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# Unfortunately, I Care About Power Lines Now

If America wants to fight climate change—or enjoy the benefits of a modern economy—it must get much better at building electricity transmission. Yikes.

By Robinson Meyer



Knud Pfeifer / Picture Press / Redux

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A terrible thing happened to me recently. I started to care about electricity-transmission policy.

In energy circles, the people who work on transmission are feared and respected in the same way a shriveled and reputable local mage might be. They are sorcerers who understand one of the most powerful, corrupted bodies of knowledge in existence—American electricity law—but it has prematurely aged them and led them to scuttle around, muttering incoherent spells: “*Ferck and nerck, ferck and nerck, ferck purpa no-per.*” Strange—lunatic, even? No question. Yet the town would surely be overrun without their protection.

So they are venerated, yes, but also pitied. Because for all their might, their ability to domesticate lightning and hurl it across the continent, they have failed to make much progress against the forces of the dark—in this case NIMBYs, old-school environmentalists, and utility lawyers. In the past decade, the United States has struggled to build new transmission lines linking different regions of the country, even though such lines are essential to basically any vision of the future national economy. In 2011, President Barack Obama [attempted to accelerate](#) the completion of seven major new transmission lines. Only two were finished. Since 2009, China has built [more than 18,000 miles of ultrahigh-voltage](#) transmission lines. The U.S. has built zero.

This sorry history has led transmission advocates to push for a nuanced set of regulatory policies that would encourage better outcomes under the current system. I respect their caution—but right now, with the infrastructure bill, the U.S. has an opportunity to fix its dumpy transmission system forever.

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When policy makers argue about electricity and climate change, most of the fuss is over *generation*: How can we make as much power as possible without using fossil fuels? But *transmission*—moving electricity over long distances—is of increasing importance. The U.S. must *triple* its transmission infrastructure in order to decarbonize by 2050, according to [a landmark Princeton study](#). As Steve Cicala, an

economics professor at Tufts University, recently told me, solar and wind are now the cheapest forms of electricity generation in some parts of the country. But those cost declines only matter if the largest power markets are connected—via new transmission!—to those areas.

Cicala laid out his thinking in a paper published earlier this year by the University of Chicago's Energy Policy Institute. (I am an unpaid journalism fellow at the institute.) A century ago, long-distance transmission was impossible: If you used electricity, it came from a hydroelectric dam or coal-power plant a few dozen miles away at most. As the century wore on, the U.S. got better at moving electricity hundreds of miles via those high-tension wires you sometimes see next to interstates. But only in the past decade or so has truly continent-spanning transmission become possible. China has excelled at this new industry, building monumental direct-current lines that send electrons more than 2,000 miles to its coasts.

Even if climate change didn't exist, building a national grid would still be worthwhile. The through line of U.S. economic development, from the railroads to the internet, consists of doing one particular move over and over again: creating, unifying, and regulating immense internal markets. Building a national grid is one of the great remaining tasks of this development. It would streamline electricity markets, reduce power bills, and allow urban wealth to flow to rural areas. Building a national grid would help Democratic states accomplish their climate goals, but it would also help Wyoming, one of the only states where companies can build new nuclear- or geothermal-power plants, by connecting it to millions of willing customers on the coasts. And if Congress passes a sufficiently stringent Clean Electricity Standard, then policy makers could watch many market mechanisms suddenly lurch into the service of decarbonization.

That's the theory, at least. Unfortunately, transmission is a devilishly complex area of the law, and lots of powerful institutions do not want to see new lines get built. Utilities, in particular, resent transmission because it weakens their ability to control local power markets. Ari Peskoe, who directs the Electricity Law Initiative at Harvard Law School, has described utility control over transmission as a type of syndicate.

The Federal Energy Regulatory Commission, or FERC, is the independent agency that regulates electric utilities, and it has some ability to nudge them into playing more nicely with transmission, Peskoe told me. But "if your goal is a continent-scale grid—the kind that engineers working on decarbonization dream about—the policy will require Congress," he said. "Congress has to do it."

And Congress *does* have a proposal that would address this exact problem. I've become convinced that the SITE Act, which would eliminate a basic obstacle in federal law and strengthen the functioning of U.S. energy markets, is the best fix. It should be matched with a tax credit to encourage developers to build more transmission lines.

America can build infrastructure much faster than it currently is. An irony of the past decade is that as the U.S. has struggled to build new transmission infrastructure, it has gone gangbusters on a *different* type of energy infrastructure: natural-gas pipelines. From 2010 to 2019, the U.S. added 107,400 miles of gas pipelines. Companies are able to build pipelines so quickly because the federal government has streamlined the process: Unlike other types of infrastructure, which might require federal, state, and local approval, a gas pipeline has, since 1938, required *only* FERC's stamp. The Supreme Court has repeatedly protected FERC's power here; last month, it ruled that FERC can condemn state-owned land if the agency so chooses.

No such process exists for electricity transmission, though. If you want to build a new transmission line, you must secure the buy-in of multiple state and local agencies, *in every state you pass through*.

This status quo—in which it's easy to build new fossil-fuel infrastructure but very difficult to build new electricity infrastructure—is lousy for the climate. It's even worse than it may seem too, because coal, which is the dirtiest fossil fuel, can easily move across the country via rail networks. In essence, companies can transport every type of energy easily—except zero-carbon electricity.

The SITE Act would fix that discrepancy by giving FERC automatic authority to permit all transmission projects that cross at least two states and carry more than 1,000 megawatts. And a transmission-investment tax credit, which would discount the cost of new transmission projects by 30 percent, would further move things along. Rob Gramlich, the founder and president of Grid Strategies who is perhaps the country's most respected transmission lobbyist, told me that it's the *most* important policy for speeding up transmission. He believes that 22 already permitted transmission projects could get built if their cost were reduced via the credit.

Transmission is a politically tough issue. Its costs are high and targeted, falling mainly on utilities and power plants. Its benefits are immense but diffuse, helping Americans nationwide enjoy cleaner air, a calmer climate, and lower electricity bills.

Can Congress overcome the captured economy and get transmission through? This is, to zoom out somewhat, the open historical question about not only climate policy, but all of American governance at this moment. The Biden administration says it wants to reshape federal policies to invigorate national prosperity, begin decarbonization in earnest, and better compete with China. Squint and you can imagine what such an agenda might look like: a new industrial policy, a windfall of domestic infrastructure construction, and a surge of investment abroad through the new Development Finance Corporation. Add a carbon border-adjustment tariff and—yes—a national power grid, and you can imagine what a new, imperfect era of U.S.-led globalization might look like.

Yet *so far*, the U.S. hasn't done any of that. The infrastructure package is struggling to be born in Congress. When Biden first unveiled his proposal, it included \$100 billion for transmission. But Senator Joe Manchin's transmission bill includes only \$27 billion, Peskoe told me. The Endless Frontiers Act, supposedly the herald of America's new industrial policy, has dropped most of its compelling ideas and been diluted into just another funding mechanism for big-name U.S. universities. Expanding the grid would be a tremendous accomplishment. But to do it ... lawmakers have to do it.

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