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RTO Insider LLC

10837 Deborah Drive

Potomac, MD 20854

(301) 658-6885

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Infocast Transmission & Interconnection Summit

Planners, Developers: Transmission not Keeping Pace with System Needs

By Rich Heidorn Jr.

ARLINGTON, Va. — Time is running out to build the infrastructure needed to meet climate challenges, transmission planners, generation developers and others warned last week.

“The things that we have done well are pretty modest. We’re not seeing steep changes,” Liza Reed, the *Niskanen Center’s* electricity transmission research manager for climate policy, said in one of many related discussions during Infocast’s Transmission & Interconnection Summit, held June 20-22 at the Hilton Crystal City hotel. “We’ve been talking about backbone [transmission] for decades — I mean decades. So, it’s not even new. ... That conversation just really needs to mature very quickly.”

It’s inaccurate to describe the challenge of matching generation and transmission as a “chicken and egg” dilemma, said Joseph Rand, senior scientific engineering associate for the Lawrence Berkeley National Laboratory’s Electricity Markets and Policy Group. “When we look at the interconnection queues, we already have 1,400 GW — not megawatts, gigawatts — that’s ready to interconnect to our system now. ... It’s not, ‘If we build it, they will come.’ They’re waiting for us to build it.”

“In the planning world, 2030 is tomorrow — and 2040 is the day after,” said Himali Parmar, vice president of energy advisory services, interconnection and transmission at ICF International.



Sarah Bresolin, ENGIE North America | © RTO Insider LLC

“Lawrence Berkeley National Labs has this great graph that shows all the different RTOs and compares the [renewable portfolio standards]. And it shows that New York and ISO New England have the greatest need to bring renewables onto their grids and

are bringing the least on,” said Sarah Bresolin, director of government and regulatory affairs and wholesale markets policy for ENGIE North America.

But it wasn’t all doom and gloom among the hundreds who attended the conference. FERC’s April Notice of Proposed Rulemaking on transmission planning and cost allocation (RM21-17) and its June 16 NOPR to unclog



From left: Jay Caspary, Grid Strategies; Bart Franey, National Grid; Joseph Rand, Lawrence Berkeley National Laboratory; and Liza Reed, Niskanen Center | © RTO Insider LLC

interconnection queues (RM22-14) won mostly positive reviews.

“We’ve talked about a lot of problems, and I wouldn’t want to leave this panel thinking that there aren’t opportunities,” said Bresolin.

Planning Models not Proactive

Jay Caspary, vice president of consultancy Grid Strategies, said FERC was right to call for proactive, scenario-based transmission planning in the April rulemaking.

“It’s going to take decades to build the grid of the future, so we need to think about what’s the resource mix going to be, and that’s above and beyond the known knowns. We know what units are going to retire in the next few years and know what generators are coming online. But the planning, the models [and] the analyses don’t reflect the commitments that have been made by utilities to get to zero carbon by 2040,” he said. “If you look at planning models now looking out five to 10 years in the future, there’s probably very little electrification in there. And don’t we all really think that electrification is coming in terms of transportation or buildings and industrial processes?”

“We need to think strategically about what this

grid needs to do ... to share resources across time zones,” added Caspary, a former SPP planner. “We need a grid that’s bigger than the weather patterns and storms, so that we can move energy and capacity to keep the lights on. And we need studies where everybody’s involved in how we’re going to ... decide what the right metrics are to quantify the benefits. I think that will be a big challenge for us, but I’m sure we’re up for that. I mean, we put a man on the moon.”



Arash Ghodsian, EDF Renewables | © RTO Insider LLC

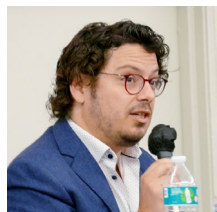
Arash Ghodsian, senior director of transmission and policy for EDF Renewables, said FERC should “bifurcate” transmission planning and cost allocation to prevent cost issues from short-circuiting planning.

“I would rather have cost allocation be a hurdle at the end rather than at the beginning of the process,” he said. RTOs should “not let cost allocation discussions stop them from planning.”

Ghodsian also said he hopes FERC’s interconnection rulemaking will ensure the rest of the

Infocast Transmission & Interconnection Summit

country adopts best practices, similar to those in MISO. The RTO's interconnection rules are "three to four years ahead" of its neighbors SPP and PJM, "so there's always going to be some sort of a lag between all three neighbors," he said.



Johnny Casana, Pattern Energy | © RTO Insider LLC

Johnny Casana, North American strategy director for wind and solar developer *Pattern Energy*, said dealing with that lag in the Eastern Interconnection doesn't compare to the challenges of the Western Interconnection.

"There's 38 balancing authorities in the West, and they are not integrated, certainly not for transmission planning; not for planning capacity shortfalls that are driven by extreme weather events for their entire region," he said. "There's some great studies that have come out in the last year or two talking about with the amount of changes that all of these different states have put on the books already and voluntary commitments that utilities have made to basically get out of coal within the next 10 or 15 years. ... Without a wholesale electricity market or an RTO, you're looking at \$3 [billion] or \$4 billion extra per year in [costs] ... for the privilege of failing on your collective greenhouse gas reduction goals — because you can't get there."

Interregional Planning Lacking

Panelists also lamented the lack of interregional transmission development since Order

1000 in 2011.

FERC Commissioner Allison Clements, who spoke to the conference June 21, said the commission plans to revisit the issue.

"I think interregional transfer capabilities is low-hanging fruit in terms of something that has widespread support; [it] certainly has support at the commission," she said. "FERC has a role to play, because it's just such a massive challenge. And the idea that it can get done in a '1,000 flowers blooming' approach, as opposed to federally [mandated], seems hard."

Clements said she hoped the commission's April proposal will lead to more initiatives like MISO's *Multi-Value Projects*. She also called for prudence in spending.

"If we are going to build out the type of transmission that every credible study tells us we're going to need to do to serve customers reliably, we have to be careful about costs. If you want to build the big transmission to interconnect regions — which we need — get on board with grid-enhancing technologies; get on board with the ability of distributed energy resources to provide low-cost, flexibility to the system, because we need all of it. ... Let's ensure that [we are] taking advantage of the cheapest resources first."

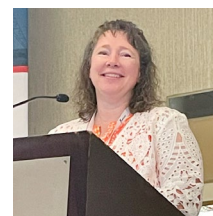
DOE Initiatives

Speaking after Clements, Michelle L. Manary,



FERC Commissioner Allison Clements | © RTO Insider LLC

acting deputy assistant secretary for the Department of Energy's Energy Resilience Division, described the department's *Building a Better Grid Initiative*, announced in January. (See *DOE to Tackle Tx Siting, Financing, Permitting in Better Grid Initiative*.)



Michelle L. Manary, Department of Energy | © RTO Insider LLC

As part of the initiative, the National Renewable Energy and Pacific Northwest National labs will help DOE identify where transmission upgrades could relieve congestion resulting from electrification and increased renewable generation.

"The whole theory here is we have a case that is blessed by the regions; this is not something the labs go and do by themselves. ... It really is working with everybody to find that those strong base cases and identify those areas," Manary said.

She also discussed DOE's transmission facilitation program, which allows it to borrow more than \$2.5 billion to create a revolving fund to purchase capacity on new transmission to reduce developers' risks. (See *DOE Seeks Input on Tx Loan, 'Anchor Tenant' Programs*.)

"The moment that DOE signs that capacity contract, we're looking to resell it," she said. "What I don't know ... is do we get keep that money [from transmission sales]? We are [in] active conversations with the Treasury." ■


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Infocast Transmission & Interconnection Summit

Overheard at Infocast Transmission & Interconnection Summit 2022

ARLINGTON, Va. — Frustration over the pace of transmission growth and lack of interregional planning mixed with optimism over FERC's recent proposed rulemakings at Infocast's Transmission and Interconnection Summit last week.

The sessions also featured debates over the role of grid-enhancing technologies (GETs) and the commission's proposal to scale back Order 1000's effort to subject transmission projects to competition. See related stories:

- *Planners, Developers: Transmission not Keeping Pace with System Needs*
- *Ratepayers Protest FERC Retreat on Transmission Competition*
- *GETs: Long-Term Solution or Niche Player?*
- *Interconnection Rulemaking Wins Support, but Funding Question Remains*

Here's some other highlights.

Overcoming NIMBYism on Transmission

Last August, the Niskanen Center and the Clean Air Task Force released a *report* that called for adoption of the "5 P framework" to overcome opposition to clean energy infrastructure. The construct builds on the transmission concept of "planning, permitting and paying."

"We propose adding 'participation' as a fourth 'P' and then 'process' as [the fifth]. Because



About 200 transmission planners, generation developers, regulators and others attended the Infocast Transmission and Interconnection Summit last week. | © RTO Insider LLC

one of the challenges of transmission [is that] every single project is unique, because every state in every region is different," said Liza Reed, Niskanen's electricity transmission research manager for climate policy. "The reason

that we raise participation up to an equal level with the other Ps ... is that groups are really siloed in each of those policies right now. There is stakeholder engagement in planning. There is stakeholder engagement in permitting. There is stakeholder engagement in paying. But different stakeholders get brought in at different points, and that's when groups start getting frustrated. And I think when folks hear the word 'participation,' they think angry town halls and lawsuits. But the whole point of bringing participation into a consistent process is to avoid that."

Lawrence Berkeley National Laboratory's Joseph Rand offered an observation from his analyses on the siting and community impacts of large-scale wind and solar.

"What the wind energy developers have learned over time is that we need to move away from a process that people call 'decide, announce, defend,' [to one] called 'consult, consider, modify, proceed,' so that you're meaningfully engaging local stakeholders in that process and being open to actually modifying your proposal," said Rand, senior scientific engineering associate for the lab's Electricity Markets and Policy Group.

"What has worked well? When you get con-



From left: Michelle L. Manary, Department of Energy; Matthew Nelson, chair of the Massachusetts Department of Public Utilities; and Ted Thomas, chair of the Arkansas Public Service Commission. | © RTO Insider LLC

Infocast Transmission & Interconnection Summit

sensus, it's easy for it to work well," said Ted Thomas, chair of the Arkansas Public Service Commission. "What drove the [MISO] MVP [Multi-Value Project] process was it started with the governors. So you had a political impetus; you had a homogenous policy across the region [MISO North]. You also didn't have an Order 1000, so the incumbent utility knew that if projects were built that it was going to their rate base; that they [MISO] weren't going to bid it to somebody else. So you had to political push of the governors, and the political push of the utilities. It created consensus."

In contrast, Thomas said, the failed 700-mile HVDC Clean Line transmission project from Oklahoma to Arkansas, which the U.S. Department of Energy agreed to support, "had higher negatives than gonorrhea."

"We have battle scars from that," joked Michelle L. Manary, acting deputy assistant secretary for DOE's Energy Resilience Division.

To avoid that problem in the future, Manary said DOE will focus not on transmission corridors but on specific projects.

"It's much easier to study a specific project," she said. "And I think it's easier also for the states and utilities to comment on it and coordinate and facilitate with it because they know what we're talking about – not just a broad swath of land."

Thomas said FERC should be "very cautious" in using the backstop siting authority it received in the Infrastructure Investment and Jobs Act.

"I think you want a pretty recalcitrant state – a situation where it's pretty clearly against the public interest," he said. "Because if you do that push, there's going to be a push back."

Go Big

Grid Strategies' Jay Caspary, a former SPP planner, complimented the RTO and MISO for their Joint Targeted Interconnection Queue (JTIQ) study, which identified seven 345-kV projects totaling \$1.65 billion on their seam. But he said the RTOs should consider double-circuit lines instead of the current plans for single circuits. "What we found from the MVPs – as well as the priority projects in SPP and other projects that have been approved – is they're all oversubscribed within one or two years of going into service," Caspary said.

Interregional Planning



Juan Hayem, Invenergy
| © RTO Insider LLC

Juan Hayem, vice president of interconnections and grid analysis for Invenergy, likened RTOs to slabs of concrete on a highway, which are "very hard and very tough."

"But the middle [of the seam] should be like an expansion joint that allows the two systems to work together properly. I think some of the issues that we're seeing right now is the expansion joint is missing and the two slabs of concrete are hammering at each other every

time something changes, creating disruptions for everybody. So I think there's a need to have that soft area there at the seams that allows for the proper coordination, the proper definition of projects."

Resilience

Consultant Alison Silverstein said grid planners concerned with resilience to climate change are "drawing the aperture too small."

"The reality of climate change is such that we need to be thinking about resilience from the customer up, and for an entire set of systems and communities that are much bigger than just the grid," she said. "When you look at the magnitude and ferocity and frequency of Hurricane Ida, Hurricane Harvey, California wildfires, Winter Storm Uri – all of these things are orders of magnitude worse than anything we ever designed most of the assets on... We designed this grid for Ozzie and Harriet when we are facing Mad Max, and our systems are caving again and again under the magnitude of the storms that are hitting them."

"So planning how to improve the power system for resilience really needs to start with how do we protect customers against all of the things that are going to go bad," she added. "Let's start by protecting customers with energy efficiency and a whole lot of distributed assets. Not just community solar, community storage; a whole lot of things: community warming centers so that people can survive while you're trying to put the grid back together." ■

– Rich Heidorn Jr.



Devin Hartman, R Street (left), moderated a panel on scenario-based planning with (to right) Kamran Ali, American Electric Power; Kip Fox, Electric Transmission Texas; Robin Dutta, SunPower; and consultant Alison Silverstein. | © RTO Insider LLC

Infocast Transmission & Interconnection Summit

Ratepayers Protest FERC Retreat on Transmission Competition

April NOPR Proposes Reinstating Federal Right of First Refusal

By Rich Heidorn Jr.

ARLINGTON, Va. — When comments are filed next month on FERC's transmission planning and cost allocation rulemaking, one issue sure to generate controversy is the commission's proposal to abandon Order 1000's competition measures.

Comments on FERC's April Notice of Proposed Rulemaking (*RM21-17*), which would allow incumbent transmission owners a federal right of first refusal (ROFR), are due Aug. 17, with reply comment due Sept. 19. The NOPR would allow incumbents to exercise the ROFR on regional projects on the condition that they partner with an unaffiliated company with a "meaningful level of participation and investment" in the project. (See *ANALYSIS: FERC Giving up on Transmission Competition?*)

Last week the Electricity Transmission Competition Coalition, a group of industrial consumers and others, *asked* the chairman and ranking

members of the U.S. Senate Finance Committee to oppose FERC's proposal, saying transmission competition was essential to respond to electricity price inflation. The issue also was the subject of debate last week at Infocast's Transmission & Interconnection Summit.

FERC said it was changing course because it feared that Order 1000's removal of the federal ROFR may be "inadvertently discouraging investment" in regional transmission. Incumbent transmission providers "may be presented with perverse investment incentives" to instead engineer local transmission projects for which they retain development control, the commission said. Regional transmission facilities subject to competitive procurements represent only a small portion of transmission investment in recent years, it said.

Commissioner Allison Clements defended the change in remarks at the transmission summit June 21.

"When you look at the record and the lived

experiences under Order 1000, you see that the attempt at opening up regional transmission developments to competition had mixed results at best," she said. "And so we were trying to find a way to mimic the impact of competition to some extent to get cost savings for customers outside of the approach that was taken in Order 1000 and faced a lot of barriers."

She said the specifics of the new approach will be spelled out based on comments in the docket and at a *technical conference* Oct. 6 (AD22-8). "We are thinking about big concepts like independent transmission monitors and what role they might play relative to help managing costs," she said.

During a panel discussion later, Erik Heinle, senior assistant people's counsel for federal affairs and wholesale markets for D.C., called the ROFR proposal "an unfortunate ... step backwards."

"I think we all can agree that that competitive



RTO Insider Editor Rich Heidorn Jr. (left) moderates a panel discussion with (left to right), Erik Heinle, Office of the People's Counsel for the District of Columbia; Brian C. Drumm, ITC Holdings; Himali Parmar, ICF International; and Jennifer Chen, World Resources Institute. | Jay Caspary

Infocast Transmission & Interconnection Summit



Erik Heinle, DC Office of the People's Counsel | Jay Caspary

wholesale markets have really brought enormous benefit, both to suppliers and to load. And I think it's unfortunate, from our perspective, that we don't use those same tools in transmission planning and bring the same benefits of competition to transmission planning,

because we can see not only lower costs, but potentially better solutions to address transmission issues.

"We certainly understand that Order 1000 hasn't worked as well as the commission hoped," he added. "But that doesn't necessarily mean we give up on the goals of Order 1000. Instead, [we should] find ways to double down and improve those goals."

But Brian C. Drumm, representing Fortis' ITC Holdings, which owns 16,000 circuit miles of transmission in the Midwest, called Order 1000 "a failed experiment," saying competition has delayed transmission projects without bringing savings to ratepayers.

"The MISO [Multi-Value Project] portfolio in 2011 was the last substantial regional build out in MISO. And I think that's a direct result of this Order 1000 imposition of competition and competitive bidding," said Drumm, ITC's director of regional policy and RTO engagement.

Drumm said projects in MISO's proposed



Brian C. Drumm, ITC Holdings | Jay Caspary

\$10.3 billion long-range transmission plan that will be subject to competitive bidding will take two years longer to complete than projects that are exempt. In May, the RTO asked FERC's permission to change its process

to exclude "short segments and conductor-only" work from competitive bidding eligibility (ER22-1955). (See "Competitive Bidding Question Remains Open," *MISO Makes Business Case on Long-range Tx Plan.*)

"To the extent you can start building on a large scale and regional basis, you're going to capture economies of scale that RTOs, in particular, are really well suited to deliver," Drumm said. "But for those [projects that are competitively bid], there's a two-year delay for them to get into service; that delay results in increased costs to ultimate consumers. ... It potentially could impact the operation of the portfolio as well."

Drumm declined to say if transmission providers deserved blame for obstructing competition.

"FERC was trying to get more productivity and efficiency, lower costs into the transmission planning of transmission projects. And ultimately, what we've seen is ... a lack of collaboration amongst highly regulated

utility entities and transmission providers that previously worked well together," he said. "I'm not really sure of all the reasons, but I do know what the results were: This resulted in delay and increased costs. So [the blame is] kind of irrelevant."

MIT economist Paul Joskow issued a *working paper* in 2019 that concluded "the experience to date is sufficiently promising to consider expanding the use of open competitive procurement solicitations for transmission projects."

The Brattle Group issued a *report* the same year for independent developer LS Power that concluded that competitive solicitations saved an estimated 20 to 30% of project costs compared to traditionally developed projects. LS Power won PJM's first Order 1000 competitive project, for upgrades to Artificial Island in New Jersey, after promising a cost cap.

"Thirty percent savings ... it's hard to say that's a failed experiment," said Jennifer Chen, senior manager of clean energy for the World Resources Institute. "Maybe there are places where we can compromise ... but I would say we should do our very best to make this process as competitive and transparent as possible, and make sure that we are investing money wisely."

Drumm's comments also drew a rebuttal from Ali Amirali, senior vice president of Starwood Energy Group Global. "For those who don't believe that [competition] was working, come talk with me and LS Power, and we'd be more than happy to show you where it is working." ■

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Infocast Transmission & Interconnection Summit

GETs: Long-term Solution or Niche Player?

Summit Speakers Offer Spectrum of Forecasts for Alternative Technologies

By Rich Heidorn Jr.

ARLINGTON, Va. — You'd be hard pressed to find a bigger booster of grid-enhancing technologies (GETs) than former SPP planner Jay Caspary, now vice president of consultancy Grid Strategies.

Speaking at the Infocast Transmission & Interconnection Summit last week, Caspary used the adjective "great" to describe topology optimization, storage as transmission and the ability to redeploy GETs at different spots on the grid.

"And that's great ... because congestion is going to move as we start building the grid," he said. "So we can move this stuff around to where it's most effective."

Several other speakers — but not all — shared Caspary's enthusiasm during the three-day conference.



Bhaskar Ray, Q CELLS USA | © RTO Insider LLC

Bhaskar Ray, vice president of development and interconnection engineering for Q CELLS USA, said planners should consider dynamic line ratings, which have proven valuable in operations. "I think we need to take a closer look in the planning mode to see if we can squeeze out another 10 to 15% of the transmission" capacity, he said.



Kenneth Jennings, Duke Energy | © RTO Insider LLC

Kenneth Jennings, general manager of renewable integration and operations for Duke Energy, said he's looking forward to the comments on storage as a transmission asset (SATA) in FERC's June 16 Notice of Proposed Rulemaking on generator interconnection

(RM22-14).

"I think it'll be interesting to see what the comments are around transmission alternatives as far as the solutions to solve an overload," he said. "I think that might open up an opportunity to look at storage differently perhaps than we do today. In general, we think about storage as requiring an interconnection request. It may



Jay Caspary, Grid Strategies | © RTO Insider LLC

make sense not to have an interconnection request for storage if it's solving an overload."

Caspary also sees an increasing role for SATA. "I think we need to consider that more and more to help create capacity on a system where we need it in the near term."

He said he's happy that FERC proposed requiring transmission planners to consider power flow controllers — phase-shifting transformers and phase angle regulators — that have been used on the grid for decades.

He also cited research that found replacing existing lines with advanced conductors could allow the addition of up to 30 GW of renewables to the system.

"We're going to have to replace a lot of the existing wires on our transmission system over the next decade; I think we've estimated maybe 200,000 miles of lines [and] conductors that are going to reach their end of economic life in the next decade. That's a lot of opportunity to increase capacity in existing corridors and leveraging existing structures," he said. "Let's be smart about this."

But Bart Franey, director of transmission business development for National Grid, was

much less bullish than the other speakers, saying GETs will be limited to a "niche role."

"DLR is not a substitute for rebuilding a line. When you have a 300% thermal overload on a light load day, you're not going to put in DLR to fix that problem. I think, though, that it can work for minor overloads or as a stopgap solution. Power flow control devices [are] very, very handy, provided you have a parallel line where you can shunt the power over to it. ... Advanced conductors ... also have a specific application. It's hard to put advanced conductors on a 100-year-old tower, because it can't hold the tension. So I think there is a niche role."

Franey shares the enthusiasm for storage as transmission, however. "I think there's great opportunity that hasn't really been tapped into," he said. "I really think that there are just so many operational, reliability, transmission-type products that storage can offer in one setting and through some clever operations. I think that is going to be a key to an [non-wires alternative] type solution."

FERC Commissioner Allison Clements said there is "more to come" from the commission on SATA. "Don't take that as the commission plans to take action on that in the near term," she cautioned. "I think there is a need to continue to think along those lines to see where the commission has landed in past decisions, and where we should go from there." ■



Bart Franey, National Grid | © RTO Insider LLC

Infocast Transmission & Interconnection Summit

Interconnection Rulemaking Wins Support, but Funding Questions Remain

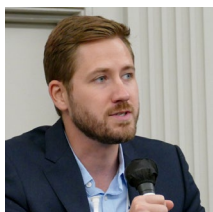
By Rich Heidom Jr.

ARLINGTON, Va. — Attendees at the Infocast Transmission & Interconnection Summit last week greeted FERC's June 16 proposal on interconnection as long overdue but expressed frustration that the commission had failed to address the issue of participant funding.

The commission unanimously approved a Notice of Proposed Rulemaking that would replace the serial "first-come, first-served" study procedure with "first-ready, first-served" cluster studies (RM22-14). The commission also proposed more stringent financial commitments and readiness requirements for interconnection customers, which it said would discourage speculative interconnection requests. (See *FERC Proposes Interconnection Process Overhaul*.)

"Those are great fixes — going to help streamline everything," said Brian C. Drumm, director of regional policy and RTO engagement for ITC Holdings. "But it's also, I think, somewhat of a Band-Aid approach. ... It's not addressing the problem of this lack of transmission and this increasing cost that interconnecting generators are being asked to bear."

Kevin McAuliffe, director of PJM and Northeast markets for *nFront Consulting*, said it is clear that grid planners can't rely on the generator interconnection process to build out the system and that planners need to be more proactive in considering what is required to meet decarbonization goals. "As you get more and more generators in [the queue], it requires more and more big backbone upgrades to rebuild the system. And that's hard for a generator to accommodate," he said.



Tyler Norris, Cypress Creek Renewables | © RTO Insider LLC

"One thing that is distinctly omitted from this NOPR is any way to address the deficiencies in the existing participant funding model," said Tyler Norris, vice president of development for Cypress Creek Renewables. "We hope to see FERC address it in another

venue."

The NOPR said the existing serial study process may be unjust and unreasonable because an interconnection customer that triggers a network upgrade can be saddled with its entire



Speaking at a panel on PJM's interconnection proposal were (from left) Kevin McAuliffe, *nFront Consulting*; Bhaskar Ray, *Q Cells USA*; Anton Ptak, *EDF Renewables*; Shankar Chandramowli, *ICF International*; and Sandeep Arora, *Rev Renewables*. | © RTO Insider LLC

cost even though it creates additional capacity for other interconnection customers that don't share in the bill.

FERC proposed requiring transmission providers to allocate network upgrade costs among interconnection customers in a cluster based on the degree to which each generating facility contributes to the need for the upgrade.

But the 407-page NOPR includes just two brief mentions of participant funding, including a footnote to its observation that "although the crediting policy in the *pro forma* LGIP [large generator interconnection procedures] requires that the interconnection customer is ultimately reimbursed for the cost of the network upgrades, the large upfront network upgrade cost allocation may render a proposed generating facility economically non-viable, such that the interconnection customer is forced to withdraw from the interconnection queue."

In a report to clients Monday, ClearView Energy partners said it expects FERC to issue an additional rulemaking addressing cost allocation beyond shared interconnection costs "as well as some of the mechanics of generator interconnection financing."

Eliminating 'Chicken'

Other aspects of the rulemaking also prompted comments during the three-day conference.

Arash Ghodsian, senior director of transmission and policy for EDF Renewables, acknowledged that he has a different perspective on the queue process than he did when he was a transmission planner for MISO.

"When developers used to come to us and say, 'We need queue reform. We need efficiency,' we used to push back and say, 'Well, you know, it took us a decade to get to where we are today.' Now being on this side of the fence, I'm one of those who's pushing [for] changes."

Anton Ptak, director of transmission and interconnection for EDF, said planners should use the location of generators in the queue as a guide to the most attractive areas for siting. "If you can use that information in your planning process — to help guide where to put these large new lines or major rebuilds or reconductors — I think that will significantly help. It'll take a little bit of ... the game of chicken out of the interconnection process," he said.

Infocast Transmission & Interconnection Summit

Several speakers praised FERC's proposal to eliminate the "reasonable efforts" standard and penalize transmission providers \$500/day for failing to meet study deadlines.

"I think that timelines for TOs are helpful if they have the resources to meet those timelines," said Sarah Bresolin, director of government and regulatory affairs and wholesale markets policy for ENGIE North America. "That's something that we struggled with at both the transmission and the distribution level. So some level of accountability there is helpful."

FERC 'Catching Up'

"I do feel like in some ways, FERC is catching up to what we just implemented in Duke territory [in North and South Carolina] with respect to the transition to cluster studies," said Cypress Creek's Norris.

Duke Energy implemented its first-ready-first-served, cluster-based process last year after it was approved by FERC in August (ER21-1579).

Kenneth Jennings, general manager of renewable integration and operations for Duke, said the company held stakeholder meetings for about nine months before it began drafting tariff changes.

"Once we did draft tariff changes, we shared those tariff changes with stakeholders and asked for feedback. Whenever we could incorporate recommendations from interconnection customers, we did it — as long as it didn't compromise what we thought the integrity of the process was or reliability in any way."

Jennings said interconnections become a problem "where there's robust incentives for development."

"When PJM started the RPM [Reliability

Pricing Model] capacity market, there were immediate interconnection issues right away. ... In North Carolina, the incentives were around solar; there was kind of this weird intersection between where the cost of solar declined and the avoided cost rates for [Public Utility Regulatory Policies Act] projects had reached the point where the cost was lower. And all of a sudden, we had a lot of activity. Initially, it wasn't too bad because we had headroom in our system. ... We ended up having this large influx of interconnection requests that we couldn't get processed. And at some point, we were getting about four times the [number] of requests that we could process in a year."

Southern Co. Reluctant to Abandon Serial Approach

Not everyone at the conference was ready to endorse FERC's proposals, however.



Corey Sellers, Southern Co. | © RTO Insider LLC

Corey Sellers, transmission policy and services manager for Southern Co., said his company supports the first-ready, first-service concept. "We were already looking at potentially some changes that would move us in that direction," he said.

But he said the company is concerned about abandoning the serial process for cluster studies.

"We've been pretty efficient in being able to process serially our requests," he said. "We were looking at something a little bit more of a hybrid. ... Our biggest concern is the continual restudies that you see when you have a cluster process. Not sure exactly how that would work

for us."

PJM Interconnection Filing

PJM proposed changes to its interconnection process — which largely mirror FERC's proposal — two days before the NOPR (ER22-2110). (See *PJM Files Interconnection Proposal with FERC*.)

The overwhelming support that members gave the proposed rule changes "was a PJM stakeholder success story," said Erik Heinle, senior assistant people's counsel for federal affairs and wholesale markets for D.C. "When PJM began this process back in late 2020, it was a very acrimonious process. ... There was some serious disagreement about how we get there and, understandably, very frustrated generators who want to get on the system."

He acknowledged that the RTO has additional work to do, which will be led by the *Interconnection Process Reform Task Force*.

Bhaskar Ray, vice president of interconnection and development engineering for Q CELLS USA, also praised PJM for "a very well engaged stakeholder reform process."

But he said it's unclear how PJM will handle the transition to the new rules. He also said his company also has concerns over how PJM would respond if Q CELLS' lease options — acquired to demonstrate site control — expire before studies are completed.

Ray also said the company is seeing "a lot of cost overruns."

"This is an ongoing issue. I think one way to circumvent the problem would be to do more quarterly financial expenditure forecasts, because it's very hard on developers to get these overruns of 50 [to] 60%." ■

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ACP Energy Storage Policy Forum

Overheard at ACP Energy Storage Policy Forum 2022

States Want to Deploy More Storage, but Developers Call for Better Planning Tools, Valuation

WASHINGTON — Michigan's new roadmap for energy storage has set ambitious targets for the state: 1,000 MW online by 2025, 2,500 MW by 2030 and 4,000 MW by 2040.

In Colorado, the state is targeting an 80% reduction in greenhouse gas emissions by 2030, which could trigger "investments of close to \$12 billion in wind, solar, storage, peaking capacity and transmission," according to Eric Blank, chair of the state's Public Utilities Commission.

But for regulators like Blank and storage developers speaking at the American Clean Power Association (ACP)'s Energy Storage Policy Forum on Wednesday, meeting such targets presents a range of problems, from declining capacity values of projects pairing solar and storage to the challenges of financing storage in restructured markets.

"Solar just falls off more quickly than the peak demand," said Blank, who appeared at the forum via a video hookup. "So, we're finding reduced capacity value for both solar-plus-

storage, and roughly every 5 to 10% increase in penetration reduces the capacity value by 20% ... and we're now seeing values at 70% coming down more towards 50%."

Those figures raise a critical question, Blank said. "Is there a real limitation to how much [solar and storage] we can do?"

For Julian Boggs, manager for regulatory and policy affairs at Key Capture Energy, a New York-based storage developer, lower capacity values mean projects may not pencil out, especially in states with restructured markets.

Key Capture has been successful with projects in vertically integrated markets, Boggs said, because it has been able to "internalize a lot of the system optimization benefits in the [integrated resource plan] modeling, in looking out [at] your system over 20 years. ... But it has been a huge challenge in restructured states. How do we finance given the capacity values and the energy values and whatever you can skim off energy and ancillary services markets?"

States may have aggressive climate goals and want to "deploy, deploy, deploy," he said, "but how do you finance projects? How do you get

long-term support? ... We need to start thinking differently about how we use state support to fill in the missing money effectively in these restructured markets where the wholesale markets aren't delivering the revenue piece."



Ted Wiley, Form Energy
| © RTO Insider LLC

Similarly, Ted Wiley, president and chief operating officer of storage developer Form Energy, said utilities and regulators must also think differently about their long-term planning processes. With backing from Bill Gates' Breakthrough Energy Ventures, Form is developing a long-duration technology that, Wiley said, could offer up to 100 hours of storage to provide resilience and reliability to the grid.

"There's a whole host of other technologies that are being developed that are the next wave of storage. We need to be included in the planning process before we reach maturity in order to be a factor," he said. "That planning has to happen now; [it] has to be a new kind of planning."



Michigan PSC Commissioner Katherine Peretick | © RTO Insider LLC

Michigan Public Service Commissioner Katherine Peretick said that whatever the technology, valuation will be key to forward planning.

"If you have the right value for the technology that's in front of you, you'll pay for the services you want," she said. Utilities need to "make sure that they are properly valuing the storage asset, both for the value it can provide to the grid, as well as how much it costs to operate."

Not Ready for 100-hour Storage

While rising prices and supply chain and inter-connection delays are expected to slow growth in the U.S. energy storage market this year, the sector scored a record first quarter, according



Michael DeSocio, NYISO, speaks as (from left) Dave Maggio, ERCOT; Andrew Levitt, PJM; and Jason Burwen, American Clean Power Association, listen. MISO's Laura Rauch participated via video. | © RTO Insider LLC

ACP Energy Storage Policy Forum

to the most recent *Energy Storage Market Monitor* from ACP and industry analyst Wood Mackenzie. Total installations — including residential, nonresidential and grid-scale storage — totaled 955 MW/2,875 MWh, about a fourfold increase from Q1 2021, the report said.

That growth would have been even higher, but 1.2 GW of grid-scale projects that were originally scheduled to come online in the first quarter have been delayed, although about three-quarters are still slated to come online this year, the report said.

Grid-scale solar-plus-storage projects took a hit from the recent procurement bottleneck caused by the U.S. Commerce Department investigation of solar imports from Cambodia, Laos, Thailand and Vietnam. The impacts to project pipelines could continue into 2023, despite President Biden's recent action to waive duties on solar imports from those countries for two years, the report said. (See *Biden Waives Tariffs on Key Solar Imports for 2 Years.*)

What the figures also show is that the market thus far is focused on shorter-duration uses of storage — an average of three hours — provided by lithium-ion batteries.

From a planning perspective, regulators and utilities are not ready for 100-hour storage, Colorado PUC Chair Blank said. In Colorado, "it's literally outside our [electric load calculation] studies, which end at 16 hours."

But, he said, Colorado does have a new program that will pay above-market rates for innovative technologies not yet at scale. But, he cautioned, in such cases, "the technology risks have to be on the vendor or the technology provider, and not on the customer or the utility. So, the form of the transaction shouldn't be rate-based; it needs to be off-take."

For Wiley, a new approach to planning should begin with asking, "What is the grid we are trying to build out? What kind of planning tools do we need for that?"

He also believes that the "levelized cost of electricity is no longer the metric we should be looking at. When evaluating storage, we should be looking at a value created at the portfolio level by an asset that allows and optimizes the portfolio, optimizes the generation, transmission and distribution [systems] across all of the asset classes."

Clean Capacity

Key Capture's Boggs said states may need to develop a "clean capacity" renewable energy credit to help them meet aggressive storage targets, like Michigan's or Colorado's.

Massachusetts' clean peak standard — incentivizing technologies that can provide clean energy during times of peak demand — is "a halfway evolution ... really still based on the REC framework," he said. But the clean peak

approach is still "incentivizing storage only to discharge during certain hours versus doing whatever is most valuable for the grid," he said.

Blank sees RTO wholesale markets going to a "direct procurement-type approach" for energy storage. "These markets just fundamentally overpay for energy and underpay for capacity," he said, so relying on a REC-type approach would be "a heavy lift."

But both Boggs and Wiley argued that storage should be classified as a clean capacity resource.

"It's certainly not a great idea from a policy perspective to be buying megawatt-hours from storage," Boggs said. In using storage as capacity, "you're buying the value of having a clean, flexible resource that is able to respond and optimize the system in any given number of circumstances and participate, whether it's an ancillary services market; an energy market; whatever the market is [that] is most needed for you to participate in."

The target for storage, said Wiley, "is to be replacing fossil-based assets that are providing capacity. So, in my mind, that leads me to a 24/7 type construct ... a 24/7 carbon-free, clean capacity asset that can replace a fossil asset. That's what we're going for." ■

— K Kaufmann

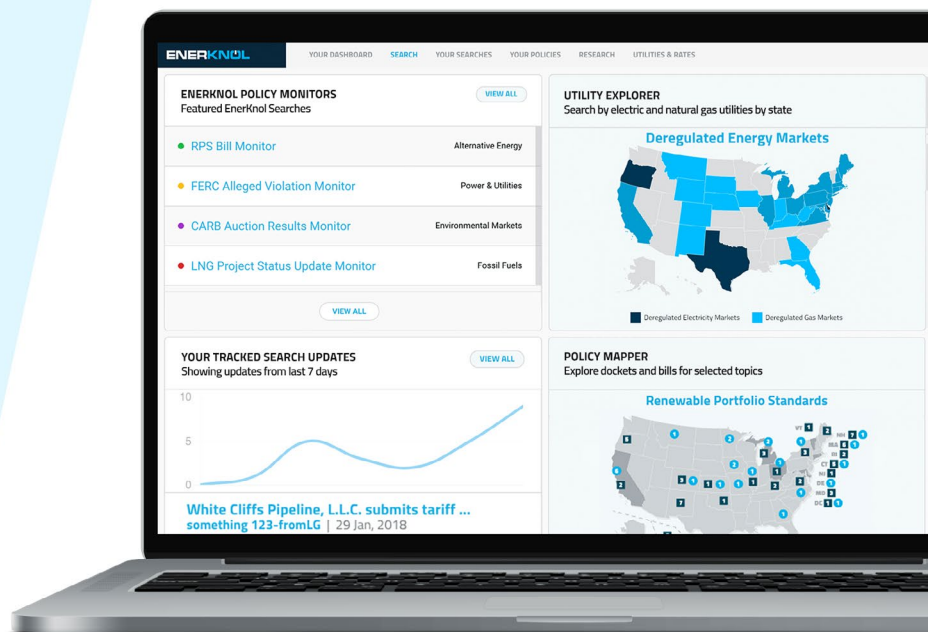
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ACP Energy Storage Policy Forum

Jigar Shah: 'Oil and Gas Sector Shouldn't be Vilified'

LPO Director Looks Beyond Lithium, Says Modern Grid Should Break Away from 'Real Time'

By K Kaufmann



Jigar Shah, director of the DOE Loan Program Office | © RTO Insider LLC

WASHINGTON — The way Jigar Shah sees it, if the U.S. is to have any chance of decarbonizing the grid, building out transmission or standing up an energy storage supply chain, the clean energy industry has to stop vilifying the oil and gas industry and start answering some hard questions —

like whether decarbonizing the grid by 2035 is even possible.

One of the industry's most provocative thinkers, Shah is now director of the Department of Energy's Loan Program Office (LPO), where he is making multimillion-dollar decisions about which clean energy startups and projects to invest the government's dollars. That kind of money means clean energy is no longer the plucky, small disruptor that only has to advocate for itself, Shah said at the American Clean Power Association's Energy Storage Policy Forum on Wednesday.

In the course of a 30-minute conversation with Jason Burwen, ACP's vice president for energy storage, Shah set the industry a series of grown-up challenges.

"What responsibility do we have to actually answer ... big tough questions, as opposed to saying, 'I would like to not piss anybody off, so I'm not going to say anything,' and I'm going to let people think that we can be at 90% renewable energy, and that it's only an interconnection problem that's holding us back, which is patently false," he said.

"How much [do] you allow an uninformed part of your industry to vilify other parts of the industry? The oil and gas sector shouldn't be vilified," Shah said. "They actually have a lot of really valuable talents. We don't know how to run refineries. If these people lose their jobs, and we can't get them back, we're screwed. All of us are screwed because you're not all running electric vehicles yet for your installation crews.

"So, we all need to figure out how to coexist together as we make this transition occur, and that means a deep understanding of how all of these things interplay with each other," he said.

"Where does LNG fit in the entire [energy] mix? What is the position of this audience? Do we want people to increase coal consumption by 25% over the next two years?" he said. "Because that's what's going to happen unless we figure out a way to give Asia the energy that they need to grow."

20-year Payback

Shah was equally blunt about the industry's failure to deal with core issues of transmission, equity and the manufacturing supply chain.

"The only thing harder to build than nuclear in this country is transmission, and so come on, we're not going to [build] three to five times transmission in this country," he said. "Who in this room actually thinks that's going to happen by 2035? The lines that we're building right now, we started 12 years ago.

"So, unless you know which lines you started 12 years ago that are going to solve the problem by 2035, what do you think is going to happen?"

Another example: "We are disrupting 300 communities across the country with coal plants that are getting retired. You're telling me that all those communities want solar plus storage to go into that interconnection? No, they don't, because they're not getting jobs from solar plus storage, and that coal plant actually pays \$2 million a year in property taxes. Which one of you is paying \$2 million in property taxes? So, we need to figure that out."

The LPO recently made a *conditional commitment* of a \$107 million loan to Syrah Vidalia, a graphite manufacturer in Louisiana, to expand its plant to provide graphite for enough lithium-ion batteries to power 2.5 million EVs by 2040.

But Shah sees bigger challenges ahead for clean energy supply chains because "our country has not actually done this level of planning and forethought and what we would call industrial policy. That's where industrial policy is defined by getting an outcome that's slightly different than where the market would otherwise set," he said. "We've always just said, 'We want to get the lowest possible price, and if that's importing it from other countries and not doing anything here, that will do.

"We haven't manufactured stuff here in 40 years, and so a lot of the supply chain isn't here — the training colleges, all that stuff that we need, it's still atrophying. And so, we need

to actually go the other way and strengthen it, and all of that gets tied into the Loan Program because we're taking a 20-year [payback] on those loans, so they're not going to pay back unless the ecosystem is supportive of that company for 20 years."

VPPs and Net Metering

Pointing to growing penetrations of solar and wind on the grid, Shah pushed the energy storage industry to think beyond lithium-ion batteries.

"When you think about what storage really looks like in our country, it is all the natural gas that we store every single day in huge salt caverns across the country, and we store it all year for like, bursts of time, right? And so that's what hydrogen storage is; that's what pumped hydro is," he said.

"And so, the question really becomes, as we move to this modern grid, can we also get away from real time: matching that electricity [supply and demand] in a way that is just stressful for everybody?"

Shah also had some insights on the impact of transport and building electrification and the need for virtual power plants (VPPs).

"When you think about utility-scale battery storage, which is where most people are thinking about things these days, we're going to have to have 800 GWh of automotive battery manufacturing in this country by 2030 to meet the president's goal" of 50% of all new cars sold being electric.

"There's no way to integrate those vehicles into the grid without a VPP. You cannot let anyone just charge whatever they want, however, they want, as often as they want without some management of the distribution rate," he said.

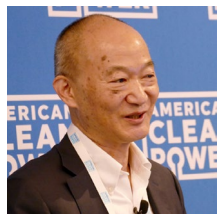
In addition, VPPs might offer a possible solution for state-level battles over net metering reform," Shah said.

Instead of incremental reform — currently being debated in California — he said, "Why don't we just immediately let in VPPs and say, 'If you want to do solar on your roof, you're only going to get paid 5 cents/kWh, and then you'll get paid another 7 cents/kWh for the integration within the grid out of VPP. So, you get paid the full 12 cents that you wanted before, but you get paid only if you become a grid resource.'" ■

ACP Energy Storage Policy Forum

Ex-FERC Commissioners Opine on Transmission, Markets Bay, Honorable Speak at Storage Forum

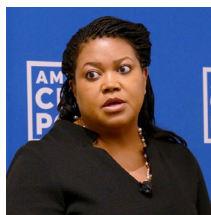
By Rich Heidorn Jr.



Former FERC Commissioner Norman Bay, now with Willkie Farr & Gallagher | © RTO Insider LLC

WASHINGTON — Former FERC Commissioners Norman Bay and Colette Honorable recounted war stories and made predictions about where their successors are headed on market and transmission policy Wednesday at the American Clean Power Association's Energy Storage Policy Forum.

Bay, who served from 2014 to 2017, including a stint as chair, and Honorable (2015-2017) were joined by former FERC staffer Christy Walsh, now senior attorney and director of federal energy markets for the Natural Resources Defense Council's Sustainable FERC Project.



Former FERC Commissioner Colette Honorable, now with Reed Smith | © RTO Insider LLC

One recurrent topic was FERC's April Notice of Proposed Rulemaking on transmission planning and cost allocation ([RM21-17](#)) and its June 16 NOPR on improving transmission providers' interconnection processes ([RM22-14](#)).

Pivot on Right of First Refusal

Bay said he was surprised that FERC's April NOPR proposed reinstating transmission providers' federal right of first refusal (ROFR) to construct transmission projects — a retreat from Order 1000's attempt to inject competition. (See [ANALYSIS: FERC Giving up on Transmission Competition?](#))

Bay, a partner with Willkie Farr & Gallagher, said there are two possible explanations for the shift in the NOPR, which was approved on a 4-1 vote, including the commission's three Democrats and Republican Commissioner Mark Christie. Republican James Danly dissented.

"One is that, as a policy matter, the commission was concerned that this emphasis on competition was having this perverse policy incentive, where it was incenting transmission owners

to basically build local reliability projects, and not to build the more ambitious, and frankly more helpful, regional — or even interregional — lines," Bay said during the discussion, which was moderated by Jason Burwen, ACP's vice president of energy storage.

The second possibility, Bay said, is that "there was a commissioner who felt very strongly about taking a step back from the removal of the federal ROFR, and basically insisted on this policy position. And to keep that vote, the decision was made to put into place this policy change."

The June NOPR, which seeks to reduce delays and increase cost certainty for generation developers, was approved unanimously — a rarity since Danly, who has dissented on most rulemakings, joined the commission.

"Five votes on a NOPR like this is significant," said Honorable, now a partner with Reed Smith. "[For a] NOPR as important and significant as this one, having every commissioner on board is key to provide certainty, and also to provide the proper foundation for FERC to build on."

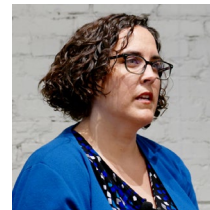
But, she added, unanimous support of the NOPR does not mean the final rule will also receive five votes. "You start all over," she said.

Comments Needed

Honorable encouraged stakeholders to provide comments in response to the two NOPRs and dockets involving energy storage, noting that commission orders must be based not only on the law but also on "what the record says."

"Your real-life anecdotal experiences about ways in which energy storage has been leveraged in places where transmission wasn't as robust, that's critical," she said. "So, I would urge you to not sit on the sidelines and wait for someone else to put that in there — that you make sure it's in the record, so that it can be leveraged by those commissioners that are seeking to build that pathway more robustly for storage as an alternative."

Walsh said stakeholders should also seek to meet with FERC commissioners and staff before filing their comments. "A lot of times you can have a two-way conversation with commissioners and staff, and they can ask you questions about the point you're making, and they can help you really see exactly what



Former FERC attorney Christy Walsh, Natural Resources Defense Council | © RTO Insider LLC

they need to hear in those comments," said Walsh, who served as an adviser for former Chair Jon Wellinghoff, deputy general counsel and director of the Division of Policy Development during her nearly 19 years at the commission. "This is a rulemaking so there's no, *ex parte* [prohibition]. Nothing that's said in those meetings can be used without you then writing them down and submitting them in comments."

Market Design

Burwen asked the panelists to predict what might result from FERC's April order directing CAISO, ISO-NE, MISO, NYISO, PJM and SPP to report on how their system needs are changing due to shifting resource mixes and how they intend to fulfill them ([AD21-10](#)). (See [FERC Asks RTOs for Plans on Changing Market Needs.](#))

Walsh predicted the docket would prompt changes but said it's unclear whether they will be dictated by FERC or proposed by individual RTOs.

"FERC has done a white paper, four technical conferences, and now this order directing reports," Walsh said. "That's a significant amount of FERC staff time and industry time, and they would not be doing that unless they had intention to move forward with something."

In previous orders directing reports, Walsh said, "sometimes the RTOs do the reports and kind of see their own flaws by doing some self-reflection and start fixing it themselves."

Walsh said she expects more emphasis on using the energy and ancillary services markets, "so that you are really providing services in the hours that they're needed, rather than in three years, or in case of New York, six months beforehand [through capacity markets]. ... I think that we are coming to a system that is going to shift from hour to hour based on load and the resources, and we just need to be more dynamic."

Capacity Accreditation

The panel also discussed FERC's two June 16 NOPRs intended to improve the bulk power system's protections against severe weather

ACP Energy Storage Policy Forum

risks. One proposes to direct NERC to modify reliability standard TPL-001-5.1 (transmission system planning performance requirements) to set expectations for long-term planning by utilities (RM22-10). The second directs transmission providers to submit one-time reports describing how they assess and mitigate their vulnerability to extreme weather (RM22-16, AD21-13). (See *FERC Approves Extreme Weather Assessment NOPRs*.)

Bay said the issue of capacity accreditation — the subject of RTO-specific effective load-carrying capability (ELCC) rules — will require input from FERC as well as NERC.

“I don’t think NERC can do it all, because the issue here is not only technical, involving engineering, but it’s also economic,” Bay said. “I think there is an opportunity for FERC to step in and basically standardize the rules ... but it would be difficult. It would be contentious, [but] it might be in the long run better than letting each RTO kind of figure out its own path forward.”

Honorable said she would welcome standardized rules. “Having stepped down from the 888 tower [FERC headquarters], it’s rough out here when you have to deal with a number of RTOs and ISOs that have different frameworks, different rules, different procedures. It’s cumbersome; it’s clunky.

She said FERC could provide “some structure ... at the outset, and then leverage other resources. Maybe there is a role for NERC to play in the very technical evolution of it. But I’m concerned that if FERC rides herd over all of it, it could, it might take longer than it should.”

Walsh suggested FERC could have different



Speaking at the American Clean Power Association's Energy Storage Policy Forum were (from left) former FERC attorney Christy Walsh, Natural Resources Defense Council; former Commissioner Colette Honorable; former Commissioner Norman Bay; and ACP's Jason Burwen, who moderated. | © RTO Insider LLC

rules for single-state ISOs in California and New York. “The states are really driving what resources are going to be on line, so it seems to me that, for example, the ELCC in New York might be different than any ELCC in ISO New England or PJM.”

State-Federal Relations

No discussion of FERC would be complete without discussing the perpetual tension between state and federal policymakers.

Honorable said states could become allies of FERC if the agency addresses inefficiencies in market operations and transmission planning across regional seams.

“That’s a place where we can really gain support from states who are grappling with the

reliability impacts and the resilience outcomes as a result of long tenured congestion and the uncoordinated ways in which the seams are operating,” she said. “That’s an area that definitely could use more love and attention.”

Walsh praised FERC for creating the state-federal task force on transmission, and the transmission planning NOPR for creating “a really robust process for states” to have input.

But she said the state commissions need FERC guidance on the minimum set of benefits that the system should be planning for.

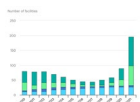
“State commissions are overburdened,” she said. “Asking the state commissions to figure out [transmission] benefits that aren’t immediately identifiable easily, it’s going to be hard for them.” ■

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Christie Talks up Flexibility of Transmission NOPR

By Sam Mintz

ROCKPORT, Maine — FERC's Notice of Proposed Rulemaking on transmission planning is narrowly focused on projects driven by public policy and emphasizes flexibility for states, Commissioner Mark Christie told the NEPOOL Participants Committee at its summer meeting in Maine last week.

Those factors made him enthusiastic about the proposal, which he called a "product of compromise" among members of the commission that has "creativity and flexibility absolutely written in."

Released in April, the NOPR would direct transmission providers to revise their planning processes to identify infrastructure needs on a long-term, forward-looking basis and propose a list of benefits on which they would base their selections of proposed projects to meet

those needs. (See *FERC Issues 1st Proposal out of Transmission Proceeding.*)

"This particular, specific category ... of public policy-driven projects are being driven largely by state policies. So state regulators should be at the forefront of deciding what should be the criteria for these projects, the benefits that get used in evaluation" and the cost allocation, Christie said. "I don't know as much as you do about what goes on in Massachusetts, Maine or Vermont."

That's not to argue that FERC shouldn't play a role in transmission planning, Christie said.

"We have a duty. I'm not saying that FERC doesn't have a role. But I think when we get into something like planning for public policy projects ... that we ought to defer and be respectful of what you all know more than we do."

The proposal's flexibility expands to cost allocation within RTOs, he said.

"That flexibility is there for large RTOs ... to have cost allocation that can be granular enough to meet the needs not only of different RTOs, but different subsections within RTOs."

Christie also emphasized that the proposed rulemaking is light on mandates, with only a long-term planning process required.

"Yes, there's a lot of stuff listed in there," he said. "But it's not mandated. If the states say, 'Thank you very much, FERC, but we don't want to use these,' the states can do that."

Other PC Actions

In addition to hearing from ISO-NE and state leaders, the Participants Committee approved:

- tariff revisions recommended by the Markets Committee to allow storage resources that inject energy into the grid but do not receive energy from it to register and operate as a continuous storage facility;
- changes to tariff Schedules 22 (Standard Large Generator Interconnection Procedures), 23 (Standard Small Generator Interconnection Procedures) and 25 (Standard Elective Transmission Upgrade Interconnection Procedures) to identify that all new distribution-connected generation should proceed through the state interconnection process, as recommended by the Transmission Committee;
- changes to Schedule 18 (Standard Large Generator Interconnection Procedures) and the incorporation of a new Attachment Q in response to FERC Order 881's directive to incorporate the use of ambient-adjusted ratings for transmission lines, as recommended by the TC;
- changes to Operating Procedure No. 22 (Disturbance Monitoring Requirements), including general updates, the listing of an additional facility in confidential Appendices A and B, and the addition of Appendix C (New England PMU Registration), as recommended by the Reliability Committee; and
- changes to section 3.2 of tariff Attachment D to meet mandatory cybersecurity reporting requirements and section I.2.2 to modify confidentiality restrictions when the RTO is reporting cybersecurity incidents and events to certain federal agencies, as recommended by the MC. ■



FERC Commissioner Mark Christie said the agency's transmission NOPR gives states "flexibility and creativity."

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FERC/Federal News



Utilities Could Double US Nuclear Capacity by 2050, NEI Chief Says

Korsnick Sees Nuclear as Critical to Low-carbon Future

By Jennifer Delony

A recent poll of chief nuclear officers at the Nuclear Energy Institute's (NEI) member utilities found that they plan to add 90 GW of nuclear generation to the U.S. grid, with the "bulk" of that capacity coming online by 2050, CEO Maria Korsnick said last week.

That level of generation would double U.S. nuclear output and does not include "the growing list of utilities who are new to nuclear and demonstrating interest in advanced technologies," she said in a State of the Industry address at NEI's Nuclear Energy Assembly in D.C. on June 21.

Korsnick expects the new U.S. nuclear fleet to include "some" small modular reactors (SMRs). Supporters of the SMR approach, which limits traditionally large generating capacities to under 300 MW, say it offers the possibility of nimble nuclear deployment.

She also sees those new smaller plants that are based on advanced technologies, together with an expansion of existing nuclear technology, as an important part of addressing climate change.

"Nuclear is the key to unlocking a zero-carbon future," she said, adding that she has observed a "sea change in the perception of nuclear energy ... as an indispensable tool for driving

down emissions."

A growing vision for SMRs moves nuclear beyond ensuring grid reliability to helping decarbonize hard-to-abate industries, such as oil and gas chemical manufacturing, steelmaking and production of synthetic materials.

"Advanced reactors are the solution that they've been searching for," Korsnick said. "They can provide the reliable, cost-effective carbon-free generation needed to decarbonize their supply chains, and they enable manufacturers to sell to companies like Ford, GM, Tesla and others who are committed to a lower-carbon future."

In addition, she said that manufacturing and transportation sectors could decarbonize with hydrogen generated from the off-peak capacity of nuclear reactors.

Credit for ESG

To realize a role for nuclear in a decarbonizing the economy, the industry must navigate a future where investors are increasingly screening for environmental, social and governance (ESG) factors.

"Nuclear should be getting credit for ESG," Korsnick said. "I'd like to tell you that it's that simple, but it's not, and there are some financial institutions that look at nuclear and look at ESG, and they struggle to say that nuclear

actually supports that."

As an example of the challenge, Korsnick pointed to the current controversy over inclusion of nuclear in the EU's sustainable finance strategy (or "green taxonomy"). ESG investors are watching the EU's strategy as an important standard for defining what makes a green investment.

The EU issued rules in April 2021 for activities that can be defined as "green," but it chose to wait on its decision about whether to include nuclear and natural gas on the list. A final decision for the two resources is due in early July.

"It's really important that we all stand up for nuclear ... because one of the things we need to unlock is financial investment," Korsnick said.

The U.N.'s 27th Climate Change Conference of the Parties (COP) in Egypt this fall is an opportunity for industry members to represent nuclear's potential for decarbonizing the economy, according to Korsnick.

"At COP 27 ... and every other forum where official critical decisions are being made about our climate and our energy future, we need to be crystal clear," she said. "If we don't commit to the next generation of nuclear now, our hesitation will cost our electric grid, our economy and our environment." ■



NEI's Maria Korsnick sees small modular reactors joining traditional plants as part of a new fleet of nuclear facilities that could come online over the next few decades. [tj Photorush, CC BY-SA 3.0, via Wikimedia Commons](#)

Southeast

SEEM's Sellers Pushes Reliability, Continuity to SERC Board BAs 'Will Continue to Operate' as They Do Today

By Holden Mann

CHARLOTTE, N.C. — A spokesman for the Southeast Energy Exchange Market (SEEM) told SERC Reliability's Board of Directors on Thursday that the market poses no challenges to the regional entity's work on grid reliability.

"For everybody here in the room, responsibilities are not changing. Everybody still has the same reliability responsibilities," said Corey Sellers, general manager of transmission policy and services at Southern Co., one of SEEM's founding utilities. "Because we're not doing a centralized dispatch, all of those ... remain as they do today."

SEEM is slated to enter operation later this year, after receiving FERC's *de facto* approval last October (ER21-1111, et al.). (See *SEEM to Move Ahead, Minus FERC Approval*.) Currently the market includes 16 participants across 11 Southeastern states and nine balancing authorities, with more than 160 GW of collective capacity.

Many industry stakeholders continue to express skepticism about the ability of the new market to meet its claims of reducing friction

in bilateral trading and spurring the integration of renewable energy better than alternatives such as an RTO or energy imbalance market, debates that Sellers has participated in before. (See *GCPA Panelists Go One on One Over SEEM Proposal*.) In his presentation Thursday, Sellers focused on the image of SEEM as an enhancement, rather than a disruption, to the current market.

"As we entered into this, we kind of went in with two key principles," Sellers said. "One, let's try to keep this simple, and build it upon the bilateral market that we're already operating in the Southeast. And let's try to get the most benefit for the least cost."

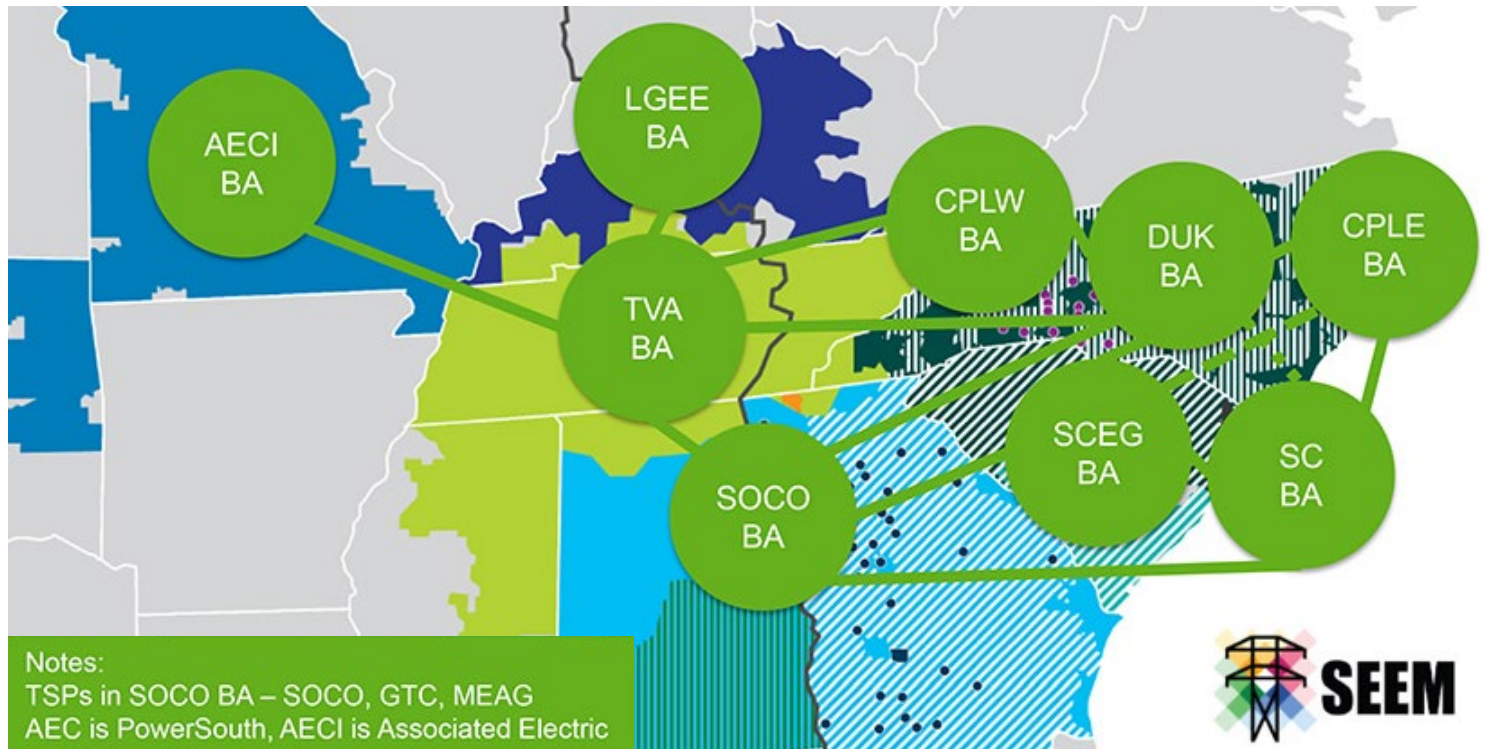
Continuity was a constant theme in Sellers' talk, as he sought to assuage SERC's potential concerns by assuring attendees that "each balancing authority will continue to operate as it operates today" under SEEM. He portrayed the market as an attempt to smooth the business of electricity trading and allow greater use of the region's wide array of resources.

"It's really about scale and diversity. ... There's time zone diversity; there's definitely weather diversity; generation, load, all of those things are very helpful when you think about

operating the system," Sellers said. "That was a key component when we put this together ... looking at that diversity, [and] at the diversity of resources, in particular around renewables. We have a lot of solar coming online ... all across the Southeast."

SERC's board includes several representatives of SEEM utilities, who were asked by independent director Shirley Bloomfield to chime in with their thoughts on why their companies signed on to support the new market. The first to speak was Roger Clark of Associated Electric Cooperative Inc.; most of the following speakers said he expressed their views better than they could. Clark said the main attraction was the expansion of trading from hourly increments into 15-minute intervals, allowing more responsive scheduling.

"It was a low-cost project; it's voluntary. We're optimistic that something will come out of it, but we don't have a lot of skin in the game," Clark said. "As a BA, you lay in [resources] the best you can, but that's what you've got, until you get to your next hour. ... If I've got excess wind that we can put on and sell, [or] there's excess solar, it's that intra-hour variability that we're hoping to get some efficiency out of." ■



Current participants in SEEM | SERC

CAISO/West News

NM CO₂ Limit Rule Would Target San Juan Coal Plant

By Elaine Goodman

New Mexico regulators have released a draft rule that would set CO₂ emission limits for coal-fired power plants, restrictions that raise questions about the future of the San Juan Generating Station.

The New Mexico Environment Department (NMED) released the draft rule on June 15 and opened an informal comment period that runs through June 29.

The *proposed rule* would set a limit for CO₂ emissions of 1,100 pounds per MWh on a 12-month rolling average basis. Owners or operators would be required to develop a monitoring plan, install emissions monitoring systems and submit electronic reports each quarter.

The rule would take effect on Jan. 1, 2023. Comments may be submitted [here](#) under Energy Transition Act rulemaking.

SJGS Implications

Currently, the rule would apply to only one facility in the state: the San Juan Generating Station (SJGS).

The other coal-fired plant still operating in New Mexico is the Four Corners Generating Station, which Arizona Public Service runs. The facility is on tribal land, where NMED and the state Environmental Improvement Board don't have jurisdiction.

NMED isn't aware of any plans to build a coal-fired plant in the state, department spokesman Matthew Maez told *RTO Insider*.

Public Service Company of New Mexico (PNM) plans to retire SJGS at the end of this summer. (See [Solar Supply Chain Issues Dog PNM Coal Plant Replacement Plan](#).) But that's not the end of the road for SJGS.

The city of Farmington and Enchant Energy are partnering to acquire the facility and keep it running as a coal-fired power plant, using carbon capture and storage technology to reduce emissions.

But how soon the carbon capture technology would be in place is unclear. And Enchant might want to operate the coal plant without carbon capture for a while.

"The options for how to operate the plant for a period of time upon ownership transfer are being worked through," Enchant Energy CEO



San Juan Generating Station | PNM

Cindy Crane said in a written statement provided to *RTO Insider*. "Enchant will be working closely with the New Mexico Environmental Department to ensure compliance obligations are met."

The company originally planned to start construction at SJGS in early 2021 and have the plant running with carbon capture in place by January 2023, according to a hearing brief prepared for the New Mexico Legislative Finance Committee last year. But the project had fallen behind schedule at that time and it's not clear when construction might start.

Enchant also said previously that it planned to operate the plant without carbon capture for two-and-a-half years, according to the brief, written by a fiscal analyst for the legislative committee.

Transitioning from Coal

NMED's proposed rule is a mandate of the Energy Transition Act, or *Senate Bill 489*, which Gov. Michelle Lujan Grisham signed into law in 2019. The act sets statewide renewable energy standards and establishes a pathway for a transition away from coal.

The act requires the Environmental Improvement Board to promulgate a regulation limiting coal plant CO₂ emissions to 1,100 pounds per MWh starting Jan. 1, 2023. A *fiscal impact report* for the Energy Transition Act states that the emissions limit "effectively ensures that [SJGS] could not operate as a coal-fired generation facility after 2023."

Crane at Enchant said SJGS will be fully compliant with the standards when the carbon capture project is finished.

And before then: "Enchant Energy is working on a transition plan for interim compliance as the carbon capture facility is being built with

the New Mexico Environment Department," Crane said.

SJGS would be the first project for Enchant. The company says on its website that its technology would capture 95% of carbon emissions, making SJGS the lowest-emitting coal plant in the world.

Enchant's partners on the project include Mitsubishi Heavy Industries America, Sargent & Lundy, and Kiewit Power Constructors Co.

Project Timeline

Crane provided an update on the timeline for the project. She said a front-end engineering and design (FEED) study is being finalized and will be filed with the DOE by the end of this month.

After working with DOE to answer questions, Enchant and its partners will file a final FEED report by Sept. 30. The company is aiming to have an engineering, procurement and construction contract and an execution schedule in place by the end of this year.

Enchant expects to be in discussions with financing parties in the fourth quarter of 2022.

Also yet to be finalized are the financial terms between Enchant and the city of Farmington for the SJGS. The city, which has a 5% stake in the facility, will acquire the remainder after PNM wraps up operations on Sept. 30.

The city then plans to transfer 95% ownership to Enchant. Crane said terms of the transaction are still being worked out and are currently confidential.

Following the ownership transfer, Enchant plans to invest about \$150 million for deferred maintenance and replacement of a cooling tower, Crane said. ■

CAISO/West News

California PUC Approves New Resource Adequacy Construct

Shifting Mix of Resources Requires New Changes, Commission Says

By Hudson Sangree

The California Public Utilities Commission on Thursday approved changes to the state's resource adequacy requirements meant to bolster its ability to withstand extreme weather events like those that led to energy emergencies in recent summers and to account for the replacement of thermal generation with wind, solar and battery storage.

"The goal is a framework that can ensure resource sufficiency for grid reliability in all hours of the day, even as the state's energy mix evolves and statewide load increases," CPUC President Alice Reynolds said, referring to the state's move toward 100% carbon-free resources by 2045 and its efforts to electrify buildings and transportation.

In its *decision*, the CPUC adopted a proposal by Southern California Edison for a "24-hour slice" that requires each load-serving entity to show it has enough capacity to satisfy its specific gross load profile, including a substantial planning reserve margin, in all 24 hours on CAISO's "worst day" of each month.

"The worst day would be defined as the day of the month that contains the hour with the highest coincident peak load forecast," the decision said. "For an LSE that uses energy storage to meet requirements, the LSE must demonstrate it has excess capacity that offsets the storage usage plus efficiency losses. An LSE could combine the capabilities of its resource mix to cover all 24 hours."

The CPUC decided to revise its 16-year-old RA framework in response to "recent trends and concerns that have arisen, which have led to the commission's re-examination of the RA program to ensure that the framework can provide grid reliability at all times of the day," the decision said.

In particular, the commission had relied on a

maximum cumulative capacity (MCC) "bucket" structure that it said was no longer adequate.

"The MCC bucket requirements are developed using average monthly summer load duration curves and monthly resource use limitations to prescribe cumulative caps that limit how much LSEs can rely on certain resources in meeting monthly RA requirements," the decision said.

The MCC buckets largely ensure LSEs bring a mix of resources to meet peak demand, which traditionally occurred on weekdays starting in the late afternoon lasting until nightfall. Recent experiences, however, have shown that to be inadequate. Rolling blackouts and near-blackouts in August and September 2020 occurred on weekends and well after sunset.

An increased mix of weather-dependent variable resources, mainly solar and wind, and four-hour battery storage have shifted the overall reliability picture. So has the retirement of coal and natural gas plants throughout the West.

"With the growing penetration of variable

energy and use-limited resources, we observe that the 24-hour slice framework can better address reliability than the current MCC bucket structure," the decision said.

"We have previously emphasized the concern that the MCC buckets are not binding and do not account for energy storage charging needs," it said. "The 24-hour framework directly addresses energy sufficiency at an individual LSE level by requiring each LSE to provide sufficient excess energy to charge any storage it shows across the 24-hour slices."

Commissioner Clifford Rechtschaffen said he supported the changes "given what's happened on our grid the past few years. The mix of resources that we're employing is changing rapidly, and this has led to new reliability challenges."

"Ultimately our hope is that load-serving entities will use this new construct ... as an opportunity for them to tailor the mix of resources that they procure for their customers' energy needs to match ... the hourly, daily and seasonal variation in their customer load." ■



The addition of large amounts of storage resources, such as PG&E's 182.5-MW Elkhorn Battery project, is one reason for the CPUC's new RA framework. | EKM Metering

West news from our other channels



[37 States Fight Over Calif. Tailpipe Standards](#)

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[Calif. Study Takes Read on Heat Pump Views](#)

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ERCOT News



ERCOT Board of Directors Briefs

Maintenance Outage Scheduling Methodology Approved

AUSTIN, Texas — ERCOT’s Board of Directors last week took up two contentious issues between staff and stakeholders, resolving one and setting the other aside for the time being.

The board sided with ERCOT in approving staff’s proposed methodology for approving and denying planned generation maintenance outages, granting its appeal of a nodal protocol revision request (*NPRR1108*) that stakeholders passed in April. (See *ERCOT Board of Directors Briefs: April 28, 2022*.)

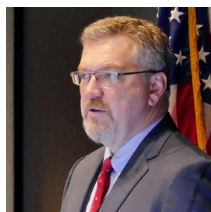
Staff said the rule change gives them much needed capacity and flexibility for planned outages while maintaining reliability. Stakeholders countered that the calculation limits outages when compared to history and that its assumed 10% growth rate for renewable resources is too low.

The Technical Advisory Committee “and staff are at loggerheads,” TAC Chair Clif Lange told the board. “We just wanted to raise these issues as areas we need to be looking at.”

The ERCOT methodology includes a maximum daily resource planned outage capacity (MDRPOC) calculation that sets the planned outages that should be allowed on each day of the next 60 months. Staff will review the methodology at least annually and work with stakeholders to make any necessary adjustments in allowing resources to schedule their maintenance outages. Any changes to the methodology will need board approval.

“We are providing a significant amount of outage availability,” interim CEO Brad Jones said. “We’re asking for some of [the outages] to be moved around. We’re trying to ensure not everyone takes these outages in October and late April.”

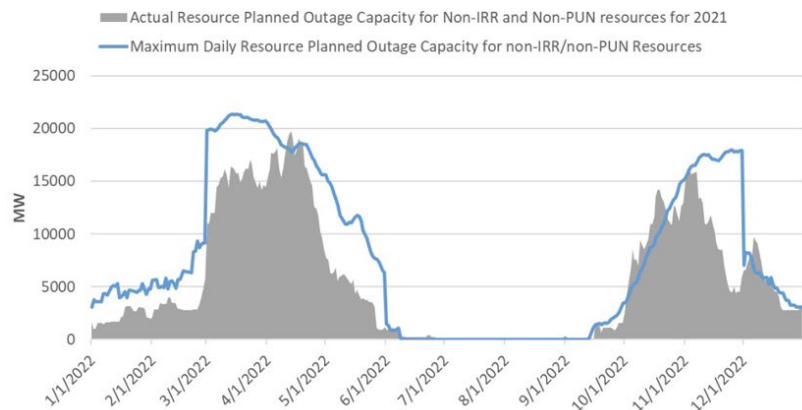
Woody Rickerson, vice president of system planning and weatherization, told the board that the calculation’s installed inverter-based capacity is based on a 10th percentile score that allows room for growth.



Woody Rickerson, ERCOT | © RTO Insider LLC

“Ninety percent of the time, it’ll be higher in the future,” he said. “If we need more in the MDRPOC, we can change

Outage Margin Compared to 2021 Actual Planned Outage (Maximum Capacity-Actual 2021 Outage Capacity)/Actual 2021 Outage Capacity	Y2022	Y2023	Y2024	Y2025	Y2026
	38%	51%	40%	30%	22%



ERCOT’s proposed methodology shows room for planned outages during the maintenance periods. | ERCOT

that. We’ve got some degrees of freedom that we can use in the future.”

Rickerson said staff conducted a backcast of the calculation against 2022 to determine whether they would have had to adjust the outage schedule. That would have happened three of four times, he said.

“That’s a pretty good number. We think we have this dialed in at the right amount,” Rickerson said.

The board again tabled *NPRR1112*, which would lower counterparties’ unsecured credit limit from \$50 million to \$30 million, over uncertainty of some of ERCOT’s numbers.

Jones said staff had “reason to believe” the numbers included some inaccuracies.

“We want to get them right and get them back to the board,” he said.

At issue is the amount of outstanding unsecured credit, currently \$1.4 billion, that would be eliminated with the \$30 million cap. Staff said dropping the cap would reduce the total to \$400 million, but they could not definitively respond to Garland Power & Light’s Darrell Cline, speaking for TAC, when he said the reduction itself would be less than \$400 million.

TAC was scheduled to revisit the issue during its regular monthly meeting yesterday. *RTO Insider* will have a report on the meeting later this week.

The directors agreed to again take up the measure during its August meeting. Should it pass the board then, it will become effective four

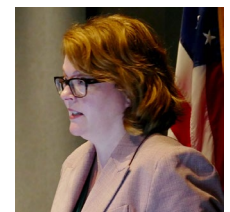
months after Texas Public Utility Commission approval.

ERCOT last year proposed eliminating unsecured credit, but stakeholders countered with a revision request that would lower the limit to \$30 million. After TAC approved the measure in April, ERCOT appealed the decision to the board, which tabled the measure later that month and requested information on other grid operators’ unsecured credit practices. (See “ERCOT’s Credit Limits Align with Others,” *ERCOT Technical Advisory Committee Briefs: May 25, 2022*.)

Staff found that all other ISOs and RTOs offer unsecured credit, limited to no more than \$50 million per counterparty, and with no aggregate caps on the amount of outstanding credit. The grid operators’ total unsecured credit ranges from \$100 million to \$1.75 billion.

IMM: Out-of-market Actions Costly

Carrie Bivens, ERCOT’s Independent Market Monitor, clarified that the grid operator’s conservative operational posture this year has resulted in \$216 million to \$391 million in additional costs through its out-of-market actions.



Carrie Bivens, Potomac Economics | © RTO Insider LLC

Most of those costs come from the increased use of non-spin procurement and its effect on ancillary services prices in setting aside 6.5 GW in operating

ERCOT News



reserves each day. Increased reliability unit commitment (RUC) dispatch has only resulted in about \$6 million in additional market costs, Bivens said.

The more frequent use of RUCs has added about \$460 million year to date to the reliability deployment price adder. The adder is an indicator of the out-of-market actions' impact on market outcomes and counters RUCs' suppressive effects on energy prices, Bivens told *RTO Insider*.

She said the operating reserve demand curve (ORDC) has yielded about \$900 million in market costs this year. The ORDC helps set prices in shortage or near-shortage conditions, the key to price formation in an energy-only market design, Bivens said.

The PUC last year lowered the ORDC's clearing price from \$9,000/MWh to \$5,000/MWh and raised its minimum contingency level from 2,000 MW to 3,000 MW. The Monitor estimated shifting the curve has added about \$476 million in energy costs by causing prices to rise more quickly at low shortage levels.

Bivens acknowledged to the Texas House of Representatives' State Affairs Committee two days after the board meeting that most of those costs are passed on to consumers.

The PUC made the changes after market prices were stuck at the \$9,000 cap for four days during the February 2021 winter storm.

In its annual State of the Market [report](#) released last month, the Monitor said ERCOT's conservative operations approach runs counter to the energy-only market's design. It said pricing outcomes have become "disconnected" from actual operational conditions in a market where high scarcity prices are designed to incent future investment in lieu of capacity revenues. (See [IMM: ERCOT Conservative Operations 'Not Compatible' with Energy-Only Market.](#))

10 GW Thermals Could Retire with EPA Rule

Staff told the directors that its [preliminary analysis](#) of a federal rule limiting nitrogen oxide emissions assumed that over 10 GW of installed thermal generation would leave the market by 2026, requiring up to \$1.5 billion to resolve local reliability issues.

The study assumed 10.8 GW of thermal generation, including 8.2 GW of aging coal-fired generation without scrubbers, would be retired. It added 20 GW of new generation, with only 4% representing thermal resources.

Rickerson said a steady-state transmission

analysis showed the system would need \$1.2 billion to \$1.5 billion to "plug the holes left by the retirements." He said an additional \$2.7 billion to \$5.2 billion could be needed to improve ERCOT's regional transfer capability without the affected generation and that the probability of load shed in 2026 increases almost nine times when solar generation becomes unavailable.

Under EPA's [Cross-State Air Pollution Rule](#) (CSAPR) federal implementation plan, NO_x emissions budgets will be established for Texas and 25 other states, beginning with the 2023 ozone season (May 1-Sept. 30). The agency says the reductions are necessary to address upwind states' interstate transport obligations.

Asked whether anyone would invest money in thermal plants that date back as far back as 1958, Rickerson said, "There's a chance that could happen." He said staff have been told that some plants simply don't have the room for emissions-reduction equipment.

Public Utility Commission Chair Peter Lake said generation owners could face spending \$200 million to keep 50-year-old plants in compliance. "So that's pretty easy [as a decision]," he said.

The PUC, ERCOT and Texas' environmental agency will all submit comments on EPA's implementation plan, joining other grid operators and states in doing so. There were nearly [600 comments](#) as of Friday afternoon.

Aguilar Resigns from Texas Central

Director Carlos Aguilar was a no-show for the board meeting, his first since resigning as CEO of [Texas Central](#), the organization behind a proposed bullet train between Dallas and Houston.

Aguilar announced his resignation with a June 11 post on [LinkedIn](#). He cited recent "news reports in the international press" for the announcement's timing. Aguilar joined Texas Central as CEO in 2016.

The Federal Railroad Administration in 2020 approved plans for the 240-mile railroad. On Friday, the state's Supreme Court [ruled](#) that Texas Central, which has [affirmed](#) its status as an operating company with the court, can use [eminent domain](#) to acquire land.

"Texas and the U.S. deserve the best transportation options, and I am convinced that in time, these will become a reality. We can do this," Aguilar said in his post.

Board Clears NPRRs

The committee unanimously approved six



ERCOT's Board of Directors begins its June meeting. | © RTO Insider LLC

NPRRs and a change to the planning guide (PGRR):

- [NPRR1100](#): clarifies that a generator or energy storage resource (ESR) may serve customer load when the customer and the resource are both disconnected from the system because of a transmission or distribution outage. The change is limited to configurations where the resource and customer load are using privately owned transmission and distribution infrastructure during a private microgrid island operation.
- [NPRR1110](#): modifies the black start service (BSS) confidential information, contract period and backup fuel requirements; increases the BSS procurement period from two to four years; and adds an on-site, 72-hour priority fuel requirement that can be waived in whole or in part to procure a sufficient number or preferred combination of resources.
- [NPRR1119](#): deletes extraneous language that should have been removed as part of [NPRR978](#).
- [NPRR1121](#): automates the market notice used in the exceptional fuel cost submission process to notify market participants when the costs have been submitted for the operating day.
- [NPRR1129](#): allows ERCOT to post on its website a list of electric service identifiers for transmission-voltage customer opt-outs from the securitization of \$2.1 billion for load-serving entities' extraordinary costs incurred during the February 2021 winter storm.
- [NPRR1130](#): extends the sunset date for weatherization inspection fees from Sept. 1, 2022, to July 31, 2023.
- [PGRR100](#): revises the annual planning model base case update frequency from triannual to biannual, aligning it with the Steady State Working Group's plan to adjust its current case-building schedule to a biannual basis. ■

— Tom Kleckner

ERCOT News



Unrelenting Heat Continues to Bake Texas

Roads Melt, ERCOT Sets Records as Temps Top 100

By Tom Kleckner

AUSTIN, Texas — Triple-digit temperatures continue to roast the state, where it is so hot that some roads are *literally melting*.

It's so hot that Austin's El Arroyo restaurant marked the city's record-breaking 18th day above 100 degrees Fahrenheit on Thursday by using its *famed sign*, always good for a daily laugh, to vent about the ridiculous heat.

ERCOT's meteorologist stopped just short of saying the state will see record heat this summer.



"I avoid saying 'guarantee,' but this is as close as you'll get from a weatherman," Chris Coleman told ERCOT's Board of Directors on June 21.

Chris Coleman, ERCOT | © RTO Insider LLC

Coleman said Texas' weather is "running hotter" than it was at this same point in

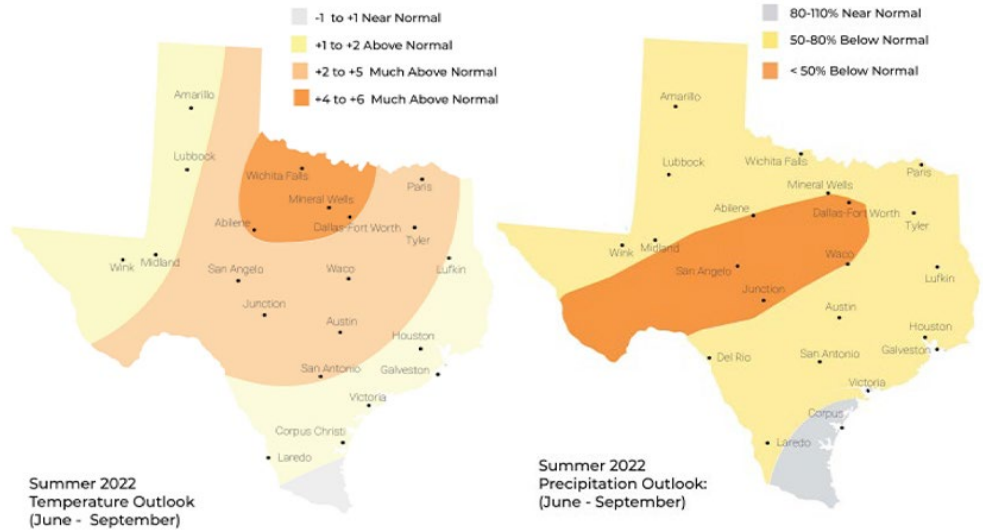
2011, the state's hottest and driest summer on record. With the state coming off its warmest April and second-warmest May on record, Texas should "approach" 2011's extremes if summer continues with very limited rainfall, he said.

Unlike last summer, highs will frequently exceed 105 F, Coleman said. Austin has already broken 100 F more than 21 times this month, a record.

"It would be very bold to say we're going to beat 2011, but everything now is falling into place," he said. "We'll at least challenge the record set in 2011."

The high temperatures have resulted in record demand for ERCOT. The grid operator has set four new records this month for peak demand, the latest coming Thursday when it hit 76.6 GW. The old mark of 74.8 GW was set in August 2019; ERCOT has projected the system would reach of peak of 77.3 GW this summer.

ERCOT has about 91 GW of capacity available when every generator is running. It has been operating with a cushion of up to 6.5 GW of reserves to ensure there is enough power to meet demand as part of its conservative operations posture.



The summer's temperature and rain predictions mean more of the same: It will be very hot. | ERCOT

Peter Lake, chair of the Texas Public Utility Commission, said during a hearing before the Texas House of Representatives' State Affairs Committee on Wednesday that ERCOT would have been "on the brink of rolling blackouts" six times in the last 12 months had it not built in the extra margin.

ERCOT has yet to issue an operation alert this summer, though interim CEO Brad Jones did ask Texans to manage their consumption last month in what was later termed a request. Several retail electric providers on Friday also sent emails to their customers asking them to conserve electricity during the afternoon.

"ERCOT is monitoring conditions closely and will deploy all available tools to manage the grid reliably," the grid operator said in an email Thursday.

Since April, it has issued four operating condition notices, its lowest-level communication to the market in anticipation of possible emergency conditions. The latest was issued Thursday and expired Sunday.

The National Weather Service said a tropical low is *expected to bring rain* to the Gulf Coast and Central Texas this week, lowering temperatures to the low 90s and 80s and offering some

hope the heat will relent.

"You're going to need something to stop [the heat]," Coleman said. "Rainfall, either a series of fronts bringing 2 to 4 inches of rain multiple times, or a hurricane. But it's pretty hard to get fronts past June."

Indeed. According to the Climate Prediction Center's *initial outlook for July*, it will once again be a hotter-than-normal month. ■



An Austin restaurant's sign reveals how Texans feel about the summer weather. | El Arroyo

ISO-NE News

FERC Investigating ISO-NE over Gas Plant's Alleged Capacity Market Fraud

By Sam Mintz

FERC is investigating ISO-NE's role in alleged fraud by a project developer taking part in the RTO's capacity market, the grid operator disclosed Thursday.

The existence of the investigation was first revealed in a [bankruptcy filing](#) by Salem Harbor Power Development, the company behind a natural gas plant north of Boston in Salem, Mass. The company filed for Chapter 11 bankruptcy in March after being ordered to pay \$236 million to Iberdrola, its partner on the project, according to [Reuters](#).

According to the filing, dated April 20, FERC's Office of Enforcement started its investigation in 2017 and released preliminary findings in 2020. Those findings alleged that Salem Harbor violated FERC and ISO-NE rules by failing to provide "accurate and complete critical path schedule updates" to the grid operator.

FERC also alleged that the project's developers "engaged in a fraudulent scheme to deceive ISO-NE and the market into believing that the facility would meet the" 2017 commercial operation date and to collect capacity payments

regardless of the project's delays.

The company has denied the allegations and is in talks with FERC over a potential settlement, according to the filing.

But potentially more significant is that ISO-NE itself is under investigation for failing to figure out that the project would be delayed, allegedly giving the developer advice to help it skirt the consequences of failing to meet its COD and not forcing it to sell its capacity supply obligation (CSO).

Neither FERC nor ISO-NE provided further details about the alleged violations, but in a statement Thursday, the RTO said it denies them.

It also pointed to changes it made in response to the incident, including an automatic financial penalty for projects in the capacity market that are under development and miss their deadlines.

"The penalty serves as an enhanced incentive for project sponsors to meet their commercial operation date and eliminates the need for ISO New England to assess the veracity of the information submitted to it by project sponsors,"

the grid operator said.

ISO-NE said it's cooperating in the investigation and has asked FERC to dismiss the enforcement case against it.

FERC declined *RTO Insider's* request for comment, citing its policy to not comment on ongoing investigations.

Stakeholders in NEPOOL have over the last few months been debating changes to the region's financial assurance rules, with the goal of handing out harsher penalties to companies that are behind on development milestones. (See [NEPOOL Participants Committee Briefs: May 5, 2022](#).)

That effort took on extra significance because of the controversy around a different natural gas plant, Killingly Energy Center in Connecticut, which had its CSO pulled by the grid operator because of its failure to meet milestones and stay on track for its COD.

The results of this year's capacity auction were significantly delayed while ISO-NE waited for FERC and the D.C. Circuit Court of Appeals to settle the matter. (See [ISO-NE Announces Capacity Auction Results After Killingly Delay](#).) ■



Salem Harbor Power Station is at the center of a FERC investigation into capacity market fraud. | Fletcher, CC BY-SA 4.0, via Wikimedia Commons

ISO-NE News

RI Governor's OSW Procurement Proposal Passes Legislature

Bill Would Direct State Utility to Issue RFP for 600 to 1,000 MW by October

Rhode Island Gov. Dan McKee's proposed legislation authorizing a new offshore wind procurement passed the General Assembly on Thursday and is now on the governor's desk for his signature.

McKee asked sponsors Sen. Dawn Euer (D) and Rep. Arthur Handy (D) in March to introduce the legislation ([S2583/H7971](#)), which the governor said at the time would further the "state's position as the North American hub for industry activity."

The House Corporations Committee on June 21 recommended that the House pass the bill with amendments that include increasing the original proposed 600-MW procurement to between 600 and 1,000 MW and directing

Rhode Island Energy (RIE) to issue a request for proposals by Oct. 15.

"The offshore wind industry is driving investment in job growth in the local green economy, and this is a good bill that moves us in that direction," Rep. Joseph Solomon (D), chair of the Corporations Committee, said on the House floor.

RIE would evaluate developer bids on environmental and fisheries impacts, economic benefits, and diversity, equity and inclusion measures. Each RFP would need to include a plan for enabling "historically marginalized communities" to access employment and vendor opportunities related to the project.

The bill would also give the Public Utilities

Commission the authority to rule on disputed contract terms, if any occur during negotiations, and direct RIE to secure a final contract.

New procurements under this legislation, together with the already-commissioned 30-MW Block Island Wind Farm and the planned 400-MW Revolution Wind project, could provide 50% of the state's estimated energy needs, according to a statement from the House.

The legislature also sent a *bill* to the governor on June 21 that would amend the state's Renewable Energy Standard to require 100% of electricity to come from renewable sources by 2033. ■

— Jennifer Delony



Rhode Island Gov. Dan McKee (left) speaks with Sen. Dawn Euer (D) and Rep. Arthur Handy (D), who sponsored his proposed legislation to authorize a new offshore wind procurement for the state this year. | *Rhode Island Senate*

Northeast news from our other channels



Mass. Moves Forward with Contentious Net-zero Building Code Proposal

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

ISO-NE News

Cumulative Impacts Analysis a Top Regulatory Priority for CLF, Rep Says

NECA Panelists Discuss Intersection of Infrastructure and Climate Change

By Jennifer Delony

The Conservation Law Foundation (CLF) is working to establish regulatory frameworks that incentivize infrastructure developers to analyze cumulative impacts of projects and protect environmental justice communities, said Caitlin Peale Sloan, vice president for Massachusetts.

An established EJ framework can “empower regulators to reject projects that overburden cumulatively impacted communities,” she said Wednesday during a climate and energy infrastructure panel hosted by the Northeast Energy and Commerce Association.

During the event, energy experts shared stakeholders’ and developers’ perspectives on the challenges of achieving climate targets and building infrastructure to meet those targets.

While CLF supports clean energy deployment, Sloan spoke from stakeholders’ perspective, saying that understanding cumulative project impacts “is critical to assess the impact of the proposed project on different stakeholders.” A cumulative analysis identifies impacts from a proposed project on the project area and the impacts of other actions from the past, present or future that also would affect the project area.

“In this current era, when developers and clean energy businesses really want to do the right thing by EJ populations, you have to use cumulative impacts analysis or you’re still going to wind up disproportionately burdening EJ populations in siting,” Sloan said.

EJ-focused regulations focus on cumulative burdens on EJ populations within the existing “well established framework of siting regs,” she said. CLF’s effort to raise the bar on cumulative impacts analysis seeks to ensure that developers are thinking about EJ communities in the early siting phase. Doing so, she said, could build community support for a project and avoid a “late wave of opposition.”

In Sloan’s view, EJ populations approach stakeholder engagement from a different perspective than under-burdened communities. If a project’s location, design and impacts are “totally locked in,” she said, it inhibits participation from community members.

They have “decades, centuries of well earned skepticism and concern about the intentions that major institutions have for an EJ commu-

nity,” she said, adding that developers must engage with the community early in the design process, when change is still possible.

Massachusetts’ 2021 Next Generation Roadmap climate law directed the Department of Environmental Protection to issue regulations by the end of this year for incorporating cumulative analyses into the review of certain air permits. DEP will propose draft cumulative analysis regulations by October and take public comment on them through December.

At the beginning of this year, the Massachusetts Environmental Policy Act (MEPA) Office implemented new protocols for EJ community involvement in permitting processes and analysis of EJ community impacts, as directed by the climate law.

The new MEPA regulations represent “the first major changes” to the review process in “many years,” said TJ Roskelley, partner at Anderson & Kreiger.

Speaking during the event from the developers’ perspective, Roskelley called the new protocols “complicated.”

“There’s going to be a lot of learning by doing over the next year,” he said. “As soon as we start to get filings and some feedback from stakeholders and from the MEPA office, I think we will understand this process a lot better.”

The new regulation updates the existing thresholds for what constitutes a basic or extended project review in the permitting process. A review for a project within 1 mile of an EJ community (or 5 miles for projects that affect air quality) must move from a basic 30-day review to include a full environmental impact report (EIR).

Any project that meets the threshold for a full EIR also triggers an enhanced public engagement protocol, which requires notice of the project within a required time frame and “meaningful” outreach to promote public involvement.

Building Support

For Megan Aconfora, public involvement specialist at Burns & McDonnell, stakeholder engagement should change based on the community in which a project is located, but the process must be consistent across communities for developers to find broad success.

Engaging with an EJ community requires a developer to use “different tactics” from



CLF says that a cumulative impacts analysis can help developers ensure equitable siting of infrastructure, such as a substation, that is associated with large-scale transmission and often built in densely populated areas. | @KidsOutFront

other communities, Aconfora said. In sensitive communities, a town hall conversation will not be “productive,” she said, adding that some communities need the developer to build trust.

“Sometimes trust means not immediately rolling in and talking about your project, but just showing yourself as someone that they can communicate with,” she said.

While early community engagement is critical for large-scale energy infrastructure projects, Joe Rossignoli, founder of the consulting firm Ross Emergent, said it’s possible to “design support into a proposal” by “making greater use of the existing transmission system.”

That approach might include, for example, using storage as a transmission asset to ensure bulk system reliability on lines that traditionally would be constrained to prevent outages.

“These devices allow lines that would otherwise be security constrained for N-1 contingencies to flow at their nominal capability,” he said. The instantaneous response, he added, prevents the line from experiencing a thermal overhold.

Another option is to take a fresh look at limits on the amount of power that can flow over a right of way. Doing so, Rossignoli said, would require a review of the Northeast Power Coordinating Council rules that permit the evaluation of extreme consistency violations based on the historic or projected variability in the use of lines on interregional corridors.

“What’s clear from recent developments is that cutting new rights of way to get customer access to power supply and in neighboring regions just isn’t doing the job,” Rossignoli said. ■

MARC Annual Meeting

Overheard at the MARC 2022 Annual Meeting

By Amanda Durish Cook

CHICAGO — The Mid-America Regulatory Conference's (MARC) annual meeting last week bore the tagline "Building the New Normal" with themes that ranged from climate justice and workforce diversity to FERC Order 2222 and the ongoing solar panel investigation.

During a June 20 panel, PricewaterhouseCoopers partner Dennis Curtis said some utilities' zero-carbon goals are "aspirational" while others are "grounded in lots of process and data." He said some pilot projects now in their infancy will no doubt be the technology relied upon in 2050 by a zero-carbon industry.

"We cannot do this work at any cost," Reed Smith partner and former FERC commissioner Colette Honorable said of the clean energy transition. She said the shift cannot be "painted with a broad brush" and must account for customer affordability, particularly for underserved minority and low-income communities.

"We can't pull out the rug from under people. This has to be thoughtful," she said. Honorable reminded the audience that communities across the country are currently strapped trying to budget gasoline, groceries, medicine

and gas bills alongside their electric bills.

The transition must also be navigated against more ubiquitous severe weather events, she said. "They have names we've never heard of and temperatures we've never seen."

Case in point: the MARC meeting was held amid record-tying temperatures in Chicago. Wednesday's high of 101 degrees Fahrenheit matched the previous record set in 1995.

Julia Friedman, Oracle Utilities' director of regulatory affairs, said the pandemic and ensuing inflation means that more customers are making other sacrifices to pay their energy bills.

Friedman said more efficiency and demand measures on the residential customer side are necessary and can be more powerful than simply decarbonizing the supply side. She said her company's research shows that residential customers' actions can cut the equivalent of 130 coal plants' carbon emissions output by 2040.

"There's still so much efficiency to be had," Friedman said. "When you have at scale, millions of customers taking action, that's very meaningful, and that has to be part of the conversation."

Honorable, an independent director for Southern Co., said she recently attended the utility's shareholder meeting where multiple individuals owning just one share apiece stood to speak about the importance of climate goals.

"These are not decisions that companies are making because of large investors," Honorable said. She added that "we need so much more transmission" to integrate clean energy.



ComEd CEO Gil Quiniones | © RTO Insider LLC

ComEd CEO Gil Quiniones said utilities must plan the grid for the future climate, not today's. He said the energy system should not be unevenly split between the "haves" and the "have nots."

"We have to extend the grid into our customers' homes," Quiniones said.

Illinois Speaker of the House Chris Welch said the state's bipartisan [Clean Energy Jobs Act \(CEJA\)](#) comes at a time when other states are neglecting to have honest conversations about climate change.

He said the law is the nation's most equitable climate legislation and will positively impact Illinois for "years to come, decades to come." He pointed out the legislation is supported by both environmental and labor groups.

"That was damn near impossible," Welch said Wednesday morning. "We're a leader in this country, in the Midwest ... American can and should be a fierce leader in this arena."

Illinois Commerce Commission Chairman Carrie Zalewski said she thinks of her life as "before CEJA and after CEJA." She said the commission is focused on "huge dockets" to implement the bill.

Zalewski said her concern for the next five years is "minding the gap," as MISO executives often say. She said that means overseeing the clean-energy transition reliably, managing ever-higher energy costs, and solving MISO's capacity shortfall. Zalewski said she's currently focusing on getting power from capacity-flush PJM's lower-priced northern Illinois territory downstate to MISO's southern Illinois footprint.

Order 2222 Will Boost Reserves

Katharine McCormick, the Illinois commis-



MARC annual meeting underway | © RTO Insider LLC

MARC Annual Meeting

sion's assistant director of policy, said FERC's Order 2222, which opens wholesale RTO and ISO markets to distributed energy resource aggregators, might help MISO's current 1.2-GW capacity shortfall in its Midwest region, which includes downstate Illinois.

McCormick said a variety of resources contributing on the grid is the best path forward but said the state questions MISO's 2030 go-live date for Order 2222 compliance. (See *MISO Stakeholders Protest RTO's Order 2222 Implementation Timeline*.)

MISO Deputy General Counsel Tim Caister said the implementation plan reflects its current technological limitations. He said a new market software platform needs to be in place before aggregators can participate in the RTO's markets.



MISO Deputy General Counsel Tim Caister | © RTO Insider LLC

MISO also needs more technology, secure communications channels, and a comprehensive review process before aggregations can provide wholesale supply, Caister said.

"We're moving from a static to a dynamic environment," he said.

Solar Investigation Slows Development

A panel discussion touched on the U.S. Department of Commerce's March announcement that it is investigating some Asian solar module manufacturers for circumventing tariffs imposed on China in 2012.

NextEra Energy's Anthony Pedroni said the investigation is setting solar developers back by upwards of six months. "The damage has been done in the near term," he said. "Ships literally turned around and went back to their ports."

Pedroni said the administration's two-year pause on new tariffs stands to help projects already in development, but future projects need economic certainty and long-term investment signals. He said a decade of the "hammer" of anti-dumping tariffs has done little to spur domestic solar manufacturing.

"If the goal has been manufacturing, it's not working ... We just have outsourced this particular industry to the world," he said.

He also said President Biden's use of the Defense Production Act to accelerate domestic production of solar panels requires at least a 24-month lead time.



Left to right PricewaterhouseCoopers partner Dennis Curtis, Reed Smith partner Colette Honorable and Oracle's Julia Friedman | © RTO Insider LLC

"[The] worst outcome is project failure," Pedroni said. He said he was hopeful that the investigation's results will be a "blip," albeit a "damaging and expensive blip."

Making Do with a Leaner Workforce

Panelists contemplated how energy companies and organizations can manage with a shrunken available workforce.

"There were years when people were banging down the doors to come work for us," Southern

Co. Gas Vice President of Human Resources Lindsay Hill said. "Our mindset around work has completely changed."

With more jobs available than total workers, Hill said, employees will now leave a premier utility "for a dollar more an hour."

She said that during the pandemic, she was able to drive her children to school for the first time ever because she was working from home. She said the emphasis on flexibility is a holdover from the pandemic.

Hill reminded audience members that the mid-century's workforce "is sitting in third grade right now."

"We have to get into elementary schools," she said. "We want to expose people as early as we can that the energy industry is an option ... It might not be as sexy, the utility industry ... but it is very stable."



Illinois Commissioner Maria Bocanegra and NextEra Energy's Anthony Pedroni | © RTO Insider LLC

Hispanics in Energy CEO Jose Perez said Hispanics often lack the higher education necessary to become involved in the energy industry. He said he believes the country could use a development track to get more



Hispanics in Energy CEO Jose Perez | © RTO Insider LLC

MARC Annual Meeting

MARC Annual Meeting Highlights Transmission Needs

By Amanda Durish Cook

CHICAGO — The first annual meeting of the Mid-America Regulatory Conference (MARC) in two years focused on transmission needs in the middle of the country necessary for a fast-changing energy landscape.

Advanced Power Alliance's senior vice president of markets and infrastructure Steve Gaw said both seams planning and interconnection queues deserve more attention in MISO and SPP. He said SPP's planning futures are not realistic enough, as evidenced by its clogged interconnection queue.

"Transmission takes a long time to build. We've got a lot of work to do on that front. I think we have a good foundation, and I think we need to build on what's working," Gaw said during a Wednesday panel discussion.

ITC Holdings Chief Business Officer Krista Tanner said the two RTOs have come a long way on their seams planning.

"Two, three years ago, there was no communication on that. And now look," she said, offering the caveat that MISO and SPP must still settle on a cost allocation for their joint targeted interconnection queue (JTIQ) planning study. (See *MISO, SPP Finalize JTIQ Results with MISO Tx Duplicates.*)

Tanner said the grid operators must do more planning to clear their queues. She said SPP's five-year backlog is evidence that it's not functioning well. However, she called the JTIQ work "a heck of a good start."

"I'm not sure it can happen fast enough," said Usha-Maria Turner, director of environmental, federal and RTO policy at Oklahoma Gas and Electric. "We'll make progress on the current queue backlog, but ... we're seeing more and more renewables come into the queue, and that queue just has to get faster."

Gaw called for a minimum transfer capability between RTOs and ISOs to maintain resource adequacy. He said the transmission that helped MISO and SPP successfully navigate the February 2021 winter storm wasn't originally built to help the region's punishing winter storms.

"A lot of the reason for those lines was to move renewable energy from the west to east, but because we had those lines, we were able to keep the lights on," he said.

Tanner said the 16 lines in MISO's 2011 Multi-Value Project portfolio were at capacity



From left: Usha-Maria Turner of Oklahoma Gas and Electric, ITC's Krista Tanner and Advanced Power Alliance's Steve Gaw | © RTO Insider LLC

"the moment they came online." She said MISO and its members have since miscalculated baseload retirements, load growth and the pace of renewable energy growth in their transmission planning.

"Everything was underestimated," she said.

Tanner said though MISO's \$10 billion long-range transmission plan seems expensive, February 2021's winter storm racked up a few hundred billion in costs in just over a week.

Tanner also zinged FERC's Order 1000 as dysfunctional. She said ITC hasn't bid on project under the order in years. She characterized the rulemaking as "a race to the bottom."

"I think the good news is more people are recognizing that ... it's not saving customers money, it's adding a lot of delay and then there's litigation," Tanner said.

Christie Urges States to Lean in on NOPR

FERC Commissioner Mark Christie, during his June 20 keynote address, encouraged state commissions to weigh in on the commission's notice of proposed rulemaking on transmission planning and cost allocation. He reminded state staff that the "P" in NOPR stands for "proposed" and said the ruling isn't final yet.

"It mandates the planning on a long-term horizon, but it doesn't mandate the outcomes,"

he said of the NOPR.

Christie said state regulators are poised to know what's best for their customers.

"If we're going to mandate billions worth of policy-driven transmission projects in the RTOs largely driven by state policies ... [state regulators'] agreement ought to be sought on both the planning criteria and the cost allocation," he said.

Christie said the NOPR stands to "formalize" states' role in transmission planning and gives them "maximum creative and flexibility."

"There's no one I trust more than state regulators on making sure that projects are in the public interest and transmission expenditures are properly spent," he said.

Christie also said state regulators, already squeezed for resources by the energy transition, must pay attention to planning. He said transmission investments are poised to explode.

"That transmission component in retail rates is getting bigger and bigger and bigger," he said. "That component is not small anymore. It's one of the fastest-growing components of people's bills. It's a challenge [to be involved], but you're either going to be a part of it, or something that's going to be done to you and your consumers." ■

MISO News

MISO Warming to Patton's Sloped Demand Curve

By Michael Brooks

MISO Independent Market Monitor David Patton has been calling for a sloped demand curve in the RTO's capacity market for what seems like forever.

The Potomac Economics president includes it as a recommendation in his annual State of the Market report for MISO every year; he even asked FERC to order the RTO to implement it in 2018. Nevertheless, MISO still has a vertical curve.

This year is a bit different, however. MISO is facing a 1.2-GW capacity shortfall in its Midwest region, and it is driven in part by inefficiently low prices "contributing to a sustained trend of retirements of resources that would have been economic to remain in operation," according to this year's [report](#), presented by Patton to the MISO Board of Directors' Markets Committee on Wednesday.

MISO's current demand "curve" — a straight vertical line at the minimum capacity requirement — represents the fact that the RTO does not pay extra for surplus capacity, only increasing prices when there is a deficiency in a zone.

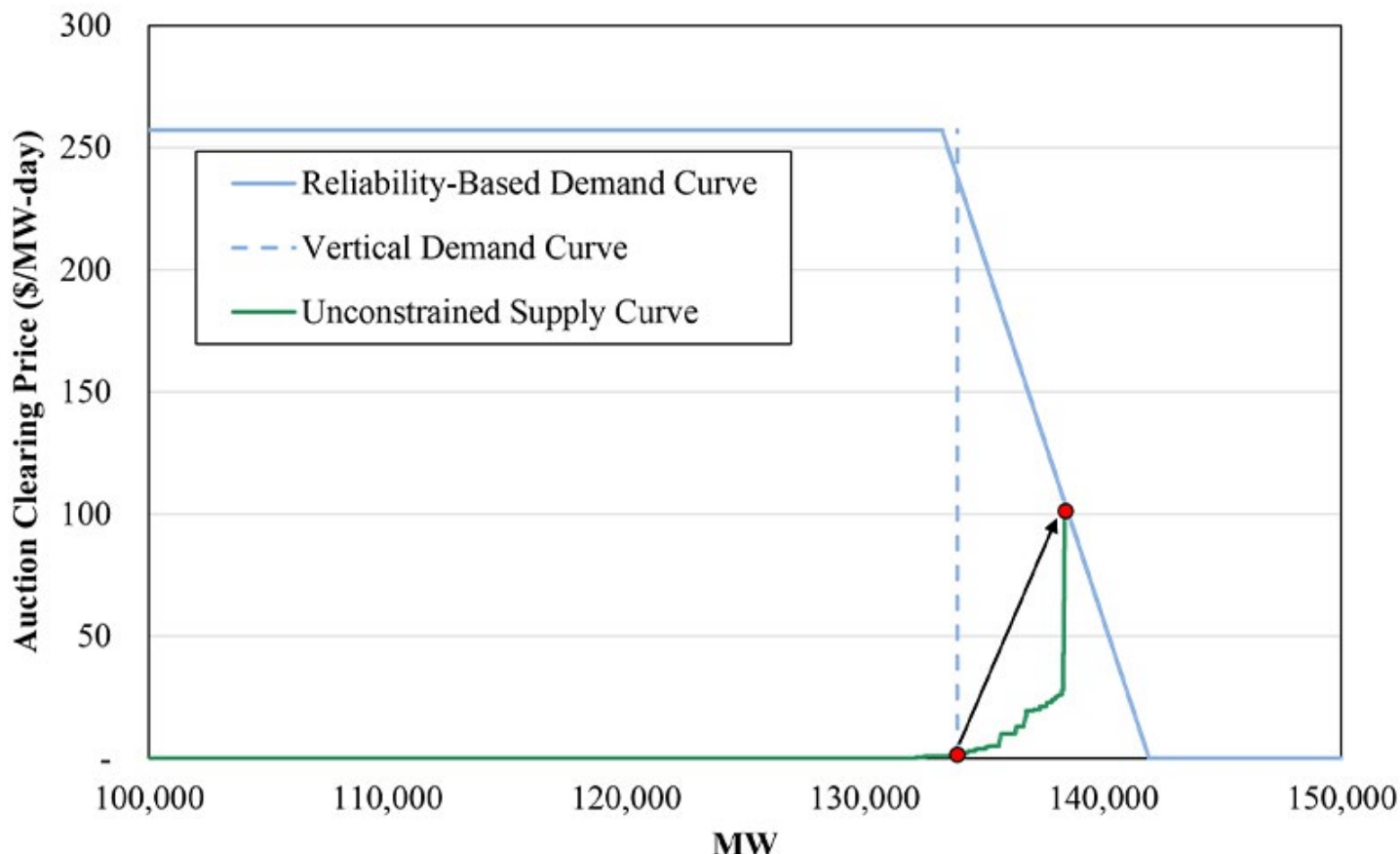
"The implication of a vertical demand curve is that the last megawatt of capacity needed to satisfy the minimum requirement has a value equal to the deficiency price, while the first megawatt of surplus has no value," the report says. "Since prices will be set where the supply offers intersect with the demand curve, a vertical demand curve will almost always set the price close to zero when the market has even a small surplus of capacity."

Or, as Patton told the committee, "When we impose a vertical demand curve, we're basically saying, 'We see no reliability value for any megawatts above the minimum requirement.' That's obviously not true."

The clearing price for seven of MISO's 10 capacity zones in the 2022/23 Planning Re-

source Auction (PRA) in April was the cost of new entry (CONE) of \$236.66/MW-day, while the other three zones, in MISO South, cleared at \$2.88. (See [MISO's 2022/23 Capacity Auction Lays Bare Shortfalls in Midwest](#).) That marked a huge spike from the prices in the previous auction, which ranged from 1 cent in MISO South to \$5 in the rest of the footprint. (See [MISO Capacity Auction Values South Capacity at a Penny](#).) The jump signals an urgent need for additional capacity, especially in the northern zones.

With Patton's sloped, or "reliability-based," curve, prices are capped until the minimum requirement is fulfilled, and each subsequent megawatt is priced at a diminishing rate. Had it been used in the 2021/22 auction, prices would have ranged from \$13 in MISO South to \$150 in MISO Midwest. "Although this remains well below the cost of new entry of roughly \$250/MW-day, this price would ensure existing resources that were needed to maintain reliability would remain in operation," the report says.



MISO's Independent Market Monitor David Patton presented this graph as an example of how a sloped demand curve would look in the RTO's capacity auctions. The vertical "curve" represents the minimum resource requirement. | [Potomac Economics](#)

MISO News

MISO Response

Patton's presentation on the curve received favorable responses from MISO officials and directors.

"I really think this is what we need to do," CEO John Bear said. He argued, however, that generator retirements are not being driven by economics but by environmental policies. "So even if we fix this, we may have some troubles."

Patton agreed that a different curve would not "magically solve the problem overnight." But he countered that retirements purely for environmental reasons are rare.

"Sometimes there is an interplay because there can be an environmental requirement that comes out that requires a resource owner to spend money to comply ... and that would be embedded in the going-forward costs," he said. "That may be one of the reasons why the

going-forward cost is as high as it is.

"But when a market doesn't provide the revenues to cover those sorts of costs, then the unit retires, and it may look like an environmental retirement, but had we provided the revenue, some of these units would not have retired."

Patton also said that "this isn't entirely a MISO issue. I view this as also being a FERC issue. I don't know how FERC looks at the actual prices there and finds them to be just and reasonable, because they don't serve the basic purpose of why you have a capacity market in the first place."

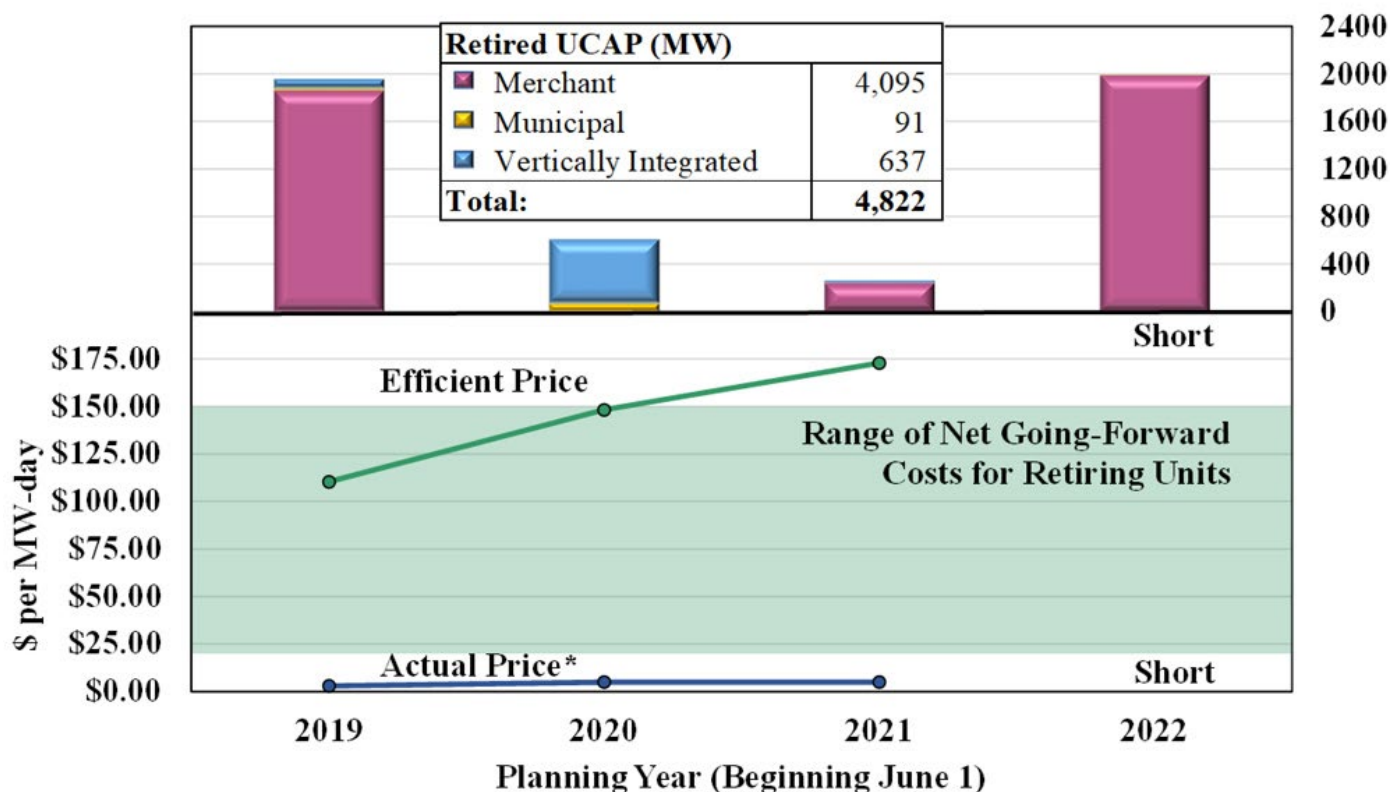
Director H.B. "Trip" Doggett, chair of the committee, noted that he has "asked MISO to attempt to arrange some training for us later this year ... and one of [the] topics would be the sloped demand curve so that we can fully

understand it."

Short vs. Long Term

The report says that as long as the footprint does not experience above-normal heat this summer – a big "if" given the high temperatures already this month – MISO's resources should be adequate. Though retiring units did not offer into the auction, they will still be operational for at least this summer, and the RTO is able to import power into practically any region of its footprint. And despite the shortfall in the auction, it saw a 200-MW net increase in capacity last year, with a 1-GW gas-fired plant coming online in MISO South and nearly 2 GW of wind resources across the footprint.

"In the long term, however, we are very concerned about MISO's resource adequacy given the relatively low net revenues generated by MISO's capacity market," the report says. ■



* Actual prices are the unconstrained auction clearing prices of the Midwest. Zone 7 separated in 2019 and 2020.

According to Potomac Economics, prices would have been much higher had a sloped curve been used in each of the three previous auctions prior to last April's. | Potomac Economics

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Mich. PSC OKs CMS Plan to End Coal Use by 2025



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

MISO News



Hispanics involved in energy careers, facilitated in part by state commissions.

Perez also said a relaxation of the industry's drug policies, especially concerning marijuana, can help ease the employee shortage.

Jeanine Otte, director of workforce development for equal access nonprofit Elevate Energy, said her company will recruit for organizations that deal with people who have been affected by the criminal justice system. She said her team offers stipends that include transportation to work.

Zalewski said with about a quarter of American adults having some brush with the criminal justice system, it's worth companies rethinking some hiring policies. She said it's simply "the larger reality of the system in which we work."

Panel Debates Weather, Fuel Procurement

As is the case with most regulatory conferences these days, a panel revisited the 2021 February winter storm that froze much of the Southwest and almost brought the Texas grid to its knees.

Texas commissioner Will McAdams said "as painful as it is," it's useful to revisit ERCOT's near-grid collapse during the storm. "Our system did not return to normal for five days," McAdams said during a June 20 panel discussion. (See *Texas Lawmakers Dig into Power Outages.*)

McAdams called the failure to plan for emergencies and communicate during the storm Texas's "own 9/11." He said the Public Utility Commission has taken "drastic" steps since then. "We've taken a lot of regulatory actions in a short amount of time."

McAdams said ERCOT has almost doubled its amount of ancillary service capability since the winter storm. He said with an increasing amount of renewable penetration on the system, ancillary services are only going to become more important for the state's stand-alone interconnection.

"Due to our islanded status, we experience ramping phenomena more than others," he said.

McAdams said the commission is attempting to "crack the code" of which loads are too critical for service interruptions.

Allen Fore, vice president of public affairs for Kinder Morgan, said expanding natural gas pipelines and storage should help limit the fallout from weather events, but development and permitting remains a "nightmare."

"One thing we know is that memories fade over time," he said. "As the crisis fades into memory, the political will fades."

Fore said to build natural gas infrastructure, developers need long-term secure contracts from credit-worthy companies, something that's not presently happening.

"We're not going to build anything and hope somebody will use it," he said. "We have to have the customer will, which ultimately is the political will."

Luke Wiles, Enel Green Power's senior hydrogen strategist, said hydrogen can become a deployable and dispatchable resource when renewable generation wanes.

"Batteries are good for short-term fluctuations," he said, explaining that batteries struggle to provide a good backup when renewable output slumps for days at a time.

"Hydrogen, on the other hand is a good backup because it can be stored indefinitely ... It can repower the grid with clean fuel [for] a longer duration," Wiles said.

NARUC Workshop Eyes Future Technologies

Following the MARC meeting, the National Association of Regulatory Utility Commissioners convened for a workshop to discuss what technologies might be needed as fossil plants announce retirement.

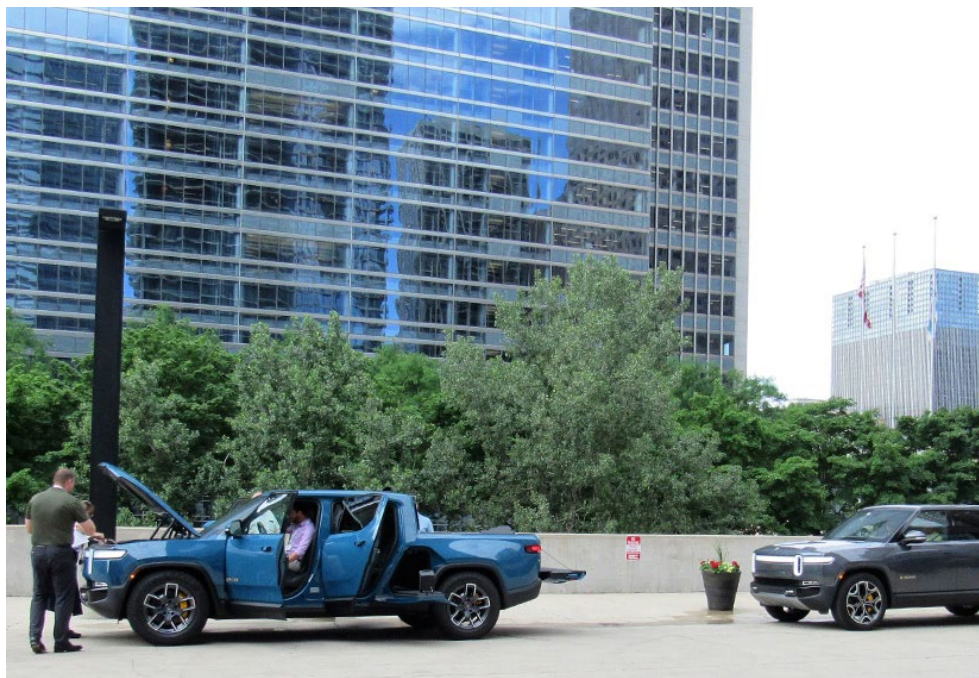
Experts said investments in carbon capture and storage, pollution controls, and using coal waste will be necessary to prolong the operational lives of coal plants in the face of climate concerns.

Jacque Fidler, vice president of environmental sustainability at coal-miner CONSOL Energy, said her company is contemplating the development of a 300-MW waste coal and biomass plant near its Pennsylvania Mining Complex.

"This project will not advance unless we can achieve net negative CO₂ emissions," she said. CONSOL will decide in the coming months whether to move forward with the plant and is working through whether the plant is feasible for commercial operation, Fidler said.

SPP Director of State Regulatory Policy Talina Mathews said carbon capture will be key going forward because fossil units, along with nuclear units, will be necessary for some time. She also said lost tax dollars from retiring plants have "tremendous" negative economic effects on their host communities.

Doug Scott, vice president of strategic initiatives at the Great Plains Institute, said last year's *Storing CO₂ And Lowering Emissions Act* passed by Congress should result in larger capacity pipelines for CO₂ transport. He said the larger pipelines make sense as future carbon sequestration picks up, noting he employed a similar strategy for water lines when he served as mayor of Rockford, Ill. ■



MARC attendees were able to test ride Rivian R1T electric pickup trucks on site at the Radisson Blu hotel in Chicago. | © RTO Insider LLC

MISO News

MISO Membership to Become More Valuable in Future

By Amanda Durish Cook

MISO expects the savings it delivers to members under a resource sharing pool to more than triple within 20 years, according to a new, forward-looking value proposition it debuted earlier this month.

The RTO said that by 2030, it will provide \$4.3 billion to \$5.8 billion in annual estimated benefits and \$11.6 billion to \$14.3 billion by 2040. The study estimates the current 11:1 benefit-to-cost ratio, based on \$3.5 billion annual savings, will more than double to 26:1. (See “MISO Sees Members’ Savings Increase,” [MISO Board Meets Amid RA Concerns, Emergency Alerts.](#))

During a Friday teleconference with stakeholders, MISO business analyst Savannah Miller said much of the benefits stem from a reduced need for additional assets because of capacity sharing and an optimized dispatch of renewable resources. She said the benefits will jump as decarbonization picks up.

MISO used a combination of its most conservative transmission planning future and the 2021 regional resource assessment, which considered its members’ decarbonization goals, for its long-term benefit analysis. (See

MISO Resource Assessment: 140 GW Needed Within 20 Years.)

That data was compared against a scenario that assumed MISO had never been formed and utilities would have to meet their entire energy needs with their own generation or through bilateral contracts.

The grid operator concluded that its long-range transmission *projects* will “enable a more efficient utilization of the changing generation within MISO into the future.” The RTO assumes the \$10.3 billion portfolio of 345-kV projects will come online by about 2030.

Miller said MISO expects to have a “completely different” resource mix by 2040. She said while staff know the energy transition will occur with or without it, the grid operator’s services will help members more easily access a reduced carbon fleet.

Mississippi Public Service Commission consultant Nick Puga said he wondered whether MISO’s base case was realistic enough. He suggested utilities would have banded together in some fashion to better share resources had MISO never been formed.

Staff said they simply used calculations with

and without MISO calculations and didn’t think it was appropriate to hypothesize on what would have happened if MISO wasn’t formed.

The value prediction on resource sharing comes at a time when MISO is telling its members to bring more energy online or risk future load shed. (See [MISO Describes Bleak RA Future, Stakeholders Push Back.](#))

MISO has *issued* a string of hot weather alerts, capacity advisories and conservative operations instructions since mid-June, mostly for MISO South.

Last week, both Alliant Energy and WEC Energy Group postponed plans to retire three coal-fired resources in Wisconsin by at least 18 months, citing tight supply in MISO Midwest. However, Consumers Energy’s new integrated resource plan approved will accelerate the retirement of its J.H. Campbell coal plant in western Michigan to 2025, 15 years earlier than originally planned.

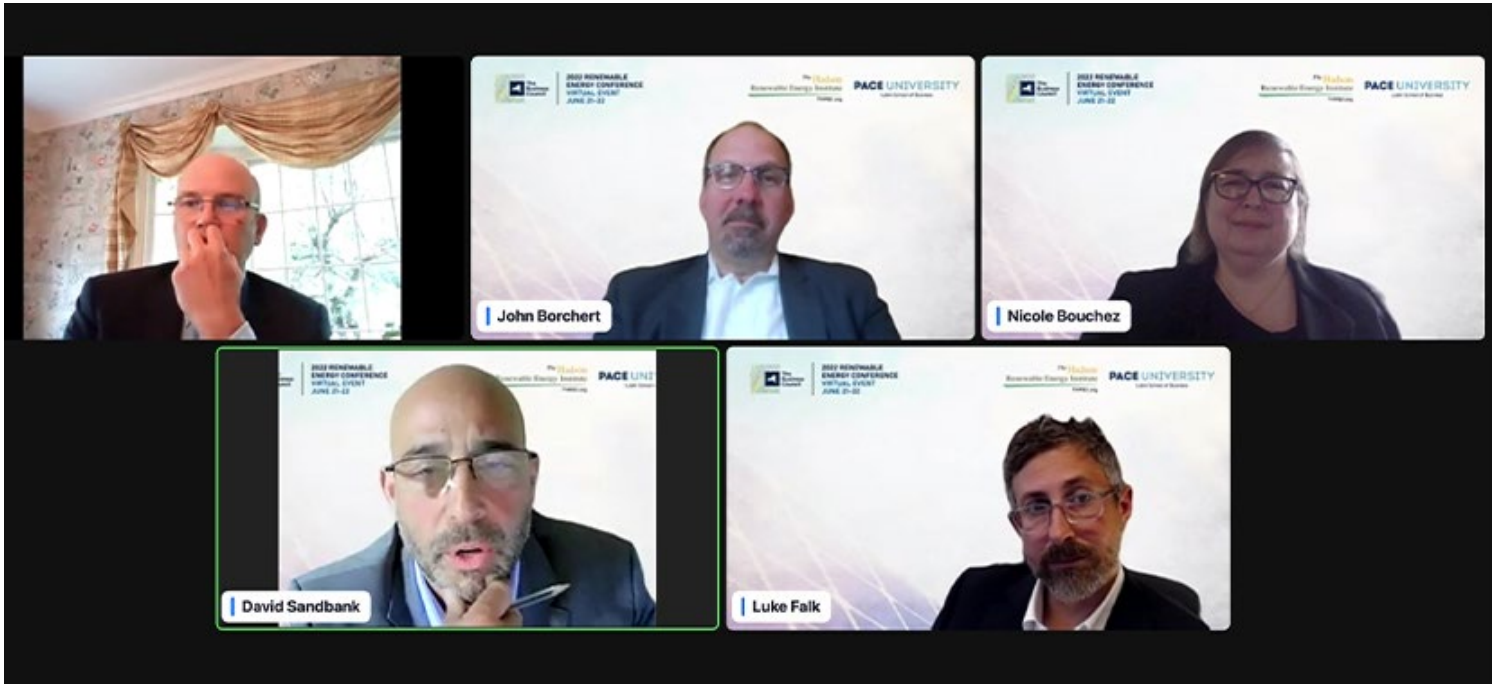
The grid operator’s new market system, expected to be in service by late 2024, will house more nuanced types of wholesale market participation that better accommodate distributed and intermittent resources. ■



MISO control room | MISO

NYISO News

Overheard at East Coast Renewables Conference: Spotlight on NY BCNYS, Hudson Energy Renewable Institute and Pace University Host Webinar



Clockwise from top left: Scott Medla, Ansonia Partners; John Borchert, Central Hudson; Nicole Bouchez, NYISO; Luke Falk, EnergyRe; and David Sandbank, NYSERDA. | BCNYS

By Michael Kuser

The Business Council of New York State, the Hudson Renewable Energy Institute and Pace University on June 21-22 hosted the 8th Annual 2022 Renewable Energy Conference, which explored the challenges of managing a fundamental change in society's energy supply and infrastructure under New York's climate law.

The following are comments heard at the conference that featured state officials and regulators, business leaders, utility representatives and other stakeholders.

Society does not change according to a stipulated schedule, but it is an evolutionary process, Hudson Institute Chair Allan Page said.

"Leadership in the state needs to take into account the voluntary beneficial behavior of citizens of New York to get to net carbon zero on a societal glide path free of deleterious unintended consequences," Page said. "Competitive markets come back to balance or equilibrium that allows choice between competing needs. Regarding the [New York Climate Action Council's] draft scoping plan, a little more balance is needed."

Implementing CLCPA

The Climate Leadership and Community Protection Act (CLCPA) requires New York to obtain 70% of its electricity from renewable sources by 2030 and to make the grid net-zero emissions by 2040.

The council in December unanimously approved a *draft* scoping plan that lays out the steps needed to achieve the emission limits set by the CLCPA.

That plan provides several scenarios for meeting the state's environmental directives and incorporates recommendations from the council's seven sector-specific advisory panels, including from one on energy-intensive and trade-exposed industries, said Doreen Harris, president and CEO of the New York State Energy Research and Development Authority (NYSERDA) and council co-chair.

"When we look at the draft scoping plan in the broadest sense, it does show that the cost of inaction exceeds the cost of action by more than \$90 billion, and ultimately the improvements in air quality, transportation and energy in low-income homes will generate health benefits ranging from approximately \$165 billion to \$170 billion," Harris said.

In addition to hundreds of miles of transmission projects under construction, the Public Service Commission and NYISO have taken up utility investment plans needed to integrate renewables across the state, and the public policy transmission project, for example, advancing to provide better transfer capability from Long Island to New York City to allow the integration of more offshore wind energy into the city's grid, she said.

"When we look at it in the longer term, that's when the investments, that will be needed to realize that very reliable 2050 grid, are really topics that are to be determined through the work of NYISO, the Department of Public Service with NYSERDA, and of course with the federal investments that we are very excited to benefit from as they move forward," Harris said.

Power Sector and DERs

Investing in and building new transmission in New York will be key to achieving the state's public policy objectives, yet it is extraordinarily challenging, particularly on Long Island, where adding new infrastructure has always been difficult, said Scott Medla, managing partner at investment bank Ansonia Partners, who moderated a panel on distributed energy resources.

NYISO News

"In my view, the bottom line is to find ways to use existing rights of way to build, not higher, not wider, not longer, be it underground or underwater, but to the extent possible to use leading technologies that are proven," Medla said.

NYISO's focus is on operating the grid to provide reliable service to customers, which requires having sufficient resources that can satisfy the CLCPA, while controlling their output, running for extended periods at specific output levels and being flexible, said Nicole Bouchez, NYISO principal economist.

"The real puzzle now is that we don't know what technology is going to step in and provide that service," Bouchez said.

Maintaining affordability in the energy supply must be a part of the clean energy transition, said John Borchert, senior director of energy policy for Central Hudson Gas and Electric.

"One of the big steps that needs to be further explored is reducing emissions and energy use in the lowest cost way," Borchert said. "Energy efficiency has always been the lowest-cost, most effective way to reduce emissions and save money."

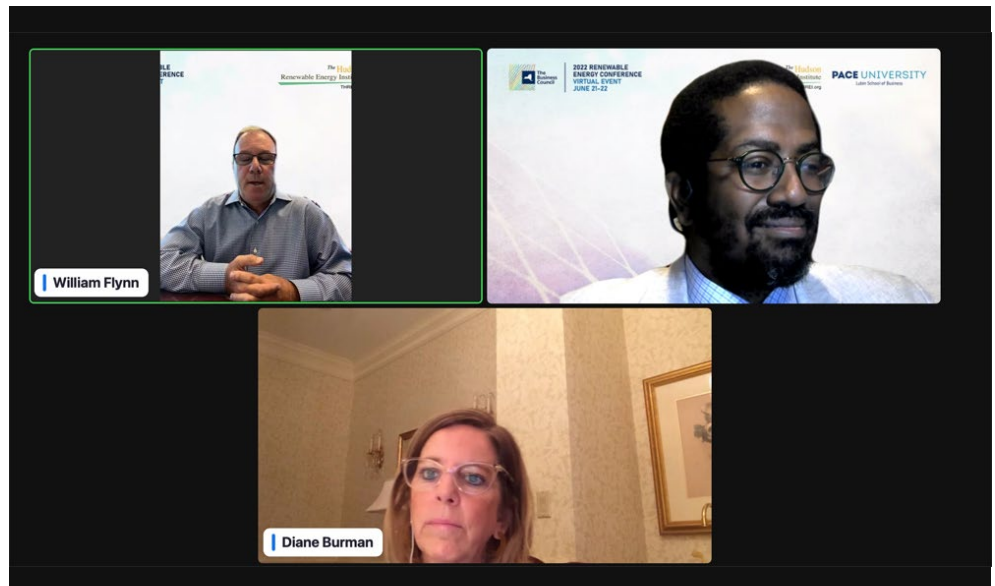
New York, he added, should continue to support and evaluate further expansion of energy efficiency.

NYISO has been a leader in facilitating the complex integration of renewable resources onto the grid, said Luke Falk, senior vice president for development at EnergyRe, partner with Invenergy in developing the 1,300-MW Clean Path New York transmission project to bring upstate wind and solar energy into the city.

"We're talking about 20-something, large-



NYISERDA CEO Doreen Harris | BCNYS



Clockwise from top left: William Flynn, partner at law firm Harris Beach; NYPSC Chair Rory Christian; and NYPSC Commissioner Diane Burman | BCNYS

scale wind and solar development projects, all of which are advanced in parallel and in their own right, and a large, underground HVDC transmission line," Falk said.

Developing those projects will be a complex process that requires precise orchestration, according to Falk, who says it's reasonable to forecast a trend toward HVDC.

Regulatory Challenges

William Flynn, partner at law firm Harris Beach, moderated a discussion with two PSC commissioners to explore significant opportunities and challenges facing the state's energy sector and business community regarding the energy sector transformation.

Environmental considerations have not always been a priority for the commission, particularly the impact of those pollutants on individuals, PSC Chair Rory Christian said.

"One of the first places I worked was at the Ravenswood power station Astoria Queens, and I was always surprised at how close it was to a very dense urban population center and significant [public] housing within walking distance," Christian said.

Planners made decisions 50 or 60 years ago to site power plants in places that have had a deleterious effect on residents, according to Christian. Reducing those emissions allows the state to address those impacts and improve the health of affected communities.

"That's probably one of the biggest priorities of the commission," he said.

As the state leans into electrification, demand may far outpace reliable supply in meeting the growing electricity needs of New York, Commissioner Diane Burman said.

The commission needs "to understand that we have a fiduciary responsibility to our ratepayers, and we need to look at it through the lens of us as economic regulators, which means that costs do matter, they impact on everyone, and to that end how do we do this in a way that achieves greenhouse gas reduction goals without going backwards," Burman said.

As an example, Christian said New York has spent many decades building up the gas network and that it's important to ensure continued use of it in the most efficient way possible toward meeting climate goals.

"In addition to that, we've also released the CLCPA order which in many ways is going to track all the various components and actions, specifically actions, that are taken by this commission towards meeting goals of the CLCPA, and that would be in addition to tracking the costs of those items moving towards meeting the goals," Christian said.

While the state is on a good track, realistically it needs to address the challenge of transitioning away from natural gas without compromising reliability, Burman said.

"We need to look at how curtailing the use of natural gas can actually conflict with our state goals to reduce carbon emissions if the unavailability of gas leads to greater near-term reliance on other fossil fuels such as oil," Burman said. ■

NYISO News

NYISO Business Issues Committee Briefs

Constraint Specific Tx Shortage Pricing

NYISO's Business Issues Committee on Wednesday recommended that the Management Committee approve a pricing *proposal* for multiple active transmission constraints (MATCs).

Enhancements to the current transmission constraint pricing logic will enable NYISO's market software to re-dispatch suppliers efficiently in the short term to alleviate constraints, as well as incentivize long-term investment in locations where suppliers could provide the greatest benefits, said Kanchan Upadhyay, energy market design specialist with the ISO.

MATCs can occur for two main reasons, either from topology or from the evaluation of contingencies on the same facility. MATCs arising because of topology, also referred to as "lines in series/lines in parallel," show the same transmission line represented as multiple segments in the network topology (long radial lines) or parallel line segments. Transmission facilities that are constrained in multiple scenarios (base case and contingency case scenarios) being evaluated are referred to as "MATCs on the same facility."

NYISO is proposing to develop functionality in the market software to identify redundant constraints across in-series and parallel transmission facilities, the most limiting of which would be binding and utilized for pricing purposes in application of the transmission demand curve mechanism (TDC). The remaining of such redundant transmission constraints would be non-binding and not utilized for pricing purposes in the application of the TDC.

The proposed solution seeks to provide better alignment between the use of physical resources versus the TDC in solving transmission constraints. It also aligns with the operational philosophy that relieving the worst/most limiting constraint across a transmission facility would generally alleviate other transmission constraints across the facility.

If prioritized for 2023, implementation would be contingent on approval by the NYISO Board of Directors and acceptance by FERC.

Critical Infrastructure Load

The BIC also approved a *proposal* to restrict participation of certain types of demand response in ISO-administered programs in order to protect critical electric system



New York Transco rebuilt and, in June 2022, energized the Churchtown Switching Station in Claverack as part of a 22-mile transmission modernization project in the Hudson River Valley. | NY Transco

infrastructure load. The limitations were proposed to comply with NERC's October 6, 2021, Standard Authorization Request to address extreme cold weather grid operations, preparedness and coordination.

Standard Recommendation No. 8 says, "Balancing Authorities' operating plans (for contingency reserves and to mitigate capacity and energy emergencies) are to prohibit use of critical natural gas infrastructure loads for demand response."

The proposed tariff revision will address Standard Recommendation No. 8 as it relates to the NYISO demand response programs, said Francesco Biancardi, market design specialist for new resource integration.

The ISO is targeting July 2022 to file the applicable tariff language with FERC for implementation on Nov. 1, the first day of 2022-23 Winter Capability Period.

Bad Debt Loss Methodology

The BIC also recommended that the Management Committee approve a *proposal* from DC Energy to change the 'look back' period used in determining allocations to each participant to recover bad debt losses and payment defaults,

expanding the period to three months.

Bruce Bleiweis, director of market affairs for DC Energy, presented the change and said the company believes the goal of the payment default and bad debt loss allocation methodology is to spread the loss fairly based on NYISO stakeholders' overall billing determinants.

Market participants' billing activity is not consistent within a month nor throughout the year, and this creates peaks and valleys for participants as a percent of total, whereas the new methodology "will smooth out the peaks and valleys" and represent an average obligation, he said.

The current methodology calculated each participant's obligation "in the Billing Period in which the payment obligation that resulted in the loss occurred" — DC Energy is bringing the same motion to MISO because they have a similar clause in their tariff, Bleiweis said.

One stakeholder asked whether NYISO supported the proposal or had any comment.

"We are indifferent to that timeframe," said Sheri Prevratil, NYISO manager of corporate credit. ■

—Michael Kuser

PJM News



PJM Capacity Prices Crater

Elimination of MOPR, Tougher Auction Cap Seen Depressing Prices for 2023/24

By Rich Heidorn Jr.

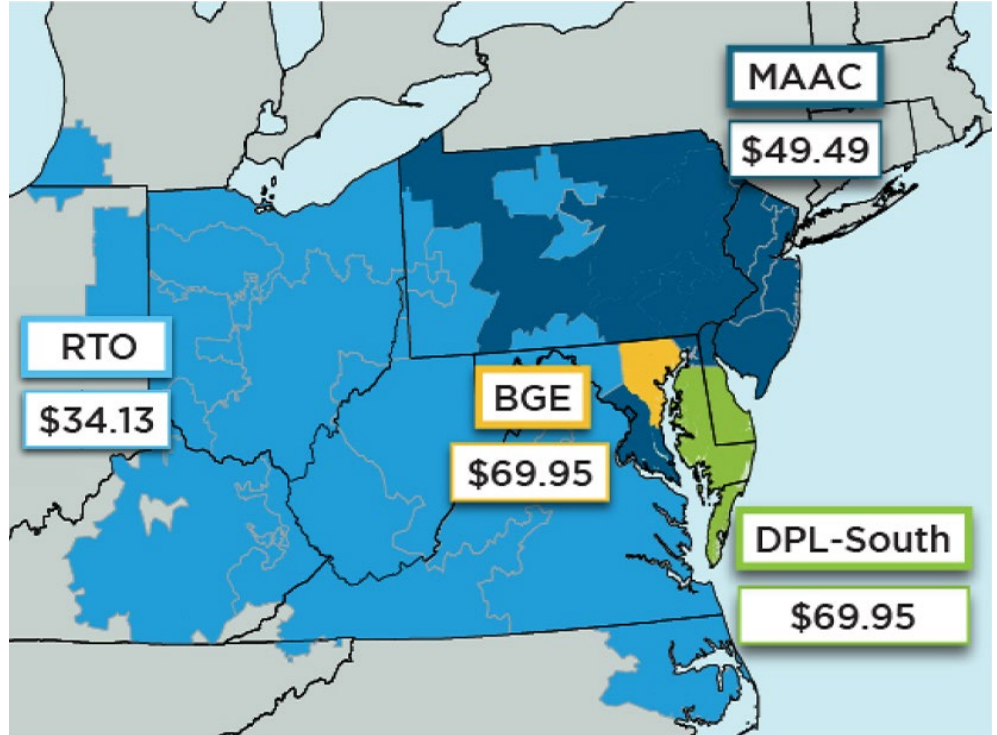
Capacity prices dropped by one-third to almost one-half in PJM’s Base Residual Auction for 2023/24, likely depressed by the effective elimination of the minimum offer price rule (MOPR), a tougher cap on generator prices and robust forward energy prices, which reduced revenue pressures on generators.

Prices in most of the MAAC region (Atlantic City Electric, Jersey Central Power & Light, Met-Ed, PECO Energy, Penelec, Pepco, PPL, Public Service Electric and Gas, PPL, Rockland Electric and Delmarva Power’s northern territory) dropped to \$49.49/MW-day, a nearly 50% drop, while those in rest-of-RTO fell to \$34.13, a nearly one-third reduction.

Two transmission zones within MAAC, Baltimore Gas and Electric and Delmarva Power’s south separated at prices of \$69.95, which PJM attributed to transmission limitations.

PJM procured 144,871 MW of resources for the year beginning June 1, 2023. Including the fixed resource requirement (FRR) obligation of 31,346 MW, the RTO will have a 20.3% reserve margin, well above its 14.8% requirement.

PJM’s total capacity bill for the year is \$2.2 billion, down from about \$4 billion for the 2022/23 delivery year. It was the second year in a row that capacity prices have fallen, follow-



Capacity prices in most of PJM dropped by one-third to almost one-half in the Base Residual Auction for 2023/24. | PJM

ing last year’s sharp drop. (See *Capacity Prices Drop Sharply in PJM Auction.*)

“I did not see anything in this auction that was, ‘Wow. I didn’t expect that to happen!’” PJM

Senior Vice President of Market Services Stu Bresler said at press conference to announce the results June 21. “I think the prevailing wisdom out there was that we were going to see lower clearing prices in this auction than we had in the last auction ... given some of the rule changes; given some of the external things that have occurred in various states in PJM. I just don’t think any of us were really surprised by many of the results.”

Nuclear Resurgence, New Gas and Solar

Nuclear plants were big winners in the auction, clearing an additional 5,315 MW than last year.

Solar resources increased 25% to 1,868 MW, while wind resources cleared only 1,294 MW, a reduction of 434 MW, as fewer resources participated.

Natural gas resources cleared an additional 1,685 MW, with more efficient combined cycle units boosting their share by 3,627 MW and less efficient combustion turbines falling 1,012 MW. Combined cycle units cleared a total of 48,030 MW in the auction, and CT units cleared 19,080 MW.



BRA clearing prices (\$/MW-day) | © RTO Insider LLC using PJM data

PJM News



Cleared capacity of steam units (primarily coal) dropped by 7,186 MW to 27,682 MW, reflecting a decrease of 7,813 MW offered into the auction because of plant retirements.

Energy efficiency resources jumped 660 MW to 5,471 MW, while demand response dropped 716 MW to 8,096 MW.

Hydro dropped from 4,157 MW to 3,677 MW.

New Variables

Bresler noted several rule and timing changes that may have impacted the results.

It was the first auction using the less restrictive MOPR, which was applied to only seven resources totaling 76 MW that had failed to file for exemptions in time.

The auction also used a lower unit-specific market seller offer cap to counter market power and a historical, rather than a forward-looking, energy and ancillary services revenue offset.

“I think the prevailing wisdom is that the impact of this implementation of the very narrow, less restrictive minimum offer price rule could

have had a downward impact on prices in this auction,” Bresler said.

The replacement of the net cost of new entry-based offer cap with a unit-specific cap based on net avoidable costs “could have served to reduce the offer prices that some resources would have offered into this auction,” he added. “However, in both of these cases ... it’s extremely difficult, if not impossible, for PJM to say what resources would have offered if they hadn’t offered what they did. It would be purely speculative. So we don’t know the magnitude of any impacts.”

Also new was the application of the effective load-carrying capability method for determining the capacity value of wind, solar and storage resources.

“It could result in a lower capacity value for certain resources,” he said, suggesting it might have impacted the reduction in wind generation offerings.

Futures Prices

Bresler said spark spreads and dark spreads – respectively, the difference between the wholesale market price of electricity and its

cost of production using natural gas and coal – have increased, especially in the forward markets. “You would expect, if market sellers are anticipating higher net revenues in the energy market, that they will be able to offer less into the capacity market,” he said.

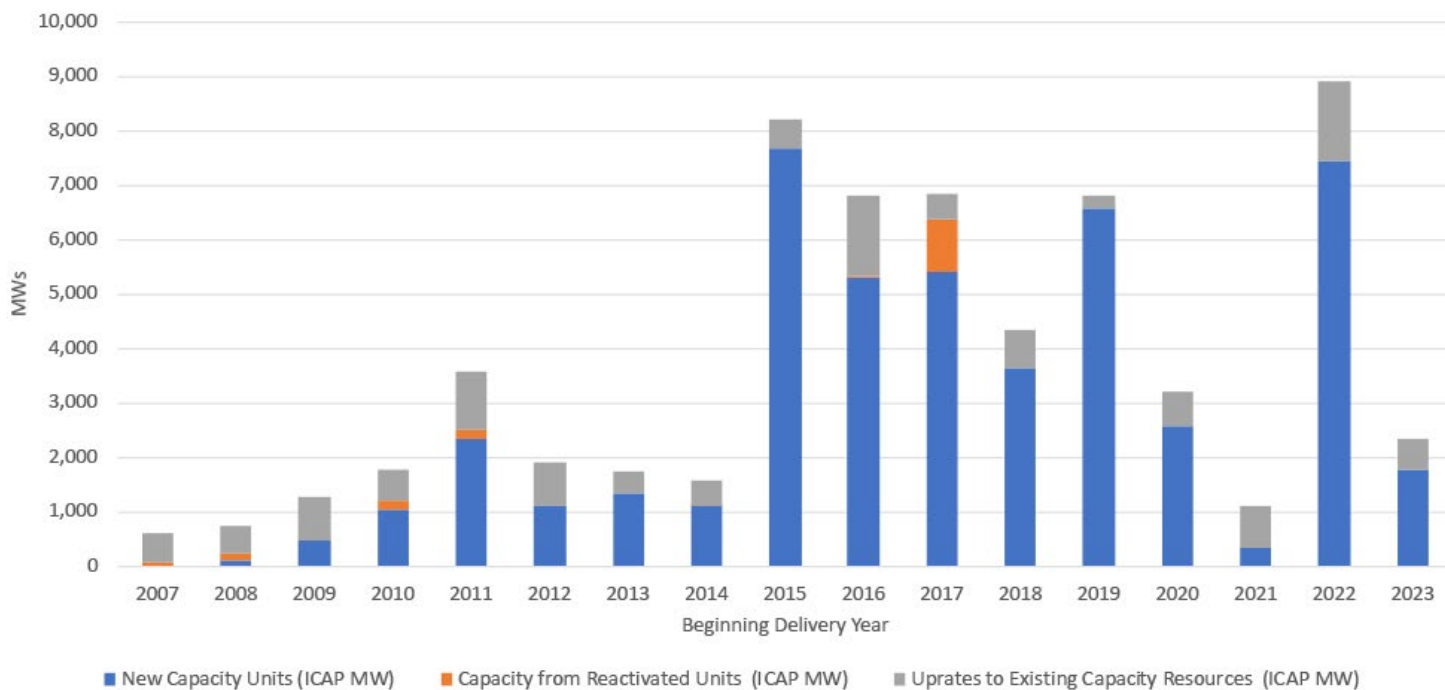
Timing

Bresler said the reduction in demand response could have been a result of the shortened auction timeline.

The 2023/24 auction was originally scheduled for May 2020 but was delayed while FERC considered approval of new market rules, leaving only a one-year lead time to the delivery year instead of the usual three.

“Most of the time we’re [three] years in advance; even the last auction was more than a year in advance of the delivery year, which gives curtailment service providers the opportunity to offer planned demand response that they can then ... go out and sort of sell to customers.”

The next BRA, for the 2024/25 delivery year, will be held in December to return to a three-year-forward basis. ■



New capacity offered by year | PJM

PJM News



Low PJM Capacity Prices No Bargain, Coal & Gas Generators Say

Constellation, Vistra Report on Auction Results

By Rich Heidorn Jr.

Groups representing gas- and coal-fired generators said Wednesday that the sharp price drop in PJM's 2023/24 capacity auction is a continuation of trends that threaten the RTO's long-term reliability.

PJM on June 21 reported that its capacity bill for the year will be \$2.2 billion, down from about \$4 billion for the 2022/23 delivery year. It was the second year in a row that capacity prices have fallen, with Rest of RTO clearing at \$34.13/MW-day, the third-lowest in the history of the Base Residual Auction. PJM said the results were likely depressed by the effective elimination of the minimum offer price rule (MOPR), a tougher cap on generator prices and robust forward energy prices. (See related story, *PJM Capacity Prices Crater.*)

"While the auction's low capacity clearing price represents a savings for customers in the short term, these results portend real concerns over adequate compensation for resources needed to support reliability in all conditions and looking forward," the Electric Power Supply Association said in a statement. "What appears to be developing is a trend where the addition of new supply resources is far outpaced by the retirement of resources that can deliver reliable power in the PJM BRA. Oversimplify-

ing the results of the auction by cheering the lower price for capacity fails to recognize that there is a cost to ensuring the delivery of reliable power, and the most cost-effective way to deliver it is through well functioning markets, not from picking winners and losers among the resources that participate."

EPSA said PJM's market rules are undermining capacity price signals, calling on the RTO to "avoid rule changes intended to accommodate specific preferred resources or technologies."

"The desire by some to defer to the policy choices of 13 states and D.C. to dictate the regional resource mix may seem sound but, in reality, threatens the reliability framework to which consumers of all types have become accustomed and expect as a part of their daily lives," EPSA said.

The PJM Power Providers (P3) Group, which represents more than a dozen merchant generators in the RTO, was similarly critical.

"The auction-clearing prices are among the lowest they've ever been, so the compensation that generators will receive to commit to serving PJM's region next year is greatly reduced," P3 President Glen Thomas said in a statement. "However, the requirements they will commit to are more rigorous than ever. Increased obligations for decreased compensation is an in-

centive to leave the market rather than retain existing resources or attract new ones that will help maintain reliability going forward."

EPSA and P3 members hold large portfolios of natural gas-fired generation.

Nuclear in the Money

Nuclear plants were big winners in the auction, clearing 5,315 MW more than last year. Solar resources increased 25% to 1,868 MW, while wind resources dropped by 434 MW. Natural gas resources cleared an additional 1,685 MW, while cleared capacity of steam units (primarily coal) dropped by 7,186 MW to 27,682 MW, reflecting a decrease of 7,813 MW offered into the auction because of plant retirements.

Coal trade group America's Power said the auction will likely cause more coal retirements.

"PJM's coal fleet was already expected to decline by half (more than 24,000 MW of announced coal retirements by 2030) even before the auction," CEO Michelle Bloodworth said in a statement. "In addition, EPA regulations are expected to cause even more coal retirements, especially during the 2026-2028 time frame."

Bloodworth reiterated the group's request that PJM study how its reliability would be affected if half or more of its coal fleet retires by 2030, saying more coal retirements could also cost ratepayers when gas prices spike.

"We continue to urge PJM and other grid operators to value the reliability, resilience and affordability attributes of coal," Bloodworth said. "Doing so would help put coal on a more level playing field with other resources that are receiving federal and state subsidies."

Impacts Debated

At a press conference announcing the results last week, PJM Senior Vice President of Market Services Stu Bresler noted several rule and timing changes that may have impacted the results, including the effective elimination of the MOPR, the use of a lower unit-specific market seller offer cap (MSOC) to counter market power and a historical, rather than a forward-looking, energy and ancillary services revenue offset. Bresler cautioned that because the RTO had not done any modeling, "we don't know the magnitude of any [price] impacts."

The less restrictive MOPR was applied to only seven resources totaling 76 MW that had



All of Constellation Energy's 16,175 MW of nuclear capacity cleared in PJM's 2023/24 capacity auction, including the Byron, Dresden (pictured) and Quad Cities plants in Illinois, which were left out of the money last year. | American Nuclear Society

PJM News



failed to file for exemptions in time, Bresler said.

“Revisions demanded by FERC have virtually eliminated the MOPR, and it now fails in its purpose to prohibit subsidized resources from both suppressing the clearing price for resources who do not enjoy the benefit of a subsidy and preventing those otherwise economic resources from clearing,” P3 said.

The group said the elimination of the default MSOCs “promoted by proponents as necessary to protect against the potential to inappropriately influence prices, instead ... forced suppliers to use unit-specific calculations of anticipated revenues from the energy and ancillary services markets to determine their necessary capacity market revenues while also prohibiting those calculations from accounting for the costs and risks of accepting a capacity obligation to operate when so directed by PJM.”

Jeff Dennis, managing director and general counsel of Advanced Energy Economy (AEE), offered a different take.

“There will be unfounded speculation that removal of the expanded MOPR caused the

low prices; but past auctions run without an expanded MOPR produced even lower prices,” he tweeted. “PJM has been oversupplied for years; oversupplied markets produce low prices.”

He also expressed dismay at the increase in natural gas clearing the market, saying gas capacity is *overvalued* because of PJM’s use of an “outdated methodology” compared with the effective load-carrying capability (ELCC) used to value renewables.

P3, however, contended that the capacity capability provided by wind and solar is “overstated” even with ELCC.

“PJM’s proposed solution to rectify this issue is under dispute because it assumes utilization of extra room on the transmission system that should be available to all system users,” P3 said.

Constellation, Vistra Report on Auction Results

All of Constellation Energy’s nuclear-, natural gas- and oil-fired generation in PJM (18,775 MW) cleared in the auction, the company said in a [filing](#) with the U.S. Securities and

Exchange Commission.

That included all 16,175 MW of its nuclear capacity, up from 9,900 MW last year, when the Byron, Dresden and Quad Cities plants in Illinois were left out of the money.

Exelon spun Constellation — including its generation and competitive energy operations — off as a standalone company in February to focus on its regulated utilities.

Vistra [reported](#) it cleared 6,868 MW at a weighted average clearing price of \$37.20/MW-day, a total of \$94 million.

It said it also expects incremental revenue of \$70 million to \$75 million from existing retail and other third-party bilateral sales above the auction clearing price, for total estimated revenues of \$164 million to \$169 million.

Public Service Enterprise Group, owner of the Salem and Hope Creek nuclear plants in New Jersey, and Energy Harbor, which operates nuclear plants formerly owned by FirstEnergy Solutions, did not respond to requests for comment. Talen Energy declined to comment on whether its Susquehanna nuclear plant cleared. ■

PJM MRC/MC Preview

Below is a summary of the agenda items scheduled to be brought to a vote at the PJM Markets and Reliability Committee and Members Committee meetings Wednesday. Each item is listed by agenda number, description and projected time of discussion, followed by a summary of the issue and links to prior coverage in *RTO Insider*.

RTO Insider will be covering the discussions and votes. See next Tuesday’s newsletter for a full report.

Markets and Reliability Committee

Endorsements (9:10-9:40)

[1. Service on PJM for Rate and Waiver Filings under Governing Agreements \(9:10-9:30\)](#)

Members will be asked to approve an issue charge addressing service to PJM of members’

tariff rate and waiver filings under the RTO’s governing agreements.

The change would require PJM be served when members and interconnection customers file with FERC rate tariff filings, service agreement filings or settlements under the agreements. PJM said the change is needed to ensure the RTO can intervene and participate in such proceedings to protect the interests of members and markets.

[2. Operating Committee Charter \(9:30-9:40\)](#)

Stakeholders will be asked to approve revisions to the Operating Committee charter.

The revised charter adds the phrase “reliability attributes and pertinent conditions” to paragraph 7, pertaining to the committee’s role in reviewing and recommending operating practices and procedures concerning system reliability.

Members Committee

Consent Agenda (1:40-1:45)

[B. Endorse proposed revisions to update the process timing for generation deactivations in Part V and Attachment M of the tariff.](#)

Members will be asked to endorse changes to the rules regarding the timing of its reliability reviews for generator deactivations.

PJM says the current deactivation rules are “inefficient and unsustainable” because each response is due 30 days after notification and the tariff does not provide additional time for multiple requests. Under the proposed changes, PJM would study retirements in four batches per year (beginning Jan. 1, April 1, July 1 and Oct. 1) and provide reliability notifications by the end of February, May, August and September. ■

— Rich Heidorn Jr.

PJM News



NJ Bill Would Offer Help to Delayed Solar Projects

But Automatic Deadline Extension Raises Fear of Incentive Cost Hikes

By Hugh R. Morley

A New Jersey bill designed to help solar developers who say that delays beyond their control are threatening the viability of some projects has raised concerns about the costs to ratepayers.

The bill, which the Senate Energy and Environment Committee backed 5-0 on June 9, would automatically extend the completion deadline for qualified projects. The extension would be available for projects that are in danger of failing to be completed by the designated deadline because of a “tolling” event and would continue as long as the event continues.

The definition of a “tolling event” includes: any action or inaction by PJM or an electric utility; a PJM or utility moratorium on new applications; any “new application process, study, report or analysis established” by the RTO or a utility; or an “undue” delay caused by local government planning board or other entity in supplying a required permit.

The bill, [S2732](#), would cover 33 projects — mainly on landfills and brownfields — that together would total 500 MW, says Sen. Bob Smith (D), one of two bill sponsors and the committee chairman.

The bill touches an ongoing concern among solar developers that New Jersey projects can be derailed, and deadlines broken, by factors beyond their control, such as equipment delays stemming from supply chain issues, labor shortages, delays in getting municipal permits and difficulties getting projects connected to the grid.

“These problems have been devastating to the industry,” Lyle Rawlings, president of the Mid-Atlantic Solar & Storage Industries Association, told a hearing into the bill. “They’ve caused delays; they’ve caused tremendous price increases ... it could be an existential threat to some businesses if they are not provided relief.”

The problem is complicated by a reshaping of the state’s solar incentive programs by the Board of Public Utilities (BPU) in recent years as it has sought to reduce the cost to ratepayers of solar subsidies, which has increased the consequences of a project missing a completion deadline. The BPU in May 2020 replaced the state’s long-time solar incentive program, the Solar Renewable Energy Certificate



Navisun's 4.5-MW Linden Hawk Rise community solar project, located on a former landfill site in Linden, N.J. | Navisun

(SREC) program, which paid about \$250/MWh, with the temporary Transition Renewable Energy Certificate (TREC) program, which granted incentives of \$90 to \$150/MWh. In July, the TREC program ended and was replaced by the Successor Solar Incentive (SuSi) program, which pays incentives of \$70 to \$100/MWh depending on the project.

The changes mean that a project with a TREC incentive that fails to meet its completion deadline could lose the incentive and have to apply for another under the less lucrative SuSi program. The only remedy would be to apply for a deadline extension to the BPU, which has been reluctant to grant extensions.

Evaluating such extension requests, the BPU has to consider, for example, whether the delay is genuinely because of circumstances beyond the developer’s control, or the applicant’s project was from the beginning unlikely to make the deadline and they are seeking to remedy the problem with an extension.

During the hearing, Smith recounted that the BPU told him that about 75% of the 4,000 applications for TREC incentives were “bogus, meaning that it was just somebody putting in a slip to keep their name in line for a TREC, but not necessarily with any intention to build.”

The proposed legislation, however, would remove the need for a BPU deadline extension

and instead grant qualified applicants an “automatic extension.”

Extension Questions

In a June 8 letter to the committee, the New Jersey Division of Rate Counsel opposed the bill, saying it “will inevitably result in increased rates for utility ratepayers.”

The bill would remove the BPU’s ability to deny extensions and prohibit it “from even investigating the factual accuracy of the certification” by a developer claiming that a tolling event had delayed its project, the Rate Counsel said. The legislation also would prevent the board from setting the length of an extension, if it concluded one was warranted, and replace its expertise in judging whether a project deserved the extension with an automatic extension award, the agency said.

That would enable projects to continue, and eventually receive incentives, that otherwise would fail because they otherwise would not meet the deadline, the counsel said.

“It would eliminate the board’s ability to enforce any deadlines and result in the payment of substantial excess incentives,” it said. “And since ratepayers ultimately fund these financial incentives, this bill will increase utility rates.”

Developers testifying before the committee,

PJM News



however, outlined the kind of scenarios that highlight the need for the legislation.

Melissa Sims, owner of Ecological Systems, a Manalapan-based solar development company, said she has two projects underway that will be finished within the deadline, except that each will be missing a small part. In one, she has waited several months for a circuit breaker that she was initially told would take 70 days to arrive.

Sims said she feared that because of the delay, she will fail to meet the deadline of the TREC grant awarded for the project.

“I cannot stress enough how serious and devastating it will be for anyone who has a solar project under construction who is experiencing these types of delays,” she said. “If I don’t have the breaker, I can’t call for my electrical inspection. And if I can’t call for my electrical inspection, I can’t get permission to operate from the utility. And if I can’t get permission to operate from the utility, I can’t get my TREC.”

Joshua Lewin, president of Helios Solar Energy, said he also has two projects in jeopardy because of similar problems, including a 1-MW project in Millville that could miss the completion deadline because he is still waiting for the arrival of the main distribution panel, which was ordered last July. He estimated that the customer would lose about \$780,000 in revenue if the delay causes the project to miss its completion deadline.

“We’re constantly re-engineering some of the one-line diagrams and pieces of equipment to try to accommodate what might be available in the next couple of weeks or a couple of months,” he said. “But there are items that are just unavailable.”

Connection Obstacles

Business groups — among them the New Jersey Business and Industry Association and the South Jersey Chamber of Commerce — support the bill, as do environmentalists, including the New Jersey league of Conservation Voters.

Smith said the delays mean that New Jersey is “not keeping its promises” to provide a transition period between the SREC and the SuSi program, because developers find they can’t meet the deadlines of the temporary TREC program, which was meant to soften the transition.

“We said we would do lower [incentives] to have a transition, ultimately, to no subsidies,” he said. “But we were not performing.” Instead, he said, developers and their customers — through no fault of their own — face the loss of those incentives because of delays, and “we’re just saying, ‘Hey, tough, tough on you.’”

Lengthy delays connecting new projects to PJM are also common. The RTO said in February that it had 220 GW of capacity in the queue, of which renewables made up 95%. (See [PJM Files Interconnection Proposal with FERC.](#))

“This is not an issue with New Jersey; this is an issue with PJM,” Doug O’Malley, director of Environment New Jersey, told the Senate Energy and Environment Committee as he offered support for the bill on June 9. “PJM is essentially throwing up the red stop sign and saying ‘do not proceed with solar,’ and that’s creating massive problems for the projects that have been teed up.”

The difficulty of connecting solar projects in the state to the grid is also well known. In May developers, testifying in support of a bill that would levy a fee that would raise funds to modernize the grid, said the grid is so old and its capacity so limited that new projects can’t be connected in some areas of the state. (See [Solar Developers: NJ’s Aging Grid Can’t Accept New Projects.](#))

Awaiting Permission

A recent case before the BPU at its June 8 meeting, the latest in a series of deadline extension requests, highlighted the difficulties.

Project developer ESNJ-Key-Gibbstown, seeking to finish a 1.38-MW carport solar project located in Gibbstown, in South Jersey, had received three extensions since the project was approved for TREC incentives in June 2020.

It then sought an additional extension to move the deadline to Dec. 31 because of the inability to connect the project to the grid through Atlantic City Electric (ACE).

The developer, according to the BPU order on the case, had “completed construction,” had a conditional permit to operate and was “capable of being fully energized and connected to the grid.” However, the order said, the developer could not get ACE to deliver the project’s full capacity to the grid because “ACE has not yet completed onsite upgrades necessary to allow interconnection for the full capacity of the project.” As a result, the project could only operate generating 50 kW.

The order said that BPU staff have “traditionally been reluctant to recommend that the board provide extensions for solar projects that miss their expiration dates because of supply chain issues, general interconnection processing delays and other factors that, while regrettable, do not rise to the level of warranting an extension.” Yet the staff recommended a deadline extension, and the board approved it.

“This does not appear to be a case of a project coming into the [TREC] program with an underdeveloped project development plan,” staff concluded, noting that the developer had done “everything in its power to complete its project” by the April deadline.

BPU President Joseph Fiordaliso said the board’s decision “struck the necessary balance of fairness to applicants whose projects are otherwise complete with a strong interest of the ratepayer who should always receive what they pay for, no more and no less.”

Still, he said, the case highlights the difficulties facing the state.

“When we’re talking to executives from utility companies, we are constantly talking about interconnection,” he said. “If anything keeps me awake at night, it is the fact that we’re going to have wind turbines out there; we have solar programs out there, and there’s no place to plug them in.” ■

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PJM News



FirstEnergy's Top Executives Face Job Reviews

Board of Directors Creates Special Review Committee

By John Funk

Top FirstEnergy executives are facing job performance reviews as required by the March settlement of several shareholder lawsuits alleging that the company was damaged by secretly funding a scheme to bribe Ohio politicians for nuclear power plant subsidies.

In a U.S. Securities and Exchange Commission [filing](#) June 15, the board announced it had formed a "special review committee" of directors to assess the performance of current top executives and report to the full board by mid-September.

The SEC filing did not identify what it described as "current C-suite executives," which typically include a company's CEO, CFO and COO. The company's website identifies its current [leadership team](#) as having nine members, including a member of the board. A company spokeswoman said the committee will determine whose job performance it will evaluate.

The shareholder settlement also required the resignations of six longtime members of the company's board of directors and a reconstituted board, elected in May, to oversee the company's future lobbying. (See [FirstEnergy Shareholder Settlement: 6 of 16 Board Members Must Leave](#).)

CEO Steven Strah was appointed in March 2021 after serving about six months as president and acting CEO. Strah began his FirstEnergy career at The Illuminating Co. in 1984.

CFO Jon Taylor was promoted to his position in May 2020 and given expanded responsibilities in August 2021. Taylor joined the company in 2009.

Samuel Belcher, senior vice president of operations, oversees FirstEnergy's regulated electric utility operating companies in Ohio, Pennsylvania, New Jersey, West Virginia, Maryland and New York, as well as the company's high-voltage transmission system. He

joined the company in 2012.

In July 2021, FirstEnergy agreed to pay a \$230 million fine in a deferred prosecution [agreement](#) with the U.S. Justice Department. By signing the agreement, the company admitted it conspired with former Ohio House Speaker Larry Householder and his associates by secretly contributing millions of dollars to a 501(c)(4) charity Householder allegedly used to fund efforts to win passage in 2019 of a nuclear bailout bill, H.B. 6, and then defeat a referendum petition drive to allow voters to decide the issue.

Former FirstEnergy CEO Charles Jones publicly admitted the company contributed about \$60 million to the charity. Ohio lawmakers later revoked the bailout.

Jones and several other top executives were fired. Householder, expelled from the House, has pleaded innocent and faces a trial in January 2023. Two of his associates pleaded guilty and await sentencing. ■



FirstEnergy's Akron, Ohio, headquarters | [DangApricot](#), CC BY-SA-3.0, via Wikimedia

Company Briefs

Solar Developers Pledge \$6B to Boost US Manufacturing

A group of large U.S. solar developers, including AES, Clearway Energy Group, Cypress Creek Renewables and D.E. Shaw Renewable Investments, last week committed to spend more than \$6 billion on domestically produced equipment to help build the nation's panel-making industry.

The group is seeking manufacturers that will be able to supply as much as 7 GW of modules annually starting in 2024. Last year, 4.8 GW of panels were produced in the country, according to the National Renewable Energy Laboratory.

About 24 GW of solar capacity was installed last year, according to estimates.

More: [Bloomberg](#)

LEGO Group to Build \$1B Carbon-neutral Factory in Virginia



The LEGO Group recently announced plans to invest more than \$1 billion to build a new, carbon-neutral factory in Chesterfield County, Va.

The factory will receive 100% of its day-to-day energy needs from an onsite solar park.

Construction is expected to begin in the fall with production slated to start in the second half of 2025.

More: [LEGO](#)

ACEG Names New Leadership

Americans for a Clean Energy Grid (ACEG)



Americans for a Clean Energy Grid

last week named Christina Hayes as

its first full-time executive director, effective July 5.

Hayes, an ACEG board member, will join the organization from Berkshire Hathaway Energy, where she is currently vice president for federal regulatory affairs. Hayes was an attorney with FERC before joining Berkshire Hathaway.

ACEG also announced that Rob Gramlich, who has served as executive director since 2020, will continue with the organization and its transmission policy work as its senior policy director. David Gardiner will also continue in his role as senior advisor.

More: [ACEG](#)

Federal Briefs

Mountain Valley Pipeline Seeks 4-Year Extension



In a letter to FERC on Friday, Mountain Valley Pipeline requested it be given until 2026, to complete a 303-mile pipeline that was proposed in 2014.

Court rulings striking down government-issued permits for the pipeline, prompted by lawsuits from environmentalists, have made it so that construction will not be completed by Oct. 13, a deadline set two years ago by FERC. Although Mountain Valley is seeking another four years, spokeswoman Natalie Cox said the joint venture of five energy companies still hopes the pipeline will be in service by late next year.

When plans were first announced for the pipeline, the goal was to have it completed by the winter of 2018 at a cost of \$3.7 billion. Since then, the projected cost has grown

to \$6.6 billion with the expected completion date having been pushed back more than a half-dozen times.

More: [The Roanoke Times](#)

EPA Objects to Air Pollution Permit for Alabama Coal Plant



The EPA last week formally objected to an air pollution permit issued by the Alabama Department of Environmental Management, sending it back to the state

for revisions and more detailed explanations of how the existing permit will ensure compliance with the Clean Air Act and other regulations.

The EPA last week granted parts of a petition filed by Alabama environmental groups protesting the Title V air pollution permit for Alabama Power's James M. Barry Electric Generating Facility, ordering ADEM to add more detailed explanations about the permit and to add a fugitive dust plan to address dust escaping from the site. The agency denied the parts arguing the air pollution permit for the plant was insufficient to ensure compliance with National Ambient Air Quality Standards for sulfur dioxide but granted the request for a formal objection on the grounds that the ADEM permit "is insufficient to explain" how the emissions

limits would ensure that those limits aren't exceeded.

ADEM Air Division Chief Ron Gore said the department has 90 days to address the issues specified in the order.

More: [Alabama.com](#)

Virginia Landowners Lose Legal Fight over Pipeline's Eminent Domain Power

The U.S. Circuit Court of Appeals for the District of Columbia last week ruled that a district court in Washington, D.C., lacked jurisdiction to hear the case centered around Mountain Valley Pipeline's use of eminent domain and upheld a judge's dismissal of a lawsuit.

A few Montgomery County residents challenged Mountain Valley's use of eminent domain to take their land after they refused the company's offer to purchase an easement it needed for the pipeline. The landowners argued that Congress improperly allowed FERC to give eminent domain powers to private ventures once their projects were approved, which the commission did for Mountain Valley in 2017. The Natural Gas Act requires lawsuits such as this to be filed in a federal appellate court, the judges ruled.

More: [The Roanoke Times](#)

State Briefs

REGIONAL

Penn. PUC Chairman Dutrieuille Elected President of MACRUC

Pennsylvania Public Utility Commission Chairman Gladys Brown Dutrieuille last week was elected president of the Mid-Atlantic Conference of Regulatory Utilities Commissioners.

Dutrieuille also serves on the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC). She is a member of its Critical Infrastructure Committee and serves as the chair of the Black Sky Subcommittee under NARUC's Emergency Preparedness, Recovery and Resiliency Task Force.

More: [PA PUC](#)

ARIZONA

Phoenix Celebrates EV Roadmap

The Phoenix City Council last week unanimously passed the Transportation Electrification Action Plan, also known as its "EV Roadmap," with a goal to place 280,000 EVs on the streets by 2030.



Mayor **Kate Gallego** gathered with city leaders at the Nikola Battery and Electric Vehicle Plant and thanked the company for its partnership in the EV rollout.

More: [KNXV](#)

CALIFORNIA

PG&E Expands Instant Power Shutoff Program



Pacific Gas & Electric last week said it has expanded its instant power line shutoffs to cover more high-risk areas.

After this year's expansion, PG&E said the program covers 1,000 circuits, 25,000 miles of distribution lines in high-risk areas, and about 3 million people. The utility's safety settings turn off power to a circuit "within one-tenth of a second" of a fault. The instant shutoffs differ from public safety power outages, which are instituted during high winds and other dangerous fire conditions.

So far this year there have been 205 outag-

es on circuits covered by the program, with an average restoration time of 3.5 hours, the company said.

More: [Los Angeles Times](#)

COLORADO

Xcel Cleared to Collect \$500M from Residents for 2021 Winter Storm



The Public Utilities Commission last

week approved Xcel Energy's plan to collect \$500 million from its customers to cover the costs of natural gas during a winter cold snap in 2021.

The cost recovery, which will take place over the next 30 months, will be divided between electricity and gas bills, with the average electricity bill rising 2% (\$1.43) and average gas bill increasing by 11% (\$5.67). These follow a 6.4% increase in electricity bills in April. Xcel is also seeking an \$188 million increase in gas rates, which would, over three years, add \$8.14 to the average gas bill.

Although it approved the measure, the PUC chopped an \$8 million penalty off the \$509 million settlement figure recommended last month by an administrative law judge and sharply criticized Xcel's handling of the natural gas price spike and its failure to warn customers to curb their energy use.

More: [The Colorado Sun](#)

FLORIDA

Florida Power & Light Halts Disconnections Due to Heat

Florida Power & Light last week said it will not disconnect customers who fall behind on their bills as temperatures in the area hit triple digits.

The WKRG News 5 Weather Team has issued a heat advisory for the last two weeks.

The utility encouraged its customers to reach out if they need financial assistance.

More: [WKRG](#)

GEORGIA

Co-owners Sue Georgia Power in Vogtle Contract Dispute

Oglethorpe Power and the Municipal Electrical Authority of Georgia, majority owners

of the Vogtle nuclear power plant which is being expanded, last week sued lead owner Georgia Power, claiming the company is trying to defraud them of nearly \$700 million by changing a contract.

Oglethorpe and MEAG say Georgia Power should already be paying higher shares of construction costs under a 2018 agreement. Oglethorpe announced it will freeze its costs and force Georgia Power to pay for additional overruns in exchange for part of Oglethorpe's ownership, saving Oglethorpe a projected \$400 million. However, Georgia Power says the base construction cost should be \$18.38 billion and that the cost overrun agreement doesn't kick in until shared costs reach \$20.48 billion.

More: [The Associated Press](#)

LOUISIANA

Entergy Cancels Planned Outages Amid Heat Wave



Entergy last week announced it will cancel its pre-planned outages in New Orleans due to extreme heat.

Entergy had 18 planned outages for upgrades and repairs the week of June 20 that would have impacted 865 customers during the hottest temperatures of the week. Because of the dangerous heat, Entergy decided to cancel the work.

More: [WVUE](#)

MISSISSIPPI

PSC Reaches \$300M Settlement with Entergy

The Public Service Commission last week reached a \$300 million settlement with Entergy over litigation the PSC initiated in 2017 about the utility's inflated return on investments from the Grand Gulf Nuclear Power Station that led to over-profiting and rate increases.

Some of the settlement, which was the largest ever reached by state regulators, will be used for \$80 billion credits or cash payments to Entergy's 461,000 customers. The PSC will also use the settlement to offset future fuel price increases caused by volatility in global markets.

More: [The Associated Press](#)

NEBRASKA

OPPD Delays Power Plant Retirement, Fuel-switch Plans



The Omaha Public Power District last week announced it plans to delay the retirement of North Omaha Station units 1-3 and fuel conversion of units 4 and 5 from low-sulfur coal to natural gas.

OPPD said the delay is only until the utility's new natural gas generation balancing stations are fully approved for grid interconnection service by FERC and administered by SPP. OPPD's board previously approved the changes for the end of 2023, however the new natural gas-fired plants are expected to enter service in 2026.

OPPD retired North Omaha units 1-3 from coal operations in 2016. Today, these units are available to run on natural gas, serving as peaking units.

More: [Power Engineering](#)

NORTH CAROLINA

High Winds, Thunderstorm Knock Out Power to 28,000



High winds from part of a line of thunderstorms that passed through much of the state last week toppled trees in Winston-Salem and caused more than 28,000 outages.

Duke Energy reported that 10,746 of its customers in Forsyth County and 15,245 of its customers in Guilford County were without electricity. In addition, Duke and Blue Electric Membership reported that 2,350 of its customers lost power in Stokes, Surry, Wilkes, Yadkin, Watauga, Ashe and

Alleghany counties.

More: [Winston-Salem Journal](#)

Supreme Court Rules in Favor of Solar Access, Against HOA



The state Supreme Court last week sided against a Raleigh homeowners association and in favor of a resident, allowing him to keep rooftop solar panels that have been a source of contention since 2018. The 4-3 opinion settles a long-running feud between HOAs and would-be solar owners over the exact meaning of a 2007 solar access law, giving planned communities less power to deny rooftop solar than many have been asserting.

Though its rules don't mention solar, the Belmont Community Association argued an exception in the law gave its architectural committee broad authority to prevent panels visible from the street. On the other side, Tom Farwig contended that the law required any HOA ban on street-facing panels like his to be explicit.

Installers and advocates say the law could be improved by eliminating the ability to limit street-facing solar altogether and specifying HOAs can't dictate any placement that would cause more than a 10% drop in productivity. House Bill 842, which passed the House last year and is eligible in the Senate, would do that.

More: [Energy News Network](#)

TEXAS

San Antonio OKs CPS Energy's Energy Efficiency Program

The San Antonio City Council last week voted 7-3 to approve an extension for CPS Energy's energy efficiency program for another five years at roughly the same cost to customers.

Originally launched as the "Save for Tomorrow Energy Program," STEP has saved about 1,000 MW in demand since the program began in 2009, the utility said.

The new goal CPS Energy has set is to reduce demand by 410 MW at a cost of roughly \$350 million by July 31, 2027. That equates to about \$3.50 on the average monthly bill, which is roughly what customers already pay for the program.

More: [San Antonio Report](#)

VIRGINIA

Surry County Rejects Solar Farm

Surry County supervisors two weeks ago rejected a 20-MW solar farm proposed by Pine Gate Renewables.

The denial aligns with the Surry County Planning Commission and its recommendation to reject Pine Gate's requested comprehensive plan amendment, rezoning and conditional use permit. The commission deemed the project in conflict with a provision of Surry's 2040 Comprehensive Plan and an ordinance supervisors adopted in 2018 pertaining to solar farms, which states that solar facilities should "not visually impact scenic and cultural resources," while the ordinance further requires solar farms to "avoid important historic, archaeological or cultural sites."

More: [The Smithfield Times](#)

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