We're Doing: We're urging the Biden Administration to take more credit for the important work they've done to protect Americans from price shocks and increase energy generation, including oil and gas production. Our new fact sheet outlines the Biden Administration's comprehensive energy achievements and gives allies the tools they need to speak up about the Administration's energy leadership.



Aviation is an incredibly carbon-intensive sector and decarbonization will certainly be a challenge, but doing so presents a huge economic opportunity for the private sector. Transitioning to

Sustainable Aviation Fuel (SAF)—clean, liquid fuel that can be used interchangeably and blended with today's conventional jet fuel—is set to deliver massive economic wins.

Our new modeling unpacks the impact of fully transitioning to SAF by 2050. This would:

- Drive $800 billion in capital expenditures into the American economy to develop SAF production facilities and necessary upstream infrastructure, coupled with an additional $650 billion to sustain these facilities.
- Inject $100 billion in investments related to SAF production into the Midwest and Great Plains regions of the US, fostering regional economic growth.
- Create 153,000 jobs directly within the SAF industry, as well as 250,000 jobs in related sectors.

What We're Doing: Transitioning to SAF will be an economic catalyst for key regions of the country. Now, for airlines to buy into SAF, we need to make the case that it's a smart move for their bottom line, too. Our team is leveraging our modeling to work alongside stakeholders and advocate for more funding for SAF RD&D through the annual appropriations process. We're also working with our partners on policies to help decarbonize aviation through the FAA reauthorization and the Farm Bill.

- Karen Onaran in *Utility Drive* outlines how record manufacturing growth is putting pressure on electricity demand and the importance of expanding transmission and optimizing our existing infrastructure to help meet growing demand.
- The Editorial Board at the *Washington Post* points out how environmental groups are slowing clean energy deployment and the importance of streamlining regulatory processes.

- Ed Crooks, on the *Energy Gang* podcast, talks with Dr Melissa Lott, professor at the climate school at Columbia University, and Michael Webber, chief technology officer at Energy Impact Partners, about growing demand for energy, what's driving power consumption, and how we can address it.