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FERC/Federal News



3 FERC Nominees Quizzed by Senators in Hearing Short on Fireworks

By James Downing

The three FERC commissioner nominees faced questions from the Senate Energy and Natural Resources Committee on March 21 in a hearing light on fireworks.

“The job calls for people who can fairly assess the needs and concerns of all interests affected by our energy policies and apply the law,” said committee Chair Joe Manchin (D-W.Va.). “Today we’re here to assess the experience and qualifications of three nominees before us for this important job.”

The nominees include Judy Chang, who is up for the seat opening in July, FERC staffer David Rosner, who most recently was detailed to Manchin’s committee and Lindsay See, the West Virginia solicitor general. Rosner and See are nominated for the two open seats on the commission. The committee took just three weeks to hold a nomination hearing after the White House announced choices. (See [Biden Names 3 Nominees to Give FERC 5 Members Again](#).)

Ranking Member John Barrasso (R-Wyo.) tied Chang — who worked for Massachusetts after being hired by Gov. Charlie Baker (R) — to what he called that state’s “failed policies.”

“To remind the committee, this is a state that consumes twice as much electricity as it pro-

duces,” Barrasso said “It’s a state that benefits from the resolve of other states and other countries to produce the energy that Massachusetts needs and uses. And it’s a state where residents pay among the highest electricity and natural gas prices in the nation.”

In her role in Massachusetts, Chang advocated against expanding natural gas infrastructure to the region, which Barrasso highlighted in old quotes.

“As part of the state government, however, I personally experienced what it’s like to go through winters in New England and from the governor all the way down, the nail-biting experiences to make sure that we have not only reliable service, but affordable service,” Chang said. “And that is particularly the time when New England is more like Germany than it was like Pennsylvania in its cost and availability of natural gas.”

If she had a “magic wand” she said she would like to see more natural gas infrastructure for the region but noted that the issue is very difficult in New England.

Sen. Mazie Hirono (D-Hawaii) asked Chang how her time as Massachusetts’ undersecretary for Energy & Climate Solutions would inform her time on FERC. Chang responded that reliability must be considered, or the energy transition won’t work.

“No one in this country will tolerate any outages,” Chang said. “So, I think I understand the complexity of the energy systems through my work in Massachusetts, and I will definitely carry that with me going forward.”

Hirono also got into a back-and-forth with See over *West Virginia v. EPA*, a case the nominee argued on behalf of the state before the U.S. Supreme Court. The court relied on the “major questions” doctrine to find EPA overstepped the Clean Power Rule by using the Clean Air Act in a way Congress never intended. More recently, the court has taken up a case that threatens to overturn the Chevron Doctrine, which has courts pay deference to regulatory agencies on technical questions under their jurisdiction. (See: [Supreme Court Hears Oral Arguments on Overturning Chevron](#).)

Hirono asked how See views FERC’s authority given the recent legal developments and points she made while arguing the case for West Virginia.

“I certainly understand that [FERC] will be a different role of acting impartially,” See said. “And I think that that will be important when it comes to [the] role of the agency. As I have said, my philosophy would be to follow the law. And I would be looking at experience to see what exactly it is Congress delegated and tasked FERC with doing. I’d be looking for that best interpretation consistent with governing statutes.”

Getting rid of Chevron would be a “tall order” for Congress because it would have to be very precise in what it delegates to agencies, said Hirono, who asked See whether FERC could consider carbon pollution in its decisions.

“My understanding is that FERC, like any other agency only has the authority that Congress has delegated to it,” See answered.

The rest of the two-hour hearing was more technical, with the nominees being asked by more than one Republican senator if FERC was an economic regulator. All three said yes. All three nominees also ranked reliability as one of FERC’s top jobs. Chang also included affordability.

“The commission’s core responsibility, its job No. 1, is to ensure the reliable operation of the country’s electric grid,” said Rosner. “None of our country’s economic or policy priorities can be achieved if energy reliability is not preserved. Consumers demand it, they deserve it. And it is FERC’s most sacred duty to ensure it.” ■



FERC nominees Judy Chang, David Rosner and Lindsay See prepare to testify before the Senate Energy and Natural Resources Committee. | © RTO Insider LLC

FERC/Federal News



FERC, State Regulators Renew Collaboration

Seek to Continue Dialogue from Transmission Task Force

By Rich Heidorn Jr.

Nearing completion of its long-awaited transmission planning rulemaking, FERC announced March 21 it's forming a new working group with state regulators to continue the dialogue it began in 2021.

In its order, the commission created the Federal and State Current Issues Collaborative, which will provide a venue for discussions on issues including electric reliability and resource adequacy; natural gas-electric coordination; wholesale and retail markets; new technologies and innovations; and infrastructure (AD21-15, AD24-7).

FERC said the new group will be like the Joint Federal-State Task Force on Electric Transmission, which has held eight meetings since late 2021, the most recent last month. (See [Utility Regulators Repeat Concerns About Tx Siting Oversight](#).)

"Given the success of this collaboration and the array of additional cross-jurisdictional issues relevant to FERC and state utility commissions, we seek to continue a formal collaboration to explore electricity sector issues where there are relevant jurisdictional nexuses or regulatory gaps," the order said.

The task force discussed issues including regional and interregional transmission planning; siting; cost allocation; generator interconnections; physical security; and grid-enhancing technologies — several of which are likely to be addressed in the commission's transmission planning and cost allocation rulemaking (RM21-17). (See [FERC Watchers Weigh in as Transmission Rule Approaches Finish Line](#).)

"Yes, we have more work to do on transmission, but we are landing the plane," FERC Chair Willie Phillips said in a press conference after the commission's monthly open meeting. "And soon, we'll need to turn to other matters and issues that I think we can get helpful and valuable feedback on from our state colleagues."

Like the task force — which was due to expire in November — the new group will run for three years unless extended and will include the FERC commissioners and 10 state regulators nominated by the National Association of Regulatory Utility Commissioners (NARUC).

The order requested that NARUC nominate two state representatives from each of NARUC's five regions.



The Joint Federal-State Task Force on Electric Transmission held its fifth meeting in November 2022 in New Orleans. | © RTO Insider LLC

"All state commissions may suggest agenda topics for public meetings of the collaborative and may also submit comments before and after on the topics being discussed at such meetings," FERC said. "In addition, the collaborative may consider convening regional meetings with opportunity for participation by all state commissions in the region."

The first meeting of the collaborative is expected in fall 2024.

Phillips said the task force "addressed almost every issue that I can imagine under the transmission reform regime," and that the commission included states' feedback on Order 2023, which revised the *pro forma* generator interconnection rules to clear queue backlogs (RM22-14). (See [FERC Updates Interconnection Queue Process with Order 2023](#).)

Now, he said, it's time for the commission and states to "pivot" to reliability concerns.

"We heard today from Commissioner [Mark] Christie: there is a concern about reliability [and] resource adequacy. That's also a priority, and I want to hear from our state colleagues on those issues as well. Because ... no commis-

sion has taken more action on reliability than this one. Every month since I've taken over as chairman, we've taken a major action on reliability."

NARUC President Julie Fedorchak, a North Dakota regulator, said the states are eager to continue discussions with FERC. "The role of state utility commissioners is increasingly more challenging and consequential to the quality of life, safety and economic health of this nation," she said. "Ensuring the reliability of the grid as the energy sector evolves at a rapid pace is crucial."

North Carolina Commissioner Kim Duffley, who represented the states as the co-chair of the transmission task force, said the group "allowed for meaningful dialogue and assisted in providing a clearer understanding of regional differences."

"The states look forward to seeing the beneficial results of our conversations and working with our federal partners on other significant federal-state issues," she added. ■

Michael Brooks contributed to this article.

FERC/Federal News



FERC: Markets Stable in 2023; Gas Continues to Dominate Mix *Electricity Prices Decreased; Net Gain in Capacity*

By Michael Brooks

WASHINGTON — 2023 began with a mild winter, setting the pace for a relatively quiet year in which natural gas and wholesale electricity prices dropped and the U.S. added 26 GW in generation capacity, according to FERC’s annual State of the Markets *report*, released March 21.

And while the expected growth in demand from data centers and cryptocurrency miners continues to concern grid operators, total electric consumption dropped slightly in 2023.

The single biggest factor was natural gas, FERC staff told commissioners at their monthly open meeting. Record-high production exceeded consumption, which was lower than expected because of reduced heating demand from the residential and commercial sectors

in January and February, the peak of heating season. This led to lower gas prices, which in turn led to lower electricity prices.

Still, “domestic consumption of natural gas grew for the second straight year,” according to the report. “Power burn — the largest component of U.S. natural gas demand — reached a new annual average high of 35.4 [billion cubic feet per day], representing a 7% year-over-year increase as lower natural gas prices and coal power plant retirements drove higher levels of electricity generation from natural gas resources.”

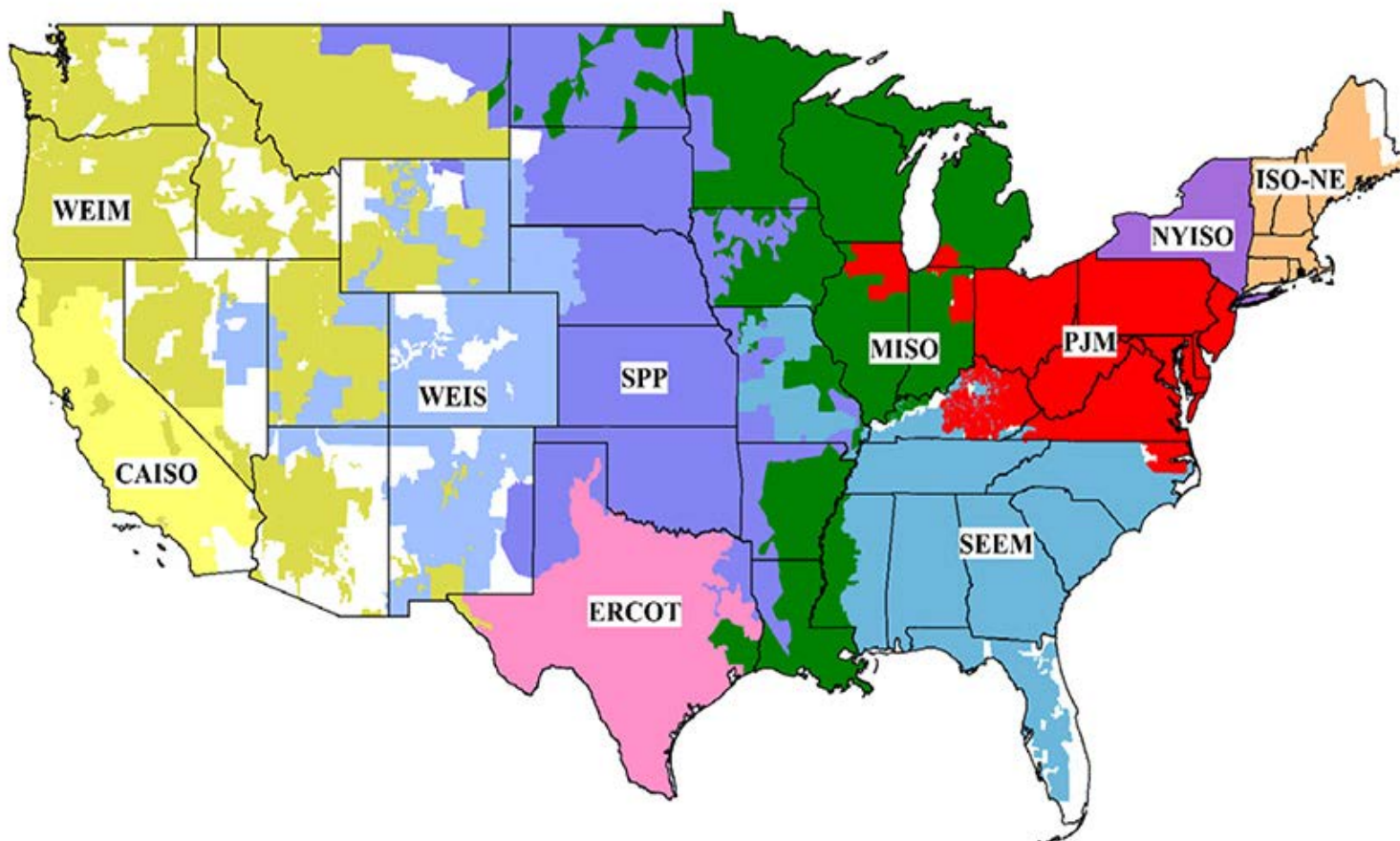
LNG exports to Canada, Mexico and Europe also increased, though the U.S. remains a net importer of gas from Canada.

Four members of the public interrupted the meeting and were escorted out of FERC headquarters in protest of fossil fuel infra-

structure. They missed hearing that solar was the dominant resource type added to the grid in 2023, at 18 GW. This was more than double the amount of wind, natural gas or battery resources, which each ranged between 6 and 9 GW in added capacity.

Battery storage had a landmark year, as additions rose by about 50% to 6.1 GW. 2023 also saw the first addition of nuclear capacity in seven years, the Vogtle plant in Georgia, and the completion of the first utility-scale offshore wind project, South Fork Wind off New York. And coal resources continued to decline, with 6.8 GW in retirements, a nearly 19% drop.

“Nevertheless, in terms of installed capacity, natural gas remained the primary resource type at the end of the year at 45% of the capacity mix, followed by coal at 15%, wind at 12%, nuclear at 8%, hydro at 8%, solar at 7%,



The state of play for the wholesale electricity markets in the U.S. The WEIS, WEIM and SEEM have filled the historically "blank" regions of the country. | FERC, via Hitachi ABB Power Grids Velocity Suite

FERC/Federal News



oil at 2%, other at 2% and batteries at 1%,” according to the report.

The 49-page report has a section on “Transforming Markets,” which recounts the many changes and new products by RTOs and ISOs being implemented. These include SPP’s *Uncertainty Reserve* ancillary service; PJM’s increase in *synchronized reserve* procurement; CAISO’s *Day-Ahead Market Enhancements*; ISO-NE’s new day-ahead *ancillary services market*; and MISO’s *seasonal capacity* market construct.

“All of these changes that are being reported in the State of the Markets report are encouraging,” Commissioner Allison Clements said. “I think it’s really important to have this context when we’re thinking about the pace of change and potential thermal retirements. These retirements will not be happening in a static environment, as market, grid and operations transitions are well underway ...

“And there is no shortage of replacement generation and storage lining up ready to serve, and their integration will be aided by FERC’s reforms and by the ongoing work in

the regions.”

Clements’ upbeat assessment was countered by Commissioner Mark Christie, who quoted the PJM Independent Market Monitor’s State of the Market Report, which said up to 58 GW of thermal resources could retire by 2030. (See related story, *PJM Monitor Finds Markets Overall Competitive*.)

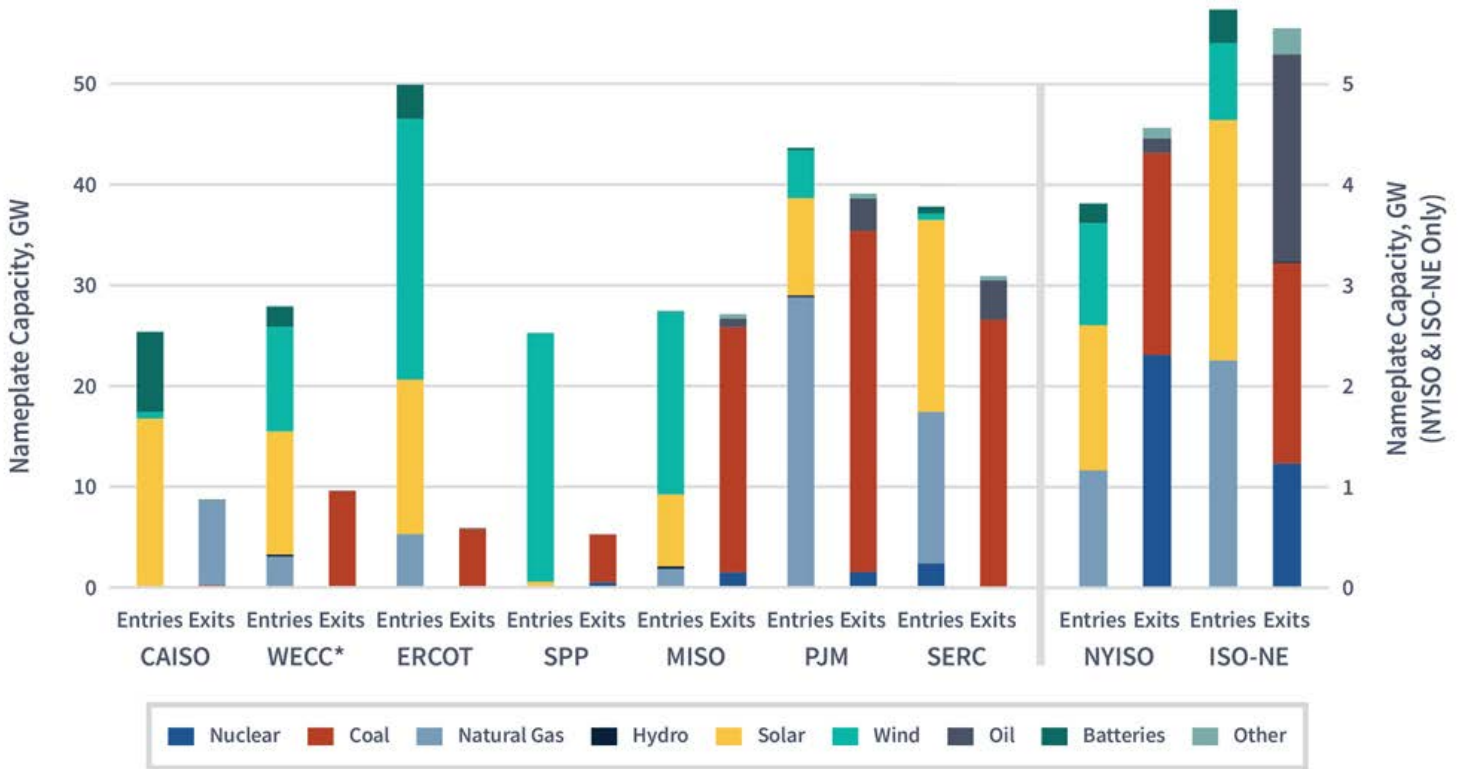
“Given current technology and the short time period, the retiring capacity can only be replaced by gas-fired or dual-fuel generation,” the Monitor wrote. “Renewables can replace a significant amount of the energy output but cannot replace the capacity. Capacity means that the resource is expected to be available when needed, regardless of the time of day or ambient conditions. ... The current PJM interconnection queue does not include adequate thermal capacity to replace the potentially retiring thermal capacity.”

While Christie supports Order 2023 as “a good step forward” to unclogging RTOs’ generator interconnection queues, “it’s not a silver bullet” for maintaining resource adequacy, he

said. Clearing “the queue is not going to fix it, because the queue is largely nondispatchable, intermittent resources that are simply not one-for-one replacements.” And the gas-fired resources in the queue won’t all necessarily get built because of the difficulty of siting pipelines, he said.

Asked to respond to Christie’s remarks, Chair Willie Phillips pointed to the commission’s pending final rule on transmission, which he said is coming soon.

“There is no one silver bullet that is going to fix interconnection, and there is no one silver bullet that is going to fix transmission. But ... there is no greater action that the commission can take that can address reliability, affordability and sustainability than addressing transmission reform in general,” Phillips said. “Now we have more work to do, and we are laser-focused, as I’ve said many times, on our long-term and regional planning rule. And we are in the last leg of the final lap. ... I’m like Michael Johnson at this point. We are running as fast as we can to get this done.” ■



Nameplate capacity net additions and retirements from 2013 to 2023 by resource type | FERC

FERC/Federal News

DOE Study Adds to Case for Interregional Offshore Grid

Networked Tx Could Save \$1.6B/Year

By James Downing and Rich Heidom Jr.

An interregional transmission network for the East Coast's offshore wind could produce almost \$1.6 billion annually in generation savings and improved reliability versus radial lines, according to a study released by the U.S. Department of Energy last week.

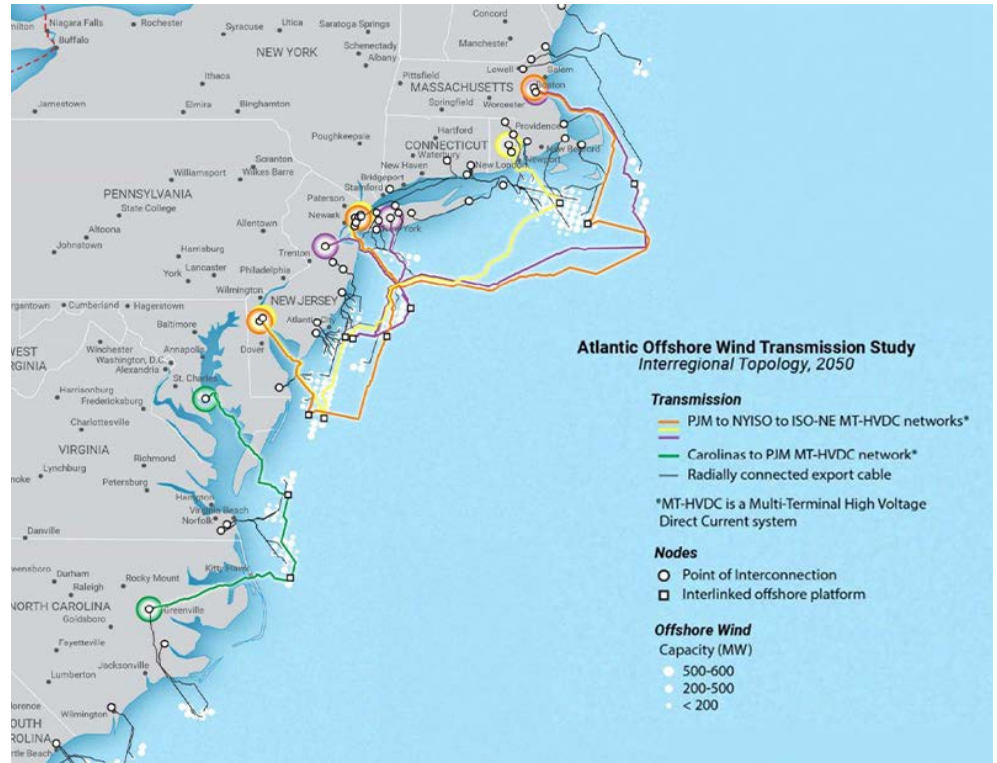
The *Atlantic Offshore Wind Transmission Study* calculated substation and cable costs for a 2050 "low-carbon" scenario with 85 GW of offshore wind from Maine to South Carolina. The analysis considered four offshore transmission topologies against a reference case using radial lines for each project with no links between offshore platforms:

- an intraregional topology with connections within regions;
- an interregional topology connecting diverse regions;
- an inter-intra topology combining the links in the interregional and intraregional topologies; and
- a backbone grid that adding interregional plan an additional cable running from Maine to South Carolina.

The analysis, by researchers from the National Renewable Energy Laboratory and the Pacific Northwest National Laboratory, found that each of the four networked topologies had higher benefits than costs and that the interregional plan produces the highest benefit-to-cost ratio and total net value.

Networking offshore transmission would reduce offshore wind curtailments (1 to 2 percentage points below the radial topology) and the use of higher-cost generators, DOE said. It would also increase reliability by providing alternatives during outages of other transmission lines or generation, particularly during winter peak conditions.

"In modeled estimates using the radial topology in 2050, price differences between suitable POIs for offshore wind averaged over \$100/MWh," the report said. "This price difference is higher than the average wholesale electricity prices in recent years in some Atlantic market regions. High price differences indicate that offshore transmission with interlinking platforms can consistently flow power from lower- to higher-price regions to benefit electricity



An illustration from the report showing potential offshore transmission lines and points of interconnection on land in 2050. | DOE

consumers by reducing the costs of generating electricity."

The researchers' modeling of the networked transmission showed that flows on all interlinks go both directions every season, with an average utilization rate of 50 to 60% of the available capacity on each line. An interregional grid with a 14,000-MW capacity could displace up to 4,700 MW of firm generation capacity, the researchers said.

The base radial plan is estimated to cost \$96.3 billion. The interregional grid would add \$11.4 billion in capital costs, with annualized capital and operations and maintenance costs of \$840 million. But DOE said it would produce benefits of \$2.4 billion annually, a benefit-to-cost ratio of 2.9.

The backbone topology provides the second-largest ratio of 2.7, with annualized costs of \$1.47 billion and benefits of \$3.9 billion per year.

The analysis envisions building offshore transmission in phases to reduce development risk and assumes the first offshore wind projects

would be connected to the grid with individual radial lines. But researchers said, "early implementation of high-voltage direct current (HVDC) technology standards is essential for future interoperability."

The only potential negative identified by researchers: Offshore wind could be vulnerable to extreme weather in the ocean and at landing points.

DOE's report adds to earlier research on the benefits of a planned Atlantic offshore grid, including a 2023 Brattle study that estimated coordinated transmission planning could produce at least \$20 billion in transmission-related cost savings, 60 to 70% fewer shore crossings and a reduction of about 50% in marine transmission cables (2,000 fewer miles) on the seabed. (See *OSW Transmission Planning Must be Interregional, Networked and Start Now.*)

Implementation Steps

DOE's study was accompanied by an *action plan* from DOE's Grid Deployment Office that identifies the steps researchers said would be required to implement the transmission

FERC/Federal News



buildout. It calls for establishing collaborative bodies spanning the Atlantic Coast this year to plan transmission and cost allocation during the second half of the decade.

It encourages RTOs and other transmission providers to simultaneously evaluate multiple benefits beyond reliability or production cost savings.

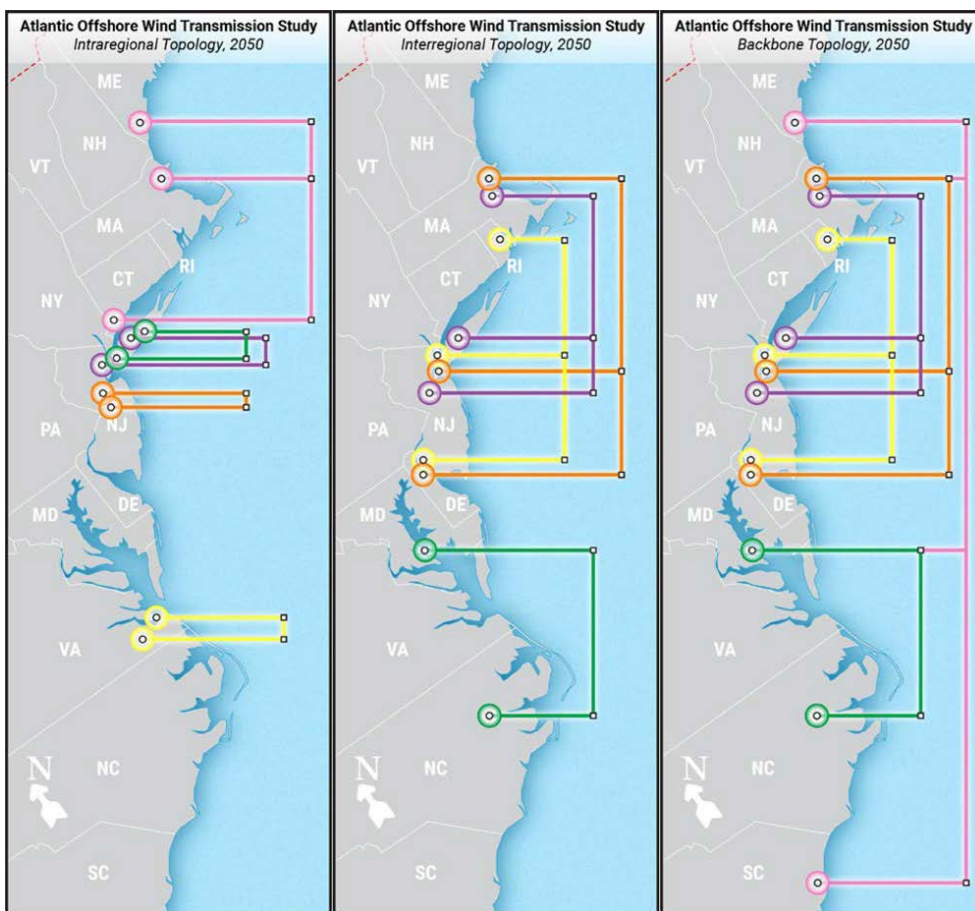
In its transmission planning and cost allocation rulemaking, which FERC is expected to finalize this year, the commission proposed developing long-term scenarios for use in regional planning, with an increased role for states in facility selection and cost allocation. FERC has also proposed a minimum set of benefit categories with methods to quantify them (RM21-17). (See *FERC Watchers Weigh in as Transmission Rule Approaches Finish Line.*)

Among the “Immediate Actions Before 2025” in the action plan is voluntary cost-allocation assignments. “Transmission cost allocation is a notoriously thorny issue that is intensified by the scale of projects and large price tags associated with interconnecting offshore wind,” DOE said. “In fact, the Business Network for Offshore Wind [recently renamed the Oceanic Network] described the issue of who pays as ‘the hardest single problem for transmission.’”

‘Most Thorough Analysis’ to Date

DOE called its two-year study the most thorough analysis to date of options to bring the East Coast’s wind energy – projected to be a key part of the region’s decarbonization – ashore.

The study focused on the offshore region between Maine and South Carolina and the onshore grid in those states, plus Vermont



Intraregional, interregional and backbone transmission topologies | National Renewable Energy Laboratory

and Pennsylvania due to their proximity to the Atlantic. The 85-GW scenario for 2050 projects 27 GW of OSW injection into ISO-NE; 19 GW into NYISO, 26 GW into PJM and North Carolina, and 13 GW into the SERC Reliability Corp. region in North Carolina and South Carolina. Offshore wind would represent more than 20% of generation in NYISO and PJM and

more than 40% in ISO-NE.

The report identifies potential transmission corridors considering environmental concerns and other uses such as military zones and shipping channels. The researchers cautioned that their analysis did not have the level of detail of interconnection studies and was not intended to prescribe exact injection points. ■

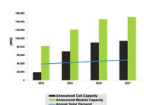
National/Federal news from our other channels



Energy Department Offers \$6 Billion for Industrial Decarbonization



BOEM Proposes Second OSW Auction in Gulf of Mexico



Report Calls for More Policies to Bolster Domestic Solar Manufacturing



RTO Insider subscribers have access to two stories each month from NetZero and ERO Insider.

FERC/Federal News



FERC Proposes Restricting Reactive Power Compensation

Plan Responds to Growth of Nonsynchronous Generation

By Holden Mann

FERC on March 21 proposed preventing transmission providers from including charges associated with supplying reactive power in their transmission rates in the hopes of preventing unjust and unreasonable rates for end-use customers ([RM22-2](#)).

At its monthly open meeting, the commission issued a Notice of Proposed Rulemaking seeking comments from “all interested persons” on its proposal to revise Schedule 2 of its *pro forma* open-access transmission tariff to prohibit the inclusion within transmission rates of charges associated with the supply of reactive power within the standard power factor range of a generating facility. Generators set the standard power factor range in their interconnection agreements.

In addition, the NOPR would revise section

9.6.3 of FERC’s *pro forma* large generator interconnection agreement and section 1.8.2 of its *pro forma* small generator interconnection agreement to remove the requirement that transmission providers “pay an interconnection customer for reactive power within the standard power factor range if the transmission provider pays its own or affiliated generators for the same service.” This change would make the LGIA and SGIA consistent with OATT revisions.

Reactive power is “a critical component of” an electrical grid, FERC said in its NOPR, because it keeps system voltage within appropriate ranges, allowing the transmission system to reliably supply “real power,” which provides energy to end users. Generating facilities, transmission lines and equipment, power electronic equipment and load can either produce or absorb reactive power.

FERC ruled in [Order 888](#) that transmission providers must incorporate six ancillary services into their OATTs, including the reactive supply and voltage control supplied by generators. However, the commission indicated in 2021 that it was considering updating its approach to compensating reactive power capability, seeking industry input in a Notice of Inquiry. (See [FERC Seeks Comments on Reactive Power Compensation](#).)

Order 888 assumed a resource mix that overwhelmingly comprised synchronous generators, but as FERC pointed out in its NOI, much of the new generation coming onto the grid consists of nonsynchronous inverter-based resources such as wind and solar facilities. The commission said it was “facing challenges in evaluating proposed reactive power rate schedules” because most of the filings for such schedules were made by owners of nonsynchronous resources.

The NOPR also mentioned [Order 2003](#), which said generators are not owed compensation for providing a standard range of reactive power as that is a condition of interconnection ([ER23-523](#)). FERC cited Order 2003 last year in approving a request from MISO transmission owners to eliminate reactive power and voltage control charges from their own and unaffiliated generation resources. (See [FERC Ends MISO Compensation for Reactive Power Supply](#).)

Responding to comments that argued “that separate reactive power compensation is necessary to maintain reliability,” FERC observed that providing reactive power is “already required by a generating facility’s interconnection agreement” and suggested that requiring additional payment would not affect this.

The commission also noted that some commenters said the payments they received for reactive power helped them obtain financing to make needed improvements to generating facilities. In response, FERC argued that “resource developers continue to develop new generating facilities in regions without such payments.” Rather than recovering reactive power costs through transmission rates, the commission suggested that entities use “energy and capacity sales, since competition between generating facilities may incentivize efficiency.”

Comments on the NOPR are due 60 days after its publication in the *Federal Register*, with replies due 90 days after publication. ■



FERC sought to revisit reactive power capability compensation in large part because of the increased adoption of nonsynchronous generating resources such as wind turbines. | © RTO Insider LLC

FERC/Federal News



Coast-to-coast, Grid Operators Prepare for April Solar Eclipse

While Totality will Cut Path Northeast, Impacts Also Expected in West

By James Downing and Elaine Goodman

The upcoming April 8 solar eclipse will run a course from central Mexico to Newfoundland, but grid operators far from its 124-mile-wide path of totality will be dealing with its impact as it cuts output from solar power generation coast-to-coast.

According to [NASA](#), major cities including Dallas and Indianapolis will feel the full brunt of the eclipse that afternoon, but RTO and ISOs are preparing for system challenges as far west as California.

While it is too early to accurately predict the weather, the National Weather Service [noted](#) that six selected cities in its path typically see temperatures in the 60s on that date.

ERCOT [said](#) the eclipse will affect its territory from 12:10 p.m. to 3:10 p.m., peaking about 1:40 p.m., when solar production likely will drop to about 7.6% of the maximum expected under clear conditions. ERCOT has 22,463 MW of installed capacity and has received about 7% of its power from solar this year, according to its latest data.

The Texas grid operator is working with solar forecast vendors to ensure their models accurately forecast the eclipse's impact. ERCOT plans to receive and review ad-hoc forecasts March 29 and then start to prepare for major generation ramps caused by the eclipse, which will occur on a Monday.

ERCOT said it would review its day-ahead market results the day before the event to ensure its system is ready.

MISO's Carmel, Ind., headquarters and its southern operations center in Little Rock, Ark., both are in the path of totality and respectively should experience dark skies for 3 minutes, 29 seconds and 2 minutes, 30 seconds. The impact on solar will depend on cloud cover. With clear skies, solar output in the RTO could plunge quickly by about 4,000 MW, but clouds could limit that to a drop of less than 1,000 MW.

At the event's start, solar generation will roll off the system rapidly and increase rapidly near the conclusion, resulting in the need for ramping capacity and possibly causing congestion-management challenges, MISO said. The temperature drop associated with dark skies could reduce demand, the RTO noted.



Map shows the path of totality for the April 8, 2024, solar eclipse. | NASA

In a presentation to Entergy's Regional State Committee last year, MISO noted it learned from eclipses in 2017 and 2023 that balancing and congestion management are the most challenging issues.

SPP did not have recent analysis on its website and did not return a request for comment. In a report covering the August 2017 eclipse, it noted this year's event would be another test of its ability to balance renewable energy because solar penetration has grown.

PJM

PJM [said](#) March 18 the path of totality will enter its footprint northwest of Cincinnati and exit over three counties in Northwest Pennsylvania. The total eclipse will cover the 124-mile path for up to several minutes, but the RTO said almost its entire 13-state footprint will see some impact over about 2.5 hours.

Regardless of cloud cover's effects, PJM is expecting to lose at least 80 to 85% of the output from its 8,200 MW of grid-connected solar and is preparing for the potential temporary loss of up to 4,800 MW of behind-the-meter solar.

The dimming sunlight could reduce tempera-

tures by 4 to 10 degrees, but the impact will depend on how warm the weather is absent the eclipse. Under cool conditions, a temperature drop could lead to higher demand, but in warm conditions, the decrease likely would reduce loads.

PJM said it would provide an update of the eclipse's anticipated impacts under a clearer weather forecast at its April 4 Operating Committee meeting.

Northeast

NYISO said in a [presentation](#) last September the total eclipse will affect its territory from 3:16 to 3:29 p.m., but the event will leave some impact for about 2.5 hours. New York City and Long Island are expected to see between 60 to 90% obscuration of the sun, while Albany should see 96%.

Both Buffalo and Rochester will have several minutes of total eclipse. Those cities typically have about 60-65% cloud cover that time of year, NYISO said. With clear skies, solar output from both behind-the-meter and grid-connected solar could fall by more than 3,110 MW at the eclipse's peak.

Impacts to wind power also are expected,

FERC/Federal News



as seen during the 2017 eclipse, when wind speeds and output dropped at the start of the event and increased as it ended, the ISO said.

ISO-NE *said* the eclipse could cut solar production in its territory by thousands of megawatts from 2:15 to 4:40 p.m. when all of New England will see at least 80% obscuration, with some northern areas seeing 100%.

Most of New England’s solar power comes from small-scale, distributed systems that either are connected to retail customers or utilities’ distribution systems and not the ISO-operated grid. Those systems effectively cut demand for wholesale power when the sun is out.

The eclipse’s impact will make solar output drop off much more quickly than it normally would at sunset but, as in other areas, ISO-NE said impacts will depend on cloud cover.

Out West

The eclipse’s effects will even be observed in the Western Interconnection.

CAISO’s balancing authority area will experience a partial eclipse from about 10 a.m. to 12:30 p.m. PT. Relative to the eclipse of Oct.

14, 2023, the sun will be less obscured in CAISO territory: about 25 to 59% on April 8 compared to roughly 72 to 80% on Oct. 14.

And the profile of impacts will be different because the April 8 eclipse will start later in the morning, during greater solar generation. The Oct. 14 eclipse lasted from about 8 to 11 a.m. in California, with maximum impact about 9:30 a.m.

The Oct. 14 eclipse knocked 4,500 MW of solar generation off the CAISO grid, followed by a rebound of 6,560 MW as the eclipse waned. (See *Report Details CAISO Response to Partial Solar Eclipse.*)

CAISO’s April 8 forecast shows utility-scale solar dropping 6,349 MW between 10 a.m. PT, a peak at 11:20 a.m. and a 6,718-MW surge in solar generation by 12:40 p.m.

The predicted upward ramp of 84 MW per minute is less than the Oct. 14 rate of 131 MW per minute.

The projections for April 8, based on clear-sky conditions, are in a *technical bulletin* released this month. CAISO has been planning for the April 8 eclipse since February. Once again, coordination will be key to eclipse preparations.

CAISO plans to use quick-ramping resources, including natural gas plants, battery storage and hydropower, to respond to rapid changes in solar generation.

“To manage the solar ramps, the ISO has done extensive outreach to scheduling coordinators and market participants to emphasize the importance of following dispatch operating targets (DOTs) in real time,” especially for solar and battery resources, CAISO said in a *frequently asked questions* document.

CAISO will coordinate with gas plants and gas suppliers to ensure sufficient supply during the eclipse.

In response to the ramping needs, CAISO expects to commit an increased amount of regulation up and regulation down. But adjustments, especially to regulation up, likely will be smaller than in October due in part to lessons learned from that event.

CAISO is also holding meetings on the event with WEIM entities. “Coordination across the WEIM is crucial so that the market can optimally dispatch during the eclipse conditions,” the ISO said. ■

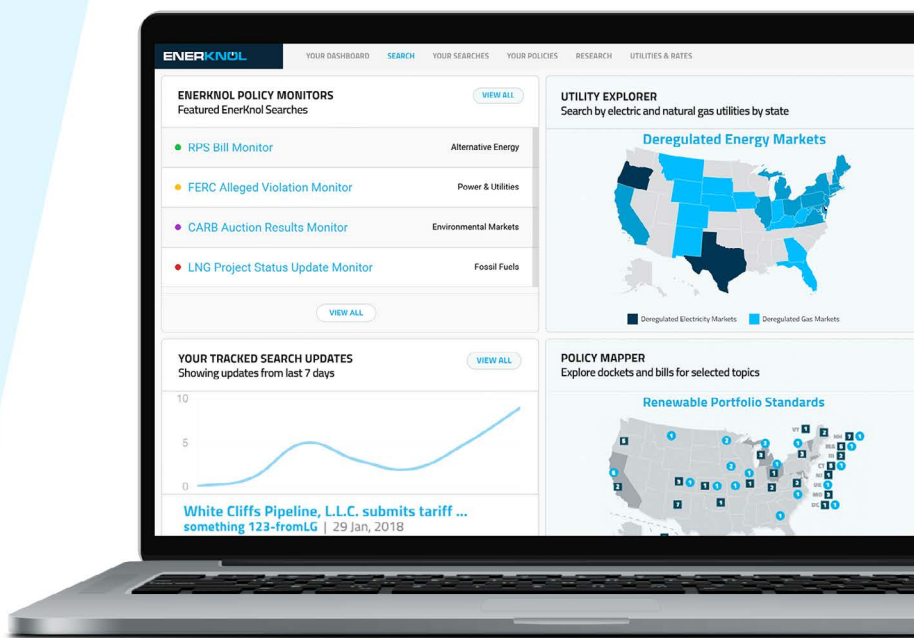


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'Converting to EVs not Sufficient' to Reach Climate Goals

Tech for Climate Action Panel Digs into Policies, Funding for Equitable Mobility

By K Kaufmann

WASHINGTON — Working at a state transportation department used to be pretty humdrum, according to Tim Sexton, who started his career at the Department of Transportation in Washington state.

"Transportation used to be departments of highways or departments of roads," said Sexton, who now is assistant commissioner for sustainability, planning and program management at Minnesota's DOT. "Now you have some states ... saying, 'You know, we can do more,' and what we're saying is, anything that touches transportation, and especially transportation and climate, we want to have a role in and want to try to lead on ... and it's partly out of self-initiative, but also partly because our hand is being forced."

Sexton was one of four panelists speaking about how to build clean, sustainable transportation systems, at the 2nd Annual U.S. Tech for Climate Action Conference. The conference's tech focus notwithstanding, the transportation panel was less concerned with specific technologies and more interested in digging

into the research, policies and public-private partnerships needed to ensure access to clean, convenient mobility across a broad range of urban and rural environments.

"As we start to look at state goals for decarbonizing the economy, transportation plays a role" as a top emitter of greenhouse gases at both national and state levels, Sexton said of Minnesota's more holistic approach. "We look at this as a three-legged stool of vehicles, operations and fuels. A low-carbon fuel standard ... could be a big part of the solution, too, so let's get involved with that."

The Minnesota DOT also has waded into the politically sensitive topic of locating transmission along existing transportation rights-of-way, Sexton said. "The biggest obstacle to transmission is property rights, and if you have linear corridors that mirror our highways, that could really facilitate a lot of transmission," he said. "How do we support that in a way that balances competing needs?"

Colin Tetreault, senior manager for climate change and sustainability services at EY, formerly Ernst & Young, agreed that the past 10 to 15 years have seen "a better understanding

of an evolutionary thesis of what we're solving for."

"We used to think about kind of single-passenger conveyance, or how do we move a car from point A to point B," Tetreault said. "That model [and that] decision calculus [is] changing ... to how do we move goods, ideas, people and services safely, effectively, affordably, efficiently and equitably?"

The equity and environmental justice focus in transportation policy also is a major change, he said. "When you think about access to food, to health, to education, it is a ... travesty that people do not have good access to transport and what that does to hinder community- and state-level growth. ... These things don't exist in a vacuum because they are layered together," he said.

"Converting to EVs is not sufficient ... to get us to net zero by 2050," said Gretchen Goldman, director of climate change research and technology at the Department of Transportation, referring to President Joe Biden's goal for economywide decarbonization. "And so that means also investing in transit ... and really making sure that we're diversifying in mode choice in lots of ways."

A priority for DOT is focusing on different contexts and different communities, and how to apply new technologies "because it's not going to be the same as what it looks like in urban spaces and similarly on tribal nations and lands."

Greening Rideshares in NYC

In New York City, combining transportation equity and decarbonization has meant looking closely "at modes of transportation that are used on a day-to-day basis in everyday lives of New Yorkers, but are simultaneously modes of transportation that we have control over," said Isabelle Thomas, policy adviser for living streets and public spaces.

Exhibit A, Thomas said, is the *Green Rides Initiative*, which has set a target for all vehicles in the city's rideshare fleet — taxis, Ubers and Lyfts — to be either zero emission or wheelchair accessible by 2030. For 2024, 5% of "all high-volume for-hire trips" will have to be zero-emission or wheelchair accessible, rising to 15% in 2025 and 25% in 2026 and then increasing by 20% per year to reach 100% by the end of the decade, according to a city website.



Talking sustainable transportation at the Tech for Climate Action Conference are (from left) Gretchen Goldman, U.S. DOT; Isabelle Thomas, NYC; Colin Tetreault, EY, and Tim Sexton, Minnesota DOT. | © RTO Insider LLC

FERC/Federal News



Overseen by the city's Taxi and Limousine Commission, the initiative means "we've already taken care of a part of what is a 78,000-vehicle fleet that's on our streets every day," Thomas said.

NYC also is working on electrifying its school bus fleet by 2035, drawing on a combination of state and federal funds, Thomas said. On March 18, Mayor Eric Adams *announced* New York City had received \$61.1 million in federal funds from the Infrastructure Investment and Jobs Act, which would be used to buy 180 new electric school buses (ESBs), quadrupling the total number of ESBs in the city's fleet.

An additional \$15 million from the U.S. DOT will go toward a "freight-focused" electric truck and vehicle charging depot to be located in the Hunts Point Food Distribution Center, one of the state's busiest trucking hubs, according to the announcement's press release.

Another key component of NYC's strategy for transportation decarbonization, Thomas said, is ensuring all New Yorkers can find DC fast chargers within 2.5 miles of where they live or work.

Building a Used EV Market

Consumer engagement was a major factor for Minnesota's adoption of California's Advanced Clean Cars II (ACCII) rule, which requires that all new light-duty vehicles sold in the state be zero emission by 2035.

"We went around the state and everybody said, 'We should have more electric vehicles in the state, but we can't get them here. [We] have to go to another state because of where we are in the middle of the country.' You had to go quite a way to get an electric vehicle," Sexton said.

According to *Conservation Minnesota*, a nonprofit advocacy group, only about half the models of EVs available on the market are for sale in the state.

Public health and equity also were drivers for

ACCII, Sexton said, "If we don't have vehicles coming into the state, especially new vehicles, we're not going to have a used vehicle market either, and without that used vehicle market, not everyone is going to be able to get into an EV."

Sexton also talked about Minnesota's approach to transmission siting along highway rights-of-way, working with a group called NextGen Highways to look at the opportunities and challenges. To begin with, rights-of-way are a "constrained resource," he said. "There [are] not unlimited amounts of it. ...

"There's a lot of stuff buried alongside the road and underneath it, whether it's water, sewer, fiber," which requires "being really thoughtful about when, how [and] where are we allowed to access" these sites, Sexton said. Permitting these projects means making sure "you have evaluated all the options, and this is the best path," he said.

According to a 2022 NextGen *feasibility study*, undergrounding HVDC and broadband lines in highway rights-of-way could help prepare Minnesota's grid for transportation electrification — and the installation of DC fast chargers — while increasing opportunities for remote work, online learning and other online services. The result could be an overall decrease in vehicle miles traveled in the state, the report says.

Sexton sees potential in linking reduction of vehicle miles traveled to rethinking and reform of land use, such as making communities more pedestrian and bicycle friendly. "I don't know if I want to live in a community [where] everybody has a car and everybody is driving and spending two hours one way to get to work," he said. "Even if it's not polluting, is that the way you want to live?"

Going Further, Faster

While providing unprecedented funding for a range of decarbonization initiatives, the IJA and Inflation Reduction Act have posed challenges for state government agencies that have to interpret and implement the new pro-

grams. But, Sexton said, the direction coming from federal agencies is as important as, if not more important than, the money.

Panelists generally agreed that cross-agency and cross-stakeholder input and planning are essential parts of designing and implementing effective, successful programs. Tetreault favors working with regional economic development agencies, rather than industry trade groups.

Economic development agencies are more likely to look at "smart, equitable, clean and green jobs ... [as] a growth vertical. Latching onto that in order to indicate there's economic prosperity coupled with decarbonization tied to things like transportation, I think, carries a message further," he said.

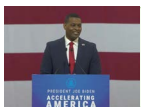
Minnesota has formed a Sustainable Transportation Advisory Committee, which includes regional development agencies, state and local government officials, and some of these agencies' strongest critics, Sexton said. "We made the commitment that we would respond, not that we'd accept every recommendation, but we'd facilitate the conversations," he said.

At the same time, Tetreault also stressed the importance of regulatory certainty for driving capital to specific markets, regardless of federal incentives. The best policies provide both carrots and sticks, he said. "Capital will follow certainty. It will stay where it's treated well. [It] will continue to grow where it feels warm."

In the face of the coming elections and potential regulatory changes, public-private partnerships could provide a way to use existing policy with capital, and provide a broader range of creative financing options, he said. State and sub-state contracts could include "things like disclosure [and] environmental performance standards," he said.

"Providing a vector for the capital markets to have verifiable opportunities and then to keep [them] verifiable through good disclosure management systems ... we can align public and private for quick reaction," he said. "Working together, we go further, and we go faster." ■

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CERAWeek 2024

Overheard at CERAWeek 2024

Load Growth from AI, Data Centers a Global Concern

By Tom Kleckner

HOUSTON — CERAWeek 2024 by S&P Global was supposed to explore “strategies for a multidimensional, multispeed and multifuel energy transition” and the energy industry’s response to growing demand for emissions reductions and cleaner forms of energy.

However, the two buzziest words during the weeklong conference March 18-22 turned out to be “data centers” and “artificial intelligence,” or AI, and their effect on growing electricity demand.

During one panel discussion, AES CEO Andrés Gluski noted the demand generated by data centers.

“I’m glad you mentioned data centers,” interjected the moderator, S&P Global’s Xizhou Zhou, “because every session seems to have to mention data centers or AI.”

“Coming out of the pandemic, we started to see demand increase two years in a row,” said Independent Electricity System Operator executive Chuck Farmer. “We’re less worried right now about data centers, but frankly, I wasn’t that worried about data centers until I came to this conference.”

Energy Secretary Jennifer Granholm said the explosive growth of data centers, cryptocurrency miners and AI-fueled technologies is what keeps her up at night.

Cryptocurrency miners have flocked to the U.S. after China’s 2021 crackdown on the industry. The U.S. Energy Information Administration [says](#) their energy demand could represent as much as 2.3% of electricity consumption, or 19 GW, according to the Cambridge Bitcoin Electricity Consumption Index (CBECI).

The CBECI estimated the U.S.’s global share of crypto mining went from 3.4% in 2020 to 37.8% in January 2022. ERCOT has 41 GW of requests for new mining capacity in its interconnection queue; about 9 GW have been approved for planning studies, according to NERC.

“Energy demand has been sort of flat because of energy efficiency, and now all of a sudden we’re seeing this huge increase because of AI, because of data centers, because of Bitcoin, because of crypto, because of the additional manufacturing facilities that are coming online



U.S. Energy Secretary Jennifer Granholm delivers an opening luncheon address to CERAWeek by S&P Global delegates. | © RTO Insider LLC

because of electrification of transportation,” Granholm said during her appearance. “As the AI revolution has come upon us, I think we have to think a little bit differently about how we ensure that we’ve got enough power.”

Indeed. Experts say AI could be instrumental in creating additional energy efficiency and decarbonization tools. DOE already has a pilot program to evaluate whether the huge amount of available data can speed up permitting timelines.

“Here’s the hopeful thing,” Granholm said “We really think that AI can be really helpful on quick permitting because with these huge datasets of land characterization, for example, and a huge amount of information already in the public datasets that DOE has access to through our national labs, we think that machine learning can speed up significantly permitting times.”

Microsoft co-founder Bill Gates said during his plenary session that AI can be used to determine the best ways to reduce demand at data centers that naturally will pop up where electricity is cheaper. AI also can be used to calculate emissions climate effects and improve efficiency.

“All of our sort of grid modeling and manage-

ment, these AI tools will come in and play a role,” he said. “But the current techniques require a lot of electricity.”

Pattern Energy Eyes Next Project



Hunter Armistead, Pattern Energy | © RTO Insider LLC

own thoughts on speeding up transmission permitting.

“Tight timelines to respond also have timelines for challenge,” Armistead said.

Pattern’s [SunZia Wind and Transmission](#) project was placed on the drawing boards in the mid-2000s, back when Blackberrys ruled the business world and Taylor Swift’s “Love Story” first caught Armistead’s attention.

“[‘Fearless’] was a badass album, by the way. I mean, I became a Swiftie early on,” he said.

Pattern didn’t become involved in SunZia until

CERAWeek 2024

2018, and it secured FERC's approval of its tariff only last year. All told, breaking ground on a project that should be commercially available within the next two years took 16 years. (See [FERC Approves Tariff for SunZia Transmission](#).)

"Sixteen years ... we can't do that again. We have to learn from this arc of time and figure out how to shrink it quite a bit," Armistead said.

While the project's costs have risen to \$11 billion and while Armistead said he hopes Pattern never does a deal that large again, he called SunZia a "transformative moment for our industry."

"Deals like this more naturally don't get done. The part that really just struck home with me is how critical this was to so many people," Armistead said. "My absolute hope for the future is that this is only the beginning. As an organization, Pattern has had the opportunity to learn what this all takes to do."

He said the company's next "most ambitious project" is *Southern Spirit*, formerly known as Southern Cross. The project involves 320 miles of 525-kV HVDC transmission facilities interconnecting ERCOT with MISO and grids in the southeast. The project gained regulatory approval from the Texas commission in 2022 after seven years of review, and FERC has said Southern Spirit will not trigger its jurisdiction over ERCOT. (See "SCT Proceeding Closed," [Texas Public Utility Commission Briefs: Sept. 29, 2022](#).)

"It is going to be even more awesome [than SunZia]," said Armistead, who said he told staff Southern Spirit is his favorite operational project.

"The reality is the complexity of integrating to ISOs, the disparate weather patterns between what goes on in the southeast and the complication of integrating renewable generation that's available to the southeast, yet being able to provide capacity back into ERCOT," he said. "I have no idea how we're going to structure the commercial side of it, but that's what makes it super-duper fun."

Glick Doesn't Miss Politics

Former FERC Chair Richard Glick popped up at CERAWeek's Innovation Agora, the conference's technology and innovation programming center, to promote Hydrostor's compressed-air, long-duration storage.

Glick told *RTO Insider* he is "fascinated" with the Canadian company's technology. Hydrostor uses compressed air and water to store energy produced during the compression. The energy is then used to generate power when it's released from underground rock caverns.



Former FERC Commissioner Richard Glick lays out his support for long-duration storage. | © RTO Insider LLC

"There really is a need for longer storage, so I thought this was really kind of the right time to get in and talk about some of the policies. It's been fun so far," Glick said. "There are enormous benefits from an environmental perspective and from an economic perspective."

Glick, who left FERC after 2022 when the U.S. Senate's Energy & Natural Resources Committee refused to hold a confirmation hearing, said he misses his work at the commission. (See [FERC's Work in 2022 Left in Doubt by Manchin](#).)

"The issues are really interesting, obviously, and you're in the middle of everything these days, for good and for bad," he said. "I don't miss some of the machinations, some issues that came up over time."

Perhaps aware that three potential successors would be going before the Senate Energy Committee, Glick added, "I certainly don't miss testifying on Capitol Hill."

SMRs Could be Answer for Nukes



Jimmy Glotfelty, Texas PUC | © RTO Insider LLC

stopping there.

"This is an opportunity for us to open the door and lay out the welcome mat that we are interested in nuclear," Glotfelty said during an Innovation Agora pod discussion. "We want to hear from you. If you all want to build, if you need to de-risk projects and we can help you do that in some way, let us know what that way is. That's what we want to do here."

"We don't want to be like every other state. We want to be ahead of every other state, and we want to build a business and an industry

"We're like a pumped hydro asset," Hydrostor President Jon Norman said.

One of consulting firm Glick & Quinlan's clients raised the former commissioner's awareness of long-duration storage, defined as eight hours or more.

here for a global nuclear business," he added. "That's the way we are looking at this. Not to build one or two plants, but to build a community and to build an industry that will serve the world."

The task force must deliver a report to the governor and the Legislature by December that outlines how plants are built and designed, how sites are identified, and whether any changes to laws or ERCOT protocols need to be made.

"We should look at nuclear plants in the long term like a dispatchable gas facility. I think as the cost curve comes down, [nuclear and gas] are going to be the same," Glotfelty said. "That's our expectation, that gas plants or nuclear plants can support the market's reliability in an equal fashion."



Ernest Moniz, Energy Futures Initiative | © RTO Insider LLC

Speaking on a separate panel, former U.S. Energy Secretary Ernest Moniz, now CEO of the nonprofit Energy Futures Initiative, said nuclear technologies come in several flavors besides SMRs and include micro-reactors, light water, heavy water, fourth generation, thorium, liquid metal and molten salt.

Moniz said his initiative has put together a suggestion to kick-start SMRs' deployment, noting it is translatable to gigawatt-scale reactors.

"The issue is getting an order book of sufficient scale to justify investments," he said, suggesting the order book be put together by the government. "Government has a role to help this happen in the United States when it's ultimately in the private sector, facilitating to share financial investment, because especially with a new design, the first reactor is likely to be substantially more expensive. If you can share the financial burden and price an order book for 10, 20 reactors or whatever you choose, that would be good."

That's exactly what the U.S. government is doing for TerraPower's planned Natrium reactor in Wyoming. The Gates-founded group has about \$1 billion in private funding and a reported \$2 billion from the government supporting the project.

TerraPower CEO Chris Levesque told the *Financial Times* the plant could begin construction in June and enter commercial operation in 2030. ■

FERC/Federal News

Granholm Receives Chilly Reception at CERAWeek 2024

Government's LNG Pause Concerns U.S. Allies, Senators

By Tom Kleckner

HOUSTON — A year ago, attendees at S&P Global's CERAWeek warmly greeted U.S. Energy Secretary Jennifer Granholm with a standing ovation for her role in passing the Inflation Reduction Act (IRA) and its \$369 billion in energy security and climate change investments.

Granholm's CERAWeek audience offered only tepid applause during her annual appearance March 18, an apparent response to the Biden administration's January *permitting pause* for new LNG terminal projects.

Acknowledging the elephant in the room, CERAWeek Chair Daniel Yergin began his interview with Granholm by asking her, "The LNG pause: What is it and what isn't it?"

She responded by pointing out the pause was enacted to study the environmental effects of approved LNG projects. The U.S. remains the world's largest LNG exporter at 14 million Bcf, Granholm said. She said an additional 12 million Bcf is under construction and 48 million Bcf has been authorized, with an additional 22 million Bcf authorized but waiting on final investment decisions.

"This pause does not touch any of that. This is just a pause to see what the future could bring," Granholm said. "We have a responsibility under the Natural Gas Act to approve authorizations for LNG if they are in the public interest. This study is like other studies we've done in the past, just assessing where we are so that we can move forward."

Turning to Yergin, she said, "Dan, I predict that when we sit here next year — she says with confidence — this will be well in the rearview mirror."

Noticing the muted response in the ballroom, Granholm added, "I think that's an applause line."

U.S. Sens. Joe Manchin (D-WVa.) and Dan Sullivan (R-Ala.) piled on later during appearances with Yergin and in a visit to the media center.

"The pause needs to be paused," Manchin said, calling the move a "political gesture" and saying the environmental study has not yet been conducted.

He noted LNG production has gone from nothing in 2016 to 14 million Bcf today and natural gas prices are still \$2/MMBtu or less.

"I'm afraid that the market will be shorted here. The United States consumer will pay



U.S. Sen. Joe Manchin | © RTO Insider LLC

more, or the economy in the United States could be threatened. None of that's ever been discussed," Manchin said. "The pause has to be stopped until the facts of what we're dealing with support the target. You just don't throw a curveball and scare the bejesus out of the markets and our allies."

Sullivan said the pause was the talk of last month's Munich Security Conference, where he co-led a bipartisan group of a dozen U.S. senators. He disputed recent comments Granholm made before Manchin's Energy and Natural Resources Committee, when Sullivan said she "essentially said our allies weren't that concerned [about the pause]."

"That's not what we're hearing in Asia and in Europe. Every ally that we spoke to [in Munich] had major concerns about the Biden administration's LNG moratorium. I mean, the most senior German officials, [European Union] officials, everybody," he said. "It's not the time to be taking away one of the most critical weapons that we have provided our fellow allies in Asia and in Europe, and that's American energy. A lot of us think it's about domestic politics, but it's having serious consequences with regard to our national security and the national security of our allies."

The pause is driving interest and potential investment in countries like Qatar, Sullivan said. In a letter he co-wrote with three other Republican senators intended for John Podesta, the administration's senior adviser for international climate policy, Sullivan said the Middle Eastern country plans to expand its LNG production, which could result in control of 25% of the global market by 2030.



DOE Secretary Jennifer Granholm leads her audience in applause. | © RTO Insider LLC

FERC/Federal News



Noting that Russia reached out to Germany after the pause's announcement, Sullivan said, "That is exactly the opposite of the policies that we've been trying to undertake in a bipartisan way after the brutal invasion of Ukraine, which is to enable our allies to get off Russian oil and gas. This is a strategy that is upside down in terms of what we're trying to do as a country."

Granholm and the senators did reach common ground on improving the energy infrastructure permitting process, a task that sometimes seems insurmountable.

"We keep talking about getting a permitting bill, we keep trying to have it, but it's hard to get cooperation," Granholm said. "There is some bipartisanship around permitting reform and moving quickly. We're doing what we can on the executive side."

As an example, Granholm said, the administration has instituted a two-year "shot clock" permitting transmission on public lands.

"We'd love to see that kind of shot clock for all kinds of permitting in the U.S.," she said.

Asked about his energy committee's objectives for the rest of the year, Manchin, who chairs the committee, said, "I've got to get permitting done. I'm doing everything we can. We want to get it done. And I think people are concerned about it. We are so close."

Manchin said he enjoys not just the administration's support, but the support of all stakeholders.

"Everybody's supportive," he said, "but what happens is everybody is supportive of any good idea, but they end up letting the perfect be the enemy [of the] good."

"It's critical to the country, critical to every state," Sullivan said of the reform. "You talk to



U.S. Sen. Dan Sullivan | © RTO Insider LLC

any mayor in America, you talk to any governor in America, it doesn't matter what party, they know that it's killing us that it takes some nine years to permit a bridge. It's imperative that we get it done, and I do think there's a political will. It just makes sense.

"There's a whole bunch of ways in which we can tighten up our permitting system that makes our country stronger and all our research development projects ... so I'm going to keep pressing it as long as I'm in the U.S. Senate."

Back in the ballroom, Granholm said the IRA, described last year as a "big carrot," is being "gobbled up voraciously" by investors.

"It's just amazing how the tax credits are doing the work of reshoring manufacturing and making that happen," she said, reminding attendees that the IRA is also a jobs program. "It's really so gratifying to see that we now have an industrial strategy in this country and that we're not just going to be passive bystanders to the loss

of manufacturing jobs."

She also announced the release of DOE's latest Pathways to Commercial Liftoff report, focused on *geothermal energy*, and the new Regional Energy Democracy Initiative. REDI is meant to empower communities to work with businesses, community groups, academic institutions and philanthropists to "weave" equity and justice into DOE-funded clean energy projects.

The initiative will begin with a pilot program along the Texas and Louisiana Gulf Coast but could expand with DOE's plans to award more than \$8 billion for carbon-reduction and clean energy infrastructure projects.

"Ultimately, we have two clear goals: first, meet the needs of today, and second, move quickly and intentionally for the realities of tomorrow," Granholm said. "It's a question of will. I know there may be some in this room who would prefer to wait and see or to maybe push the burden of tackling climate change onto others. But let's be clear. Consumers are calling for change. Communities are calling for change. Investors are calling for change."

Granholm called on her audience to help manage the transition "responsibly and with urgency" and to provide opportunities for investors, communities and workers. She said they have the power to increase their companies' investment returns and "heal our planet."

"But make no mistake, what we are witnessing now, what we are participating in, is historic," she said. Dropping a reference to the musical "Hamilton," Granholm closed by saying, "You are going to be able to tell your grandchildren that you were in the room where it happens. It is a once-in-a-lifetime challenge and a once-in-a-lifetime opportunity." ■



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FERC Upholds, Clarifies Generator Interconnection Rule

Duke, Idaho Power, APS Ruled in Partial Compliance with Order 2023

By Rich Heidorn Jr.

FERC on March 21 rejected challenges to its new generator interconnection rules under Order 2023 while offering several clarifications, minor modifications and an extended compliance deadline.

Issued in July, *Order 2023* sought to clear backlogged interconnection queues by implementing a first-ready, first-served cluster study process; increasing interconnection customers' financial obligations; and penalizing grid operators for missing study deadlines. (See *FERC Updates Interconnection Queue Process with Order 2023*.)

The commission received 32 requests for rehearing or clarification of the order, which required changes to the *pro forma* large generator interconnection procedures (LGIP), *pro forma* large generator interconnection agreement (LGIA), *pro forma* small generator interconnection procedures (SGIP) and *pro forma* small generator interconnection agreement (SGIA).

The rehearing requests were automatically denied when FERC failed to act on them within 30 days, but the commission addressed all the filings in the 1,063-page order issued at its monthly open meeting (Order 2023-A, *RM22-14-001*).

Order 2023 is the subject of at least a dozen challenges filed in federal appellate courts since October. Challenging the order are PJM, SPP and NYISO; transmission owners in NY-ISO and MISO; utilities PacifiCorp, Avangrid, Exelon, Dominion Energy, Florida Power & Light and FirstEnergy; and Advanced Energy United.

'Not a Problem that Only Exists in Isolated Pockets'

The commission rejected complaints it exceeded its authority under the Federal Power Act and denied it had declared all existing interconnection tariffs — including recently approved revisions by PJM and Dominion Energy South Carolina — unjust and unreasonable.

"The findings in Order No. 2023 relate to the commission's existing *pro forma* generator interconnection procedures and agreements, which, among other things, relied on a serial first-come, first-served study process," it wrote. "The commission did not make any find-



Arizona Public Service

ings regarding specific transmission provider's tariffs, and it was not required to do so under FPA Section 206. Issues regarding the individual tariffs of specific transmission providers that currently deviate from the existing *pro forma* generator interconnection procedures and agreements will be addressed on an individual basis on compliance."

FERC said interconnection queue delays "are a nationwide problem, not a problem that only exists in isolated pockets," noting that less than 25% of requested interconnection capacity reached commercial operation between 2000 and 2017 in every region, with some regions as low as 8%.

"The commission carefully examined recent queue-reform proposals to identify best practices to implement nationwide. However, no transmission provider has yet adopted all of the reforms in Order No. 2023," it said, adding that it "would be waiting a very long time indeed if it could not issue a generic rulemaking while any individual transmission provider pursues its own regional queue reform."

FERC also rejected PJM's assertion that some transmission providers should be presumed to be in compliance with Order 2023: "While

the majority of reforms adopted herein are based on individual and incremental improvements that one or more regions have already implemented, no transmission provider has yet to adopt the entirety of Order No. 2023's broad suite of reforms," it said. "Thus, we are unpersuaded by PJM's arguments on rehearing that ongoing, recently approved interconnection queue reform packages presumably already comply with Order No. 2023. Applying a presumption to transmission providers who recently adopted some similar reforms, but not all the reforms contained herein, will only result in incomplete change that fails to fulfill or further delays the comprehensive reform required by Order No. 2023."

Changes

The revised order:

- specifies that interconnection customers in the queue of a transmission provider using or transitioning to a cluster study process must comply with the transmission provider's new readiness requirements within 60 days of the effective date of the transmission provider's compliance filing. The commission also added a new section, 5.1.2, to the *pro forma* LGIP, stating that transmis-

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sion providers that have adopted a cluster study process or begun a transition to it will not be required to implement the transition process specified in Order 2023.

- specifies that a network upgrade required for multiple interconnection customers in a cluster may be considered a standalone upgrade if the customers agree to build. It agreed with Advanced Energy United, the American Clean Power Association and the Solar Energy Industries Association that it should revise the definition of standalone network upgrades to maintain the pre-Order 2023 opportunity for interconnection customers to exercise the option to build as part of the cluster study process.
- requires transmission providers to complete their determination that an interconnection request is valid by the close of the cluster request window so that only interconnection customers with valid interconnection requests proceed to the customer engagement window. It set aside paragraph 234 of Order 2023 to clarify that an interconnection customer's cure period ends at the close of the cluster request window at the latest.
- expands the acceptable forms of security for the commercial readiness and study deposits to include not only cash or an irrevocable letter of credit, but also surety bonds or other forms of financial security that are "reasonably acceptable to the transmission provider."

The order also provided clarifications on the allocation of cluster network upgrade costs; withdrawal penalties; study delay penalties; availability of surplus interconnection service; operating assumptions for interconnection studies; consideration of alternative transmission technologies; and ridgethrough requirements.

Acknowledging the changes it made, the commission also extended the compliance deadline from April 3 to 30 days after the publication of Order 2023-A in the *Federal Register*.

Commission Acts on 3 Compliance Filings

In separate orders, the commission found Duke Energy had largely complied with Order 2023 but gave Idaho Power and Arizona Public Service lengthy to-do lists. FERC ordered the utilities to file revised provisions within 30 days of publication of Order 2023-A in the *Federal Register*.

Duke Energy

The commission found that Duke Energy Carolinas and Duke Energy Progress were fully in compliance but that Duke Energy Florida failed to fully comply (ER24-679, ER24-683).

It required the Florida utility to modify or defend its definitions of "scoping meeting" and "transmission provider's interconnection facilities" because they varied from in the commission's *pro forma* LGIP, and it said the utility had not fully complied with the order regarding the allocation of cluster study costs and site control.

Idaho Power

The commission gave Idaho Power a mixed grade, faulting it for "various unexplained revisions throughout" its LGIP, *pro forma* LGIA, SGIP and *pro forma* SGIA (ER24-10, ER24-1399).

It cited the utility's proposed definition of "generating facility" and insertion of "nonrefundable" when describing the \$5,000 application fee in its LGIP.

It also required the utility to make minor changes to its provisions regarding cluster studies and other changes to sections concerning affected-system studies, surplus intercon-

nection service and provisional interconnection service.

Arizona Public Service

FERC was most critical of APS' compliance filing, saying the company had proposed "to retain a significant number of existing tariff provisions that deviate from the *pro forma* interconnection procedures and agreements" adopted in Order 2023 (ER24-330).

APS said its proposals were justified because the commission approved several APS-specific interconnection changes in a September *order* — after issuing Order 2023.

The commission disagreed. "Although the commission previously accepted certain deviations proposed by APS in its queue reform filing, the commission evaluated the queue reform filing under the commission's *pro forma* interconnection procedures and agreements in effect at the time — that is, those adopted in Order Nos. 2003, 2006 and 845, without the modifications adopted in Order No. 2023," it said. "As such, the commission's findings in the queue reform order have no bearing on whether APS has satisfied its obligation to comply with the requirements of Order No. 2023."

The commission said APS had proposed deviations from the commission's *pro forma* LGIP and *pro forma* LGIA regarding the cluster study process "without demonstrating how such deviations satisfy the 'consistent with or superior to' standard."

It also found APS only in partial compliance in its language on allocation of cluster study costs; network upgrades and interconnection facilities; study deposits; site control; commercial readiness provisions; withdrawal penalties; transition process; operating assumptions for interconnection studies; alternative transmission technologies and modeling; and ridgethrough requirements for nonsynchronous small generating facilities. ■

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CAISO/West News

CAISO's EDAM Scores Key Wins in Contested Northwest

Portland General, Idaho Power Moving to Join Extended Day-Ahead Market

By Robert Mullin and Tom Kleckner

HOUSTON — CAISO scored simultaneous victories in heavily contested territory on March 21 after Portland General Electric (PGE) and Idaho Power both signaled their intent to join the ISO's Extended Day-Ahead Market (EDAM).

The moves significantly boost EDAM's position in the Pacific Northwest, a region where SPP's competing Markets+ day-ahead offering has won a strong following among the network of publicly owned utilities entitled to low-cost power from the Bonneville Power Administration — which has been a key participant in developing Markets+ and expects to issue a market “leaning” next month. (See [NW Cold Snap Dispute Reflects Divisions over Western Markets](#).)

“This has been an important and consequential week for improving grid reliability and customer value in the West,” CAISO CEO Elliot Mainzer said in a statement. “We are honored that both Idaho Power and PGE are taking steps to join the EDAM. Their participation will allow for improved optimization and coordination of critical components of the Western electricity network, helping to bridge the Pacific Northwest with the Rocky Mountain and Desert Southwest regions.”

The decisions add to a string of good news for EDAM. In February, the Los Angeles Department of Water and Power (LADWP) received board [approval](#) to prepare to join the EDAM, while earlier this month, the Western Area Power Administration's Desert Southwest Region [pulled out](#) of the second phase of developing Markets+.

The commitments by PGE and Idaho Power put five entities in the EDAM camp, including PacifiCorp, the Balancing Authority of Northern California and LADWP.

‘Rigorous Analysis’

PGE's decision should come as little surprise to electricity sector stakeholders in the West, with multiple industry sources telling *RTO Insider* as early as last year that the utility firmly favored joining EDAM.

The utility has been participating in CAISO's Western Energy Imbalance Market (WEIM) since 2017 and “worked extensively to help develop [EDAM] to lower power costs, increase resilience and access more clean energy sources across the West,” CEO Maria Pope said in a statement accompanying the utility's announcement.

Additionally, Pam Sporborg, the utility's

director of transmission and market services, is co-chair of the Launch Committee for the West-Wide Governance Pathways Initiative, a multistate effort to develop a governance framework for an independent RTO that would expressly include California and build on the WEIM and EDAM.

“We looked at Markets+ very seriously,” Pope told *RTO Insider* on March 21 on the sidelines of the CERAWeek by S&P Global conference. “I was in Little Rock [at SPP headquarters] last summer, looking at our analysis and how we were thinking of the product that they were offering. We compared that with CAISO's opportunities, and we did rigorous analysis and came to [our] conclusion as a result of the analysis.”

That analysis showed PGE should expect “anticipated gross cost savings between \$6 million and \$18 million annually, based on current modeling and depending on the final number of EDAM participants,” PGE spokesperson Andrea Platt told *RTO Insider* in an email.

Platt also noted that the move “takes advantage of technology and systems PGE has deployed and leverages PGE's transmission system to connect regional resources across a common market — such as hydropower from the Pacific Northwest, and solar facilities in California and the Desert Southwest.”

PGE is Oregon's largest utility by customer base, serving about 900,000 customers in a 4,000-square-mile service territory covering seven counties in the northwestern part of the state, with most concentrated in the Portland metro area. It operates about 1,255 circuit-miles of transmission and is co-owner of the California-Oregon Intertie, a key 500-kV link for transferring energy between the Northwest and CAISO.

Speaking on a panel at CERAWeek, Pope emphasized a point repeatedly made by advocates of a single electricity market in the West, including the backers of the Pathways Initiative, highlighting the need to “leverage” the full diversity of resources across the West to deliver “the lowest-cost renewable energy to our customers with significant savings, but also significantly enhance reliability.”

“I think when you see the additional load growth that is coming, you see the continual closure of some of our more carbon-emitting resources across the West, the expense and



PGE CEO Maria Pope speaking at CERAWeek by S&P Global on March 21, 2024. | © RTO Insider LLC

CAISO/West News

time it takes to build renewable energy as well as transmission, the work it takes to build out a virtual power plant and really using the distribution system, we need all solutions to be on the table to keep customer prices as low as possible," Pope told *RTO Insider*.

While PGE is not required to obtain approval from the Oregon Public Utility Commission to join EDAM, it has provided regulators with an informational filing that outlines its analysis and decision, Platt said.

Letter to CAISO

If PGE's participation in EDAM looks inevitable, Idaho Power's decision for the CAISO market appears more tentative, if still likely.

The Boise-based utility conveyed its intentions in a March 21 [letter](#) to CAISO COO Mark Rothleder rather than in a formal announcement.

The letter signed by Kathy Anderson, the utility's transmission and markets senior manager, explains that market studies it commissioned indicate it will benefit financially from extending its current real-time market participation into the day-ahead time frame and that EDAM "could provide the most value for Idaho Power's customers."

"Based on the study results and additional analysis performed, we are currently leaning towards EDAM as the preferred day-ahead market in our respective balancing authority area, subject to the necessary regulatory approvals and satisfactory resolution of certain outstanding issues," Anderson wrote. "Before formally committing to join and implement EDAM, it is important to resolve a few issues."

The letter cites two of those concerns, including the need for the EDAM to include a "transmission revenue recovery mechanism" that allows participants to be reimbursed for short-term open-access transmission tariff-related revenue losses incurred when transitioning into the market, the only aspect of the market that FERC rejected when approving the EDAM tariff in December. (See [CAISO Wins \(Nearly\) Sweeping FERC Approval for EDAM](#).)

The other concern relates to ensuring that the EDAM's default energy bids for gas-fired generators represents the "actual fuel risk and costs of each unit, addressing both the fuel zone and purchase cycle relative to the awards," a concern for generators that don't benefit from the same storage ability as that within CAISO's BAA, the letter says.

The letter also encourages CAISO and stakeholders to address the ISO's lack of independent governance but says Idaho Power will not require that issue to be resolved before committing to EDAM.

"We are encouraged by the results of the benefits studies and view EDAM as an important option to increase market benefits that our customers are already experiencing in WEIM," Anderson wrote.

Idaho Power serves 630,000 customers across 24,000 square miles in southern Idaho. The utility operates about 1,988 MW of hydroelectric generation and 4,800 miles of high-voltage transmission, some of which interconnects with the BPA system.

In December, CAISO's Board of Governors approved a plan for the ISO and Idaho Power to jointly fund the \$1 billion Southwest Intertie Project-North (SWIP-N) project, a 285-mile, 500-kV line in Nevada designed to tap energy from Idaho's wind resources for delivery to markets to the south. The project is now included in the ISO's 2022/23 transmission portfolio. (See [CAISO Board Approves Nevada Transmission Line to Access Idaho Wind](#).) ■



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CAISO/West News

FERC Rejects PURPA Petition in Arizona Solar Case

Rooftop Solar Customers Challenged Salt River Project Rates

By Elaine Goodman

FERC has declined to act on a petition that accused Arizona's Salt River Project of setting rates that discriminate against customers with rooftop solar ([EL24-54](#)).

The petitioners had asked FERC to initiate an enforcement action against SRP under the Public Utilities Regulatory Policies Act. But in a notice of intent not to act issued March 21 at its monthly open meeting, FERC declined to do so.

The petition was filed Jan. 12 by two SRP rooftop solar customers, Karen Schedler and Jeremy Helms, and the nonprofit advocacy group Vote Solar. An amended petition filed Jan. 22 added Solar United Neighbors as a petitioner.

The petition alleged that SRP's rate plans discriminate against rooftop solar customers through a higher fixed monthly charge for solar customers and more advantageous peak periods for non-solar customers. (See [Petition Seeks PURPA Protections for Rooftop Solar](#).)

Non-solar customers have a three-hour peak period. The time-of-use plan offered to solar customers has a longer peak period that varies by season: 2 to 8 p.m. in the summer, and 5 to 9 a.m. plus 5 to 9 p.m. during the winter, according to the petition.

But SRP said in a motion to dismiss that its retail rates for rooftop solar customers are just and reasonable "and fully consistent with PURPA's costing principles."

SRP, along with intervening parties including the National Association of Regulatory Utility Commissioners, also claimed that the issue of SRP's retail rates is not within FERC's jurisdiction.

"Petitioners challenge SRP's rate design as applied to retail customers with rooftop solar PV panels located behind the meter," NARUC wrote in a filing. "Such challenges to retail rates are subject to exclusive state jurisdiction."

NARUC also said the petition offered no evidence that the retail customers' rooftop solar is a "qualifying facility" under PURPA.

PURPA was enacted in 1978 to encourage development of small power producers and co-generators and to reduce fossil fuel demand.

In concurring statements accompanying FERC's order, Commissioners Allison Clements and Mark Christie expressed differing opinions on the issue of FERC's jurisdiction.

Christie said he was persuaded by the arguments from SRP, NARUC and other intervenors that the issues in the petition should be addressed at the state rather than federal level.

But Clements said the mere fact that residential rooftop solar customers are making the claim does not make it a state issue.

"While states and relevant non-jurisdictional entities such as SRP have retail rate authority, PURPA provides for federal jurisdiction over a utility or retail authority's implementation of PURPA's obligation to purchase from and sell to qualifying facilities," Clements wrote. "Further, it is clear that behind-the-meter rooftop solar arrays owned or leased by residential customers can be qualifying facilities."

FERC's decision means the petitioners may bring an enforcement action against SRP "in the appropriate court," the commission said.

David Bender, an Earthjustice attorney representing Vote Solar, said he had expected the commission's decision to not bring an enforcement action. Bender said he was aware of FERC bringing enforcement actions only a couple of times in the 46 years since PURPA was enacted.

"We filed our petition because it is a prerequisite to bringing our own enforcement action in federal court, which we will proceed to now do," Bender said in an email to *RTO Insider*.

An SRP spokeswoman said the company was pleased with FERC's decision, noting that the utility's position was supported by the American Public Power Association and the Large Public Power Coalition, in addition to NARUC.

"SRP offers multiple rooftop solar rate options to customers that are just, reasonable and fair and prevent cost shifts from the class of customers who have chosen to put rooftop solar on their homes to the class of customers without rooftop solar," the spokeswoman said. ■



| Sun Valley Solar Solutions

CAISO/West News

WEIM Expert Calls for Fast-start Pricing to Address ‘Anomalies’

WEIM Governing Body’s Expert Presents Case for Change in CAISO’s Markets

By Ayla Burnett

Fast-start pricing could fix certain “price anomalies” in CAISO markets more effectively than existing mechanisms for compensating ramping resources, the Western Energy Imbalance Market Governing Body’s market expert told the group.

“The primary objective of fast-start pricing is to provide a more efficient price signal when fast start units are dispatched to meet load,” Susan Pope, an electric power consultant appointed to assist the WEIM body, said during the group’s March 19 monthly meeting.

“The more accurate fast-start pricing signal cannot always and will not always be provided by either the flexible ramping product or short-age pricing,” Pope said.

Out of the six FERC-jurisdictional organized markets, CAISO alone doesn’t use fast-start pricing, a mechanism that factors the cost of starting and operating gas-fired peaking units into the wholesale market price.

According to a June 2022 *analysis* published by Powerex and the Portland, Ore.-based Public Power Council (PPC), CAISO and its Department of Market Monitoring (DMM) have actively opposed fast-start pricing and instead chose to rely on out-of-market payments to individual units to enable them to break even on daily variable costs.

But absent fast-start pricing, market prices may not reflect the cost of meeting incremental load when starting and operating natural gas units to meet peak demand, undermining the accuracy of pricing in the WEIM — and, paradoxically, causing participants to potential-

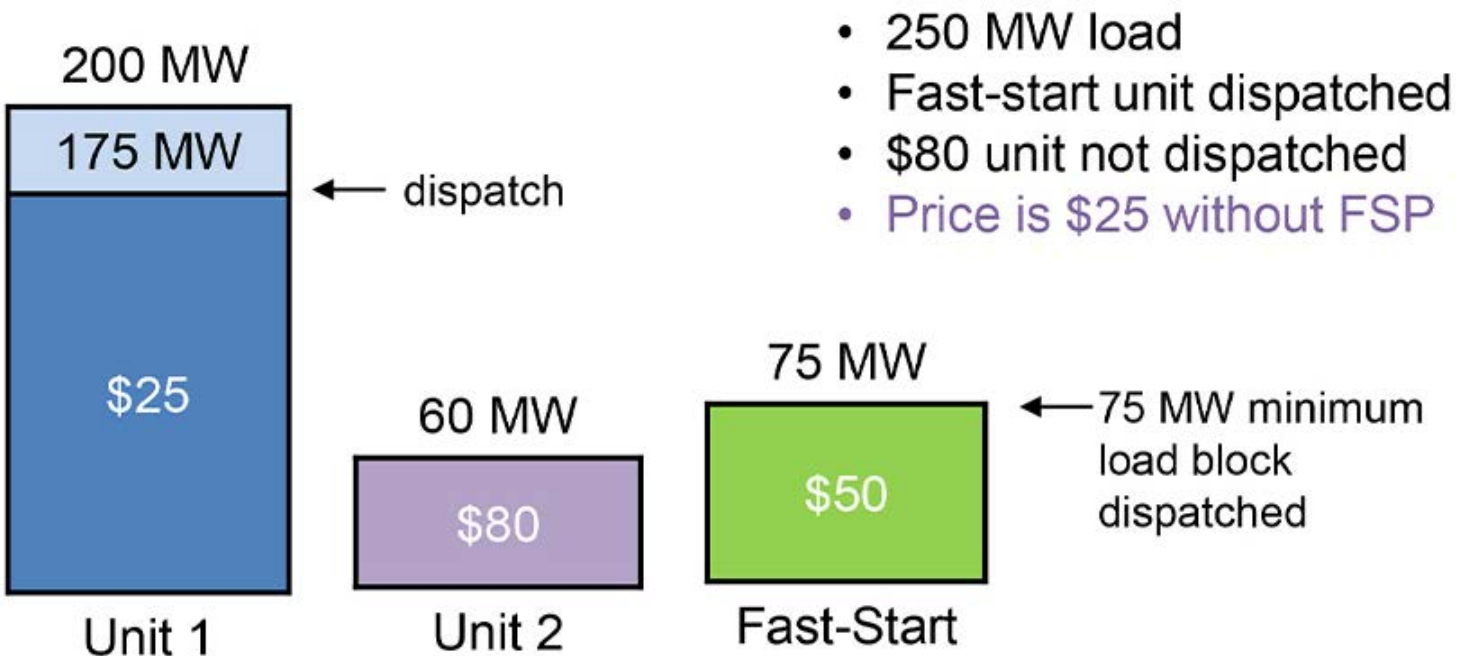
ly pay more than necessary in some intervals.

“The understated price could incorrectly encourage parties to schedule additional exports, even though the price for meeting the export schedule in the dispatch could turn out to be higher than the understated price they actually end up paying,” Pope said. “The flip side of this is that the price signal for incremental supply is also understated, which sends the wrong signal to encourage incremental supply to offer the dispatch.”

Pope pointed out also that the 2022 report may have substantially overstated the potential price impact of fast-start pricing due to a lack of nonpublic data CAISO has since gained access to.

In December, CAISO presented its own *analysis* of fast-start pricing and sought stakeholder

The objective of FSP is to fix price anomalies that can occur when the least-cost dispatch starts up block-loaded fast-start units.



CAISO is considering adopting fast start pricing to fix potential price anomalies in the market. | CAISO

CAISO/West News

feedback for developing its scope.

Flexible Ramping and Shortage Pricing

Other pricing mechanisms, such as the flexible ramping product and shortage pricing, won't fix the fast-start pricing issue, Pope said, because while they can overlap and trigger simultaneously, they operate under different grid conditions and provide distinct functions.

"The underlying reason why the flexible ramping product and shortage pricing will not fix the fast-start pricing anomaly is at root because the three pricing enhancements are aimed at fixing different things," Pope said. For example, fast-start units could be dispatched to meet load when there is neither a flexible ramping constraint nor a capacity shortage, meaning that neither of the alternatives can be relied upon to substitute fast-start pricing.

Impact on the WEIM

The use of fast-start resources to meet incremental load will increase locational marginal prices and potentially reduce emissions, Pope said.

"One of the possible benefits of fast-start pricing is to enable others who are not required to bid or offer into the market to see the higher price and choose to participate, and by their participation, offer the opportunity to displace the start-up of more costly emitting units," she said. The higher prices could also improve

market efficiency by increasing the number of bids and offers, she added.

The potential environmental impact of not using fast-start pricing was a key concern outlined in the 2022 analysis, which identified that lack of the price signal could weaken carbon-pricing programs.

"The calculation of wholesale market prices in CAISO-operated markets not only excludes the cost of starting and operating natural gas peaking units, it also excludes the cost of GHG emissions from those units, which can be among the highest in the grid," the report reads. "This undermines a key goal of carbon-pricing programs, including California's cap-and-trade program as well as programs being explored by multiple other Western states."

Fast-start Pricing in Other Markets

Examining the efficiency of fast-start pricing in other RTOs and ISOs can offer CAISO insight into how the mechanism could operate in its markets, Pope said.

Fast-start pricing has been a feature of NYISO since 1990 and MISO since 2010, and independent market monitors are divided on their views on the mechanism.

According to Potomac Economics, the IMM for NYISO, MISO and ERCOT, fast-start pricing has "significantly improved real-time price formation in MISO" and "has led market price

signals to better reflect system conditions and provide better performance incentives for flexible resources when fast-start units are deployed" in NYISO.

PJM IMM Monitoring Analytics takes a dimmer view, finding that fast-start pricing distorts "the correct signal for efficient behavior" and inappropriately pays higher prices to inflexible generators.

And in 2023, CAISO's DMM said fast-start pricing "is inconsistent with the features of locational marginal pricing that maximize market surplus and provide incentives for units to operate at the most efficient, socially optimal dispatch level."

It's unclear whether an existing fast-start pricing design could be easily added to the WEIM of the ISO's Extended Day-Ahead Market. Even if the mechanism is effective in other regions, Pope said, market changes will be needed to reflect the scheduling and pricing modeling runs used for WEIM dispatch, which CAISO is still studying.

Regardless of the challenges, WEIM Governing Body members appeared open to considering fast-start pricing.

"It is a subject of great interest and much debate, and I think we could all use a greater understanding of this and how it applies in the current West," said WEIM Governing Body member Robert Kondziolka. ■

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ERCOT News



Texas PUC Establishes \$5B Energy Fund

Low-interest Loans Designed to Add Dispatchable Generation

By Tom Kleckner

The Texas Public Utility Commission on March 19 adopted a rule establishing the Texas Energy Fund In-ERCOT Generation Loan Program, a \$5 billion fund designed to bring new dispatchable power projects to the state.

The [rule](#) establishes the fund's application process, project eligibility requirements, evaluation criteria and loan terms. The low-interest loans can be used for new dispatchable generation facilities or to expand existing facilities within ERCOT ([55826](#)).

Qualifying projects for the [Texas Energy Fund](#) (TEF) must add at least 100 MW of new dispatchable capacity to the grid. The PUC says the program can support up to 10 GW of new or upgraded generation capacity in ERCOT.

"As our state's population and economy grow, so does the demand for electricity, and we must ensure Texans have the power they need, when they need it," PUC Chair Thomas Gleeson said in a [statement](#). "This rule lays a strong foundation for the Texas Energy Fund's success and for future investment in the state."

Speaking on a panel during the recent CERAWeek 2024 by S&P Global conference in Houston, NextEra Energy's Michele Wheeler, vice president of regulatory and political affairs, said the market indicates the fund will be oversubscribed.

"We hope that's the case," she said.

NRG Energy's interim CEO, Larry Coben, [said](#) in February the company plans to apply for up to \$900 million in TEF loans to finance construction of two new natural gas-fired plants that would be available in 2026. Coben reiterated during CERAWeek that the two peakers and another baseload plant will add 1,500 MW to the Texas grid.

Companies can begin applying for the in-ERCOT program June 1. Initial disbursements for approved loans will be issued by Dec. 31, 2025.

However, supply chain issues could pose a significant roadblock, commissioner Jimmy Glotfelty said during the March 21 open meeting. He recounted a conversation he had during CERAWeek with a Siemens senior executive.

"He said, 'Good luck with getting a combustion turbine before 2031,'" Glotfelty said. "If the

market [is] seeing a massive delay in this major equipment, I think that is something that really has to be conveyed to the legislature and to us so that we don't get in a bind."

One of the TEF's four programs, an early completion bonus, awards grants to new dispatchable generation facilities that meet certain planning requirements after June 1, 2023, and interconnect to the ERCOT grid before June 1, 2029.

The commission agreed with stakeholders to change the rule's performance standards and ordered the revisions during the meeting. The performance availability factor (PAF) was reduced from 90% to 85% and the performance outage factor (POF) rose from 10% to 15%.

Gleeson said in a [memo](#) he was persuaded by commenters who said the performance metrics would be "very difficult to achieve" throughout the loan's term for units operating under standard operating processes. The commenters said that because of the length of planned maintenance outages and "unforeseen operational issues" during the early years of a plant's life, additional flexibility in the PAF and POF metrics is "both necessary and reasonable," Gleeson said.

In addition to the In-ERCOT Generation Loan Program, the rule establishes TEF programs providing:

- completion bonus grants for new dispatchable generation projects that "consistently provide power generation over a 10-year period";
- grants for companies to establish or secure back-up power resources; and
- grants to improve electric service resiliency and availability outside the ERCOT region.

The Texas Legislature could provide additional TEF funding in future years, the PUC said.

PUC staff determined switchable resources providing energy to both ERCOT and SPP are not eligible for the fund, as they are not totally committed to the Texas market. However, they will be eligible for completion bonuses because the law does not make a distinction between ERCOT and non-ERCOT resources.

"We want 100% of the new capacity generated to be dedicated to the ERCOT market," PUC staffer David Smeltzer said.

The TEF is a result of legislation passed last year ([Senate Bill 2627](#)). Texas voters overwhelmingly approved the fund in November as a constitutional amendment. (See [2023 Elections Bring Billions for Texas Gas, Dem Wins in Virginia, NJ](#))

"Voters ... made it clear that reliable electricity is a top priority," the bill's author, state Sen. Charles Schwertner (R), said. "We must expand and strengthen our on-demand, dispatchable power generation in order to deliver the reliable electricity all Texans expect and deserve."

ERCOT Preps for Solar Eclipse

ERCOT COO Woody Rickerson told the commission the grid operator is preparing for the [April 8 total solar eclipse](#) and does not expect reliability problems, using lessons learned from October's annular eclipse.

"ERCOT will pre-posture the system just like we did previously as necessary to meet both [solar's] down ramp and the up ramp," he said.

The eclipse will cross Texas from the southwest to the northeast between 12:10 p.m. and 3:10 p.m. CDT, with sun coverage ranging from 81 to 99%, ERCOT said. Solar generation is projected to dip as low as about 7.6% of its maximum clear-sky output at about 1:40 p.m.

"That's a pretty big ramp down," Rickerson said. "We are fortunate that this solar eclipse is occurring in April and not August."

ERCOT is working with solar forecast vendors to ensure models account for the eclipse's effect. Ancillary services will be used for additional balancing needs. The first market notices will go out March 28, with additional communications to the market following.

The ISO breezed through a test case in October. Solar production dropped from just over 7,000 MW to 1,474 MW as the eclipse's "[ring of fire](#)" traversed Texas. Natural gas resources helped compensate for the solar drop, increasing generation by more than 4,000 MW increase. (See [ERCOT Smoothly Handles Annular Solar Eclipse](#).)

Texas A&M University's Smart Grid Center has made public a [visualization of the eclipse's effect](#) on solar generation across Texas. ERCOT has about 22 GW of installed solar capacity. ■

ISO-NE News

ISO-NE to Study Offshore Wind Points of Interconnection

By Jon Lamson

Building on its 2050 Transmission Study, ISO-NE plans to study the effects of shifting two offshore wind points of interconnection (POIs) from Maine to Massachusetts and analyze regional offshore wind interconnection points, the RTO told its Planning Advisory Committee (PAC) on March 20.

The *2050 Transmission Study* found the transmission upgrades to meet the region's projected 57-GW 2050 peak load will cost \$22 billion to \$26 billion. One key constraint identified by the study was the region's ability to send power from renewables in Maine and New Hampshire south to meet load in the Boston area. (See *ISO-NE Prices Transmission Upgrades Needed by 2050: up to \$26B.*)

These results are partially contingent on where ISO-NE has modeled offshore wind projects connecting to the grid, locations that are hardly set in stone.

The finalized Gulf of Maine Wind Energy Area

released March 15 (see *BOEM Designates Gulf of Maine Wind Energy Area*) is located farther south than ISO-NE initially expected, with much of the lease area "as close, or closer, to Boston as it is to Maine," Dan Schwarting of ISO-NE told the PAC.

In response to stakeholder feedback, ISO-NE is *proposing* to essentially rerun the 2050 Transmission Study with two POIs shifted from Maine to Massachusetts to see if it would reduce the scale and cost of transmission upgrades.

"These changes result in very little change in the mileage of offshore cables but are expected to significantly reduce stress on the Maine-New Hampshire and North-South interfaces," Schwarting said.

Schwarting added that ISO-NE does not expect the changes to eliminate the need for north-to-south upgrades, but that the RTO anticipates "at least some of the upgrades would fall off the list."

Additionally, ISO-NE will conduct a "high-level

screening of various offshore wind points of interconnection" to provide general information on transmission constraints at different POIs and outline "how much offshore wind can realistically be interconnected into different parts of New England before major transmission upgrades are required."

This analysis will be based on loads projected for 2033, instead of projections out to 2050, given the uncertainty of projecting generation and load data beyond 10 years. While the 2050 Transmission Study modeled offshore wind at reduced output levels "to ensure that load could be reliably served during low-wind peak conditions," the POI screening will study wind projects at their full nameplate capacity.

ISO-NE will study the POIs up to a capacity of 2,400 MW to determine "an approximate maximum interconnection size before major transmission upgrades are required."

While ISO-NE's loss-of-source limit constrains single points of interconnection to 1,200 MW, the RTO is leading an *effort* with PJM and NYISO to study raising the limit to 2,000 MW.

ISO-NE is planning to study sites independently and then consider combinations of feasible POIs to see which can be used concurrently and which are "mutually exclusive," Schwarting said.

Schwarting emphasized that the screening "is not a full interconnection study and does not replace the need for such a study."

Several stakeholders supported the proposals but cautioned that transmission-system constraints are just one factor in the selection of a POI.

"There's a whole lot that goes into interconnecting offshore wind at a particular site," said Dave Burnham, director of transmission policy at Eversource. "[ISO-NE] is really only looking at a sliver at what it's going to take."

Bob Stein of Signal Hill Consulting Group said moving interconnection points from Maine to Massachusetts could bring political challenges due to the local economic benefits that are expected to accompany POIs.

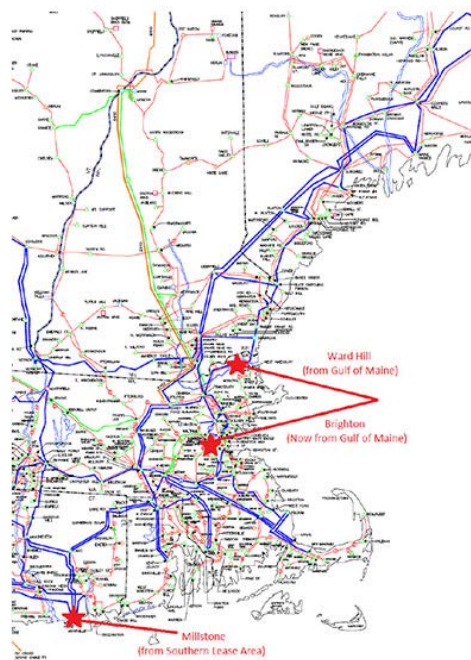
"There's a potential political problem with what good engineering suggests we should do," Stein said.

ISO-NE is asking for stakeholder feedback on the proposal by April 4, and anticipates results "at some point in quarter three of 2024." ■

Originally Studied in 2050 Study



Proposed POI Relocations



ISO-NE News

Panel Connects Clean Energy Transition to Boston's Big Dig

By Jon Lamson

SOMERVILLE, Mass. — Selling the long-term narrative to the public on the significance of clean energy infrastructure is as important as any technical barriers to infrastructure development, a panel of energy experts emphasized at Greentown Labs on March 21.

Convened by Advanced Energy United, the event was aimed at drawing connections between the infrastructure needs of the clean energy transition and Boston's Big Dig, a massive construction project that replaced an elevated highway cutting through the city's downtown with an underground tunnel.

Ian Coss, producer of a 2023 *podcast* by WGBH investigating the history of the massive project, told attendees the Big Dig serves as both "a cautionary tale" and "a point of inspiration" for clean energy infrastructure projects.

Completed in 2007, the idea behind the Big Dig initially was conceived in the early 1970s; it took 20 years to "even get to the starting line of construction, and then it took another 16 years to build it," Coss said. The project ultimately cost more than \$20 billion, was beset by a series of controversies and has long carried the reputation of a boondoggle, he said.

But despite the construction challenges, the completed project now provides significant quality-of-life benefits to the city and the broader region, Coss said. Connecting the project to the daunting need for infrastructure that lies ahead, Coss said the history of the Big Dig shows "how important narrative is to public works."

"A project can be transformative and at the same time viewed very negatively for a long period of time," Coss said, adding that the project's reputation led to a "chilling effect" on major infrastructure projects in the region.

Rebecca Tepper, secretary of Massachusetts' Executive Office of Energy and Environmental Affairs, said the challenges the state faces today in developing infrastructure may be even greater than those of the Big Dig. While the Big Dig was limited to the city of Boston, the infrastructure needed for the clean energy transition will extend through the Northeast and require intense regional collaboration, she said.

At the same time, Tepper remains optimistic, and she highlighted community engagement and benefits as the key components to the



Panel from left: Ian Coss, PRX Productions; Joe Curtatone, Northeast Clean Energy Council; Secretary Rebecca Tepper, Mass. Executive Office of Energy and Environmental Affairs; Jeremy McDiarmid, Advanced Energy United; and Maria Robinson, U.S. Department of Energy Grid Deployment Office | © RTO Insider LLC

successfully deploying infrastructure at scale.

"Can we still build big things? Yes, because we have to," Tepper said.

With impending emission target deadlines, states also do not have the luxury of time for developing clean energy infrastructure, the panelists said.

"Time is no friend: It's no friend in politics, in life and in infrastructure projects," said Joe Curtatone, president of the Northeast Clean Energy Council.

Other challenges specific to energy include the fact that the existing infrastructure needs to continue functioning throughout the construction process, and there often is limited tangible or visible benefits to celebrate when the infrastructure is completed, said Maria Robinson, director of the U.S. Department of Energy's Grid Deployment Office.

Accompanying energy infrastructure with projects that provide real benefits to local communities can help "make it more tangible," Robinson said.

Despite the myriad challenges, one advantage of today is the alignment of federal, state and local governments on the need to quickly develop clean energy infrastructure, and the availability of federal dollars to do so, said Jeremy McDiarmid, managing director of Advanced Energy United. McDiarmid called this alignment "a moment to seize."

Advanced Energy United recently co-founded the Transmission Possible coalition, which is working "to elevate the conversation" and make transmission issues more accessible to a general audience, McDiarmid said. (See [Transmission Coalition to Fight for Expanded Grid](#).)

"It's something that everybody needs to understand," McDiarmid said. "We don't have another choice; we don't have the luxury of just ignoring this."

Ultimately, the success of the clean energy transition will depend on more than the success or failure of any single project, McDiarmid said.

"We need to think bigger," McDiarmid said, "telling a big-picture story so the unfortunate bumps along the road are just that." ■

ISO-NE News

NE Energy Officials Stress the Need for Dispatchable Resources

By Jon Lamson

As intermittent renewables proliferate in New England, the region must do a better job incentivizing reliable, dispatchable resources that can support the grid as it decarbonizes, speakers at Raab Associates' New England Electricity Restructuring Roundtable emphasized March 22.

"We cannot remove conventional generation before we stand up its replacement," said Charles Dickerson, CEO of the Northeast Power Coordinating Council, adding the region will face shortfalls if it fails to heed this warning.

"The more renewables we have, the more I get prickly around adequacy," Dickerson added. "It's not how much is there; it's how much is there when you need it."

Gordon van Welie, CEO of ISO-NE, said the RTO's ongoing efforts to reform its capacity market should help New England more efficiently ensure resource adequacy, but added that more changes likely are needed to align the region's wholesale electricity markets with the clean energy transition. (See *ISO-NE Moving Forward with Prompt, Seasonal Capacity Market Design*.)

"I can't miss the opportunity to make a pitch about carbon prices," said van Welie, who has long expressed support for the concept but has indicated ISO-NE would need support from all New England states to proceed. (See *ISO-NE: States Must Lead on Carbon Pricing*.)

Van Welie said the RTO anticipates increasing renewable energy will reduce revenues from the energy market, requiring more money to

come from the capacity market and state-led power purchasing agreements. A carbon price could help prevent an over-reliance on the capacity market and PPAs, van Welie said.

"You'd tax the carbon emissions at source, put that into the offer price, but then you would rebate the money that you're collecting from those carbon emissions directly back to load at the wholesale level, so you'd mitigate the price impact," van Welie added. He called the mechanism "an elegant way of trying to balance the consumer impact with the incentives needed to drive the thing you want, which is to reduce carbon emissions."

Dickerson noted that inverter-based resources also bring new challenges related to ride-through capabilities and cybersecurity threats, and that standardization is needed to ensure resources meet the technical requirements needed for grid reliability.

"We've had no less than five or six episodes across the country where an inverter-based resource may have tripped offline because of what we can call a normal blip," Dickerson said. "Not only did that particular inverter-based resource come offline, it took all the inverter-based resources offline that were connected to it. That's unsustainable."

While Dickerson stressed that the risks associated with inverter-based resources have already arrived, van Welie said the Eastern Interconnection likely is "fine for the next five years," with problems likely emerging "around 10 years out."

Batteries can use synthetic inertia to help mitigate the loss of spinning thermal resources, "but the inverters need to be designed to do

it," van Welie said, adding this will likely require some type of regulation.

Commissioner Katie Dykes of the Connecticut Department of Energy and Environmental Protection acknowledged the need to ensure grid reliability as the resource mix changes but said the region must continue to accelerate the deployment of clean energy.

"We really have to scale up all our efforts in regards to clean energy if we're going to achieve our goals," Dykes said.

Dykes said carbon pricing is "an important tool," but added it's "just one tool, and we need a number of different tools in order to see the new entry coming in that can maintain reliability at a rate that ratepayers can afford."

Dykes added that future procurements could extend to developing generation technologies like advanced nuclear, geothermal and hydrogen fuel cells. She said she's heard from developers that investing in advanced nuclear projects makes little sense in restructured markets compared to vertically integrated markets.

"We can't afford to take those types of things off the table," Dykes said. "We have to figure out how to accommodate them."

The commissioner highlighted the efforts of Connecticut, Massachusetts and Rhode Island to coordinate offshore wind procurements — bids are due for all three states March 27, with the winning bids to be selected in August. (See *New England States Delay Offshore Wind Solicitations*.)

Dykes called the coordinated procurement "a template for multistate coordination," while advocating "predictable, regular auctions" going forward.

"We're in a moment of extraordinary collaboration," Dykes said. "That's what gives me encouragement."

Liz Anderson, chief of the Energy and Ratepayer Advocacy Division at the Massachusetts Attorney General's Office, stressed the need to keep ratepayer interests front and center. Anderson said the region should consider the cumulative impacts of programs and investments on electricity costs when designing programs, noting that skyrocketing costs will hinder the clean energy transition.

"A lot of conversations are happening in silos," Anderson said. "We need to start thinking more holistically about all these costs together." ■



From left: Gordon van Welie, ISO-NE; Commissioner Katie Dykes, CT DEEP; Charles Dickerson, Northeast Power Coordinating Council | © RTO Insider LLC

MISO News

Members Call for More Tx Expansion Following MISO's \$20B LRTP Blueprint

By Amanda Durish Cook

DALLAS — MISO's conceptual, \$20 billion, 765-kV transmission suggestion took top billing at Board Week, with some members asserting that MISO has even more transmission to plan if to meet the future confidently.

MISO earlier this month said it envisioned a \$17 billion to \$23 billion second long-range transmission plan (LRTP) portfolio with most lines rated at 765 kV. Many of the proposed line routes in the massive buildout track those approved under the first LRTP for MISO Midwest. (See [MISO Says 2nd LRTP Portfolio Should Run About \\$20B, Rate Mostly 765 kV](#); [MISO Outlines Benefits of New LRTP Investments](#).)

"This is the System Planning Committee of the MISO Board of Directors, and I'm going to tell you right off the bat, there's nothing to see here," MISO Director Mark Johnson joked when opening the March 19 meeting discussing the RTO's grid-expansion activities.

"I can tell you today that we're starting to glimpse the finish line," MISO Vice President of System Planning Aubrey Johnson said of the second portfolio. He said MISO personnel have logged more than 25,000 hours to reach the blueprint.

Aubrey Johnson reminded attendees that MISO has said for years its members are contemplating adding up to \$500 billion in new generation to achieve carbon reduction goals and that the RTO could recommend \$100 billion in transmission projects to incorporate those resources into the grid over the next two decades.

"The generation expansion is driving the transmission we plan to marry to it," he explained.

By 2042, MISO predicts it likely will manage 466 GW of installed capacity, have a 145-GW peak load that occurs in January rather than July and will have overseen 103 GW in generation retirements. Its fleet will emit 96% less carbon pollution than it did in 2005.

Senior Vice President of Planning and Operations Jennifer Curran said while MISO can't pin down precisely what the future's fleet resembles, the second portfolio is MISO's "least-regrets" plan.

MISO Director Nancy Lange said MISO's plan appears necessary to usher in the future resource mix.

"We're trending toward the top range of the



MISO's March 19 System Planning Committee of the Board of Directors underway at the JW Marriott Dallas Arts District | © RTO Insider LLC

plan if I think about load growth, capacity accreditation," she said.

Aubrey Johnson said MISO believes stringing 765-kV lines affords it more flexibility going forward and is preferable to MISO recommending three 500-kV lines, three double-circuit 345-kV lines, or six single-circuit 345-kV lines for every single-circuit 765-kV.

On the other hand, MISO's annual transmission planning cycle shows a preliminary \$5.5 billion in more routine investments. (See [Early MTEP 24 Designates \\$5.5B in Transmission Spending](#).)

However, Executive Director of Transmission Planning Laura Rauch said MISO's information shows load growth is gaining momentum and she expects future annual transmission packages to include more spending on local transmission projects.

Members to MISO: More, Please

Some MISO members said the proposed 765-kV lines aren't a match for future changes.

Clean Grid Alliance's Beth Soholt said despite

the billions of dollars in proposed projects, MISO needs "to keep going." She said two of MISO's three transmission planning futures are too conservative, especially considering recent load growth.

Soholt urged MISO to recommend and the board to approve the second portfolio expeditiously.

"There is a significant cost to not building transmission in a timely manner," she said.

Xcel Energy's Drew Siebenaler said while the first portfolio was "groundbreaking" and the second "has the potential to set us up for the energy future," MISO should plan even more transmission.

The Grain Belt Express Question

Invenergy's Arash Ghodsian asked MISO leadership to factor in planned merchant HVDC lines, like the Grain Belt Express, into LRTP efforts. MISO has said it will conduct a sensitivity that includes Grain Belt operations into its modeling but has not committed to rearranging the second portfolio to account

MISO News

for the merchant HVDC line.

Mark Johnson acknowledged publicly that Invenergy sent a letter to the MISO Board of Directors arguing the RTO is deficient in its L RTP planning because it has not contemplated the \$7 billion, 5-GW Grain Belt Express in its latest L RTP portfolio.

“MISO does its very best to ensure that it has a very open and transparent process,” Johnson said, encouraging stakeholders to participate in MISO’s public planning meetings and voice concerns.

WPPI Energy’s Steve Leovy also said he’s worried about “MISO planning over projects” like the Grain Belt Express.

Invenergy’s letter said there is “no justification in the MISO tariff or otherwise for an inefficient planning process that disregards privately funded infrastructure development happening in MISO’s own footprint.”

“By ignoring the parallel efforts of merchant transmission developers in its L RTP, MISO has demonstrated an ongoing failure in planning,” Invenergy wrote. The company estimates MISO’s first L RTP portfolio alone contains more than a billion dollars in unnecessary costs



MISO’s lead planners Aubrey Johnson and Laura Rauch | © RTO Insider LLC

because it ignored advanced-stage interregional merchant transmission.

Invenergy said MISO’s failure to include merchant HVDC lines is distorting its required cost-to-benefit analyses.

“It is time for the board to step in and prevent further waste, delay and policy outcomes inconsistent with those set out by” the Department of Energy, FERC, NERC and Congress, Invenergy told MISO directors.

Members Want Future Discussions on L RTP III’s Cost Allocation

At the March 20 Advisory Committee meeting, some MISO members asked that a future discussion be devoted to the cost allocation of the third L RTP portfolio, which will focus exclusively on MISO South transmission projects.

Regulators of states with Entergy companies have asked MISO to use an allocation that assigns 90% of costs based on adjusted production cost savings and avoided reliability projects, with the remaining 10% billed to new generation that interconnects in MISO South based on a flow-based methodology. (See [Entergy States Debut Long-range Tx Cost Allocation Proposal, MISO Members Unconvinced.](#)) MISO, on the other hand, has proposed using a blend of a 50% postage-stamp allocation to load and a 50% allocation to the local transmission zone for MISO South L RTP projects.

At any rate, the third L RTP portfolio is poised to use a different cost allocation than the first two Midwestern portfolios, which employ a 100% postage-stamp allocation to load. Any new cost allocation proposal will have to pass FERC muster. ■



OMS Seeks a New Executive Director Organization of MISO States

Position Overview

Madison, WI – The OMS is now soliciting applicants for a new Executive Director. The ideal candidate will have extensive understanding of federal and state energy industry regulatory matters and experience leading teams with diverse perspectives. The Executive Director will serve as the chief executive of the organization, implementing strategy and direction from the OMS Board of Directors. We’re looking for someone who is driven, dynamic and skilled at achieving consensus outcomes. Experience with organization administration and Boards of Directors a plus.

Those wishing to be considered should submit a resume to Amanda Slaton at amanda@misostates.org

by Friday, March 29, 2024. Find out more about OMS on our web site at www.misostates.org.

OMS is the regional state committee for the Midcontinent Independent System Operator (MISO) region representing regulatory entities in 15 states and Manitoba, Canada. The purpose of the OMS is to coordinate regulatory oversight among its members, to make recommendations to MISO, the MISO Board of Directors, the Federal Energy Regulatory Commission, and other relevant government entities and state commissions as appropriate to express the positions of the OMS member agencies.



MISO News

MISO Members Mull Full Impact of DER Aggregations in Markets

By Amanda Durish Cook

DALLAS — MISO members pondered at Board Week over how quickly the full impact of Order 2222 will be felt across the footprint.

During a March 20 Advisory Committee meeting, WEC Energy Group's Chris Plante said it's difficult to pinpoint the contribution of aggregated DERs across MISO because state regulatory authorities have differing views on how DER aggregation programs should look.

Fresh Energy's Mike Schowalter also predicted a "scattered approach" among MISO utilities.

MISO doesn't yet have FERC's go-ahead to proceed with its implementation plan. The commission said MISO has a few kinks to work out, namely how it will manage cybersecurity, dispute resolution and reformulating a go-live date sooner than MISO's initial 2030 target. (See [Stakeholders Ask MISO to Share New Order 2222 Go-live Date ASAP](#).)

Executive Director of Market and Grid Strategy Zak Joundi said Order 2222 means bringing together "a lot more parties," and jurisdictions with responsibilities outside of the MISO tariff.

Minnesota Public Utilities Commissioner Joseph Sullivan said the Organization of MISO States' annual DER surveys found approximately 12.5 GW of DERs across the footprint, some ripe for aggregations.

"I think we're all over the map in terms

of expectations," said ITC's Brian Drumm, representing MISO's transmission owners. He said the complexity of the order's aims is compounded by the fact some technology to harness aggregated DERs is undeveloped.

"This is going to take a lot of time. This is a very expansive order. There's a lot of work to be done that's kind of nebulous and very broad," Drumm said.

"Where there is meat on the bone, where there is money to be made, participants will find their way into the market," the Union of Concerned Scientists' Sam Gomberg said. He predicted steady, slow-moving work preparing markets for DERs and then "a rapid, widespread adoption" of rooftop solar, electric vehicles and distributed storage.



Minnesota Public Utilities Commissioner Joseph Sullivan | © RTO Insider LLC



MISO's March 20 Advisory Committee meeting underway at the JW Marriott Dallas Arts District | © RTO Insider LLC

Gomberg said it would be a "missed opportunity" to not prepare and be forced to "scramble" and seek a pause when MISO reaches the described DER tipping point.

MISO Director Nancy Lange asked if utilities' distribution systems can handle aggregations efficiently and economically.

"We've taken steps," Alliant Energy's Mitch Myhre said, referencing investments in communication systems, distribution upgrades, energy management systems and fiber technology.

Xcel Energy's Susan Rossi also said MISO's transmission owners are investing in advanced metering management systems, calling them the "building blocks" of Order 2222.

"We're all in the space of where to invest the money. And of course, we're sensitive to customer affordability," Ameren's Jeff Dodd said. Dodd added that no RTO is far enough along in incorporating DER aggregations in the market to "steal good ideas" from.

"My sense is technically we're capable," Sullivan said, though he added he has reservations about utilities' preparedness for the supply uncertainties aggregated DER offers will introduce.

MISO Director Todd Raba said recent instances of demand response gaming in MISO markets begs the question of "who's going to be the policeman" and discourage fraud in aggregations.

"It has to be a multilevel responsibility and accountability structure. I think it's MISO, it's FERC, it's state commissions. And that's not to punt, that's not to say that it's no one's responsibility," Sullivan said.

Drumm said he believed that stopping potential exploitation of MISO's markets by DER aggregations "falls squarely" under the monitoring duties of the Independent Market Monitor.

MISO will hold discussions on its new Order 2222 implementation date through April via the RTO's Distributed Energy Resources Task Force. The task force was scheduled to sunset this year but has been extended through 2025.

The RTO has until May 10 to file an updated implementation plan with FERC.

"There are meetings we still have on the books before the filing," Joundi said, encouraging stakeholders to weigh in on MISO's second Order 2222 compliance filing. ■

MISO News

IMM Tells MISO to Do More to Curb Fake DR Schemes

By Amanda Durish Cook

DALLAS — MISO's Independent Market Monitor told the Board of Directors on March 19 the RTO must crack down on confirmations to prevent more phony demand response from infiltrating its markets.

Monitor David Patton said penalties for the string of demand response schemes have eclipsed \$100 million. FERC in February put the squeeze on an obscure, Texas-based LLC formed to sell in-car ketchup holders to the tune of \$27 million for offering faux load reductions. It was the third time recently a company was caught manipulating MISO's demand response market and collecting unjustified payments. (See *FERC Catches Ketchup Caddy Co. in Another Fake DR Scheme in MISO*.)

"When you move demand to the supply side, there's certain things you need to do ... to validate the demand response is actually real," Patton said during the Markets Committee of the MISO Board of Directors meeting.

Patton said he's working with MISO to "remove vulnerabilities" from its ruleset regarding DR registrations and validations. He said MISO must dedicate more resources to authenticating DR capabilities.

MISO directors discussed recent instances of apparent DR fraud in a nonpublic session



David Patton | © RTO Insider LLC

following the MC meeting. No board members stated their opinions publicly on the scams during Board Week.

WEC Energy Group's Chris Plante suggest-

ed MISO's Advisory Committee schedule a discussion on the Ketchup Caddy situation and where responsibility for authenticating demand response market participants ultimately lands. ■

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MISO News

MISO Members Doubt Severity of Long-term RA Alarm Bells

By Amanda Durish Cook

DALLAS — MISO members appeared skeptical at their quarterly meetings that the RTO is destined to face capacity shortfalls before 2030.

MISO Advisory Committee members at a March 20 meeting cast doubt on predicted shortcomings from both NERC's 2023 Long-Term Reliability Assessment and MISO's latest version of its Reliability Imperative report.

MISO was elevated to a high-risk area by NERC late last year; the agency *predicted* the footprint would grapple with a 4.7-GW shortfall by 2028.

And last month, MISO warned that members are powering down dispatchable units too quickly and aren't building equivalent generation able to pick up the slack on the grid. (See [MISO Publishes Call to Action to Bypass Danger in Reliability Imperative Report](#).)

Minnesota Public Utilities Commissioner Joseph Sullivan said capacity shortages projected in NERC reports haven't transpired, while some regions previously designated as low risk have experienced blackouts. He said state commissions and utilities have cooperated to delay retirements and ensure resource plans are sufficient.

The Michigan Public Service Commission on March 15 cited resource adequacy worries when it *rejected* Consumers Energy's early termination requests on two power purchase agreements with biomass plants. The commission said that "relying on unpredictable markets for replacement supply outside of a comprehensive integrated resource planning process in this manner entailed an unacceptable level of risk."

Sullivan also said the Organization of MISO States and MISO's annual RA survey "affords more context and granularity" than NERC reports.

The Union of Concerned Scientists' Sam Gomberg agreed that states historically have kept the lights on and that NERC's projected shortfalls haven't emerged.

"I think there's a lot of reactionary effect when we see our region in red. But it's NERC's job to keep these fires lit. ... This is not to obviate the sense of urgency," Gomberg said. "I want to emphasize the role of the states." He said he had faith that states will help MISO "get over the hump" of turbulent years of thermal

retirements and replacement with clean power sources. He also said NERC's report seemed flawed because it relies on a drop in resource additions by 2028.

Gomberg also said he noticed MISO is working on several initiatives NERC suggested.

"Perhaps the sky is not falling, but it does help emphasize to regulators that our plans in place are working," WEC Energy Group's Chris Plante said.

But Michelle Bloodworth, of coal trade organization America's Power, said it's well known that solar and wind generation cannot provide the six operating attributes MISO has singled out as critical to the system. She said the premature retirement of mostly coal resources is connected directly to the reliability crisis.

MISO has defined six system reliability attributes as vital to the system, including availability, rapid start times, the ability to deliver long-duration energy at a high output, and providing voltage stability, ramp-up capability and fuel supply certainty. (See [MISO: Attributes Work Won't Result in New Obligations on Retirements, Interconnection Queue](#).)

Bloodworth said it's a wake-up call that NERC raised MISO from "elevated" to "high risk" in its latest assessment. She advised MISO to be "cautious about any thermal generation that is retiring, not just coal."

Clean Grid Alliance's Beth Soholt said both the NERC Long-Term Reliability Assessment and MISO's Reliability Imperative struck an unnecessarily catastrophic tone.

"I think our sector would rather have a tone of 'this is what needs to be done' rather than 'the sky is falling' alarmist [rhetoric]," she said.

Soholt also said MISO and states could do more to make sure energy storage can serve as a source of dispatchable power in the fleet transition.

However, Bloodworth said she commended the "sober" tone because there is cause for concern, with 19 GW of MISO's coal fleet set to retire in the next five years and even new natural gas investment threatened by EPA's proposed carbon emissions rule.

"A megawatt is only as good as the people it's delivered to," Bloodworth said.

Gomberg said coal use is "devastating from the cradle to the grave" in terms of toxic environmental and deadly public health consequences.

"The quicker we can move on from coal, the better," he said.

Yvonne Cappel-Vickery, the clean energy organizer for the Alliance for Affordable Energy, said it would be helpful if utilities were more open with customers about their resource plans.

Travis Stewart, representing the Coalition of Midwest Power Producers, said in addition to new resources, MISO needs new transmission, especially merchant HVDC lines.

"You can read that same headline for the past 10 years," OMS Executive Director Marcus Hawkins said weeks earlier about MISO and NERC warning about a pending shortfall in the next three to four years.

But state regulators are working relentlessly to ensure that "MISO's worst nightmare doesn't come true," Hawkins said at the Gulf Coast Power Association's March MISO-SPP conference. However, Hawkins said new load growth and the hastening fleet transition means different factors are at play in estimating capacity adequacy.

"We've had quite an erosion in our resource adequacy," MISO CEO John Bear told board members and stakeholders at MISO's March 21 board meeting.

Bear said the grid operator is going to have to ensure it conducts sufficient analysis to be confident in its decisions' safety before moving ahead on more RA initiatives. Nevertheless, he said, moving ahead is a must.

Bear predicted MISO won't have glowing news to share in its next RA survey due in summer in partnership with OMS. He said RA concerns are compounded by significant load additions across the footprint and system stability concerns.

"I want to remind people, as we move forward, there are going to be very new risks," Bear said.

Iowa Utilities Board member and OMS President Josh Byrnes agreed the RA risks are real, and the solutions are complex; however, he urged fellow commissioners and members to "stay positive." ■



America's Power CEO Michelle Bloodworth | @RTO Insider LLC

MISO News

MISO Members Send off OMS Leader Hawkins to Wisconsin PSC

By Amanda Durish Cook

DALLAS — Outgoing Organization of MISO States Executive Director Marcus Hawkins appeared before the RTO’s Advisory Committee for a final time before starting as a member of the Wisconsin Public Service Commission.

At the March 20 Advisory Committee meeting, Chair and Indiana Utility Regulatory Commissioner Sarah Freeman jokingly introduced Hawkins as OMS’ “short-term” executive director.

Wisconsin Gov. Tony Evers (D) had appointed Hawkins to the Wisconsin PSC the previous week. Hawkins’ term begins April 8 and runs until March 1, 2027.

“The OMS executive director has resigned his position effective April 5,” Hawkins said to laughter while delivering a final report before the committee.

Hawkins said he hopes OMS has a “challenging task” ahead of it in selecting a candidate from a qualified pool.

“If you want, reach out to me. I have some unique insights into that position,” he joked.

“You have moved OMS forward, and you have left it in a better place than you found it. ... You have taken it to a different level,” Robert Kuzman, MISO’s head of stakeholder relations, told Hawkins, eliciting applause. Kuzman added that he’s eager to work with Hawkins in his new role.

“We look forward to continuing our work together,” Freeman seconded.



Marcus Hawkins | © RTO Insider LLC

OMS is *accepting* applications for a new executive director through March 29.

Hawkins has been with OMS since 2016, joining the organization as its director of member services and advocacy. He was promoted to executive director two years later. Before his time at OMS, Hawkins was a senior engineer at the PSC and a program manager and engineer at the Wisconsin Energy Conservation Corp.

Hawkins holds a bachelor’s in nuclear engineering and a master’s in mechanical engineering from the University of Wisconsin-Madison.

In a statement at the time of the announcement, Hawkins said he was proud to return to the commission “during such a critical time of rapid change in the utility industry.”

Hawkins’ appointment occurs two months after Wisconsin’s GOP-controlled Senate refused to confirm former Public Service Commissioner Tyler Huebner’s PSC nomination, though he had been performing duties unconfirmed for four years until that point. The Senate’s refusal to confirm Huebner continues a pattern of Republican senators rejecting Evers’ picks to state commissions and boards. (See *Wisconsin Senate Votes to Fire Commissioner Huebner 4 Years into Job.*)

Hawkins will exit the organization before OMS holds its annual Resource Adequacy Summit on May 14-15 in Ames, Iowa, in partnership with Iowa State University. Until his departure, Hawkins will continue to organize the summit. ■

MISO News



MISO Says Rigorous Accreditation Key to Managing Future Market Ops, Reviews Mostly Calm Winter

By Amanda Durish Cook

DALLAS — MISO's imminent filing for a new capacity accreditation is a crucial first step to prepare for a more complex and challenging future, executives told attendees during March Board Week.

The added persuasion comes as MISO exited winter with no critical steps taken to maintain reliability.

Executive Director of Market and Grid Strategy Zak Joundi said MISO's growing reliability risks mean accreditation should be tied to resource's output during hazardous periods. The RTO plans to file before the end of March to implement a probabilistic capacity accreditation, where capacity credits will be determined by individual past performance and a resource-class average performance during risky hours for different types of generation. (See [MISO: New Capacity Accreditation Filing Imminent](#).) The accreditation style is marginal, using loss-of-load inputs instead of unforced capacity, and will chip away at solar generation's capacity credits over the decade until they're a fraction of what they used to be.

"Accreditation is one of the most important signals that we as an RTO can provide our members," Joundi said.

"The accreditation MISO is moving towards filing is one of the most important it will make in years," MISO Independent Market Monitor David Patton agreed.

"We have some controllable resources, but those are quickly disappearing," Vice President of Operations Renuka Chatterjee added while talking about mounting risks during winter mornings by 2030.

Chatterjee said for roughly the past month, MISO has been monitoring low system stability during weekends due to unprecedented renewable output.

"I don't want to scare folks. We are OK. We have tools to manage this. ... But if we don't do this work, we will be in worse shape by 2030," Chatterjee said.

Winter Storm Performance Improves

MISO appears to be getting well versed in steady operations amid increasingly volatile weather.

Executive Director of System Operations Jessica Lucas said the RTO had no trouble handling a mild winter except for mid-January's footprint-wide Arctic blast. The cold front delivered MISO's 105.9-GW winter peak on Jan. 17. On that day, MISO South set a new winter peak at 32.6 GW.

The footprint also set a new wind generation peak of 25.7 GW on Jan. 17, where wind served 30% of load and buoyed the system above maximum generation alerts. (See [MISO Holds Steady in Mid-Jan. Storm with Help from Wind](#).)

"It does look like we're creating a pattern. Three years and every year, another 100-year storm," Lucas said, referencing "déjà vu" winter storms in February 2021 and December 2022.

However, for this winter storm, MISO experienced just 5 GW in incremental unplanned outages, compared to 15-20 GW in added forced outages during the previous comparable winter storms.

MISO Director Barbara Krumsiek commended the grid operator for improved performance during the deep freeze.

"The first one, the first time is a shock to the system. But to see how MISO and its members have adjusted is gratifying," Krumsiek said.

Lucas said MISO's better prep is due in part to its availability-based accreditation that's been in place for thermal generation for about two years.

She also said MISO's new uncertainty management model flagged the winter storm span as high-risk days in advance, leading operators to increase the RTO's short-term reserve requirements. Requirements averaged 5 GW over the event and climbed as high as 6 GW.

Patton praised MISO's progress on uncertainty modeling. He said MISO has been more dynamic in procuring reserves, which mitigates risks and ultimately lowers costs.

"This is the kind of model that I wish Texas would incorporate," he said. "I think [MISO is] on the forefront here."

At the Gulf Coast Power Association's early March MISO-SPP conference, Executive Director of Market Operations J.T. Smith also said MISO's model augmented by machine learning did a solid job predicting which generation showed up during the mid-January



Left to right MISO IMM David Patton and Zak Joundi and Renuka Chatterjee of MISO | © RTO Insider LLC

MISO News

Arctic blast.

Smith said a pressure gradient over MISO Midwest could mean an up to 10 GW difference in wind production and that a 50-mile discrepancy in a winter storm's path over MISO South causes vast differences in demand.

"Our entire system is weather dependent," Smith said.

MISO also recently secured a \$3 million grant from the U.S. Department of Energy to explore more machine learning and modernize control room operations.

Patton said the RTO dramatically reduced its usual manual redispatch during the cold snap, instead allowing its transmission constraint demand curve to price generation to manage flows on the system. Patton said compared to the winter storm a year ago, this time MISO operators took 84% fewer out-of-market actions to manage congestion. He said if the latest storm had happened a few years ago, MISO operators probably would have made more commitments than necessary.

"Overall, the management of the system during Winter Storm Heather was really good," Patton said. "MISO exercised good judgment in commitment decisions and avoided unnecessary uplift, deferring decisions until necessitated by offered lead times."

Patton said MISO's real-time revenue sufficiency guarantee payments totaled just \$5 million, compared to the almost \$90 million incurred in the February 2021 winter storm.

MISO Director Phyllis Currie joked that she heard Patton complimenting MISO's actions repeatedly.

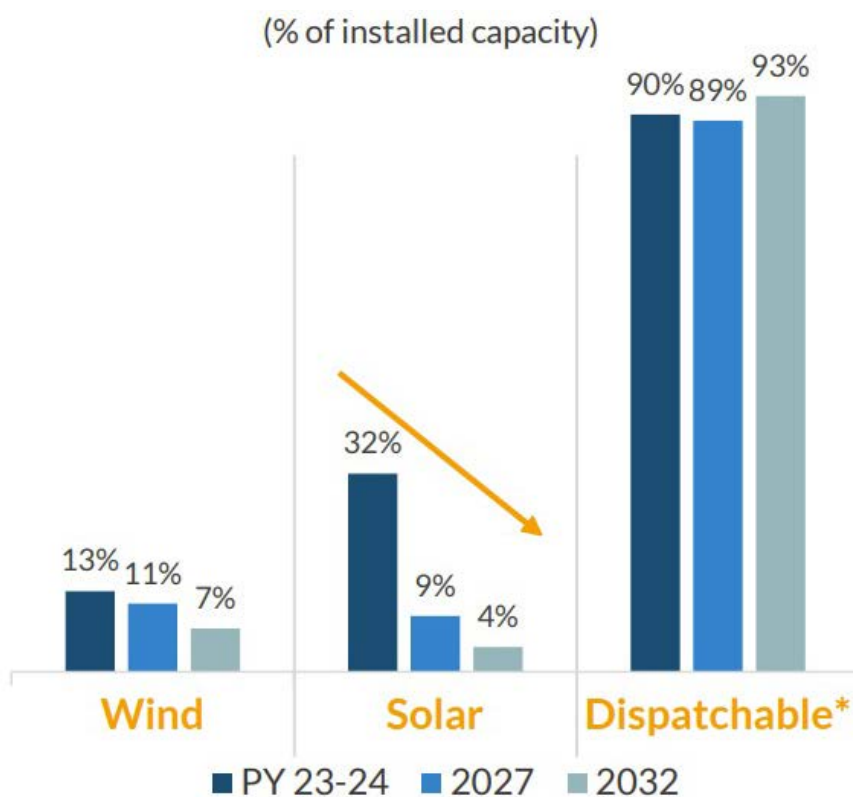
"Excellent. Then I must have missed something," Patton said with a laugh.

The IMM said over the winter, regional transfer generally flowed from South to Midwest. However, when the cold blast struck, flows shifted from Midwest to South.

The IMM said drought conditions in the Manitoba Hydro service territory caused South-to-North flows over the winter. Ordinarily, MISO imports power from the hydroelectric utility. Members of late have been consistently exporting power across the border.

Total congestion over the mid-January storm totaled almost \$153 million, Patton reported.

Patton said while overall congestion was more manageable during the latest winter storm, MISO did receive incorrect transmission flow data from a market participant, contributing



MISO's predicted capacity accreditation percentages in summer by 2032 | MISO

to a transmission violation and MISO having to declare a safe operating mode to redispatch generation in PJM to get flows back in line with the rating.

"This raises substantial concerns regarding the information some participants provide to MISO, which can impact reliability," Patton said. "The same participant failed to provide SCADA data on a nuclear unit, which impacted MISO's response to it tripping offline in mid-February."

Patton declined to name the market participant.

"If this was going on, this would make me very unhappy, trying to operate the system without full and accurate data from all participants," Patton said. He flagged the issue as a "big concern."

He also said that over Jan. 15 and 16, MISO "effectively ran out of generation" in the Southeast Texas load pocket; the area racked up severe congestion and prices jumped to \$1,500/MWh. Patton said the situation subsided when a generator in the area that's "almost entirely connected to ERCOT" decided to direct its output into MISO.

Patton singled out the generator for consistently failing to show up in MISO during times of need despite participating in its capacity

auctions. Patton said MISO should strike that generation from its capacity totals, and that the RTO should make the adjustment before its upcoming capacity auction, so it doesn't count on generation that won't materialize.

MISO set a solar output record of 4.4 GW on Feb. 19, where panels managed 6% of load. The grid operator has had 12 new solar peaks over the past year as members swiftly add solar installations.

MISO also said wind generation made its first appearance in the South during the winter quarter, with the debut of the 185-MW Delta wind farm in Tunica, Miss. A 180-MW wind farm, Nimbus, is planned to begin operations next year in rural Arkansas.

Looking ahead, MISO said even high demand over the spring shouldn't present challenges. Although MISO expects demand could top out at nearly 107 GW in May, the grid operator's 113.6 GW of cleared capacity throughout spring appears sufficient.

MISO is also planning for a rapid drop in output and then recovery among its growing solar fleet April 8, when the solar eclipse tracks across its footprint. Lucas said MISO likely will need greater-than-usual ramping capability and more congestion management efforts that afternoon. ■

FERC/Federal News



FERC OKs \$142M Grand Gulf Settlement with Entergy Arkansas

Entergy will pay its Arkansas affiliate \$142.3 million under a settlement FERC approved March 21, the latest in the ongoing billing dispute over the utility's Grand Gulf Nuclear Station (ER22-958, ER23-435, ER23-816, ER23-1022, ER23-1164, EL24-5).

The company's System Energy Resources Inc. (SERI) sells energy and capacity from the 1,443-MW nuclear plant in Port Gibson, Miss., to Entergy Arkansas and the utility's three other operating companies under a cost-based formula rate.

Grand Gulf's Unit Power Sales Agreement has been the subject of complaints of overcharging by regulators in Arkansas, Louisiana, Mississippi and New Orleans since 2017.

SERI said the new settlement is part of a \$588 million deal filed in 2022. (See *Entergy Offers Regulators \$588M to End Grand Gulf Complaints.*)

FERC also approved a partial settlement over Grand Gulf last April. (See *FERC OKs Partial Settlement in Entergy Grand Gulf Row.*)

In addition to the payment to Entergy Arkansas, the new settlement specifies that SERI will use a return on common equity of 9.65% in its monthly billings to the utility effective November 2023 and that no settling party can propose a change to the rate until at least June 30, 2026.

SERI also agreed to use a capital structure with an equity ratio not to exceed 52%.

The commission said the settlement was in the public interest because it was uncontested and appears to be fair and reasonable. ■

— Rich Heidorn Jr.



Grand Gulf nuclear station in Port Gibson, Miss. | Entergy

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IPPNY Spring Clean Energy Conference 2024

'Evolution' Key Theme at IPPNY 2024 Spring Conference

By John Norris

ALBANY, N.Y. — The Independent Power Producers of New York (IPPNY) celebrated its annual spring conference March 19 by marking the state's transformation into a competitive energy market over the past 25 years with the inception of NYISO.

Industry experts from the government, business sector and advocacy groups shared their insights on New York's progress in evolving its energy markets, echoing sentiments from last year's conference. (See [Overheard at IPPNY 2023 Spring Conference](#).)

FERC Chair Willie Phillips discussed how the commission's priorities have shifted toward improving "transmission to figure out how to better integrate new resources onto the grid," enhancing the "grid's physical and cybersecurity infrastructure," and promoting environmental justice, which he considers a "top priority."

Suedeen Kelly, a partner at Jenner & Block and former FERC commissioner, concurred, saying that while the initial goals of establishing competitive markets centered around "efficiency, lowering costs and innovation," they have shifted to include "decarbonization and the recognition of environmental and social justice" as the grid and energy markets have evolved and new generation technologies have emerged.

Kelly praised New York's market evolution, thanking participants for their efforts "to continue to meet the challenges of new technologies and incorporating those technologies into your market, since you're taking huge risks to do this."

IPPNY President Gavin Donohue remarked in the same panel that the "competitive energy market has evolved into a bipartisan issue," which will help to "lay the foundations for the future."

New York Public Service Commission Chair Rory Christian emphasized the theme of market evolution during his keynote address, highlighting how the commission's decisions ensure that New York's energy markets continue to adapt with the times. "Our daily lives depend on our ability to wield the magic of new technologies" he said, and "our actions can mean the difference between opportunity and calamity and can have ripple effects that extend far beyond our state borders."

"The commission has been able to lead and



NYSPC Chair Rory Christian | © RTO Insider LLC

innovate," he added, recognizing the need to develop a more holistic and adaptable approach that "ultimately culminated in a departure from vertically integrated utility models to a restructured wholesale energy market that incorporates competition."

C. Lindsay Anderson, a professor of biological and environmental engineering at Cornell University, spoke about the growing recognition among New York energy stakeholders that to meet the state's energy priorities and mandates and "to decarbonize everything, [we must] first decarbonize the power system."

Panelists at the "Lobbying the Legislature and Executive Branch – Important Topics this Session" panel discussed how their clients and objectives have also evolved in response to New York's policies.

Elizabeth Garvey, an attorney at Greenberg Traurig, noted how she's observed a shift in how political and corporate clients focus on broader engagement.

"These years, unlike past years ... [clients] really focus on all of [the market's] issues wherever they sit in the energy economy ... even if it doesn't directly impact [them]," Garvey said.

She added that the state's evolving market and policies have led to an "inflection point" where it has become increasingly difficult to tell clients "where they should park their cap-

ital" since "there are so many different things happening on so many different playing fields" both in New York and across the nation.

Will Hazelip, president of National Grid Ventures, US Northeast, said modernizing the transmission system is one of the biggest future challenges for New York and the country.

"Redoing the transmission system will help enable power to move around" and also help clients "know for certain when they can build and then plug in," he said.

Phillips summarized the evolving perspective of conference panelists and the wider industry, saying, "As we celebrate the 25th anniversary of the [New York] market, the subtitle has been 'cleaner, safer and cheaper,'" but "what I now say is 'reliable, affordable and sustainable.'"

"We need a new generation to think differently about our problems," Phillips said, noting how energy markets, technologies and policies have evolved.

The industry can no longer pretend "the benefits of our transition fall evenly on everyone," he said. ■



National Grid Ventures
US Northeast President
William Hazelip | © RTO
Insider LLC

IPPNY Spring Clean Energy Conference 2024

Deregulation Drove 25 Years of Innovation, IPPNY Panelists Say

By John Norris

ALBANY, N.Y. — New York's transition to a deregulated wholesale power market helped drive the state's adoption of innovative energy technology and policies, panelists said March 19 at the Independent Power Producers of New York's 38th spring conference.

"We've seen a transformation in front of our eyes," said FERC Chair Willie Phillips.

IPPNY President Gavin Donohue also celebrated the 25th anniversary of New York's market deregulation, highlighting the state's achievements in reducing greenhouse gas emissions, transforming its energy investment strategies and taking the cost burden of transmission development from "the backs of ratepayers."

According to *IPPNY*, energy market deregulation has kept wholesale electricity costs below inflation rates, halved carbon emissions, reduced sulfur dioxide and nitrogen oxide emissions by over 90% each, and spurred billions of dollars in grid investments by independent

power producers.

However, Phillips said the state and country face new challenges, noting that, after years of flat demand, electricity use is *spiking* due to large load facilities such as microchip manufacturing plants and the energy-intensive data centers required for artificial intelligence computing.

"We've seen demand increase in a way we didn't expect," he said, "and this means, after being flat for the past decade, New York is grappling with how to bring new resources on to match the demands our system and also, at the same time, transition to a clean, more renewable energy future."

Phillips said this is "the background we come to this conference with, as we talk about and celebrate the 25th anniversary of [New York's] market."

Reflecting on 25 Years, Looking Ahead to 25 More

NYISO, approved by FERC in 1998 as the



IPPNY President Gavin Donohue | © RTO Insider LLC

New York Power Pool's successor, initiated its competitive electricity markets on Dec. 1, 1999, and initially *oversaw* a transmission grid spanning over 10,700 miles powered almost entirely by fossil fuels, according to the New York State Energy Research and Development Authority.

"When we started to work on setting up market rules for competitive markets, we were primarily interested in creating the nuts and bolts of a competitive market: efficiency, lower costs and innovation," said Suedeem Kelly, a partner at Jenner & Block and former FERC commissioner. "And it worked, and it's continued."

The ISO now manages over 11,000 miles of transmission, *according* to its 2023 Gold Book, and operates a system increasingly *supported* by a diverse group of resources such as solar or wind.

Saying that regulators appreciate how "New York takes risks," Kelly praised the state for both adapting to evolving challenges and striving to incorporate new technologies into its market.

IPPNY *estimates* that New York's generation fleet has grown from 28 GW in 1999 to about 41 GW today. However, according to NYISO's 20-year *outlook*, to meet its Climate Leadership and Community Protection Act (CLCPA) obligations, the state will need between 111 and 124 GW of installed capacity by 2040, with at least 95 GW of this coming from a blend of intermittent, energy storage and dispatchable emissions-free resources. (See "NYISO Releases the Outlook," *NYISO OC*



FERC Chair Willie Phillips speaks at IPPNY's 38th annual Spring Conference in Albany, N.Y. | © RTO Insider LLC

IPPNY Spring Clean Energy Conference 2024

Discusses NOPR Comments, High Temps, EDS Results.)

Following the CLCPA's ambitious decarbonization goals — 70% renewable electricity by 2030, 100% zero-emission electricity by 2040 and net-zero emissions statewide by 2050 — New York has adopted a more proactive legislative strategy, focused on promoting clean energy, retiring fossil fuel plants and expanding transmission.

"Everything in our industry is changing," said Phillips, in response to a question raised by Donohue about how regulatory frameworks must adapt to future challenges like climate change and more energy-progressive policies.

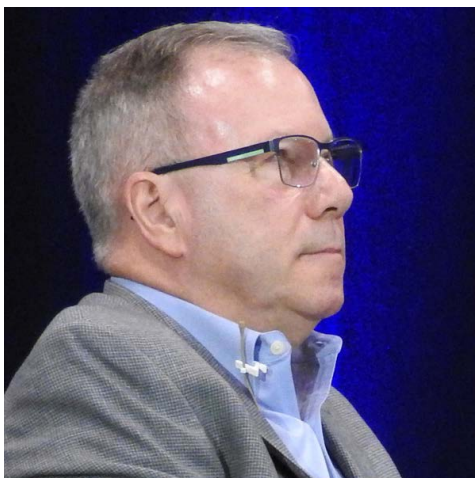
"We as regulators have to change the way we approach these issues," he added, "and we need a new generation to think differently about these problems."

However, 25 years ago, this way of thinking would have been anathema to many New York legislators and regulators.

"That's not the case anymore," said William Flynn, industry team leader at law firm Harris Beach and a former PSC chair.

"Now, another branch of government is actively involved in shaping the future of the energy sector, which obviously impacts the future of competitive markets" he said, "but, no stone should be left unturned if we want to be truly successful in taking competitive markets to the next level."

New York policymakers and agencies now aggressively seek to cut GHG emissions, invest in transmission buildout and resilience, and develop net-zero resources to replace an aging fossil fuel fleet, a marked shift in policy thinking made possible by market deregulation, according to IPPNY panelists.



William Flynn, Harris Beach | © RTO Insider LLC

Case in point, according to the New York Department of Environmental Conservation, which *reports* the state's decarbonization progress annually, statewide GHG emissions in 2021 were 10.2% below the baseline limit adopted by the CLCPA's regulations, with the energy sector's emissions in 2021 being 19% lower than in 1990 but still accounting for about 76% of the state's total emissions.

However, the Legislature is likely to accelerate the state's decarbonization efforts as it considers bills like the NY HEAT Act ([S2016A](#)), which will eliminate the 100-foot rule requiring gas be provided to new customers, or another that expands New York's hydraulic fracking ban by prohibiting carbon dioxide in natural gas extraction ([S8357](#)).

'Magic' in the Transition

In his keynote, PSC Chair Rory Christian reflected on the commission's evolution after deregulation and how it can now harness the "magic" of new advanced technologies to address CLCPA mandates and tackle today's challenges.

"While we can understand and marvel about the technology we all possess," he said, "one thing I think most people don't take into consideration, however, is the fact that our ability to wield this magic is defined by the availability of cheap, reliable, safe energy systems, and that our daily lives depend on our ability to wield this magic."

Christian said New York's "departure from a vertically integrated utility model to a restructured wholesale electric market" set the stage for the PSC to support the CLCPA's net-zero goals, since it allowed the commission to incorporate competition into the state's energy markets, mitigating financial risks to ratepayers by shifting development costs to private entities.

"New York utilities have either maintained or improved their reliability and have done so while weathering increasingly severe and frequent climate events," he said, adding that the PSC, which oversees the state's utilities, "works tirelessly to identify the pathways to address the state's future energy needs and ensure an equitable access to energy."

"We recognize that our actions have impact on lives and livelihoods, and that our actions mean the difference between our security and calamity, and the ripple effects can extend far beyond our state borders," he added.

Christian said that for New York to "remain ahead of the curve," the PSC remains commit-



Suede G. Kelly, Jenner & Block | © RTO Insider LLC

ted to adapting to looming challenges, including electrification, modern technologies like AI and climate change, since the commission must provide New York and its utilities with the capacity to successfully adapt.

He detailed how the PSC has sought to help New York achieve the CLCPA's mandates by opening a new proceeding to investigate modern resources or technologies, engaging state utilities to coordinate their grid planning processes, approving bulk and local transmission system investments, and creating competitive procurement processes to address the state energy system's changing needs.

"We in New York, and across the U.S., must be prepared to capture these prospective benefits and provide the power needed to harness this new form of magic," he said, "and what's clear to me, is that [New York's] competitive markets will likely play a role in each."

New York is still walking a fine line between its lofty aspirations and realities on the ground, but as was similarly expressed at last year's IPPNY conference, industry stakeholders are keen to take advantage of the new opportunities that will come from the state's pursuit of a decarbonized economy and cleaner grid. (See [IPPNY Panelists Urge Collaboration, Coordination in Transition; Overheard at IPPNY 2023 Spring Conference](#).)

This delicate balance was summarized by Donohue in his closing remarks.

While he attributed the success of New York's decarbonization efforts to advantages gained from the transition to a deregulated market, he pointed out that, despite those accomplishments, "there's a lot of work left to be done in New York, since we still have to come up with an awful lot of zero-emission resources." ■

NYISO News

FERC Approves NYISO Proposal to Coordinate Queue, Transmission Processes

By John Norris

FERC on March 19 approved NYISO's proposed tariff revisions aimed at harmonizing its generator interconnection and transmission planning processes (ER24-951).

The *changes* are intended to improve coordination between NYISO's Class Year study in its Large Facility Interconnection Procedures with the facilities study for transmission projects under its Transmission Interconnection Procedures. Additionally, the revisions amend the base case inclusion rules in the ISO's Small Generator Interconnection Procedures to ensure more precise accounting of identified interactions.

NYISO argued the changes will prevent transmission projects from being studied in isolation from projects in the interconnection queue or undergoing overlapping evaluations, thereby improving the efficiency of each process.

The ISO's proposal included revising security posting requirements for transmission projects. Developers will be required to post security for upgrades before, rather than after, executing a transmission interconnection agreement. This change is expected to reduce the need for restudies of network upgrade facilities, which should make it easier for projects to be included in the existing system representation for the next Class Year study, the ISO argued.

"We find that [the revisions] would accomplish the purposes of Order No. 2023 by improving the efficiency of NYISO's interconnection request process and the accuracy of the models used in NYISO's interconnection studies," the commission said. "This will contribute to increasing the overall efficiency of the interconnection process, which will help ensure that interconnection customers are able to interconnect to the transmission system in a reliable, efficient, transparent and timely manner."



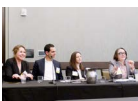
NYISO headquarters in Rensselaer, N.Y. | NYISO

The proposal had been in development since 2022, before Order 2023 was issued, as one of the ways NYISO sought to unlog its interconnection queue. After Operating Committee approval in December of that year, several events led the ISO to delay bringing it before the Management Committee, including Order 2023 itself, as it wanted to ensure the proposal did not conflict with the order. The MC unanimously endorsed the proposal in October.

(See "Interconnection & Transmission," *NYISO Management Committee OKs \$195M Budget, 5.6% Rate Increase*.)

NYISO submitted an interim, "partial" compliance filing for Order 2023 in November. The deadline for its full compliance filing is April 3. The order, issued in July, directed grid operators to change their interconnection procedures from first-come, first-served to first-ready, first-served. ■

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PJM News



PJM Awaiting FERC Response to Court Rejection of 2024/25 Capacity Auction Parameters

By Devin Leith-Yessian

VALLEY FORGE, Pa. — The future of the 2024/25 Base Residual Auction (BRA) results is uncertain following a ruling from the 3rd U.S. Circuit Court of Appeals partly vacating a FERC order authorizing PJM to change an auction parameter after bids had been received (ER23-729).

The court's March 12 ruling found the commission violated the filed rate doctrine in accepting a PJM proposal to revise the locational deliverability area (LDA) reliability requirement for the DPL South zone, which covers much of the Delmarva peninsula.

PJM sought the change after identifying a nearly fivefold increase in capacity prices due to the interaction between a "misalignment" in resources that offered into the auction and the expected resource pool with the determination of the reliability requirement. (See [3rd Circuit Rejects PJM's Post-auction Change as Retroactive Ratemaking](#).)

Speaking during the March 20 meeting of the Markets and Reliability Committee, Senior Counsel Chen Lu said the RTO anticipates court approval for a new course of action about early May, following a 45-day deadline for FERC to propose a new directive for PJM and about seven days for the court to review. He added PJM is not planning to request a rehearing or appeal of the ruling to the Supreme Court. That option is open to FERC and intervenors in the case.

PJM Vice President of Federal Government Policy Craig Glazer said if rehearing or an appeal is sought, that could delay PJM knowing how to proceed with the capacity results.



Craig Glazer, PJM | © RTO Insider LLC

He added that the courts don't have hard timelines on which they must act, raising the possibility that uncertainty around capacity prices could extend into the delivery year, which starts in June.

"If rehearing is sought, it kind of freeze-frames everything," he said.

Lu said PJM is assessing the feasibility of rerunning the auction with the original LDA reliability requirement parameter for DPL South with the existing offers submitted in December 2022.

PJM Senior Vice President of Market Services Stu Bresler said the RTO is in contact with FERC staff to provide perspectives on possible next steps. But he told the MRC he could not

speculate about what those steps might be. If the auction did have to be run, he said the impact would likely spread outside the DPL South zone.

Paul Sotkiewicz, president of E-Cubed Policy Associates, encouraged PJM to remain in communication with FERC to encourage it to come to a resolution the court could accept as quickly as possible, noting that using the full 45 days it has to respond could put resolution of the dispute within a month of the start of the delivery year.

"We're right before the delivery year at this point; it's really cutting this close, so I'm wondering if there's a way to accelerate that time frame," he said. ■

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PJM News



PJM Monitor Finds Markets Overall Competitive

By Devin Leith-Yessian

Average load-weighted electricity prices in PJM fell by about half in 2023, the Independent Market Monitor said in its annual State of the Market *Report*, finding the lower prices largely came from a drop in natural gas prices that reversed a record-high spike last year.

The decrease brought real-time load-weighted LMPs to an average of \$31.08/MWh in 2023, down from \$80.14 the previous year. In a *briefing* ahead of the March 14 report, Monitor Joe Bowring said the correlation between declining electricity and natural gas prices demonstrates PJM's markets are working to translate lower fuel costs into savings for consumers. (See *PJM Monitor: Rise in Fuel Costs Led to Record-high Prices in 2022*.)

Bowring said it's unclear how the March 12 ruling from the 3rd U.S. Circuit Court of Appeals partially vacating FERC's order permitting PJM to revise the reliability requirement for the DPL South zone will be implemented and how it may affect prices. (See *3rd Circuit Rejects PJM's Post-auction Change as Retroactive Ratemaking*.)

The Monitor's report found PJM's energy and capacity markets were competitive in 2023, though local and aggregate markets within both had the potential for market power to be exercised, and the capacity market design's effectiveness was mixed. The regulation and financial transmission rights markets both were found to have flawed market designs limiting competitiveness, and while the reserve markets performed well, some subzones saw high supply concentration.

In the local energy market, transmission constraints created opportunities for market power, and the Monitor said not all resources that fail the three-pivotal-supplier (TPS) test are being properly mitigated to their cost-based offers.

"The goal of competition in PJM is to provide customers reliable wholesale power at the lowest possible price, but no lower. The PJM markets have done that. The PJM markets work, even if not perfectly," the Monitor wrote.

The Monitor identified future economically and policy driven generation retirements as a leading challenge PJM will have to face, with up to 58 GW of generation at risk of deactivation through 2030. But Bowring said the actual number may be lower if a drop in the number



Monitoring Analytics President Joe Bowring | © RTO Insider LLC

of resources available to offer capacity leads to higher prices. If clearing prices double in coming auctions and a portion of the economic retirements are delayed, he said the number of resources going offline could be about 43 GW. PJM's February 2023 "4R's" report found about 40 GW of generation is at risk. (See "PJM White Paper Expounds Reliability Concerns," *PJM Board Initiates Fast-track Process to Address Reliability*.)

"PJM stands by the estimates in our 2023 report, 'Resource Retirements, Replacements and Risks,' which documents that 40,000 MW of generation are at risk of retirement by the end of this decade. The IMM's higher at-risk retirement numbers are the result of more conservative assumptions," spokesperson Jeff Shields said.

"Our greatest concern remains the pace at which new generation projects are getting built once the PJM process is complete. Currently there are approximately 40,000 MW in new generation projects that have been cleared for interconnection by PJM but are not being built; a number of factors outside of PJM's influence, including siting, financing and supply-chain, continue to hold up the completion of projects."

Bowring said several changes to PJM's rules around resource deactivations could correct market signals and limit costly reliability-must-run (RMR) contracts. Because transmission needs aren't a factor in the reliability metrics used to determine Base Residual Auction procurement needs, he said it's possible for a generator to not clear the auction and file for deactivation only to be told it's needed to prevent transmission issues.

The cost of retaining a generator on an RMR contract can be steep; Bowring said the

cost-of-service recovery rate for Indian River Unit 4 has been about 10 times the capacity revenues that the 410-MW coal unit would have received since its RMR contract began in June 2022.

PJM's practice of counting resources operating under an RMR contract toward reliability procurement targets in the capacity auction also could be suppressing market signals incentivizing generation needed for long-term resource adequacy.

Shields said PJM's notification requirements for deactivating resources and its compensation structure for RMR contracts is under discussion at the Deactivation Enhancements Senior Task Force.

"We hope that the IMM will continue to work with us and capacity market participants to ensure that all market-seller costs, including risk, are includable in market offers so that economically viable resources can recover their costs and therefore remain in service," he said.

Bowring argued an ongoing stakeholder process to facilitate transferring capacity interconnection rights from a deactivating resource to replacement generation under the same ownership should be rejected and PJM instead should use any transmission headroom freed up by resources going offline to advance the interconnection of any planned resources that could resolve transmission violations that may be caused by the deactivation.

The report urged PJM to analyze the amount of firm gas capability in its region while expecting much of the needed new capacity will come from gas-fired generation. While it notes there is over 200 GW of intermittent generation in the interconnection queue, the report argues that based on historical completion rates and capacity derates, that will amount to about 11 GW.

"PJM and federal and state regulators cannot hope to balance supply and demand without first having a clear and reasonably accurate measure of both existing and expected supply and demand. Providing clear information to regulators and market participants about the actual and expected supply-demand balance is essential so that decisions about market design, about the timing of environmental regulations, about pipeline siting and about transmission siting can all recognize the likely impact on the balance between supply and demand and therefore reliability," the report says. ■

PJM News



PJM MRC/MC Briefs

By Devin Leith-Yessian

Stakeholders Reject Changes to EE Measurement, Verification

VALLEY FORGE, Pa. — PJM's Markets and Reliability Committee rejected four proposals to revise how the RTO determines how much capacity energy efficiency programs can enter into the capacity market. (See "[PJM MIC Briefs: March 6, 2024](#).)

The proposals were built off the [package](#) PJM brought to the MRC in February, which sought to delineate the boundary between the two baselines against which EE providers can measure the savings from more efficient equipment and tighten qualifications for the baseline load, which tends to yield higher calculated savings than the standard baseline.

The PJM proposal received 51% sector-weighted support, short of the two-thirds threshold required. A [proposal](#) from [Vistra Energy](#) received 66.5% support, an [alternative](#) from CPower carried 38% support and [another](#) from Affirmed Energy had 31.5% support.

The PJM proposal would have required, among other changes, that EE providers have a contract with each individual end user, demonstrate that certain more efficient equipment would not otherwise have been installed, and account for any "leakage" of EE products purchased in one region but installed in another.

Affirmed Energy and CPower both brought alternate proposals they argued would not significantly impact EE participation in the capacity auction while still meeting PJM's goal of enhancing measurement and verification of that capacity.

The Affirmed proposal focused on the impact to mid- and upstream EE programs, which seek to encourage retailers and manufacturers to offer more efficient products and share those products' capacity market savings. Capturing savings at the retail level allows for small purchases to add up to the 100-kW threshold for EE participation in the wholesale market, a scale small residential consumers are unlikely to meet, Affirmed's Luke Fishback said.

Fishback said PJM's data collection requirements would require EE providers to receive consumer data for each retail EE product customer and enter a contract with each to obtain sole rights to enter those savings into the capacity market, which he argued would not be feasible and would eliminate much of

that market's aggregation.

The CPower proposal targeted PJM's causation requirement for EE to qualify for the baseline load, which would have required that customers install equipment specifically to receive capacity market revenues. Senior Vice President Kenneth Schisler argued this would disqualify projects with multiple consumer benefits, such as home renovations improving insulation that may also be damaged by humidity.

The CPower proposal would have replaced PJM's language stipulating that a project "would not have occurred absent participation in the wholesale market" with the need for "a direct connection to participation in the wholesale market."

Both alternatives also took issue with PJM's proposal that state technical reference manuals used to measure EE savings under the baseline load must be less than three years old. The Affirmed proposal would shift that to six years, and the CPower proposal to five.

Fishback said most TRMs issued by PJM states would have been invalidated under PJM's proposal, requiring EE providers to instead study meter data, which he said would take too long to complete for the 2025/26 Base Residual Auction (BRA).

After the committee rejected the three proposals, [Vistra](#) offered a fourth revising PJM's proposal to include a transitional period for the TRM limitations. Manuals less than five years old would be permitted for the 2025/26 BRA, four years for the following, and three years for 2027/28 and onwards.

Revised Reserve Requirement Study Values Endorsed

Stakeholders endorsed [revised](#) installed reserve margin (IRM) and forecast pool requirement (FPR) values accounting for inputs that changed following FERC's approval of PJM's critical issue fast path (CIFP) filing reworking its approach to risk modeling and accreditation. The new values were endorsed with 88% support at the MRC and passed by acclamation at the MC on March 20. (See [FERC Approves 1st PJM Proposal out of CIFP](#).)

PJM's Patricio Rocha Garrido said the need to recalculate was driven by several analytical developments since figures were approved by the committee in October and by fine-tuning made in recent months, as well as by param-

eters updated to better reflect resource pool changes. (See "[Stakeholders Endorse Revised RRS Values](#)," [PJM PC/TEAC Briefs: Feb. 6, 2024](#).)

The revised figures raise the IRM to 17.8%, an increase from 17.7% in the 2023 Reserve Requirement Study (RRS) results endorsed in October. The FPR would decrease to 0.9387, down from 1.1165 in the October values.

The Planning Committee voted in February to reset the two values, moving the figures in a similar direction to that endorsed by the MRC last week. The PC endorsed an IRM of 17.7% and an FPR of 0.9440.

Several resources that had submitted a notice of intent to offer into the capacity market were removed from the resource mix after PJM determined they are unlikely to come online prior to the start of the delivery year. Deactivations that were recently announced or not included in the original analysis were also removed from the expected available generation.

PJM and its Independent Market Monitor found that the characteristics of some resources had changed enough to warrant reclassifying their effective load carrying capability (ELCC) class. One of the prime reasons for this was a generator being reconfigured to run on a different fuel.

Some resources were also identified as having incorrect installed capacity (ICAP) values, particularly pseudo-tied generation, and some that had ambient derate tickets with variable megawatt reductions did not have the variability captured in their data.

MRC Amends Large Load Adjustment Forecast Issue Charge

The committee voted to revise an [issue charge](#) framing ongoing stakeholder discussion of how capacity assignments from forecasted large load additions are assigned to market participants in the same transmission zone. The [proposal](#) expands the scope of the discussion to consider load-serving entities (LSEs) able to control large load addition (LLAs) forecasts in their region. (See "[1st Read of Proposal on Capacity Obligations Resulting from Large Load Additions](#)," [PJM MIC Briefs: March 6, 2024](#).)

Mike Cocco of the Old Dominion Electric Cooperative (ODEC) said the unrevised language could grant sole control over the ability to submit forecasts to electric distribution companies (EDCs), including for any LSEs within their footprint. He argued that allowing

PJM News



a market participant to affect another participant's load forecast is contrary to PJM's basic market principles.

Joshua Burkholder of American Electric Power (AEP) said he supported the amendment as a minor clarification and improvement to the issue charge, noting that AEP was one of the document's co-sponsors.

Dominion's Jim Davis, the other co-sponsor, said the proposal being considered by the Market Implementation Committee will reflect some of the clarifications in the issue charge.

The proposal would exclude LLAs from the calculation of base zonal scaling factors and apply that load to the obligation peak load of the zone it is projected to be added to. LLAs are determined by PJM using information from LSEs about expected load growth and are detailed in the RTO's annual load forecast reports under Table B-9.

Calpine Proposes Changes to Dual Fuel Classification

Calpine's David "Scarp" Scarpignato *presented* a quick-fix proposal expanding the definition of dual-fuel resources to include units that start using their primary fuel and operate on secondary fuel. He said some gas-fired resources can start multiple times on the fuel present in the portion of pipeline leading to the generator, even if the pipeline feeding into that segment is offline or the generation owner has not entered a fuel contract. The quick-fix process allows for a *problem statement* and *issue charge* to be brought concurrent with a proposed solution.

The proposal would revise the Manual 34 definitions of dual-fuel combined-cycle and combustion turbine resources to require that they be capable of starting independently using "behind-the-fuel meter source" and then operate on the secondary fuel.

First Read on PJM Regional Planning Proposal

PJM's Michael Herman *presented* a first read of the RTO's proposal to create new long-term regional planning scenarios informing the development of the Regional Transmission Expansion Plan and state initiatives through the State Agreement Approach (SAA). (See "Stakeholders Long-term Regional Transmission Planning Proposal," *PJM PC/TEAC Briefs: March 5, 2024*.)

The proposal would add five new scenarios: two base cases focused on reliability needs eight and 15 years out; two policy scenarios

looking at new entry backed by state legislation eight to 15 years in advance; and an additional policy scenario including higher generation entry not backed by signed legislation. The two-year planning cycle would be extended to three years because of the increased number of scenarios. PJM's current 10-year voltage analysis would be performed on the eight-year base scenario and include thermal analysis.

Herman said the scenarios are designed to capture evolutions the grid is expected to undergo over the next 15 years, namely 44 GW of load growth, 30 GW of generation deactivations and increased renewable energy penetration.

Ryann Reagan, of the New Jersey Board of Public Utilities (NJ BPU), said the new paradigm would provide the PJM planning team with a valuable new tool and that could aid other states follow NJ's lead with using the SAA to pursue clean energy objectives.

Governing Documents Revisions Endorsed Through GDECS Process

Several *changes* to PJM's governing documents were endorsed by the committee in line with the recommendations made by the Governing Document Enhancement and Clarification Subcommittee (GDECS). The revisions were approved by acclamation with no objections and several abstentions. (See "Other MRC Business," *PJM MRC/MC Briefs: Feb. 22, 2024*.)

PJM's Michele Greening said terms being added to the documents' definition sections are already defined in the existing language, but that language has not been duplicated in the definition section.

On March 20 and during the first read of the changes at the Feb. 22 MRC meeting, several stakeholders questioned if some of the package's recommendations exceed the inconsequential nature of revisions typically drafted through the GDECS.

PJM also presented a *first read* on another set of revisions recommended by the GDECS, including a change to lowercase several references to "end-use customer" in the tariff around load management participation in the capacity market.

PJM's Daniel Vinnik argued the terms were capitalized through a scrivener's error and were not meant to suggest that consumers participating in demand response programs must be PJM members.

The second set of GDECS revisions are set to be voted on by the MRC on April 25 and the MC on May 6.

Other Committee Business:

Consideration of a quick-fix proposal to expand the winter availability window for demand response resources was spiked to the April 25 MRC meeting to give more time for sponsors to consider continuing pursuing changes through the expedited stakeholder process. Bruce Campbell, of Campbell Energy Advisors, said the sponsors may only seek endorsement of the issue charge next month, which would open a standard stakeholder process to explore if changes to the load participating in demand response programs and market changes made through the CIFP process warrant changes to the availability window.

PJM's David Hauske presented a first read on a proposal revising the Operating Agreement, Tariff and manuals to add definitions of three synchronous condenser parameters — condense startup costs, condense-to-generate costs and condense energy use. He said the parameters are in use and there would be no change to PJM practices.

Members Committee

Advocates Concerned About Transparency over Filing Rights Changes

Greg Poulos, executive director of the Consumer Advocates of PJM States *presented* consumer advocates' concerns over the openness of discussions between PJM and transmission owners on revising the consolidated Transmission Owners Agreement (CTOA) to shift Federal Power Act Section 205 filing rights from PJM members to the RTO.

Exelon Director of RTO Relations Alex Stern laid out the proposed changes to the Members Committee during its Feb. 22 meeting, where several transmission representatives noted that changes to the CTOA are made through negotiations between the Transmission Owners Agreement-Administrative Committee (TOA-AC) and the PJM Board of Managers. (See "TOs Considering Handing PJM Transmission Planning Filing Rights," *PJM MRC/MC Briefs: Feb. 22, 2024*.)

While advocates have been pushing for PJM to plan more proactively, Poulos said negotiations to expand its filing rights and other associated changes to the balance between stakeholder and RTO authority should be public. He said that transmission owners speaking during the February MC meeting argued that the changes could have benefits to consumers; however, those consumers' representatives do not have a voice at the table where those changes are being considered. ■

Southeast

FERC Upholds De-pancaking Provisions in LG&E/KU Rates

Back-and-forth to Continue in DC Circuit

By Michael Brooks

FERC on March 21 upheld its May 2023 order reinstating de-pancaking provisions in Louisville Gas & Electric and Kentucky Utilities' transmission rates, which the utility has challenged before the D.C. Circuit Court of Appeals ([ER23-2656-001, et al.](#)).

The commission's May 2023 order reversed its 2019 decision allowing the company to remove provisions that de-pancaked its rates as a condition of LG&E/KU's 2006 withdrawal from MISO, ensuring customers wouldn't pay duplicate rates across the merged company's territory.

FERC's reversal followed a D.C. Circuit order remanding the 2019 decision back to the commission after several municipal utilities in Kentucky sued.

Upon reconsideration, FERC decided that removing the de-pancaking mitigation "will have

an adverse effect on rates for the customers involved." It directed LG&E/KU to reinstitute the provisions, retroactive to March 2021.

LG&E/KU complied, but not without protest. It filed both its new de-pancaked rates (Rate Schedule 525) and a request for rehearing of the order on remand. FERC in November found that the utility had only partially complied with its directive, as it had not fully restored the provisions of its pre-2019 rates (Rate Schedule 402). The utility also requested rehearing of this order.

FERC automatically rejected the utility's rehearing request after not acting within 30 days. The order issued at the commission's March 21 open meeting rejected the utility's arguments as out of time: FERC found that it raised issues that should have been in response to the order on remand, not to the order on the company's compliance filing.

"LG&E and KU's substantive arguments,

however numerous or illustrative, go beyond compliance with the remand order's directive," FERC said. "Further, contrary to LG&E and KU's argument that this compliance filing was the first opportunity to address the justness and reasonableness of RS 525, LG&E and KU had a full opportunity to raise arguments supporting their request to end de-pancaking mitigation in the proceedings leading to the remand order, as well as raise arguments concerning the remand order's compliance directive to reinstitute the de-pancaking provisions of former RS 402, now found in RS 525, in their subsequent request for rehearing of the remand order."

FERC also issued a letter order March 21 approving the utility's revisions to RS 525 ([ER23-2656-002](#)).

LG&E/KU will now take its arguments to the D.C. Circuit, where it filed a [petition of review](#) over FERC's 2023 order in February. ■



| LG&E and KU

SPP News

SPP Board Approves Markets+ Phase 1 Tariff

By Tom Kleckner

SPP’s Board of Directors approved the *initial tariff* for its Markets+ service offering in the Western Interconnection March 25, clearing the way for its filing at FERC.

Board Chair John Cupparo called the action an important step, but not the last, in continuing SPP’s development of the day-ahead market. Markets+ is just one of several *western expansion initiatives*, which include SPP RTO West and an imbalance market.

“We don’t know exactly what the outcome is going to be [as] SPP continues to prudently pursue this western expansion, given the long-term potential of this expansion,” he said. “Another way to say that is five, 10, 15 years from now, I wouldn’t want to be in the position of answering the question, ‘Why didn’t you pursue this?’”

SPP is competing with CAISO’s Extended Day-ahead Market (EDAM) to attract western entities to Markets+. FERC already has approved the bulk of EDAM’s tariff, and last week, Portland General Electric and Idaho Power signaled their intent to join the CAISO market. That increases EDAM participants to five members. (See *CAISO Wins (Nearly) Sweeping FERC Approval for EDAM* and *CAISO’s EDAM Scores Key Wins in Contested Northwest*.)

“Based on experience in the West, it is always a challenge to completely get our arms around what entities in the West will do and what they’ll ultimately decide,” said Cupparo, a



John Cupparo | © RTO Insider LLC

Colorado resident with western utility experience. “We’re still entering that phase right now. There are many variables and diverse perspectives that will influence these decisions.”

The tariff’s filing will complete the first phase of the Markets+ development. SPP lists 38 western entities as having participated in drafting the tariff and its protocols.

The grid operator hopes to receive FERC approval by year’s end. In the meantime, SPP and interested participants will develop and negotiate funding agreements for the sec-

ond phase. SPP will file at FERC a financing approach, projected to be about \$140 million plus financing costs.

Once FERC has approved the tariff, SPP will begin acquiring and modifying the necessary software, hardware and related processes. Phase 2 work will begin next year after the financing approach is approved.

“I think we’re probably several years away from parties participating in Markets+ and deciding that they’ve gotten comfortable with the regionalization to the level where they’re now interested in pursuing an RTO,” said Antoine Lucas, SPP’s vice president of markets.

The motion to approve the tariff cleared the Members Committee’s advisory vote, 15-1, with four abstentions. The Natural Resources Defense Council’s Christy Walsh cast the lone dissenting vote over concerns the tariff isn’t complete.

Markets+ stakeholders and SPP staff have been working together since last year putting together the tariff’s various pieces. The Markets+ Participants Executive Committee has held 86 votes on tariff language since August, with an average approval rating of 97.72%. Several identified tariff elements were postponed because of the time necessary to resolve them.

Lucas reminded members the tariff they were voting on does not include the second phase. That will include contractual obligations that set cost recovery and financial obligations associated with the market’s implementation.

“This being a standalone service, the funding for that service will be taken care of by the participants in the process itself,” he said.

CFO Sterzing Resigns

SPP CEO Barbara Sugg announced during a break in the call that Deborah Sterzing submitted her resignation March 22 as the grid operator’s chief financial officer.

“We hate to see her go. We certainly wish her well in her continued career within our industry,” Sugg said.

David Kelley, vice president of engineering, has been appointed interim chief financial officer. He is already involved in several financial activities for SPP, Sugg said.

Sterzing joined SPP in February 2023. She replaced longtime CFO Tom Dunn, who retired in 2022 after 21 years at the financial helm. ■

Phase 0: Exploration/Service Offering 2022

SPP facilitated webinars and in-person meetings on possible Markets+ design elements

Published Markets+ Service Offering in November 2022

Requested parties sign Phase 1 agreements to participate in Tariff and Protocol development by April 2023

Phase 1: Tariff and Protocols 2023-2024

Establish Markets+ governance proposed in Service Offering as much as practical

Facilitate development of Markets+ Tariff and Protocols with voting participants and stakeholders

Leverage “boilerplate” day-ahead and real-time features and focus on completing unique Markets+ items

Phase 2: Implementation 2025+

Upon FERC approval, SPP acquires/modifies necessary software, hardware and related processes

Participating entities commit to fund implementation efforts

Entities integrated into the system

Company Briefs

Former Tesla Worker Settles Discrimination Case

Tesla and Owen Diaz, a Black man who worked at the company's California factory, announced a settlement in a long-running discrimination case.

Diaz, who was awarded nearly \$3.2 million by a federal jury last April, reached a "final, binding settlement agreement that fully resolves all claims," according to a document filed with the U.S. District Court in San Francisco. The document, which gave no details, said both parties agree that the matter has been resolved and the case against the company can be dismissed.

The 2017 case centers on allegations that Tesla didn't take action to stop a racist culture at the factory.

More: [The Associated Press](#)

Shell Sells Stake in SouthCoast Wind Energy



Shell on March 20 announced it has sold its 50% stake in SouthCoast Wind Energy to joint venture partner Ocean Winds North America for an undisclosed sum.

The SouthCoast Wind project was created in 2018 as a 50-50 joint venture to develop a proposed offshore wind farm off the coast of Massachusetts with a roughly 2,400 MW capacity.

More: [Reuters](#)

Rivian Gets Tesla Supercharger Access

Rivian on March 18 announced the company's vehicles now have access to Tesla's

charging network.

The company plans to ship adapters to its customers in April.

More: [Clean Technica](#)

Exus Buys Wind Farm Portfolio in Penn.



Exus North America on March 18 announced it has acquired 306 MW of operating Pennsylvania wind farms.

Exus purchased three wind farms totaling 244 MW from energy and commodities company Vitol and the 62-MW Cambria wind farm from Oppidum Green Energy. Three of the wind farms will be repowered between 2024-2027.

More: [Renewables Now](#)

Federal Briefs

16 States Sue Biden Admin Over Gas Permit Pause

Sixteen Republican-led states sued the Biden administration March 21 over its decision to temporarily stop approving new permits for facilities that export liquefied natural gas.

The lawsuit contends the administration acted illegally when it decided in January to pause approvals so it could study how gas exports affect climate change, the economy and national security. The lawsuit requests a judge end the pause, arguing the White House flouted regulatory process and instead acted "by fiat."

More: [The New York Times](#)

DOE Announces \$475M for Clean Energy on Current, Former Mine Land

DOE on March 21 announced up to \$475

million in funding for five projects in Arizona, Kentucky, Nevada, Pennsylvania and West Virginia to accelerate clean energy deployment on current and former mine land.

The selected projects cover clean energy technologies from solar, microgrids and pumped storage hydropower to geothermal and battery storage systems. Three projects are on former Appalachian coal mines, while two projects in the West seek to displace fossil fuel use by ramping up net-zero mining and providing critical materials.

More: [Energy.gov](#)

Study: Turbines Have Negligible Effect on Housing Values

A nationwide study that analyzed data from 300 million home sales and 60,000 wind turbines found turbines' impact on home values is much lower than previously



thought — about a 1% drop for a home with at least one wind turbine within six miles.

The study's authors found the greatest impact on home prices happens for homes within five miles of a turbine. However, they also noted the negative impact to property value "diminishes and eventually disappears" within a decade. The study recorded fewer than 250,000 transactions within a mile of a turbine.

The study also found most of the dips in value were driven by early turbine installations in the late 1990s.

More: [CNN](#)

National/Federal news from our other channels



[NERC Standards Teams Pushing to Meet FERC Deadlines](#)



[Industry Sends Back NERC Cyber Monitoring Standards](#)



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State Briefs

CALIFORNIA

Berkeley Repeals New Gas Appliances Ban Berkeley on March 22 agreed to repeal its first-in-the-nation ban on natural gas appliances in new buildings after a U.S. appeals court agreed with restaurant owners and business groups that the ordinance conflicts with federal energy regulation.

The California Restaurant Association, which sued Berkeley over the ban in 2019, announced a settlement requiring the city to halt enforcement of the law. U.S. District Judge Yvonne Gonzalez Rogers, whose initial ruling upholding Berkeley's ordinance was overturned on appeal, put the case on hold until September.

The case could invalidate similar laws in San Francisco, Los Angeles and other cities.

More: [San Francisco Chronicle](#)

INDIANA

CenterPoint Energy Seeks Rate Increase



CenterPoint Energy has filed for a rate increase with the

Utility Regulatory Commission that would raise average customer rates by \$90 a month. It is the company's first rate request in over 15 years.

CenterPoint said it needs the funds to modernize infrastructure, expand its generation portfolio, and provide energy- and money-saving programs. The funds would also help the company comply with environmental requirements, such as cleaning up coal ash storage sites.

The request would raise its annual revenues by about \$119 million (16.5%) over the next few years, raising an average resident's monthly bills from about \$165 to more than \$250 by early 2026.

More: [Indianapolis Star](#)

KENTUCKY

House Committee Chair Wants State to be Fossil Fuel 'Sanctuary'

The House Natural Resources Committee on March 21 passed a joint resolution directing the state's environmental authority to defy federal rules for fossil fuel power plants.

The resolution would also prohibit the state's environmental cabinet from enforcing federal air quality standards for power plants.

The legislation now moves to the House floor for a vote.

More: [WKYU](#)

MAINE

Board of Environmental Protection Rejects Advanced Clean Cars II Act



The Board of Environmental Protection on March 20 voted 4-2 to reject implementation of the Advanced Clean Cars II Act.

The act originated in California and has been adopted by more than a dozen states. In Maine, it would have required 82% of new vehicles sold to be electric by 2032. The rule would not affect existing cars.

More: [Maine Morning Star](#)

MINNESOTA

Xcel's Prairie Island Nuclear Plant Returns After Lengthy Outage



Xcel Energy on March 22 said its Prairie

Island nuclear power plant is back to full power following an outage lasting nearly two months longer than expected.

On Oct. 6, 2023, Xcel powered down Unit 2 for scheduled refueling and maintenance, an every-two-years process. Unit 1 shut down Oct. 19 after an issue between the turbine and the grid. At the time, Xcel said the refueling process at Unit 2 would pause until Unit 1 repairs were finished, lengthening the standard two-month timeline. The utility also said it expected both reactors to be up and running in January. Unit 1 returned to service roughly on track, though another short outage occurred in February after a high-pressure water leak created steam that shut down the facility for several days.

On March 18, Unit 2 at was operating at 87% power, according to a report by the Nuclear Regulatory Commission. Xcel said that afternoon the unit was back to 100% power.

More: [Star Tribune](#)

MISSOURI

PSC Approves 3 Ameren Solar Farms



The Public Service Commission on March 21 unanimously approved

Ameren's plans to build, own and operate three solar farms in the state.

The solar installations will be in Warren County, Bowling Green and Vandalia and have a combined capacity of 400 MW.

More: [St. Louis Post-Dispatch](#)

NEW MEXICO

Supreme Court Denies PNM Renewable Energy Incentive

The state Supreme Court on March 18 denied the Public Service Co. of New Mexico a rate rider that would have allowed it to collect millions of dollars from customers for allegedly exceeding its requirements under the state's Renewable Energy Act.

Under the law, utilities are required to derive 20% of their electricity from renewables and increase to 40% in 2025, with additional benchmarks after that. PNM proposed in 2021 to retire renewable energy certificates from 2022 to 2024 to exceed the law's renewable requirements and qualify for the incentive. If permitted, it would have been claiming it reached the 40% standard in those years, sooner than is required by the statute.

However, the court found that the company's plan did not meet the requirements for an incentive, writing: "[The utility] seeks a reward — not an incentive — for renewable resources or energy that it already has produced or acquired beyond the REA's demands."

More: [The Las Cruces Bulletin](#)

NEW YORK

LIPA CEO Falcone Resigns

Tom Falcone on March 18 resigned as LIPA

CEO.

Falcone first joined LIPA in 2014 as CFO before becoming CEO in 2015.

More: *Long Island Business News*

Senate Passes NY HEAT Act

The Senate on March 19 voted 40-22 to pass the NY HEAT Act.

The bill is intended to limit customers' costs as the state transitions away from natural gas while capping utility costs at 6% of income for low- and moderate-income New Yorkers to prevent companies from hiking rates.



The Senate also passed legislation including a bill requiring the Public Service Commission to consider the economic impact of utility rates and charges when evaluating

utilities' proposed rate changes.

More: *Spectrum News*

OHIO

Siting Board Approves Madison County Solar Farm

The Siting Board on March 21 approved the Oak Run Solar Project in Madison County.

The 800-MW solar farm and 300-MW storage system will cover 6,050 acres and cost at least \$1 billion.

Construction could begin in 2025.

More: *The Columbus Dispatch*

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