

# RTO Insider

**YOUR EYES AND EARS ON THE ORGANIZED ELECTRIC MARKETS**

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**FERC & Federal**

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 CAISO ■ ERCOT ■ ISO-NE ■ MISO ■ NYISO ■ PJM ■ SPP

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### Correction

An article in last week's newsletter, *Mystic Cost Worries Highlight NEPOOL PC Meeting*, incorrectly stated the location of the Mystic Generating Station. It is in Massachusetts.



# Counterflow

By Steve Huntoon

## Nice Work If You Can Get It, Take 2

By Steve Huntoon

Six years ago, I explained how regulators across the country were allowing electric utilities about 50% more return on equity than their actual cost of capital — amounting to roughly \$17 billion in annual excessive costs to consumers. No more *EEI* cocktail parties for me.

I won't repeat here the basis for that \$17 billion, but if you're interested, the excruciating detail is in that 2016 piece.<sup>1</sup> By the way, with the big increase in electric utility common equity over the last six years, that \$17 billion would now be more like \$25 billion today.<sup>2</sup> A mere bagatelle.

This being a subject that is not just dry but bone dry, no one seemed to care one way or the other. The band has just played on.

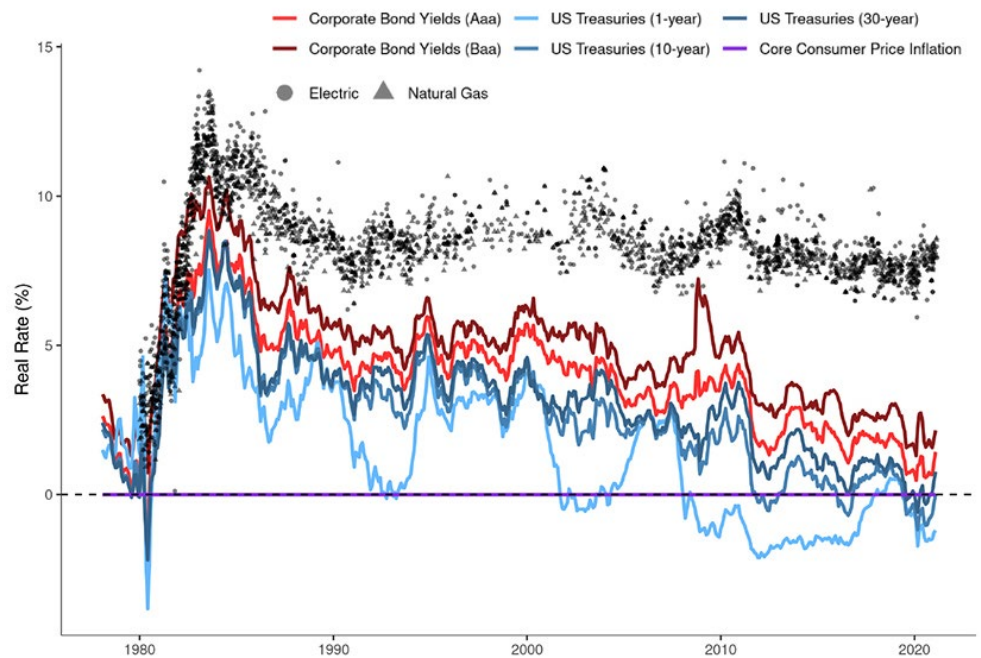
### It's Even Worse

Now the Energy Institute at Haas has released a working paper by Karl Dunkle Werner and Stephen Jarvis showing that equity returns charged to consumers have remained the same while various measures of capital cost have declined.<sup>3</sup> Severin Borenstein's excellent blog about the paper is here.<sup>4</sup> A killer chart from the paper is reprinted nearby.

In other words, as bad as the overcharging was when I wrote that piece six years ago, and as much as the overcharging has grown with more utility common equity, it's even worse than that.

### Wait, There's More

Excess returns not only cause excess charges to consumers but have two other pernicious consequences. When utilities get a return on equity above their cost of equity, they have incentive to fight like cats and dogs to keep and expand their monopoly on rate base assets like transmission. Which they are doing at the state



"Real" return on equity rates awarded to investor-owned U.S. electric and natural gas utilities (gray dots and triangles) exceed corporate bond yields and one- and 10-year U.S. Treasuries. Real rates are calculated by subtracting core CPI. Sources: Regulatory Research Associates (2021), Moody's (2021a, 2021b), Board of Governors of the Federal Reserve System (2021a, 2021b, 2021c), and U.S. Bureau of Labor Statistics (2021). | *Energy Institute at Haas*

and federal levels — frustrating the competition that is an unalloyed good thing.<sup>5</sup>

And when utilities can get a return on equity above their cost of equity, they have incentive to construct the most expensive solution to address a given reliability violation (or other driver).<sup>6</sup> The Haas study actually found evidence of this: "The paper finds that every extra percentage point of allowed return on equity causes a utility's capital rate base to expand by an extra 5% on average."

If allowed equity return is set equal to the cost of equity capital then the utility should be indifferent to whether it or a competitor adds a given increment of transmission, and

it would not have incentive to gold-plate the system. Don't take my word for it; just ask your neighborhood economist.<sup>7</sup>

FERC, historically the most sophisticated utility regulator in the country, seems unaware of all this. Instead of reducing the cost of equity being charged to consumers and reducing pernicious incentives to frustrate competition and inflate rate base, FERC seems intent on increasing the future transmission infrastructure to be monopolized by incumbent transmission owners.<sup>8</sup> No competition from lower cost providers or incentive for lower cost solutions.

In my humble opinion, climate change won't get fixed by throwing money at monopolies. ■

<sup>1</sup> <https://www.energy-counsel.com/docs/Nice-Work-If-You-Can-Get-It-Fortnightly-August-2016.pdf>.

<sup>2</sup> My calculation was based on electric utility common equity of \$356 billion then, which has now grown to \$526 billion, [https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Finance-And-Tax/Financial\\_Review/FinancialReview\\_2021.pdf](https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Finance-And-Tax/Financial_Review/FinancialReview_2021.pdf), page 63.

<sup>3</sup> <https://haas.berkeley.edu/wp-content/uploads/WP329.pdf>.

<sup>4</sup> <https://energyathas.wordpress.com/2022/10/03/what-does-capital-really-cost-a-utility/>.

<sup>5</sup> <https://energy-counsel.com/wp-content/uploads/2022/07/Say-It-Ain-t-So-Joe.pdf>

<sup>6</sup> There are many potential solutions to a given reliability violation, as I've discussed before, <https://energy-counsel.com/wp-content/uploads/2022/06/Transmission-and-Technology.pdf>; <https://www.energy-counsel.com/docs/waste-not-what-not.pdf>.

<sup>7</sup> Or the Haas authors: "To the extent a utility's approved ROE is higher than their actual cost of equity, they will have a too-strong incentive to have capital on their books." <https://haas.berkeley.edu/wp-content/uploads/WP329.pdf>, page 21.

<sup>8</sup> Proposing a federal right of first refusal for transmission upgrades is Exhibit A. <https://energy-counsel.com/wp-content/uploads/2022/07/Say-It-Ain-t-So-Joe.pdf>. Eliminating generators' right to pay for interconnection upgrade costs is Exhibit B. <https://www.energy-counsel.com/docs/new-ball-and-chain-for-renewable-energy.pdf>.

# EBA Mid-Year Energy Forum 2022

## W.Va. v. EPA Ruling: ‘Nuclear Bomb’ or ‘Speed Limit’?

*EBA Panel Debates Impact of Supreme Court ‘Major Questions’ Doctrine*

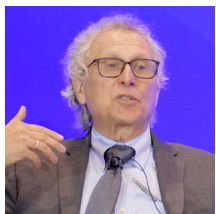
By Rich Heidorn Jr.

WASHINGTON — The Supreme Court’s ruling barring use of “generation shifting” to reduce greenhouse gas emissions will discourage executive agencies from ambitious rulemakings but is not yet a “nuclear bomb” that will cripple regulation, attorneys told the Energy Bar Association’s Mid-Year Energy Forum on Wednesday.

The court ruled June 30 that the EPA failed to provide “clear congressional authorization” for the Clean Power Plan, which would have compelled generation shifting to reduce carbon emissions from coal-fired power plants (*West Virginia v. EPA*). The court cited the “major questions doctrine,” which it said was necessary to address “a particular and recurring problem: agencies asserting highly consequential power beyond what Congress could reasonably be understood to have granted.” (See *Supreme Court Rejects EPA Generation Shifting*.)

Proposed by the EPA under the Obama administration, the CPP was withdrawn by the Trump administration — replaced by the Affordable Clean Energy (ACE) rule, which was in turn withdrawn by the Biden administration.

### Crippling?



Harvey Reiter, Stinson | © RTO Insider LLC

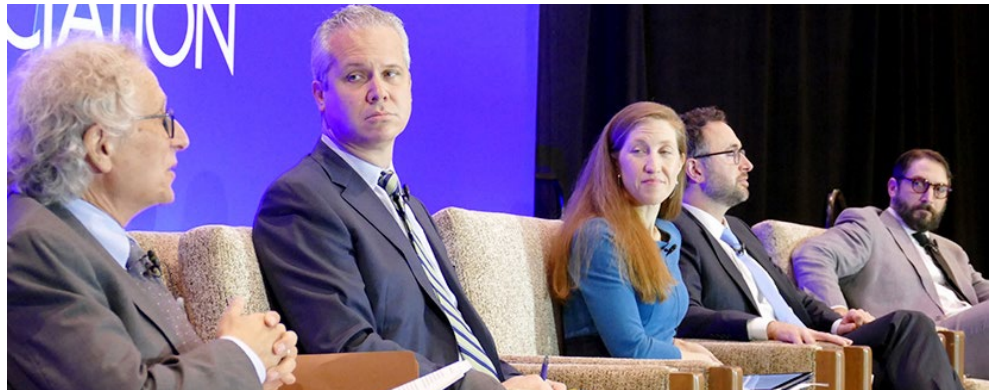
Stinson partner Harvey Reiter, who moderated EBA’s morning general session Wednesday, has *written* that the ruling is “a potential nuclear bomb that can be aimed not merely at a particular rule, but at crippling an agency’s ability to regulate at all.”

Reiter’s fellow panelists had a less apocalyptic view.

Elizabeth “Ellie” Boucher Dawson, counsel with Crowell & Moring, said she didn’t agree with Reiter’s dire prediction.

“Not yet, anyway,” said Boucher Dawson, who wrote an amicus brief on the case for the Edison Electric Institute. “For me, it’s very significant that Justice [Neil] Gorsuch only wrote a concurrence and not the majority opinion.”

Gorsuch pushed for a *more extreme interpretation* of the major questions doctrine as a limit on congressional delegations of policymaking to



Discussing the impact of the Supreme Court’s *West Va. vs. EPA* ruling were (from left) Harvey Reiter, Stinson; Matthew Leopold, Hunton Andrews Kurth; Elizabeth Boucher Dawson, Crowell & Moring; Aram Gavoor, George Washington University Law School, and Samuel Backfield, FERC. | © RTO Insider LLC

agencies. But only Justice Samuel Alito joined his argument.



Aram Gavoor, George Washington University Law School | © RTO Insider LLC

Aram Gavoor, a lecturer at George Washington University Law School, said the court’s decision “did not substantially change administrative law.

“I think it could, like Ellie described, eventually be something that’s quite serious. But the court will have to press

the button again — a few more times — to really reinforce it.”

Matthew Leopold, a partner in Hunton Andrews Kurth, said the ruling set “a speed limit on the regulatory highway that agencies should not exceed without the risk of their rules getting struck down.

“I think it will hold the agencies back, but the regulatory administrative process is alive and well,” he said.

### No Limits on ‘Major Questions’?

Although the court’s ruling said the major questions doctrine would only apply in “extraordinary circumstances,” Reiter noted that the court cited it in three rulings in its last term, involving the Food and Drug Adminis-

tration, the Centers for Disease Control and Prevention and the Occupational Safety and Health Administration. He said the issue also was raised in more than 100 circuit court and district court challenges since 2020.

Aram said the *West Virginia* ruling resulted in a “mushy” standard that will encourage many litigants to raise it. “Part of this might also be [that] for the court to have gotten the majority for *West Virginia v. EPA*, maybe it needed to be a little bit broad,” he said, adding that future rulings could result in “the metes and boundaries of what major questions really means.”

“The nature of lawyers is to raise any argument that might get traction, so I think people will overuse it,” Leopold added. “But I think that the extent to which it’s raised — and then more importantly, the extent to which courts really lean into it and start utilizing it — has a direct relationship to how much federal agencies ... are overreaching their long-held authority or positions.”

Samuel Backfield, legal counsel to FERC Commissioner Mark Christie, said the agency expects to see the argument raised in the future.

“I think that what’s going to happen next is that there’s going to be a process of refinement of the doctrine. ... Right now, what we have essentially are indicia; we don’t have a firm test,” he said. “It’s not meaningless that we have this indicia condition instead of a firm test. I mean, I’m sort of reminded of Edmund Burke’s *comment* that no man can draw a stroke between night and day, and yet darkness and light are reasonably distinguishable.”

# EBA Mid-Year Energy Forum 2022

Reiter suggested the ruling could prompt “forum shopping” because appeals of most agency decisions go first to one of the 94 district courts rather than a circuit court of appeals, as with FERC challenges.

“I think there’s gonna be a substantial amount of it,” agreed Aram. “It’s also going to cause a lot of struggling with the circuit courts as to what does this mean for Chevron deference” — which requires courts to defer to a federal agency’s interpretation of an ambiguous law that Congress assigned to the agency to administer.

## Impact on Prior Rulemakings

Boucher Dawson said she was relieved that the court did not “reach back in time” to undo its previous rulings, such as *Massachusetts v. EPA*, in which it ruled greenhouse gases were air pollutants and could be regulated by EPA under the Clean Air Act.

Reiter questioned whether FERC’s prior rulemakings could be in jeopardy as a result of the narrowing of the Chevron doctrine. He noted the commission cited the Federal Power Act as its authority for regulating demand response, “which wasn’t even a thing in 1935,” when the FPA was enacted. Some commenters raised the major questions doctrine in FERC’s current transmission planning Notice of Proposed Rulemaking (RM21-17), he added.

FERC’s Backfield said the challenges could result in unpredictable outcomes. “There are courts of appeals and panels that would rule differently, I think, on certain of the cases,” he said.

Backfield declined to opine on whether any of the commission’s major rulemakings would survive scrutiny under major questions. “But ... other than demand response, they’ve mostly been around for quite a while. And there is at least a rationale that these do go to



Samuel Backfield,  
FERC | © RTO Insider  
LLC

the fundamental central regulatory duty of the FERC, which is to ensure just and reasonable rates.”

“I don’t think that the Supreme Court — at least the majority of the justices — would coalesce around an opinion that picks on old scabs,” said Gavoor. “I think if we anachronistically applied *West Virginia v. EPA* to some of these older actions by the agency they’d be at risk. But I don’t think they’re at risk right now. I think recent actions and ones that are in the future are likely to be at risk.”

## Impact on Future Regulations

Leopold noted that the Securities and Exchange Commission recently reopened comment on a portion of its proposed greenhouse gas rulemaking, a suggestion that it sees vulnerability to a major questions challenge.

“The SEC has been around since the Depression, and they’ve never really gotten in the environmental game. But they’re all of a sudden saying you have to disclose your climate risks. You have to disclose your greenhouse gas emissions — not just your direct emissions, but your scope one, two, and three [emissions] — including three, and no one even knows how to calculate that,” he said.

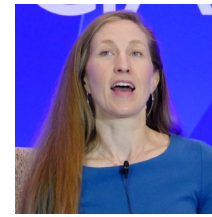
Leopold said the ruling has resulted in a “burden shift.”

“If it’s a major question, the burden is now on the agency to say that they have the authority, rather on the petitioner who was challenging the agency rule to say ... that that application of their authority was not a reasonable interpretation. So that’s a major change.”

He said the ruling also shifts the burden to Congress, which will be required to demonstrate “political will” to pass new legislation.

Aram said he expects “more incrementalist regulation so as not to cross this tripwire of major questions.

“So, I think it is going to require a change in tactics and strategy. I think it will result in some tension with the White House, because the White House absolutely loves to politicize



Elizabeth Boucher  
Dawson, Crowell &  
Moring | © RTO Insider  
LLC

any sort of policy. ... It’s going to have to be much more strategic and cautious. And the [legislation] shops are going to have to be far more engaged.”

Leopold, a former Justice Department attorney, said if he were still advising federal agencies, “I would be

telling them very specifically, do not characterize this in the press as ‘major, transformative, earth shattering, we’re going to save the planet’ unless you really do have clear authority to do so.

“Those types of grandiose statements [are] going to raise the hairs on the back of the neck of judges who care about [the] major questions [doctrine].”

## What’s Possible in GHG Rules?

With new Clean Air Act amendments unlikely, it’s unclear what GHG regulations EPA could approve that would pass muster. The administration told the court in oral arguments in February that it planned to issue a replacement for the CPP by the end of this year.

Would carbon capture pass the court’s scrutiny, as Justice Kagan suggested in her dissent?

“I think that’s possible because that that would be a technology applied at the source, conceivably, if you had a way to sequester the carbon there or nearby,” said Leopold. “If you’re having to pipe it miles way to another reservoir, that could raise questions.”

Leopold said Kagan, however, ignored the Clean Air Act’s requirement that the “best system of emission reduction” also be “adequately demonstrated.”

“We know from attempts at the Kemper plant in Mississippi that carbon capture and sequestration for coal fired plants still has a lot of hurdles — financial hurdles, in particular.” ■

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# EBA Mid-Year Energy Forum 2022

## Lawyers, Industry Debate Path for Hydrogen Regulation *Natural Gas Act, Interstate Commerce Act or New Law?*

By Rich Heidorn Jr.

WASHINGTON — To be a natural gas, or not to be a natural gas? That was the question at the Energy Bar Association's debate Wednesday on how hydrogen — the “Swiss Army knife” of decarbonization — should be regulated.

Van Ness Feldman partner Michael Diamond told the EBA's Mid-Year Energy Forum that hydrogen should be regulated under the Natural Gas Act, along with the fuel it will compete with. Venable counsel Joseph R. Hicks said it would be better for the nascent industry to be regulated under the “less onerous” Interstate Commerce Act (ICA).



Amanda Mertens Campbell, The Williams Companies | © RTO Insider LLC

Amanda Mertens Campbell, vice president of government affairs and community outreach for The Williams Companies, said additional federal regulation would be counterproductive now. Campbell said that although hydrogen blended with natural gas is covered by the

NGA, all-hydrogen “purity” pipelines are not currently federally regulated.

Williams, the largest operator of natural gas infrastructure in the U.S., has pledged to reduce its greenhouse gas emissions by 56% from 2005 levels by 2030 and reach net zero by 2050. The federal government is betting that hydrogen can decarbonize heavy industry, freight shipping and air travel. (See [DOE Opens Solicitation for \\$7B in Hydrogen Hubs Funding](#).)

“Nobody's [net-zero] vision for 2050 can exist without introducing and accommodating a hydrogen economy,” said Campbell.

### The Case for the Natural Gas Act

The NGA governs gases that can be used for energy, while the ICA covers oil pipelines, which also transport gasoline, diesel and jet fuel.

Diamond said the NGA regulates natural gas and any blend of natural and artificial gas, which he said FERC has defined as gas “created by the agency of man or the product of some kind of engineering process.”

“Hydrogen fits pretty neatly into this defini-



Joseph Hicks, Venable, speaks as (from left) Michael Diamond, Van Ness Feldman; moderator Marcia Hook, Kirkland & Ellis; and Amanda Mertens Campbell, The Williams Companies, listen. | © RTO Insider LLC



Michael Diamond, Van Ness Feldman | © RTO Insider LLC

tion,” said Diamond. Currently, most hydrogen is manufactured through steam methane reforming, in which high heat and high pressure is used to strip the hydrogen molecule (H<sub>2</sub>) from methane (CH<sub>4</sub>). “That fits very neatly into this idea that it's artificial.

The same really goes for hydrogen created from water through electrolysis: splitting the molecular structure of water and pulling the hydrogen from the oxygen.”

Diamond cited a [letter](#) that FERC Chairman Richard Glick wrote to U.S. Sen. Martin Heinrich (D-N.M.) in October saying the commission has the authority under the NGA over hydrogen blending with natural gas in interstate pipelines. Because FERC recently approved the abandonment of the natural gas storage facility to be used for hydrogen, Diamond said, the “only logical conclusion” is that the commission considers hydrogen as artificial gas.

He said FERC could assert jurisdiction over hydrogen as a natural gas under a more expansive reading of the word “natural,” as hydrogen is a naturally occurring element. Sen. Joe Manchin's (D-W.Va.) legislation to ease permitting of pipelines and electric transmission would

have amended the definition of natural gas in the NGA to include hydrogen. (See [Manchin Permitting Package Cut from Spending Bill](#).)

Under either definition, Diamond said, the NGA is the right law for hydrogen. “Hydrogen ... competes directly with natural gas. It is going to be a direct substitute for natural gas. ... So there's a lot of good reasons to regulate hydrogen under the same statute that natural gas is,” he said.

Diamond said the industry need not fear FERC's oversight because the agency has flexibility under the NGA to apply light-handed regulation, as it has done with LNG terminals.

### The Case for the Interstate Commerce Act

Hicks countered that hydrogen is not an artificial gas. “The courts have looked at this multiple times. They've never said that hydrogen is an artificial gas; there's no precedent to support that. There the test appears to be about where the origin of the gas comes from, rather than its composition,” he said.

Hicks said the ICA is “far less onerous in its requirements” than the NGA, with no certifications of pipelines or affiliate standards of conduct. NGA jurisdiction could also require corporate reorganization or revision of existing long-term contracts, he said.

The ICA would aid in the financing of hydrogen

# EBA Mid-Year Energy Forum 2022



Joseph Hicks, Venable  
| © RTO Insider LLC

pipelines. “But the ICA is hands-off other than rates and recordkeeping and making sure that it’s treating people equally; that there’s antidiscrimination provisions,” he said.

“If a developer seeks to construct a hydrogen

pipeline between two points already served by a methane natural gas pipeline, [and] hydrogen is now natural gas, the FERC has to make some type of determination about whether it’s going to allow two pipelines transporting natural gas to the same destination and has to approve one or the other.”

Hicks acknowledged that the ICA doesn’t provide the eminent domain authority that comes with certification under the NGA. “But I think that’s really a double-edged sword, considering how long it takes for pipelines to be certified. And there are plenty of petroleum products pipelines that have been built and operate in this country without siting authority.”

Campbell agreed. “Eminent domain is not worth what it used to be. And so if we are trying to incent interstate construction of either purity or blended pipelines, we should think about the current situation, which is where you need state permits and there’s no federal regulator. Would that not allow more [pipelines] to be constructed?”

## Manchin Permitting Bill

If hydrogen were regulated as natural gas, Hicks said, it should be accompanied by provisions exempting existing hydrogen transportation assets, such as hydrogen-only pipelines

in the Gulf Coast and spur lines that deliver hydrogen to refineries.

“My understanding is that Sen. Manchin’s energy adviser wrote an article arguing that hydrogen should be regulated by the NGA,” said Hicks. “I don’t know honestly if it was fully thought out about what the implications of doing this were. My sense was that it wasn’t, because of the possible implications to industry.”

Williams also opposed the provision. “We thought it was premature to add that language to the permitting reform bill, because it did not fully flesh out all of the unintended consequences,” Campbell said.

## Short-term Thinking?

Diamond cautioned against what he called “short-term thinking” focused on existing hydrogen pipelines. “Yeah, bringing them under the NGA would impose some uncertainty during the time that FERC works out how it’s going to regulate,” he said. “But we’re talking about the hydrogen industry for the next 50 years. So we’re trying to lay a sustainable groundwork for something that could be a major source of energy, not just an input into oil production in the Gulf.”

Responded Hicks: “I would say if you’re looking for a ... statute that has been successfully administered for a long period of time, that would [point] you to the ICA, which has been around since the 1880s.

“It’s a weighing of priorities,” he added. “Do we want this industry to get off the ground very quickly, such that we mitigate climate change issues quickly? Or do you want a situation where it takes time to integrate this industry into the existing regulations?”

Hicks said he could also support a new law for hydrogen “that kind of takes the best of both [ICA and NGA] worlds.”

“But right now, I think that — if the goal is to take the money that has been laid on the table by the government in this recent legislation and run with it as quickly as possible to decarbonize our economy — I think light regulation is better.”

## ‘View from the Ground’

Campbell offered Williams’ “view from the ground,” saying the company is investing in hubs where it can mostly use existing infrastructure.

“It’s really hard to build pipelines ... and so a hydrogen strategy does not exist without repurposing existing infrastructure, because those are critical pathways into population centers,” she said. “The real opportunity in 2022 and the foreseeable future is decarbonizing the gas stream through blending. And that’s clearly under Natural Gas Act regulation and jurisdiction.”

Because hydrogen has one-third of the energy content of methane, “in order to [replace] our methane with hydrogen, we will need three times as much infrastructure,” Campbell said. “So that should be part of the consideration when determining who should regulate.

“We think we have time as this purity economy develops to be thoughtful; to weigh the pros and cons; to think through all of the potential unintended consequences of adding a federal regulator on top of an industry that [now] only needs state permits,” she said. “To add this layer of regulation without first thinking through all the pros and cons ... is premature.” ■

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# EBA Mid-Year Energy Forum 2022

## Overheard at EBA Mid-Year Energy Forum 2022

WASHINGTON — The Energy Bar Association last week held its annual Mid-Year Energy Forum over two days at the Renaissance Downtown Hotel to discuss the latest developments in energy law, including *West Virginia v. EPA*, the Inflation Reduction Act, supply chain issues and hydrogen regulation, among many other topics.

Here is some more of what we heard. (See related stories, *W.Va. v. EPA Ruling: 'Nuclear Bomb' or 'Speed Limit'?*, *Lawyers, Industry Debate Path for Hydrogen Regulation* and *Can New Revenue Models Unlock Interregional Transmission?*.)

### Excitement About IRA — but also Trepidation

Panelists expressed enthusiasm about the Inflation Reduction Act, even as they acknowledged its limitations and the significant amount of work it will take to implement it.

The law provides for about \$370 billion in funding for clean energy technologies, including electric vehicles and energy storage, making it the most significant piece of legislation passed by the U.S. to address global climate change. But the bill, originally called the Build Back Better Act, was considerably pared down from trillions in incentives and passed via congressional budget reconciliation to avoid a filibuster by Senate Republicans.

Because of the way it was passed, the IRA “deals only with the opportunity to provide — and very substantial, but still — loans, grants and tax incentives,” Jim Wrathall, general counsel for New Energy Equity, said during the forum’s opening general session on Wednesday. It is “using policy solutions that are not market-based; they’re not comprehensive; and they’re not aimed at targets. They’re money upward. We have to build using these tools and make sure they’re successful.”

“It’s really going to be a renaissance in our domestic manufacturing,” said Edward Hild, principal of government relations for Buchanan Ingersoll & Rooney. “I think that’s where this ultimately leads: to manufacturing [on a scale] we have not done here before. ... There’s really a desire not to be dependent on China and other countries, and to do things here.”

“We in this room and in this industry have a challenge here,” Wrathall said. “We’re in the first inning with the tools that are being made available. ... We have a job to do to make sure we don’t have missteps.” He reminded the audience of Solyndra, the solar panel manufac-



PHMSA Deputy Administrator Tristan Brown gives a keynote speech during lunch. | © RTO Insider LLC

turer that went bankrupt after receiving loans from the Obama administration and became a talking point for Republicans against renewable energy.

That’s creating a lot of pressure on not just the industry and its lawyers, but also on the Treasury Department, which needs to issue the regulations and guidance for how the law will be administered. Though \$28 billion in investments have already been committed as a result of the law, according to Wrathall, speakers during a different panel the next day noted that it left many aspects, such as definitions, for Treasury to decide.

“I cannot overstate how significant an undertaking this is going to be for the Treasury Department,” said William Davis, a partner with Capitol Tax Partners. “A lot of it are issues of first impression for the Treasury Department; the tax writers in that building and in the IRS. ...

“I looked at the Tax Cuts and Jobs Act of 2017; it took three to four years to get all the guidance out on that bill, and [for some aspects], the guidance is still coming out. ... So it’s going to be a long process.”

### Forced Labor

Also on the panel with Davis was Stacy Et-

tinger, a partner with K&L Gates, who spoke about the numerous actions taken by the U.S. government by both the Trump and Biden administrations against foreign manufacturers, mainly in the form of tariffs on products shipped from adversaries.

They include the Commerce Department’s investigation into alleged dumping of solar components by China to avoid U.S. tariffs, launched in March. (See *Solar Sector Braces for Tariff Probe Impact*.)

Also impacting trade with China is the Uyghur Forced Labor Prevention Act, signed by President Biden late last year. The law assumes that certain goods manufactured in China’s Xinjiang province were done so using forced labor, unless U.S. Customs and Border Protection can certify that they were not. The Chinese government is widely suspected of holding Uyghurs, an ethnic minority in the country, in internment camps and using them as slaves.

The law also requires firms outside of Xinjiang to disclose any ties with companies within the province. However, Ettinger said, China has laws that penalize its own companies for complying with what it perceives as the imposition of foreign policy.

“So Chinese suppliers are in a rough spot,”



# EBA Mid-Year Energy Forum 2022

she said. “They cannot agree to language [in a contract] that talks about certification against the use of forced labor because China’s position is, there is no forced labor in China.” Many Chinese suppliers are now refusing to sign contracts for trade with the U.S. “and would rather deal with Europe.”

Ettinger said lawyers should advise their clients to “fix the language [in the contracts.] Don’t talk about forced labor ... because the suppliers won’t be able to do it. If they do take that step, the Chinese companies are at risk of action against them. ... They’d rather deal with somebody else who doesn’t worry about these issues.”

## Transmission’s Moment



Michael Skelly, CEO of Grid United | © RTO Insider LLC

Michael Skelly, founder and CEO of Grid United, marveled at the attentiveness of the audience at his panel discussion Oct. 11.

“It may be that this is because transmission is one of the most legally intense aspects of the energy transition. Or

as we say — ruefully — in our company, ‘No lawyer left behind,’ he said. “Or maybe we’re just having a moment with transmission. ... Transmission was in *Esquire* magazine. Come on.” *Esquire’s* article was titled, “The Sexiest Part of the Clean Energy Transition Is Big-Ass Power Lines.”

## 75 Texts an Hour

Former ERCOT CEO Bill Magness, now senior principal consultant for DNV, recounted that at the peak of February 2021’s — “the largest controlled outage ever seen” — he was receiving about 75 texts an hour. “And most of them were just, ‘You suck!’” he joked.



Former ERCOT CEO Bill Magness | © RTO Insider LLC

## Talking to the Right People

NERC General Counsel Sônia C. Mendonça said the organization is seeking to broaden whom it talks to.

“One of the things that we continuously ask ourselves at NERC is, ‘Are we doing the right outreach? Are we doing enough outreach?’ The risks in the bulk power system are more

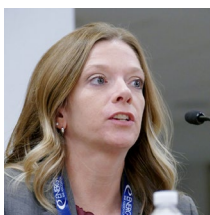


ERC General Counsel Sônia C. Mendonça | © RTO Insider LLC

and more coming from outside of the bulk power system. So if we continue to talk to ourselves, that’s not going to be a very successful conversation, in terms of mitigating that risk. So we need to expand ... constantly to states, other critical infrastruc-

tures. And we are always asking ourselves, ‘Who is not at the table?’”

## Emergency Planning



Angela Kolar, Colonial Pipeline | © RTO Insider LLC

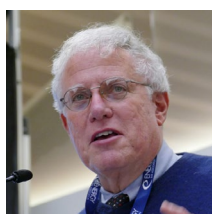
pipeline system in May 2021.

“When you go to your crisis management team, and you have a scenario that [includes] a nationwide pandemic and nobody is working from the office and you have a cyberattack at the same time, people want to ask you when the aliens are invading too,” she said. “It just doesn’t seem practical, until it actually happens to you.”

Kolar said her company attempted to be as transparent as it could following the attack but had to make decisions without knowing how severe the attack was. “We didn’t know if they had gotten into our IT side and our OT side. We shut down the pipeline out of an abundance of caution, until we knew what was going on.”

## PJM’s Advice for FERC

Craig Glazer, vice president of federal government policy for PJM, said the RTO is “disappointed” with FERC’s “piecemeal” approach to planning, with NERC assigned to write reliability standards addressing hot and cold temperatures and extreme weather conditions listed as a factor to be considered by planners in the commission’s Notice of Pro-



Craig Glazer, PJM | © RTO Insider LLC

posed Rulemaking on transmission planning (RM21-17). Meanwhile, critical facilities planning, including gas-electric coordination, storm hardening and interregional transfer capability goals were not addressed, Glazer said.

“We started this as a way to reform planning, yet this aspect of planning is really piecemeal [and] chopped up. And I think we’re going to look back and say we didn’t address it comprehensively when we had the opportunity to do so. ...

“Is there a role for NERC? Yes. Should we proceed to standard setting at this point? No, we don’t think that’s the right thing to do,” Glazer said. “We think we’ve got to take a holistic look at all these issues, and then develop standards rather than piecemeal standards. ... We’re really asking the staff and the commissioners to step back, look at the totality of what’s going on and what you’re trying to get done.”

Glazer said PJM has three “asks” of FERC, starting with a “clear policy statement” on the importance of enhanced reliability planning to counter critics alleging RTOs are “gold plating” the system.

“Absent some direction from the federal regulator that all the planning authorities need to focus on this, I think we’re going to be in this finger-pointing exercise ... forever,” Glazer said.

Second, PJM is asking FERC to give RTOs a “homework assignment” to identify the enhanced reliability needs in each region and how they plan to address them. “We don’t have that record really anywhere at this point,” he said.

Third, PJM would like FERC to work with NERC and the national labs to identify metrics for determining the minimal interregional transfer capacity.

“It’s not a number. It’s a way to analyze what’s the right level of interregional transfer capability,” he said. “I’ve had commissioners say to me, ‘Just go negotiate with your neighbor on interregional coordination.’ It doesn’t work. One system ends up leaning on another system.”

Glazer also questioned FERC’s call for long-term planning looking 20 years into the future. “Twenty years ago, the commission held a technical conference in Charleston, W.Va., to direct us to build more transmission to move coal-fired generation into Maryland and Baltimore and Washington, D.C.,” he said. “And we actually did come up with a plan to do that, which we had to withdraw. But imagine if we had built that transmission.” ■

— Rich Heidorn Jr. and Michael Brooks

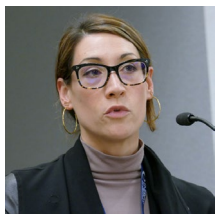
# EBA Mid-Year Energy Forum 2022

## Can New Revenue Models Unlock Interregional Transmission?

### FERC Workshop Set on Interregional Transfer Capacity

By Rich Heidorn Jr.

WASHINGTON — New ways of paying for transmission could increase interregional transfer capacity and improve reliability, speakers told the Energy Bar Association's Mid-Year Energy Forum last week.



Nicole Luckey, Invenery | © RTO Insider LLC

Nicole Luckey, senior vice president of regulatory affairs for Invenery, said her company hopes to make the case for how interregional merchant HVDC can aid reliability during system emergencies at a FERC staff-led [workshop](#) Dec. 5 to 6 on

setting minimum requirements for interregional transfer capability (AD23-3).

"Merchant transmission can provide these benefits at a significant cost savings when compared to lines paid entirely on a traditional cost-of-service basis," she said. "Of course, the majority of the time, a merchant line is going to be providing service to its customers.

But if properly incorporated into commercial agreements, that service could be interrupted to provide emergency energy and capacity to keep the lights on.

"Transmission's value during extreme weather events is being significantly undervalued, and ... policy to encourage merchant transmission — which can deliver these benefits to the grid, and potentially avoid complicated cost allocation arguments that I think have really stymied the deployment of transmission in this country — has been completely overlooked," she said. "Worse, because merchant transmission is treated inconsistently across the country, it creates a disincentive to deploying it interregionally."

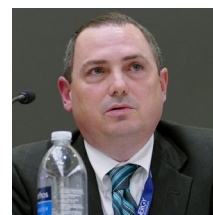
Michael Skelly, founder and CEO of *Grid United*, which is seeking to build long-distance, interregional transmission, also called for new models for funding transmission, during an EBA panel discussion Oct. 11.

"I think there's this notion that we're either going to build a line and it's going to get cost allocated toward everybody, or it's not going to get built at all. ... But there are other models out there," he said, citing batteries, which can

collect revenue for providing grid services such as frequency regulation but also generate revenues through energy markets.

Skelly also pointed to the U.K.'s proposal to construct transmission to France, under which a developer would receive a "floor" return of 3 to 4% with the ability to earn up to 15% through markets. Profits above the 15% cap would be returned to ratepayers who help finance the project.

Under such a model, "transmission lines start to look a little bit like generators," he said. "And we've actually had pretty good luck mobilizing capital around investment in generation."



David Kelley, SPP | © RTO Insider LLC

By reducing the guaranteed return to 3 to 4% from 7 to 8%, "your revenue requirements go down like 40%," he said. "You could save a lot of money if other parties take some of these risks."

### 2,000 MW

David Kelley, director of seams and tariff services for SPP, noted that the U.S. currently has little more than 2,000 MW of transfer capability among its three interconnections: 1,270 MW from the Western to Eastern Interconnection, and 800 MW between SPP and ERCOT.

"Think about the scale of the demand in this country. And we really only have the ability to share a little over 2,000 MW from the East Coast to the West or vice versa," Kelley said. "I really think interregional transmission can certainly play a role in helping us introduce more operational flexibility. And HVDC, in particular, I think plays a really key role as we're talking about transferring between the interconnections."

The importance of transfer capacity was tragically illustrated during Winter Storm Uri in February 2021, when ERCOT and SPP were forced to shed load, leading to [more than 200 deaths](#) in Texas.

"Without a doubt, this was the most challenging operational event in SPP's history," said Kelley, who noted it was the first time SPP had to direct load sheds in its history. "That was a very sobering moment for our organization. And I know we fared better than others did. But that



Discussing interregional transmission were (from left), moderator David L. Schwartz, Latham & Watkins; David Kelley, SPP; Nicole Luckey, Invenery; Michael Skelly, Grid United; and David Souder, PJM | © RTO Insider LLC



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was absolutely a wake-up call for us.”

During the height of the storm, SPP was importing as much as 6,000 MW. David Souder, PJM’s executive director of system planning, who also spoke on the panel, said the RTO exported as much as 19,000 MW to its West while importing 3,000 MW from the North.

## HVDC’s Impact: Location, Location, Location

Moderator David Schwartz, of Latham & Watkins, asked Kelley how much of a difference HVDC transmission could have made to SPP during Uri.

Kelley said it would depend on the HVDC line’s sink location relative to SPP’s AC transmission.

During the storm “we ran into limitations within the SPP footprint ... moving massive amounts of energy in ways that was never planned to be moved within the SPP region before,” he said.

“You may have a 3,000-MW HVDC line that’s perhaps dumping power at a specific location within the footprint. So can you receive it there? And then can you move it to where it needs to go within the region?”

“At the time, we were shaking couch cushions trying to find every kilowatt we could find in order to keep the lights on. So would we have loved to have had another 3,000 to 4,000 MW? Absolutely. But it would have to be at the right spot, I think, in order to be effective.”

## Dunkelflaute

Kelley said SPP recently increased its planning reserve margin to 15% from 12% because of concerns about the variability of its wind power. Although the RTO has more than 33 GW of nameplate wind capacity — and in March was serving 90% of its load with renewables at times — “we still have periods of time where we have less than a gigawatt of wind capacity generating within our footprint,” he said.

Skelly noted that the Germans have a phrase for the fear of having inadequate sun or wind energy: *dunkelflaute*, or “a dark lull.”

“This is a real challenge in this energy transition that so many of us are trying to try to figure out,” said Skelly. “One way to do that is to connect the grids, because we have a whole continent to work with here. We don’t have just, you know, a few hundred miles.”

Skelly said it’s a bigger problem for SPP than MISO. “MISO is basically oriented East-West,” he said. “As Dale Osborn, a legendary MISO planner always points out, when you have wind



Invenery envisions its proposed Grain Belt Express as “the reliability backbone of the Midwest.” Designed to deliver wind and solar power from western Kansas to customers in Missouri, Illinois and beyond, it could reverse flows during system emergencies. | *Invenery*

fronts move across the country, if you have enough grid, you can integrate those along the way.”

## The Easy Part

Kelley said the obstacle to increasing interregional capacity is not technical.

“The engineering part of this is pretty easy. Getting everybody to agree on what the problem is to be solved — and then to how do you pay for that — those are the hard parts,” he said. “You can get a group of engineers in a room to run a study [and] we could probably design a national grid for you in less than a year. And I’m not kidding about that. That’s how easy it is, if everybody agreed on what the national grid was supposed to do, and who was going to pay for it.”

Invenery’s Luckey said one problem is that RTO voting structures “gives incumbent transmission owners a lot of power.”

Incumbents were unhappy that FERC Order 1000 called for interregional projects to be competitively bid. “I don’t want to sit here and say that’s the only reason these projects haven’t been planned. But it certainly doesn’t help that incumbent TOs know they’re going to have to compete,” she said. “They’d really rather build stuff they know they’re not going to have to compete to build.”

Another problem is how RTOs perceive merchant transmission, such as Invenery’s proposed *Grain Belt Express*, an 800-mile, 5-GW HVDC line that would connect four balancing

authorities: SPP, MISO, PJM and Associated Electric Cooperative Inc., which serves 51 distribution cooperatives in Missouri, Iowa and Oklahoma.

The project, which the company envisions as “the reliability backbone of the Midwest,” is designed to deliver wind and solar power from western Kansas to customers in Missouri, Illinois and beyond. “But during system emergencies, if we have contractual agreements in place with our customers, we could reverse flow on that line,” Luckey said.

In MISO, Luckey said, “we’re triggering hundreds of millions of dollars in network upgrades, simply to interconnect our merchant transmission project, which by the way, will provide benefits to that region. So not only are we paying to upgrade the system to move our energy around — to make sure that it’s deliverable. But now we’re providing a benefit to the system, potentially based on the multidirectional ability [of] an HVDC line. But there’s really no way for the grid operator to evaluate what the benefit is to their system right now. They see us as more of a problem that needs to be solved rather than as an asset that can benefit them.”

“That’s not necessarily their fault, right? That’s just the way the system is sort of set up for merchant transmission today. And I think it’s something that needs to be changed, because you don’t have that one entity that’s looking at this project and saying, ‘How can this benefit these two regions?’” ■

## 2022 ACORE Grid Forum

# Scenario Planning, Magical Thinking and Energy Efficiency

## ACORE Considers Ways to Maintain Reliability on Path to Decarbonization

By Rich Heidorn Jr.

WASHINGTON — MISO's Jennifer Curran is worried that U.S. decarbonization efforts are relying on magical thinking.



Jennifer Curran, MISO | © RTO Insider LLC

"I think we're all really focused on this end goal, which is really good ... this carbon-free future. But as an industry, we're not spending nearly enough time talking about how do you actually get from point A to point B reliably," Curran, MISO's senior vice president of planning and operations and chief compliance officer, said during a panel discussion at the American Council on Renewable Energy's (ACORE) *Grid Forum* last week.

"It's a little bit of, 'Here's where we are, a miracle occurs, and then we're suddenly carbon-free. So really digging in and thinking about the hard work of how do we actually go through this transition, and keep this system reliable?' is essential, she said.

### Moving Beyond One-day-in-10-years

Curran said the industry needs to shift from its reliance on the one-day-in-10-years reliability construct.

"I hear a lot of people say, 'Well, that's okay, we'll just do some demand-side management or [add] some batteries, and we'll shave the peak,'" she said. "Well that's not our problem right now. We're not looking at a five-hour problem; it's a five-day problem. In January of 2020, MISO went 72 consecutive hours with less than 5% of our wind output. ... In 15 of those hours we actually had negative wind output — station power pulling from the grid. So the question that I would like us to focus more on is how do we deal with these energy adequacy questions? How do you deal with the three days or five days? And what technology is it going to take to get us there?"

Mark Lauby, NERC's senior vice president and chief engineer, agreed on the need to move beyond the one-in-10-day construct,



Mark Lauby, NERC | © RTO Insider LLC



Speaking at the ACORE Grid Forum were (from left) Rob Gramlich, Grid Strategies; Mark Lauby, NERC; Jason McDowell, GE Energy Consulting; consultant Alison Silverstein; and Jennifer Curran, MISO. | © RTO Insider LLC

which he said was based on "random equipment failures, as opposed to weather."

"Weather is not random; sometimes it's a bit predictable. And we need to start bookending that maybe through climate change models and all that to develop scenarios," he said. "Things like no nuclear [power] is available, or it's really cold or we have a forest fire ... or it's too windy in Iowa. ... We have to ... be able to survive those scenarios. And that becomes part of your integrated resource plan. ... Those [scenarios] will then help drive: What are our transmission needs? How big do you need to be to solve this problem across the nation?"

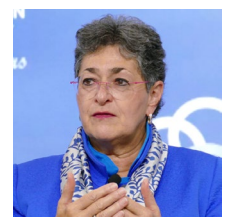
"[It] used to be that capacity was king. The king has no clothes," Lauby continued. "It's energy and essential grid services."

Jason McDowell, senior director of technology, strategy and policy for GE Energy Consulting, praised NERC's work with industry on developing reliability guidelines for inverter-based resources. "The first thing to do — and that we really need a lot more visibility [on] — is understanding where we have grid stability issues, weak grid issues; understanding where there might need to be more advanced capability of

inverter-based resources and how they work together with more conventional synchronous power generation."

### 'Self-inflicted Wounds'

Consultant Alison Silverstein repeatedly cited Texas' experience during February 2021's winter storm, saying the hundreds of deaths that followed ERCOT's load sheds resulted from "the self-inflicted wounds [of] 30 years of underinvestment in energy efficient homes and businesses in Texas.



Consultant Alison Silverstein | © RTO Insider LLC

"One of the most important things we can do to make the world safer [in addition to] transmission and more renewables is energy efficiency," she continued. "Energy efficiency can buy time for us to figure out how to do better integration of renewables and build more transmission. It will improve reliability because it will bring down both peak at summer and winter."



## 2022 ACORE Grid Forum

Those who died during in 2021 were “not rich people,” she added. “Those were people with low incomes, living in bad housing. Energy efficiency can help them significantly, and it can slow the rate at which we have to spend money to increase ... the grid to improve reliability. And that can help these people ... survive. Because the grid is going to fail, no matter what. No matter whether it’s transmission, no matter whether it’s renewables, no matter whether it’s storms — the grid’s going to fail again and again. And energy efficiency helps to protect people’s lives.”

Silverstein also made a plug for transmission, saying the risk of overbuilding is minimal.

“At the few lines that we have seen built for economics, they turned out to be essential for reliability. Every line we have built for reliability has turned out to have extraordinary value to improve the cost-effective delivery of electricity and to flatten costs for customers. It is very rare that new transmission will ever be stranded. The only transmission that’s been stranded that I know of has been attached to a coal plant or has been attached to something on a coast that is going under water.”

Silverstein urged the audience to read a July 2021 [paper](#) she wrote with Robert Zavadil advocating for creation of a national electric transmission authority, saying such an organization is needed to avoid unplanned and ineffective transmission expansion.

“We really need the level of concerted vision and analysis that something like a national electric transmission authority could bring to this effort that doesn’t exist today,” she said. The paper “is a useful stalking horse. ... It is [such a] radical proposal and people will react to it so badly that anything that you all want to recommend as an alternative will look super reasonable.”



FERC Chair Richard Glick listens to a question from ACORE CEO Gregory Wetstone at the ACORE Grid Forum.

© RTO Insider LLC

Silverstein also called for an investigation into the poor performance of ERCOT’s black start generation during the February storm.

“Over 40 to 50% of ERCOT’s black start plants were down. They were frozen. They didn’t have enough fuel, whatever the reason,” she said. “We came five minutes from [an] ERCOT-wide collapse, and without interconnection to the rest of the nation, we would have been down for weeks because our black start capability was gone. ...

“No one has ... ever investigated this and figured out why the plants that we were paying good money to be available in black start were not available. Why they have not been penalized? What standards are wrong? Clearly they met their obligations, which means the obligations were bad.”

### Defending Clements

Grid Strategies President Rob Gramlich, who moderated the discussion, asked Silverstein about a Fox News [story](#) accusing Commissioner Allison Clements of impropriety for speaking at a “funders only” event hosted by her former employer, the Energy Foundation.

When he and Silverstein served as aides to former FERC Chair Pat Wood, Gramlich said they met with scores of stakeholders.

“We met with everybody who had the sense to ask,” Silverstein confirmed. “It is your job as a federal official to talk to everyone to make sure that as much information is available ... within the bounds that your lawyers allow you to talk. It is your right as a citizen or as an organization to come into a commissioner’s office and the chairman’s office and share your views and ask for the commissioners’ input and guidance. And so Commissioner Clements was doing her job and I applaud her for doing that.”

“If she did anything wrong then every single commissioner, and just about all their advisers for the last 25 years, violated the same thing,” Gramlich said.

### Glick: Not Worrying About Reappointment

In remarks opening the conference FERC Chairman Richard Glick encouraged attendees to help shape the future by getting involved in RTO stakeholder discussions on market rules and transmission, even though he acknowledged, “they can get very tedious and boring.”

“A lot of the decisions that are made ... are kind of — I wouldn’t say fully baked because FERC still has to review them and consider them and determine whether they’re just reasonable. But a lot of those decisions, they get worked out during the stakeholder discussions,” he said.

Glick said grid reliability is “the subject of the day in many ways,” noting California’s scramble to shave loads during a heat wave in September and the commission’s recent forum in New England. (See [FERC Comes to Vermont and Leaves with a New England-sized Headache](#).)

“We’re experiencing extreme weather like we’ve never seen before. And that’s going to continue on, most experts say,” Glick said.

He said the Inflation Reduction Act “will, almost undoubtedly, prove to be a game changer for [ACORE members] and for the good of the country.”

Glick said he was not worrying about whether he will be confirmed to a second term on the commission. President Biden has renominated Glick but Sen. Joe Manchin (D-W.Va.), chair of the Energy and Natural Resources Committee, has yet to signal his support. Although Glick’s term expired June 30, he can remain in his post through the end of the current congressional session in December.

“I’m being told that there’s a lot of folks — the White House, Sen. [Chuck] Schumer (D-N.Y.) and others — that are working hard towards confirmation. They are confident,” he said.

“I just use an analogy: My son plays a lot of baseball and sometimes he’s on the mound. And you know, the guy behind him makes an error and sometimes he used to get really upset ... and then he loses focus. And I just say to him all the time, you can only control what you can control and not worry about others. And at FERC that’s what I’m trying to do, is not think about that. I just feel we have a lot of day-to-day work to do. Try to focus on that on a daily basis, and whatever happens happens.” ■

# 2022 ACORE Grid Forum

## ACORE Panel: IRA Will Accelerate Storage Deployment, but Markets not Ready

*Radical Changes for Planning, Pricing, Operation Coming in Next 5-10 Years, Speakers Say*

By K Kaufmann

WASHINGTON — Energy storage, along with other distributed energy resources, are changing the way electricity markets and the grid are planned, structured and operated, and the new tax incentives for standalone storage in the Inflation Reduction Act will accelerate the pace and urgency of the transformation ahead.

The impact of the law and the growing presence of storage as a core technology for grid reliability and decarbonization were the focus of a panel at the American Council for Renewable Energy's Grid Forum on Thursday. In his opening remarks, Carl Fleming, a partner at McDermott Will & Emery, reported that the IRA is driving deals at his law firm, even before the Internal Revenue Service issues guidance on the new law's tax credits.

"We've seen a number of deals — the first two tax equity ... deals, the first two energy community deals and the first two transferability deals," Fleming said, referring to specific provisions in the law that provide bonus credits and expand the entities that can receive credits.

New figures from *BloombergNEF* are predicting global storage capacity of 411 GW by 2030, a 15-fold increase from the 27 GW online at the end of 2021, he said — a forecast driven in part by the IRA.

Ann Coultas, regulatory affairs director at Enel North America, said her renewable energy development company, like many others, is still "digesting everything in the legislation and figuring everything out. I would say we are very familiar with working across a variety of platforms, whether it's wholesale energy markets, whether it's microgrids; and one of the exciting things about this legislation is that it has incentives for all types of applications."



Ann Coultas, Enel North America | © RTO Insider LLC

Similarly, for Gabe Murtaugh, storage sector manager at CAISO, the law provides more options for leveraging the 5,000 MW of storage that will be coming onto the California grid in the next two years, doubling the close to 5,000 MW now online.

Existing tax credits for storage are narrowly drawn, Murtaugh said. To qualify, a project had

to be co-located with and only charge from solar or another renewable energy source.

"If you as a grid operator need those resources to charge during the middle of the night, when there is no solar [or when] there's no wind, you can't do that under the current rules," he said. "The new rules are going to allow a lot more flexibility for these resources to participate maximally in the market.

"Those are the kinds of rules and the kinds of incentives we need in place ... to build the new renewable resources and the resources that are going to make a sustainable resource portfolio mix possible, but don't necessarily restrict how those resources are going to work in the market," Murtaugh said.



Nidhi Thakar, Form Energy | © RTO Insider LLC

commercialize faster, to put steel in the ground faster and to start producing our batteries."

Form is in the process of selecting a site, east of the Mississippi River, for its first factory, which will be able to produce 500 MW of its 100-hour batteries, Thakar said. However, while lauding the "unprecedented" clean energy investments in the IRA and Infrastructure Investment and Jobs Act, Thakar also pointed to the gaps in the laws, including the need for permitting reform and tax incentives to support new transmission.

"We can't take full benefit of what's in the IRA for clean technologies" without addressing these issues, she said.

### 'Shallow' Markets and Marginal Pricing

The panel also tackled the uneven pace of storage integration on transmission and distribution systems and its deployment as a grid asset, as some utilities, regulators and grid operators continue to argue that the technology is not sufficiently mature or cost competitive.

In California, the leading storage market, four-hour duration lithium-ion battery storage is now the standard, Murtaugh said. But

longer-duration technology will be needed for the days or weeks when renewables aren't available, because of the increasing frequency and severity of extreme weather events driven by climate change.

A core challenge in California and other markets is the need to develop market structures that incentivize the deployment of storage and appropriately compensate the specific attributes of the technology. Traditional marginal pricing, effective for fossil fuel generation, doesn't mean much for storage developers, Murtaugh said. "They don't care so much about instantaneous prices; what they care about is the price that they can buy energy at and the price they can sell energy at," he said.

Markets based on thermal generation and spinning and non-spinning reserves are not designed for battery growth, Coultas agreed. They don't offer "the right products to attract a battery," she said.

Enel has had a lot of success with batteries in Texas, where ERCOT has "defined products in ways that suit batteries really well. So, there are products where you must respond within 20 cycles; you must respond within a matter of seconds or milliseconds. Products like that in a market [are] going to attract batteries."

ERCOT's battery-friendly products, however, are offset by the grid operator's "shallow" markets, Coultas said, meaning that the energy needed is relatively small. "To attract more batteries, markets need to be really thinking about creating the right level of ancillary services," she said.

Further, no one has completely cracked the pricing issue yet, Coultas said, though she pointed to ERCOT and CAISO as models of progress.

Murtaugh said one possible solution is to replace LMP with "something where we pay a fixed amount to a storage resource when we're charging that storage up, and the ISO has sort of a call option to be able to discharge that resource any time we want to."

Coultas offered yet another possibility — technology-neutral dispatchable energy credits, similar to renewable energy credits, for resources "that have attributes guaranteeing dispatch," she said. At the same time, she cautioned, "There are values [of storage] that will just never be compensated in a multistate ISO because they don't have the power to do



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that; for example, clean peak. I don't think in a multistate ISO we're ever going to see a product that pays batteries for clean peak."

In CAISO, Murtaugh and others are working on changing California's resource adequacy programs, now based on peak demand, "to a new paradigm where we're going to be looking at making sure we have enough energy overall 24 hours a day, as well as actual generation during each hour of the day and for charging resources earlier in the day," he said.

## New Tools

Thakar believes that long-duration technologies, like Form's, could provide targeted, "microfitted" solutions for a range of grid challenges, "whether it's for use on a consistent basis or as support to central service providers or other critical communities that are stuck in some of these difficult load pockets and experience a lot of grid instability," she said.

But, she said, no markets, not even California's, have created market valuation or compensation structures for the "innovative resources that are going to be coming online in the next couple of years."

Part of the problem, Thakar said, is that the focus on federal implementation of the IRA has left a blind spot around implementation of the law by state utility commissions.

State-level integrated resource plans have relatively short time frames — two or three years — for procuring clean energy resources, she said. "How does that hamstring the general ability to take advantage of the 10-year window we have for benefits from the IRA now? ... We need to be thinking about what kind of tools can help state regulators really fully capture the overall benefits of IRA for customers."



| AES

Form has built its own modeling tool that "focuses on a 365-day evaluation, using a model that looks at that entire yearlong snapshot. It also looks at multiple weather years," she said.

Murtaugh said he and CAISO's operations team have also spent the last few years "building a whole suite of tools that we never even contemplated having before because we were never worried about storage state of charge and thinking about energy we could potentially dispatch later."

"We're enhancing all of our markets and the

modeling we do for storage resources to accommodate resources that can charge and discharge, resources that have a minimum and maximum state of charge, so that our market can optimize those resources alongside all the other resources. There are a lot of unique operating characteristics for storage resources," he said.

"In the next five to 10 years, I think a lot of ISOs are going to be seriously thinking about their market constructs," Murtaugh said. "I think we're going to see some pretty radical changes come after that." ■

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## FERC/Federal News



# RTOs, Utilities Push Back on Interconnection Deadlines, Penalties

## FERC NOPR Wins Support for 'First Ready, First Served' Model

By Rich Heidorn Jr., Sam Mintz and Holden Mann

RTOs, utilities and others told FERC Friday it should drop its proposal to penalize transmission providers for failing to meet interconnection study deadlines, while generation developers balked at the commission's proposed "commercial readiness" provisions.

More than 130 companies, agencies and organizations filed comments in response to FERC's June 16 Notice of Proposed Rulemaking (NOPR) to clear clogged interconnection queues and give generators more certainty on upgrade costs (RM22-14). (See [FERC Proposes Interconnection Process Overhaul](#).)

Commenters generally supported the NOPR's proposal to replace the serial "first-come, first-served" study procedure with "first-ready, first-served" cluster studies.

The American Clean Power Association said the NOPR "contains many potentially valuable improvements to current interconnection policies," calling for new rules to "provide predictability on the timetable for interconnection studies, as well as certainty on the upgrade costs that are identified through these studies."

The Environmental Defense Fund said the changes were needed to address the "inequitable distribution of costs among interconnection customers based on the first-come, first-served study process [and] delays created by the proposal and withdrawal of speculative projects [and] the lack of binding deadlines for transmission providers [and] the general failure of transmission providers to evaluate use of alternative transmission technologies."

### Calls for More Outreach

But there were disagreements on many of the details, and several commenters called for additional outreach before issuance of a final rule.

The Electric Power Supply Association said FERC may need to collect additional comment or convene a technical conference to work out the details. "Competitive generators strongly support a timely final rule from the commission to address long-plagued interconnection queues, but getting that rule as clear as possible saves time in the end for all stakeholders, including customers."

CAISO said that "although many of the individual proposals in the NOPR are ripe for



PECO substation near PJM headquarters | © RTO Insider LLC

implementation, the sum of the NOPR would not achieve the commission's goals and would instead slow study processes and increase backlogs.

"The CAISO strongly urges the commission to iterate with stakeholders further before issuing a final rule. At the very least the commission should issue a revised NOPR based on comments and should consider technical conferences on ISO/RTO-specific reforms, commercial readiness criteria and realistic study timelines."

### Regional Flexibility

The many state agencies that issued comments on the NOPR were broadly supportive of the changes to interconnection rules, which they said could help alleviate backlogs that are hurting their states. But they urged FERC not to interfere with existing regional efforts to make their processes more efficient.

"The imposition of overly prescriptive compliance obligations may disrupt and potentially

dismantle many of the successful processes and practices already underway in the MISO region," the Organization of MISO States wrote. "As such, we recommend that the commission permit transmission providers that are initiating their own stakeholder-supported interconnection reforms ... to continue developing regionally appropriate solutions."

"The commission should be sensitive and avoid creating additional burdens to those regions that have already adopted best practices," MISO said. "Any proposed reform should be careful not to burden transmission providers by imposing non-essential or regionally inappropriate requirements to already-strained interconnection queue study processes and inadvertently increase the duration of the interconnection queue or risk of delays."

"In discussing the need for queue reforms, the NOPR does not appear to recognize the different approach that New England has taken to interconnection-related network upgrade costs," the New England States Committee on



# FERC/Federal News



Electricity wrote. ISO-NE also asked the commission to avoid a “prescriptive” final rule.

The Edison Electric Institute also called for flexibility. “For example, FERC should allow transmission providers to develop the technical details for cluster studies, including how clusters may be split into subgroups of interconnection customers based on areas of geographic and electrical relevance,” EEI said.

“To the extent these ongoing efforts appear likely to accomplish the Commission’s goals of expediting the interconnection process, WIRES believes the commission should accommodate these efforts rather than slow down or preempt these initiatives by enforcing standardization with the proposed *pro forma*” interconnection agreements, the trade group WIRES said.

“Several of the NOPR’s proposals could harm existing interconnection processes and could specifically harm the NYISO processes that are working well to integrate the significant amounts of new clean energy resources required to attain the requirements of New York’s ambitious climate change legislation,” said the New York Transmission Owners, a comment that was echoed by NYISO.

PJM, which filed its own interconnection overhaul days before the NOPR, said the commission should allow it to complete its transition period before being required to comply with a final rule. (See [PJM Files Interconnection Proposal with FERC.](#))

The PJM Transmission Owners opposed the commission’s proposal to allocate network upgrade costs among interconnection customers in a cluster based on the degree to which each generating facility contributes to the need for the upgrade. “The NOPR proposal for allocation of network upgrade costs should not be mandatory and regions should have the flexibility to determine just and reasonable approaches for cost allocation,” they said.

## Proving Commercial Readiness

There was wide support for measures to discourage speculative projects from entering interconnection queues, with EEI saying, “The reforms that the commission has proposed involving study deposit frameworks, site control requirements and commercial readiness demonstrations are important tools to help cut down on speculative projects, increase certainty and reduce queue backlog.”

But numerous parties challenged FERC’s proposal to use finalized purchase power agreements as evidence of commercial readiness.

“Independent power producers would be challenged to enter into binding contractual sale obligations without having any reasonable certainty into their final interconnection costs,” the Solar Energy Industries Association said. “SEIA believes the final rule should allow developers to demonstrate commercial readiness through means other than firm contractual sale contracts or financial deposits. Commercial readiness should be evaluated based on the totality of circumstances, and should be required later in the process, so to avoid injecting uncertainty into the interconnection process.”

Vistra said requiring a demonstration of commercial readiness to proceed in the interconnection process “ignores the reality of competitive solicitations and unduly discriminates in favor of self-build options.”

Invenergy also opposed the commercial readiness requirements. “Interconnection customers will already be subject to other requirements that are far more indicative of ‘readiness,’ such as the increased site control requirement to enter the queue and withdrawal penalties under the new rules,” it said. “This additional ‘readiness’ proposal is unnecessary. Moreover, the focus on having a power purchase agreement (PPA) term sheet or contract to simply enter the queue ignores the commercial reality that independent developers do not typically have an off-taker so early in the process.”

EDF Renewables said FERC should increase study deposits and other capital requirements to discourage “overly speculative high-risk projects and project spamming” rather than relying on PPAs.

EEI said that allowing interconnection customers to provide financial security in lieu of meeting milestones or readiness requirements “can be used as a loophole for speculative projects to proceed well into the interconnection process,” potentially leading to restudies and delays.

## Penalties, Deadlines

FERC also received strong opposition to its proposal to replace the current “reasonable efforts” standard for transmission providers and impose penalties for failing to meet study deadlines.

The ISO/RTO Council said although it understood the commission’s intent, “the proposal overlooks the reality that the RTOs/ISOs and their transmission owners have no control over the size of their respective interconnection queues and limited control over the quality of the submittals.”

**“The commission’s proposed penalties may compromise reliability by forcing transmission providers to prioritize speed over accuracy.”**

—PJM

It said the proposal would deprive transmission providers of their due process rights and introduce “a more litigious relationship among the parties.”

“Study deadlines must consider the scope, complexity and uniqueness of each such interconnection,” the New York TOs said. “Rather than allowing sufficient time to develop optimized interconnection studies, TSPs and TOs will be incentivized to rush or abbreviate the needed study effort to avoid running afoul of such deadlines and penalties, potentially leading to less optimal studies.”

The TOs said interconnection delays are often caused by interconnection customers. “Moreover, such IC-driven delays are often intended to allow them to improve their projects, and removing that flexibility would harm ICs and the overall effectiveness of their respective projects,” they said.

“Proposals such as automatic penalties for study delays and blanket elimination of the reasonable efforts standard will not help transmission providers manage the present overwhelming queue volume because they do not get to the root of the delays,” PJM said. “The commission’s proposed penalties may compromise reliability by forcing transmission providers to prioritize speed over accuracy.”

As an alternative, PJM proposed setting “tolerance bands for delays” and focusing on process improvement reporting to the commission, “with penalties potentially established after

# FERC/Federal News



due process, based on misfeasance or malfeasance by the transmission provider in carrying out the specific process improvements.”

CAISO also opposed the proposed deadlines, saying “many of the NOPR’s proposed reforms are based solely on the tariffs of single utilities operating in a single state. Such utilities enjoy unique advantages because they can be both the generation off-taker and the transmission provider conducting the interconnection studies, and they have a single local regulatory authority over procurement. ... The vast majority of commission jurisdictional interconnections occur in ISOs/RTOs where the off-taker and transmission provider are not only different, but may not even be in the same state. Many of the commission’s proposed reforms fail to recognize that the ISO/RTO may be the ‘transmission provider,’ but it depends on the actual transmission owners to perform study work.”

State officials expressed concerns that the penalties could ultimately be passed on to ratepayers.

“The record does not appear to support the position that fines will materially aid in reducing the interconnection backlog,” wrote a coalition of 13 East Coast state agencies, made up largely of attorneys general and state consumer advocates.

The Transmission Access Policy Study Group (TAPS), an association of transmission-dependent utilities in 35 states, expressed the same concern.

While TAPS recognized that FERC allows penalties imposed by NERC or regional entities for violation of reliability standards to be passed through in this manner, the organization argued that this situation is fundamentally different.

“The money collected from RTO ratepayers is used to offset the costs of operation of NERC or the relevant [RE]. ... In contrast, the NOPR’s proposed study delay penalties will be remitted to specific interconnection customers, which may have no commitment to use these payments to offset costs to any consumers, much less ratepayers bearing those costs,” TAPS said.

A group of environmental organizations dubbed the Public Interest Organizations cited data from the Lawrence Berkely National Laboratory that they said showed that queue withdrawal rates have been consistent over the last 10 years, suggesting that the fear of speculative projects is misplaced. As a result, the commenters said that FERC’s contemplated queue withdrawal penalties are probably

## Google expressed fear that the commission’s proposals “risk providing an advantage to utility development over independent power producer (IPP) development.”

—Google

unwarranted. They suggested that the commission instead “emphasize the information sharing and process improvement aspects of the reforms over the aspects that introduce barriers to applications.”

Google expressed fear that the commission’s proposals “risk providing an advantage to utility development over independent power producer (IPP) development.” Google urged FERC to adopt a “holistic approach” that balances the readiness requirements, study deposits and withdrawal penalties in order to avoid “undermining the vibrant IPP sector.”

Acciona Energy, Copenhagen Infrastructure, Hecate Energy, Leeward Renewable Energy Development, and Tri Global Energy — filing jointly as the Affected Interconnection Customers — called for expanding the list of indicators of commercial readiness and granting interconnection customers “the unilateral right to retain preapproved outside consultants ... if the transmission provider or transmission owner is unable to complete the necessary interconnection studies on time.”

### Informational Studies, GETs

PJM and its TOs joined SPP and SEIA in opposition to proposed “informational” interconnection studies, saying it would provide information of limited value while taxing

limited RTO resources.

SPP opposed the proposal “due to its past experiences in offering such a study and based on feedback received from its interconnection customers,” saying its feasibility and preliminary impact studies “did not provide results that could be relied on in making business decisions.”

Some, including the MISO TOs, also opposed a provision that would require transmission providers to consider “alternative transmission solutions” if requested by an interconnection customer.

The WATT Coalition, a trade association that promotes deployment of grid-enhancing technologies (GETs), supported the requirement but said it should be an “opt-out” rather than an “opt-in” rule, saying “advanced transmission technologies should be considered as a routine matter in interconnection processes in all regions.”

The Clean Energy Buyers Association warned that FERC’s suggestion of allowing interconnection customers to submit up to five informational study requests at a time could bog down “already over-burdened transmission provider resources and interconnection queues.” The group said that transmission providers should be allowed to establish windows of time each year to submit such requests.

### More Please

A few commenters asked the commission to go beyond the proposals in the NOPR.

“Reforms to participant funding rules are also critical to any meaningful interconnection reforms,” Invenergy said. “Similarly, the commission needs to address the current inconsistency between generator interconnection and transmission planning studies, and develop *pro forma* procedures for HVDC transmission interconnection so development can move forward.”

Anbaric Development Partners asked the commission to draft a rule ordering ISOs and RTOs “to remove tariff barriers to the development of planned transmission or transmission-first projects,” saying the commission “already has before it a more than adequate record on which to justify this relief.”

The Electricity Consumers Resource Council, which represents large industrial consumers, asked FERC to add an independent transmission monitor to the NOPR “to ensure that there is coordination among the interconnection process and the transmission planning process.” ■



# Southeast

## SEEM Set for November Commencement Date

### DC Circuit Challenge Still Ongoing

By Holden Mann

The Southeast Energy Exchange Market (SEEM) is set to begin operations on Nov. 9 despite an ongoing legal challenge from environmental groups, the market’s membership board said in a filing to FERC on Oct. 7 (ER21-1111, et al.).

In their filing, the members noted that their agreement required the board to establish a commencement date after FERC issued orders accepting all relevant tariff filings by participating transmission providers.

The agreement automatically took effect almost exactly a year ago under Section 205 of the Federal Power Act after FERC — then evenly split between Republicans and Democrats after the departure of Commissioner Neil Chatterjee — was “divided two against two as to the lawfulness of the change.” (See *SEEM to Move Ahead, Minus FERC Approval.*)

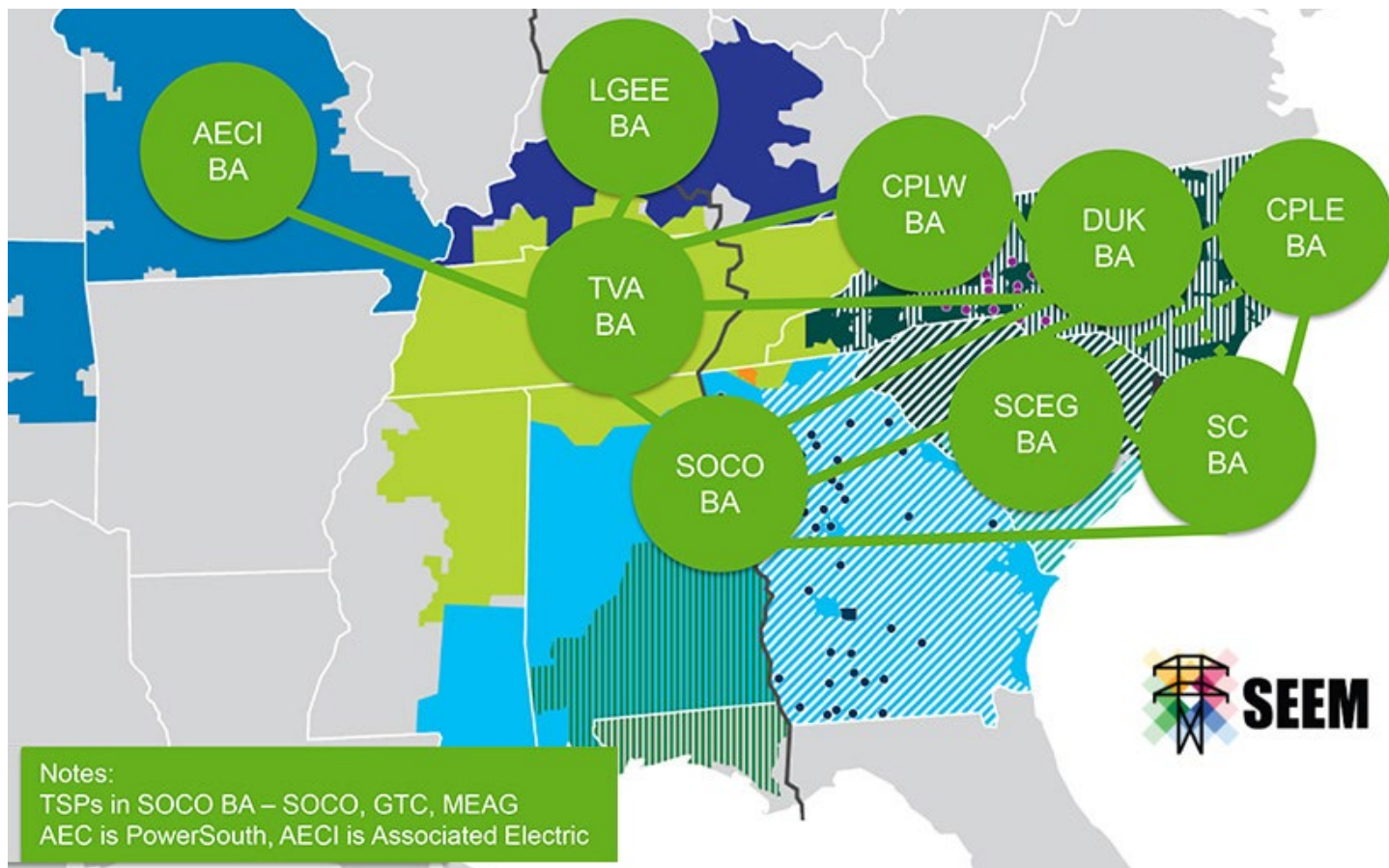
The tariff approvals followed, beginning last November when the commission accepted revisions to the tariffs of four of SEEM’s founding utilities: Duke Energy, Southern Co., Dominion Energy, and LG&E and KU Energy. (See *FERC Accepts Key Tariff Revisions to SEEM.*) Utilities’ most recent revision came in January when FERC accepted changes to Duke’s tariff (ER21-1115).

SEEM’s founders proposed the market last year, promising to reduce trading friction while promoting the integration of renewable resources through the use of automated trading, elimination of transmission rate pancaking and allowing 15-minute energy transactions. The project has been controversial from the start; many opponents have questioned whether the proposed measures would outperform alternative structures like an RTO, while others warned that the market would allow transmission-owning utilities to exclude competitors from the market and favor their own electricity.

Although SEEM’s members are moving ahead with their operational schedule, the market is still the subject of a challenge in the D.C. Circuit Court of Appeals. A collection of environmental, clean energy and community groups including the Southern Environmental Law Center, the Sierra Club, the Southern Alliance for Clean Energy and the North Carolina Sustainable Energy Association filed an appeal in February of the commission’s decision to allow the market to move forward. (See *Environmental Groups Appeal SEEM in DC Circuit.*)

The opponents are asking for the court to overturn both the original effective date and FERC’s subsequent tariff approvals, as well as the commission’s rejection of the rehearing requests that the opponents have previously filed for these orders.

SEEM’s members promised in their filing to update FERC “should the commencement date occur after Nov. 9, 2022, for any reason.” ■



Founding participants in SEEM | SERC

## Southeast

# TVA Receives Federal Assist on Future Nuclear Plans

The U.S. Department of Energy last week granted the Tennessee Valley Authority a voucher from its Gateway for Accelerated Innovation in Nuclear to study future sites for advanced nuclear reactors.

The department's Office of Nuclear Energy's *announcement* gives TVA access to the expertise and research resources of the Oak Ridge National Laboratory. TVA and the lab plan to find candidate sites appropriate for future nuclear reactors, using the Oak Ridge Siting Analysis for power Generation Expansion (*OR-SAGE*) tool to explore suitable locations.

South Carolina-based Elementl Power also received a similar voucher for siting assessment.

"As part of TVA's ongoing exploration of advanced nuclear technology, we look forward to working with the U.S. Department of Energy Office of Nuclear Energy, Oak Ridge National Laboratory and other partners to help lead the nation toward a decarbonized future," TVA said in an emailed statement to *RTO Insider*.

TVA did not elaborate beyond the DOE's press



TVA's Watts Bar Nuclear Plant | TVA

release on potential sites or their size.

TVA has a goal to reach net-zero emissions by 2050. CEO Jeff Lyash has said decarbonization efforts will require license extensions at its three existing nuclear plants, adding small modular reactors, and considerable invest-

ments in energy storage and carbon capture and sequestration. TVA said earlier this year it will add a GE Hitachi small modular reactor by 2032 at the Clinch River Nuclear site near Oak Ridge, Tenn. (See *TVA Defends Rates, CO2 Reduction Plans in House Inquiry.*) ■

— Amanda Durish Cook

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## CAISO/West News

# Calif. Moving to Dynamic Pricing for Retail Customers

## Demand-side Efforts Seek to Improve Reliability

By Hudson Sangree

The California Energy Commission updated its load management standards Wednesday in anticipation of residents owning millions of grid-connected electric vehicles and “smart” appliances that can respond to hourly or sub-hourly price signals from utilities and CAISO.

The regulatory update was the latest move by energy authorities in California to shape load to respond to times of abundant solar power or shortfalls during summer peak demand as the state advances toward its 100% clean energy goal by 2045 while struggling to maintain grid reliability.

“This update is a huge leap into the 21st century, using digital approaches to unlock benefits for consumers by enabling them to automate their electricity use around cheaper rates and changing grid conditions,” CEC lead Commissioner Andrew McAllister said in a statement following the unanimous vote. “Automated load management reduces energy bills, makes better use of abundant renewable energy resources available during the day, and strengthens grid reliability.”

CAISO and the California Governor’s Office have increasingly relied on demand response to head off shortfalls during the past three summers following the rolling blackouts of August 2020. Those efforts have targeted large industrial users and asked ships in port, including Navy vessels, to disconnect from shore power during strained grid conditions.

CAISO barely avoided ordering utilities to shed load in September after the governor’s Office of Emergency Services sent out a text alert to 27 million cell phones warning of imminent blackouts. Within five minutes, the unprecedented alert resulted in a 2,100 MW drop in demand compared to CAISO’s hour-ahead forecast.

Like the CEC, the California Public Utilities Commission (CPUC) is also seeking to use dynamic pricing and demand-side management as a way to manage load. In July, it opened a proceeding aimed at shoring up grid reliability and soaking up more solar electricity by using real-time rates to influence customer demand. (See [CPUC Opens ‘Critical’ Demand Flexibility Proceeding.](#))

The state’s current patchwork of demand

response programs, which pay customers to reduce consumption, is insufficient, the CPUC said in a June [white paper](#). The report identified strategies for broadening demand-side efforts, including by introducing dynamic energy prices based on real-time wholesale energy costs and localized marginal costs.

The Energy Commission’s decision instructs the state’s largest investor- and publicly owned utilities to develop retail electricity rates that change at least hourly to reflect wholesale electricity costs and other factors, and to regularly update those rates in a CEC database called the Market Informed Demand Automation Server.

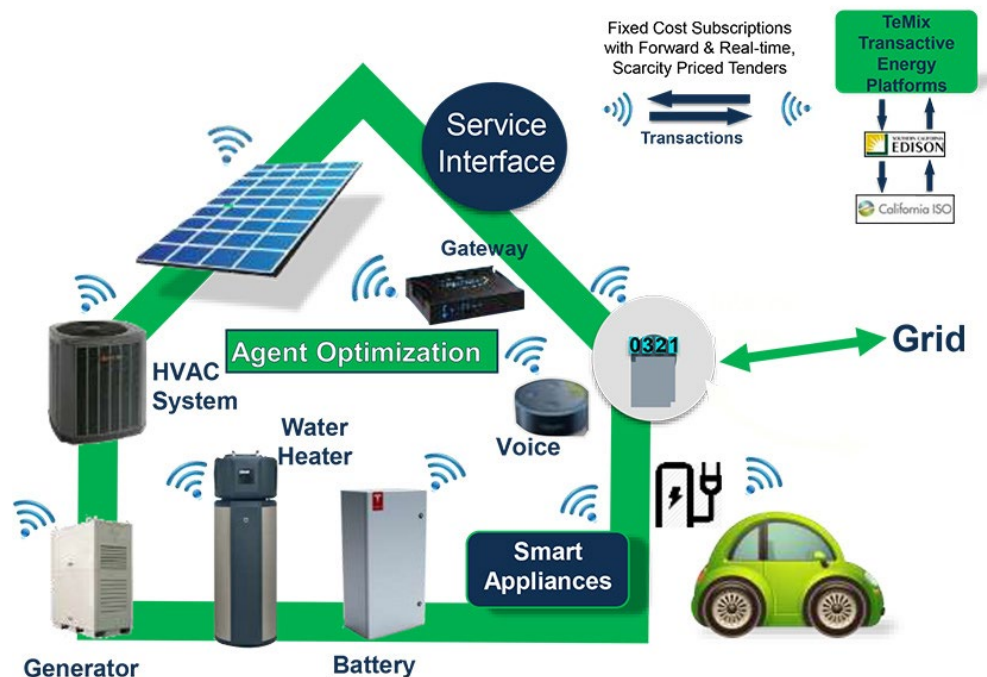
The updated standards take effect April 1, 2023, for IOUs Pacific Gas and Electric, Southern California Edison, San Diego Gas & Electric; publicly owned utilities Los Angeles Department of Water and Power and the Sacramento Municipal Utility District; and large community choice aggregators (CCAs)

that deliver more than 700 GWh of electricity annually.

The utilities and CCAs must also “educate customers about time-dependent rates and automation technologies to encourage their use,” the CEC said in the statement, which focused on the potential cost-savings to consumers. Affected devices would include smart thermostats, heat pumps, water heaters and EVs connected to the grid.

“Today’s action is expected to produce \$243 million in net benefits over 15 years and could reduce annual peak hour electricity use by 120 GWh, equivalent to powering 20,000 average California homes for a year,” it said.

Combined, the IOUs and POUAs affected by the new regulations have about 12.75 million electric customer accounts. Adding in the large CCAs, the CEC’s projected \$243 million in net benefits amount to less than \$1 per year per customer account over the next 15 years. ■



Smart appliances and EVs could respond to price signals from utilities under the Energy Commission’s load management plan. | TeMix

## CAISO/West News

# PG&E Slow to Upgrade Old Equipment, Monitor Says

By Hudson Sangree

Supply chain delays have hindered Pacific Gas and Electric's progress replacing aged infrastructure, increasing the risk of equipment failure and wildfires, according to the independent monitor hired to keep tabs on the utility's fire-prevention efforts.

The global pandemic's supply chain slowdowns have hit U.S. electric utilities such as PG&E with "lengthened lead-times associated with ordering and receiving various goods," Denver-based Filsinger Energy Partners said in its first report on the utility, issued Oct. 10. "For example, due to the effects of global supply chain issues, lead times for certain transformers have increased from 38 weeks to approximately 38 months."

That's a problem because much of PG&E's equipment has outlived its useful lifespan, it said.

Across the utility's transmission, distribution and gas divisions, Filsinger, the independent system monitor (ISM), "has observed numerous PG&E asset ages that are significantly older than the related industry average useful life and the related PG&E average age of asset failure."

"For example, PG&E reported having certain [substation] equipment with an average age of 60 years and an average industry service life of 40 years (i.e., 20 years older than the industry average)," it said. "Further, PG&E reported an average age of failure for this equipment as 70 years with 47% of this equipment exceeding this average age of failure."

Two other types of assets have exceeded average service lives and industry standards by years or decades, it said.

"If only utilizing asset age to determine an asset's useful life, PG&E would have to purchase and install over 2,000 components of the aforementioned equipment in order to bring the asset age of the equipment in these three categories down to the PG&E average age of failure for each equipment type," it said. "A significantly higher investment would be required to get each asset category reduced to the industry average."

Global supply chain problems, however, are delaying the utility's equipment replacement programs.

"The emerging risk relates to the volume of as-



Camp Fire investigators determined electrical arcing between a fallen conductor and steel tower caused molten metal to ignite dry brush below. | Cal Fire/Butte County District Attorney

sets that have the potential to fail within close time proximity to one another," the report said.

### The ISM

The California Public Utilities Commission required PG&E to pay for an ISM as a condition of approving its bankruptcy reorganization plan in May 2020. The CPUC selected Filsinger, which started work after PG&E exited probation and the oversight of a federal monitor in January. (See [PG&E Ends Probation as a 'Menace to California,' Judge Says.](#))

Filsinger is expected to file reports every six months under its five-year contract. Its first report broadly cataloged the problems and progress of PG&E in trying to prevent its transmission and distribution systems from igniting more wildfires.

Catastrophic blazes blamed on PG&E equipment failures included the 2018 Camp Fire, the state's deadliest and most destructive wildfire that began when a century-old C hook broke on a high-voltage line, causing the jumper conductor to fall onto the steel tower. The resulting electric arcs rained molten steel and aluminum, which sparked the grass and brush below.

The fire destroyed the town of Paradise in hours, killed 84 people and led to PG&E's January 2019 bankruptcy filing and its guilty pleas in June 2020 to 84 counts of involuntary manslaughter.

State fire investigators have found that PG&E equipment caused massive and highly destructive fires in 2017, 2019, 2020 and 2021. The utility is now under investigation by the U.S. Forest Service for its possible role in igniting the Mosquito Fire, which started Sept. 6 and burned through 77,000 acres of forestland in the Sierra Nevada foothills east of Sacramento.

"The USFS has indicated to Pacific Gas and Electric [in] an initial assessment that the fire started in the area of the utility's power line

on National Forest System lands and that the USFS is performing a criminal investigation into the 2022 Mosquito fire," PG&E told the Securities and Exchange Commission on Sept. 26. Two days earlier, "the USFS [had] removed and took possession of one of the utility's transmission poles and attached equipment," it said.

The utility has made progress in some areas, the monitor's report said, including its use of "enhanced powerline safety settings," which increase fault-detection sensitivity and quickly de-energize lines that experience problems such as changes in current. The EPSS protocol also disables the automatic reclosing of circuit breakers.

PG&E said the expansion of EPSS in high-risk fire areas has greatly reduced potential ignitions from lines contacting trees and other fire dangers.

"From the implementation of EPSS in late July 2021 through October 2021, PG&E reports a 40% reduction in ignitions as compared to the past three-year average, and an 80% reduction in the CPUC-reportable ignitions as compared to the past three-year average for the same period," the report noted.

The downside is that use of EPSS and the intentional blackouts known as public safety power shutoffs have significantly increased the number of outages and affected customers in high-threat fire areas, it said.

In a statement last week, PG&E said "we welcome the oversight provided by the Independent Safety Monitor team. We agreed to this structure when we emerged from Chapter 11 in 2020, believing it would bring additional transparency to our critical safety work."

The utility's revamped "leadership team has intensified its focus on fostering an environment that encourages coworkers to raise concerns on any topic, especially around safety and risk, so that we can address things that need to be fixed or made safe," it said. "The monitor team helps to build upon this culture and brings an enhanced level of openness and transparency to our efforts to provide safe and reliable energy in the face of evolving climate and wildfire risk."

The company repeated its intent to underground 10,000 miles of power lines in regions at greatest risk of wildfires. The CPUC's approval of that effort and billions of dollars in ratepayer funding remain uncertain, however. ■



## CAISO/West News

# New WPP Board Features Figures from PJM, WEIM, Industry

By Robert Mullin

The Western Power Pool's future independent board of directors will include the previous CEO of PJM, a former member of the Western Energy Imbalance Market's Governing Body and the WPP's present board chair, among others.

The WPP's current board of directors last week approved the slate of nominees who will serve on the new independent board once the group's Western Resource Adequacy Program (WRAP) is approved by FERC. The federal regulator requires organizations under its jurisdiction to maintain independent boards.

"This is an important step in the path toward WRAP implementation," WPP Treasurer Mary Ann Pease said in a press release Friday. "I look forward to the continued development of a sustainable resource adequacy program, with the incredible benefits it will bring to participants, while ensuring we continue to deliver the benefits and cost savings the Western Power Pool has long provided our members and our region."

According to the release, the board members were selected after a monthslong "continent-wide" search led by WPP's 14-member Nominating Committee and assisted by an executive search firm.

"The committee's stated criteria for candidates included electric industry, regulatory, general management, Western electric system or organized market experience; geographic diversity, so no region was overrepresented; diversity of perspectives, including professional background, gender, ethnicity and life experience; and strong collaboration skills," WPP said.

Among those chosen to sit on the new board is current WPP board Chair Bill Drummond, who has held that position since 2018. Drummond formerly led the Mid-West Electric Consumers Association and previously served as administrator and deputy administrator of the Bonneville Power Administration.

But perhaps the most well-known industry figure on the new board is Andy Ott, former CEO of PJM, the largest RTO in the country. Ott was at the helm of PJM when it kicked off an effort to partner with now-defunct reliability coordinator Peak Reliability to create an organized market that would compete with CAISO's own efforts to expand into other parts of the West. (See [Q&A: PJM's Ott Still Looking West.](#))



Former PJM CEO Andrew Ott has been selected for the WPP's new independent board. | © RTO Insider LLC

The PJM-Peak Reliability effort dissolved after CAISO moved to undercut Peak's core business by offering RC services to Western utilities at lower costs. Peak closed its doors at the end of 2019 after nearly losing nearly all of its customers to competing RCs.

Ott retired from PJM in 2019 amid the fallout from a massive default by a trader in the RTO's financial transmission rights market. (See [PJM CEO Andy Ott to Retire.](#)) He is currently director of technical operations at *Tapestry*, X Development's "moonshot" for the electric grid.

WPP's other independent board members include:

- Doug Howe, former chair of the WEIM's Governing Body and past member of New Mexico's Public Regulation Commission. Howe is currently a consultant for the West Coast Public Utility Commissions' Joint Action Framework on Climate Change. He previously led the Global Power consulting group for international consultancy IHS CERA and worked for various utilities.
- Michelle Bertolino, who served as director of Roseville Electric Utility in California for 12 years before retiring this year. Bertolino previously worked for the Sacramento Municipal Utility District, San Francisco

Public Utilities Commission and KPMG Peat Marwick. She has served as president of the Northwest Public Power Association and the California Municipal Utilities Association, and as chair and commissioner of the Balancing Authority of Northern California and the Transmission Agency of Northern California.

- Susan Ackerman, who last year retired as chief energy officer of the Eugene Water & Electric Board in Oregon. Before that Ackerman served as an attorney for BPA, an attorney and regulatory manager for NW Natural, and as a commissioner and chair of the Oregon Public Utilities Commission from 2010 to 2016.

Current board members Pease and Secretary Scott Waples will hold non-voting advisory seats on the new board, which will take effect after FERC approves the WRAP tariff and the program receives commitments from a " requisite" number of participants, WPP said.

"The varied backgrounds and expertise the new board members bring are first class," Waples said. "The Western region, and the customers who rely on a reliable source of electricity, are in very good hands." ■

## CAISO/West News

# CAISO, NREL Start to Study Western Cooperation

By Hudson Sangree

CAISO began a stakeholder process Monday to explore the benefits of greater regional cooperation and a Western RTO, as California lawmakers had requested in Assembly Concurrent Resolution 188, passed in August.

*ACR 188* asked CAISO to report to the legislature by February on recent studies of the “impacts of expanded regional cooperation on California” and to identify “key issues that will most effectively advance the state’s energy and environmental goals, including any available studies that reflect the impact of regionalization on transmission costs and reliability for California ratepayers.” (See *California Legislature Asks CAISO to Report on Regionalization*.)

Despite its limited goals, many saw the resolution as potentially restarting discussion of a Western RTO involving CAISO. Several

prior attempts from 2016-18 failed because lawmakers were unwilling to expand CAISO’s one-state governance to other states.

Monday’s meeting was a brief introductory session that laid out CAISO’s plans to produce the report in the next four months in partnership with the National Renewable Energy Laboratory (NREL), which it commissioned to author the study. NREL is expected to draft the report by November, followed by stakeholder comments and calls in December.

Monday’s *meeting materials* cited 30 relevant studies since 2011 as a starting point. They included a study conducted by CAISO in 2016 under Senate Bill 350, which found that a “multi-state regional electric market and grid overseen by the ISO would provide significant environmental and economic benefits to California and the West,” the ISO said.

Another study published last year found an

RTO covering the entire U.S. portion of the Western Interconnection could save the region \$2 billion in annual electricity costs by 2030 and cut carbon dioxide emissions by 191 million metric tons. A group of Western states led the study, financed by the U.S. Department of Energy. (See *Study Shows RTO Could Save West \$2B Yearly by 2030*.)

A subsequent study released in July by Advanced Energy Economy looked at regional economic effects. It concluded an 11-state Western RTO could generate roughly \$19 billion to \$79 billion in additional gross regional product by 2030 and could help create 159,000 to 657,000 permanent jobs. (See *Study Tallies Economy-wide Benefits of Western RTO*.)

CAISO and NREL asked participants Monday to send comments listing additional studies they should consider and those they should not consider, both with supporting comments. ■



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## CAISO/West News

# CEC Grants Long-duration Storage Project \$31M

By Hudson Sangree

The California Energy Commission approved a \$31.3 million grant Wednesday for a long-duration storage project that will pair vanadium-flow and zinc hybrid cathode batteries with carport solar panels on tribal land in San Diego County.

The 60 MWh microgrid project is the first recipient of a grant under the state's new Long-Duration Energy Storage Program (LDES), funded with \$140 million in the state's recently enacted 2022/23 budget.

Long-duration storage is a priority in California, where the grid is increasingly reliant on variable renewable generation, especially solar, requiring longer storage discharge times to compensate for cloudy weather and extended interruptions from equipment failure, forest fires and extreme heat.

Approximately 3,600 MW of four-hour lithium-ion batteries have been installed in the past three years, but those batteries have limits, Erik Stokes, deputy director of the CEC's Energy Research and Development Division, said.

"Currently, we're relying on one technology for our energy storage needs in lithium-ion,"

Stokes said. "Lithium-ion is a great technology. It's really enabled us to achieve a lot of our clean energy progress, but it's not a silver bullet. There's been a lot of well publicized concerns about supply chain and safety issues with lithium-ion technology."

The batteries are vulnerable to overheating and fires, and worldwide competition for lithium is straining supply. So, the state is seeking non-lithium resources able to discharge energy to the grid for at least eight hours and up to 100 hours.

Priority for LDES is being given to technologies on the verge of commercialization or positioned for widespread deployment within the next five to 10 years.

The project components approved Wednesday fit that bill because they have a successful history of field demonstrations and have attracted significant private capital to scale up manufacturing, the CEC said.

The zinc batteries, manufactured by EOS Energy Enterprises, do not use rare-earth minerals such as lithium, reducing risk in the supply chain, and they can operate at much hotter and colder temperatures than lithium-ion batteries, the commission said. The vanadium flow batteries, made by Invinity Energy Systems,



Invinity Systems makes vanadium flow batteries being used in the 60 MWh project in San Diego County. | Invinity

have proven safe and stable and can perform for 25 years or more, the CEC said.

The project will be installed at the Viejas Band of Kumeyaay Indians Reservation and casino near the town of Alpine, California.

More LDES projects are set to follow. The CEC said it expects to provide \$50 million to \$180 million in total funding for long-duration storage next year through LDES grants and its Electric Program Investment Charge (EPIC) funding, which supports earlier-stage demonstration projects. ■



EOS Energy Enterprises' zinc hybrid cathode batteries are one part of the planned long-duration storage project. | EOS

## ERCOT News



# Texas PUC Lauds Jones for Stepping in at ERCOT

## Commission also Rejects Sierra Club Proposal on EE

By Tom Kleckner

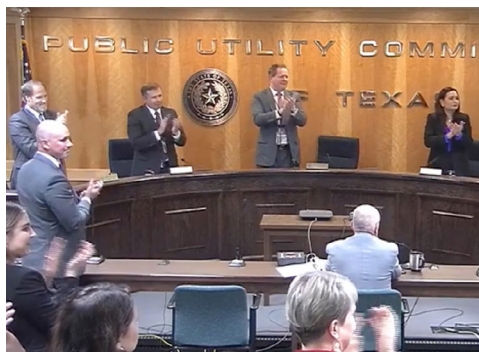
The Texas Public Commission honored interim ERCOT CEO Brad Jones' tenure this month, showering him with praise, political recognition, the Lone Star Flag that flew over the State Capitol in his honor and his second standing ovation of the week.

"I cannot, on behalf of all the people of this agency, ERCOT and the state of Texas, thank you enough for being willing to step up and take what has to be one of the toughest jobs in the state in a time of true crisis," PUC Chair Peter Lake said during the commission's Oct. 6 open meeting.

Jones was pulled out of retirement to lead ERCOT on an interim basis two months after the February 2021 winter storm that brought the Texas grid within minutes of a total collapse. The PUC first asked him to serve in a consulting role before he was asked to replace Bill Magness, who was fired in the storm's wake. (See [ERCOT Board Chooses Jones as Interim CEO](#).)

What Jones hoped would only take a few months lasted more than a year before ERCOT's Board of Directors found a permanent CEO in Pablo Vegas. In the meantime, Jones focused on improving the grid operator's credibility. He guided ERCOT through two summers dotted with conservation measures — setting a new record demand peak of 79.8 GW last July — and ensured staff implemented winterization measures to reduce the chances of another disaster.

"It was a very tough, tough spot to be in. You handled it confidently with poise and composure," Lake said. "A lot of tough decisions, a lot of first-time moves, unprecedented actions



The Texas PUC's commissioners honor retiring interim CEO Brad Jones with a standing ovation. | *Admin Monitor*

and then getting through this record-breaking summer. So, thank you again for not only being willing to do the job, but doing it so well under such extraordinarily tough circumstances. You got a big retirement smile on your face, and you've earned it"

Commissioner Will McAdams recalled that Jones only requested \$1 for his salary when he was asked to take over at ERCOT.

"I think you were willing to do it for free, but we wouldn't let you, and there was nobody else around that would step up to take such a very extraordinary difficult position," said Commissioner Lori Cobos, who sat on the board at the time.

"In my mind, there was only one person that was capable of coming in and helping," Commissioner Jimmy Glotfelty told Jones, who spent more than 30 years in the sector, including a stint as ERCOT's COO. "I'm sure everybody who's been around this town for a long time, who's been in the power sector and coming to the PUC, said, 'Brad Jones has to step up and do this! It was a daunting task, but it comes pretty naturally to you. You know this system frontwards and backwards, and I think all Texans have benefited from your knowledge."

Jones thanked the commissioners for their comments, saying the PUC was "extraordinary" during the last year and a half, providing leadership and support to he and ERCOT.

"I wanted to make sure that you all knew what each of you meant to us, the collaborative nature, the conversations that we've had about numerous topics. It's been helpful to us in setting our targets, but it's also been helpful in having your support and driving some of this change in the last year and a half," Jones said.

"And when I say the commission, I don't want to leave out the staff," he said. "I've watched the staff work extraordinarily hard over the last year and a half to make very quick changes on pathways that we'd never used before to get reliability in place quickly and to do that in a way that had not been done ever before. The staff has been fantastic with us and working closely with us."

Jones also thanked the State Legislature for the laws passed after the winter storm and Gov. Greg Abbott for his support. In turn, Jones was presented with resolutions from



Brad Jones recognizes ERCOT, PUC staffs before the commission. | *Admin Monitor*

both houses of the legislature and a statement of recognition from Abbott.

Finally, McAdams pushed Jones on his immediate plans after he winds up a transition period with Vegas on Oct. 31.

"He is going on a vacation, and he needs to say that publicly," McAdams said.

"Yeah, now that I'm finished at ERCOT, I'm going to Disney World ...

"All I can say is, 'Wow, what a time to be coming back into Texas,' with what's going on in the market and what's going on in the economy. I can't remember a more exciting time to be in this industry," he said.

### Sierra Club Efficiency Petition Rejected

In business matters, the PUC rejected the Sierra Club's petition for a rulemaking related to energy efficiency (53971).

The commission said *Sierra's proposal* would significantly change peak demand reduction and energy efficiency goals, increase cost caps for consumers and utility investment in low-income programs, adjust performance bonuses, and remove barriers to program disclosure.

However, it also said there is no room on its current rulemaking calendar to accommodate the environmental organization's proposal.

Lake has tasked Commissioner Kathleen Jackson with directing the PUC's energy-efficiency efforts. A workshop has been scheduled for today to discuss an implementation plan. ■



## ISO-NE News

# ISO-NE Proposes Tweaks to Inventoried Energy Program

By Sam Mintz

ISO-NE is proposing changes to its winter fuel security plan, the Inventoried Energy Program, to answer a court order and, more significantly, account for the swirling global natural gas markets.

The IEP is set to be in place for the 2023-2025 winter seasons and will compensate resources for the inventoried energy they hold on winter days that hit a certain low-temperature threshold.

Coal, biomass, hydropower and nuclear generators will no longer be eligible for the program, after the D.C. Circuit Court of Appeals found that they would get \$40 million in windfall payments for storing energy they would have kept anyway. (See *Court Strikes a Blow to ISO-NE Winter Plan.*)

In a *presentation* to the NEPOOL Markets Committee on Wednesday, ISO-NE Regulatory Counsel Kathryn Boucher laid out the grid operator's relatively simple response to the court ruling and subsequent FERC order, which clarifies that those asset types can't be included in the program.

ISO-NE is planning to put forward a compliance filing in mid-November.

### Tweaking the Program to Address Market Changes

On a separate track, the grid operator is looking to make longer-term changes to the IEP to try to attract more market participants to use the program and help increase the region's reliability.



A winter storm in Boston | © RTO Insider LLC

"Increased global competition for oil and LNG has changed these markets relative to when the IEP was first designed," ISO-NE's Craig Martin said in a *presentation* to the MC.

The grid operator is proposing to change how the IEP payments are calculated and how gas contract eligibility works under it. It is working with Analysis Group to recalculate forward and spot rates for the 2023/2024 winter, using updated energy market pricing and LNG contract structures.

It's also calling for a change in the terms of the program that state that "no limitations" can exist on when gas can be called.

And ISO-NE is proposing modifying the price eligibility threshold, which was included to "prevent contracts with very high incremental costs to buying gas from being eligible." The

shift from a Henry Hub/Algonquin Citygate metric to a Dutch Title Transfer Facility metric will "reduce the risk of gas contracts unintentionally being rejected due to potential price deviations between the cost of procuring LNG and domestic gas markets," Martin said.

ISO-NE is also looking at potentially changing the duration of inventoried energy required from 72 to 120 hours and increasing the temperature point that triggers the program.

"ISO believes these updates will increase the quantities of inventoried energy attracted to the region for winters 2023/24 and 2024/25," Martin said.

The grid operator is looking to get to a final NEPOOL vote on the changes in January 2023. ■

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## ISO-NE News

# ISO-NE Firms up its Support for Marginal Capacity Accreditation

By Sam Mintz

ISO-NE is narrowing down its options as it moves forward with revamping its process for resource capacity accreditation (RCA).

In a presentation to the NEPOOL Markets Committee last week, ISO-NE officials gave an update on their thinking, which included a firmer decision to work on a marginal reliability measure rather than other options, including an average approach.

The marginal approach, which ISO-NE has been leaning toward from the beginning, sets a resource's accredited capacity based on the "marginal reliability impact [MRI] of an incremental change in size." (See [ISO-NE Starts its Capacity Accreditation Journey](#).)

In its latest update, the grid operator said that marginal approaches are the only ones that are truly cost-effective.

Because the average approach, which accredited its resources based on their share of their class's total reliability contribution, does not "yield substitutable accredited capacity, there is always a better way to set FCA [Forward Capacity Auction] awards that result in the same level of reliability at lower cost," the RTO said in its [presentation](#) to the committee.

The marginal approach does put forward substitutable accredited capacity, so "there is not a better way to set FCA awards that result in the same level of reliability at lower costs."

"As a result, the ISO cannot support a non-marginal approach to accreditation and will pursue an MRI approach as part of the RCA reforms," said RTO economist Steven Otto.

### NRDC Fleshes out Worries About MRI

The Natural Resources Defense Council had said previously that it was concerned that ISO-NE's preferred method of measuring MRI undervalues clean energy resources' contributions. (See [NRDC: Early Worries About ISO-NE's Capacity Accreditation Approach](#).)

At the MC meeting last week, the group backed that up with [new numbers](#) from an



NRDC is worried that solar-plus-storage project, like this one in Massachusetts, could be undervalued by ISO-NE's planned approach to capacity accreditation. | [Nexamp](#)

analysis that it commissioned from GE Energy Consulting.

"At high penetrations, average and marginal accreditation have vastly different results for clean energy resources," the analysis says. In its model, renewables plus batteries under marginal accreditation would get capacity awards of about 2,200 MW less in 2028 and 6,400 less in 2040 compared to average accreditation.

"Socializing over half of the total reliability contributions of clean resources could result in a reduced market signal for reliability in clean resource selection and development," the group

said. It urged ISO-NE to thoroughly examine the tradeoffs between the two approaches and not dismiss the possibility of a hybrid between them.

NRDC also called on the grid operator to look at whether a seasonal capacity auction and capacity accreditation might be worth considering in light of the changes in seasonal peak load in New England.

Also at the MC meeting last week, RENEW Northeast gave a [presentation](#) laying out its own set of design principles for capacity accreditation and promising to use them to assess ISO-NE's proposals down the line. ■

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## MISO News

# MISO Says it Can Handle Record-setting IC Queue

*Berkeley Lab Finds RTO's Upgrade Costs Up Dramatically over Past 4 Years*

By Amanda Durish Cook

MISO last week assured stakeholders that it has the means to study the 170 GW of new generation requests that were added to its interconnection queue in September.

However, stakeholders seemed unsure whether the grid operator is up to the task, bolstered, perhaps, by Berkeley Lab's analysis showing it's more expensive than ever for generation to connect to the footprint's grid.

MISO said last month it must sort through a record 171 GW of proposed generation projects across 956 interconnect requests for the 2022 cycle. The requests could bring the queue to the brink of 300 GW, triple what was there just two years ago. (See [MISO: Record 1,000 Interconnection Requests in 2022](#).)

Phil Van Schaack, manager of resource utilization, said the 2022 cycle almost doubled the requests received in 2021.

"MISO saw nearly 100% growth year over year," Schaack said during an Interconnection Process Working Group (IPWG) teleconference Oct. 10. He said the megawatt value of this year's queue entrants is "greater than all the installed capacity in the MISO commercial model."

Five years ago, the RTO's planners said processing what was then a 60-GW queue was a tough proposition. (See [MISO Works to Address Unprecedented Queue Volume](#).)

Van Schaack said solar generation is dominating the queue and a record number of requests came from first-time developers in MISO. If all the interconnection requests are realized, the queue would be composed of more than 95% renewable and storage resources.

"Not all of these projects will make it to the end, but still, record setting-numbers," he said. "We appreciate everyone working with us as we work through these requests."

Staff are reviewing the projects to validate whether they have secured site control, Van Schaack said.

Invenery's Arash Ghodsian asked whether there's a plan to handle the technical challenges in studying the huge volume of requests. "Will MISO be able to solve the models with the magnitude of generation in the queue?" he asked.

WEC Energy Group's Chris Plante suggested the RTO might need to change its study strategies, given the generation additions.

Van Schaack said staff is prepared to solve

models with the best available information and bring on additional people to help, if necessary.

"We're going to do our best to meet the timeline," he said. "The need to scale and augment the internal process is ongoing ... We do anticipate being able to handle this."

NextEra Energy's Aaron Bloom asked whether MISO plans to revisit its three 20-year futures used for transmission planning in light of the generation plans. Staff responded they will internally discuss refreshing the futures' assumptions.

Stakeholders also requested MISO lead workshops for updates on the queue.

### Stakeholders Ask About Odds of IC Agreements

As MISO normally sees about 80% of interconnection requests withdrawn from the queue, stakeholders asked whether staff expects a similar result with the 2022 round.

"We don't know what the dropout rate is going to be. Historically, the number has been a 20% success rate. But two big things happened that drove the numbers we saw," Andy Witmeier, director of resource utilization said, pointing to the Inflation Reduction Act's renewable energy tax credits and the 18 new 345-kV



The O'Brien Solar Fields in Fitchburg, Wisc. | [Madison Gas and Electric](#)

# MISO News

lines from MISO's long-range transmission plan (LRTP).

The grid operator's board of directors approved a \$10 billion LRTP portfolio of projects in MISO Midwest this summer, partly to integrate more renewable energy. It also intends to stand up \$1 billion in projects on its western seam through its Joint Targeted Interconnection Queue study with SPP.

"Those could affect the dropout. ... But this is still a historic amount of generation," Witmeier said. "You could see a lot of upgrades coming out of these. First off, there's just not enough people to buy this capacity."

Van Schaack said staff could still find prohibitively expensive network upgrade assignments among the latest generation hopefuls.

"That economic trend has definitely continued into 2022," he said, referencing projects from earlier queue cycles that were unviable because they were paired with pricey upgrades.

## Berkeley Lab Focuses on Snowballing Upgrade Costs

Lawrence Berkeley National Laboratory observed this month that MISO's interconnection environment has led to "rapidly growing" interconnection costs over the past four years.

The lab said in an *Oct. 7 study* that RTO's average network upgrade cost of \$102/kW for recently completed projects is nearly double that of historical costs from 2000 through 2018. The lab also said that projects still actively moving through the queue faced estimated interconnection costs that have tripled in just four years to about \$156/kW.

The cost analysis was funded in part through the U.S. Department of Energy's Interconnec-

tion Innovation e-Xchange.

"The capacity associated with [new] requests is more than twice as large as MISO's peak load in recent years — about 120 GW — and, if substantial amounts are built, will likely exert competitive pressure on existing generation," Berkeley said. "However, most projects have historically withdrawn their applications, often in response to high interconnection costs: Only 24% of all projects requesting interconnection between 2000 and 2016 have ultimately achieved commercial operation at the end of 2021."

The lab said 366 GW of projects have left the queue, while just 62 GW have been interconnected. It said the most recently withdrawn interconnection requests confronted the highest average upgrade costs of about \$452/kW.

Berkeley also said that the potential interconnection costs on recent submittals for storage, wind and solar generation are more expensive than for natural gas-fired generation. It found that wind generation has \$399/kW in network upgrade costs, storage \$248/kW and solar \$209/kW; natural gas is expected to pay a more modest \$108/kW.

## MISO Adamant on Narrower DFAX Cutoff

MISO still plans to reduce congestion by instituting a lower system-impact threshold on interconnecting generation that will likely prompt more network upgrades.

The RTO's proposal might dim the prospects for some of the new interconnection requests.

The RTO suggested this summer to halve new generation's allotted distribution factor (DFAX) impact on transmission from 20% to 10% for its basic and unguaranteed level of interconnection service, called energy resource

interconnection service (ERIS). (See *MISO Recommends Lower Distribution Factor to Address Congestion*.)

At the behest of some MISO South members, the grid operator studied a DFAX limit down to 5% but decided that the threshold would be too drastic. Staff said 10% provides a good balance without being too aggressive.

Generation developers maintain that a tighter DFAX threshold would be punitive and place even more responsibility for system planning on interconnection customers, who are trying to get sorely needed generation on the system.

Sustainable FERC Project's Lauren Azar said during last week's IPWG meeting that lowering the threshold will "exacerbate and result in more transfer of costs to generators."

Some stakeholders argued that MISO was conflating transmission reliability with real-time congestion costs.

"Interconnection is about reliability and not addressing congestion. What's resulting is congestion in real-time, which is an economic issue. ERIS generators are energy-only and should expect to be curtailed," Clean Grid Alliance's Natalie McIntire argued.

Staff contended that the binding constraints interconnections cause are a reliability issue. They said potential constraints are currently being ignored in the interconnection process, only to crop up later on the system.

Stakeholders said that it's premature to lower the DFAX threshold across the board when MISO hasn't yet put together an LRTP portfolio for its southern region. The current and upcoming LRTP portfolios are marketed as being able to support more generation interconnections on the grid. ■



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## MISO News

# MISO Rolls Up Sleeves on Capacity Auction Alterations

By Amanda Durish Cook

MISO told stakeholders Wednesday that it plans to add a sloped demand curve in its capacity auction and will make a FERC filing in the second quarter of 2023.

The RTO's Mike Robinson likened a sloped demand curve to his attempt to make an avocado-and-jalapeño-based gazpacho, but not having enough avocados to make the soup. He said when he went to the grocery store, he found surplus avocados priced at a quarter apiece and bought extra for the next night's poke bowls.

That behavior showed that extra items beyond what is necessary still hold value.

"We're trying to recognize the value of that ad-

ditional capacity beyond the planning requirement," he said during a Resource Adequacy Subcommittee (RAS) meeting. "The additional 100 MW have reliability value beyond the reliability target, and we should reflect that in a cost-effective manner."

Robinson said a sloped curve will make the auction more "sustainable" in the long run, sending price signals to plants to keep operating or reflecting the additional risk if capacity doesn't cover their requirements. He said staff and stakeholders must figure out how to translate marginal reliability into dollar values.

MISO says the incremental value of capacity might consider the avoided value of lost-load pricing and avoided high-priced emergency purchases.

Robinson said that over the last 10 years, the

grid operator has been experiencing a "significant decrement" in its supply, which could have been helped with "some elasticity" in the demand curve.

"If we're going to do this auction, let's do it right with prices that value capacity," Robinson said. "We can do better than having a straight line, vertical demand curve."

Staff in July committed to a series of discussions with RAS over how the RTO might restructure its capacity auction with a sloped demand curve, among other changes. Some stakeholders said MISO needs to issue more detailed supply and demand data on a regular basis ahead of capacity auctions. (See [MISO Promises Stakeholder Discussions on Capacity Auction Reform](#).)

The RTO is holding auction-reform discussions as it begins organizing its first seasonal capacity auctions. In late August, FERC approved the grid operator's plan to hold four simultaneous auctions for the 2023/24 planning year using an availability-based resource accreditation that relies on the presumptive riskiest hours in a season. (See [FERC OKs MISO Seasonal Auction, Accreditation](#).)

MISO's Durgesh Manjure said "some of the parts and plans are evolving" in implementing a seasonal auction and accreditation. Staff plans to publish draft accreditation values — based on a unit's availability over the past three years and filtered by the RTO's preselected, predicted risky hours — in November, with final numbers by mid-December. The grid operator has also scheduled office hours to answer questions about the new auction process.

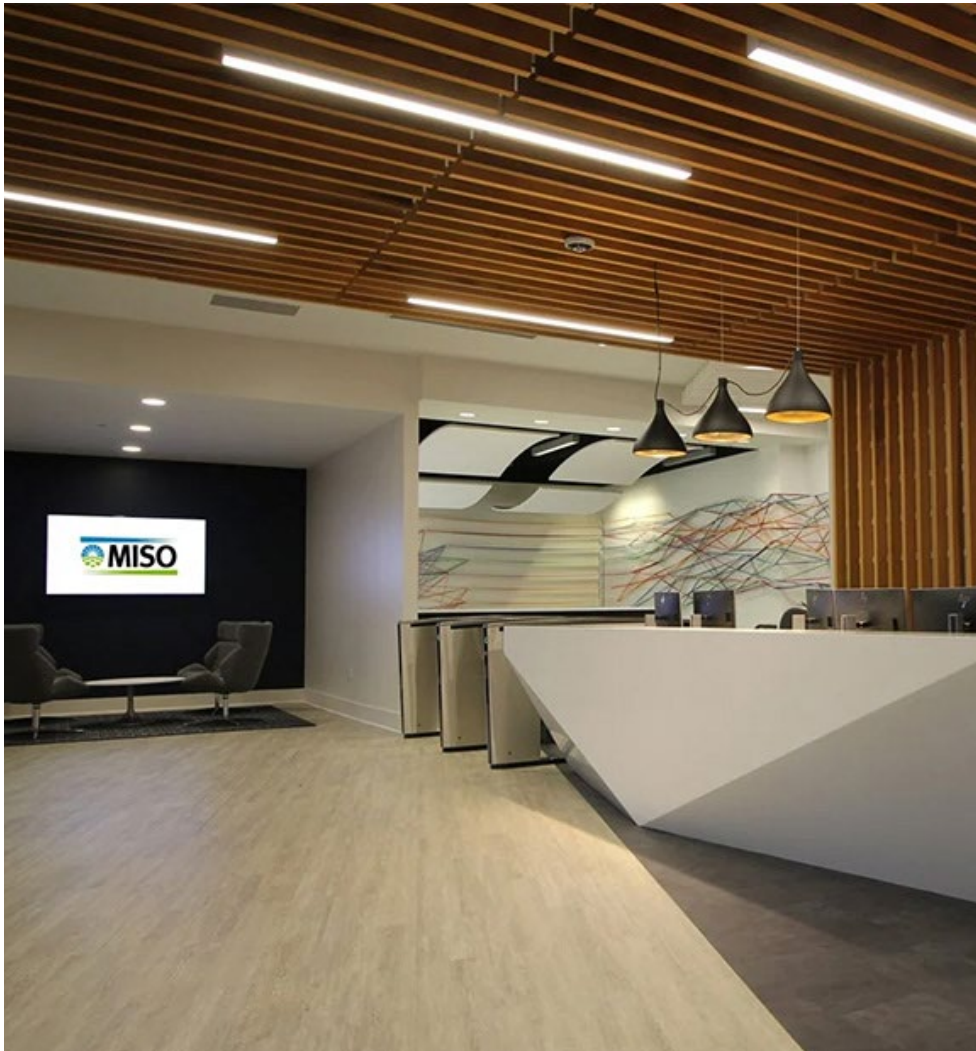
At stakeholders' request, MISO will allow mid-year capacity accreditation for new resources that will serve as replacement capacity.

## CONE Goes Up

MISO has upped its cost-of-new-entry (CONE) for generators heading into the 2023-2024 planning year.

The highest *CONE value* is in eastern Missouri's Zone 5 at a little more than \$300/MW-day, the first time it has crossed that threshold. The lowest value can be found in East Texas and Louisiana's Zone 9, at \$257.75/MW-day.

MISO said CONE values swelled on "significant increases in base project capital costs and the weighted average cost of capital." It said it used actual and expected inflation estimates to calculate the estimates. ■



MISO's lobby at its Carmel, Ind., headquarters | MISO

# NYISO News



## Study: NYISO Dynamic Reserves Could Lower Congestion, Costs ISO Continues Work on CRIS Proposal

By John Norris

NYISO's proposed dynamic reserve requirements could result in significant changes in transmission flows and reduced costs, according to the findings that FTI Consulting presented to the NYISO Installed Capacity Working Group (ICAPWG) earlier this month.

FTI's Scott Harvey described how each element of the dynamic reserve design, first published in a white paper in December 2021, could result in reduced costs of meeting load, while maintaining reliability and meeting reserve targets.

The ISO's project was conducted to see if dynamically scheduling reserve requirements or procurements for generators could support New York's Climate Leadership and Community Protection Act (CLCPA) by allowing more economic clean energy to be imported into the state, which would better align market outcomes with system operations. (See [NYISO Exploring Dynamic Reserves](#).)

NYISO's existing operating reserve requirements are static; the white paper argued that a dynamic approach would "allow for appropriate reserves to be procured to cover the largest contingency," while also allowing "for more reserves to be scheduled in cost-effective areas to meet the reliability needs," which has become increasingly important as more intermittent generators are installed.

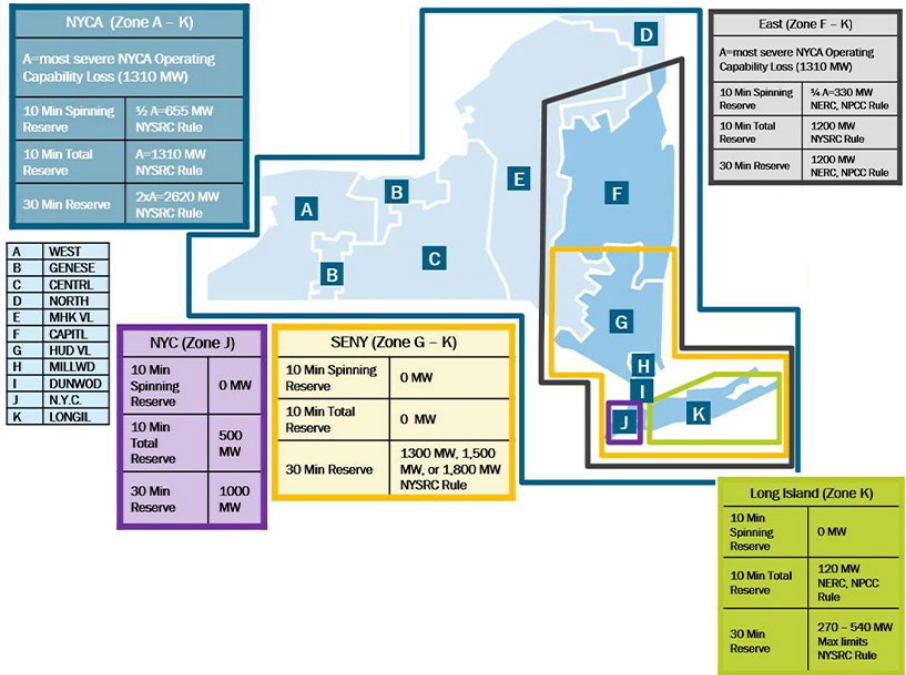
FTI's study highlighted how dynamic reserve requirements can save money by replacing imported megawatts during periods of constraint with those directly from generators in load pockets.

Mark Younger, president of Hudson Energy Economics, commented how the proposal "is a pretty significant change from how things are currently done," as it would "make contingency based on the actual loading of the unit rather than its capacity," which he believes the ISO should make "very clear to stakeholders."

FTI plans to return later in the year to share more examples of how dynamic reserve requirements will impact the system, including instances where intermittent resources are in load pockets.

### Tariff Revisions on CRIS

NYISO also continues to work on proposed tariff revisions that would modify its rules for



Current operating resource requirements within NYISO | NYISO

deactivated facilities with unexpired capacity resource interconnection service (CRIS).

The ISO's Juan Sanchez told the ICAPWG that stakeholder feedback received on the tariff revisions discussed at previous meetings were mostly requesting additional "clarification around the rules." The project is investigating ways to tighten the rules for CRIS retention where it is not fully utilized, while also increasing capacity deliverability headroom and potentially lowering the cost of market entry for future facilities. (See [NYISO Proposes Changes to CRIS](#).)

NYISO wants to modify the rules and processes for deactivated facilities with unexpired CRIS by allowing them to voluntarily relinquish their full CRIS at any point in time simply by notifying the ISO. It would develop a standardized notification form, which, once received, would prompt it to stop including the facilities in future deliverability studies.

The revisions would also expire partial CRIS rights for transmission facilities limited from using their full CRIS because of physical limitations in neighboring control area systems. This provision would apply to transmission facilities that are not meeting ISO procedures because their net megawatt output is not reaching full capability, reducing their CRIS to the maximum

monthly amount of energy demonstrated during a consecutive three-year period starting from initial synchronization.

They would also allow for same-location CRIS transfers to have the same flexibility as those between different locations. Units in the process of shutting down, or mothballing, would be allowed to transfer part or all their CRIS to a same-location facility even while the unit is deactivating.

Doreen Saia of Greenberg Traurig raised the point that the revisions need to take physical withholding rules into account because there will be facilities "not necessarily retiring until some future point" but are remaining on the grid for the near future and requesting CRIS transfers.

Saia argued that a challenge will emerge when the ISO "puts their marker in the sand to do a physical withholding assessment" and there will be units whose reliability status is unclear but are requesting an "ex ante determination," making forecasts unclear for stakeholders.

NYISO will return to a future working group meeting to share any additional feedback it receives from stakeholders concerning the new tariff language. It asks that all comments be emailed to Sanchez ([jsanchez@nyiso.com](mailto:jsanchez@nyiso.com)). ■



# NYISO News

## NYISO 10-kW Min. for DER Aggregation Participation Rules Stakeholders Phase 2 Study on Ramp Rates also Presented

By John Norris

NYISO stakeholders on Oct. 7 responded negatively to the ISO's *proposal* for a 10-kW minimum capability requirement for individual distributed energy resources to qualify for participation in an aggregation.

Although most proposals discussed at the Installed Capacity Working Group (ICAP-WG) meeting did not elicit reactions from stakeholders, NYISO's 10-kW DER minimum requirement proposal generated significant pushback.

The ISO argued that the proposal would help DER market implementation, save staff time reviewing aggregations for interconnection and enable it to fully integrate new software and internal procedures to comply with FERC Order 2222. (See [NYISO Proposes 10-kW Min. Capability Req for DERs in Aggregations](#))

Stakeholders, however, took exception to the ISO's language that they would "explore" lowering the minimum capability requirements later after getting experience and a better understanding of DER penetration versus directly promising to lower the minimum capability later.

Chris Hall, of the New York State Energy Research and Development Authority, summarized the main concern, arguing that, with average size of residential storage resources at 7 kW, the "provision essentially eliminates all of these residential assets from participating." Though NYSERDA is "sympathetic to the ISO's limitations," it is "deeply troubled by this proposal," he said.

Adam Evans of the New York Department of State agreed with Hall's assessment, stating that "folks at the DPS who are close to these types of resources have been hearing that this proposal would pretty much eliminate residential participation." NYISO's intention should be to "get more resources to participate" and that putting "a barrier right from the get-go" was inadvisable, he said.

David Skillman of Sunnova Energy echoed these complaints, saying how his company's fleet consists of resources between 6 and 8 kW, meaning they would not be able to participate in aggregation. That, he said, "flies in the face of FERC 2222," which was established to "give the small guys a chance to play on the same field as the big guys."

Aaron Breidenbaugh of CPower shared how recent conversations he had at the Advanced Energy Management Alliance indicated that there was "pretty significant concern about the potential disenfranchisement of an entire customer class" and suggested that NYISO change the language of "explore."

Other tariff revisions or modifications were collectively proposed to clarify existing rules and processes.

These included making no aggregation types eligible for the NYISO Station Power program, accommodating retail charging rates for aggregations and clarifying several rules in the ISO's Market Administration and Control Area Services tariff.

The ISO intends to return to an upcoming ICAPWG meeting to further review the draft language and then expects to seek approval from Business Issues Committee and Management Committee later this year. It would then file the proposals with FERC for an anticipated implementation in 2023.

Comments or questions should be sent to [DER\\_Feedback@nyiso.com](mailto:DER_Feedback@nyiso.com).

### Study Results on Ramp Rates

Also during the ICAPWG meeting, NYISO Principal Economist Nicole Bouchez *presented* the results of a study examining the differences in expected ramp-up and ramp-down rates as the grid undergoes rapid transition, the impact of seasonality impacts and the rate of growth as more intermittent resources are added.

The study is part of Phase 2 of the ISO's larger Grid in Transition Study, which is based solely on the 20-year forecasting System & Resource Outlook. (See [NYISO 20-Year Forecast Highlights Generation, Tx Hurdles to Climate Goals.](#))

The ISO examined two policy cases listed in



Distributed energy resources across the grid | *The Clean Coalition*

the outlook for the years 2030 and 2040, calculating their ramp rates, average number of ramp hours per event and hourly percentiles to better show distribution of the rates.

Bouchez pointed out that initial findings "qualified as having no real observable trend" in the number of hours ramped over time, and that if anything, one could "posit that ramp-down events are a little bit longer, but even that is difficult to say."

However, when NYISO examined how many megawatts there are in those ramp periods, it found that the ramp rates were "amplified" in magnitude over time as "more and more installed capacity of renewable resources" were added.

More important, Bouchez said, the ISO found that although ramp events are normally distributed over time, the average ramp megawatt is impacted across the seasons.

For Case 1 there were less ramp up and down needs in the shoulder seasons. Case 2 had more ramp needs in the winter, while both the summer and shoulders were similar.

Bouchez stated that the findings will be included in a white paper that the ISO expects to present in draft form either in late October or early November, after which there will be a stakeholder comment period of three to four weeks. She also said that any related market changes or additions will be studied in next year's Balancing Intermittency Project, which will use the data presented at the meeting for structure. ■

## PJM News



# NJ Bill Would Require Pension Divestment from Fossil Fuel Companies

## Senate Energy Committee Advances Bills on EVs, DERs

By Hugh R. Morley

New Jersey pension funds would be forced to divest from the largest 200 publicly traded fossil fuel companies under a controversial bill approved by the state Senate Environment and Energy Committee last week as the fall legislative session gathered pace.

The bill was one of five clean energy bills heard by the committee Thursday, including one that would stipulate how much time electric vehicle chargers installed with state incentives should be available for use, and one that would require utilities to plan for the growth in the use of distributed electric resources.

The committee voted 3-2 along party lines to move the disinvestment bill, [S416](#), forward, sending it the Senate Budget and Appropriations Committee. The legislation, which has not moved in the General Assembly, would require the State Investment Council and the director of the Division of Investment

to divest any stock, debt or other security investment from companies with large oil, gas or coal reserves within 12 months of the law's enactment.

The Division of Investment manages seven public pensions that support the retirement plans of more than 800,000 members with a total, as of May, of \$92.9 billion.

"What's proposed here is sending a signal to the fossil fuel world and industry that we've got to find different ways to live and you, the companies that produce these fossil fuels, have to help us," said committee Chair Bob Smith (D), who sponsored the legislation. He acknowledged that it is a "controversial bill."

Sen. Edward Durr (R), who voted against the bill, said he feared that enacting the legislation would have "unintended consequences."

"I think our voice is greater when we are invested into a company, and we have leverage," he said. "Plus I believe it sends a signal of [the

government] picking winners and losers, and I disagree with that."

The bill's advance comes nearly a year after the State Investment Council codified a strategy to pressure the companies it's invested in to reduce their emissions, including an in-house assessment of emission-reduction efforts across its entire portfolio and participation in shareholder pressure tactics. (See [NJ Pension Fund Backs Climate Strategy](#).)

Opponents of the bill include the American Petroleum Institute; the New Jersey Society for Economic, Environmental Development; and the New Jersey Chamber of Commerce. Supporting the bill are environmental groups Clean Water Action, Environment New Jersey and the League of Conservation Voters.

"We live in a capitalist society," said Ed Potosnak, the league's executive director. "And one of the ways that we shift what corporations do is by voting with our wallets."

By disinvesting, the state would send a message to fossil fuel companies that "we want you to succeed ... in a future that is ever increasingly ravaged by the effects of climate change" by adopting a "new operating model," he said.

But Dennis Hart, executive director Chemistry Council of New Jersey, said the "short sighted" bill "removes New Jersey from influencing the direction of the fossil fuel industry." He said the state's corporations are already working hard to develop new technologies that will help mitigate climate change, and selling shares would take "the state away from the ability to influence these companies."

"It's similar to somebody saying, 'I decided not to vote because I'm sending a personal message,'" he said. "I think that's a bad policy."

Raymond Cantor, a lobbyist for the New Jersey Business & Industry Association, noted that the pension fund is already underfunded, and now is the wrong moment to do "anything other than making sound investments."

"From a fiduciary responsibility, the state should be making sure that its pension is invested in sound, legal investments, and should not be taking public policy and these types of concerns into the equation," he said.

Barbara Powell, co-chair of Divest NJ, which was formed to push for the reduction in the pension fund's investment in fossil companies, said the profits from the companies are a "neg-



New Jersey state house in Trenton, N.J. | Shutterstock



# PJM News



ligible” part of fund returns.

“Staying invested in a sector whose days are numbered is not a fiduciarily responsible policy,” she said.

## Meter Collar Adapters

The committee also unanimously approved a bill, [S3092](#), that would require electric public utilities to authorize the installation and operation of meter collar adapters.

The small electronic device, which is installed between a residential electric meter and meter socket, facilitates the deployment and inter-connection of an on-site electric generation source. That enables the customer to isolate their load and use backup power.

The bill would require an electric utility to approve or disapprove a meter collar adapter for installation in its service area within 60 days of a manufacturer submitting a request.

Zachary Kahn, senior policy adviser for Tesla, said that no utility at present allows the use of meter collar adapters, and he urged the committee to approve the use of a device that he said would simplify and speed up the process of installing residential storage and backup power.

“Meter collar adapters provide an immense opportunity to expedite the clean energy transition by allowing energy storage, solar and even EV chargers to be installed in a fraction of the time and at a fraction of the costs at residences,” he said.

The committee also unanimously backed legislation, [S3102](#), that would direct the New Jersey Board of Public Utilities (BPU) to require that any electric service equipment installed with a state incentive should be operational 95% of

the time. The BPU would have to develop and implement a process of monitoring incentive recipients to ensure that they are compliant.

Committee Chair Smith, a bill co-sponsor, said the bill stemmed from a media report that some chargers are “out of commission” 60% of the time.

“That’s unacceptable,” he said. “So this bill sets the standard for the uptime, meaning that it has to be working a certain percentage of the time to get any kind of government support.”

However, Nicholas Kikis, vice president of legislative and regulatory affairs for New Jersey Apartment Association, said that 95% is “too high.” The operators of chargers that do not reach that standard would get 18.5 days to reach the required uptime “or the incentive could be clawed back,” Kikis said. Such a penalty, he added, could dissuade people from seeking government support and so reduce the development of new chargers.

That issue is especially concerning given the state’s goal that by 2030 EV chargers be installed in 30% of all multifamily apartments, he said. “There’s right now insufficient incentives” to reach that goal, he said.

## Preparing for Distributed Power Sources

Finally, the committee approved a bill, [S2973](#), that would require electric utilities to submit integrated distribution plans (IDPs) to the BPU. Such a plan, developed by the utility, outlines the physical and operational changes to the transmission and distribution system needed to adapt to the use of DERs.

Introducing the bill before a unanimous vote, Smith said that the reason for creating an integrated distribution system is that it “makes for a stronger grid.” It would first require the BPU

to develop criteria for the IDPs, and utilities would have to submit them within a year.

The bill, which Smith co-sponsored, has not moved in the Assembly. It is supported by Environment New Jersey and the Natural Resources Defense Council and opposed by the New Jersey Utilities Association.


Also opposing the bill, the New Jersey Division of Rate Counsel argued that the timeline for review of the IDPs is too short — 90 days — and includes a “lack of stakeholder involvement.”

In addition, the Rate Counsel said in an Oct. 5 letter to the committee, the bill should take the BPU process into account more.

“Rate Counsel would prefer sufficient time for thoughtful deliberation of the issues involved in the IDP approval process,” it said. It also “believes the board and stakeholders should be afforded no less than 180 days of review and approval of the submitted IDPs.”

The Rate Counsel also planned to oppose a second bill, [S2978](#), that would revise the state’s renewable energy portfolio standards out of concern that it would be expensive for ratepayers. However, the bill — which has not advanced in either the Senate or Assembly — was pulled by Smith, the primary sponsor, who concluded after receiving stakeholder input that “it needs some adjustment.”

The bill would revise the RPS requirements for Class I renewable energy, starting in 2030. It also would require that after 2030, at least 50% of the renewable energy certificates used by an entity to satisfy the RPS requirement for Class I energy be generated in New Jersey. In addition, the bill would require that from 2045, 100% of energy sold at retail in the state would be from Class I renewable sources. ■



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## PJM News



# Coaltrain Agrees to \$4M Settlement with FERC over UTC Trades

By Devin Leith-Yessian

Pennsylvania-based Coaltrain Energy has agreed to pay \$4 million in disgorged profits to resolve a FERC investigation into accusations that the company engaged in market manipulation in the course of its up-to-congestion transaction (UTC) trading in 2010.

In its order approving the stipulation and consent agreement issued Oct. 11, FERC said the company “had engaged in market manipulation by placing UTC trades for the sole or primary purpose of collecting marginal loss surplus allocation (MLSA) payments, rather than to profit from price changes.” Under the agreement, Coaltrain neither admits nor denies the alleged violations (*IN16-4*).

In a 2016 Order to Show Cause, FERC alleged that in 2010, the company shifted from legitimate UTC trading — in which companies aim to predict the changes in spreads between PJM’s real-time and day-ahead markets — to profiting off PJM’s MLSA alone by minimizing the UTC price spreads and collecting refunds of a portion of the transmission loss charges from PJM. (See *FERC: Spy Software Provides Evidence of UTC Scam*.)

MLSA is designed to account for the loss of electricity as it is transmitted between its source and sink; traders receive rebates proportionate to megawatts delivered. FERC alleged that Coaltrain made trades between nodes in both directions to simply collect the rebates.

The agreement marks the last of three investigations FERC launched over allegedly manipulative UTC trading in PJM. In each case the commission said traders used risk-free strategies designed to maximize line-loss rebates from MLSA, instead of trying to predict

price spreads between the RTO’s day-ahead and real-time markets. (See *Trader Agrees to Pay \$2.7M in Win for FERC* and *Powhatan Energy to Declare Bankruptcy*.)

FERC also accused Coaltrain of providing “false and misleading statements to [FERC Office of] Enforcement staff about the existence of records created by employee monitoring software.”

That charge stems from investigators learning of employee-monitoring software that captured evidence of trading and messaging, which was provided by a former Coaltrain employee. FERC claims that the company concealed information about the software and did not make access readily available; the company had said in its March 2016 response to the show-cause order that it hadn’t occurred to staff that the software contained information relevant to the investigation. (See *Traders Deny FERC Charges; Seek Independent Review*.)

In addition to Coaltrain itself, the agreement also lists co-owners Peter Jones and Shawn

Sheehan and traders Robert Jones, Jeff Miller and Jack Wells as defendants in the case. In the show-cause order, FERC had previously sought more than \$42 million in civil penalties from the company and individual defendants.

The fine is to be split into five disgorgement payments to PJM over the same number of years, which the RTO will distribute to its members in a manner to be approved by the commission. Should the provisions be abided by, the agreement will end a 2016 lawsuit FERC filed against Coaltrain in the U.S. District Court for Southern Ohio.

The agreement notes that while FERC’s investigation into Coaltrain will cease, there could be additional sanctions still to come.

“Coaltrain acknowledges and agrees that this may subject it to additional action under the enforcement provisions of the FPA, which in turn may result in additional sanctions separate and apart from the \$4,000,000 restitution payment required to be made by Coaltrain pursuant to this agreement.” ■



FERC headquarters in D.C. | © RTO Insider LLC

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# SPP News

## Non-standard Loads Becoming an Issue in SPP

*Strategic Planning Committee also Discusses Western Market Developments*

By Tom Kleckner

An *ad hoc* group in SPP's Strategic Planning Committee, tasked with advising the committee on "non-standard loads," said last week that the RTO's tariff is based on a wholesale/retail regulatory regime and, therefore, can handle the potentially interruptible load interested in interconnection.

Staff said SPP has received 56 requests for delivery point changes totaling 7.1 GW of capacity since June 2021, primarily for data centers and cryptocurrency miners. While they are the most familiar non-standard loads, others include server farms, biofuel manufac-

turers and hydrogen electrolyzers.

"And our favorite, the cannabis growhouses, especially in Oklahoma, where it's very legal to do that for recreational purposes," SPP's director of market policy, Richard Dillon, said during the SPC's virtual meeting Wednesday.

These loads represent significant potential firm or non-firm additions. Staff determined that stranded transmission costs, resource

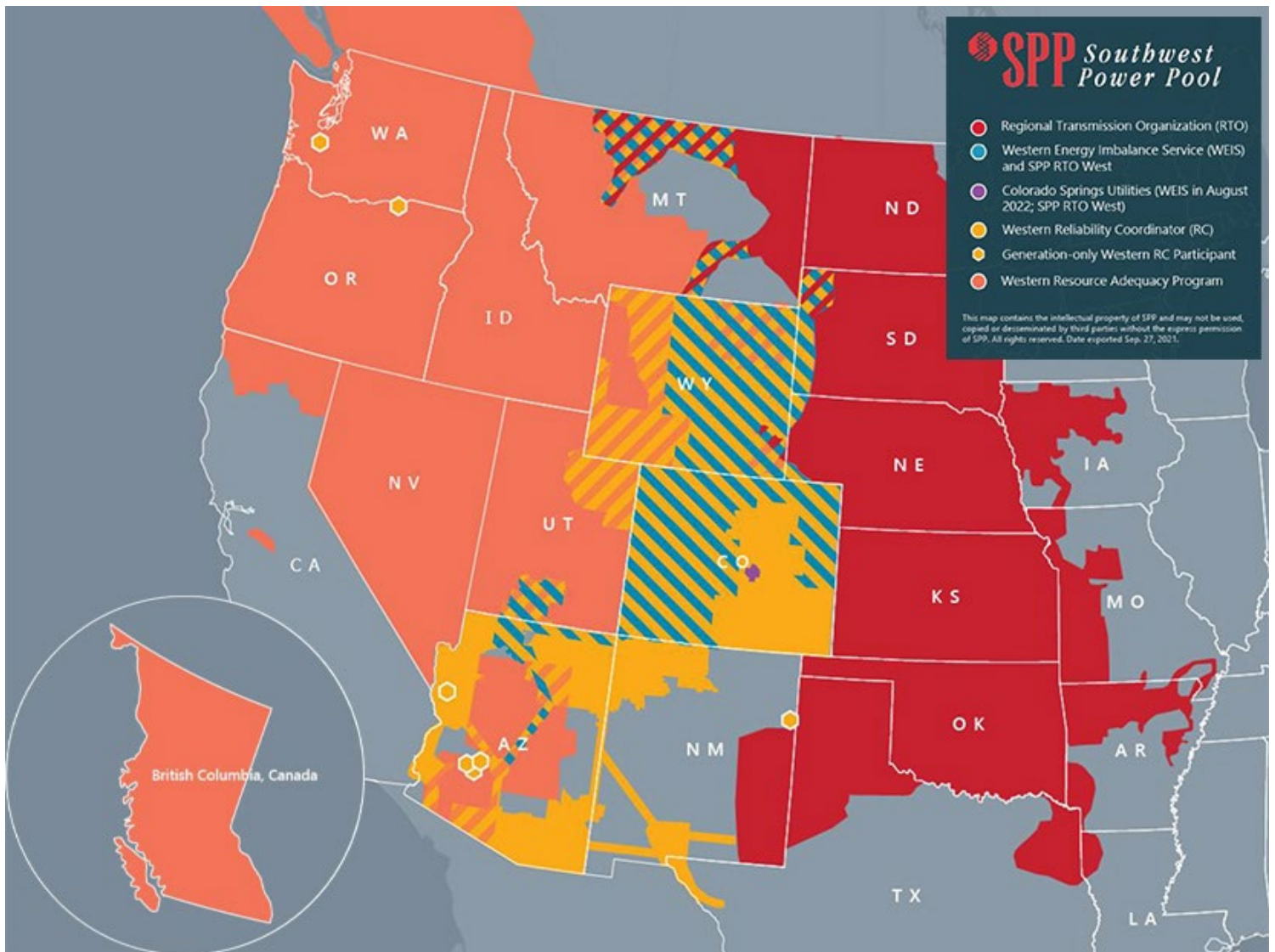


Richard Dillon, SPP | © RTO Insider LLC

adequacy and whether the loads would be considered interruptible or demand response were all significant issues.

"There was a lot of concern about what happens if these loads come on and then disappear," Dillon said. "These are major concerns for load-serving entities because ultimately, they will be comparing costs with those decisions."

He said many of the loads interesting in the SPP market are trying to sidestep being considered retail load in a footprint that is devoid of retail competition. Some of the inquiries are trying to co-locate with renewable generation



SPP's Western and Eastern Interconnection footprints | SPP

# SPP News

and net out the load with generation where both the load and the generation is behind the meter.

“The discussion with those entities has been, ‘OK, so you’re going to put in controls that automatically cut power off in microseconds, the moment that the renewable generation drops,’” Dillon said. “Thus far, no one has taken us up on that scenario, because crypto miners make money by burning electricity. If they’re down, they’re not making money.”

This has raised members concerns about resource adequacy and stranded costs because of the loads’ uncertainty. Southwestern Public Service’s Jarred Cooley said his company has been fielding several calls a week from loads, some as large as 1,400 MW, interested in connecting to its system.

“One of the key issues here is the transient nature of the loads and the likely need for significant transmission investment,” he said. “We’ve talked at the point of interconnection that’s between us and our load and us and our customers and figuring out how to properly protect them or how we charge those based on our state jurisdictions.

“These loads, we don’t expect them to be transmission investments that are going to be paid for,” Cooley said.

Dillon was unable to offer solutions but suggested members take advantage of this week’s Market Working Group meeting for an in-person discussion of the issue. He said the MWG will revisit a draft revision request (RR521) that clarifies the tariff’s DR and net metering provisions.

## SPP Staffing up in West

Bruce Rew, SPP’s senior vice president of operations, told the SPC that the grid operator’s *efforts in the Western Interconnection* remain on track.

Seven Western entities are continuing to evaluate membership in SPP’s RTO West, he said. They face a commitment target date of March 1, 2023.

“Once that begins, they will move forward with the RTO transition and everything associated with that,” Rew said.

Markets+, an RTO “light” service offering, is also on schedule to receive commitments from interested parties next year. A final develop-

ment session is being held in Westminster, Colo., in November.

The development of RTO West and Markets+ will be funded by the participants, but Rew said SPP has still hired more than 40 staffers to support those and other efforts.

“We would hire additional staff based on the implementation effort and long term effort for supporting the RTO expansion,” Rew said. “We will ultimately go to receive approval of the budget once we have a final commitment from those parties and know exactly what size and scope that we’re dealing with. We will add additional staff should we receive a long term commitment to RTO West or Markets+.”

## Cupparo Joins Committee

SPC Chair Mark Crisson welcomed Director John Cupparo onto the committee as a replacement for Director Susan Certoma, who will chair the Board of Directors next year.

Cupparo will replace Crisson, who is cycling off the board next year, as the committee’s chair.

“A lot of important things come through here. I look forward to working with everyone,” Cupparo said. ■

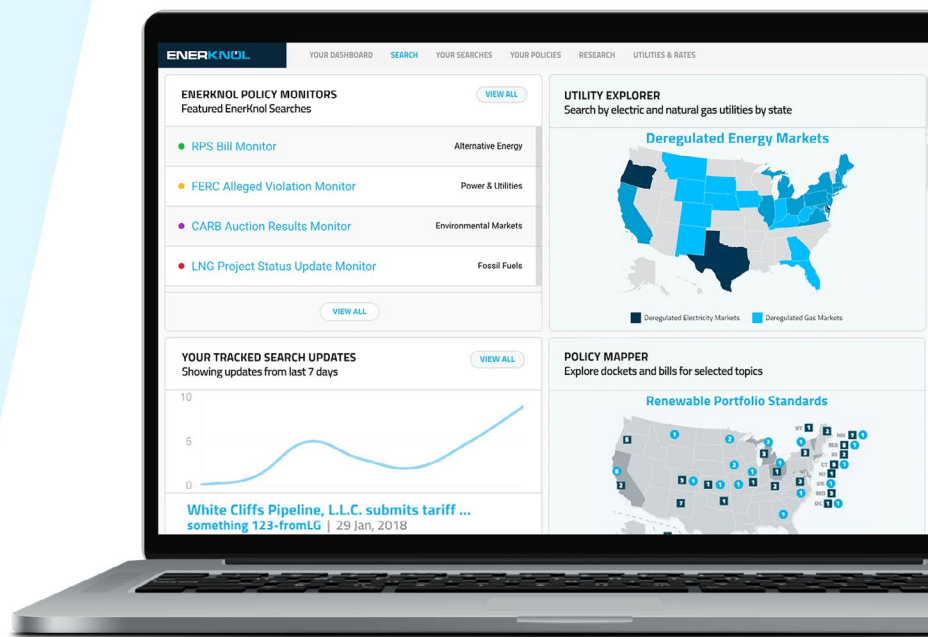
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## SPP News

# SPP Markets and Operations Policy Committee Briefs

## Staff Takes Hybrid Approach to Improving Congestion-hedging Processes

SPP told stakeholders last week that it has chosen a hybrid approach to improve its transmission- and congestion-hedging markets, focusing first on equitably allocating congestion rights instruments and then increasing the pool of awards available.

The proposal marks a change in direction from the initial focus on counterflow optimization. Stakeholders were unable to coalesce around the market mechanism despite three years of effort.

The SPP Board of Directors in April directed staff to survey members, the regulatory stakeholder groups and the RTO's Market Monitoring Unit (MMU), gather feedback, and bring a final recommendation to the board's October meeting. (See "Counterflow Optimization Not Dead Yet," *SPP Board of Directors/Markets Committee Briefs: April 26, 2022.*)

Staff will bring a proposal to the board later this month, but they will also ask that a vote be delayed until the directors meet again in January. That will give the board and state regulators an opportunity to provide the policy direction that will go into developing tariff changes. It will also give staff more time to build stakeholder support for the proposal and gather additional feedback.

"I know the board values input from the members, but we feel that this is taking a look at the entire picture and not just focusing on one thing," COO Lanny Nickell told the Markets and Operations Policy Committee Oct. 10. "We feel pretty confident and pretty good on the direction where we're going."

Nickell complimented staff for their recent work "to get some movement on resolving the concerns and issues around the congestion-hedging process." Congestion-hedging supervisor Micha Bailey said staff talked with stakeholders who provided input to gain a deeper understanding of their concerns.

"We kept hearing some of the same themes ... Fair, transparent, equitable, needs to provide a hedge. And as we looked at those and as we were hearing the same common themes, we wondered, 'What can staff propose?'" Bailey said. "What can we propose that's going to help SPP today and also in the future, recognizing that generation is changing."

Bailey said "hybrid" was the new buzzword, replacing counterflow optimization. That market



Micha Bailey, SPP | © RTO Insider LLC

mechanism, which keeps system transmission flows between two points in balance, was meant to address concerns about how congestion rights instruments are awarded and the current process's efficiency. (See *SPP Continues its Counterflow Optimization Work.*)

The hybrid proposal will increase the number of hedges available as the Holistic Integrated Tariff Team intended when it approved a package of 21 improvements to the SPP grid in 2019, Bailey said.

"We're going to increase equity and fairness within the congestion-hedging process," Bailey said. "We're focusing on bringing those who are getting nothing up right. When you introduce equity, some entities [receiving hedges] ... have to give up some to allow other entities to come in. We need to focus on a short-term solution that that will help entities that are getting nothing get something."

He compared the current process to a buffet line, where excess auction revenue is distributed to participants, who already have hedges, in what amounts to a load-ratio share.

"You're double dipping ... at the end of the year, you're getting something on top of what you want," Bailey said. "In the buffet line analogy, which we've heard time and time again, you're going two to three times in the buffet line. Those sitting with empty plates at the end of the year, they're the ones who should be getting the ARR excess revenue."

Staff's recommendations include:

- Resetting long-term congestion rights (LTCR) awards every 10 years to give mar-

ket participants more opportunities to gain the hedges.

- Modifying the LTCR's second round of nomination capacity from 100% to a more equitable incremental percentage up 100%.
- Changing the auction revenue rights (ARRs) process' annual first round nomination capacity calculation to more fairly allocate ARR.
- Revising the ARR's first round nomination capacity from 50% to an incremental percentage up to 50%.
- Distributing excess auction revenues.

SPP also plans to update its load and generator modeling to better align them with transmission service that is studied, review the planning process' firm transmission assumptions, and provide further stakeholder education.

"We need to involve the upstream applications from congestion hedging because congestion hedging starts with firm transmission service," Bailey said.

While stakeholders generally expressed support for the proposal, American Electric Power's Richard Ross, who chairs the Market Working Group that put a lot of time and effort into resolving the issue, offered a counterpoint.

"I don't hold out much hope for the stakeholders suddenly going, 'Oh yeah. This is great.' But, you know, we'll see," he said, offering his own praise for staff's work.

MMU Executive Director Keith Collins said the hybrid proposal addresses the monitor's concerns and is a good package.

"There's no silver bullet in this process. The approach that Micha is outlining is like a scattershot approach ... but it applies that basic set of points that Micha raised of how we improve the equity so that we can improve affordability," Collins said. "We reduce the effects of the buffet line. You want people to go through the line and if you can do that at least a couple of times, you'll allow folks to be able to get more if you're at the back of the line."

### Members Address Resource Adequacy

MOPC approved five revision requests (RRs) related to resource adequacy and a planning reserve requirement (PRM) that the board

# SPP News



and state regulators recently raised from 12% to 15% for the summer season, effective next year. (See *SPP Board, Regulators Side with Staff over Reserve Margin.*)

The committee had to first reconcile competing versions of a revision request (*RR515*) that lays out the process by which load-responsible entities (LREs) may qualify for and receive exemptions of the deficiency payments assessed to those that have not met the tariff's resource adequacy requirement, if they have met the applicable criteria.

Members eventually sided with the version brought forward by the Supply Adequacy Working Group (SAWG), which allows a three-year exemption from a deficiency payment and adds triggers if the PRM was increased the year before. To qualify, LRES must demonstrate they had adequate capacity to meet the resource adequacy requirement based on the prior effective PRM and show enough capacity to meet the upcoming season's forecasted load and a prior effective PRM.

Under SAWG's version, LREs meeting the PRM, must demonstrate that as of April 5 of the current year, sufficient capacity for purchase has not been identified on bulletin board or demonstrate a contracted obligation to purchase capacity from a generator/developer or demonstrate it has a pending request for interim, surplus or replacement generator interconnection service that is of sufficient size.

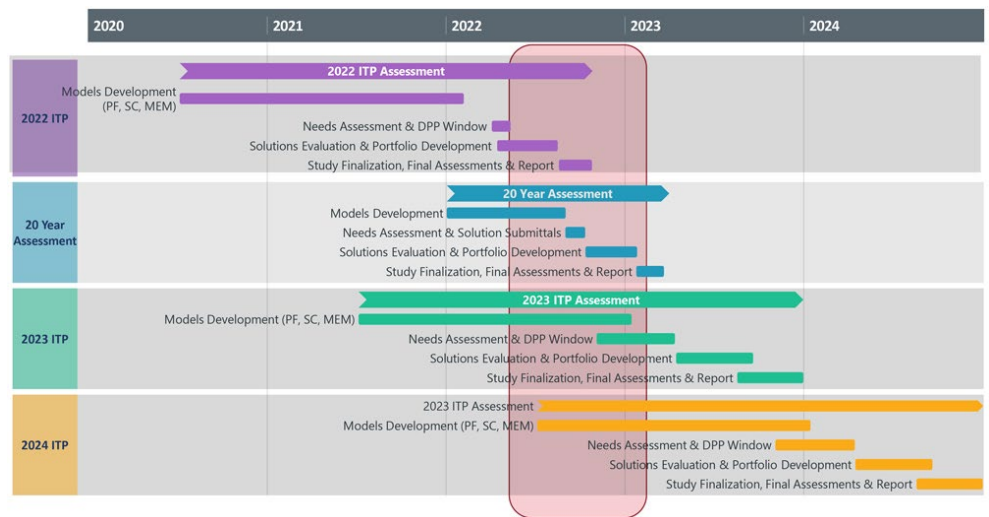
The Cost Allocation Working Group, comprised of regulatory staff and which reports to the Regional State Committee, offered the same language, with the exception of using "and" instead of "or" before "demonstrate it has a pending request ..."

The motion to endorse *RR515* cleared the two-thirds threshold at 72.5%.

Casey Cathey, SPP's director of system planning, said staff has already begun developing the principles for deficiency payment exemptions.

"[The exemption] needs to be realistic and must support reliability improvements," he said. "We need to ensure the policy meets the proper incentive for the reserve margin. When it's increased, we need to make sure we're still sending the right signal for reliability purposes. We want to create a positive policy that FERC would agree to and approve."

A bulletin board for informational purposes only will be developed so LREs and generation owners can view and post requests to buy or offers to sell power. All information on the board will be confidential, with only the MMU



SPP has four ITP studies in process. | SPP

having the rights to review the data.

SPP bases its reserve margin requirement on a probabilistic loss-of-load expectation (LOLE) study during summer months that is performed every two years to determine the capacity needed to meet the reliability target of a one-day outage every 10 years (0.1 days/year).

Stakeholders also approved *RR508*, which allows LREs to use deliverable capacity to meet their winter season obligation as well. SPP said with more LREs seeing increased loads in the winter season and some becoming winter peaking, it became apparent that the LREs should be able to use the same method to meet their winter obligations.

MOPC also endorsed three other RRs:

- *RR513*: Removes barriers to requesting surplus interconnection service by permitting expansion of existing substations to a location near enough to be considered part of the existing substation. Equipment additions required at the interconnection substation classified as network upgrades would not invalidate the request and would further permit added or modified "system protection equipment" at a remote substation.
- *RR516*: Implements the planning reserve margin's increase from 12% to 15%.
- *RR517*: Creates a business practice documenting SPP's consideration of a long-term service reservation as evidence that interim interconnection service or interconnection service subject to limited operations associated with a long-term service reservation causes no adverse thermal or voltage impacts to the transmission system. It also

documents that the generating facility can continue to operate, provided there are no adverse short-circuit or stability impacts.

RRs 508 and 513 passed together unanimously and *RR517* passed with 93% approval. *RR516* barely passed at 67.9% approval, although it simply adds the 15% PRM to the tariff. AEP opposed the proposal during the SAWG vote, saying imposing an immediate 25% increase to the LRE reserve margin, given SPP's generator interconnection queue backlog and other challenges faced by LREs, "sets a dangerous precedent and represent a poor implementation of capacity rules changes."

## Members Endorse 2022 ITP

MOPC approved a pair of working groups' recommendation to endorse the 2022 Integrated Transmission Plan and its assessment report. The 2022 assessment report documented the 2022 plan as being complete.

The Economic Studies (ESWG) and Transmission (TWG) working groups said the reliability-only portfolio is smaller than previous ITP plans, thanks to the \$3.4 billion in new transmission projects being placed in service between 2015 and 2019. The 17-project, \$35.4 million plan solves 25 system needs in rebuilding 11 miles of transmission but will not result in any new transmission.

The 2022 study was re-baselined in April to get back on schedule by only performing the reliability assessment. (See "Tx Planning Changes Pass," *SPP Markets and Operations Policy Committee Briefs: April 11-12, 2022.*)

During the re-baselining process, staff worked with the ESWG and TWG on a comprehensive review of the ITP's governing documents to



# SPP News



find efficiencies and improvements to help meet future assessment deadlines. The work resulted in four to six weeks of time savings.

SPP staff is currently juggling three other planning studies: the 20-year long-term assessment and the 2022 and 2024 ITPs. The 20-year assessment is the only study that is still behind, and that is only by one month. Staff said they will have to reduce scope to meet its April 2023 deadline.

Cathey complimented the ESWG for developing 2024 ITP futures that reflect industry trends in arriving at realistic renewable energy projections.

The stakeholder group's base case foresees solar capacity growing from 7.1 GW to 14 GW between years five and 10 and wind increasing from 43.8 GW to 49.9 GW. Its emerging technologies future has greater projects of 11 GW to 22 GW and 48.2 GW to 54.9 GW, respectively. The ESWG expects storage to grow to as much as 8.8 GW in 10 years, based on a percentage of solar capacity.

"For a number of ITPs, we feel like we've gotten better at hitting the future. That said, the last few cycles, we've been hitting 10-year numbers within two years," Cathey said. "We believe, especially given the Inflation Reduction Act and everything that's going on in the industry, that this is probably the first one that really is taking a leap. We're kind of all on board that this is a better prediction of what we're actually going to see in the next five to 10 years."

The ESWG evaluated more than 35 projections, using input from SPP's GI queue, the U.S. Energy Information Administration's annual energy outlook, and extrapolated 2022 ITP input from its members and the Market Monitoring Unit to arrive at its numbers.

The group plans to bring the final 2024 ITP scope document to MOPC in January for its approval.

Cathey also said the long-term assessment, due in the spring, should inform more of the assumptions that will be made in the 2025 ITP and in the consolidated planning process.

## Increasing BTM, DR Resources' Visibility

MOPC approved a pair of Operating Reliability Working Group (ORWG) revision requests designed to give SPP's balancing authority visibility into controllable, dispatchable, non-registered behind-the-meter (BTM) and demand response data, referred to as "cats and dogs" by some stakeholders.

The ORWG said *RR520* improves the BA's ability to forecast and measure non-registered, available demand response by analyzing data submitted daily from affected load-responsible entities (LREs). Under *RR512*, LREs will submit used and unused capacity on BTM resources that have qualified as accredited capacity that can be used to respond to emergency conditions.

The first change passed with 84.4% approval and 10 abstentions. *RR512* passed unanimously, also with 10 abstentions.

The RTO said its tariff exempts certain generations of small size from full market registration. Because some entities don't have the proper technology to meet market registration data requirements, SPP will allow data submission through its managed file transfer system but plans to also use its application programming interface before next February's implementation deadline.

"[Being] registered is key, whether through the market or modeled in [the energy management system], but it is not a requirement for all units

that are BTM," SPP's Yasser Bahbaz, director of markets development, told stakeholders. "If these resources are not registered, then we are not requiring or receiving telemetered information ... Your BTM units may be modeled in the reliability model but not registered. In this case, we still need to know about the info requested in these RRs."

"Knowing that capacity that's available is really important to SPP," he said.

"We need SPP's real-time visibility into what's out there," Nebraska Public Power District's Ron Gunderson, the ORWG's acting chair, said.

The changes are a result of the 2021 winter storm, which required SPP to rely on energy transfers from MISO to meet demand.

The MMU registered several concerns with the changes, saying BTM generation and demand response are not adequate for the grid operator to objectively apply its performance-based accreditation but would likely represent a small reliability risk. It disagreed with the grid operator's legal determination that adding the data requirements to the operating criteria results in enforceability and recommended better definition of various terms.

## GI Backlog Down to 405 Requests

Staff told MOPC that they have reduced the number of active requests in the *GI queue* down to 405 as of September, a 37.8% reduction since their backlog mitigation process began in January with 651 requests. SPP has eliminated 76 active requests since its last update to members in April. (See "Staff Reducing Interconnection Queue's Backlog," *SPP Markets and Operations Policy Committee Briefs: April 11-12, 2022*).

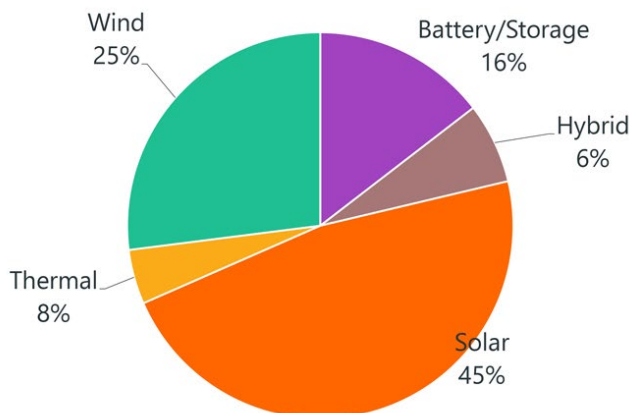
"We're happy with the progress we're making," the RTO's Juliano Freitas said.

More than 200 requests have been withdrawn, leaving 222 in progress and another 183 waiting to be processed. The grid operator has executed 33 GI agreements, with four more pending.

But SPP is still in a hole, though not as deep. Staff said they have received and validated another 82 GI requests totaling 17.7 GW of capacity since April. That leaves the current queue at 487 requests totaling almost 96 GW of capacity. Solar requests (210, 45.1 GW) account for the bulk of the new requests.

Freitas said the grid operator doesn't plan to close the current cluster until its finishes the backlog mitigation plan, still on schedule by the

GEN TYPE	Requests	GW Capacity
Battery / Storage	113	13.94 GW
Hybrid	30	6.44 GW
Solar	210	45.11 GW
Thermal	21	4.36 GW
Wind	113	25.84 GW
<b>TOTAL</b>	<b>487</b>	<b>95.69 GW</b>



Renewables dominate SPP's current generation-interconnection queue. | SPP

# SPP News

end of 2024. He said SPP is forecasting that it could install more than 50 GW of capacity by 2028.

“We have to keep our eyes on [the current cluster], because we don’t think it’s feasible to study a cluster with 100 megawatts in it,” he said.

## NASEB Gas-electric Forum Convened

Charles Yeung, SPP’s executive director of interregional affairs, encouraged members to engage themselves in a gas-electric harmonization forum recently begun by the North American Energy Standards Board.

The forum was *convened in August* at the request of FERC and NERC. The organizations want NAESB to address a recommendation from their 2021 joint report on the year’s winter storm that calls for improving the reliability of the natural gas infrastructure system in support of the bulk power system. The recommendation focuses on gas-electric information sharing regarding system performance, gas infrastructure reliability during cold weather, and generators’ ability to obtain fuel during extreme cold weather.

“Obviously, SPP alone cannot deal with those issues,” Yeung said, noting many of the items date back to a similar cold-weather event in 2011. “Some of these issues have been brought up before, but the perception of them has changed with the disaster in Texas.”

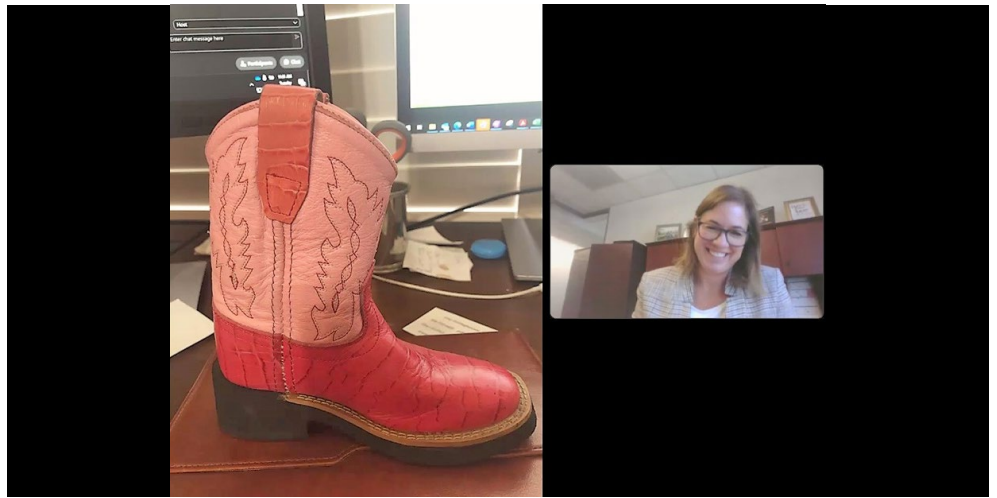
The forum is tasked with delivering a report that includes concrete actions to increase gas infrastructure reliability, detailed plans to implement the recommendations, and the entities responsible for deploying the changes. The group met for the first time in August and will continue to convene monthly into early 2023.

Among those involved in the forum are former FERC Chair Pat Wood and Department of Energy veterans Susan Tierney and Robert Gee, who, like Wood, also chaired the Texas utility commission.

## MOPC Chair Buffington ‘Honored’

AEP’s Ross, who hands out to staff and stakeholders eponymous “Gold Star” awards, complete with certificates of authenticity, unveiled a new “Richard Ross Boot Award” during the meeting.

Ross, jokingly saying he was “booted off” a recent stakeholder conversation, promised to send the first Boot Award to Evergy’s Denise Buffington, who is cycling off the committee as its chair, for her leadership the past two years.



MOPC Chair Denise Buffington, of Evergy, reacts to her “boot” award for cycling off the committee. | SPP

Buffington warned members her term does not expire until Dec. 31. ITC Holdings’ Alan Myers, MOPC’s vice chair, will succeed Buffington next year.

Gold Star awards are also due for SPP’s Bailey, Drew Gilvray and Nikki Roberts in recognition of their work to improve the congestion-hedging process, Ross said. He will bring the awards and certificates to an upcoming meeting.

## 12 Revision Requests Pass

MOPC unanimously approved a consent agenda with 12 RRs, although nine members abstained:

- **RR492:** Provides clarity on the risks, timing and treatment of generator-interconnection requests’ financial securities refunds, cost allocation comparisons and withdrawn opportunities. It also adds a definition to distinguish “equally-queued” versus “lower-queued” priority of GI requests.
- **RR497:** Adds further definition to the Project Cost Working Group’s oversight for applicable projects that are funded through direct assignment of cost.
- **RR498:** Allows the ESWG to determine whether SPP’s additional incremental generation capacity recommendations should be included in the ITP’s economic model.
- **RR499:** Adds new language to the planning criteria concerning terminology and their definitions, new capability and new operational testing requirements, out-of-season capability testing, capability and operational testing for new or upgraded units, and accreditation for thermal and hydro units.
- **RR500:** Clarifies and documents a more efficient and detailed process for submitting

late data submittals in the ITP, including a new submittal form to help staff assess impacts.

- **RR503:** Modifies language in the market mitigation sections of the protocols and tariff by removing references to dispatch and “settlement purposes” and replacing them with clarifying language to specify the solution will be used for determining locational margin prices and marginal clearing prices (MCPs).
- **RR504:** Addresses potential inefficiencies in the regulation mileage compensation design by revising the mileage factor calculation and setting the mileage MCP to the resource projected to provide the last mile based on the mileage factor.
- **RR507:** Updates the list of transmission services grandfathered agreements.
- **RR510:** Revises SPP’s competitive transmission process with changes to the request for proposal’s scoring methodology and deposits and cost calculations sections and adds an additional table to the confidential information treatment section.
- **RR511:** Changes the tariff by updating the IEP public report deadline from 14 to 21 calendar days.
- **RR514:** Updates the operating constraint and spin violation relaxation limits by increasing the values of all operating reserve constraints not subject to market-to-market coordination to be \$1,500.
- **RR518:** Corrects a calculation error in the protocols related to when regulation is not cleared in the real-time balancing market. ■

— Tom Kleckner



## Company Briefs

### GE Lays Off Workers at Onshore Wind Unit as Part of Turnaround Strategy



General Electric last week said it is laying off workers at its onshore wind unit as part of a plan to restructure and resize the business.

The company notified employees in North America, Latin America, the Middle East and Africa about the cuts. It also has plans to cut its onshore wind workforce later in Europe and Asia Pacific. The cuts are expected to affect 20% of the unit's workforce in the U.S.

Onshore wind is the largest of GE's renewable businesses, which together employed 38,000 people worldwide at the end of 2021. The unit, however, has been battling higher raw material costs due to inflation and supply-chain pressures.

More: [Reuters](#)

### Three Companies Agree to Carbon-capture Project

ExxonMobil, CF Industries and EnLink

Midstream last week announced they have entered into an agreement with the hope of moving 2 million metric tons of carbon dioxide annually by capturing emissions and storing them underground in Louisiana.

Captured emissions from the CF Industries ammonia production plant in Donaldsonville — the top greenhouse gas industrial emitter in the state — will be transported through EnLink's existing pipeline network and "injected into deep, underground geologic formations" on ExxonMobil property in Vermillion Parish.

Officials estimate startup in 2025.

More: [The Associated Press](#)

### Canoo Lands EV Order from Zeeba

Electric vehicle startup Canoo last week signed an agreement for Zeeba to purchase 5,450 EVs, with an initial commitment of 3,000 units through 2024. Financials of the deal have not been released.

Zeeba, a growing national fleet leasing provider, aims to improve fleet solutions for small- and medium-sized businesses with a heavy focus on commercial vehicles.

More: [KFSM](#)

### Honda, LG to Build Joint US Battery Plant



**HONDA**

Honda Motor and LG Energy Solution last week announced Ohio as the site of a planned \$4.4 billion joint-venture battery plant.

The project aims to start mass production of lithium-ion batteries by the end of 2025 and have approximately 40GW of annual capacity.

The companies had announced the plan in August but had not settled on a location. In addition to the battery project, Honda will invest \$700 million to retool three Ohio plants as it seeks higher electric vehicle production.

More: [Reuters](#)

## Federal Briefs

### Hurricane Ian Becomes Nation's 15th Billion-dollar Disaster in 2022



Hurricane Ian, which made landfall in Florida last month, is the latest in a series of billion-dollar climate and weather disasters logged in the U.S. this year, according to the National Oceanic and Atmospheric Administration.

Disaster losses total around \$29.3 billion, according to NOAA, without accounting for the damages from Ian, Fiona and the Western wildfires, which have not yet been calculated. The total cost may approach \$100 billion as the year continues and as damages are assessed.

The count makes 2022 the country's eighth consecutive year experiencing 10 or more climate and weather disasters costing more than \$1 billion each.

More: [The Hill](#)

### TVA Sued in Worker Electrocuton Death at Bull Run Plant



The estate of Seth Black, the 29-year-old who was electrocuted at Tennessee Valley Authority's Bull Run plant in September 2021, is suing the federal utility and labor supplier GUBMK Constructors in connection with his death.

"Prior to the accident at issue, (TVA) and GUBMK Constructors failed to determine if the walking surface on the precipitator insulator had the strength and structural integrity to support the weight of workers in general and Seth Black in particular," the lawsuit said.

The lawsuit comes after a report by the TVA Office of the Inspector General confirmed

dangerous and deteriorating conditions at the plant. TVA announced in 2019 it intended to shutter the plant by December 2023, but workers said they were not sure the plant could last that long in its current condition.

More: [Tennessee Lookout](#)

### TVA to Convert Light, Medium-duty Vehicles to Electric

The Tennessee Valley Authority last week announced that it plans to convert its fleet of 1,200 light- and medium-duty vehicles from gasoline and diesel to electricity by 2030.

The fleet is made up of 400 light duty cars, SUVs and pickups and 800 medium-duty trucks.

More: [Detroit Free Press](#)



# State Briefs

## REGIONAL

### DC Regional Planning Group Touts Carbon Reductions

The Metropolitan Washington Council of Governments last week said the region it represents has met its 2020 goal of reducing net carbon emissions by 20% from 2005 levels.

The COG is composed of elected officials from Northern Virginia, Maryland and Washington, D.C. In 2008 the group set out to achieve an 80% reduction in greenhouse gas emissions from 2005 levels by 2050, with targets along the way. Those targets included reducing emissions to 2005 levels by 2012, which was done. The 2020 goal was next, followed by a 2030 goal of reducing levels by 50%.

More: [Virginia Mercury](#)

## CALIFORNIA

### San Onofre Nuclear Waste Storage Site Gets 13-year Extension

The Coastal Commission last week unanimously approved a 13-year extension to a permit for one of a pair of storage facilities that holds more than 50 canisters of nuclear waste at the now-shuttered San Onofre Nuclear Generating Station.

The permit was extended to a facility at San Onofre where up to 63 canisters of spent fuel and other highly radioactive waste are stacked horizontally. The storage site has been in operation since 2003, and its original permit was set to expire next month. A second storage facility holds 73 canisters and is expected to run through October 2035.

More: [The San Diego Union-Tribune](#)

## COLORADO

### Green Justice Groups Hail Xcel Energy's \$32.8M Community Solar Plan

 Xcel Energy last week agreed to a \$32.8 million, three-year spending plan for low-income projects that includes more access to community solar gardens and a first-time battery storage incentive.

The Renewable Energy Plan describes how Xcel will issue electric bill credits for com-

munity solar gardens and storage projects, drawing on a 1% fee customers pay on their bills.

The settlement also says Xcel has committed to a target of 300 MW of community solar garden capacity with up to \$52.6 million in annual costs through 2025.

More: [The Colorado Sun](#)

## LOUISIANA

### Residents Push Back Against Carbon Capture Tech

Residents of several parishes continued to fight against carbon capture injection wells, with some imposing moratoriums intended to slow the technology's reach.

The Livingston Parish Council, which had passed a year-long moratorium on "Class VI" injection wells, approved a similar pause for so-called "Class V" wells. St. Helena council members also passed a moratorium on carbon capture injection wells.

One resident implored the council to consider how the wells could negatively impact crabbers and fishermen, the property values in the area, and the parish's tourism industry. Others expressed fears for families and safety, as well as concern about the unknowns of the technology.

More: [The New Orleans Advocate](#)

## MICHIGAN

### Whitmer Signs Bill to Study Nuclear Options to Replace Coal



Gov. **Gretchen Whitmer** last week signed a bill that commissioned a feasibility study of increasing the amount of nuclear power to replace coal-fired plants.

Consumers Energy plans to shut down all its coal-fired plants by 2030, while DTE Energy aims to retire 11 of its 17 coal-fired plants by the end of 2023. Both utilities are investing heavily in renewable sources; however, the state wants to see whether nuclear energy should be a bigger part of the energy platform.

The study will look at the environmental and economic effects of opening more nuclear plants, consider possible locations for future

facilities, and explore safety criteria.

More: [WJRT](#)

## MINNESOTA

### Utility Advocate Tells Customers to Expect Higher Bills This Winter

The Citizens Utility Board of Minnesota, which advocates for utility customers, last week said residents should expect higher bills across the board this winter.

Annie Levenson-Falk, the executive director of the Citizens Utility Board, said natural gas prices have increased the most but other energy sources, including fuel oil, propane and electricity, are affected as well.

Xcel Energy said it expects the average natural gas customer will see their monthly bills increase by about 10% compared to last year. CenterPoint Energy also said it's expecting heating costs to be somewhat higher, but the recent volatility of natural gas prices makes it difficult to provide an estimate.

More: [MPR News](#)

## OHIO

### BG Wind Turbines to Stop Spinning in 2024



Bowling Green Public Utilities last week announced that four turbines associated with

the Wood County Landfill wind project will stop spinning in 2024 when the maintenance contract is no longer renewable.

The project started generating power in 2003 with two turbines, then added two more in 2004. The original capacity was 7.2 MW each but was cut to 5.4 MW in 2021 when one of the turbines was retired early due to the expense of repairs.

The turbines cost about \$2 million apiece when they were erected. In 2020, the cost to replace them with newer models was estimated at \$8.8 million each.

More: [BG Independent News](#)

## RHODE ISLAND

### Rhode Island Energy Seeking Proposals for OSW Energy

Rhode Island Energy last week said it was issuing a request for proposals as it solicits



up to 1 GW of offshore wind power.

The company will receive bids through Feb. 1. Winning bidders are expected to be announced in August 2023.

More: [Market Watch](#)

## VIRGINIA

### Dominion Shared Solar Minimum to Remain \$55.10 Per Month



The State Corporation Commission last week issued two

decisions that will affect utility customers who face barriers to installing rooftop solar on their homes. One keeps the minimum monthly bill for shared solar customers at \$55.10, while other lowers an administrative fee for the multifamily solar program from \$87.68 to \$16.78.

The decisions come after the commission was asked to reconsider an earlier decision

on the monthly minimum bill for the shared program and to reject an administrative charge proposed by Dominion for the multifamily program. Dominion argued that both were needed to implement the programs. The SCC sided with the utility on the shared program but not on the multifamily program and said “reasonable” administrative costs should not include fees for electric system infrastructure.

Both programs were created in 2020 to expand options for solar use.

More: [Virginia Mercury](#)

## WISCONSIN

### Superior Gas Plant Clears Hurdle as Judge Dismisses Bias Claim

Dairyland Power Cooperative’s plans to build a \$700 million natural gas plant in Superior cleared another hurdle last week when a judge dismissed claims of bias

against a regulator who later sought a job with one of the plant’s owners.



Dane County Circuit Judge **Jacob Frost** dismissed the claim brought by Clean Wisconsin and the Sierra Club after they challenged the permit upon discovering former Public Service Commission

Mike Huebsch applied for a job as CEO of Dairyland shortly after voting to approve the project. He did not get the job. Frost cited a state Supreme Court decision on a similar bias challenge brought in a separate court case involving the Cardinal-Hickory Creek power line.

The PSC voted in 2020 to grant Dairyland a permit to construct the 625-MW Nemadji Trail Energy Center.

More: [Wisconsin State Journal](#)

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