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FERC passed big transmission reforms; now the hard part begins

Utilities and regulators have a lot of work ahead to enact new federal grid planning reforms — and to overcome political and financial interests.

By **Jeff St. John**
20 May 2024

(Joe Raedle/Getty Images)

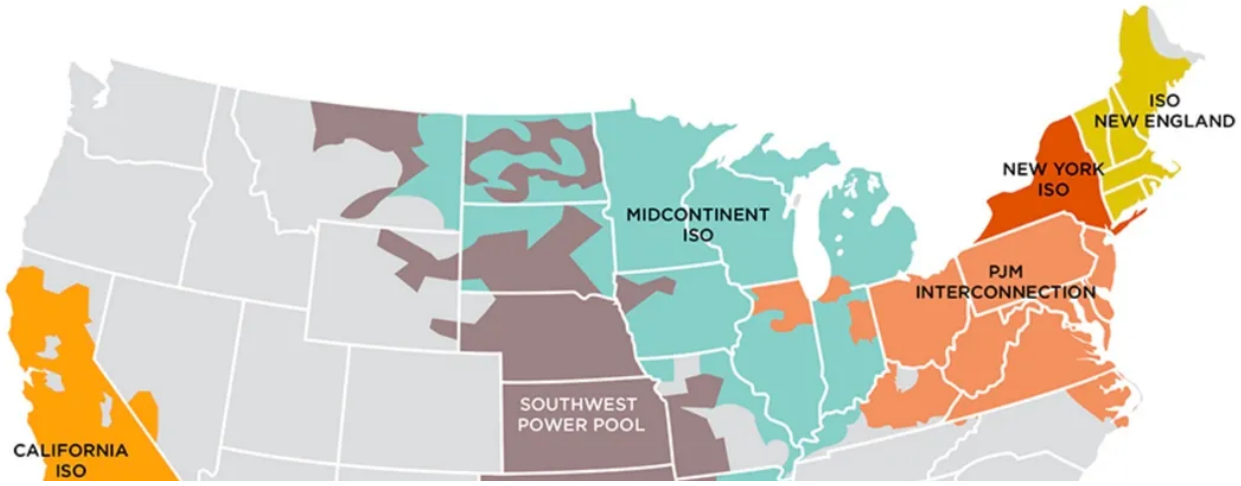
Last week, the Federal Energy Regulatory Commission approved FERC Order 1920, a 1,300-page regulation that will transform how the U.S. power grid is planned and paid for. Now comes the hard part – turning those reforms into the thousands of miles of power lines the U.S. needs to transition from fossil fuels to clean, cheap, and reliable

policies onto unwilling states and utility customers. Legal challenges are almost certain to emerge.

But supporters of FERC Order 1920 warned that roadblocks beyond lawsuits threaten the long-term benefits of the new transmission reforms. Perhaps the bigger challenge, they said, is making sure that the utilities, grid operators, and state regulators tasked with carrying out the reforms actually follow through over the coming years.

“There are certainly opportunities for rehearing, and for this to be appealed in the courts, that could delay things,” Christina Hayes, executive director of pro-transmission trade group Americans for a Clean Energy Grid (ACEG), said during a Wednesday press conference. But there’s also “a lot to be worked out within states and within regions to implement it.”

FERC’s order applies most directly to the country’s regional grid operators, which manage transmission networks that provide electricity for about two-thirds of the U.S. population. With the exception of the Electric Reliability Council of Texas (ERCOT), the grid operator for most of the state, all these regional grid organizations must craft plans to comply with the order and submit them for FERC review by spring 2025.

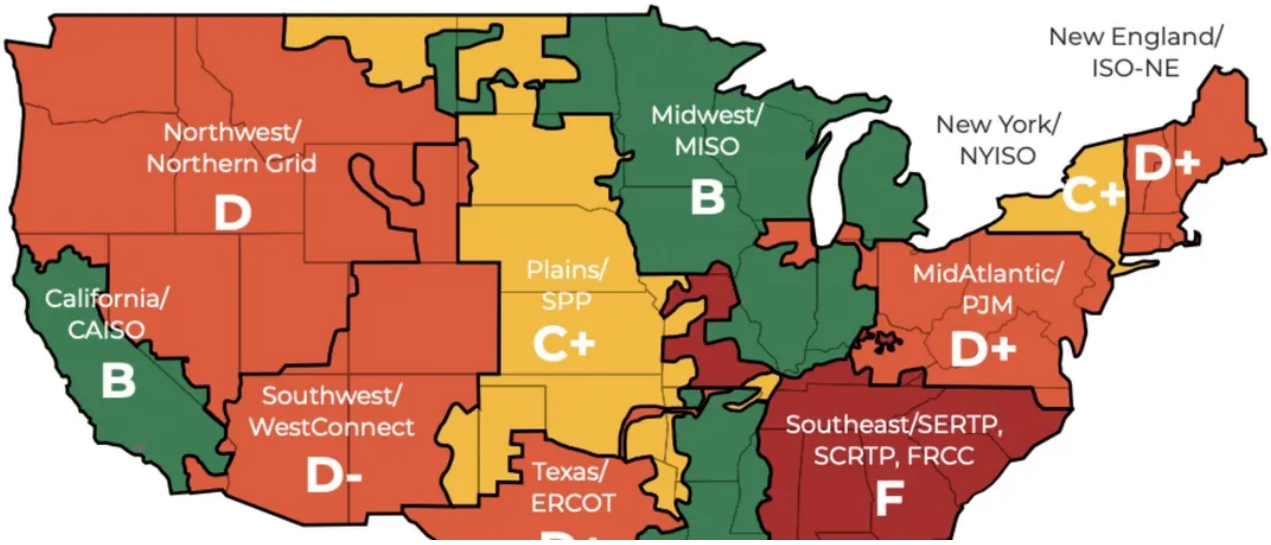


Regional grid operators in the U.S. (NRDC Sustainable FERC Project)

But just how each of these grid operators goes about meeting FERC's new rules depends greatly on their individual makeup, governance structures, and preexisting regional planning expertise, said Rob Gramlich, president of consultancy Grid Strategies.

Some, such as the Midcontinent Independent System Operator (MISO) and the grid operators for the states of California and New York, have already been active in long-term grid planning and may not face as many novel challenges in complying with FERC's new order, Gramlich said. But others aren't as well prepared.

In a report last year, ACEG and Grid Strategies gave poor grades to the regional transmission planning and development structures for Independent System Operator (ISO)-New England, which includes six states, and PJM, which serves a 13-state region from the mid-Atlantic to Chicago.



That report also gave low marks to the regional transmission planning structures in the parts of the country that aren't governed by a central grid operator, including the Southeast and the West between California and the Great Plains. The mechanisms for aligning the transmission plans and investment decisions of different state-regulated utilities in those swaths of the country are far less organized than they are for those managed by regional grid operators, further complicating implementation of FERC's mandates.

But several regional grid operators "have been bolstering their transmission planning processes" in the two years since FERC began working on its reforms, Hayes said. ISO-New England submitted a proposal to FERC last month. PJM has been working on a regional transmission plan for the past year. SPP, the grid operator serving Oklahoma, Kansas, and parts of 11 other states, is working on a consolidated planning process. And the Western Power Pool, a looser organization of utilities across the U.S. West, has formed the Western Transmission Expansion Coalition to explore joint transmission planning.

"There are a lot of exciting things happening in different regions around the country," Hayes said. FERC's new order "is definitely going to help ensure that they elevate their game."

Just how these different grid regions will gain consensus among the utilities, state regulators, and other decision-makers will depend on a lot of different factors, however – including the clean energy policies of these stakeholders.

The big split over who pays — supercharged by clean energy politics

Today, solar, wind, and batteries make up the vast majority of power generation projects seeking to be interconnected to transmission grids. At the same time, a growing number of coal-fired power plants are set to close in the coming years, both due to state clean-energy policies and uncompetitive economics. These two variables are vital to consider

down.

One reason the transmission buildout has been so slow to date is that it's hard to accurately assess and apportion the costs and benefits of a given project.

The costs of building regional transmission projects are assessed to utilities within these regions and eventually borne by their customers in the form of bill increases. Meanwhile, the benefits of expanding transmission – lower power costs due to less congested grids, reduced threat of grid outages, and increased capacity to bring new generators online – are more diffuse and can be harder to attribute to any one state or utility.

These dynamics give utilities and state regulators an incentive to try to avoid paying for projects on the grounds that other states and utility customers might benefit more than their own ratepayers. When taken to its extreme, that causes what energy experts describe as a "free rider" problem – individual utilities and states avoiding paying for projects that do, in fact, provide them benefits.

In the past decade, these cost-allocation squabbles between states and utilities have been supercharged by the politics of climate goals. States controlled by Republicans are increasingly demanding that they shouldn't have to pay for regional transmission projects that they say are driven only by other states' clean energy policies.

Those politics are sometimes overt, as with the letter sent to FERC by 17 Republican state attorneys general shortly after its transmission rulemaking was launched in 2022 that accused the agency of"socializing the costs of a massive transmission build-out to connect renewable energy."

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Just last month, PJM announced it was holding off on taking the next step in its long-running regional transmission planning development process – one that critics say would have almost certainly failed to pass muster under FERC's new order.

That's because FERC Order 1920 requires that regional grid plans assess a common set of benefits that come from regional transmission projects and allocate the costs of paying for those projects across all members of the region.

The latest iteration of PJM's regional plan, by contrast, had "no benefit determination at all, and there was no cost allocation – they were just using the States Agreement Approach, where one state proposes, one state pays," said Jon Gordon, a director at clean energy trade group Advanced Energy United.

Under FERC Order 1920, "PJM is going to have to do a comprehensive benefit determination," he said – and so will every other region. And while FERC's order does allow individual states to propose alternative cost-allocation processes, it also requires regional grid operators to set a "default" method that assigns costs based on the grid operators' chosen method for determining benefits.

In other words, regional plans can use different methodologies to determine what regionally planned transmission projects are worth, but they have to use FERC's common set of core benefits to do that analysis, said Tom Rutigliano, senior advocate for climate and energy at the Natural Resources Defense Council. And while they can propose different methods to allocate the costs of those projects, at the end of the day, the costs have to be spread among individual members based on the anticipated benefits.

This common set of rules has "swept away the political factors" that led PJM to develop a much more limited regional plan, Rutigliano said. "That leaves PJM in a really good place, because they've done all the homework … Just take the details of what are in the scenarios, do what FERC told you to do with them, and you're ready to go."

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much-needed transmission projects," Phil Moeller, a former FERC chair and executive vice president at Edison Electric Institute, said in a statement.

How to shift utilities from shortsighted to long-range grid planning

FERC's order, focused on long-range, collaborative grid planning, will also have to contend with the incentive for individual utilities to simply build transmission projects within their own service territories – and thus, earn guaranteed profits.

Over the past decade, projects proposed by individual utilities to meet near-term reliability needs have become by far the most common type of transmission investments across the country, according to analysis by Brattle Group. U.S. transmission investments have been on the rise over the past decade, from a little over $10 billion per year in 2010 to between $20 billion and $25 billion per year from 2017 to 2022, the engineering consulting firm found.

But of those investments, more than 90 percent have been "justified solely based on reliability needs without benefit-cost analysis," and "very few projects are justified based on economics and overall cost savings." In other words, utilities aren't taking on complex projects that aim to make the grid more economically efficient.

Utilities can propose and win state regulator approval for these smaller-scale projects without triggering federal requirements to open them up to competitive procurement. And if the projects are based solely on solving reliability problems, they can sometimes avoid analysis of whether the costs they add to their customers' bills represent the best "bang for the buck" compared with more well-planned alternatives.

That's good for utilities' bottom lines, since they earn a guaranteed rate of return on these capital investments. But it may well be a losing proposition for their customers on cost and reliability terms.

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“It’s critical for people to recognize that the status quo of not doing regional planning better is doing more local and uneconomic transmission development into perpetuity,” Hartman said in an interview with Canary Media. “That’s untenable from a consumer perspective, and it also does not give you the level of reliability you need.”

FERC Order 1920 doesn’t directly bar these kinds of projects, since they may well be vital for ensuring grid reliability. But Gramlich of Grid Strategies pointed out “a few ways in which this perverse incentive regarding local versus regional transmission is remedied” in the order.

First, the order lays out a mandate for regional grid operators to enhance “transparency into those investments,” he said. Second, it requires them to examine opportunities for “rightsizing” projects that utilities have proposed – perhaps to determine if they should be reconfigured or scaled down because a larger regional transmission project will accomplish the goals of the smaller project in a more cost-efficient way.

Gordon of Advanced Energy United described that dynamic through this example: “The longer-term plan may have a bigger line coming in from somewhere else. Maybe that local project doesn’t need to be as big, because another line will be coming in to support the region in another way.”

How effective these interventions will be depends on how the utilities and other stakeholders within grid regions end up structuring these transparency and rightsizing prescriptions from FERC. “Utilities are always going to want to do these local reliability projects that are in their control,” Gordon said. “But this plan is certainly trying to get us away from that.”

Transmission

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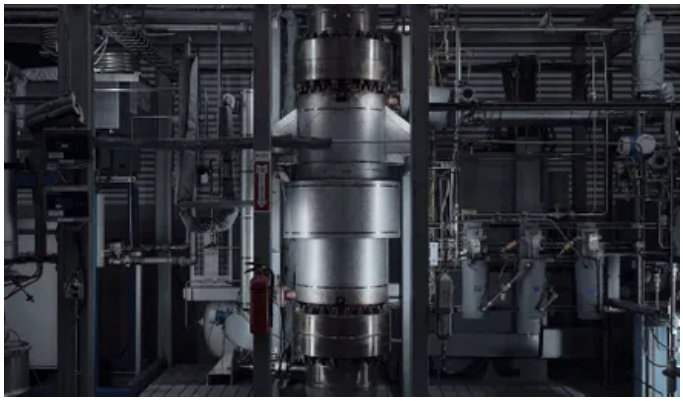

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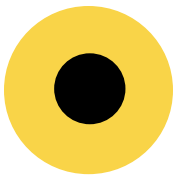

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