

RTO Insider

Your Eyes and Ears on the Organized Electric Markets
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Cybersecurity, Climate Change Lead FERC Conference *Attendees Discuss Top Reliability Challenges*

By Holden Mann, Michael Brooks and Michael Kuser

Stakeholders from across the energy industry met Thursday at FERC's annual Reliability Technical Conference to discuss the most pressing issues affecting the reliability of the electric grid.

"It's not an overstatement to say lives [are] literally at stake. All you have to do is look at what happened in Texas this past February ... and then more recently in Louisiana in the aftermath of Hurricane Ida," FERC Chairman Richard Glick said in



FERC Chairman
Richard Glick | FERC

his opening remarks. "People literally can die when the power goes out, especially for an extended period."

Slow Pace of Standards Process Criticized

The day's first panel focused on NERC, with participants debating the adequacy of the organization's reliability standards to address the "two major threats to grid reliability" that Glick identified: climate change and cybersecurity. While many participants praised NERC and its staff for their efforts to enhance reliability, they warned that the organization's current approach may need to change to keep up with the evolving threat landscape.

The current standards process "has a built-in bias toward conservatism" because of the influence of "the very industry members who

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Senate Hearing on FERC Jurisdiction Focuses on Everything Else (p.3)

NOLA Mayor Calls for Changes in Entergy Grid Planning

By Amanda Durish Cook

New Orleans Mayor LaToya Cantrell appears to be in lockstep with the city council's desire for a more resilient electric grid following Hurricane Ida's destruction.

Cantrell, a speaker during Wednesday's virtual session of North America Smart Energy Week, used the opportunity to call for grid reinforcements, new transmission lines, microgrids and renewable energy. The event was originally slated to be held in New Orleans but was forced into a virtual format by Hurricane Ida.

Cantrell's comments follow the New Orleans City Council's recent ask for regulatory investigations into Entergy's transmission planning and commission of a study of a new utility structure for the city. (See *New Orleans Seeks FERC Inquiry into Entergy Planning Practices and Facing City Council Inquiry, Entergy Says it Could Sell New Orleans Utility Arm.*)

Cantrell refrained from using Entergy's name, but she said the 12 hours Ida spent over the

city made clear that the grid needs work to prevent future storm-driven outages. She said while the city's levees and sewerage authority "held the line," the city's energy infrastructure did not fare well.

"We saw that our investments in our levees and infrastructure protected the city from flooding," she said. "At the same time, though, with the entire city losing power, we saw that our electric grid is in need of much, much investment."

Cantrell called for a transmission buildout and localized renewable resources.

"Our power infrastructure should definitely include a mix of regional transmission and planning and local generation ... That's what we saw and learned firsthand," she said. "And we must include ... renewable energy in the planning so that New Orleans truly can be more resilient and sustainable."

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Texas Market Taking Winterization Seriously this Time



Frozen instrumentation at an Entergy power plant | Entergy

By Tom Kleckner

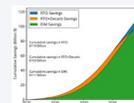
Kicking off the Texas Reliability Entity's annual winter weatherization workshop last week, CEO Jim Albright noted a "renewed focus by all of us on winter weather."

That's no surprise, given the February winter storm that drove the ERCOT grid to the brink of collapse and led to human and financial suffering across Texas. A joint inqui-

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NetZero Insider is now live!
 See p.42 for this week's coverage.

FERC/Federal News



Senate Hearing on FERC Jurisdiction Focuses on Everything Else GOP Senators Gripe About Biden Energy Policies, CEPP

By Michael Brooks

The Senate Energy and Natural Resources Committee gathered all four FERC commissioners to its hearing room in D.C. on Sept. 28, ostensibly to *discuss* the “administration of laws within FERC’s jurisdiction.”

Instead, much of the two-hour hearing was taken up by Republican members of the committee questioning the two Republican members of the commission about issues outside of FERC’s jurisdiction: state decisions about their resource mixes, energy price surges in Europe and Democrats’ proposed Clean



Sen. John Barrasso (R-Wyo.) | Senate ENR Committee

Electricity Performance Program (CEPP).

The ENR hearing was held at the same time Defense Secretary Lloyd Austin and Gen. Mark A. Milley testified before the Senate Armed Services Committee about the U.S. withdrawal from

Afghanistan, which seemed to take at least some Democratic attention away from the FERC panel. At one point, it appeared there

were no Democrats in the room, as ranking member John Barrasso (R-Wyo.) briefly conducted the hearing, and three Republicans spoke in a row. That meant that, as a Democrat and not the chair, Commissioner Allison Clements was sidelined for most of the hearing.



FERC Commissioner Allison Clements | Senate ENR Committee

Still, the event produced some insights into both the individual thinking of the com-



From left: FERC Chair Richard Glick and Commissioners Allison Clements, Mark Christie and James Danly | FERC Chair Richard Glick

FERC/Federal News



missioners and the philosophical conflicts between them.

Among the issues that do fall under FERC's oversight is permitting of natural gas infrastructure, and Republicans had no shortage of questions about the time it takes the commission to process applications. They criticized the commission for creating uncertainty for natural gas developers because of Democrats' insistence on assessing the downstream impacts of projects' greenhouse gas emissions. The issue has been one of the core disputes between Democrats and Republicans on the commission for years, with Republicans maintaining that FERC has no ability to properly assess emissions, while Democrats claim the commission is ignoring court directives to do the assessments.

Sen. James Lankford (R-Okla.) asked how the commission interprets the National Environmental Policy Act (NEPA) in determining whether to conduct an environmental assessment (EA) of a project or the more detailed environmental impact statement (EIS).

FERC Chair Richard Glick said that the D.C. Circuit of Appeals "has admonished the commission on three separate occasions just with regard to our examination of greenhouse gas emissions — [that] we actually didn't review those emissions; we didn't review the significance of those emissions — and the court has said all three times, 'We're sending this case back to FERC,' and it causes extra delay" for project developers.

Lankford followed up by asking if Glick anticipated that the commission would always do EISes going forward. Glick said that is an issue the commission is considering in its review of its natural gas policy statement. "What I hope will happen" is the commission will determine a threshold amount of emissions, below which it would only do an EA, Glick said.

But Commissioner James Danly said he was "concerned that in some, perhaps, misbegotten desire to ensure that our orders are legally durable," the commission is taking more time than

necessary to conduct an EIS, when only an EA is needed. He said that the D.C. Circuit's remanding of project approvals is because FERC has not properly explained its decisions, violating the Administrative Procedure Act. "I don't think it's necessary to go through the process of conducting EISes that come to the same conclusion as the EAs did. We can handle those" issues within the orders on remand themselves, he said.

Later in the hearing, Glick responded to Danly's assertion in answering a question from Sen. John Hoeven (R-N.D.). "The problem is that the courts keep on telling us that we keep on getting it wrong. And we're not expediting things; what we're doing is delaying things. Because every time we're supposed to perform an EIS or we prepare an EA, we just ignore climate change altogether. The courts say, 'you got it wrong,' and we have to do it all over again. That costs billions of dollars in extra time for these pipeline projects. I think certainty is more important than whether we can do it quickly and do it on the cheap."

Danly interjected: "There is a difference between an agency failing to properly do a NEPA review, which would be in the EA or the EIS, and from an Administrative Procedure Act standpoint, to properly explain the decision that it made partially informed by that NEPA document. In almost all of the cases in which FERC was in one way or another remanded, those were not because of failures in the NEPA document; they are failures of reasoning under the Administrative Procedure Act. Basically the court is saying, 'You did not sufficiently explain the reason why you made this choice.' ... So saying that we can fix that problem of APA violations by having different or more robust NEPA review is simply not the reality of the remands we've gotten back from the courts."

Danly: CEPP Like 'Dropping an H-bomb' on RTO Markets



FERC Commissioner Mark Christie | *Senate ENR Committee*

Representatives.

The \$150 billion program would require

utilities to increase the amount of clean energy distributed to customers by 4% every year, providing incentives through Department of Energy grants to those that meet the targets and penalizing those that don't. The fate of the spending bill, let alone the CEPP, is very uncertain, in part because of reluctance over its size from Sen. Joe Manchin (D-W.Va.), chair of the Senate ENR Committee.



Sen. Joe Manchin (D-W.Va.) | *Senate ENR Committee*

Barrasso called it "a scheme."

"It would use an estimated \$150 billion of taxpayer dollars to pay off the largest utilities in the country to deploy Democrats' favorite energy sources," he said. "At the same time, it will allow those utilities to charge their customers for new transmission lines to service these facilities. To add insult to injury, Democrats do not plan to debate and consider this legislation through regular order."

He asked Danly if the program would lead to energy shortages and higher prices.

"I think it is almost inevitable" Danly said. "I typically don't think it's my role to comment on the legislation before Congress, but in this case, I want to be responsive to your question. ... The text of the bill, as I read it, seems to create an incentive and penalty structure that would absolutely change and frustrate every subtle expectation we have for these slowly developed, incrementally produced markets of ours, effectively dropping an H-bomb into the middle of them. It will effectively end the markets as being anything other than administrative constructs for the purposes of balancing and dispatch."

Danly later softened his remarks somewhat, saying that, if passed as written, the consequences of the program would be, "one way or another ... profound, are going to be disruptive and at the moment they are basically incalculable. And ... I don't want to make this sound like a plea for mercy, [because] though we have no role in implementing any of what's in that bill, FERC as a practical matter is going to be the forum in which those disputes are adjudicated."

For his part, Manchin did not bring up the program in his opening remarks or questions, instead focusing on generic issues of reliability and affordability. ■



FERC Commissioner James Danly | *Senate ENR Committee*

FERC/Federal News



Cybersecurity, Climate Change Lead FERC Conference

Attendees Discuss Top Reliability Challenges

Continued from page 1



Cheryl LaFleur, Center on Global Energy Policy | FERC

will be ... potentially subject to substantial penalties” if the standards are violated, said former FERC Commissioner Cheryl LaFleur, now a senior research scholar and board member at the Center on Global Energy Policy.

“Those entities have a natural fear of enforcement, which can lead to standards attainable by the dreaded lowest common denominator,” LaFleur continued. “And the process favors those who want to move slowly, with numerous opportunities for further study, further discussion, delay, and repeat voting cycles.”

LaFleur offered four suggestions for stakeholders to “meet the urgency of the moment.”

First, NERC should aim to develop standards that focus on risks to be mitigated, rather than requiring specific actions that might become outdated quickly. Second, decisions about focus areas should be based on NERC’s analysis of emerging threats rather than “the commercial interests of specific registered entities,” though those stakeholders deserve a place at the table.

Next, LaFleur reminded Glick and his colleagues that FERC “should be strongly involved” in the standards process, with commissioners attending meetings of NERC’s Member Representatives Committee and Board of Trustees, using “soft power” to help keep the process moving, and ordering development of standards on specific timelines where necessary. Finally, the commission and NERC should be willing to “take the foot off the enforcement accelerator in the case of new, unproven standards.”



NERC CEO Jim Robb | FERC

The panel also touched on resource adequacy, with Commissioner Allison Clements asking NERC CEO Jim Robb for his thoughts on the ongoing need for natural gas as a balancing resource. Robb replied that he expects gas to be part of the grid



| Eversource

for the foreseeable future, even as utilities, regulators and policy makers work to shift to a system fueled primarily by renewable resources.

“We can all agree that gas is a bridge resource to the future that we want to get to,” Robb said. “The question is, how long is that bridge? We’d love for it to be a creek crossing ... but it’s not going to be because of the technology limitations on other flexible resources and the scale at which they would need to be deployed.”

“The thing that concerns me the most going forward is whether we’re reinforcing the gas system adequately in order to provide the balancing that’s needed for the renewable resources that we’re adding,” he added, referring to concerns he has raised in other forums about the suitability of the nation’s natural gas infrastructure to serve the bulk power system during crises like February’s winter storms in Texas. (See *Senators Grill Robb, Asthana over Texas Outages.*)

Jennifer Sterling, vice president of NERC compliance and security at Exelon, reminded commissioners that regulators should not be the only voice in the conversation, and urged

FERC to make sure industry is included.

“I don’t think that the ... resource adequacy issue can be solved by NERC and FERC alone, and it certainly cannot be solved just with NERC standards,” Sterling said. “We need a holistic conversation with state regulators and market operators, RTOs, etc. I don’t think that ... reliability standards [alone] are going to fix this issue.”



Jennifer Sterling, Exelon | FERC

Probabilistic Planning Needed to Account for Extreme Weather

The second panel focused on the recent uptick in extreme weather events, including the February winter storm, the wildfires and heat waves in the West, and the impact of Hurricane Ida.

Much of the discussion covered old ground, such as the need for better gas-electric coordination and transmission planning. This apparently frustrated Peter Brandien, vice president of system operations and market

FERC/Federal News

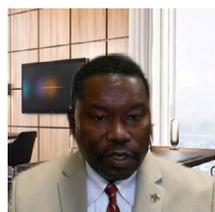


administration at ISO-NE.

"I feel a sense of urgency," he said. "I feel like I'm on a train track at the end of the tunnel, and the light is getting bigger and bigger, ready to run me over. We've heard a lot of talk here today about 'we need to do; we need to investigate; we need to spend some time.' I think we should enhance the standards that require people to perform these types of analyses, identify their risks and have plans to address them. I think the time to be talking and investigating and all these buzzwords that we heard today is past us. I think we actually have to mandate people to do this."

Brandien said ISO-NE is seeking to develop probabilistic tools, which incorporate elements of randomness, to plan its system, as opposed to deterministic models, which are dependent on initial conditions and static parameters. The need for probabilistic models came up frequently throughout the discussion.

"I truly believe that the old methods of deterministic planning are too archaic to address some of the challenges we have going forward," said Branden Sudduth, vice president of reliability planning and performance analysis at WECC. "We have to be able to adapt to these probabilistic processes. ... There are just too many unknowns, too many variables in the equation ... not just the changes in how generating resources might behave in the future, but also the changes in seasonal demand that we're starting to see over the last year or so."



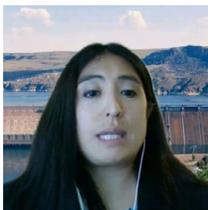
Aubrey Johnson, MISO | FERC

"What we have to do is provide our operators with the ability to handle greater uncertainty," said Aubrey Johnson, executive director of system planning and competitive transmission at MISO. "So they don't need data; they need information upon

which to act."

Mark Hegerle, director of FERC's Division of Operations and Planning Standards, asked the panel how FERC could drive grid planners toward a probabilistic approach, specifically whether NERC's mandatory reliability stan-

dards were the appropriate method.



Michelle Cathcart, BPA | FERC

"I hesitate a little on [using standards] because I think there is still some maturity in those tools that needs to be accomplished before we can reasonably enforce that on the utilities," said Michelle Cathcart, vice president of transmission

system operations at the Bonneville Power Administration. "I can see it in the future, but it may be premature at this point."

Brandien recalled that he testified before FERC about a decade ago and was asked whether a cold-weather standard was needed. "I didn't think so at that time because I thought it was ... our bread and butter as an industry. We should be able to do it; we didn't need a standard that required us to do it."

He noted previous recommendations to reconsider load-shedding procedures and underfrequency protection. "Those were things I didn't think we needed standards on. But it's obvious that time and time and time again, we can't get out of our own way as an industry and repeat these problems. I do think we need standards around things that are critically important."

Supply Chain Attacks Keep Cyber Experts Awake

Attention shifted to cybersecurity in the third panel, with attendees mainly discussing the implications of supply chain attacks like last year's compromise of SolarWinds' Orion network management software. The SolarWinds attack, in which hackers managed to gain access to the platform's update server and use it to push espionage malware to thousands of users worldwide, sent shockwaves through the security community.

"The competent, savvy defender [used to] say, 'I'm building my cybersecurity infrastructure [with] the assumption that the adversary is already in it,'" said Mark Fabro, president and chief security scientist at technology security firm Lofty Perch. "We've actually since migrated to the assumption that the adversary has built the system."

The idea that software and hardware could be tainted at the source led Glick to ask participants whether a government-issued cybersecurity whitelist or blacklist might be needed, to identify suppliers that utilities should or should not purchase from, respectively. But

Manny Cancel, CEO of the Electricity Information Sharing and Analysis Center (E-ISAC), spoke for many when he expressed skepticism about the ability of any such registry to keep pace with the rapidly evolving threat landscape.

"As products change, and their reliance on other third parties [grows], tracking that ... gets very difficult to sustain and maintain," Cancel said. "There may be a place for a whitelist or blacklist; I'm of the opinion that it really is the application of the correct cybersecurity risk mitigation program that you put in place that protects any assets."

Matthew Halvorsen, strategic program manager for the supply chain and cyber directorate at the National Counterintelligence and Security Center, was more blunt in his assessment of the downsides of such a program.

"There's a couple of reasons that it's problematic. First of all, each organization is going to have [its] own risk appetite, so a whitelist or blacklist is not going to affect that," Halvorsen said. "Another thing is ... it's out of date 10 minutes after you make the list, and the adversaries know that they're going to see the list because [it's] going to be public, so they'll change their company name, or slap a different label on the product. So it's really hard to keep up. And then the last problem ... is the concept of due process for the companies. ... How did I get on the list? How do I get off the list? How do I refute what you're saying [or] sue because my competitor is on the whitelist and I'm on a blacklist?"

Changing Resource Mix Challenge

The final panel of the day focused on how to maintain grid reliability as the fast-changing resource mix includes more variable generation and inverter-based resources (IBRs) such as wind, solar and storage.

Given some of the issues with inverter-based resources and the differences between them and synchronous generation, Glick asked whether existing NERC standards might need to be modified to maintain reliability.

The industry does not need new standards or technical guidelines, though some of them have to be reinterpreted for the different characteristics of inverters because they're very different from synchronous machines, said Mark Ahlstrom,



Mark Ahlstrom, NextEra Energy Resources | FERC

FERC/Federal News



vice president for renewable energy policy at NextEra Energy Resources and NextEra Analytics.

“The intent of the standards was clear, so we just have to make sure that that intent is then interpreted in the analogous way for inverters, and it might be implemented quite differently, but they can certainly accomplish all the same things,” Ahlstrom said.

The Institute of Electrical and Electronics Engineers (IEEE) is currently developing the P2800 standard for the interconnection and operability of inverter-based resources, which is going to help address issues like momentary cessation of output as well as other functionalities, said Debbie Lew, associate director at Energy Systems Integration Group, an independent non-profit focused on decarbonization of energy systems.

The IEEE P2800 interconnection standards being developed comprise uniform technical requirements for interconnection capability and lifetime performance of inverter-based resources connected to transmission and sub-transmission systems, said Aleksi



Aleksis Paaso, ComEd and IEEE | FERC

Paaso, director of distribution planning, smart grid and innovation at ComEd, speaking on behalf of the IEEE.

The new standard “is going to provide some flexibility to transmission owners on how they want to specify requirements, while also providing capability from these resources so that in the future as you need new capabilities you’ll be able to turn those on,” Lew said.

FERC and NERC “need to go further” and adopt modified standards like PRC-24,” said CAISO COO Mark Rothleder.

Lacking a standard entails a risk that there will be individual applications to address some of these reliability matters, and there may be inconsistent applications, Rothleder said.

“I think we’re at a point now in the transition curve that we need some consistent standards that are applicable to the new inverter-based resources, and I think we have enough learning that we’ve achieved to apply those efficiently,” Rothleder said.

Commissioner Clements asked about the use of grid-enhancing technologies such as dynamic line ratings or adjusted ambient ratings in the West, and also inquired about developments in the Western resource adequacy effort.

“I feel like the neighbors of neighbors concept is the reality of the situation,” said Idaho Public Utilities Commissioner Kristine Raper, speaking on behalf of the Western Interconnection Regional Advisory Body. “We had the heat dome, and sharing of the energy from the coast to the inland Northwest states couldn’t occur because everyone was using energy, but transmission lines would assist us further in using neighbors of neighbors’ energy to try and balance that out.”

Last week, the Northwest Power Pool’s Western Resource Adequacy Program secured funding from its participants to move forward with implementing the nonbinding phase of the program, NWPP President Frank Afranji said. “This is a monumental accomplishment by the public-spending NWPP representatives.”

“We need to take the comments that we received today, talk amongst ourselves talk with NERC and other stakeholders as well, and get a better sense of what we need to do next,” Glick said in closing. “This important responsibility is not just about making sure rates are just and reasonable ... we’re literally talking about people’s lives here and making sure that they have access to what’s an essential resource, which is electricity and natural gas and other energy resources.” ■

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FERC/Federal News



SEIA Issues New US Solar Generation Goal: 30 by 30

Organization Targets Solar to Generate 30% of Nation's Power by 2030

By John Funk

The Solar Energy Industries Association on Sept. 28 issued a new growth target for the industry to mark the first day of its 2021 annual meeting; a rapid and unprecedented growth in solar so that it generates 30% of the nation's power by 2030, up from 4% currently.

"We know that the economics of clean energy are there ... that demand will only continue to grow," SEIA CEO Abigail Ross Hopper said in opening the general session of the two-day virtual conference. "The timing will make or break our ability to stay on the path that the scientific community tells us is necessary to avoid the worst impacts of the climate crisis."

To reach that goal, SEIA figures that by 2030, the industry will have to build about 125 GW of new generation annually, up from the 19 GW built in 2020; and reach a total buildout of 850 GW in total generating capacity, or nearly nine times the 95 GW of total capacity in 2020.

The huge investment, much of which would be made possible by the Biden administration's Build Back Better bill now before Congress, would add more than \$120 million to the U.S. economy annually and employ more than 1 million, SEIA argues in a release timed with the conference.

The additional solar would also offset more than 700 million metric tons of CO₂ annually, up from 100 million tons in 2020,

Hopper said.

"There's incredible potential for your business to thrive. Make no mistake, public policy is critical," she said. "As we speak, Congress is debating the details of a combined infrastructure and budget package to invest in America's future.

"Some of the policies under consideration, including long-term extension of clean energy tax credits, investments in workforce and development and training, and enhancement to our electricity infrastructure would go a long way to ensuring we stay on track to hit our 30-by-30 goal. We cannot let this moment pass."

Before Hopper's announcement and the pan-



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FERC/Federal News



el discussion that followed, FERC Chairman Richard Glick, National Climate Adviser Gina McCarthy and U.S. Rep. Donald McEachin (D-Va.) made remarks about the importance of solar.

“Whether you work in the clean energy industry or work in the government tackling the energy issues of the day, we’re all very fortunate to be doing so during this very exciting time, as the nation transitions to the clean energy future,” Glick said, adding that demand is driving the move to renewable energy and that market rules must keep up with the transition.

“Over the last several years, the commission has issued major rule-makings focusing on ensuring that energy storage and distributed energy resources, including behind the meter storage, can participate in wholesale markets. But our work isn’t done. For instance, we are looking at both interconnection policies and market rules to determine whether action is necessary to facilitate greater participation of hybrid projects, primarily solar and storage,” he said.

McCarthy reminded listeners that the switch to clean energy is a Biden administration priority. McEachin stressed the importance of a bill he has co-sponsored, the *Environmental Justice for All Act*, which will require the government to consult with environmental justice communities when proposing energy legislation.

During the panel discussion that followed, panelist Kelly Speakes-Backman, principal deputy assistant secretary for energy efficiency and renewable energy at the Department of Energy, said, “President Biden has made his climate strategy really clear that the U.S. is aiming to achieve a carbon-free power grid

by 2035 and a clean energy economy for all Americans with net-zero emissions not later than 2050. These are really bold targets that he has established, really the most ambitious climate strategy that the U.S. has ever seen.”

Another panel that immediately followed grappled in more detail with the problem of aligning transmission, distribution and interconnection with these clean energy goals.

“We need to move a lot faster,” said moderator Ric O’Connell, executive director of GridLab, a national nonprofit that provides technical assistance both to regulators and advocates.

“To meet our clean energy goals, we are going to need to interconnect twice what is already in the queue in the next decade,” he said of major transmission projects that have not yet been approved.

“We’ve got a similar story at the distribution level. So we probably got thousands of projects in state-regulated distribution queues around the country. And look, not all of these are 5-kW behind-the-meter residential solar systems. Many of these are 5 to 20 MW,” he added.

Eric Ciccoretti, attorney-adviser for FERC’s Office of Energy Policy and Innovation, said the commission has just begun work on new interconnection rules, and the Advance Notice of Proposed Rulemaking process of asking for comments and suggesting what might be done typically takes years, particularly if there are appeals.

He said FERC “is seeking to understand whether there are ways to improve transmission planning and interconnection planning. Given the changing resource mix, the commission is focused on the shift from

resources located close to population centers ... toward resources, including renewable solar and wind, that may be located far from load centers.

“The commission is focusing on how the changing resource mix can be accommodated to ensure just and reasonable rates while maintaining grid reliability,” he said, stressing that the ANOPR is a priority.

Comments on the ANOPR are due Oct. 12, with reply comments due Nov. 15. Ciccoretti also noted that the commission is holding a technical *conference* on regional transmission planning, with the focus on the incorporation of long-term forecasts into future transmission, the same day reply comments are due.

Building solar projects aimed at the distribution level is also a problem, said panelist Maggie Clark, director of government affairs at North Carolina-based Pine Gate Renewables.

“You can’t readily get distribution system data in most places, and this is very different from transmission-level information that you can get on either through FERC or through utility filings.

“And that is why a lot of developers choose to go the transmission route because you can understand where it’s easier to site projects where you’re going to have a cleaner, low-cost interconnection to the grid,” she said.

Pine Gate has about 1 GW of operational assets, she said, and another 15 GW under development. The company is active in 15 states but stays away from some states because of problems tracking down reliable information about their local distribution systems. ■



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FERC/Federal News



Long-duration Storage Needed for Decarbonization

Smart Energy Week Panel Discusses Storage that Can Last for Days, Months



Clockwise from top left: Robert Tucker, SEPA; Erin Childs, Strategen; Jaya Bajpai, Gamma Advisory; Frank Jakob, Black & Veatch | SPI, ESI, and Smart Energy Week

By Hudson Sangree

Finding ways for long-duration storage to play a greater role in the clean energy transition was a key topic Wednesday at the North America *Smart Energy Week* summit hosted by the Solar Energy Industries Association and the Smart Electric Power Alliance (SEPA).

"The topic of long-duration storage has been top of mind for many of us in the industry lately, and there does seem to be a growing recognition of the role long-duration energy storage can and should play in the electric grid of the future," moderator Robert Tucker, SEPA director of industry strategy, said as he introduced the panel.

"Most recently this focus was evidenced by the U.S. Department of Energy's announced goal to reduce the cost of grid-scale long-duration energy storage by 90% within the decade," Tucker said. "This goal, which is part of DOE's Energy Earthshot Initiative, was discussed at its recent Long Duration Storage

Shot summit that was held just last week. I attended that summit, which included presentations from members of Congress who all spoke to the importance of energy storage and long-duration energy storage, specifically to achieving our national carbon reduction goals." (See *DOE Targets 90% Cut in Cost of Long-duration Storage*.)

Tucker continued the discussion Wednesday with Jaya Bajpai, principal with consultant Gamma Advisory; Erin Childs, senior manager at client advisory firm Strategen; and Frank Jakob, technology manager for energy storage at engineering firm Black & Veatch.

The first question, Tucker said, was how to define long-duration storage. DOE defines it as 10 hours, he said, but should it be defined in longer terms to handle significant power-outages such as Hurricane Ida in New Orleans, last winter's Texas deep freeze and California's summer heat storms, all of which typically last days?

Jakob said lithium-ion batteries are limited to

four or five hours. Flow batteries are good for intermediate time frames. Pumped hydro-power can last 12 hours, but building it is difficult. So newer technologies for long-duration storage will be needed and are starting to be developed, he said.

Bajpai agreed. "What you see now is a tip of the iceberg. There's a lot more coming," he said. Utilities understand that two to four hours of battery storage "is just not getting it done."

Systems with a lot of wind and solar, such as SPP and CAISO, may need storage that can last 10 to 12 hours; multiday and multiweek options will come along later this decade or in the early 2030s, he said.

"From a procurement perspective I think you'll see the hours get longer," he said.

Incentivizing Storage

Childs said long-duration storage is currently a broad, vague term that covers resources that might last from six hours to 150 hours.

FERC/Federal News



Such resources will play very different roles on the grid and need more precise language to describe them, she said. Are they meant to supply power in the evening when the sun goes down in California, or during system-wide crises lasting days or weeks during severe winter or summer weather?

"The overnight versus seasonal is really part of this issue," she said.

Tucker next asked Childs to give an overview of regulatory and policy issues related to long-duration storage.

Integrated resource planning will be key, she responded. "This is where [public utility] commissions are making decisions about what's going to be brought onto the grid and the first question is, 'Is long-duration storage even on the list?'"

The California Public Utilities Commission has led the way by ordering investor-owned utilities to procure 1 GW of long-duration

storage by 2026, she noted. (See *CPUC Orders Additional 11.5 GW but No Gas.*)

Bajpai said long-duration storage hasn't traditionally been part of utilities' IRP process because it's expensive and doesn't necessarily fit conventional supply-and-demand models.

"When you step out of the box of the conventional model, you begin to see that there is actually a much bigger role for flexible, long-duration storage," he said. "What if I was to give you an 8-, 12- or 16-hour resource that can move power over one, two, three days and that can suddenly flex between applications? That's something that's very valuable from a reliability perspective to the utility."

"I think the biggest issue here is monetizing storage," Bajpai said. "The reality is that the transition is going to be expensive one way or another ... and so I think we need vehicles and instruments that essentially reward long

duration storage" as flexible, bidirectional resources, he said.

"The idea that you are compensating folks to be there, to go at a moment's notice, and to provide a full range of flex options — I think that is powerful, and I think it needs to be compensated," he said.

'Time Machines'

Tucker asked the panelists if government policies are more of a roadblock to the adoption of long-duration storage "or is it more about the abilities of the technology that's available in the marketplace?"

Jakob answered: "The greatest roadblock is the true availability of product in the marketplace that's been proven [to work]."

Would-be adopters don't want to be the first to try out an unproven technology, he said.

"I have many clients who want to be first to be third in line to buy new technologies," Jakob said, prompting smiles from the other panelists.

The largest utilities are likely to be early adopters, he said.

"There are big names in the industry that have been experimenting with all sorts of technologies for decades now, but the run-of-the-mill utilities, those here in the Midwest and in Kansas and Missouri," aren't eager to embrace new technologies, he said.

He likened it to the situation 10 years ago when large utilities started to experiment with grid-scale lithium-ion batteries. Now, he said, the bigger utilities will need to experiment with longer-term storage technologies that act as "time machines" for moving energy from when it's produced to when it's needed.

Jakob and other panelists cited emerging technologies such as using solar mirror arrays to melt aluminum and producing hydrogen from renewable energy. The Los Angeles Department of Water and Power, they noted, is investing in green hydrogen production and storage in the Utah desert. (See *NARUC Panel: 'Green' Hydrogen Could Lower GHGs.*)

"I think we're going to see a lot more of that because it's part of the energy storage grand challenge," Jakob said. "If you want long-duration storage, you need to build a 25-MW or 50-MW, 12-hour or 24-hour demonstration unit."

"There's going to be major steps with the new driver, that's now very much in our face, of low-carbon generation," he said. ■



Flow batteries are a long-term storage option. | Invinity Energy Systems

FERC/Federal News



FERC Asks Details from CAISO, NYISO on Order 2222 Compliance

Participation Model Issues

By Michael Kuser and Hudson Sangree

FERC on Friday gave CAISO and NYISO 30 days to explain some details of the treatment of distributed energy resource aggregations described in their Order 2222 compliance filings ([ER21-2455](#), [ER21-2460](#)).

Most of the commission's questions to the ISOs concerned the market participation model for DERs and the coordination between the ISO, aggregator and distribution utility, particularly the role of the utility.

The commission asked NYISO to "explain how the DER aggregation rules accommodate the physical and operational characteristics of heterogeneous aggregations and, in particular, heterogeneous aggregations that include mostly one resource type. For example, please explain how NYISO's DER aggregation rules accommodate the physical and operational characteristics of an aggregation comprised primarily of solar resources with some storage."

FERC said NYISO outlined the resource adequacy problems that could arise from "modeling an aggregation of solar intermittent power resources as a DER aggregation" and asked "why similar concerns would not arise with a DER aggregation that is composed largely, but not exclusively, of solar resources."

Continuing in the same vein with CAISO, the commission referred to the ISO's proposals to require that a DER aggregation have at least one DER capable of injecting energy and to maintain its existing demand response models for homogeneous aggregations that include DR resources only.

"If a heterogeneous aggregation containing injecting resources and distributed curtailment resources fails to inject energy over a certain interval – i.e., if the aggregation only provides demand response to CAISO – would CAISO require the aggregation to register in one of CAISO's demand response models in order to participate in the CAISO markets?" the commission asked. "If so, please explain when CAISO would require this change in registration and indicate where this process is documented."

CAISO in September [answered](#) its stakeholders in the FERC docket by clarifying several aspects of its compliance filing, but it dismissed many comments as related to issues outside



A solar array being installed on the SUNY Fredonia campus, for which the distribution utility, National Grid, will credit the school for all electricity produced. | [NYPA](#)

the scope of Order 2222.

"The commission plainly could have ordered RTO/ISOs to collapse their demand response models into a single [DER aggregation] model as NYISO did, but Order No. 2222 did not," CAISO said. "Instead, it required RTO/ISOs to allow DERs to aggregate with demand response resources as heterogeneous aggregations, the plain language of which requires a mix: both energy-injecting DERs and demand response resources."

Other comments are based on "improbable hypotheticals involving multiple-use applications" and retail tariffs. DER aggregations and dual wholesale/retail participation are nascent fields, especially when addressed simultaneously, CAISO said.

The New York ISO last month rejected most comments and protests on its treatment of DERs and aggregations, urging FERC to accept its Order 2222-related tariff revisions with minor adjustments. (See [NYISO Rejects Most Comments on DER Treatment](#).)

FERC issued "incredibly detailed" questions to NYISO and CAISO, and the questions "to NYISO are especially interesting, as they get

at central issues that will determine if rooftop solar plus storage, [electric vehicles], etc. can participate," [tweeted](#) Jeff Dennis, managing director and general counsel for Advanced Energy Economy.

Role of Distribution Utilities

FERC also asked NYISO to provide the criteria by which distribution utilities would determine whether a DER is capable of participating in an aggregation, including any specific metrics.

"Will the aggregator attestation requirements proposed in NYISO's answer with respect to double counting be sufficient for distribution utilities and NYISO to determine whether a DER is capable of participating in an aggregation?" the commission asked.

In addition, the commission asked NYISO to explain what showing is required from the distribution utility to support the decision that the resource presents significant risks to the reliable and safe operation of the distribution system, and to explain what the ISO means by "appropriate measures to mitigate reliability and/or safety concerns."

FERC/Federal News



The Tehachapi Energy Storage Project is a lithium-ion battery energy storage system at the Monolith Substation of Southern California Edison in Tehachapi, Calif. | Sandia National Laboratories

whether — and if so, how — the ISO allows for voluntary relevant electric retail regulatory authority (RERRA) involvement in coordinating the participation of DER aggregations in its markets.

It also directed CAISO to specify whether RERRAs will have a role in coordinating the participation of DER aggregations in its markets by developing interconnection agreements and rules.

Finally, the commission asked CAISO whether RERRAs would have a role in developing local rules to ensure distribution system safety and reliability, data sharing and/or metering and telemetry requirements; overseeing utility distribution company review of DER participation in DER aggregations; establishing rules for multiuse applications; or resolving disputes between DER aggregators and utility distribution companies over issues such as access to individual DER data.

In its Sept. 3 answer, CAISO said it recognized that resource adequacy eligibility incentivizes resources in its footprint to participate as standalone wholesale resources or DR resources.

“California regulatory authorities, most notably the California Public Utilities Commission, have not adopted qualifying capacity counting rules for [DER aggregations] to provide resource adequacy capacity, which leaves developers without the revenue streams from retail tariffs, capacity contracts or power purchase agreements,” CAISO said. ■

The commission also wanted to know how NYISO intends for its tariff provisions to satisfy the commission’s requirement to include dispute resolution procedures and what other avenues, if any, are available to aggregators or distribution utilities to resolve disputes.

aggregators to dispute a distribution utility’s determination regarding whether a proposed DER is capable of participation in an aggregation and will not pose significant risks to the reliable and safe operation of the distribution system?” the commission asked.

“For example, what avenues are available to

Meanwhile, FERC asked CAISO to explain

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FERC/Federal News



Smart Energy: DERs, Electrification, Wholesale Pricing

By Amanda Durish Cook

Distributed energy resources, electrification and equitable wholesale compensation for both dominated two panels during the virtual North America Smart Energy Week.

Karen Olesky, an economist for Nevada's Public Utilities Commission, said she's both riddled with anxiety and invigorated over how quickly new distributed resource technology is being developed.

"It's very exciting to see vehicle-to-grid charging and the electric company being able to access behind-the meter storage in someone's home to use it as a demand response unit," Olesky said during a Sept. 28 panel on electrification. "I think these are great DER technologies, and I love seeing them in pilot programs and proliferate, but I'm also scared about how quickly that technology is changing. Some of these technologies that utilities invest in might end up being obsolete well before the end of their useful lives."

Olesky said ratepayers could be stuck paying for electric vehicle charging stations that are quickly replaced by newer models. She called the speed of adoption and its implications on long-term resource planning "exciting and kind of terrifying."

Regulators and utilities are okay to "pivot" on incentive programs when they realize they're unpopular or ineffective, she said.

Keith Dennis, vice president of the National Rural Electric Cooperative Association, said electrification stands to improve people's quality of life.

"It wasn't more than a hundred years ago when people were washing dishes and clothes by hand, and electricity really improved our lives and it can do it again," he told attendees.

Dennis said electrification can save customers money, lessen environmental impacts, bolster grid reliability and lengthen the lifespan of heavy machinery and construction equipment. He added that he doesn't want electrification to become politicized.

Oncor Electric Delivery's David Treichler said the conversion to electrification is one of the most consequential changes the nation will undertake. Electrification will fundamentally change how we "move goods, people, things."

Flying into the Dallas Fort Worth airport

one night, Treichler said he concentrated on a bird's eye view of the airport's logistics warehouses. He said when thinking about how to electrify the airport's freight services, he realized the centers were packed so tightly together that he couldn't see where new substations could be squeezed in to handle charging.

Treichler said Oncor has developed a green fleet analytics tool that evaluates a customer's load requirements for electrification and available nearby capacity to gauge the need for new electric facilities.

"The longer you wait to talk to us, the harder it is," he said, urging companies interested in fleet electrification to act sooner rather than later.

National Grid's Kristin Munsch said electrification's growth is uncertain now because the changeover hinges on customer adoption.

"It's talking about people's cars, people's home heating systems," Munsch said. She said investments need to be made thoughtfully so that all customers can electrify their homes, not just those that can afford it.

"Like everywhere in the country, we've got very affluent communities, and we've got more challenged communities," she said.

Panelists during a wholesale pricing session said appropriate compensation is necessary for a more active demand-side market.

"We have a generational problem of how we count it. How do we know what a megawatt is anymore?" OhmConnect's Cisco DeVries said. "Ultimately, I think we just need to agree on some methodologies, and I think it's really critical for the wholesale market that we get there quickly."

"We have historically underestimated the potential of distributed clean energy in terms of serving our wholesale markets," SunPower's Suzanne Leta said. "A key question in my mind is: how do we ensure the right policies are in place to enable consumers to offer that value to the wholesale market and get paid for it? That's really the question we need to focus on answering."

Leta said the industry often ignores that just 3% of residential customers currently have rooftop solar. She said rooftop solar is poised for a "massive" growth trajectory. "We are just at the tip of iceberg," she said.

In SunPower's nationwide surveys, Leta said



| Shutterstock

residents cite concern over outages as the primary reason for installing their own solar and storage.

"This is real-time for consumers, whether it's an ice storm in Texas, or flooding in Louisiana or a hurricane in New York. ... That's what people are concerned about. Are power outages happening on a much more frequent basis?"

Leta said in addition to wholesale pricing, state commissions and utilities need to think differently about resource procurement. She said commissions' resource planning is rooted in one-way transactions sourced from fossil fuels or nuclear power.

"That's just not how our grid works today, and it's not going to be how it works in the future," Leta said.

Jill Powers, CAISO's infrastructure and regulatory policy manager, said dynamic rates and demand-side management will feature more prominently in wholesale pricing.

"The duck curve is about 10 years old, and he's been progressing quickly," Powers said, noting that CAISO underestimated rooftop solar's contributions. She said CAISO contends with oversupply and dramatic ramping needs in any given day.

DeVries commended CAISO for being among the first to allow bids on a 15-minute basis from aggregated DERs.

"The wholesale market is the place where this transaction takes place," he said. "It is not a place the customer understands at all. They are never going to understand it. They're still incredibly confused as to why we might pay them to save energy. That makes no sense [to them]."

He said the aggregator's role is to simplify and translate DER use into the wholesale market.

"We can't say to customers, 'You can't turn your air conditioning on right now.' Right? That's a no-go," DeVries said. "The utilities have tried that forever. It just doesn't work." ■

Southeast

Report: SEEM's Benefits Beaten by Other Models

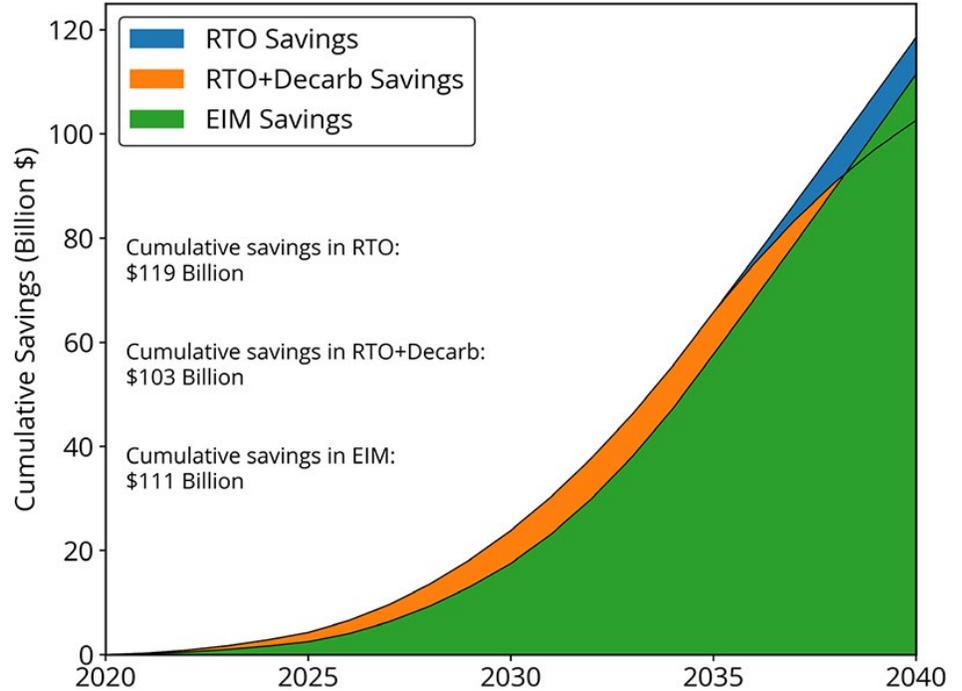
RTO Scenarios See Greatest Cost, Emission Reductions

By Holden Mann

A new report released Sept. 28 by the American Council on Renewable Energy (ACORE) calls the potential of the proposed Southeast Energy Exchange Market (SEEM) into question, asserting that other models surpass the benefits promised by SEEM's proponents.

The report, titled "Maximizing Cost Savings and Emission Reductions: Power Market Options for the Southeast United States," was produced for ACORE by Vibrant Clean Energy (VCE), a developer of software modeling, planning and optimization tools with a focus on solar and wind energy. It reviewed a study comparing four separate scenarios for a future energy market in the footprint of the SEEM proposal:

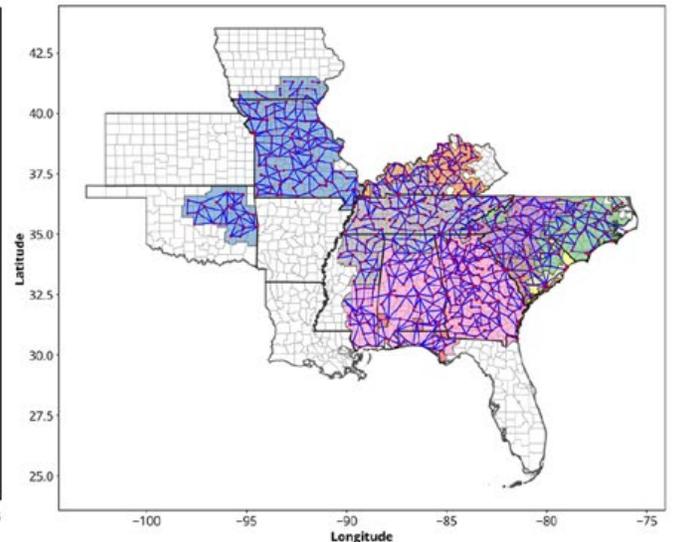
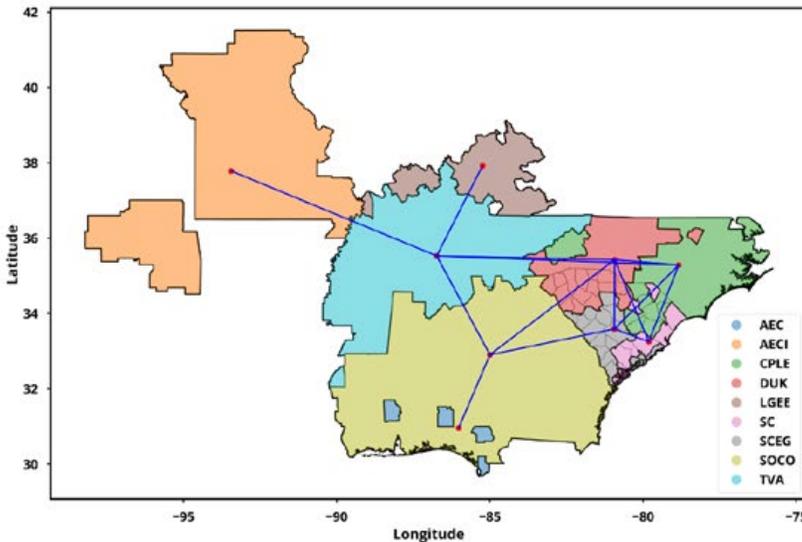
- SEEM as planned by its proponents: The utilities and cooperatives participating in SEEM, which include Southern Co., Duke Energy and the Tennessee Valley Authority, claim that expanding bilateral trading in 11 Southeastern states will reduce trading friction while promoting the integration of renewable resources.
- An energy imbalance market (EIM) set up to optimize capacity expansion through the least expensive combination of thermal



Cumulative savings for the EIM, RTO, and RTO+Decarb scenarios compared to the SEEM scenario (baseline) | ACORE

and renewable energy generation, storage and transmission. Balancing authorities are required to meet their planning reserves

within their footprints but can use energy transfers between regions for their planning reserve requirements.



Inter-region bulk transmission and county-level transmission topology for the SEEM region | ACORE

Southeast

- An RTO in which “every balancing region undergoes optimal capacity expansion, ensuring the footprint as a whole meets their planning reserve requirements on their coincident load.”
- An RTO with the same assumptions as the previous model, but in which utilities also set a common goal to reduce electricity sector carbon emissions by 98.5% by 2040.

All four scenarios were run over the same time frame, starting in 2020 and ending in 2040. VCE compared the four scenarios on the basis of cost savings, as well as reductions in carbon emissions, using its Weather-Informed energy Systems: for design, operations and markets-Planning (WIS:dom-P) software to model the outcomes.

All Scenarios Outperform SEEM

While all scenarios showed positive results in both categories, changes under SEEM were more modest than any of the others. In VCE’s model, adopting SEEM caused total resource costs to drop from \$64.7 billion in 2020 to \$53.1 billion in 2040. Meanwhile, carbon emissions in 2040 were 30% below 2020 levels under SEEM; carbon dioxide emissions from the electric sector for the studied period were slightly below 3.4 million metric tons.

By comparison, all the other scenarios projected significantly more aggressive cost

reductions than the SEEM proposal. The EIM performed best in terms of total resource costs, which fell to \$42.1 billion by 2040 under VCE’s model. Resource costs for the RTO were around the same level, while the RTO with decarbonization (RTO+Decarb) was just under \$50 billion. The RTO showed the greatest cumulative savings with \$119 billion saved over 20 years compared to SEEM; EIM saved \$111 billion over SEEM; and RTO+Decarb saved \$103 billion.

According to VCE, the EIM scenario saw the greatest reduction in resource cost because of performing “optimal capacity expansion and [counting] the energy transfers between the balancing areas towards the planning reserve.” This is despite EIM actually trailing the two RTO scenarios in the first 10 years of the model because it “retires the fossil generation slower than the ‘RTO’ [scenarios] and therefore results in higher system costs.”

Because the RTO outperforms the EIM for the first 10 years, it has a slight edge in cumulative savings. The RTO+Decarb scenario displays similar resource cost reductions to the base RTO until 2034, when large investments in variable renewable generation are needed to reach decarbonization goals.

RTO+Decarb Clear Emissions Winner

While the EIM scenario delays full retirement of fossil fuels compared to the RTO

scenarios, SEEM does not do so at all: VCE’s model shows more than 100 GW of installed coal and natural gas capacity by 2040 under SEEM, compared to around 70 GW of natural gas for EIM and base RTO – without any coal – and around 20 GW of gas generation under RTO+Decarb. The EIM, RTO and RTO+Decarb scenarios all see significant expansion of renewable generation as well, especially the latter with nearly 400 GW of renewables in 2040, compared to around 200 GW each for the other two.

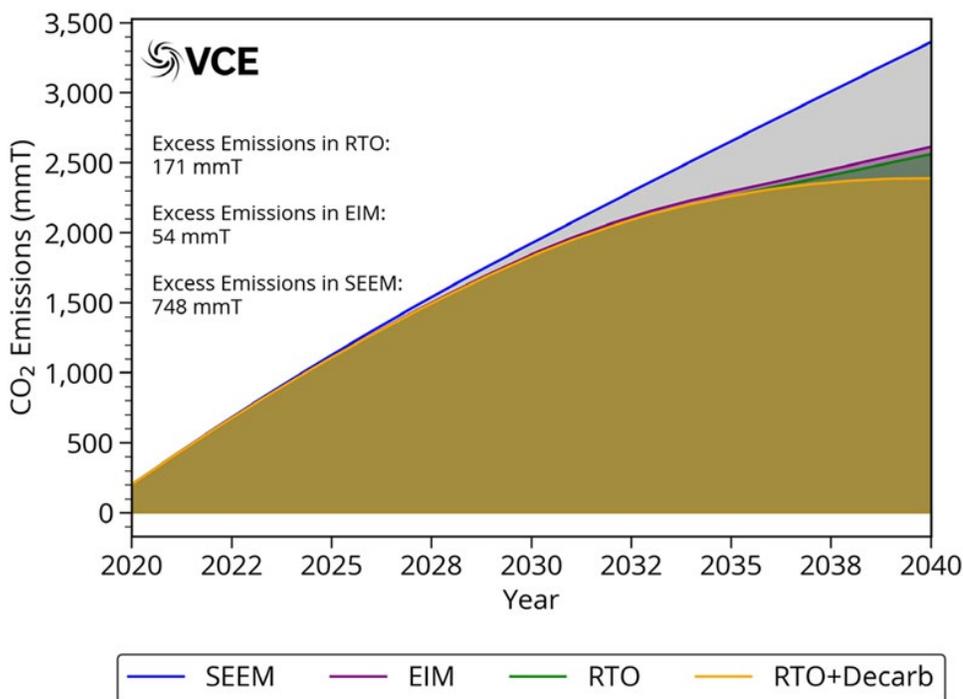
Investments in storage under the non-SEEM scenarios also dwarf that under SEEM, with about 10,000 MW of storage capacity installed in 2040 under SEEM (about double 2020 levels). By the same year, EIM and RTO have about 90,000 and 100,000 MW of storage capacity installed, respectively, while RTO+Decarb has about 65,000 MW.

This replacement of fossil fuel generation with renewables and storage means that the non-SEEM scenarios see substantial reductions in emissions over the 20 years of the study. Compared to SEEM’s 3,362 million metric tons (mmT) emitted by 2040, the EIM shows 2,614 mmT emitted over the same time frame and the RTO shows 2,560.

The RTO+Decarb scenario shows the greatest reduction in carbon dioxide emissions, as might be expected from its explicit focus on decarbonization. Under this template, cumulative emissions fall to 2,389 mmT, representing the end of virtually all carbon emissions. VCE’s model only accounts for existing techniques for carbon reduction, so new technologies such as carbon sequestration could see the atmospheric carbon reduced even further.

RTO+Decarb is also notable for nearly eliminating all other air pollutants tracked by VCE’s model, including sulfur dioxide, nitrogen oxides, and carbon hexafluoride, all of which are still present in significant amounts by 2040 under SEEM. While the EIM and RTO both see all pollutants except nitrogen oxides reduced to near zero, RTO+Decarb is the only scenario where NO_x is also almost completely gone.

ACORE’s report could lend ammunition to critics of SEEM that have warned FERC to exercise skepticism about the promises of the proposal’s supporters (*ER21-1111, et al.*). Most recently a group of Democratic lawmakers in North Carolina wrote the commission calling for a technical conference to investigate other Southeast market organization proposals, including an RTO or EIM. (See *NC Legislators Join Call for Southeast Technical Conference.*) ■



Cumulative electric sector carbon emissions in the scenarios modeled | ACORE

CAISO/West News

Bonneville Commits to Joining Western EIM

By Robert Mullin

The Western Energy Imbalance Market is poised to make its largest expansion ever next spring after the Bonneville Power Administration said last week that it will join the market in March.

With 15,000 miles of high-voltage transmission and 31 hydroelectric projects under its control, BPA will be the largest transmission and hydro provider in a market that currently includes 14 members with territories spanning much of the Western Interconnection.

“This decision aligns with Bonneville’s strategic plan and opens up an opportunity to increase revenues through additional sales of surplus power and to reduce costs through greater efficiencies,” BPA Administrator John Hairston said in a statement. “As the West moves rapidly to decarbonize the grid, Western EIM participation will help us navigate future challenges and leverage opportunities to benefit our customers and the Northwest.”

BPA’s decision comes three years after the federal power marketing agency began exploring membership in the CAISO-operated WEIM and two years after it signed a nonbinding implementation agreement to begin integrating the ISO’s systems into its operations. (See [Bonneville Power Signs Agreement with EIM](#).) The agency said Sept. 27 that its internal preparations are “on track” and that it has already begun testing with the ISO.

“Bonneville and its public power customers are highly valued partners for the ISO, and we look forward to further strengthening our working relationships,” CAISO Chief Operating Officer Mark Rothleder said.

BPA’s decision, though not a surprise, marked CAISO’s second victory last month in its competition with SPP, which earlier this year launched the Western Energy Imbalance Service (WEIS). A competing real-time market that has already attracted members in the Rocky Mountain region, the WEIS could provide a foothold for a full RTO in the West. In June, Xcel Energy postponed its effort to join the WEIM in order to consider its alternatives with SPP. (See [Xcel Delays Joining EIM to Weigh Options](#).)

But on Sept. 15, the Western Area Power Administration’s Desert Southwest Region signed its own implementation agreement with the WEIM, putting the agency on track

to join in 2023. (See [WAPA Desert Southwest Region to Join Western EIM](#).) By that time, the WEIM will consist of 22 members representing 84% of the West’s load, CAISO estimates.

The ISO has taken key steps to seal the deal for BPA’s membership, including revising its tariff to create a new category of default energy bid — a “hydro DEB” — that estimates the opportunity costs for hydro in the WEIM to avoid forcing those resources to make unprofitable trades under certain conditions. (See [CAISO Goes 2 for 3 on EIM Hydro Rule Changes](#).)

And in August, CAISO’s Board of Governors and the WEIM’s Governing Body both unanimously approved a plan that would delegate more authority to the Governing Body over issues affecting the WEIM, a move widely popular among Northwest utilities and power producers. (See [CAISO Agrees to Share More Power with EIM](#).)

Hairston said last week that BPA’s WEIM membership could be a steppingstone to other forays into regional markets.

“Western EIM participation is a great introduction to emerging markets in the West. We hope to build on this experience to assess future market-based opportunities,” he said.

BPA is already heading in that direction, having last month proposed to participate in the next non-binding phase of Northwest Power Pool’s Western Resource Adequacy Program (WRAP). Interest in the WRAP has expanded to include utilities currently outside the NWPP’s current coverage area. (See [RA Program will Require Restructuring of NWPP](#).)

And BPA signaled that it would also consider developments taking shape farther east.

“In addition to participating in the Western Resource Adequacy Program, BPA is closely monitoring the potential formation of day-ahead markets in the West,” the agency said. “Both the California ISO and Southwest Power Pool have presented initial concepts that could provide additional opportunities and benefits for BPA and its customers.” ■



Bonneville Dam | © RTO Insider LLC

CAISO/West News

California PUC President to Step Down

By Hudson Sangree

California Public Utilities Commission President Marybel Batjer said last week that she would step down at the end of the year with five years still left in her seven-year term.

Batjer broke the unexpected news in a letter to CPUC staff Sept. 28.

"I write to inform you, after much thinking and reflection, that I have decided to conclude my service as president of the CPUC at the end of this year," Batjer wrote. "This was a difficult decision, as I am so proud of the work we have done together in the face of a changing climate and global pandemic.

"Your deep commitment to our mission to ensure Californians have access to safe, clean and affordable utility services has sustained me during my tenure and makes it very tough to leave," she told commission staff.

Gov. Gavin Newsom named Batjer, then the state's government operations secretary, to fill out the term of retiring President Michael Picker in July 2019 and reappointed her to a full term last year.

In her decades of government service, Batjer had established a reputation for shaking up entrenched bureaucracies. She served as former Gov. Arnold Schwarzenegger's cabinet secretary, and Gov. Jerry Brown named her in 2013 to head the Government Operations Agency, a new entity charged with improving efficiency and accountability in state government. Newsom kept her on in that role and put her in charge of reforming the Department of Motor Vehicles, one of the state's

most inefficient bureaucracies.

When Picker decided to retire, the governor assigned Batjer the job of speeding up the CPUC's ponderous decision making as it struggled to cope with more wildfires, capacity shortfalls and the crimes and bankruptcy of Pacific Gas and Electric. (See [Newsom Names New California PUC President](#).)

"She is about reorganization. She is about governance," Newsom said at the time, calling her "one of the best in the business."

As part of PG&E's Chapter 11 reorganization, Batjer insisted on and obtained additional oversight of the troubled utility. The new powers included a six-step enforcement process that could eventually end with PG&E's license being revoked. It is currently in the first step of that process for failing to clear trees from its power lines, resulting in wildfires.

The CPUC has worked to prevent more fires and to rein in the use by investor-owned utilities of public safety power shutoffs under Batjer's leadership.

The commission also came under fire for failing to anticipate the capacity shortfalls that have plagued the state in the past two years and are expected to continue next summer. The retirement of fossil-fuel plants without sufficient replacements led to rolling blackouts in August 2020 and close calls on subsequent occasions.

The CPUC is charged with ordering procurement by the state's three big IOUs: PG&E, Southern California Edison and San Diego Gas & Electric

"It's difficult to understand why the CPUC did not appreciate the gravity of the short-fall sooner and take action to mitigate its impact," Chris Holden, chairman of the state Assembly's Utilities and Energy Committee, told Batjer at a hearing in January 2020. (See [CPUC President Vows to be 'Damn Nimble'](#).)

In response, the CPUC ordered load-serving entities under its jurisdiction to procure large amounts of new capacity including an additional 11.5 GW in June. (See [CPUC Orders Additional 11.5 GW but No Gas](#).)

"Since my appointment, the CPUC has been called upon to translate its rules and processes into timely actions and outcomes to better protect and improve the quality of life for Californians," Batjer said. "I can say with confidence that we — at all levels of the CPUC — have worked tirelessly to support Californians during these challenging times. This became my mission, and I will leave the CPUC knowing its leadership will continue to uphold this focus and determination."

During Batjer's tenure, CPUC commissioners became embroiled in an ugly and very public battle with former executive director, Alice Stebbins, whom they fired for allegedly hiring poorly qualified former colleagues for key positions. Stebbins has continued to criticize the commission in the media and to sue the commission, claiming she was retaliated against for blowing the whistle on \$200 million in missing funds. ([CPUC Fires Executive Director for Improper Hiring](#).)

The fight with Stebbins took an especially heavy toll on Batjer, colleagues have said.

Batjer said in her message to staff that she needed a change.

"I have had the privilege of serving four California governors and have given my all to public service for many decades," she said. "I am now ready for a new challenge and adventure."

CAISO CEO Elliot Mainzer, who has worked closely with Batjer and their counterparts at the California Energy Commission, said last week that "I have very much appreciated working with President Batjer over the past year. She has brought tremendous leadership, vision, and focus to the CPUC, and I will miss interacting with her on a regular basis. I wish her the very best as she moves on to new challenges and hopefully gets some well deserved rest." ■



CPUC President Marybel Batjer | California State Assembly

CAISO/West News

Calif. Can Get by Without More Gas, CEC Says

Questions About Battery Performance, Extreme Weather Remain

By Hudson Sangree

The California Energy Commission adopted a midterm reliability analysis Thursday that determined the state can meet its 2023-2026 capacity needs without adding more gas generation but warned that extreme weather and the state's dependence on battery storage could prove problematic.

"The analysis concludes that, given the assumptions, it appears that sufficient capacity has been ordered for midterm reliability from 2023 through 2026," Liz Gill, adviser to CEC Vice Chair Siva Gunda, told commissioners. "However, additional retirements [of aging natural gas plants] would increase the likelihood of system reliability challenges."

The analysis did not "capture the frequency and dispersion of extreme climate events" or the higher demand from electrification of the transportation and building sectors, Gill said. The CEC is working to include those factors in future analyses, she said.

The second conclusion of the analysis was that "a portfolio of zero-emitting resources can provide the equivalent system reliability compared to fossil fuel resources," but lithium-ion battery performance must be monitored as storage plays a larger role, she said.

The vote on the midterm reliability analysis followed two CEC workshops on Aug. 30 that examined the role of natural gas in the energy mix through 2026 as the state's last nuclear plant retires, older gas plants close, and the grid relies more heavily on renewables and storage. (See [CEC Looks at Gas for Midterm Reliability](#).)

The CEC's demand forecasts inform procurement decisions by the California Public Utilities Commission.

In June, the CPUC ordered utilities to procure an additional 11.5 GW of capacity by mid-decade but intentionally left open the question of whether more gas generation is needed. (See [CPUC Orders Additional 11.5 GW but No Gas](#).)

A proposed decision by a CPUC administrative law judge said the state needed up to 1,500 MW in additional gas capacity, but CPUC commissioners rejected that component amid a public outcry. (See [CPUC Proposes Adding 11.5 GW of New Resources](#).)

"The revised [proposed decision] that we're voting on today removes the requirement to procure any fossil resources, and instead our staff will work with the Energy Commission staff to conduct additional analysis over the next few months about the need for fossil resources for reliability purposes," CPUC

Commissioner Clifford Rechtschaffen said at the time. "The results of this analysis from our staff and the Energy Commission will help inform our next procurement decision, which we will debate about later this year."

Thursday's analysis found the CPUC's 11.5 GW no-gas procurement order was sufficient to ensure reliability through 2026. Under the order, the state is expected to add 10 GW of four-hour battery storage, 8.3 GW of solar capacity, 2.5 GW of wind, 1.2 GW of geothermal power and 1 GW of long-duration storage.

Concerns have been raised that the international supply chain for battery production might not support the projected growth, Gill said. The analysis applied a one-year delay to 20% of new battery resources and found that it did not undermine reliability, she said.

Battery Performance

The analysis also raised the issue of battery performance, including charging and outages.

Battery outage rates need more analysis as the technology is deployed, Gill said.

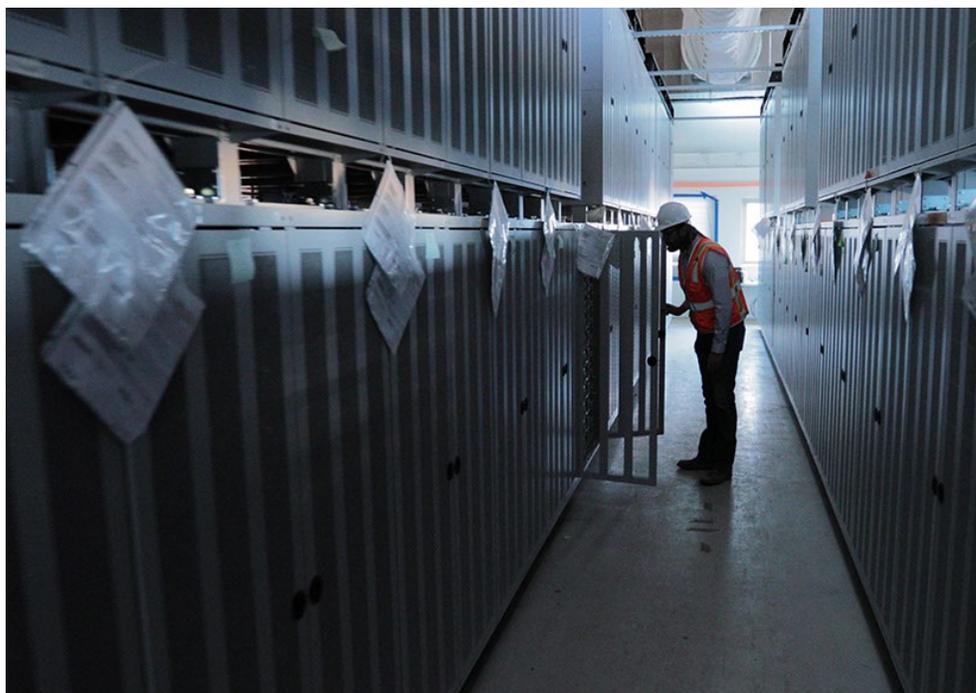
A Sept. 4 outage at Vistra Energy's Moss Landing Energy Storage Facility, the world's largest battery array at 400 MW, pointed to one potential flaw in lithium-ion batteries: overheating. Initially the incident was blamed on high heat and fire, but Vistra said in a Sept. 30 [statement](#) that it has so far found no evidence of batteries exceeding acceptable temperature limits when its sprinklers went off, damaging a small percentage of units.

Limitations on imports, solar and hydropower could affect charging conditions, Gill said.

The analysis looked at scenarios in which imports were limited by up to 5,600 MW, hydropower was limited to average minimum generation during non-peak hours, and solar was reduced by 15% to 45% to reflect cloudy or smoky conditions.

The CEC analysts found there was sufficient capacity on the grid until both imports and hydropower were constrained and solar output dropped by 45%.

"Given the extreme nature of this scenario, staff has determined that it does not appear energy sufficiency will be a limiting factor to system reliability in the next five years," Gill said. ■



Vistra Energy's Moss Landing Energy Storage Facility on Monterey Bay is the world's largest. | Vistra Energy

ERCOT News



ERCOT Technical Advisory Committee Briefs

Members Endorse Changes from Winter Storm's Emergency List

ERCOT's Technical Advisory Committee last week endorsed several protocol revision requests and associated changes related to the use of emergency response service and load-resource participation in non-spinning reserves, a result of members' work on the committee's *emergency conditions list* following the February winter storm.

The committee approved the three ERS-related measures on a single ballot during Wednesday's meeting, with only Morgan Stanley casting an opposing vote. The independent power marketer was among several from its segment that voted against the measures as they would their way through the stakeholder process.

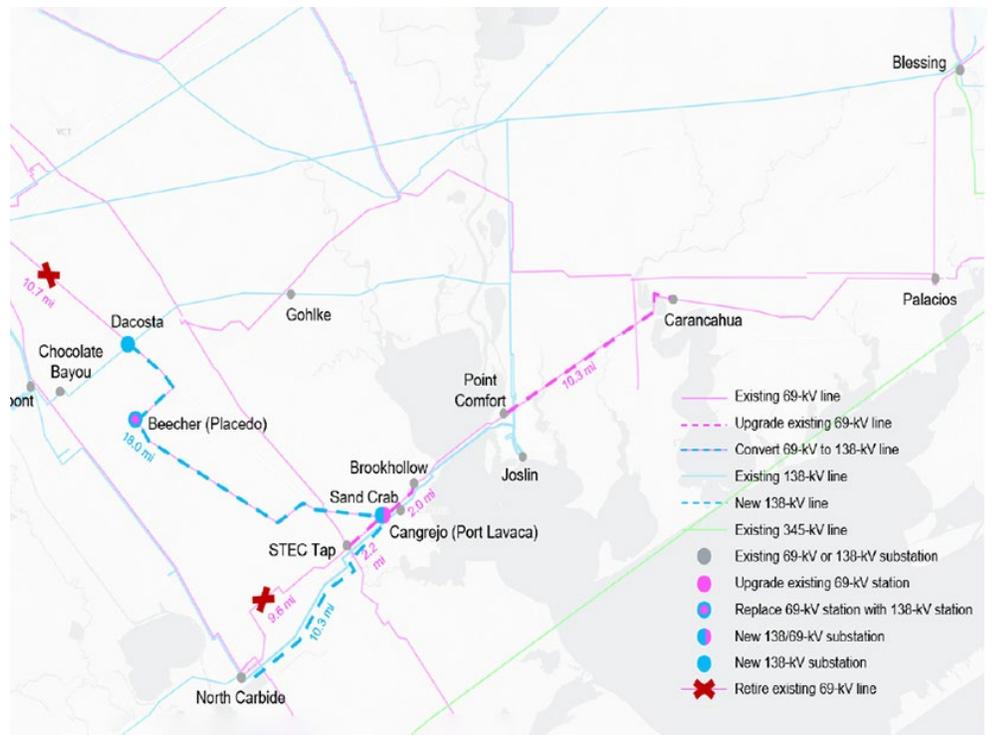
The key nodal protocol revision request (*NPRR1090*) clarifies that ERCOT has the flexibility to declare when exhausted ERS service types will be renewed for some or all of the ERS time periods and extends the deployment limit of weather-sensitive resources.

The measure revises several ERS processes, including modifying and clarifying language related to the beginning and end of contract periods for ERS renewals; removing the limit on the maximum number of deployments per contract period; and revising the cumulative deployment obligation time requirement for weather-sensitive resources.

Staff said *NPRR1087* will ensure any critical load in ERS programs can continue to support critical operations if they are deployed by requiring an attestation that the resource is not located behind an electric service identifier (ESI ID) for a critical load. The NPRR also requires a qualified scheduling entity representing an ERS resource to ensure and attest that it is not located behind an ESI ID for a critical load or itself is not the critical load.

The final ERS measure (*NPRR1082*) changes the testing criteria for ERS load with obligations less than 100 kW co-located with an ERCOT generator.

The TAC also separately approved *NPRR1093*, which allows ERCOT to explore temporary workarounds for non-controllable load resources to participate in non-spinning reserves and provide additional capacity for the grid operator in the coming winter and summer seasons. The non-controllable resources will be deployed after offline units



The Port Lavaca transmission project involves rebuilding 69-kV lines to 138-kV capability. | ERCOT

participating in non-spin.

The change request reinstates protocol requirements that were in place during the nodal market's first five years and were then subsequently changed to enable controllable load resources to be economically dispatched and to participate in non-spin. It also incorporates market design changes that have been made for the operating reserve demand curve (ORDC) and reliability deployment price adder (RDPA) process when deploying ancillary services from non-controllable load resources.

The measure passed by a 22-6 margin with two abstentions. All four cooperatives and two independent generators opposed the NPRR over concerns that a "resulting flood" of participation in the non-spin market "will artificially suppress" the service's value. Non-spin can clear as low as 1 cent/MWh, *they said*, with "bleed-over" effects into the day-ahead and real-time markets.

An earlier proposal to table the change request for a month failed 8-17, with five abstentions. Staff said any delays would close the window for making the additional non-spin available to their operators before next summer.

The measure carries a price tag between

\$450,000 and \$650,000 and will take about a year to complete.

"This is a complex addition to the ancillary service-clearing engine," explained Kenan Ögelman, ERCOT's vice president of commercial operation. "That's why it's both expensive and time-consuming. But with so many items going on, it's a matter of reserving resources so they can work on this too."

The vote on *NPRR1082* also included two other binding document revision requests (*OBDRRs*) and a change to the nodal operating guide (*NOGRR*):

- *OBDRR032*: aligns the non-spinning reserve deployment and recall procedure *NPRR1093*'s revisions.
- *OBDRR033*: matches the methodology for using the ORDC to calculate the RDPA with *NPRR1093*'s revisions.
- *NOGRR232*: squares the guide with *NPRR1093*'s revisions.

Load Project Threshold Approved

The TAC approved ERCOT's request to increase the boundary threshold used in load forecasting from 5% to 7.5% for all eight weather zones. Staff said increasing

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the threshold will provide the transmission service providers (TSPs) more flexibility in handling the fast-growing areas on their systems, but they also noted the Public Utility Commission directed ERCOT to pursue the increase during its Sept. 23 open meeting.

The need has become more acute with large consumers, such as data centers, proposing new facilities with accelerated development timelines in addition to the state's explosive population growth. According to 2020's *U.S. Census Bureau data*, Texas' 29.4 million residents account for 8.9% of the country's population, but 32.4% of the total growth between 2019 and 2020.

The Far West zone's boundary threshold already stands at 7.5%, having been raised in 2018 because of the additional transmission necessary to address oil and gas development in the Permian Basin.

ERCOT compares its load forecast, a top-down system-level approach, with the TSPs' ground-up projections, aggregated by weather zones. If staff's projections are higher in a particular zone, ERCOT uses its forecast and distributes load to each substation according to the TSPs' allocations.

In zones where the TSP forecast is higher than ERCOT's but below the grid operator's boundary threshold, the TSP's projections are used. If the TSP forecast exceeds ERCOT's boundary threshold, it is reduced to match the ERCOT forecast plus the threshold.

ERCOT's 2021 regional transmission plan (RTP) found that demand forecasts for six of the weather zones were limited by the boundary threshold. The TSP-developed forecasts for those zones ranged from 6.8 to 11.2% above ERCOT's projections in the RTP's final year (2027), resulting in a demand

reduction of about 2.8 GW.

"I don't think we're in perfect lock-step all the time, but there's not necessarily a disconnect between the two processes," said ERCOT's John Bernecker, manager of transmission planning assessment. "We're also seeing significant changes in demand-side behavior. That certainly warrants further discussion in investigating why we're seeing some of these things we see, as well as evaluating how we approach appropriate load-forecast studies."

"Raising this [threshold] to 7.5% is just hand-waving," Morgan Stanley's Clayton Greer said, calling for a subcommittee assignment. "We need to get to the root-cause analysis of what's happening here."

Members Endorse \$101M Tx Project

Members endorsed staff's recommendation for a \$101.5 million transmission project that addresses reliability and aging infrastructure needs in the Port Lavaca area on the Gulf Coast by placing it on the combination ballot.

Staff reclassified American Electric Power's original \$97.8 million proposal to a Tier 1 project when its review found reliability planning-criteria violations that elevated the project's costs over a \$100 million threshold. Tier 1 projects must be approved by the Board of Directors.

The project involves rebuilding and adding a second 138-kV circuit to 10 miles of an existing line; upgrading 24 miles of 69-kV line to 138 kV or capable; constructing two 138-kV substation and one 138/69-kV substation and installing two 138/69-kV transformers to replace 69-kV facilities; and retiring 20.3 miles of 69-kV line.

About 40 miles of the area's 69-kV lines date

back to 1949 to 1953. AEP expects to complete the project by December 2024.

Slim Combination Ballot Passes

The TAC pulled *NOGRR223* off the combination ballot to allow Luminant to vote against it. The measure, which requires phasor measurement recording equipment at existing facilities with an aggregated capacity above 20 MVA at a single site before entering the interconnection queue or change-request process, passed 27-1, with two abstentions.

Luminant said there is no "clear justification" for ERCOT to require phasor measurement unit capability, as most of the burden is on owners with the 20-MVA requirement for new generation resources.

The remainder of the combo ballot included two revisions to the planning guide (PGRR) and a change to the resource registration glossary (RRGRR):

- *PGRR093*: reinserts three requirements into the board-approved graybox language for *PGRR082* that were inadvertently removed in its revisions.
- *PGRR094*: aligns the guide with current practices by grayboxing language requiring project construction start and completion date submittals until system implementation in the resource integration and ongoing operations-integration services system.
- *RRGRR030*: removes certain transformer data's hard coding of voltage levels for certain resource registration information, allowing resources connected to other voltage levels to submit their registration data without receiving validation errors. ■

— Tom Kleckner

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ERCOT News



Texas Market Taking Winterization Seriously this Time

Continued from page 1

ry by FERC and NERC has since pinpointed a lack of winter weatherization of generator facilities and natural gas infrastructure as the leading cause of the power outages that left some Texans in the dark and cold for almost four days. (See [FERC, NERC Share Findings on February Winter Storm.](#))

State lawmakers and regulators responded to the storm by taking a more aggressive response to weatherization, requiring generators and transmission service providers (TSPs) to comply with mandatory reliability standards for winter weather and imposing financial penalties if they don't. (See "Weatherization Rule Published," [PUC Workshop Takes First Stab at Market Changes.](#))

FERC Chair Richard Glick, in discussing the joint inquiry with NERC last month, noted that the two regulators proposed similar requirements after a previous winter event in 2011. However, "that recommendation was watered down to guidelines that few generators followed," he said.

This time, it will be different, Jeff Billo, ERCOT's director of forecasting and ancillary services, said during Thursday's virtual workshop.

"Previously, we really didn't have any mandatory reliability standards from a weatherization standpoint," he said, adding that there will be "substantial fines." Penalties can range as high as \$1 million/day.

"Future inspections will be very different than they have been in the past," Billo said.

The Public Utility Commission's draft rule directs generators and TSPs to file compliance statements, signed by a senior-level officer, attesting to their actions. ERCOT staff will follow up with on-site inspections. With about 800 resource units to inspect, Billo said ERCOT is taking a "risk-based" approach and will focus on those generators that failed during the winter storm. That will likely include wind farms and solar fields, Billo said.

The grid operator's staff are currently developing an online compliance form that will be distributed before the Dec. 1 response deadline. ERCOT is required to file a report with the PUC by Dec. 10.

"If we have 800, 900 units to look at, we don't want [response] emails in formats

we'll have to sort through in eight or 10 days," Billo said.

ERCOT used to inspect about 80 units a year, Billo said. The increase has forced the grid operator to create a weatherization director's position and hire additional staff to meet the load. In the meantime, staff will rely on support from contractors to meet a Dec. 24 inspection deadline.

The commission will add temperature requirements to its reliability standards next year, following a detailed weather report due early next year.

ERCOT meteorologist Chris Coleman told his virtual audience that the La Nina ocean patterns are similar to last year's and that a majority of forecasts are pointing to a colder-than-normal winter. While much of the cold air may be concentrated in the Midwest, he said, "The potential is there for a polar vortex for ERCOT a time or two."

Coleman said this winter will likely be a dry one, welcome news to those who remember February's ice and snow. He said his preliminary data indicate the coming season will be similar to the mild winter of 1999-2000, pointing out that extreme winters are historically followed by milder ones.

"Statistically, when you have a cold, extreme winter, at least some, if not more, of those winters were followed by some extreme cold, though not as extreme" as the previous winter, Coleman said.

The meteorologist's final forecast will be released in November.

Generation Owners Share Tips

Andrew Valencia, Lower Colorado River Authority's (LCRA) senior vice president of generation and the man who will sign the utility's compliance statement, was among several market participants and industry experts who shared their insight during the workshop.

He said a power plant is only as good as its weakest link, noting subsystems and major equipment are typically designed for specific minimum temperatures that may or may not be consistent. The highest temperature rating sets the entire plant's rating, but that can be a moot point when sub-zero temperatures hit.

"There's no way to test freeze protection until you have cold weather," Valencia said. "Until you can experience those temperatures, there's no way to functionally test it."

He said activating temporary heat sources, frequently checking equipment and adding staff are among hundreds of procedure provisions necessary required to maintain operations.

LCRA begins its winter preparations in the fall with meetings to review written procedures and checklists for each site. Supply inventories and equipment are checked and senior leaders tour each site to verify preparations.

"That's the best time to work on it. You don't need the preparation measures, and you have time to work on the protection," Valencia said.

El Paso Electric's Kyle Olson said the utility invested \$4.5 million in freeze protection systems after losing generation, much of it built before 1980, during the 2011 winter event. The utility also added a gas unit designed to withstand 10 degrees Fahrenheit, chose simple cycle turbines over combined cycle, and installed dual-fuel capability on new additions.

The utility wound up meeting demand that was almost 37% above normal. Being part of WECC and separated from ERCOT helped, as one social media meme was quick to notice.

"The heat tracing money paid off," Olson said, citing \$19 million in customer savings during the February storm. "In a city where summer temperatures reach 105 [to] 110, people aren't constantly thinking about winter protections." ■

El Paso's power grid looking at the rest of Texas



El Paso Electric's performance during the winter storm led to a social media meme. | [LordOfTheBrohirrim](#) via [iFunny.com](#)

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ERCOT News



ERCOT Mothballed Resources Return to Year-round Ops

By Tom Kleckner

ERCOT will soon add an extra 226 MW of capacity to the market with recent announcements that two resources will come out of seasonal mothball status.

Austin Energy *told* the grid operator on Wednesday that it is returning the wood-fired Nacogdoches Power, the country's largest biomass plant, to year-round service on Oct. 15. The plant, which the municipal utility acquired from Southern Power in 2019, had been operating on a seasonal basis during the summer.

Last week, Garland's municipal utility *notified* ERCOT that it was bringing back a pair of gas-fired units that had been mothballed in 2018. The two units at Garland's Spencer plant have a total capacity of 118 MW.

ERCOT has said it has enough capacity to meet a fall demand peak of 65 GW by at least 30 GW, but staff told regulators last week that forced or maintenance generator outages continue to approach 10 GW a day. (See

ERCOT: Sufficient Capacity to Meet Fall Demand.)

Brad Jones Named to Reliability Council

Texas Gov. Greg Abbott on Sept. 28 included interim ERCOT CEO Brad Jones among *six appointees* to the new Texas Energy Reliability Council, which was established by legislation this summer in response to February's Winter Storm Uri.

The other appointees represent three of Texas' four largest urban areas: Houston, San Antonio and Austin. They are:

- Nate Murphy, senior counsel for refiner Valero, San Antonio;
- George Presses, vice president of fuel and energy for the H.E.B. grocery chain, San Antonio;
- Edward Stones, global business director for energy and climate change for Dow, Houston;
- Jon Taylor, corporate vice president of fab (silicon wafers) engineering and public affairs at Samsung Austin Semiconductor,



Austin Energy's Nacogdoches Power under construction | Southern Power

Austin; and

- Melissa Trevino, assistant vice president for power at Occidental Energy Ventures, Houston.

Senate Bill 3 tasks the council with overseeing the grid's weatherization and improving communication in the state's energy and electric industries. ■

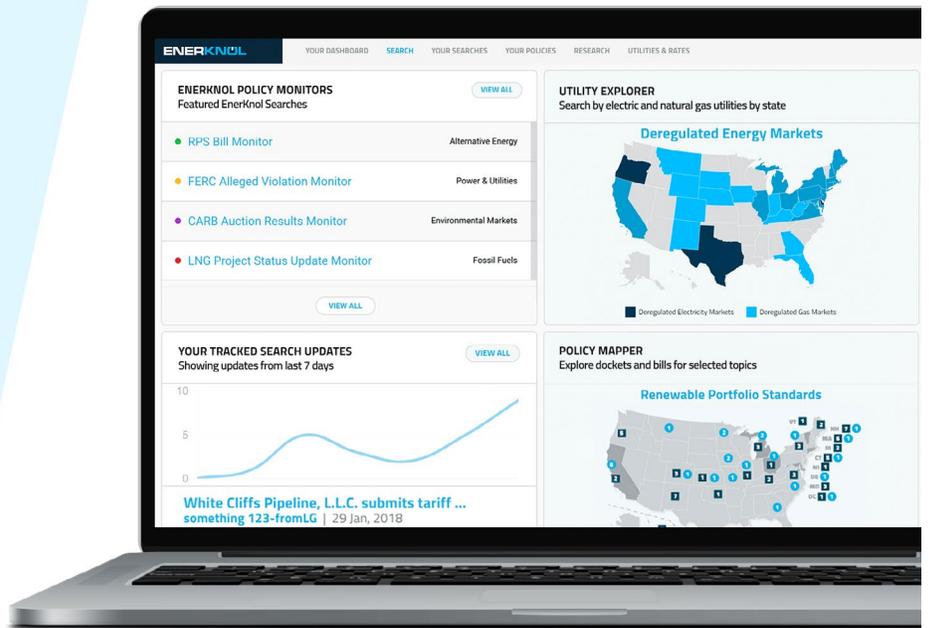
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ERCOT News



Texas PUC Finances Market Debt over Lt. Gov.'s Objections

Commission Approves \$2.9B in ERCOT Debt-obligation Requests

By Tom Kleckner

Texas regulators last week ignored political pressure in approving a pair of ERCOT requests for debt-obligation orders that will allow the grid operator to securitize \$2.9 billion in market debt as a result of high charges incurred during the February winter storm.



Lt. Gov. Dan Patrick | Texas Senate

The Public Utility Commission on Thursday tweaked and accepted a [settlement](#) reached between 46 parties and participants over ERCOT's proposal for a \$2.1 billion market uplift to cover short pays to the market, despite [letters](#) sent to

each commissioner by Lt. Gov. Dan Patrick (R) in opposition to the agreement (52322).

Patrick said he supported the prioritization and securitization of retail electric providers (REPs) unaffiliated with generation companies. "However," he said, "any portion of the proposed settlement agreement that does not calculate cost exposure on a net basis ... is unacceptable."

The state's second most powerful politician said that the intent of legislation authorizing the securitization process ([House Bill 4492](#)) was to "calculate cost exposure on a net basis" by taking into account the profits of affiliated generators — such as Luminant and NRG Energy, affiliated with REPs TXU Energy and Reliant, respectively.

"The Texas Senate would not have passed a bill that gave money to companies that profited during the winter storm," said Patrick, who as lieutenant governor is president of the Senate.

Commissioner Will McAdams, leading the PUC's open meeting after Chairman Peter Lake recused himself, responded to the letter before the commission took up the docket. He said it was "well taken" and its assertion of legal intent "is always valuable to agencies" as they try to "execute the intent of the legislature and the letter of law."

"With the submission of the unopposed settlement, we have a path forward and the mechanics of accomplishing securitization in an order," McAdams said. "This is a complicat-



Commissioner Will McAdams (center) leads the PUC's discussion of securitization issues in the absence of recused Chairman Peter Lake. | Texas Admin Monitor

ed proceeding, with many intervenors. If we breach the unopposed settlement agreement, there's a very good chance we would prevent staff from being able to move forward in a timely way to [meet] the deadline for issuing the order."

The PUC faces a statutory deadline of Oct. 14 for issuing orders in the two proceedings. ERCOT's other debt-obligation requests involves financing \$800 million owed to the market by cooperatives and municipalities (52321). (See [Texas PUC Hearings Begin on \\$2.9B ERCOT Securitization](#).)

"This settlement is that tool to provide badly needed liquidity into a market that has been significantly disrupted by" the storm, McAdams said. "Many actors are limping along, waiting on state-backed relief. If we restart this process, I fear that it may result in bankruptcies on the part of our most at-risk market participants."

Patrick responded by issuing a [statement](#) after the meeting, calling the PUC's decision "bad public policy and a bad decision for Texas taxpayers." He also took shots at the commissioners, who replaced those seated during

the winter storm, and HB4492's author, Rep. Chris Paddie (R).

"After the winter storm, I called for the resignation of members of the PUC. They all resigned," Patrick said. "I can assure you that the new commissioners' Senate confirmation hearings would not have gone as smoothly if senators knew they intended to disregard the will of the Senate."

He said Paddie, who recently said he was [stepping down](#) after eight years in the legislature, has been "disingenuous" during the legislative process and that he may be "seeking a highly compensated position in the same electric industry that stands to benefit from his position of no netting and no transparency."

House Speaker Dade Phelan stood up for Paddie, chair of the powerful House State Affairs Committee, [posting](#) on Twitter that he was grateful for his "steady leadership, his character and his integrity." Saying that



House Speaker Dade Phelan | House Speaker

ERCOT News



implementing legislation related to ERCOT's market "merits a deliberative, factual hearing," Phelan said he has asked Paddie to convene a hearing to gather a progress report on the grid."

"Shot ... chaser," *tweeted* energy consultant Doug Lewin, contrasting the Patrick and Phelan statements.

Lewin added that the political tit-for-tat is a fight about "who gets how much" of the \$2.1 billion bailout, which is likely to be ultimately paid by ratepayers. "This is not a fight about how to give assistance to ratepayers or prevent another outage."

State Senate Grills Gas Regulator

Texas senators took out their ire on the Texas Railroad Commission (RRC), which regulates the state's oil and gas industry, when it became apparent that legislation they wrote earlier this year included a loophole that allows natural gas companies to opt out of weatherization requirements if they don't voluntarily declare themselves to be "critical infrastructure."

The opt-out fee is only \$150. Should the facilities declare themselves "critical infrastructure," they would be forced to spend significantly more money on weatherizing their facilities.

A timetable that requires a committee to map the state's critical energy infrastructure by next September, and then gives the RRC 180 days to issue its weatherization rules, also raised the legislators' hackles.

"Our weatherization rule will not be adopted for this winter because we have to put the map together," RRC Executive Director Wei Wang said during the Senate Business and Commerce Committee's Sept. 28 hearing on the energy industry's winter preparations.

"Wait a minute ... you haven't done it yet?" Sen. Robert Nichols (R) asked.

Wang responded that the commission is just following *Senate Bill 3's* language. The comprehensive bill was the legislature's primary response to February's devastating winter storm. (See *Abbott Signs Texas Grid Legislation into Law.*)

"Your rulemaking proposal sucks, and we need a different direction," Sen. John Whitmire (D) told Wang.

"Appreciate your guidance on that particular issue, and if we need to change the language, we will," Wang replied.

The committee directed Wang to ask the RRC's legal counsel as to whether lawmakers can revise the legislation during the current special session that ends Oct. 19.

"This gives the Texas Railroad Commission a great opportunity to prove up its worth," Sen. Donna Campbell (R) said. "If you don't, it can just be moved the PUC. It's going to be looked at. You better prove up your worth."

The FERC-NERC joint inquiry into February's generation outages in Texas and the Midwest during the storm have fingered the lack of gas infrastructure weatherization as the primary culprit. Other reports and studies have come to the same conclusion. (See *FERC, NERC Share Findings on February Winter Storm.*) ■



Texas RRC Executive Director Wei Wang (2nd from left) explains the commission's weatherization plans during a Senate hearing. Also seated: Texas Energy Reliability Council Chair W. Nim Kidd, Interim ERCOT CEO Brad Jones, and PUC Chair Peter Lake. | *Texas Senate*

ISO-NE News

Conn. Regulator Nudges ISO-NE to Share Tx Data to Support OSW

By Emily Hayes

States in New England are relying on offshore wind to cut greenhouse gas emissions, but they need to hear from ISO-NE on where transmission upgrades are most needed before they can start harnessing the energy.

"I think [ISO-NE] is best-positioned to be able to provide the states with that kind of planning analysis," Connecticut Department of Energy and Environmental Protection (DEEP) Commissioner Katie Dykes said at the Environmental Business Council of New England's Connecticut Offshore Wind Webinar on Sept. 24.

Other onshore renewable energy resources, Dykes said, need to be considered in the transmission planning process for OSW to avoid unintended consequences of congestion or curtailment between resources.

"The [ISO-NE] planning process for transmission has been pretty reactive," Dykes said, and states are calling for a more proactive approach to building out the grid.

But New England states also need to work with ISO-NE in providing information on what their transmission and climate goals are so the system operator can include them in its planning efforts.

Since 2012, for example, Connecticut's integrated resource plan (IRP) has assessed supply and demand to formulate recommendations for the state's electricity needs. And in Massachusetts, Gov. Charlie Baker's administration developed a *Decarbonization Roadmap* to model how the state will reduce emissions at least

85% by 2050, including plans for electrification that require significant transmission updates.

Connecticut and Massachusetts want to plug the IRP and roadmap into ISO-NE's scenario planning process, Dykes said.

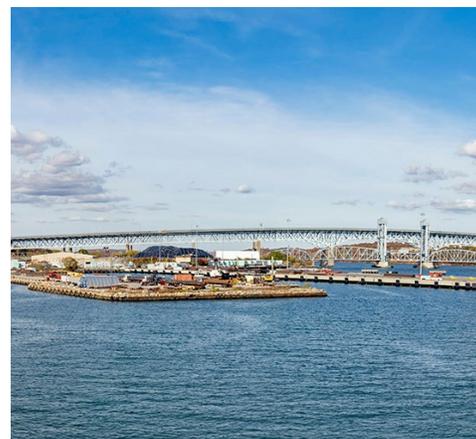
Last year, all six New England states, through their representatives to the New England States Committee on Electricity, signed a *vision statement* that calls for ISO-NE to make the changes necessary to cost-effectively build the transmission needed to integrate OSW and other renewables.

In July, FERC opened a rulemaking to reconsider its rules on transmission planning, cost allocation and generator interconnection, acknowledging that Order 1000 has failed to provide interregional expansions to deliver increased renewables and meet the challenge of climate change. (See *FERC Goes Back to the Drawing Board on Tx Planning, Cost Allocation.*)

FERC's review is important, Dykes said, because New England is "long delayed in reforms to the transmission procurement process."

To unlock the transmission investment needed to integrate future offshore wind and other renewables, it is "critical that we'll be able to participate in the process," Dykes said.

Connecticut currently has about 90% of its electricity load under contract with renewable and zero-carbon resources, including the 704-MW Revolution Wind project between Eversource Energy and Ørsted off the coast of both Connecticut and Rhode Island. The developers expect to place the project in



The New London State Pier, seen here, is central to Connecticut's offshore wind buildout, which needs proper transmission planning to succeed, according to Conn. Department of Energy and Environmental Protection Commissioner Katie Dykes. | Shutterstock

commercial operation by 2025.

In addition, Vineyard Wind's 804-MW Park City Wind project is located 23 miles off the coast of Massachusetts but will bring renewable energy to the residents of Connecticut.

Prices for OSW are steadily declining, Dykes said. The contract prices for Connecticut's projects declined 20% from \$99.50/MWh to \$79.83/MWh, she said.

"These [prices] are a testament to the success of the competitive procurement mechanism Connecticut has been using to invest in OSW, as we provide certainty and finance stability for these projects going forward," Dykes said. "The next challenge we have to tackle is transmission." ■

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ISO-NE News

Utility CEOs Talk Alignment with Conn. on Climate Change

By Jason York

When Catherine Stempien, CEO of Avangrid Networks, and Eversource Energy CEO Joe Nolan were asked during the Connecticut Power and Energy Society's "Power Hour" virtual event Thursday about how the state's two largest utilities can help it reach decarbonization and greenhouse gas reduction goals, each of them took a slightly different path but ultimately had a common thread in their respective answers: alignment.

"I would love to be queen of the United States in the transmission and distribution grid and tell people what's the optimal way to efficiently deploy clean energy, fast and efficiently for the lowest cost," said Stempien, who leads Avangrid's largest business unit, with 3.3 million electric and gas customers through eight companies in Maine, Connecticut, New York and Massachusetts. "We're not doing that in the United States right now. We're very patchwork."

Stempien added there needs to be "alignment on where the generation should go and where the grid needs the most work," whether it is electric vehicle home charging and along transmission corridors, or interconnecting renewable energy sources to the grid. "All of those elements are going to be needed in order to meet the clean energy future."

For Nolan, alignment on Connecticut's "very lofty goals" of carbon-free electricity by 2040 and an 80% reduction in GHG by 2050 is essential to him because mending the utility's relationship with the state has been one of his top priorities since taking charge of the

company this spring.

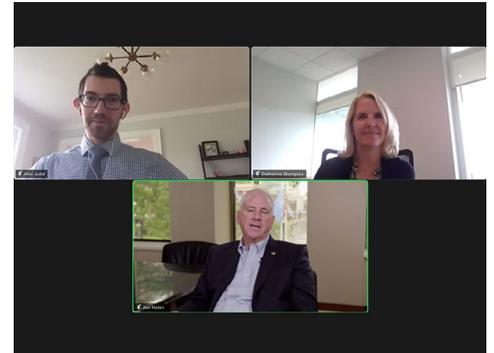
"It's great to be partners with the state on these initiatives because that's what's going to drive the change that we want in terms of a vibrant transmission grid," Nolan said. "We are investing heavily in our grid to unlock all of these renewable options so that we can reduce congestion and bring about the cleanest kilowatt-hour that's available to our customers."

Stempien and Nolan are additionally aligned on climate change in terms of adaptation and mitigation measures necessary in the face of more frequent extreme weather events. They both came into their jobs in the wake of United Illuminating's and Eversource's highly criticized responses to Tropical Storm Isaias in August 2020, which also prompted legislative action to hold the utilities more accountable and force more significant preparation.

The "unpredictability" of storms, according to Stempien, reinforces "the need for us to build resilient systems." That includes examining everything from flood mitigation at substations to moving power lines underground.

"Typically, people always think of underground being a much more expensive alternative, but with the increasing number of storms, depending on where you are, undergrounding may now be, in fact, the better solution because it is avoiding all of these trees coming down," Stempien said.

Regarding trees, Nolan said Eversource would invest more than \$72 million this year on tree trimming and removal, as the "single greatest cause of power outages" in Connecticut is



Alex Judd, Connecticut Power and Energy Society; Catherine Stempien, Avangrid; and Joe Nolan, Eversource Energy | Connecticut Power and Energy Society

downed trees falling on power lines, which can also block roads and further slow restoration work. Nolan said that Eversource has partnered with several cities and towns in the state on the effort.

"We're out there helping them take care of any danger trees, but the other thing I think it's been very helpful to us to demonstrate to them or show a danger tree that's going to impact a particular line, and what's on that line," Nolan said.

He added that the utility is not indiscriminately removing trees.

"We have multiple arborists that could well talk about each of these trees and talk about whether they are healthy or unhealthy; whether this particular branch is going to impact the power line," Nolan said. "I think the fact that we bring our 'A' game when we go to see these towns, they understand what's at stake." ■



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MISO News

New Orleans Seeks FERC Inquiry into Entergy Planning Practices

By Amanda Durish Cook

New Orleans legislators last month requested a FERC investigation into Entergy transmission-planning practices as criticism continues to mount that the utility is hindering transmission development to shield its footprint from competing energy suppliers.

The New Orleans City Council's utilities committee voted during a Sept. 22 meeting to ask state and federal regulators to examine Entergy's practices following the post-Hurricane Ida transmission failures.

The council's *resolution*, approved unanimously, asks FERC to examine Entergy's planning for any reliability violations.

"The council ... believes that FERC should exercise its regulatory jurisdiction to determine whether [Entergy Louisiana's] transmission line failures resulted from any violations of applicable FERC or NERC reliability standards ... including whether the lines were prudently operated and maintained," the council wrote.

It asked FERC to determine "whether Entergy's investment in transmission has allowed adequate access to competition and new technologies to enhance reliability and cost

savings for ratepayers."

The council also asked the Louisiana Public Service Commission to investigate Entergy Louisiana's reliability planning. It said that, as a city government, it lacks the standing to order an investigation into the eight transmission lines that feed the city. All eight of the lines were knocked out of service by Ida.

"The council pledges its support, encouragement and cooperation in any FERC/NERC effort to protect all of southeast Louisiana from ever facing such catastrophic transmission line failures," the council said.

City Council President Helena Morena accused Entergy of using "threats and PR spins" when responding to the city's inquiries about Entergy's planning decisions.

The council is currently contemplating forcing a change in the city's electric utility structure. Entergy has said it could either sell its New Orleans unit; merge it with Entergy Louisiana; create a standalone company without the Entergy brand; or allow New Orleans to set up a municipal utility. (See [Facing City Council Inquiry, Entergy Says it Could Sell New Orleans Utility Arm.](#))

"Please stop acting like you are the victim. You are the Goliath. You are a powerful For-

tune 500 company with all the resources in the world and record profits last year of \$1.4 billion," Moreno said during the meeting. "We are not the bullies, and we are not trying to run anyone out of town. We just want you to do your job for the ratepayers."

The city council has charged its utility advisers with conducting its own investigation of Entergy New Orleans' actions during and after the storm. That inquiry will pay special attention as to why Entergy didn't immediately activate the black start-capable New Orleans Power Station. When Entergy was seeking council approval for the plant in 2018, officials promised the City Council that the unit could provide black start services following major storms. (See [Entergy Touts Restoration; NOLA Leaders Question Lack of Blackstart Service.](#))

The city council said its utility advisors also will file comments regarding Entergy's grid performance after Hurricane Ida in FERC's examination of climate change and extreme weather events' impact on grid reliability (AD21-13).

Entergy did not respond to *RTO Insider's* request for comment.

The company did, however, *tout* the role of its



Hurricane Ida damage | Entergy

MISO News



rebuilt natural gas system in storm restoration, saying it played a “quiet, yet significant role” by supplying the New Orleans Power Station and city generators used for pumping floodwaters. Entergy almost completely rebuilt its gas system after 2005’s Hurricane Katrina.

NOLA Raises Bar for Cost Recovery

The next day, New Orleans Councilmember Kristin Palmer brokered another unanimous *resolution* that says the council will only consider rate increases tied to recovery costs after a “careful evaluation” of the proposed increases.

“We need to be very clear here: Entergy failed the people of New Orleans,” Palmer said in a *press release*. “It’s inexcusable that our entire city was left in the dark for weeks following Hurricane Ida. People died. Most of them were part of our city’s most vulnerable populations who suffered in the sweltering heat. Asking for the people of New Orleans to pay more for bad service caused by obvious negligence is not going to cut it.”

The resolution dictates that any cost “caused by the failure of power utilities during Hurricane Ida cannot simply be passed onto Entergy’s customers.” It would require Entergy New Orleans to submit to an “open and transparent” review of its actions and plans to prove that the city’s power outage wasn’t a result of utility failures before the council could consider storm recovery rate increases.

“It’s not enough to just wag our finger at Entergy,” Palmer said. “We need to let them know that we aren’t going to stand for avoidable negligence that kills our people. Anyone else in New Orleans who doesn’t do their

job doesn’t get paid. The same should go for Entergy.”

The council said that before Hurricane Ida’s landfall, Entergy began seeking \$38.5 million from customers to address 2020 power restoration costs related to hurricanes Laura, Delta and Zeta.

“In spite of these substantial investments borne by ratepayers, residents and businesses faced prolonged power outages following Hurricane Ida,” the council said.

Quashing Line Development?

The recent scrutiny of the Louisiana Entergy system following Hurricane Ida has spurred a reexamination of some of the company’s past planning decisions and whether they were motivated by preservation of the utility’s monopoly.

In 2016, MISO and Entergy agreed to build a \$74 million 230-kV transmission line to ease the Amite South load pocket that includes New Orleans in southern Louisiana. The *line* would have connected two substations and boosted reliability. Four years later, Entergy canceled the project after it built the nearby \$900 million, 950-MW St. Charles combined cycle gas turbine west of New Orleans.

Southern Renewable Energy Association (SREA) Executive Director Simon Mahan *said* the gas plant’s construction and subsequent cancellation of the line ensured that local cooperatives had no choice but to purchase energy from Entergy.

A similar scenario could be playing out with MISO’s second-ever competitively bid transmission project, the Hartburg-Sabine line in East Texas. Despite MISO awarding construc-

tion responsibilities to NextEra Energy in 2018, development of the line has ground to a standstill. (See *Uncertainty Deepens for Hartburg-Sabine Project*.)

In 2019, Texas passed a right-of-first-refusal law that handed the project to Entergy Texas, the incumbent transmission company. The U.S. Department of Justice opposed Texas’ ROFR law as anti-competitive, and NextEra filed a federal lawsuit. (See *NextEra Appeals Court Decision on Texas ROFR Law*.)

The Hartburg-Sabine line now languishes in “legal limbo,” *according* to the SREA, despite MISO’s projections of a 2023 completion estimate. NextEra still lists the project on its website.

Last year, Entergy Texas issued a request for proposals for a 1.2-GW natural gas plant along the line’s route. The \$1 billion power plant, expected to be operational by 2025, could supplant the \$115 million line.

Entergy has denied that it tries to stall transmission line approvals and said while it works in collaboration with MISO, the RTO ultimately decides on grid expansion. The grid operator has also characterized its transmission planning as a collaborative process between it and its stakeholders.

Other stakeholders have said Entergy and state regulatory consultants deliberately try to slow the RTO’s planning process by raising frequent objections and demanding more studies to back up MISO’s renewable projections. Environmental advocates recently accused Entergy and regulatory consultants of dominating conversations in long-range planning workshops. (See *Tensions Boil over MISO South Attitudes on Long-range Transmission Planning*.) ■

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MISO News

NOLA Mayor Calls for Changes in Entergy Grid Planning

Continued from page 1

Cantrell said the city is focused on turning vacant lots into utility-scale solar installations. She also said the city is installing new, more efficient turbines to serve the city's Sewerage and Water Board.

She said her administration is focused on establishing a series of microgrids with renewable energy sources across hubs that the city used as disaster shelters.

"I'm looking for power lines to be underground," she added.

New Orleans has a plan to halve its carbon emissions by 2035 and become carbon neutral by 2050. Entergy has said it wants to achieve net-zero emissions by 2050.

Cantrell's comments run counter to those of Entergy Louisiana CEO Phillip May. He said

transmission reinforcements, solar generation and microgrids would not have withstood Ida any better, nor would they have made for a swifter restoration in New Orleans. (See [Entergy Fends Off Calls for Tx, Solar, Microgrid Investment.](#))

Entergy is also defending itself against accusations that it's resisting MISO's efforts to approve billions of dollars in new transmission that could bring competing energy suppliers into its service territory. (See [Tensions Boil over MISO South Attitudes on Long-range Transmission Planning.](#))

Prolonged power outages aside, Cantrell said storm-hardening of other city infrastructure worked as designed during Ida.

"When I think about where we were 16 years ago, we're nowhere where we were before, so that's a good thing," she said, referencing Hurricane Katrina's 2005 strike.

Cantrell recalled that soon after Katrina, city planners recommended that her Broadmoor neighborhood not be restored and instead be converted into one of several new drainage areas. A neighborhood organization president at the time, she said those plans deepened her community involvement.

"All hell broke loose," she said. "We absolutely moved into activation, proclaiming that Broadmoor would live and we would not become a drainage park. But we would adapt ourselves to mitigating flooding, embracing green infrastructure, and that's what we did."

New Orleans is interested in all forms of innovation to address climate change and achieve a carbon-free future, Cantrell said. She said the city welcomes new ideas in water management, battery development and electric vehicles.

"Come to New Orleans," she said. "We're a place to build and test your solutions."

Discussion moderator Julia Hamm, CEO of the Smart Electric Power Alliance, said the country has entered "the most important and challenging phase" of total decarbonization, where utilities have completed some work, but much remains. Currently, 72% of U.S. customer accounts are served by a utility with a carbon-free goal, she said.

Hamm said the energy industry's goals and progress could be kicked into overdrive under the threat of increasingly dangerous weather. She asked Cantrell about the struggles of living in a city "surrounded by the fossil fuel industry and feeling the brunt of climate change."

"This city has embraced the fact that we're losing a football field [of land] a day. We have embraced the fact that we are on the front lines of climate change," Cantrell said.

According to the *Environmental Defense Fund*, Louisiana has lost about around 2,000 square miles of coastal marshes since 1930 from poor management and increasing sea levels as a result of climate change. Cantrell said that within 50 years, New Orleans could become a true coastal city without protective wetland barriers.

However, Cantrell was optimistic the city could soon again host events like Smart Energy Week. She told Hamm she looked forward to "better opportunities in better conditions." ■



New Orleans Mayor LaToya Cantrell and SEPA CEO Julia Hamm | *Smart Energy Week*

NYISO News

NYISO Reviews Mitigation Efforts, Updates Timeline

By Michael Kuser

NYISO last week presented stakeholders with a comprehensive buyer-side mitigation [review](#), provided the final [draft](#) of a study on related market impacts and updated the timeline for implementing associated rule changes.

As its resource mix evolves quickly to renewables, the ISO must ensure that it provides the right market incentives and signals to the types of resources needed to keep the lights on, Michael DeSocio, NYISO director of market design, told the Installed Capacity (ICAP) Market Issues Working Group.

“The crux of the capacity accreditation proposal is that we need to step away from a protracted four-year debate on what capacity accreditation factors should be and move towards a more deterministic process based on transparent models and assumptions,” DeSocio said.

The New York State Reliability Council process for establishing the installed reserve margin database should be “the starting point for any [capacity] accreditation studies, and we think we need to be doing those studies annually because, frankly, the changes on the grid aren’t going to wait,” DeSocio said.

New York’s Climate Leadership and Community Protection Act (CLCPA) requires the state to procure large amounts of renewable energy to get to zero-emission electricity by 2040, and the coming online of so much new generation is already challenging transmission and capacity market planners.

Gov. Kathy Hochul on Sept. 20 announced the state’s solicitation process had chosen the 1,250 MW high voltage direct current (HVDC) Champlain Hudson Power Express project from Quebec to New York City, as well as the 1,300-MW Clean Path New York HVDC project from upstate to the city. Both lines will be buried under the Hudson River for many miles. (See [Two Transmission Projects Selected to Bring Low-carbon Power to NYC.](#))

The transmission sensitivity assumptions in the Analysis Group’s market impacts study include the 2.5 GW these two transmission lines provide New York City.

NYISO in August introduced the Analysis Group study that will model 10-year capacity supply and demand curves and identify the resulting market outcomes to support buyer-side mitigation (BSM) rule revisions.

(See [NYISO Unveils Draft BSM Study.](#))

The company’s Paul Hibbard will take questions from stakeholders at today’s ICAP meeting.

Not So Fast

In July, the ISO presented a proposal to exempt most new renewable installed capacity (ICAP) resources from BSM evaluation.

As proposed, resources required to satisfy the goals specified in the CLCPA will not be subject to review by the ISO under the BSM rules, or otherwise subject to an offer floor. Exempted resources include wind, solar, storage, hydroelectric technologies, geothermal, fuel cells that do not use fossil fuels, and demand response (participating as a special case resource or distributed energy resource).

Several stakeholders asked the ISO to provide adequate time to go over the needed tariff revisions, a review that prolonged a scheduled two-hour presentation to four.

NYISO is pursuing these reforms in time for the Class Year 2021 BSM evaluations and intends to address capacity accreditation in different phases, with the Phase 1 tariff changes for the new framework to be discussed through year-end 2021, and Phase 2 discussion of procedures and details expected to start around January and continue throughout 2022.

Phase 3 will focus on implementation of the capacity accreditation review, and the ISO intends to implement the updated capacity accreditation rules for the Capability Year beginning May 1, 2024. Assessment of financial risk of changes in future revenues will be incorporated into the next Demand Curve Reset process beginning in 2023.

NYISO proposes adopting the recommendation of its Market Monitoring Unit, Potomac Economics, to translate the ICAP reference price into an unforced capacity (UCAP) reference price using the derating factor of the peaking unit underlying the relevant ICAP demand curve, DeSocio said.

Several stakeholders questioned the ISO’s emphasis on providing correct capacity market signals, suggesting that the real market mover is the state and its multibillion dollar contracts for renewable energy.



Transmission sensitivity assumptions in the market impacts study include over 2.5 GW on two high voltage direct current (HVDC) transmission lines into New York City. | Analysis Group

One stakeholder said that while other market regions have explored mechanisms such as an integrated clean capacity plan or forward clean energy market to help send the correct market signals to align with state policy, NYISO only is offering the capacity accreditation proposal.

Energy market prices create investment signals and operational control signals that incent resource owners to make the right decisions on following dispatch, but also provide incentives on what types of attributes the resource mix should include, DeSocio said, prompting the ISO to include a carbon price in the day-ahead and real-time energy market.

“A carbon price would bolster those signals to be clear about times when we are heavily emitting carbon and therefore need a solution at a particular location that will help us avoid emitting that carbon,” DeSocio said. “There is no better way to pinpoint that need other than to put it in a locational based marginal price in the energy market. There’s no more granular way to do it.”

The capacity market is designed to ensure sufficient supply for real-time grid operations to minimize the times the ISO has to rely on involuntary load curtailment, he said.

NYISO plans to submit tariff revisions of the full proposal to the Business Issues Committee and Management Committee this month. ■

PJM News



FERC Deadlock Allows ‘Focused’ PJM MOPR

Rules to Take Effect in 2023/24 Capacity Auction

By Rich Heidorn Jr.

PJM’s narrowed minimum offer price rule (MOPR) took effect Wednesday after FERC deadlocked 2-2 on the RTO’s proposal to apply it only to resources connected to the exercise of buyer-side market power or those receiving state subsidies conditioned on clearing the capacity auction.

The proposal, filed by the Board of Managers on July 30, became effective “by operation of law” under Section 205 of the Federal Power Act when the commission failed to act on it within 60 days.

“The commission did not act on PJM’s filing because the commissioners are divided two against two as to the lawfulness of the change,” the commission said in a notice (ER21-2582).

Chairman Richard Glick and Commissioner

Allison Clements, Democrats who said PJM’s “expanded” MOPR (MOPR-Ex) was undermining renewable growth, are believed to have supported the PJM filing, with Republicans James Danly and Mark Christie apparently opposed. The commissioners are expected to file statements explaining their positions.

The PJM board backed the “focused MOPR” proposal that was approved by almost 84% of stakeholders in June — the only one of nine proposals voted on to receive majority support. Chair Mark Takahashi said it “accommodates state policy and self-supply business models,” addresses “attempted exercises of buyer-side market power” and creates a “sustainable market design” by “keeping clearing prices consistent with supply and demand fundamentals.”

The vote concluded an 18-month saga that whipsawed PJM and caused the cancellation of the 2020 Base Residual Auction (BRA).

PJM adopted the extended MOPR in response to FERC’s 2-1 ruling in December 2019 saying it should apply to all new state-subsidized resources to combat price suppression in the capacity market (EL16-49, EL18-178). Then-Chair Neil Chatterjee and fellow Republican Bernard McNamee formed the majority, with Glick angrily dissenting. Glick asked PJM to undo the rule after he was named chairman by President Biden in January.

Market participants will be asked to sign attestations declaring they are not exercising market power or receiving state funds tied to clearing in the auction. PJM and the Independent Market Monitor will conduct “fact-specific, case-by-case reviews” if market power is suspected, and referrals will be made to FERC for a final determination.

PJM’s filing was opposed by gas-fired merchant generators as well as some electric



Solar panels over a parking lot in Rockville, Md. | © RTO Insider LLC

PJM News



cooperatives and state utility regulators. (See *Mixed Stakeholder Reception to PJM MOPR Replacement.*)

The new rules – which will eliminate both the expanded MOPR and PJM’s prior MOPR, which was limited to new natural gas resources – will be effective for the 2023/24 delivery year BRA scheduled to begin Dec. 1.

PJM has asked FERC to delay the auction by nearly two months to give it time to respond to a commission order on unit-specific offer review thresholds (ER21-2877). (See *PJM Proposing 2-Month Capacity Auction Delay.*) The Monitor reminded market participants Wednesday that the deadline for submitting market seller offer cap (MSOC) requests and must-offer exception requests for the auction was Friday.

Reaction

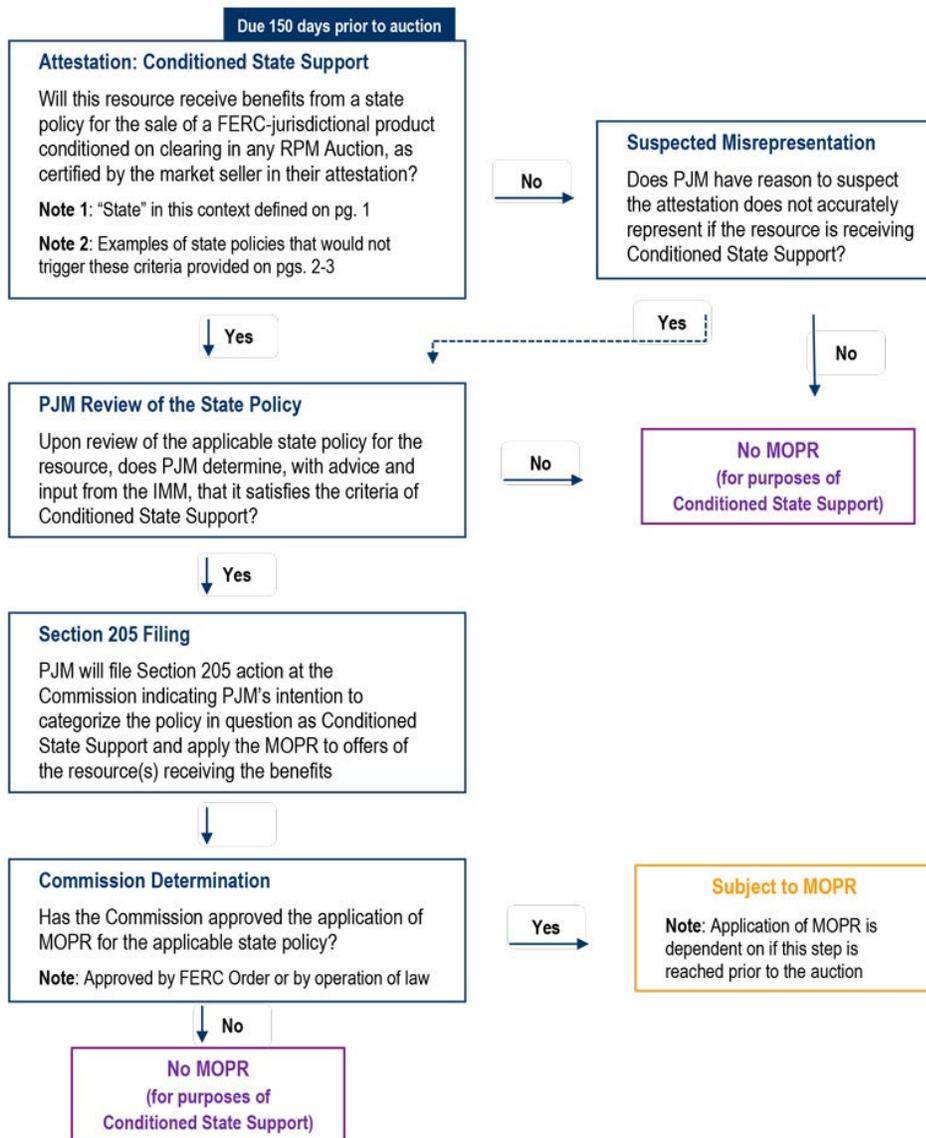
Renewable advocates on Wednesday expressed relief over the approval of the new MOPR but regret that they came without an explicit imprimatur from FERC.

“It is disappointing that a majority of the commissioners could not agree on these important principles of federal and state comity and send a strong signal that it is not the place of federal regulators or wholesale market rules to ‘mitigate’ state clean energy policies,” said Jeff Dennis, general counsel of Advanced Energy Economy.

Sean Gallagher, vice president of state and regulatory affairs at the Solar Energy Industries Association, said the focused MOPR is “a vast improvement for the PJM market.”

“As proposed, the MOPR would have undermined PJM’s competitive market and punished states and independent power producers for providing affordable clean energy during annual capacity market auctions. The focused MOPR clears a path forward for IPPs that want to bid into PJM’s Base Residual Auction and acknowledges the right for states to choose affordable and reliable clean energy,” he said. “The focused MOPR also removes unnecessary administrative burdens and project assumptions that favor incumbent generators. The end result is a more efficient capacity market that protects market participants and customers alike.”

“Today is a great day for millions of ratepayers in PJM, America’s largest electricity market, who will be saved from paying more money than they should for clean power,” said Greg Wetstone, CEO of the American Council on Renewable Energy. “The MOPR, as previously designed, was a poorly disguised effort



PJM’s proposed procedure for determining whether a market participant is exercising buyer-side market power | PJM

to undermine the success that low-cost renewables have enjoyed in competitive electricity markets nationwide by financially bolstering uneconomic fossil fuel generators. We commend PJM for working to reverse a destructive policy that distorted the market and directly conflicted with state efforts to accelerate the transition to pollution-free renewable power.”

“We’re considering all our options, including requesting rehearing,” said Todd Snitchler, CEO of the Electric Power Supply Association. “Given our strong protest in response to the PJM filing, we will continue to pursue what we think is the better path forward, which would be to reject the as-filed MOPR

and allow sufficient time to pursue a more holistic approach to respond to the concerns raised by FERC and the states.”

Fears not Realized

Although MOPR-Ex was in place for the RTO’s 2022/23 BRA in May, predictions that it would inflate prices and block renewables’ entry did not materialize. Rest-of-RTO prices dropped by nearly two-thirds to \$50/MW-day, and prices in the Eastern and Southwest Mid-Atlantic Area Council regions fell to their lowest on record. Nuclear generators, natural gas, renewables and energy efficiency increased their market share, while coal saw its contribution shrink. (See *Capacity Prices Drop Sharply in PJM Auction.*) ■

PJM News



DC's Solar Markets Expanding in Low-income Neighborhoods But District's 100% Clean Energy Goal May Rely More on Renewable Credits, not New Projects

By K Kaufmann and Michael Yoder

Back in 2012, when D.C. launched its first program to bring solar to its low-income neighborhoods — concentrated in three of its eight wards — most of the rooftop solar, more than 800 installations, were in the upscale Ward 3.

Currently, almost 10 years later, one of those low-income wards, Ward 7, has more solar than Ward 3, said Ted Trabue, managing director of the D.C. Sustainable Energy Utility (DCSEU), which manages the current iteration of the district's low-income solar program, now called Solar for All. About 1,000 low-income, single-family homes have rooftop installations, and by year-end, 6,000 low-income residents will be receiving credits

on their utility bills from community solar projects, Trabue told the audience at the inaugural D.C. Clean Energy Summit on Sept. 28.

The nation's capital made headlines in 2018 when it set an ambitious renewable energy target: 100% clean power by 2032. The half-day summit, which was both in-person and virtual, provided an overview of the programs, projects, businesses and jobs that the mandate has helped to create so far, as well as the opportunities and challenges that lie ahead.

DCSEU was established in 2011 specifically to promote energy efficiency and clean power in the district, with 20% of its funds going to projects that benefit low-income residents, a figure recently raised to 30%. An early

program it is now looking to expand helps low-income residents replace old fossil fuel-fired heating systems and other appliances with new, more efficient electric ones, Trabue said. To support the district's new *building energy performance standards*, the utility also offers a range of training courses for local developers and contractors to expand their skills in green building, energy efficiency and solar.

On the commercial front, New Columbia Solar, a local installer, has grown from the handful of employees who started the company in 2016 to about 100 today, CEO Mike Healy said. The company has developed 25 MW of solar projects in the district, including several Solar for All projects, he said.

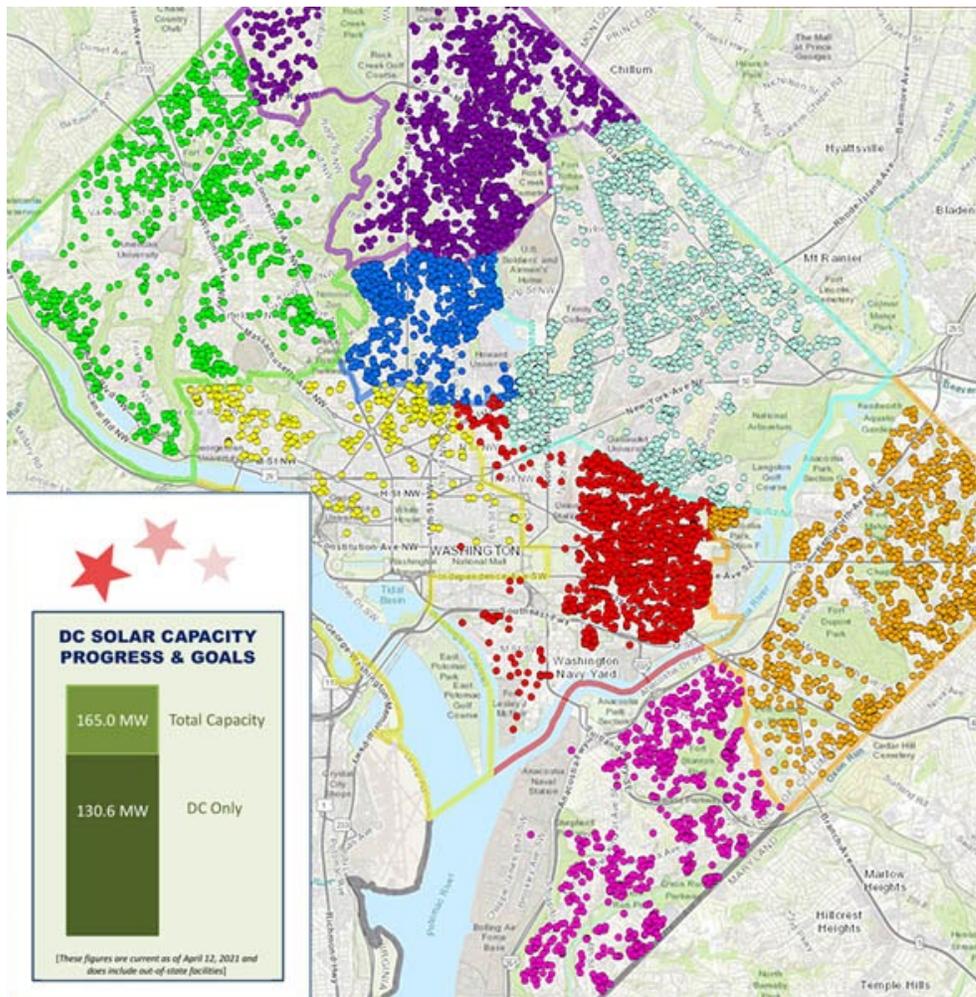
Getting D.C., and the U.S., to 100% clean energy will mean accelerating solar deployment and going to "the built environment," such as roofs and parking structures, Healy said. The district doesn't "have enough transmission capacity to be able to take power into the [urban] pockets," he said. "What New Columbia has really tried to focus on is, how do we do that? How do we capture that power that essentially needs to be built in the population center to be able to actually power our city here with solar?"

Volt Energy, a minority-owned solar developer, has expanded its business with a focus on "making sure that young people, and particularly young people of color, are thinking about clean energy as a career path," co-founder and CEO Gilbert Campbell said. One of the company's early projects was a 227-kW installation at a D.C. charter school, coupled with a STEM awareness program for students.

Volt is also developing a project with Howard University — Campbell's alma mater — that he said, will be one of the largest at a historically black college or university. Though not in D.C., a new spinoff, Volt Energy Utility, inked an "environmental justice power purchase agreement" with Microsoft in July to develop 250 MW of solar, with part of the revenue from the project going to fund renewable energy projects in inner city and other disadvantaged communities, Campbell said.

The SREC Paradox

Looking ahead, what was less clear at the summit was exactly how D.C. will get to 100% clean energy in the coming decade.



The Renewable Energy Portfolio Standard Act established a minimum percentage of district electricity providers' supply that must be derived from renewable sources. | Public Service Commission of D.C.

PJM News



The district's mandate requires its retail electricity suppliers to increase the amount of clean power they provide by 6.25% a year through 2032, starting from 20% in 2020. The mandate also has a solar carveout, calling for at least 5% of the district's power to come from solar projects built in the city by 2032, rising to 10% in 2041.

The catch is that the economics of D.C.'s solar market, and the Solar for All program itself, are rooted in a very competitive market for solar renewable energy credits (SRECs), which the majority of the district's 47 retail electricity providers buy to satisfy their annual clean energy requirements. The current price for D.C.'s SRECs, as listed on the *SRECTrade* website, is \$392, and according to a *recent report* from the D.C. Public Service Commission, most of the retail suppliers in 2020 bought and submitted close to 2 million SRECs to avoid paying further compliance fees.

Further, PEPCO, the district's major power supplier, still produces close to 60% of its power from coal and natural gas versus 6% for renewables, with nuclear at about 34%, according to its most *recent report* on its generation mix. Speaking on a panel on electrification and equity, Calvin Butler, CEO of Exelon Utilities, PEPCO's parent company, focused primarily on the utility's commitment to electrifying its own fleets and to programs aimed at improving energy efficiency and lowering electric bills for low-income customers.

Exelon and its six utilities have "committed that we will electrify our transportation fleet by 32% in 2025, and 50% by 2030," Butler said. "But we have to partner with government, commercial and other partners to make sure electrification happens on a broad scale. That means ensuring individual consumers in

Washington, D.C., will have access to electric transportation options, including but not limited to public transportation, taxis and ride sharing, as well as charging infrastructure."

In an email responding to questions from *RTO Insider*, Ben Armstrong, PEPCO's director of operations communications, said that the utility's current energy mix "reflects the overall electricity mix of the region's power system."

PEPCO purchases power through a "multi-phase competitive bidding process," Armstrong said. "By 2032, 100% of the power included in these bids must come from renewable sources. Renewable energy credits and solar renewable energy credits will be an important part of meeting these requirements, along with advancing local solar."

Tommy Wells, director of the D.C. Department of Energy & Environment, acknowledged that the district's current reliance on RECs would make it possible to get to a 100% carbon-neutral system "tomorrow," without actually putting new renewable energy projects on the grid.

But Wells believes that D.C.'s REC market is bringing "some additionality to the grid by creating a market or financial incentives for creating more renewables. ... We are getting solar deployed in the city because you can make so much money off of it," he said. "It's not one-for-one creating additionality of renewables to the grid, but it's working."

Regulators Discuss the 'Boss' of Energy Goals

In the first panel of the conference last week, "Who's the Boss? Navigating the Federal and Regional Context to Meet State Clean Energy Goals," state regulators and officials were

asked what is the driving the transition to clean energy.

PJM CEO Manu Asthana answered that the so-called "bosses" are consumers "voting with their wallets," state policymakers, FERC in its attempt to be "forward looking" with its rules and NERC as the arbiter to maintain reliability.

"This is a really exciting time for our industry," Asthana said. "I believe RTOs can be an important tool to help achieve policy objectives."

New York Public Service Commissioner Diane Burman said the process needs to be about "getting under the hood" on how to achieve renewable goals efficiently and an "uncompromising need" to focus on safety, reliability and resilience.

"States need to be cognizant of the risks of making abrupt decisions that could result in catastrophes like California and Texas have experienced," Burman said.

Jason Stanek, chairman of the Maryland Public Service Commission, said that what's driving policy is "every individual, every utility executive, every voter in this country." He said he deals with individuals who see the cost of investing in updating and upgrading the transmission as being too expensive an endeavor to tackle. Stanek said his regular response is, "What is the alternative?"

"Transmission policy is in desperate need of reform, and it has been for some time," Stanek said. "I think it's fair to say that business as usual, whether it be with respect to transmission planning, cost allocation or generator queue reform, is long overdue." ■

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PJM MRC/MC Briefs

Markets and Reliability Committee

Energy Price Formation Charter Endorsed

PJM stakeholders last week approved revisions to the Energy Price Formation Senior Task Force (EPFSTF) charter while questioning changes requested by Exelon.

In a sector-weighted vote of 2.88 (57.6%) at the Markets and Reliability Committee meeting Wednesday, members approved the charter revisions resulting from an issue charge endorsed at the June MRC meeting. The previous issue charge was aimed at examining PJM's operating reserve demand curve (ORDC) and transmission constraint penalty factors and the possible creation of a "circuit breaker" to control energy prices in an emergency. (See [PJM Reserve Price Formation Issue Charge Approved](#).)

Susan Kenney, PJM markets automation manager, [reviewed](#) the [revisions](#) to the EPFSTF charter, saying those in the original version were "strictly a copy-paste" from the June issue charge as well as closing out the prior work efforts of the EPFSTF.

The first key work activity in the revisions featured education on the current and pending market rules for use of the ORDC and transmission constraint penalty factors in LMPs,

including the input assumptions for the curve.

The second key work activity from the issue charge featured exploring potential circuit breakers or other stop-loss approaches that could limit extreme pricing when the cost "likely far exceeds the value of any contribution to preserving grid reliability."

Language in the expected duration of work section calls for an effort to "expedite voting" on the first two key work activities before the downward sloping ORDC takes effect in PJM on May 1, 2022. FERC approved the new curve in May 2020, allowing PJM's LMPs to reach or exceed \$12,050/MWh in cases of extreme reserve shortages. (See [FERC Approves PJM Reserve Market Overhaul](#).)

The third key work activity features exploring potential enhancements to PJM's ORDC rules to address the impact of recent changes in the RTO's dispatch protocols on forecast uncertainty and to examine and address the additional market and credit risks of the ORDC changes related to the recent pricing events in ERCOT, SPP and MISO from the polar vortex in February.

A second [version](#) of the charter introduced by Exelon included additional clarification to some of the out-of-scope items in the second key work activity, stating, "Changes to PJM's ORDC, reserve product structure and penalty factors outside of use in the circuit breaker are out of scope."

Stakeholders were unable to reach a consensus at the EPFSTF meeting Aug. 26 over Exelon's suggested revisions, and members chose to endorse the original revised charter without them, supporting it 60%.

Sharon Midgley of Exelon said the company's proposal "provides important clarifications" to the second key work activity in order to "focus and expedite" the group's work on the circuit breaker.

Paul Sotkiewicz of E-Cubed Policy Associates said he was supportive of the Exelon alternative because it would allow stakeholders to concentrate on the circuit breaker and not on other issues.

Adrien Ford of Old Dominion Electric Cooperative said she was concerned Exelon's proposal could limit the scope of the work of the task force. Ford said the additional language in the second key work activity "presupposes things that are out of scope."

"We would not want to see any changes that would limit the scope of the work effort," Ford said.

Steve Lieberman, assistant vice president of transmission and PJM affairs for American Municipal Power (AMP), said that the Exelon changes appeared to be "an end-around of getting something that people didn't get when we voted on the issue charge."

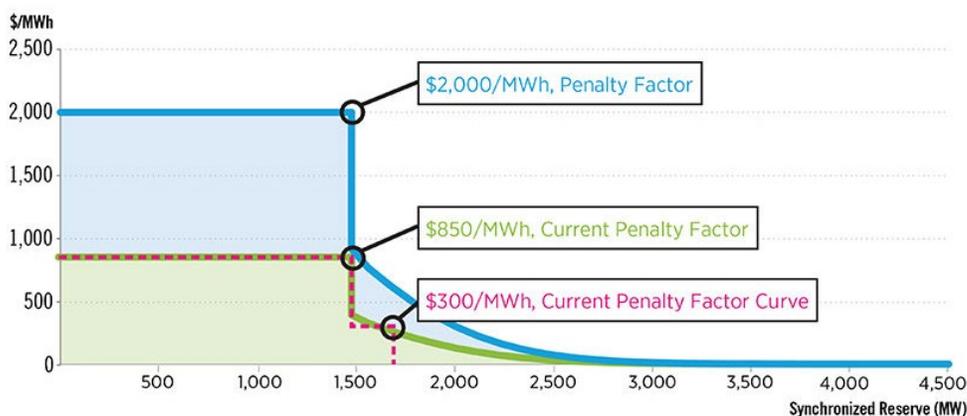
Natural Gas and Electric Markets Issue Charge Approved

Members will begin examining the alignment of natural gas and electric markets this month through a new senior task force assigned to the MRC after an issue charge presented by Dominion Energy was approved with a sector-weighted vote of 4.26 (85.2%).

Jim Davis, regulatory and market policy strategic adviser for Dominion, [reviewed](#) the [problem statement](#) and [issue charge](#) at last week's meeting. Davis first presented them at the August MRC meeting. (See "Natural Gas and Electric Markets Issue Charge," [PJM MRC Briefs: Aug. 25, 2021](#).)

Davis said one major change was made to the issue charge since August: removing an item that called for avoiding discussions on gas market reforms that can only be resolved by FERC or the North American Energy Standards Board (NAESB). He said Dominion decided to eliminate the item after stakeholders questioned the language.

Synchronized Reserves



PJM's new operating reserve demand curve (blue) as approved by FERC, compared with a previously proposed version (green) and old version (red dotted line) | PJM

PJM News



“We think there’s some compelling arguments to have discussions on items that can be reformed [in] the gas markets,” Davis said.

The key work activity in the issue charge includes providing education on topics like the history of pipeline and electricity coordination, pipeline tariffs, products, procurement, the impact of intermittent generation on the system, and imbalance charges and penalty structure.

Davis said education is “going to be critical” for the coordination effort to be successful.

Susan Bruce, counsel to the PJM Industrial Customer Coalition (ICC), said the work to be conducted is an “important conversation” that “links to so many other big-picture issues that we are tackling.” Education will be a key piece, she said, but some of the issues involved won’t be able to be solved through the stakeholder process because of FERC’s and NAESB’s jurisdictions.

Bruce also said the ICC has “reservations” about PJM load “bearing the burden” of some of the lack of flexibility that may exist on the gas side. “This conversation in some respects becomes an economic flexibility conversation.”

Independent Market Monitor Joe Bowring said he appreciated Dominion’s changes to the issue charge on the jurisdiction item and requested that discussions also include an examination of the reasons for pipeline inflexibility. Bowring said stakeholders should also consider recommendations to make to FERC regarding “gas pipeline business models and practices.”

Greg Poulos, executive director of the Consumer Advocates of the PJM States (CAPS), said coordination between energy generation and natural gas is “not an easy effort” to tackle and has been a concern across the country for years.

Poulos said the scope of the issue charge was a concern for the advocates because it could include areas in which PJM has no decision-making ability but could later incur costs depending on what path stakeholders decide to follow. “We don’t want to see those kinds of costs included in the PJM wholesale cost,” he said.

Poulos requested a motion to defer a vote on the issue charge until more discussions could be conducted to work on the scope, but that failed with a sector-weighted vote of 2.5 (50%), falling short of reaching the required 3.33 (66.6%) threshold.

Scenarios & Descriptions		Market Suspension Scenarios				
		1	2	3	4	5
		No Day-ahead	No Real-time <= 6 Hours	No Real-time > 6 Hours	No Day-ahead & No Real-time (hours may span multiple market days)	
					<= 6 Consecutive Hours	> 6 Consecutive Hours
LMP Prices	Day-Ahead	♦ Use RT	Use DA	Use DA	Avg. of RT preceding and subsequent hour	\$0/MWh LMPs
	Real-Time		Avg. of RT preceding and subsequent hour	Use DA	Avg. of RT preceding and subsequent hour	\$0/MWh MCPs
Regulation and Reserve Clearing Prices		♦ Use RT	Avg. of RT preceding and subsequent hour	Make resources whole to their actual MW, determine LOC	Avg. of RT preceding and subsequent hour	\$0/MWh MCPs
Relevant Offers if not available		♦ RT offers only	Last Available Offers	Use DA	Last Available Offers	Cost Based Offers
Dispatch MW		♦ RT only	Existing Ops procedures (EMS, VBUC, Incremental)	Existing Ops procedures (EMS, VBUC, Incremental)	Existing Ops procedures (EMS, VBUC, Incremental)	Existing Ops procedures (EMS, VBUC, Incremental)
Make-Whole		♦ Use RT	♦ Non-ramp-limited value based on LMP for Dispatch MW; make whole to lesser of dispatch or actual MW	♦	♦	Per current rules, but use cost-based offers (\$0/MWh LMPs)
FTR Settlements			♦	♦ Use DA	Avg. of RT preceding and subsequent hour	Zero value (no congestion LMPs)
Virtuals		♦ None	Settle against calculated RT LMP	Use DA (results in no settlement value)	None	None
Notifications						Email, Pardon, and All-Call

Market suspension scenarios discussed by PJM stakeholders | PJM

Market Suspension Vote Delayed

The MRC delayed a vote to endorse a proposed solution and Operating Agreement revisions to address rules related to market suspension after representatives from Calpine and Vistra made a motion to defer until further discussions take place at the Market Implementation Committee.

Stefan Starkov, senior engineer for PJM’s day-ahead market operations department, reviewed the proposal and revisions. The proposed rules were first endorsed at the June MIC meeting. (See “Proposed Rules for Market Suspension Endorsed,” *PJM MIC Briefs: June 9, 2021.*)

Starkov said PJM wanted to “address a gap” in the tariff language regarding market suspensions, specifically how to settle the real-time market if prices couldn’t be determined for a certain period. Starkov said the revisions were designed to provide clear business rules to account for a market suspension where the RTO cannot clear or produce market results.

Some of the proposed OA revisions include updating language on day-ahead market suspension by removing existing language on settlements of day-ahead and financial transmission right target allocations at real-time quantities and prices in the event PJM cannot clear day-ahead prices; and adding language on notifying participants of a market suspension.

Another section clarifies the real-time market suspension definition as the “inability to produce economic zonal dispatch solutions for at least seven five-minute intervals.”

Starkov said the new section, Declaration of Market Suspension, outlines the scenarios for determining real-time market prices. Starkov

said that if the market suspension is less than or equal to six hours, then the real-time prices associated with the market suspension would be the average of the real-time prices for all intervals of the proceeding and subsequent hours.

If the suspension is greater than six consecutive hours and day-ahead prices are available, Starkov said, then the real-time prices would be the day-ahead prices for each corresponding hour. If there are no clear day-ahead prices, then the real-time prices would be set to \$0/MWh.

Calpine and Vistra said they were concerned that the rules were inadequate.

Calpine’s David “Scarp” Scarpignato said they may not adequately address longer-term market suspension scenarios, including those lasting a week, a month or longer. The concern stems from the concept of compensating generators for an extended period of time “based only on their cost-based offers, which are based solely on short-run marginal costs,” he said.

Scarp said longer-term compensation at only cost-based offers “diverges from market dynamics and expectations.” He said Calpine and Vistra are proposing to add another time-segmented solution that would kick in if a market suspension were to last for one week and that the compensation should include an adder above the short-run marginal cost represented by cost-based offers.

“All these market suspensions are highly unlikely, but if they do occur, it is important to get things right,” Scarp said.

Scarp made a motion to defer the vote on the tariff and OA revisions until the MIC

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considers and votes upon supplemental procedures that would govern in the event of a longer-term market suspension, which could then be added to the existing proposal. He said the longer-term scenario wouldn't change the original proposal but would simply be added to it for a future vote at the MRC.

Stakeholders approved the deferral with a sector-weighted vote of 4.05 (81%). The longer-term scenario will now go to the MIC for further discussions.

Resource Adequacy Charter

David Anders, director of stakeholder affairs for PJM, *reviewed* a proposed *charter* during a first read to create a new senior task force addressing resource adequacy topics.

Anders cited a *letter* issued by the Board of Managers on April 6 that urged stakeholders to address a series of topics related to the capacity market after the completion of the Critical Issue Fast Path (CIFP) process addressing the minimum offer price rule.

The letter cited several topics to be discussed, including:

- evaluating all aspects surrounding the appropriate level of capacity procurement;
- examining the need to strengthen the qualification and performance requirements on capacity resources;
- considering clean capacity/energy auctions as an option to allow for procurement of clean resources; and
- evaluating the need for PJM's procurement of additional reliability-based services, with a particular focus on reliability needs in the face of the changing resource portfolio and increased penetration of intermittent resource technologies.

Anders said PJM is proposing the creation of the Resource Adequacy Senior Task Force (RASTF) to discuss the topics listed in the board letter and to recommend possible changes to the capacity market. Anders said the new senior task force would report to the MRC and be the "central clearinghouse" for consideration of all the capacity-related issues.

To ensure proper coordination, Anders said, the charter includes reporting protocol for work on the capacity market performed at other PJM groups like the Quadrennial Review currently being discussed at special sessions at the MIC, load forecasting at the Load Analysis Subcommittee, and reliability products

and services at the Operating Committee.

Individual issue charges discussed at the RASTF would ultimately be developed and approved by the MRC to address the specific capacity market work streams, Anders said, including the timing of the work.

Anders said PJM is still working on the final language contained in the RASTF charter and is looking for more comments on the existing language from stakeholders. The committee will vote on the charter at the Oct. 20 MRC meeting.

Energy Efficiency Add-back

Jeff Bastian, senior consultant with PJM's market operations, *provided* a first read of the joint Monitor/PJM *proposal* addressing the calculation of the energy efficiency (EE) add-back mechanism. Members had unanimously endorsed an issue charge presented by the Monitor at the August MIC meeting. (See "Energy Efficiency Add-back Issue Charge Endorsed," *PJM MIC Briefs: Aug. 11, 2021*.)

Bastian said the EE add-back mechanism is applied to capacity auctions to prevent the "adverse reliability impact" associated with double-counting EE as a capacity resource and as a reduction in the forecasted peak load. The problem is the current method of determining the add-back megawatt quantity applied to a Base Residual Auction does not require it to match the megawatt quantity of EE resources that clear in that auction. Bastian said the add-back quantity in a BRA will normally exceed the cleared quantity, resulting in an artificial increase in the clearing price.

The proposed solution calls for rewriting the manual language to permit PJM to calculate the EE add-back in the capacity market clearing so that the total EE add-back megawatts offset the total cleared EE megawatts in the BRA.

Bastian said the work timeline is anticipated to take two months to ensure that the modified EE add-back method is implemented with the next BRA for the 2023/24 delivery year. PJM is currently asking FERC for a delay of the BRA, pushing the date from Dec. 1 to Jan. 25. (See *PJM Proposing 2-Month Capacity Auction Delay*.)

The Monitor initially requested that the "quick-fix" process be used to complete work for the upcoming BRA, but some stakeholders requested an additional month of discussion to explore options. The issue charge was amended to use the "CBIR Lite" (Consensus

Based Issue Resolution) process and take two months instead of one to complete it.

"We thought that waiting another month to get MRC endorsement would be cutting the timing awfully close," Bastian said.

Erik Heinle of the D.C. Office of the People's Counsel said his office views EE as an "important tool to get to [D.C.'s] decarbonization goals" and would like a better understanding from PJM and the Monitor on the approach being proposed and the impacts.

"While we obviously want accuracy in the process, I want to make sure we're not devaluing that resource in a way that will be detrimental to our ratepayers," Heinle said.

PJM will seek endorsement of the proposal at the Oct. 20 meeting.

Consent Agenda

Stakeholders unanimously *endorsed* revisions to the Regional Transmission and Energy Scheduling Practices *document* presented on the MRC consent agenda. The document was endorsed at the Sept. 9 MIC meeting and contains updates related to NAESB's Wholesale Electric Quadrant v3.2 Business Practice Standards that take effect Oct. 27. (See "Energy Scheduling Practices Revisions Endorsed," *PJM MIC Briefs: Sept. 9, 2021*.)

Members Committee

PJM Administrative Rates

The Members Committee endorsed the proposed solution and tariff revisions related to PJM administrative rates despite some members questioning the RTO's funding methodology.

PJM's proposal called for changing its administrative cost recovery from the current practice of initial charges at stated rate levels with a varying quarterly refund to the new practice of monthly rates based on that month's costs and that month's billing determinations. The proposal was endorsed with a sector-weighted vote of 3.84 (76.8%).

Jim Snow of PJM *reviewed* the proposal and tariff *revisions* that have been worked on by stakeholders and the RTO for more than a year. Snow said the proposal was developed in conjunction with the Finance Committee and is "specific only" to PJM's cost recovery from the membership listed in schedule 9 of the tariff and received unanimous support from the Finance Committee in July.

Snow said the administrative rate review was

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initiated to examine “rate equity” across the PJM membership to avoid cross subsidization among the different customer classes. Snow said the review also was conducted for “overall revenue adequacy” of PJM.

The proposal “adjusts with changes in usage patterns” of the services that PJM provides and the costs of providing the services, Snow said, and is designed to avoid over- and under-collection of funds to finance the RTO.

Jason Barker of Exelon said his company prefers having the “rate predictability” in the existing system, and introducing uncertainty in the rates presents risk to load-serving entities and its customers. Barker said it seemed like PJM changed its objectives this year, prioritizing revenue adequacy and rate equity over the previous objective of maintaining low-rate volatility and multiyear rate certainty.

“We have concerns that the transition to a formula rate will introduce new risks and costs to load and load-serving entities as a consequence,” Barker said.

The ICC’s Bruce said she was in the “uncomfortable position” of not being able to support the proposal, echoing Barker’s concerns regarding changes to the formula rate. Bruce said on the equity issue, there’s going to be a “real cost consequence” to members with the changing of the billing for cost-of-service issues related to PJM settlement.

“Customers do value having an expressed rate to help in having a discipline on costs at a utility,” Bruce said.

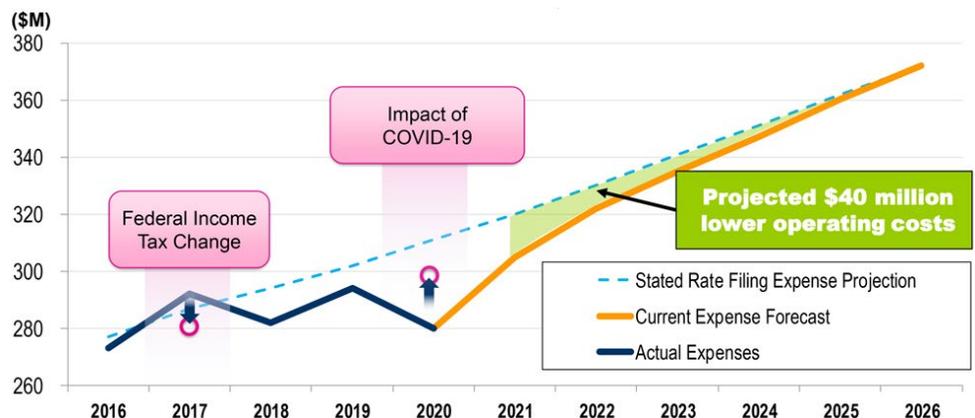
PJM filed the new administrative rates with FERC on Friday, requesting the commission act by Dec. 1 and to have the tariff revisions take effect Jan. 1 (ER22-26).

Nominating Committee Elections

Members unanimously *elected* the sector representative nominees for the 2021-2022 Nominating Committee.

The committee reports to the MC and is responsible for identifying candidates to serve on the board. It includes one representative from each of the five stakeholder sectors.

This year’s nominees included: Brian Vayda, executive director of the New Jersey Public Power Authority (Electric Distributors); Delaware Deputy Public Advocate Ruth Ann Price (End-Use Customers); John Brodbeck, senior manager of transmission at EDP Renewables North America (Generation Owners); Bruce Bleiweis, of DC Energy (Other Suppliers); and Dominion’s Davis (Transmission Owners).



PJM operating expense comparison with the stated rate filing projections versus the current forecast | PJM

Transparency Forum

CAPS’ Poulos *reviewed* a proposed charter for the creation of a new transparency forum, which he said is designed to address issues that currently take place “in the back of the room” among PJM and its stakeholders.

Poulos said the current Stakeholder Process Forum has provided members with an “excellent opportunity” to discuss concerns and suggest improvements to the stakeholder process. The Transparency Process Forum would provide members a new venue with a similar opportunity to address matters “outside of the scope of the Stakeholder Process Forum yet equally important,” he said.

Some of the examples of discussion items cited by Poulos included establishing a formal way to request information and data from PJM and to keep track of responses. He said he would also like to see discussion around creating guidelines and expectations allowing stakeholders to provide input to PJM prior to the RTO making filings at FERC or state commissions.

Poulos said PJM has made great strides in providing more transparency in recent years, but he said CAPS traditionally has more need for information because the group actively participates in fewer activities in the RTO like markets and delivery of services.

Gary Greiner, director of market policy for Public Service Enterprise Group, asked how the forum would work when typical discussions in the stakeholder process already include questions around transparency. Greiner said that if an issue about transparency comes up during the stakeholder process in a committee, the issue is usually discussed as part of the process.

Poulos said the forum would look at transparency issues that have a “lingering impact”

and not ones that come up during the normal stakeholder process.

Barker said that Exelon was “a bit puzzled” over what the purpose of the forum would be and asked for more examples of issues that could be discussed that warrant additional transparency. He said the MC has traditionally been the place to express concerns among stakeholders regarding PJM operations and other deliberations, as it has authority over all the other committees.

Poulos said he will provide more examples of transparency issues at the October MC meeting.

Manual 34 Revisions

Michele Greening, senior lead stakeholder affairs consultant for PJM, *reviewed* proposed revisions to Manual 34: PJM Stakeholder Process to address the inclusion of forums as stakeholder bodies. The proposed revisions were sponsored by PJM and discussed at the Stakeholder Process Forum, but the RTO is looking for a member to officially sponsor the revisions because the manual changes are supposed to come from the stakeholder body.

Greening said several new forums, such as the Emerging Technology Forum that was established in June 2020, have been created, but Manual 34 doesn’t currently define forum as an official type of stakeholder group. Greening said PJM wants to define what a forum is and “add some parameters” around their establishment and implementation within the stakeholder process.

The RTO is defining forums as a stakeholder body in Manual 34 to provide consistency with other defined stakeholder groups, Greening said, and to provide clarity to the purpose and role of a forum in the stakeholder process.

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A forum is being defined as a “stakeholder body formed to address specific topics and scope as outlined in its Markets and Reliability Committee approved charter. Forums are non-decisional stakeholder groups.”

Members will vote on the revisions at the October MC meeting.

Consent Agenda

The committee unanimously endorsed several revisions as part of the consent agenda. They included:

- revisions to *Manual 34: PJM Stakeholder Process* addressing *photography in meetings* and *media guidelines*. The changes resulted from feed-

back by members and discussions at the Stakeholder Process Forum. (See “Manual 34 Revisions,” *PJM MRC/MC Briefs: July 28, 2021*.)

- revisions from the Governing Document Enhancement and Clarification Subcommittee (GDECS) *addressing* administrative changes and clarifications in the tariff and OA. PJM said the revisions were found to be “simple and noncontroversial enough” that they were reviewed one time at the GDECS, receiving unanimous stakeholder support. (See “Consent Agenda Manual Endorsements,” *PJM MRC/MC Briefs: July 28, 2021*.)
- revisions to address making cure periods

uniform across the *tariff* and OA. PJM said appropriate cure periods defined in section 15.1.5 of the OA were originally updated in that document, but not in section 7.3 of the tariff, which involves provisions limited to transmission service customers. (See “‘Know Your Customer’ Tariff Changes,” *PJM MRC Briefs: Aug. 25, 2021*.)

- revisions to address making the definitions of working credit limits uniform across the *tariff*. The revisions eliminate duplicative definitions of “working capital limit” and leave it only in the definitions section of the tariff. ■

— Michael Yoder

NetZero Insider

Your Eyes and Ears on Climate Policy and Adaptation
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Mass. to Test Solar in Highway Built Environment

Pediatrician Calls for Urgent Action on 100% Clean Energy in Mass.

Legislators Say Mass Save is ‘Dragging Feet’ on Clean Energy Goals

Report: Weatherization, Efficiency Policies Will Balance NYC Cooling Demand

NYC Case Study Highlights Ideal Tech for Building Decarbonization

Modern Grid Critical to Resilience Pathway in Vt. Climate Plan

Rhode Island Governor Steps up Pace of State Climate Council

Maine Submits Fed Lease Application for Floating OSW Research

NY Activists Want Less Industry, More Justice in Clean Energy

SOUTHEAST

NCUC Debates Best Path for Duke Coal Retirements

WEST

Report Projects Ariz. Ratepayer Costs for Going Clean

Oregon Adopts Nation’s Strictest Landfill Emissions Rules

Hydrogen Ferry Awaiting Coast Guard OK for Test Runs

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PJM News

PJM Stakeholders Endorse Initial Margining Proposal

By Michael Yoder

After nearly two hours of debate at Wednesday's Markets and Reliability Committee meeting, PJM stakeholders endorsed tariff revisions on rules related to initial margining and closed out the work of the Financial Risk Mitigation Senior Task Force (FRMSTF).

The joint proposal by Duke Energy and Perast Capital Management won endorsement with a sector-weighted vote of 3.42 (68.4%), passing the 3.33 threshold for adoption. The proposal was initially endorsed at the Aug. 4 FRMSTF meeting with 69% support and was presented for a first read at the August MRC. (See "Initial Margining Solution," *PJM MRC Briefs: Aug. 25, 2021*.)

Members also unanimously voted to sunset the FRMSTF, created in 2019 in the wake of the GreenHat Energy default. (See *PJM Stakeholders OK Risk Management Task Force*.)

Duke's Matthew Holstein said that before GreenHat, FTR collateral was based upon the difference in bid/purchase price and the FTR's historical performance, allowing GreenHat to select "free" paths whose cost was less than historical congestion.

Holstein said the Duke/Perast proposal would make collateral requirements based upon volatility, which more closely relates to actual risk. It would also institute a minimum credit requirement, which would prevent a portfolio the size of GreenHat from ever existing again without a posting of collateral.

The proposal's initial margining based on historical simulations methodology (IM-H) includes a 95% confidence interval, which represents the range of values likely to include a population value. PJM conducted analyses at confidence levels of 99%, 97% and 95% when evaluating the IM-H calculation.



James Ramesy, Perast
| Perast Capital

Perast's James Ramsey said they suggested 95% because the failure rate was reduced to 1.21% from the status quo of 8%. Ramsey said the 97% interval proposed in PJM's proposal would cost an extra \$140 million to achieve a failure rate

improvement of 0.3%.

The PJM proposal only received 37%

stakeholder support at the August FRMSTF meeting.

"You can summarize the two packages as the quality insurance plan versus the Rolls Royce insurance plan," Ramsey said. "We believe the 95 is a vast improvement over where we are today and is the right cost-benefit."

Tariff Language Debate

Several stakeholders, however, were concerned with the tariff language changes implementing the proposal and managed to get PJM to include a key calculation in them.

Anita Patel of PJM provided an overview on the activities of the FRMSTF, while Jessica Troiano reviewed the proposed tariff revisions implementing the FRMSTF-endorsed Duke/Perast proposal.

Troiano said that after the first read at the August MRC and reviewing stakeholder feedback, the RTO realized there was an "opportunity for confusion" in the previous redlines of the tariff language and some "unintended consequences." PJM started over and redid the redline language, making sure it was "more concise" and "simpler" and contained fewer changes, she said.

Adrien Ford of Old Dominion Electric Cooperative noted that one section of the tariff revisions "seems to be missing" the exact weighting parameters that determine how the initial margin values for FTR obligations would be calculated, as detailed in the proposal.



Nigeria Poole
Bloczynski, PJM | ©
RTO Insider LLC

frequent updates or approval from FERC. PJM's position is that there are certain factors that should not be public and could potentially be used by others to circumvent controls or use them in ways to "disadvantage" the RTO, she said.

"We're totally willing to provide transparency to members, but there are other elements of the modeling assumption and simulations we believe must be held confidential,"

Bloczynski said.

Ford said she "maintains the assertion" that the tariff language didn't reflect the package before the committee and requested the parameters be included.

"We need integrity in this process, and that includes documenting the will of the committee," Ford said.



David Anders, PJM |
© RTO Insider LLC

David Anders, PJM's director of stakeholder affairs, said he believed that "integrity's maintained" in the redline language. Anders said there are portions of proposals for almost all issues that get documented in the governing document language

like the tariff and the Operating Agreement, while other portions are contained in the implementing documents.

Ford said she "wasn't satisfied" with that response and that she felt like she was "being discounted." She said the main differences between PJM's proposal and Duke/Perast's was the confidence interval and the weighting. While Duke/Perast's 95% confidence interval is reflected in the redlines, the weighting was left out. "The lack of documenting that here when it's a key differential in the packages is a concern for me."

Dave Hicks of Perast said he agreed with Ford's interpretation and a "lack of satisfaction" with PJM's response for leaving out the parameters. Hicks said Perast specifically asked for the tariff revision at the August MRC and a meeting of the FRMSTF. He said it was "almost comical" that, after the amount of tariff revisions that happened between the August MRC and the latest MRC, that PJM denied its request. He said it appeared PJM was "using its control of the stakeholder process" to change features of the winning proposal.



Dave Hicks, Perast |
Perast Capital

"PJM is choosing which revisions it wants to include, which makes it convenient for PJM," Hicks said. "While I understand why you want to do that, I can't fathom this being acceptable."

PJM News



Bloczynski reiterated that PJM didn't believe the weighting figures needed to be documented in the tariff and that it could be documented in the attachment. "I believe that most members trust us to run the market, make decisions and independently monitor risk management efficiently and effectively," she said.



Paul Sotkiewicz, E-Cubed Policy Associates | © RTO Insider LLC

Paul Sotkiewicz of E-Cubed Policy Associates said he was "disturbed by the lack of transparency" in the proposed redlines. If he accepted PJM's logic for keeping the figures out of the tariff, he questioned why values like gross cost of new entry or net avoidable-cost rate are

included in tariff Attachment DD.

"To suggest that we can keep these numbers out when it is part of the filed rate is a dangerous precedent to set and runs contrary to everything regarding transparency, reflecting

the will of the stakeholders and FERC precedent," Sotkiewicz said.



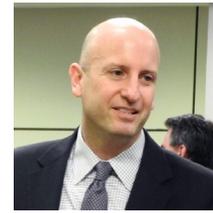
Chris O'Hara, PJM | © RTO Insider LLC

PJM General Counsel Chris O'Hara said the RTO had "concerns" about the Duke/Perast proposal but was "trying to respect the stakeholders" by putting the endorsed proposal forward and including the weighting in the supplement document, where there could be an "easier path" toward changing the values if stakeholders decide they need to be changed in the future.

Sotkiewicz said by not adding the weighting, PJM was "setting this up for a really bad battle at FERC" over something that could be resolved by adding the numbers to the redlines.

PJM ultimately decided to add them to the redlines as a friendly amendment.

Greg Poulos, executive director of the Consumer Advocates of the PJM States, said his group continued to support PJM's proposal,



Greg Poulos, CAPS | © RTO Insider LLC

citing findings in an independent consultant's 2019 report of the GreenHat default. Poulos said the endorsed proposal "looks so much like deja vu" to actions taken by stakeholders after the \$52 million credit default by Tower Research Capital's Power Edge hedge fund in 2007. (See *PJM Credit Adder Fails upon Heightened Review.*)

Poulos said the report talks about how PJM brought recommendations to stakeholders after the 2007 default, but the membership decided to go in a different direction with reforms. The report said in italics that "PJM should be more assertive in pushing for action needed regarding any critical changes to credit policies, emergency discretion and the like."

"I think PJM needs to take a stronger position even if certain stakeholders have a stronger voice and go a different way with this," Poulos said. ■



Confidence Interval	CLEARED REQUIREMENT			Failure Rate*	BID REQUIREMENT	
	Status Quo (\$B)	IM-H (\$B)	Change		Status Quo for Bids (\$B)	IM-H for Bids (\$B)
99%	\$1.345	\$1.534	14%	0.65%	\$1.604	\$1.806
97%	\$1.345	\$1.206	-10%	0.90%	\$1.604	\$1.439
95%	\$1.345	\$1.065	-21%	1.21%	\$1.604	\$1.281



Estimated confidence intervals for total FTR collateral | PJM

Company Briefs

EV Maker Lucid on Track for 2022, 2023 Output Targets

Luxury electric car maker Lucid Group is on track to meet its production targets for 2022 and 2023 and is pushing to achieve this year's goal of 577 vehicles, CEO Peter Rawlinson said last week.

Rawlinson said the company is on track to achieve its production target of 20,000 vehicles in 2022 and 50,000 in 2023.

The California-based startup, which went public via a shell company this year, has secured the \$4.4 billion needed through the end of next year.

More: [Reuters](#)

Ford, SK Innovation to Spend \$11.4B on New EV Plants in Tenn., Ky.



Ford Motor Co. last week said it will partner with SK Innovation to invest \$11.4 billion to build

electric vehicles and batteries at two new factories in Tennessee and Kentucky.

In Tennessee, the companies plan to build the \$5.6 billion "Blue Oval City" — a massive campus situated on the Memphis Regional Supersite — will employ nearly 6,000 people and support production of the next generation of electric F-Series pickup trucks, as well as batteries.

In Kentucky, the two plan to build a \$5.8 billion, 1,500-acre BlueOvalSK Battery Park where 5,000 workers will be spread across two battery plants to support future Ford and Lincoln EVs built at Ford's North American assembly plants.

Of the total investment, Ford will contribute \$7 billion. The automaker said it

expects 40% to 50% of its global vehicle volume to be fully electric by 2030.

More: [The Detroit News](#)

GM Expects US Sites to be Renewable Energy-powered by 2025



General Motors last week said it plans to have its U.S. sites run on renewable energy by 2025 — five years ahead of its original goal.

The company also said it was working with PJM and energy firm TimberRock to track carbon emissions from electricity use at its facilities.

More: [Reuters](#)

Minnesota Power Parent Company Sells Stake in Planned Gas Plant



Minnesota Power parent company Allete last week said it is selling a 30% stake in its proposed \$700 million natural gas plant and will be bringing a third utility into the project.

North Dakota-based electricity wholesaler Basin Electric Power Cooperative will pay \$20 million for the share and leave Allete as a 20% owner of the Nemadji Trail Energy Center. The project will be built in Superior, Wis., and generate about 600 MW of electricity. Dairyland Power Cooperative has the final half, and largest, stake in the plant.

Minnesota Power, which aims to be coal-free by 2035 and carbon-free by 2050, said it sees natural gas as a "renewable-enabling" power source.

More: [Star Tribune](#)

Renewable Energy Group closing Houston Biodiesel Plant

Renewable Energy Group last week said it will not renew its lease at a biodiesel plant near Houston and plans to shut down the plant in November.

The company said the facility, which could produce 35 million gallons a year, couldn't process multiple feedstocks. The closing of the plant leaves 14 biodiesel plants operating in the Gulf Coast region, down from the 18 in 2019.

More: [Houston Chronicle](#)

Siemens, AES File to Take Storage Joint Venture Public



The leaders of Fluence Energy, an energy storage joint

venture launched less than four years ago by Siemens and AES, last week said they have filed papers with the U.S. Securities and Exchange Commission for an initial public offering.

Fluence was formed in 2018 and works on electric grid resiliency projects with more than 3.4 GW of storage deployed or contracted in 29 markets around the world. It also has more than 4.5 GW of wind, solar and storage assets optimized or contracted in Australia and California.

In addition to Siemens, Fluence has contracts with Enel, LS Power and sPower, among others. BloombergNEF expects the company to grow nearly tenfold this decade.

More: [T&D World](#)

Federal Briefs

21 States Urge Biden to Consider Stricter Car Emission Rules

A coalition of 21 state attorneys general last week urged the Biden administration to consider tighter vehicle tailpipe emissions standards than what the administration currently has proposed.

In a proposal released last month, the EPA outlined three alternatives: a "preferred

alternative" and two others that are less stringent and more stringent. However, Democratic state lawyers, alongside lawyers representing the cities of D.C., New York and Los Angeles, said the agency should consider the strictest alternative and specifically cited the impacts of pollution on human health and the changing climate.

More: [The Hill](#)

Democrats to Pare Climate, Social Spending

Democrats last week said that their sweeping infrastructure bill will need to be trimmed from a \$3.5 trillion goal to \$2 trillion following a visit by the President Biden to Capitol Hill to sell his agenda. Despite the visit, the sides are reportedly not any closer to agreement.



Sen. **Bernie Sanders** (I-Vt.) said that \$3.5 trillion “should be a minimum,” while Sen. Joe Manchin (D-W.Va.) said his top line for the package is \$1.5 trillion. Rep. Pramila Jayapal (D-Wash.) said that will

not happen “because that’s too small to get our priorities in” and that the number would be “somewhere between” \$1.5 trillion and \$3.5 trillion.

More: [Reuters](#)

Report: Utilities Took \$1.25B in Pandemic Aid then Shut off Power

More than a dozen leading U.S. utility companies took more than a billion dollars of publicly funded pandemic bailout money while pulling the plug on power to vulnerable households nearly a million times, according to a Center for Biological Diversity and BailoutWatch report.

Some of the report’s key findings include: nine companies received tax bailouts totaling \$1.25 billion, while it would have cost just 8.5% of that total to prevent every

shutoff reported; 15 companies could have forgiven all unpaid accounts hundreds of times over in some cases; NextEra Energy, Duke Energy, Southern Company, Dominion Energy, Exelon and DTE Energy perpetrated 94% of all shutoffs documented (NextEra accounted for nearly half); Duke Energy and DTE Energy, which together received \$845 million, cut off customers’ power more than 203,000 times. Their tax bailouts provided enough unexpected revenue to forgive the underlying unpaid bills more than 150 times.

More: [Common Dreams](#)

State Briefs

CALIFORNIA

SoCalGas Agrees to Pay \$1.8B for 2015 Aliso Canyon Gas Leak



Southern California Gas last week reached settlements totaling \$1.8 billion for a gas leak from its Aliso Canyon facility in 2015.

In a statement, SoCalGas said the agreements were expected to resolve “substantially all material civil litigation” against the company, which would record an after-tax charge of about \$1.1 billion this month. As part of the settlement, the utility and its parent, Sempra Energy, deny any wrongdoing.

For 112 days, about 100,000 tons of methane, ethane and other chemicals poured into the air and forced more than 8,000 families to flee their homes. By the time SoCalGas was able to plug the blowout, it had become the largest methane leak in U.S. history.

More: [Los Angeles Times](#)

ILLINOIS

Exelon Planning \$300M in Capital Works for Nuclear Plants

A \$700 million energy deal reached and passed by state leaders and the governor has allowed Exelon Generation to announce that it is planning more than \$300 million in capital projects for the Byron and Dresden nuclear facilities over the next five years.

The company had threatened to close the

power stations because they were uneconomical to run in competition with subsidized renewable energy and less expensive gas-fired capacity. Now, Exelon plans to invest more than \$140 million in Byron over the next five years, while Dresden will see \$170 million.

The legislation phases out fossil fuel generation and seeks a transition to renewables by 2045. Nuclear generation is considered part of the carbon-free transition for the near term.

More: [Power Engineering](#)

KENTUCKY

PSC Upholds Value of Net Metering for LG&E/KU Customers

The Public Service Commission last week upheld the value of rooftop solar and established new rates for net-metering customers with Louisville Gas and Electric and Kentucky Utilities.

Under the revised rates, LG&E and KU customers who want to put solar on their homes will be credited about 7 cents/kWh for the excess energy they put onto the grid, according to the order. That is less than the one-to-one rate LG&E and KU customers received before, but more than the 2.3 cents/kWh the utility wanted to pay.

In its ruling, the commission made it clear that utilities need to cost-effectively integrate rooftop solar and other sources of distributed generation into the grid and that so far LG&E hasn’t done that.

More: [WFPL](#)

MINNESOTA

Xcel to Repower Mower County Wind Farm



The Public Utilities Commission

last week approved Xcel Energy’s proposal to repower its 100.5-MW Grand Meadow Wind Farm.

The project will replace existing turbines with newer, more efficient components that will increase energy production, improve reliability, and extend the service life of the project.

The project was part of several projects Xcel proposed in response to a commission request for utility investments that would aid in the state’s economic recovery from the COVID-19 pandemic while providing utility system benefits.

More: [Fox47](#)

NEW YORK

Hochul Picks New PSC Chair



Gov. **Kathy Hochul** last week selected Rory M. Christian as chair of the Public Service Commission. The move comes three months after the Senate confirmed Christian’s nomination to the commission by

then-Gov. Andrew Cuomo.

Christian was the director of New York Clean Energy at the Environmental Defense Fund from 2013 to 2019. Previously,

he served as the director of energy finance and sustainability for the New York City Housing Authority.

More: [Times Union](#)

NORTH CAROLINA

Planning Board Votes Against Solar Farm

The Rowan County Planning Board last week voted 5-2 against a 574-acre solar farm proposed by Birdseye Renewable Energy, which has been met with fierce and organized pushback from residents.

The proposal calls for a 69-MW utility-scale solar energy facility on a plot of land in Gold Hill. The solar panel area of the project would be about 299 acres and span six combined parcels.

Since the planning board is an advisory committee, the ultimate decision on the project lies with the Board of Commissioners.

More: [Salisbury Post](#)

OHIO

AEP, Columbus to Purchase Landfill Solar Farm Power



AEP and the city of Columbus last week announced they have agreed to purchase all the electricity from a 50-MW solar farm under construction on a 173-acre former landfill site.

The Columbus Solar Park, which was announced last summer, will sit atop the former Franklin County landfill and will feed green power into the Greater Columbus grid by 2023.

More: [The Columbus Dispatch](#)

Emails Show PUC Made 'Utility-friendly' Edits to Audit

Documents show the Public Utilities Commission sought edits to draft versions of an audit they commissioned and prompted the removal of declarations that said a ratepayer-funded bailout of two coal plants was a bad deal for customers.

PUC staff asked the auditor it hired to use a "milder tone and intensity" when describing bailouts of coal plants funded by customers. PUC employee Mahila Christopher cited specific lines of concern in a September 2020 email to auditors,

obtained via public records request, and specifically flagged language that states: "keeping the plants running does not seem to be in the best interests of the ratepayers." The sentence does not appear in the publicly released version of the audit.

In another email, one of the auditors said she would delete a sentence referencing the conclusion that "the OVEC contract overall is not in the best interest of AEP Ohio ratepayers." In the publicly released version of the audit, no such sentence appears, even though a stated objective of the audit is to "investigate whether the AEP Ohio's actions were in the best interest of its retail payers."

More: [Ohio Capital Journal](#)

PUC to Examine FirstEnergy Spending on Stadium Naming Rights

The Public Utilities Commission last week said it has asked an independent auditor to examine whether FirstEnergy used customer money to pay for the naming rights to the Cleveland Browns' stadium.

Democratic lawmakers want FirstEnergy's name removed due to its involvement in secretly funding a \$60 million bribery scheme to win legislative approval in 2019 for a \$1 billion bailout for two nuclear plants.

FirstEnergy in 2013 agreed to pay \$102 million over 17 years for naming rights to the stadium that was called Cleveland Browns Stadium when it opened in 1999.

More: [The Associated Press](#)

VIRGINIA

State Renames Government Agency



Gov. **Ralph Northam** last week announced that the Department of Mines, Minerals and Energy will become the Department of Energy (Virginia Energy). The name change was passed by the General

Assembly and signed by Northam in April.

The agency's name change and reorganization follows the 2020 Virginia Clean Economy Act, which establishes a mandatory renewable portfolio standard to achieve 30% renewable energy by 2030, a mandatory energy efficiency resource standard, and the path to a carbon-free electric grid by 2050.

More: [Virginia.gov](#)

WEST VIRGINIA

State Says Gov. Justice Should Forfeit \$2.9M for Improperly Reclaiming Mines

Attorneys for the Kentucky Energy and Environment Cabinet last week filed a motion asking a judge to enforce an agreement that included a nearly \$3 million penalty against Gov. Jim Justice, his son and several family coal companies for reclamation violations.

The payoff would be higher because the agreement called for 8% interest going back to 2015, according to court records.

The state also wants to revoke five permits at Justice-company mines, take the reclamation money posted for the mines, require the companies to fix violations at the sites and reclaim them, and block Justice companies from getting new permits or amending current permits until they fix the violations.

Richard Getty, the attorney who represents the Justices, said they will oppose the state's request.

More: [Lexington Herald Leader](#)

WISCONSIN

Dane County Aims for Net-zero Carbon Emissions by 2030

Dane County leaders last week said they are planning to have net-zero carbon emissions for all county buildings and fleets by the end of the decade.



County Executive **Joe Parisi's** announcement came alongside a \$10 million proposal included in his 2022 budget that would go toward expanding the county's clean fuel infrastructure. The proposal includes

\$5 million for trailers equipped to carry compressed natural gas (CNG), a renewable fuel generated from rotting trash and natural gas harvested from manure digesters. Two million dollars will be allocated for a new CNG filling station, and \$3.2 million to buy eight more CNG-powered snowplows.

More: [Channel 3000](#)

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