RTO Insider
Your Eyes and Ears on the Organized Electric Markets
CAISO ■ ERCOT ■ ISO-NE ■ MISO ■ NYISO ■ PJM ■ SPP

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Defaults, Resignations Mark Fallout from ERCOT Blackouts

ERCOT's Brazos Electric Declares Bankruptcy

Legislators File Bill to Consolidate PUC, Gas Regulator

By Tom Kleckner

The financial carnage stemming from the massive Texas blackouts that knocked out power to more than 4.3 million customers and lead to *countless deaths* has only just begun.

Brazos Electric has long-term PPAs for Sandy Creek's coal-fired generation.| *NAES*

Early Monday morning, Brazos Electric Power Cooperative, the state's largest generation and transmission cooperative, *filed for Chapter 11 bankruptcy*, saying it wasn't able to pay ERCOT $2.1 billion in unexpected charges.

On Friday, ERCOT revoked Griddy Energy's rights to participate

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PUC's Walker Steps Down from Commission

By Tom Kleckner

Under heavy fire from state politicians over her response to the massive Texas blackouts of Feb. 15-19, DeAnn Walker resigned as the chair of Texas' Public Utility Commission late Monday afternoon.

In a 15-word *press release*, the PUC said the resignation was effective immediately. Her picture has been removed from the website.

Walker was subjected to sometimes harsh questioning during 7½ hours of testimony last week before the State Legislature. Afterward, more than a dozen lawmakers called for her resignation. (See "Legislators Focus on PUC's

DeAnn Walker testifies before the Texas Senate on Feb. 25. | *Texas Senate*

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RTOs: Let us Share Trading Info

ERCOT Outages, GreenHat Default Cited at FERC Technical Conference

By Rich Heidorn Jr. and Michael Brooks

FERC's technical conference Thursday on RTO/ISO credit practices was prompted by the 2018 GreenHat Energy default in PJM. But many of the speakers found a more recent reason for concern: last month's crisis in ERCOT, where widespread generation outages during subfreezing conditions pushed prices to the $9,000/MWh cap, prompting collateral calls and defaults among electricity retailers and municipal utilities.

RTO officials said the Texas crisis pointed to the need to consider loosening restrictions on information sharing among RTOs, while other witnesses said it highlighted the difficulty grid operators have preparing for "Black Swan" events.

The conference, which continued Friday morning, also elicited calls for lagging grid operators to adopt best practices such as mark-to-auction reviews and balance-of-period auctions in financial transmission rights (FTR) markets. FERC's question on whether grid operators should outsource market clearing to a third party was received coolly.

Information Sharing

RTO credit risk officials said although they meet monthly with their counterparts to share best practices, confidentiality rules prevent them from sharing market participant-specific information, even if the participant may pose a credit risk in multiple markets.

Sheri Prevratil, NYISO | *FERC*

"It would be helpful to be able to know, for example, who might be experiencing financial distress right now in MISO and SPP [and] ERCOT," said Sheri

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In this week's issue

NetZero Insider

Your Eyes and Ears on Climate Policy and Adaptation

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NetZero Insider is live!

The only publication covering climate policy from inside the room in D.C. and the state capitals.

The Biden administration and half of the states in the U.S. have pledged to reduce their carbon emissions to net zero by the middle of this century, an ambitious goal that scientists say is needed to address climate change.

Meeting states' goals will require decarbonization and electrification on an unprecedented scale, trillions in spending and major changes to nearly every sector of the state economies, particularly transportation and buildings.

Despite the high stakes, news coverage of these initiatives, particularly at the state level, is spotty. NetZero Insider will fill the void for businesses, attorneys, environmental organizations and other stakeholders. Our reporters in D.C. and the state capitals will provide exclusive coverage of policymaking to adapt to climate change and reduce greenhouse gas emissions.

We go into the rooms to answer the questions: What approaches are working? Which are not? What's next?

The NetZero *website* is now live. Here are our most recent stories:

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Counterflow

By Steve Huntoon

Winter Ain't Over Yet

By Steve Huntoon

Billy Crystal: Hi Curly. Kill anyone today?
Jack Palance (grinning): Day ain't over yet. | *Columbia Pictures*

To *paraphrase* Jack Palance in City Slickers, winter ain't over yet.

Weather Underground says March is the craziest weather month.[1]

Judging from the pair of marathon two-day hearings before the Texas House and Senate, the Texas tragedy has infinite complexities for everything connected to our industry.

But for now, I'd like to focus on the very short term — what lessons we might learn to give us actionable intel for the rest of the winter.[2] Not just for Texas, but for our industry everywhere.

1. Electric-gas interdependence. We now know that much of the loss of gas supply to gas generators was due to the blackout of electric supply to gas infrastructure.[3] This caused the vicious cycle of blackouts causing loss of gas supply to generators, causing more blackouts.

Oncor, the largest electric utility in Texas, said that before the storm it had a list of 35 critical gas facilities to protect from load shed. During the storm another 168 (not a typo) critical gas facilities were identified.

So here's the proactive measure that NERC, the Edison Electric Institute, the Natural Gas Supply Association and the Interstate Natural Gas Association of America can do on an emergency basis: Make sure that every electric utility knows the critical gas facilities in its service territory.

2. Water infrastructure. Ditto on this. Every electric utility should know the water treatment plants and other critical water infrastructure in its service territory.

3. Communications. The lack of timely, accurate information was a huge problem. Not only lack of communications but inaccurate information such as customers being told that there were rolling blackouts and they could expect service to return from time to time. So many of these customers chose to stay put instead of staying with relatives, friends, etc. And of course, during blackouts there is a huge question of how to get information to customers.

Every electric utility should be asking itself: During an emergency, how do we get timely and accurate information to mass media, to regulators, to elected officials and directly to customers? If the blackout has taken the ISP or home wi-fi down, what about text messages to the customer phone number on file?

4. Black-start units. We know that about half of ERCOT black-start units were out (same as in 2011, by the way). Whatever the reason — maybe diesel fuel freeze, maybe lack of proper maintenance, maybe gas supply was cut — this has got to be addressed. BTW there were references to basically the end of days if the grid had gone down and a black start would be necessary. That is hyperbole — as long as black-start units actually perform as they're well paid to do.

5. Scheduled, maintenance, planned outages. Whatever the term, every electric utility should be monitoring these like a hawk during winter (and summer) months. Under no circumstances should the allowed megawatts exceed the megawatts assumed in the reliability model for the upcoming winter or summer. That is a recipe for disaster.

We're all trying to deal with this in real time and I would greatly appreciate input on what I've got wrong and what I've left out. Thank you. ■

[1] https://www.wunderground.com/cat6/March-Weather-Madness-Most-Extreme-Month-Year.

[2] For the longer-term study, I hope FERC has a Word version of its August 2011 report because it could mostly just repeat that report in terms of what went wrong, recommendations, etc., this time around. The song remains the same.

[3] Kudos to Bloomberg reporters for flagging this long before the hearings. https://finance.yahoo.com/news/giant-flaw-texas-blackouts-cut-005229826.html#:~:text=(Bloomberg)%20%2D%2D%20When%20the%20Texas,to%20hospitals%20and%20nursing%20homes.

[4] BTW, Twitter doesn't count as effective customer communication. Only 0.4% of customers in the ERCOT footprint follow Twitter, and only 0.5% of customers in the Oncor footprint do.

RTOs: Let us Share Trading Info

ERCOT Outages, GreenHat Default Cited at FERC Technical Conference

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Prevratil, NYISO's manager of corporate credit. "Because that can certainly spread across all of the RTOs and ISOs."

PJM Chief Risk Officer Nigeria Bloczynski, who was hired following the GreenHat default, said RTOs "should be able to share information on issues they are confronting, especially with regard to certain market participants. We need transparency, not only within the RTO/ISO community to help mitigate risk, but in the broader commodity space as well."

She said market participants with whom she has spoken agree that "there should be some method of sharing information across RTOs."

"The critical question in information sharing is how to share and aggregate it," MISO CFO Melissa Brown said. "If information sharing does occur, it would make sense for there to be a single, central depository of that information, with limited access and distribution. [FERC] would be one such candidate for this sort of information sharing, echoing Order 760 data. Another alternative would be encouraging greater coordination and sharing among" independent market monitors.

Brown questioned the value of credit information alone from other RTOs. "Credit is inexorably linked to market activity. Knowing one without the other would give little actionable data," she said.

She added that the costs of sharing must be justified by its ability to prevent defaults. "MISO has experienced only a few defaults since its market start, all with very little

Nigeria Bloczynski, PJM | *FERC*

financial impact," she said. The RTO's largest market default was less than $1,000 for the first 15 years of market operations. Last month it incurred two additional potential defaults of $112,046 and $15,563, which are pending final resolution.

Third-party Clearing

Costs also were cited as a reason not to consider mandatory third-party clearing of FTRs.

R. Scott Everngam, a former FERC official now consulting for regulated electric utilities, said his position on third-party clearing of FTRs has evolved as RTOs have improved "the core credit office competencies that unfortunately were lacking in the not-too-distant past."

"I am concerned that the costs [of third-party clearing] to market participants annually could approach the costs of a major default," he said. "Third-party clearing houses are not likely to understand fully the market design risks of FTRs and other trading products as well as the RTOs/ISOs, who could keep costs lower by their better understanding of the risks of these products."

It could also raise jurisdictional issues if the clearing house is regulated by the Commodity Futures Trading Commission, he said.

Abram Klein, managing partner of FTR trader Appian Way Energy Partners, said he is "extremely skeptical" of the viability of mandatory third-party clearing. "We have no concern with voluntary third-party clearing if certain market participants would gain efficiencies from novating their FTR portfolios over to an exchange; for instance, if their futures positions … would offset their FTR portfolios," he said. "However, we believe mandatory third-party clearing may be too costly and raises significant legal hurdles."

Klein said many current FTR market participants would be excluded from the market by exchanges' requirements. "FTRs are not pork bellies or tiger shrimp. … Clearing members, we think, are too far removed from this complex product to be comfortable taking on the scale of business that third-party clearing of FTRs would entail."

Scott Miller, who now serves as executive director of the Western Power Trading Forum, spoke of his experience working on a clearinghouse proposal as a PJM employee and of helping to draft *Order 741* while at FERC in 2010.

Melissa Brown, MISO | *FERC*

"We thought that we had solved the problems of FTR margins and how collateral would be required" with Order 741, he said. The GreenHat default, he said, showed "that the RTOs and ISOs were not aware of what their discretion was."

"I think it's time for the commission to be very direct with regard to the jurisdictional RTOs and ISOs and say: 'You have to collaboratively come together with a best practices solution,'" he added.

Unique, Unpredictable Risks

Miller said RTO markets are different from financial or commodity markets because they depend on an ever-changing transmission system.

"While we tend to think of the commodity being traded in an RTO market as the electrons being produced, it is the transmission availability that is the value with the greatest risk in question," he said. "Unlike a commodity that is grown, extracted, or manufactured, the transmission system necessarily changes based on the modeling of the system by the ISO or RTO."

Miller said FERC could increase transparency by making the risk valuation model available to market participants yearly.

He said RTOs' risk management tools "have difficulty in measuring stochastic risk, or risk that lies outside normal experience," such as that experienced in Texas.

"Recognizing the difficulty in assessing risks associated with outages, weather and similar

FERC/Federal News

'outlier' events, ISOs and RTOs have tended to rely upon historic prices to assign risk," Miller continued. "Recent experiences in electric markets make clear the need to do more dynamic forward modeling to capture stochastic risk. While this is easier said than done, it is possible. The advanced Monte Carlo scenario modeling being considered by PJM is an advancement."

Brown said that power system reliability is "the most fundamental way to protect market stability and avoid market defaults. A robust power system promotes price certainty and removes risk, whereas an unduly stressed system, as we have seen just a week ago, causes tremendous price uncertainty and unreasonable credit risks, to say nothing of the underlying human suffering and potential loss to property."

RTO Discretion

RTO officials defended their use of discretion in requiring additional collateral when they see increasing risk from a market participant.

"MISO believes all RTOs should have discretion and authority to respond to extreme price volatility," Brown said. "The … infrequency and unpredictability of such events means a single standard or threshold is unlikely to prevent a default if the markets and price swings are anomalous enough. The best solution MISO has found to address these situations is to set up the rules for the center of the bell curve and have discretion and authority to act swiftly, subject to review, if extreme price volatility arises at the tails."

Prevratil agreed. "The NYISO cannot predict the specific ways in which a market participant may present a risk of default, so it is critical that the NYISO's tariffs maintain the flexibility

Scott Miller, Whitehall Bay Energy Services | *FERC*

to evaluate the specific circumstances of each situation," she said.

Noha Sidhom, CEO of Viribus Energy Fund and executive director of the Energy Trading Institute, said ETI is "comfortable with some level of discretion being granted to the RTOs and ISOs regarding requesting additional collateral.

"However, we are extremely uncomfortable granting them the unilateral ability to suspend a market participant's ability to transact," she said in pre-filed testimony. "Just as a market participant must demonstrate sufficient risk management protocols and market expertise, it is even more critical that an RTO or ISO be able to demonstrate sufficient processes, expertise and resources to manage credit and counterparty risk."

One Size Doesn't Fit

Brown called for FERC to find the right balance between standardization and regional market rules.

"It is one thing to have the RTOs collaborate on intake forms, allowing potential participants to file one form instead of six," she said. "It is much riskier to impose standard collateral requirements across different markets and products."

Brown said managing credit risk "is more an art than a science. … Put simply, there is no substitute for people who are knowledgeable about credit and sensitive to developing risks."

But Eric B. Twombly, a board member of the International Energy Credit Association, said RTOs have a disadvantage in evaluating "red flags" in the due diligence process because of the Federal Power Act's prohibition against "undue discrimination."

"Usually, this analysis in a corporate setting involves senior managers who apply subjective judgement as to the level of potential compliance or reputational risk a company and/or its shareholders are willing to accept," he said in pre-filed testimony. "An RTO/ISO's subjectivity can be interpreted as discriminatory."

Actions Needed

Several witnesses had recommendations for actions FERC should take to improve RTO practices.

Klein said RTOs need to become as expert in credit risk management as they are in managing markets and ensuring reliability.

"ISO policies are developed via a stakeholder process that involves compromise," he noted. "FERC must not allow ISOs and their

Abram Klein, Appian Way Energy Partners | *FERC*

stakeholders to adopt substandard [credit and counterparty risk management] policies and practices. It should be unacceptable, for instance, for any ISO not to have variation margining when a customer's mark-to-market trading position moves into the red."

Miller said FERC should be cognizant that RTOs' market participants have a conflict of interest between controlling risk and minimizing costs. "In this regard, the stakeholder process often displays these conflicts rather than benefiting from varied perspectives," he said.

Klein and others said the commission should consider requiring that all FTR markets include "regular and periodic market pricing through balance-of-period auctions," as have been adopted by NYISO, PJM, MISO and ERCOT. "These auctions offer important liquidity, price transparency and competition to the FTR market and allow these ISOs to regularly assess and revalue market participant FTR portfolios, allowing for more accurate margining and identification of exposures." ISO-NE, CAISO and SPP lack balance-of-period auctions, although SPP is considering it.

Nodal Exchange COO Demetri Karousos said the "key risk" to swaps trading is a "daisy chain of defaults" in which "one counterparty defaults to another counterparty, which in turn defaults to another counterparty, and so on. This is exactly what" triggered the 2008 financial crisis, with the collapse of the mortgage-backed securities market.

Karousos talked about his exchange's *proposal* linking FTR auctions to futures markets. Under its proposed construct, the RTO would continue to run FTR auctions. FTRs would then be exchanged for a futures contract between the RTO and a clearinghouse. The FTR payment mechanism would be replaced with an exchange for related position, "variation margins extending from the futures contracts that are established on the exchange," he said.

This new product "produces opportunities for secondary market trading, providing much greater liquidity ... and improved hedging. It improves transparency [and provides] improved default protection."

Rob Marsh, chief investment officer for Monolith Energy Trading, said the commission also should include mark-to-auction reviews as well as balance-of-period auctions.

"Variation margin should be utilized to secure the market to changing risk profiles. While mark-to-auction is the obvious tool for calculating variation margin, additional data, such as day-ahead and real-time price volatility and the financial condition of market participants, should be considered in the variation margin models," he said. "No market participant should be able to clear a portfolio that they are under-collateralized to hold."

He also called for a holistic view of credit requirements, with constant re-evaluations. "Too often, credit policy changes have been reactive rather than proactive. They are tailored to specifically address the last default, rather than comprehensively examined to determine their underlying flaws."

Klein said the commission must eliminate RTO policies that allowed "'heads I win, tails you lose' trading strategies," such as those that led to the 2018 GreenHat and 2008 PowerEdge defaults in PJM, which allowed market participants to take big risks with insufficient collateral. (See *Report: 'Naive' PJM Underestimated GreenHat Risks*.)

Brown called for eliminating "shortcuts, such as allowing past FTR revenues to offset the collateral posted," noting that transmission congestion changes over time.

The RTO officials listed the changes they have made in their rules since the GreenHat debacle, calling them evidence of a much-improved risk posture. But Sidhom said "many of the changes accepted by the commission over the past year simply require the market participant to self-report a material change.

"This is insufficient," she said. "The burden should be placed on the RTO or ISO to conduct continuous due diligence."

Brown acknowledged it's too soon to say whether the recent rule changes have addressed the RTOs' risks. "More time is likely necessary to evaluate the full value of these adjustments," she said.

Multiple witnesses stressed the need for finding protections that don't create unnecessary barriers to entry.

Klein criticized SPP's proposal to require financial entities trading transmission congestion rights, its version of FTRs, to provide $20 million in unencumbered funds, excluding holding collateral at other ISOs. "Such a policy exceeds the $10 million 'Eligible Contract Participant' (ECP) standard noted in FERC Order 741 and may represent an unnecessary and an anticompetitive barrier to entry. We view the $10 million ECP standard as sufficient."

Several witnesses said RTO's credit experts should be involved in the development of new market rules. Someone like Bloczynski "should be at every single ISO and should be coordinating with market design," said Ruta Skucas, a partner with Pierce Atwood who represents the Financial Marketers Coalition in RTOs.

Bloczynski agreed, saying "cross-departmental communication should be organic and 'baked into' the culture of the organization."

Skucas said that the more targeted the products, the less credit risk the markets face. She added that a best practice is for RTOs to allow trades on any node, but it's not available in every market. In NYISO, for example, "generators can only use virtual products at the zonal level," so "anything happening at the nodal level, they can't hedge."

She also argued that participants should be able to choose between products that carry energy risk, such as PJM's incremental offers and decrement bids, and products such as up-to-congestion transactions. "This allows for management of energy risk exposure while providing a natural link between liquid delivery points and actual physical assets," she said. Products with greater granularity will become even more important as more intermittent resources "seek to hedge their positions," she added.

Ted Thomas, chair of the Arkansas Public Service Commission, said FERC's Office of Enforcement also has a role in protecting the markets. "We need to keep gamers out of our market with rigorous enforcement," he said. "Go manipulate LIBOR. Go manipulate GameStop stock. Stay the hell out of our markets." ■

Haaland Commits to Balanced Approach to Energy

Interior Secretary Nominee Acknowledges Historical Significance of Position

By Jennifer Delony

Rep. Debra Haaland (D-N.M.) | *Senate ENR Committee*

Fossil energy will continue to play a major role in the U.S. for years to come, President Biden's nominee for secretary of the interior, Rep. Deb Haaland (D-N.M.), told the Senate Energy and Natural Resources Committee last week.

Haaland said that she recognizes not only the importance of oil and gas reserves to local economies, but also the need to address climate change. She committed to working cooperatively with Congress and stakeholders to strike "the right balance" between those issues.

Several Republican committee members expressed concern that statements Haaland made in the past against fracking and pipelines and in favor of clean energy are demonstrative of how she would lead the Department of the Interior.

Haaland claimed to be "the highest-rated freshman in Congress on bipartisan collaboration" as evidence of her willingness to work across the aisle on the difficult issues their constituents face in the energy transition. When pressed whether she personally supports a ban on oil and gas, Haaland said that she would support the president's agenda, not her own, in the role as secretary.

"I realize that serving as a cabinet secretary is far different from being a member of Congress, where I'm representing one district," she said. "It's representing every single American, and I recognize that there is a difference in those two roles."

Making History

Haaland said the significance of being the first Native American nominated for interior secretary was not lost on her.

Several committee members also acknowledged the milestone.

"I recognize, as a member of [the Senate Committee on] Indian Affairs, the historic nature of your nomination as the first Native American woman nominated by the president to lead the Department of Interior," Sen. Catherine Cortez Masto (D-Nev.) said.

Sen. Catherine Cortez Masto (D-Nev.) | *Senate ENR Committee*

Sen. Mazie Hirono (D-Hawaii) noted how important it is that Haaland is a 35th generation Pueblo, which means, she said, "that your people were in our country long before the rest of us ever came here."

Sen. John Hoeven (R-N.D.) | *Senate ENR Committee*

Sen. John Hoeven (R-N.D.) took the opportunity to test Haaland's commitment to Native American tribal interests as they relate to the fossil fuel industry.

Hoeven said Haaland protested Energy Transfer Partners' Dakota Access oil pipeline and asked if she was still opposed to it. The pipeline was placed into service despite high-profile protests that started five years ago.

"Yes, I did go to stand with the water protectors during that [protest]," Haaland said. "The reason I did that is because I agreed with the tribe that they felt they weren't consulted in the best way."

Members of the Standing Rock Sioux Tribe said that siting of the pipeline under a lake near their reservation threatened water quality.

Hoeven pressed Haaland on her current position on the status of the pipeline, which is under environmental review again following a ruling last March by the D.C. District Court.

"Whenever these projects come up, we absolutely should make sure that we are consulting with tribes if, in fact, these projects do affect their lands and their sacred sites," she said.

Hoeven asked Haaland if she would recuse herself from matters related to the pipeline that come before the department to avoid a conflict of interest. Haaland answered that she would heed the advice of department attorneys on any potential conflicts. ■

President Biden's nominee for secretary of the interior, U.S. Rep. Debra Haaland (D-N.M.), spoke at her Tuesday confirmation hearing about the importance of her nomination as a Native American. She is seen here meeting with members of the National Guard in January. | *U.S. Rep. Debra Haaland via Twitter*

FERC/Federal News

Granholm Confirmed by Bipartisan Vote

By Michael Brooks

| C-SPAN

The Senate on Thursday voted 64-35 to confirm former Michigan Gov. Jennifer Granholm as the 16th secretary of energy.

Later in the evening Granholm was sworn into office by Vice President Kamala Harris.

Fourteen Republican senators, including Minority Leader Mitch McConnell (Ky.) and former Energy and Natural Resources Committee Chair Lisa Murkowski (Alaska), joined every Democrat in supporting Granholm's nomination. Sen. Dan Sullivan (R-Alaska) did not vote.

The ENR Committee on Feb. 3 voted 13-4 to advance Granholm's nomination, but only three other Republican members of the committee joined Murkowski in voting "aye" on the Senate floor: Steve Daines (Mont.), John Hoeven (N.D.) and James Risch (Idaho). (See "Granholm Approved for Senate Floor Vote," *EPA Nominee Regan Receives Bipartisan Support*.)

Before Thursday's vote, the committee's ranking member, Sen. John Barrasso (R-Wyo.), repeated his criticism of President Biden's energy-related executive orders, including his ban on new oil and gas drilling leases on federal lands, saying he could not "in good conscience" vote for Granholm. Still, he praised her personally and expressed confidence in her ability to run the Energy Department.

The Senate on Wednesday had voted 67-32 to invoke cloture on the nomination, setting up Thursday's vote.

Granholm "has the leadership skills, the vision and the compassion for people that we need at the helm of the Department of Energy to face the climate challenge," ENR Chair Joe Manchin (D-W.Va.) said before the vote. "I believe she is extremely well-qualified to lead the Department of Energy."

The American Clean Power Association "congratulates Secretary Granholm on taking the helm of the Department of Energy," CEO Heather Zichal said in a statement. "Having worked on energy policy with Secretary Granholm, I know that she is committed to the Biden administration's interlinked goals of boosting the U.S. economy and combating climate change."

"We look forward to working with her and other leaders across the administration to build on the existing partnership that has enabled the electric power industry to respond quickly and decisively to all manners of threats to the grid," the Electricity Subsector Coordinating Council said.

"There are a great many challenges and opportunities facing the energy sector as we transition to the grid of the future and confront climate change," FERC Chairman Richard Glick *tweeted*. "I know you will do an outstanding job leading the Department of Energy!" ■

CAISO/West News

CAISO Readies RA Enhancements for Summer

Storage Readiness, Substitute Capacity for Planned Outages Proposed

By Hudson Sangree

Making sure battery storage can function well as an RA resource is among the CAISO initiative's goals. | *Southern California Edison*

A stakeholder initiative to help ensure resource adequacy this summer is headed to the CAISO Board of Governors later this month with the goal of implementing its first phase of measures by June 1.

The *initiative*, which began in 2018 but was fast-tracked last year, proposes RA enhancements to avoid shortfalls like those California experienced in August and September, when energy emergencies and rolling blackouts highlighted weaknesses in the state's RA planning and procurement.

A key proposal requires generators to find substitute resources during planned outages. Another part of the plan seeks to make sure storage batteries can serve as RA resources during times of strained supply. A third would expand CAISO's backstop procurement authority to local areas that are resource insufficient.

"The objective of this ongoing effort is to ensure the CAISO's resource adequacy rules and tools remain relevant and guide the procurement of capacity that can reliably and sustainably support the rapidly evolving needs of the grid all hours of the year," a final written *proposal* said.

CAISO staff and stakeholders discussed the proposal during a call Feb. 23. The board will vote on the plan at its March 24-25 meeting.

The planned outage component "will require all planned outages for RA resources to bring full substitute capacity for the outage to be approved," Karl Meeusen, senior adviser for infrastructure and regulatory policy, said in the session.

"We considered whether or not to have some sort of 'hey, you got close enough' standard," he said. "However … because we have shaped monthly RA requirements," CAISO decided that replacing 100% of the capacity on planned outages would better ensure "that the month-by-month RA obligations and requirements continue to be fulfilled on an everyday basis."

A root-cause analysis of the Aug. 14-15 rolling blackouts found CAISO had 514 MW of planned outages that were not replaced on Aug. 14 and 421 MW of planned outages that were not replaced on Aug. 15. (See *CAISO Issues Final Report on August Blackouts*.)

Of those, "the largest planned outage [of a natural gas plant] had been approved for maintenance in June but had extended into peak summer months without providing replacement capacity," the root-cause report said. "This outage was effectively a forced outage because the resource could not come back online even if the CAISO's [restricted maintenance operations] notification would have canceled the planned outage."

Under the plan, extensions of planned outages would be treated as separate outages and would also require substitute capacity.

Stakeholders generally opposed the planned outage substitution requirement, Meeusen said. Some said there is sufficient excess non-RA capacity, and substitution is not needed. Others contended there is not enough substitute capacity available.

Meeusen responded to the arguments.

"The presence of non-RA or the lack of substitute capacity should not relieve an RA resource of its obligation to be available to the ISO," he said. "You have sold a product and service … to be available to the ISO's market. That's what [you are] being paid for. If you can't do that, then what are the ramifications? Our proposal simply says that if you can't do that, you find somebody that can."

A lack of substitute capacity means a generator waited too long to contract for it or that resources are badly needed — a bad time to take planned outages, he said.

Meeusen emphasized that the first phase of the plan is likely a temporary solution for this summer, while a second more-permanent phase, with additional RA proposals, will go before the Board of Governors in the second and third quarters of 2021. A final draft of that proposal is due April 21.

A second fast-tracked summer 2021 initiative also is heading to the Board of Governors on March 24-25. It proposes changes to CAISO market rules meant to avoid shortfalls. (See *CAISO Speeds Rule Changes to Avoid Shortfalls*.)

Making Sure Storage Works

A lack of storage for renewable resources contributed to last summer's shortfalls during severe Western heat waves in mid-August and during Labor Day weekend. That led to emergencies in the net-peak hour, when solar ramped down but demand remained high in the early evenings. Having more storage resources that are charged and ready for emergencies would help, CAISO and the California Public Utilities Commission (CPUC) said.

The CPUC ordered utilities to procure at least 3,300 MW of additional capacity this year, most of it storage. The ISO is expecting 1,800 MW of storage capacity to come online by Aug. 1, adding to the current 550 MW of dispatchable storage on its system.

"Increased levels of energy storage necessitate assurance of a minimum level of stored energy available during the net load evening peak to meet operational needs," the proposal said.

CAISO/West News

The plan's primary requirement is that storage resources have a minimum state of charge (MSOC) to serve summer peaks and net peaks under strained conditions.

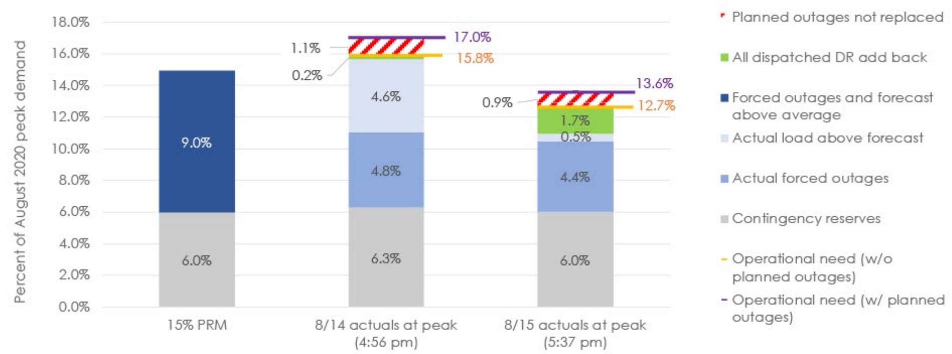
Gabe Murtaugh, lead policy developer at CAISO, said that with the expected retirements of aging natural gas plants in the next few years, "it's absolutely going to be necessary that we have a few thousand megawatts of [additional] storage generation, and … it's also critical that we get those few thousand megawatts of storage generation charged" before they are needed.

The MSOC plan also proved controversial among CAISO stakeholders. In response to their concerns, the ISO made several changes including applying the MSOC only on days when system conditions are very tight and only applying it to RA storage resources.

CAISO does not intend MSOC as a permanent fix; it intends to ask FERC to authorize its use of two years, Murtaugh said in his *presentation*. At the same time, the ISO is planning to launch a new stakeholder initiative focusing on energy storage enhancements to develop a long-term means for ensuring there is sufficient storage to meet high summer demand, he said.

Local Backstop Procurement

CAISO is also proposing to expand its statewide backstop procurement authority to local areas and sub-areas that are resource deficient. The third element in the RA plan was the least controversial, the ISO said in its final proposal.



Red and white striped areas indicate planned outages that weren't replaced Aug. 14-15, days when CAISO ordered rolling blackouts. | *CAISO*

"While most parties did not comment on this element in the draft final proposal, of the nine entities that did offer comments, a majority of commenters supported this policy as a common-sense expansion of the CAISO's backstop authority to ensure local reliability needs in the face of increased reliance on availability limited resources," the paper said.

Supporters included CalCCA, which represents the state's community choice aggregators and resisted an earlier CPUC proposal to name Pacific Gas and Electric and Southern California Edison as central procurers for load-serving entities (LSEs) in their jurisdictions, including CCA's.

Regarding the ISO's local backstop plan, "CPUC Energy Division staff were … supportive as long as the local-capacity-requirement technical studies clearly identify what use limitations exist in each local area and sub-area so that LSEs and the new central procurement entity could utilize this information to direct procurement upfront," the proposal said.

CAISO said it would be best to make its criteria clear.

"The CAISO will continue to outline the requirements for all applicable local areas and sub-areas, and these will be clearly described in the LCR reports by charts and graphs with the energy needs during peak as well as year-round conditions, before LSE procurement begins," it said. "These graphs will also show transmission capability during emergency conditions for the applicable local areas and sub-areas." ■

CAISO/West News

New PG&E CEO Promises 'Hometown Experience'

Poppe Says She Sees Path Forward for Troubled Company

By Hudson Sangree

PG&E CEO Patti Poppe | *Whirlpool*

During a conference call Thursday, new PG&E Corp. CEO Patti Poppe said she toured the devastation in the town of Paradise, Calif., on her first day in office. The Camp Fire, ignited by utility subsidiary Pacific Gas and Electric's equipment, killed 85 people and destroyed more than 14,000 homes there in November 2018.

"I met with my coworkers who live in the community, whose own lives were forever impacted by the Camp Fire," Poppe said as part of her first earnings report. "We're so grateful to those who have the strength and the courage to represent PG&E through the rebuilding effort."

Later, she said, she visited the city of San Bruno, where a PG&E gas pipeline exploded in 2010, killing eight, leveling part of a suburban neighborhood and shooting a fireball 1,000 feet in the air.

Catastrophic fires in 2017, 2019 and 2020 compounded PG&E's safety problems. The company emerged from bankruptcy in June after paying billions of dollars to fire victims and insurers and pleading guilty to 84 counts of involuntary manslaughter in the Camp Fire. (See *PG&E Sentenced; Bankruptcy Plan Approved*.)

Poppe, the former CEO of Michigan-based CMS Energy, became PG&E's fifth acting or permanent CEO in the past four years in January. (See *Struggling PG&E Nabs CMS Energy's CEO*.)

Like those before her, Poppe vowed change as she laid out her vision for the state's largest utility, which reported GAAP losses of $1.05/share for 2020 and earnings of 9 cents/share for the fourth quarter, compared to losses of $14.50/share and $6.84/share, respectively, in 2019.

Poppe said that a "triple-bottom-line mindset" would guide the utility's performance this year and beyond. Known as "TBL" in economics circles, the philosophy holds that companies will do better if they focus on social and environmental responsibility along with profits.

"We will embrace the triple-bottom-line mindset of serving people, our planet and California's prosperity," Poppe said. "This mindset will find an intersection between the need to safely deliver energy and meet the clean energy aspirations of Californians. I'm optimistic that there is a bright path forward with a triple bottom line enabled by a laser-like focus on performance.

"Priorities to get us moving in 2021," she said, include writing what she called a "clear sky playbook."

"We have a best-in-class emergency response playbook, and we're going to complement that by writing the PG&E clear-sky playbook so we can predictably deliver every day, not just during and after a crisis," Poppe said. "I'm putting together a team of senior leaders that's developing that clear-sky playbook, underpinned by a lean operating system, to predictably deliver us on our commitments and outcomes. We're bringing the best of a functional organizational design — standards, processes and scale — to deliver a regionalized hometown experience for the communities and customers we serve."

One of PG&E's proposed reforms involves "regionalization" by establishing a number of semiautonomous management units around the state.

PG&E's system requires substantial capital investments, and customers deserve more disciplined cost performance, Poppe said.

"Our work will deliver for our customers and investors," she said.

PG&E has continued to attract negative publicity and harsh criticism, just before and during Poppe's tenure.

In November, California Public Utilities Commission President Marybel Batjer told PG&E that it could face a stricter regimen of oversight and enforcement because of concerns about its line maintenance. A proposal in the matter was issued Thursday, with a vote scheduled April 15. (See *PG&E Faces 'Enhanced Oversight' by CPUC*.)

On Feb. 3, federal Judge William Alsup, who is overseeing PG&E's criminal probation stemming from the San Bruno explosion, said he would likely impose new probation terms, requiring the company to improve its vegetation management and public safety power shutoff (PSPS) practices, following the Zogg

The Camp Fire tore through Paradise, Calif., on Nov. 8, 2018, killing 85 people. | *Tanner Hembree/USDA Forest Service*

Fire in September.

Alsup said he believed the fire — which killed four people, including a mother and her 8-year-old daughter who died fleeing the flames — was started by a tree falling on a PG&E power line in rural Northern California. (See *PG&E Files Wildfire Plan Under Intense Scrutiny*.)

Poppe said Thursday that PG&E would continue to use PSPS to prevent fires in high-risk areas.

On Wednesday, John Trotter, a retired state appellate court justice and the trustee of a wildfire victims trust established during PG&E's bankruptcy, sued 23 of the utility's former executives and officers for causing the Camp Fire and the October 2017 wine country fires.

The fires "were the outgrowth of separate and distinct wrongful acts and omissions by the defendants in breach of the defendants' fiduciary duties of care and loyalty to the company," the *lawsuit* said.

The trust, valued at $13.5 billion when the bankruptcy concluded, owns a 22% equity stake in PG&E and represents approximately 80,000 fire victims. ■

ERCOT News

Texas Lawmakers Dig into Power Outages

By Tom Kleckner

ERCOT CEO Bill Magness and PUC Chair DeAnn Walker sit before the Texas House's State Affairs and Energy Resources committees. | *Texas House of Representatives*

Operating out of a pair of dueling hearing rooms, Texas lawmakers Thursday took their shots at the electric industry as they began to try and grasp the complexities of a system that failed last week during an "unprecedented weather event."

Some legislators, blessed with a better understanding than others of the grid's inner-workings, tried hard to understand what went wrong when ERCOT began dumping up to 20 GW of load Feb. 15, pushing much of its grid into blackout conditions as it tried to avoid a total collapse. They dug into the events that led to the load shed and the market's pricing intricacies.

Others simply gave voice to their constituents' frustrations, questioning the energy-only market's wholesale price-indexed rate plans that have led to five-figure bills and why ERCOT's Board of Directors included out-of-state directors.

"Who's at fault? I don't want to hear about systems; I want to know who's at fault," Rep. Todd Hunter (R) demanded of Curt Morgan and Mauricio Gutierrez, the respective CEOs of Vistra and NRG Energy, before the House State Affairs and Energy Resources committees.

"I want the public to know who screwed up," he continued. "That's what people want to know. I want names and details. Tell me some specifics!"

"I don't think you can put one thing at fault," Gutierrez started to explain. Pressed again by Hunter, he then relented by listing ERCOT, the power generators, the transmission and distribution providers, and the Public Utility Commission before being cut off.

On the Senate side, lawmakers grilled ERCOT CEO Bill Magness for five uninterrupted hours. PUC Chair DeAnn Walker followed him in the hot seat before the Senate's Finance Committee and Business and Commerce Committee, staying there for two and a half hours.

Magness explained the decision-making process that led to the lead shed, repeating some of the same information he shared with his board the day before. (See related story, *ERCOT Provides 'Explanations, not Excuses'*.)

Asked by Sen. John Whitmire (D) whether he would have done anything differently, Magness said he wouldn't.

"Obviously, what you did didn't work. I think that's fair to say," Whitmire said.

Magness disagreed.

"Respectfully, I'd say it worked from keeping us into a blackout that we'd still be in today," he said. "That's why we did it. Now, it didn't work for people's lives, but it worked to preserve the integrity of the system."

Sen. Brandon Creighton (R), representing a far northern Houston suburb where an 11-year-old boy died of hypothermia in an unheated mobile home, pressed Magness on why ERCOT wasn't more upfront with its communication regarding the winter weather and possibility of tight supplies.

Magness said those communications began Feb. 8 with an operating condition notice and included his appearance at a Feb. 13 press conference with Gov. Greg Abbott.

"We do know lives were lost. In my opinion, rather than the dollars being considered, that's the ultimate loss," Creighton said. "It did not resonate with us that we could have very cold conditions coming in. It did not resonate to us that the grid could be at risk from a supply standpoint. Foreseeable or not, that could be a situation that occurs. … It's very much my opinion that you define those communication protocols immediately."

Magness nodded in agreement.

Under further questioning, he said staff alerted the generators and transmission providers that cold weather was coming and that it would be a "significant event."

"Internally, we knew we may need to run the processes that go into load shed and emergency operations," Magness said. "We try to make those contacts through the PUC. We shared those notices with PUC and the senior staff, and we continued to share those notices."

"We have to review what happened and ensure it doesn't happen again," Walker said later. "It wasn't just the operational area, but the communication area. Could all of us have done better? Absolutely."

Lawmakers struggled to understand the relationship between ERCOT and the PUC. ERCOT, a nonprofit, was created by state law in 1970. Magness said the PUC has complete authority over the grid operator's finances, budget and operations, with oversight by the legislature.

Walker was nonplussed by Magness' comments when she took the stand.

"Listening to Mr. Magness, you would think we exert great authority over them. We do set their budget; we set their administrative fee … we do send signals like that," she said. "To give the impression we have the oversight … it's not only ERCOT, it's the market participants. I've had my staff file comments in the protocol revision, and we've had market participants and others sit there and say the PUC staff's opinion doesn't matter.

"I do have oversight over certain things, but I can't require board members to resign; I can't require Bill to resign or anything. I can't set up how they're organized, and I certainly don't tell them to drop load. That is why we have them, for that expertise."

The hearings continued late into the night. At press time, Oncor Electric Delivery CEO Allen Nye and CenterPoint Energy Executive Vice President Kenny Mercado were hours into a marathon session in front of the House committees during the early evening hours, while Railroad Commissioner Christi Craddick, who helps regulate gas pipelines, sat before the Senate. ■

ERCOT News

ERCOT's Brazos Electric Declares Bankruptcy

Legislators File Bill to Consolidate PUC, Gas Regulator

Continued from page 1

in its retail market for nonpayment. The ISO *told* market participants that Griddy's customers, who were hit with massive bills during the outages because of the retailer's wholesale-indexed rates, were being transferred to other electric providers.

That same day, the grid operator *told* qualified scheduling entities and holders of congestion revenue rights that the ISO would be unable to pay $1.3 billion in settlement invoices because other participants were short with their payments.

"Historically large invoices are going out and people are having a challenge paying them," ERCOT CEO Bill Magness testified before Texas legislators last week. (See *Texas Lawmakers Dig into Power Outages*.)

"While we recognize these are extraordinary circumstances, ERCOT will continue to operate under its long-standing protocols," spokesperson Leslie Sopko said. "The protocols are designed to ensure continuity of operations, which they have successfully done and continue to do."

Beth Garza, a senior fellow with the R Street Institute and the former director of ERCOT's Independent Market Monitor, said the market turmoil is a logical progression following the Feb. 14-19 energy crisis that begat a water crisis when frozen pipes burst and water systems were compromised.

"The invoices are coming due, the financial strain and limits at ERCOT are being felt and

Beth Garza, R Street Institute | *R Street Institute*

PUC Chair DeAnn Walker (left) listens to Texas Sen. Sarah Eckhardt (D) question ERCOT CEO Bill Magness on Feb. 25. | *Texas Senate*

attempted to be managed," Garza said Friday during an R Street webinar. "We've already dropped two shoes. The third shoe is the final outcome, the outfall of this situation. We're in the middle of figuring out what the financial [implications] are."

Not surprisingly, *Fitch Ratings has placed* all retail and wholesale utilities within the ERCOT footprint on "rating watch negative." The ratings agency last week cited the sector's "potentially severe, but uncertain, financial impact" of operating challenges, market dislocation and winter weather.

At issue is ERCOT's $9,000/MWh cap for wholesale prices, designed to incentivize generation during scarcity conditions. After staff fixed a software glitch on Feb. 16 that kept prices below the cap, they stayed at the maximum until the ISO returned to normal operations on Feb. 19. ERCOT also imposes collateral requirements calculated by using the previous 14-day prices.

For Brazos Electric, that resulted in collateral calls of up to $1.6 billion, far above its typical credit requirement for market participation of $40 million to $83 million.

"The consequences of these prices were devastating," Brazos Electric CEO Clifton Karnei said in the company's bankruptcy filing. Formed in 1941, the cooperative's service territory includes 68 counties from Houston to the Texas Panhandle.

The cooperative has a coal purchase-power agreement and its own gas plants and said its supply strategy relied on securing additional energy through the ERCOT's normally low-priced market (about $25/MWh in recent years). Four days of maximum cap prices resulted in the wholesale market incurring $55 billion in charges over a seven-day period, about the same as what ordinarily occurs over four years, Brazos said.

Karnei said the Waco-based cooperative's share of those charges are estimated at $2.1 billion, compared to last year's total power cost to members of $774 million. The $2.1 billion is more than the amount of Brazos' total outstanding secured debt.

Karnei, the cooperative's CEO since 1997, resigned from ERCOT's Board of Directors on Feb. 25. The grid operator has now lost nine of its 16-person board, with Austin Energy General Manager Jackie Sargent's resignation Saturday and PUC Chair DeAnn Walker's on Monday. (See related story, *PUC's Walker Steps Down from Commission*.)

CoServ Electric, one of Brazos Electric's 16 member cooperatives, said the latter's bankruptcy is not expected to affect delivery of electricity to CoServ members.

"Nor do we anticipate any immediate or short-term changes to the wholesale rates or the overall cost of the electricity we provide to our members," the cooperative *said*.

Also on Monday, Texas Attorney General Ken Paxton filed a *lawsuit* against Griddy, charging the retailer with "blatantly contradict[ing] … promotional representations as it autodebited hundreds of dollars from Texans' checking accounts daily."

"Griddy was fully aware of the reality of the risk in its pricing scheme — sky-high energy rates at a time when consumers are the most vulnerable," the lawsuit says.

Paxton, who has also launched an investigation into ERCOT, said in a *statement* that, "As the first lawsuit filed by my office to confront the outrageous failure of power companies, I will hold Griddy accountable for their escalation of this winter storm disaster."

Griddy has drawn outsized attention from lawmakers and the public over bills that have reached five figures in some instances, given its 29,000 customers in a market with 26 million.

"ERCOT took our members and have effectively shut down Griddy," the company *said*. "It decided to take this action against only one company that represents a tiny fraction of the market and that shortfall."

Griddy's customers are being moved to TXU Energy or Reliant Energy, ERCOT's two largest electric retailers, thanks to an emergency PUC order. (See *Texas PUC Turns Focus to Customer Bills*.)

Legislators Work to Revamp PUC

Following two days of hearings last week by both the Texas Senate and House, the state's lawmakers have wasted little time introducing proposed reforms.

Rep. Lyle Larson (R) and Sen. José Menéndez (D) have filed identical bills (*HB2381* and *SB853*) that would create a Texas Energy and Communications Commission, consolidating the Public Utility Commission, which regulates electricity, water and communications, with the Railroad Commission, which oversees the oil and gas industry.

Sen. Judith Zaffirini (D) filed legislation (*SB857*) that would require the PUC's three commissioners be elected rather than appointed by the governor, as is currently the case.

Legislators pilloried Walker during last week's hearings, calling for resignation and the rest of the three-person commission over what they said was a lack of public responsibility. (See "Legislators Focus on PUC's Walker," *Texas Lawmakers Dig into Power Outages*.)

Rep. Michelle Beckley (D) has filed a bill (*HB1965*) directing the PUC to develop a process for obtaining reserve generation "as appropriate to prevent blackout conditions." According to the measure, the commission should estimate the capacity needed and mechanisms for "equitably sharing" the contracted reserves' costs, with ERCOT or another independent organization contracting with generators for the emergency generation.

Other lawmakers have filed bills that would require ERCOT's CEO and its Board of Directors' members be Texas residents and that utilities file documentation at the PUC with details on local distribution systems. ■

ERCOT News

PUC's Walker Steps Down from Commission

Continued from page 1

Walker," *Texas Lawmakers Dig into Power Outages*.)

Lt. Gov. Dan Patrick joined the chorus Monday, issuing a lengthy *statement* calling for Walker's resignation and that of ERCOT CEO Bill Magness.

"Immediately following the storm, I pledged to the people of Texas that I would get to the bottom of the crippling power outages that began on Feb. 15, leading to tragic loss of life and billions in damages to homes and infrastructure across the state," Patrick said.

He said he did not make the resignation calls lightly, saying that neither Walker nor Magness "adequately addressed the challenges" of a storm and freezing temperatures that took off half of the grid's available generation at one point.

"These are two good people who have worked very hard. ERCOT's job is to manage our electricity grid, and the PUC oversees ERCOT. The lack of adequate preparation by both the ERCOT CEO and the PUC chair prior to the storm, their failure to plan for the worst-case scenario and their failure to communicate in a timely manner dictates they are not the ones to oversee the reforms needed."

ERCOT acknowledged Patrick's comments, saying the corporate secretary will work with what's left of the Board of Directors "to consider the request."

"Mr. Magness will continue to work with the Texas Legislature and any state agencies on investigations of the recent winter storm and its reform of ERCOT," spokesperson Leslie Sopko said in a statement.

The ERCOT board is now down to seven members following the resignations of eight members before Walker's. Under Texas law, the PUC chair is accorded a non-voting seat on the board. (See "ERCOT Board Loses 2 More Directors," *Texas Lawmakers Dig into Power Outages*.)

In a resignation letter hand-delivered to Texas Gov. Greg Abbott, Walker said she believed stepping down "to be in the best interest of the state."

"I testified last Thursday in the Senate and House and accepted my role in the situation," she said, calling on others —the gas companies, the Railroad Commissioner, the electric generators, the transmission and distribution utilities, the electric cooperatives, the municipally owned utilities, ERCOT "and finally the Legislature" — to "come forward in dignity and duty and acknowledge how their actions or inactions contributed to the situation."

Referring to the lack of action since less severe winter weather knocked out 14 GW of generation in 2011, she chided those named, saying they "had the responsibility to foresee what could have happened and failed to take the necessary steps for the past 10 years to address the issues that each of them could have addressed."

Walker was appointed to the PUC as its chair in 2017 by Texas Gov. Greg Abbott. Her term was to expire in September.

She spent 15 years at CenterPoint Energy as director of regulatory affairs and associate general counsel before joining Abbott's staff to advise him on regulated industries. Walker was also an assistant general counsel and an administrative law judge at the PUC from 1988 to 1997.

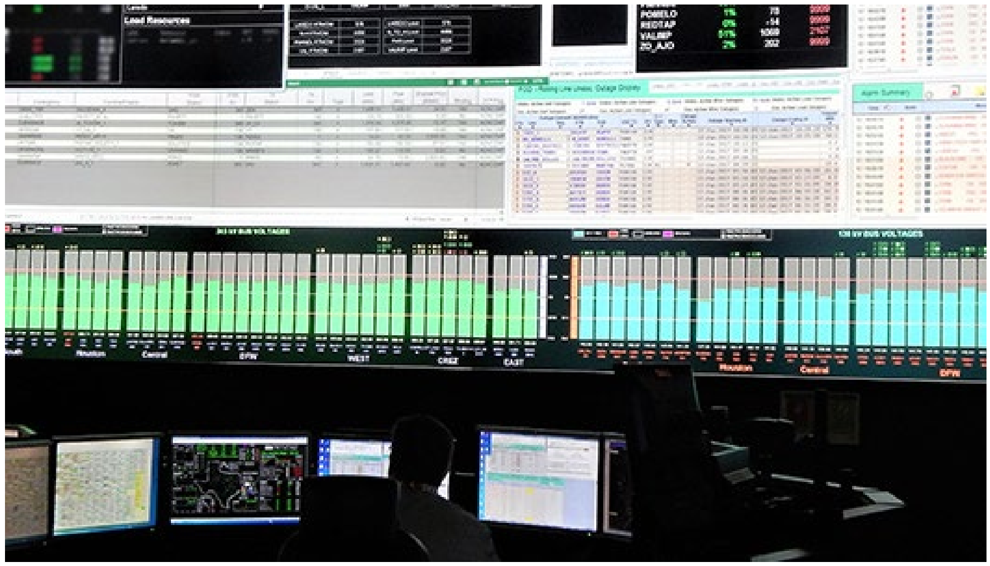
Commissioners Arthur D'Andrea and Shelly Botkin remain on the PUC. ■

ERCOT News

ERCOT Provides 'Explanations, not Excuses'

CEO Magness Reviews Texas' Power Crisis with Board

By Tom Kleckner



CEO Bill Magness and board members hailed ERCOT operators Wednesday for their prompt actions in avoiding a total grid collapse. | © *RTO Insider*

Saying ERCOT wanted to "provide explanations, not excuses," CEO Bill Magness on Wednesday detailed for the Board of Directors the events that led up to last month's near collapse of the grid that left millions of Texans in the cold and dark for abnormally long periods of time.

Dozens of deaths and disrupted water supplies have been attributed to the outages. The financial losses are expected to exceed even those of Hurricane Harvey in 2017.

"This was a devastating event for those of us who make our living in the power industry, but especially devastating to the people we work for," Magness told the board during an emergency teleconference. "There's no question there were tremendous, terrible impacts, including loss of life, that affected so many Texans. We regret the time it took to resolve this event."

Magness' *presentation* will likely serve as the basis of the grid operator's appearance Thursday before a joint meeting of the Texas House of Representatives' State Affairs and Energy Resources committees.

"We don't want to see this happen again. We want to be part of that review," Magness said. "We stand behind the actions we took during this event. We believe they're very solid."

ERCOT was "riding along fairly steady" on Feb. 14, Magness said, setting a new winter-peak demand record of 69.2 GW at 7:06 p.m. But as load began to drop off, generation did so even more quickly.

The operations center called its first energy emergency alert (EEA) at 12:15 a.m. Feb. 15, then elevated the EEA to Level 2 at 1:07 a.m. Thirteen minutes later, with generation continuing to fall off the system — 35.3 GW at that point — staff declared an EEA Level 3 and ordered its first load shed.

The operators continued to drop load to try and stay ahead of the generation losses. Magness said at its peak, ERCOT had to do without 48.6% of its installed capacity (52.3 GW of 107.5 GW).

By 1:50 a.m., the grid's frequency level had dropped to 59.4 Hz, where it stayed for four minutes and 26 seconds. If the frequency had stayed at that level for a total of nine minutes, spinning turbines would have been involuntarily shut down and damaged, Magness said, leading to a complete blackout.

"We were definitely in a dangerous situation, and one we had to respond to," Magness said. "The steps we took are outlined in federal NERC standards, actions you have to take to maintain frequency. You could have a situation where it's out of the grid operators' control, and we can't have that happen."

> **"There's no question there were tremendous, terrible impacts, including loss of life, that affected so many Texans."**
>
> —ERCOT CEO Bill Magness

Staff called for another 6.5 GW of load shed before the grid returned to some semblance of normality at 1:55 a.m., but not before hitting a frequency low of 59.302 Hz.

"The only way to get back to 60 Hz effectively was to institute the amount of load shed we were instituting," Magness said.

ERCOT eventually called for 20 GW of load shed on Feb. 15. Without almost half of the grid's generating capacity, some local transmission providers were unable to effectively rotate their outages, leaving customers without power for more than two or three days.

Still, that was better than the alternative, as a complete blackout would have taken an "indeterminate amount" of time and been "extraordinarily difficult" to recover from, Magness said.

Further complicating matters: Of the 13 primary generating units ERCOT contracts with to restart the system during a black start, six were in outages that ranged from four to 127 hours. Two of those units' alternate generators also experienced outages.

"We might still be talking today about bringing the system back," Magness said.

Peter Cramton, one of five directors who announced Feb. 23 they would be resigning

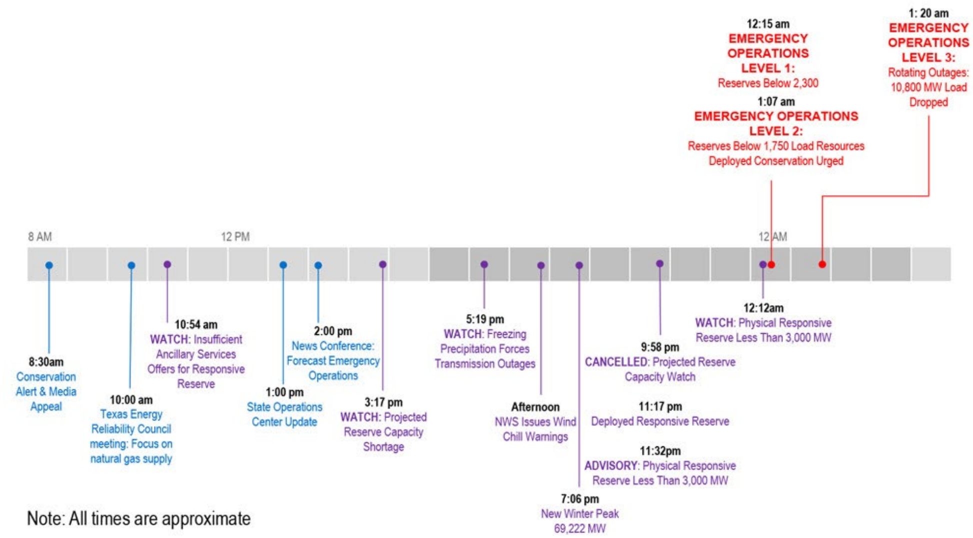
ERCOT News

from the board, lauded ERCOT's operators for their work during the crisis and referenced the oft used description of grid operators as being air traffic controllers. (See related story, *ERCOT Chair, 4 Directors to Resign*.)

"I think it's important the public understand ERCOT was flying a 747," he said. "It had not one, but two engines experience catastrophic failure, then flew the damaged plane for 103 hours before safely landing in the Hudson. In my mind, the men and women in the air traffic control room are heroes."

ERCOT declared an operating condition notice Feb. 8 in advance of the extreme cold weather, which Magness said was expected to bring the coldest weather that Texas has seen in decades. Director Jackie Sargent, general manager of Austin Energy, said staff should have been more upfront with their concerns during a board meeting the following day. (See *ERCOT Bracing for Winter Storm, Record Demand*.)

"I certainly could have done a better job of emphasizing what was coming," Magness said in apologizing. "I certainly could have covered that with the board in more depth as well."



ERCOT's market communications as the storm swept through Texas Feb. 14-15. | *ERCOT*

Market Issues Rise

Attention has also begun to focus on liquidity issues within ERCOT's retail market, where real-time prices averaged $6,579.59/MWh Feb. 14-19 and spent days at the $9,000/MWh cap. In January, prices averaged $20.79/MWh.

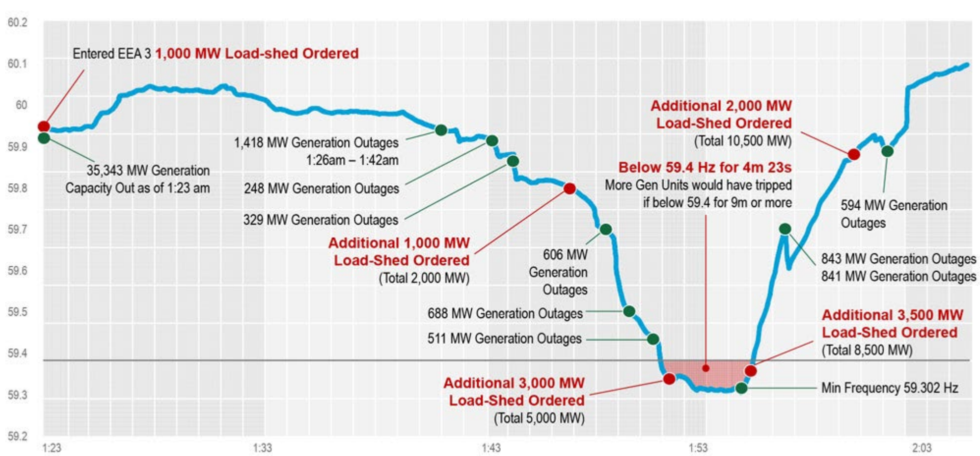
Kenan Ögelman, vice president of commercial operations, said the prices have driven "extremely high collateral requirements" for all market participants. Those participants began to see their bills and revenue last week.

"The financial stress continues this week," he said, noting staff, the Public Utility Commission and participants are working to address the market issues.

"We've have been authorized [by the PUC] to use additional discretion [in settling market transactions]. We are being judicious in applying that discretion," Ögelman said. "The invoice process is there to ensure we bill folks and collect that money, so we can pay folks that incurred costs. Disrupting that process has a lot of liquidity risk. If I were not able to collect dollars, I would not be able to pay money, and that would have chilling downstream consequences."

CFO Sean Taylor was unable to give a "solid answer" as to whether ERCOT has sufficient funds to cover market shortfalls. He said it has a "significant amount" of collateral on hand (about $2 billion) and access to $1 billion in congestion revenue rights funds.

"We do anticipate the major players paying us the money they owe us," he said. "That mitigates a lot of concern if that does happen."



ERCOT operators called for repeated load sheds as the grid's frequency dropped. | *ERCOT*

Texas Gov. Greg Abbott has asked the legislature to look at shielding customers from high bills. Also Wednesday, the PUC *announced* it has open an investigation into retail electric providers' (REPs) pricing plans that are indexed to wholesale rates and have led to four- and five-figure bills.

"An influx of complaints into our Customer Protection Division has caused concerns that questionable business practices might be exacerbating the situation," PUC Executive Director Thomas Gleeson said.

Talberg Steps Down as Chair

The meeting marked the end of Sally Talberg's short tenure as board chair. She, Cramton and two other independent directors, who have been criticized by Texas politicians for living out of state, announced their resignations Feb. 23. Also resigning Feb. 23 was Just Energy's Vanessa Anesetti-Parra, a Canadian who represented the independent REP market segment. The nominee for the last of its five independent director positions also withdrew his application.

"This discussion has been really helpful," Talberg said. "I want to acknowledge the ERCOT staff and what they did over the past 10 days. They were not immune to the loss of heat. My heart goes out to all of you. This is not what anyone wanted."

Talberg said as the meeting began that Southern Federal Power's Randall Miller resigned as the alternate representative for the board's independent REP segment. ■

ERCOT News

Vistra Stock Plunges After Market Losses

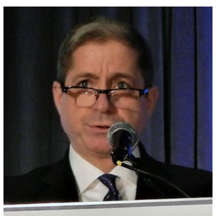
By Tom Kleckner

Vistra's gas plants, like its Forney plant, were limited by gas curtailments during the Texas blackouts. | *Luminant*

Texas power producer Vistra said Friday that it expects to take up to a $1.3 billion financial loss because of the state's massive power outage and its subsequent effects on the ERCOT market.

That would more than erase the Irving-based company's gains from 2020, when net income was $624 million.

As a result, Vistra's shares lost almost a quarter of their value Friday. The stock closed at $17.25, down $5.51 from the day before.



Vistra CEO Curt Morgan | © *RTO Insider*

"Let's start with the elephant in the room. We had a rough week last week, to say the least," CEO Curt Morgan told financial analysts, speaking from Austin, where he was delivering testimony to state legislators. (See *Texas Lawmakers Dig into Power Outages*.)

Vistra is the largest generator in ERCOT with 18.3 GW of capacity. At times during the grid's recovery from the widespread outages, the company said its Luminant subsidiary was providing 25 to 30% of the ISO's generation. It would have been more had it not been for frozen coal piles, transportation problems, curtailed gas supplies and a glitch in ERCOT's market systems that temporarily and incorrectly kept prices below the $9,000/MWh scarcity cap, far above the normal $25/MWh prices.

ERCOT required increasing amounts of collateral from traders to back their purchases in the power market.

Vistra said it posted a "significant" amount of collateral to back purchases in the ERCOT market. It has about $1.5 billion of cash and liquidity on hand, down from $2.4 billion at year's end, CFO Jim Burke said.

The company won't know how large its market losses will be until ERCOT completes its settlement of invoices, any corrective actions and possible litigation.

"I was pulling my hair out. I thought we were long. I thought we were in a good position," Morgan said. "I look back on that every day and every night when I can't sleep, and I say to myself, 'What could we have done different, Curt?' And I think those decisions, as I play them over and over again, were right."

Vistra *reported* fourth-quarter ongoing operations of adjusted earnings before interest, taxes, depreciation and amortization (EBITDA) of $802 million, up from the previous year's fourth quarter of $775 million. For the year, adjusted EBITDA was almost $3.8 billion, up from nearly $3.4 billion in 2019.

The company uses adjusted EBITDA as a measure of performance because it says that analysis of its business is improved by visibility to both that metric and net income prepared in accordance with generally accepted accounting principles. ■

ISO-NE News

States Seek More Input, Visibility into ISO-NE Governance

By Jason York

The latest in a series of state official-led online technical forums to discuss ISO-NE's governance issues publicly on Thursday focused on transparency in the RTO's decision-making.

Anne George, vice president of external relations and corporate communications at ISO-NE, said the RTO has "a strong tradition of outreach and engagement with the New England states, as well as NEPOOL stakeholders."

Katie Dykes, commissioner of Connecticut's Department of Energy and Environmental Protection, acknowledged that the RTO does "a terrific job of providing responsive and professional outreach to all the states." She added, however, that there is a difference between the outreach George referenced and the "opportunity for dialogue and real transparency with respect to insights and visibility into how the actions and decisions of the executive team and the ISO New England board are actually taken."

Neither ISO-NE Board of Directors nor NEPOOL stakeholder meetings are open to the public. According to the *vision statement* from the New England States Committee on Electricity (NESCOE), which spurred the forums, states and stakeholders only see "exceptionally high-level summaries of board discussions provided by ISO-NE management." The result is "an unacceptable constraint on facilitating independent insight and review by stakeholders about what data, material and other resources the board consider in developing its guidance to management and how it balances divergent interests in their decision-making." (See "'Lack of Transparency' Criticized," *States Demand 'Central Role' in ISO-NE Market Design*.)

George said she did not want to speak for the RTO's board but signaled that its members are not blind to current events.

"The point is that [board members] heard you all through the vision statement, and they're willing to have those conversations," George said.

Another conversation centers on the makeup of ISO-NE's Joint Nominating Committee, which selects the RTO's board members. The committee comprises seven incumbent board members, six market participants — one from each of NEPOOL's sectors — and only one shared vote for the six New England states.

Dykes said the concept of a shared vote between "six sovereign states" creates barriers and challenges to meaningful participation in the board selection process. She asked George if the process would be "enhanced" if each state had a vote.

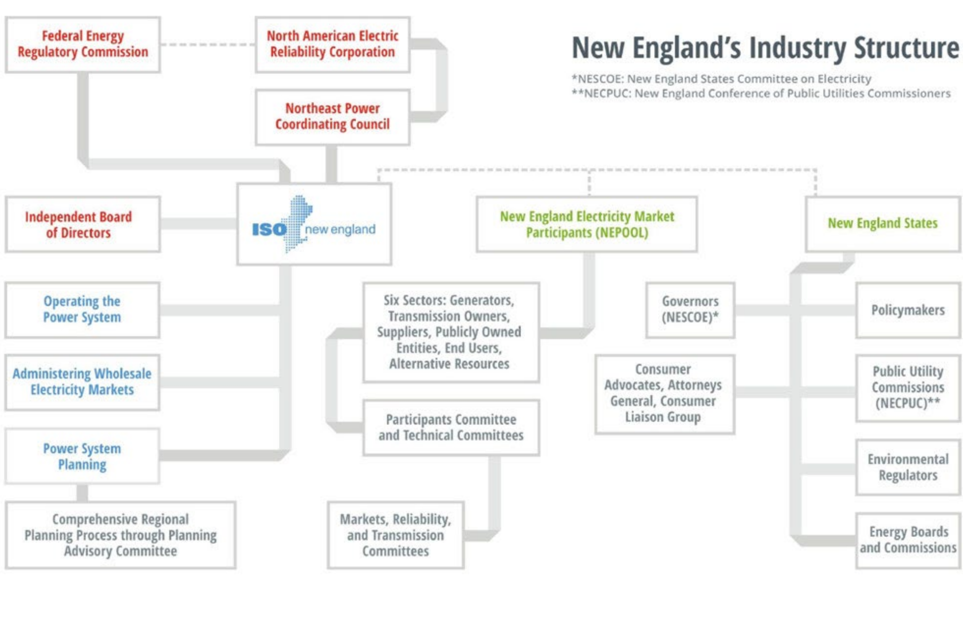
"All the states kind of understand what their representative is going into the process to convey; I think that that seems to work well," George said. "Sometimes more is not always better."

Christina Belew — Massachusetts assistant attorney general, vice chair of the NEPOOL End User sector and member of the JNC — said participating in the stakeholder process is "expensive, time-consuming and requires specialized technical knowledge to be effective."

"As anyone who has done it knows, these are very real barriers to participation by end users," Belew said. ISO-NE established the Consumer Liaison Group, which holds quarterly meetings open to the public to help consumers understand what is happening at the RTO "and how that might affect their pocketbooks." However, it is not designed to be an advocacy group and has no budget, staff or formal role in the stakeholder process.

Belew said the National Association of State Utility Consumer Advocates has looked at ISO-NE governance issues. One of its recommendations would be establishing a tariff-funded consumer advocacy group with a role in the stakeholder process. She added that this is not a "revolutionary idea," as PJM created a similar group in 2013 and since 2017 it has been funded under its tariff.

"We think that having a stable funding mechanism and a staff to track the issues would increase participation by New England consumer advocates in the stakeholder process and would allow those who already participate to do much more, particularly if they had access to funds for consultants and things like that," Belew said.



The current governance structure of ISO-NE | *ISO-NE*

Next Steps

Massachusetts Department of Public Utilities Chair Matthew Nelson requested written comments on the forum's topics and discussions. Those comments will be accepted through March 26 and posted publicly on the New England Energy Vision *website*. Additionally, she said the states would issue a joint summary of the issues identified and explain the potential solutions.

A technical forum on environmental justice will be held on a to-be-determined date. ■

ISO-NE News

Revised Stakeholder Amendments on ORTPs Gain Support

By Jason York

When Congress passed the Energy Act of 2020 in December, the bill included a two-year extension of the 26% investment tax credit (ITC) used by solar power generators, a one-year continuation for the production tax credit (PTC) used by wind developers and a new 30% ITC for offshore wind projects that begin construction by the end of 2025. (See Wind, Solar, EE, CO2 Storage Win Tax Breaks.)

That legislative action brought ISO-NE and stakeholders back before the NEPOOL Markets Committee last week to discuss and vote on amendments that focused on offer review trigger prices (ORTPs), used for Forward Capacity Market (FCM) parameters for the 2025/26 capacity commitment period, to accommodate the changes.

Stakeholder Committee and Date	Scheduled Project Milestone
Markets Committee February 9-10, 2021	• Review impacts of revised ITC on ORTP values • Discuss proposed Tariff revisions
Markets Committee February 24, 2021	• MC vote on updated ORTP values and Tariff language reflecting impacts of the modified Investment Tax Credit
Participants Committee March 4, 2021	• PC vote on amended ORTP values and Tariff language to reflect impacts of the modified Investment Tax Credit
March 2021	FERC Filing

Stakeholder schedule for action by NEPOOL Markets and Participants Committees on revised ITC on ORTP values | *ISO-NE*

No Support for ISO-NE Proposal

ISO-NE's proposal, done in concert with consultants Concentric Energy Advisors (CEA) and Mott MacDonald (MM), would create two new ORTP categories: solar, and solar plus lithium-ion batteries. Tariff revisions would include ORTP values of $0/kW-month for solar and $6.964 for solar-batteries, down from its originally proposed $9.371. Another tariff revision would clarify that the weighted-average calculation is used only when an ORTP for the combination of technology types is not specified. New tariff language also detailed the values for solar-batteries in future Forward Capacity Auctions.

"In developing these ORTPs, [ISO-NE] has been responsive to stakeholder feedback and has revised its proposed ORTP for the combined solar-battery technology type to reflect the decoupled operation of the facility after five years, when the ITC benefit expires," Deborah Cooke, ISO-NE's principal analyst for market development, wrote in a memo.

The RTO's responsiveness did not carry much weight when it came to the sector-weighted vote. The proposal did not garner any support.

Stakeholder Amendments Favored

Abigail Krich and Alex Worsley of Boreas Renewables presented three proposals regarding ORTP values for FCA 16, annual ORTP updates for FCA 17-18 and maintaining existing treatment of ORTP determinations for resources with a shared point of interconnection for FCA 16.

The first proposal would, like ISO-NE's, change the ORTP for solar to $0. The second proposal said that if the tax law remains unchanged for solar developers, it would result in an ITC assumption of 26% for FCA 17 and 22% for FCA 18. Should the law change again in the next two years, it would be reflected in the final assumption used for the FCA 17-18 updates.

All three amendments passed with at least 73% support from stakeholders. The Participants Committee will vote on all proposals during its meeting Thursday. A filing at FERC is expected by the end of March.

IMM Memo

ISO-NE's Internal Market Monitor said in a memo to the MC that the RTO will file a proposal for ORTP values under Section 205 of the Federal Power Act, "which will include a 'jump ball' alternate proposal of ORTP values from NEPOOL." The Monitor added that ISO-NE would request FERC's decision by May. Participants must submit retirement delist bids, permanent delist bids and test prices to the Monitor for FCA 16 by March 12.

"After reviewing these submissions, the IMM

ISO-NE News

will issue its determinations on June 3," the IMM wrote. "Given the close timing of the IMM determinations and the expected FERC order, there is insufficient time for participants to update their bids and for the IMM to perform additional review after issuance of the FERC order."

The Monitor said participants would have two options for submitting delist bids and prices, and "as a threshold matter," it assumes FERC will either:

- approve the RTO-proposed ORTP values;
- approve the NEPOOL-proposed ORTP values; or
- rejects the jump ball filing.

According to the Monitor, the three scenarios pose disparate risks for participants submitting delist bids and prices. "Depending on the ORTP values approved by FERC, participants' expectations of the supply mix may change and, in turn, the change in supply mix may affect future capacity market prices and even future energy market prices."

Participants can select one of two options for reflecting these risks in their bids and test price submissions. The first option is submitting one bid and supporting documentation that demonstrates one of the assumptions. The second option is that a participant submits one bid and all supporting documentation, reflecting the risks of the multiple possible outcomes. Pricing risk into one bid price is the Monitor's preferred approach, as each year there is some uncertainty and regulatory risk associated with submitting bids well in advance of the auction. ■

ISO-NE News

Avangrid CEO Touts Renewable Energy Future

By Jason York

Avangrid CEO Dennis Arriola last week touted the company's installation of nearly 620 MW of new wind projects last year and said it is poised to solidify its clean energy position in 2021.

Speaking during an earnings call Wednesday, Arriola pointed to offshore wind projects and the construction of the New England Clean Energy Connect (NECEC) transmission line in Maine as critical drivers for Avangrid's future.

The Connecticut-based subsidiary of Spanish energy giant Iberdrola reported fourth-quarter profits of $166 million ($0.54/share) and 2020 earnings of $581 million ($1.88/share).

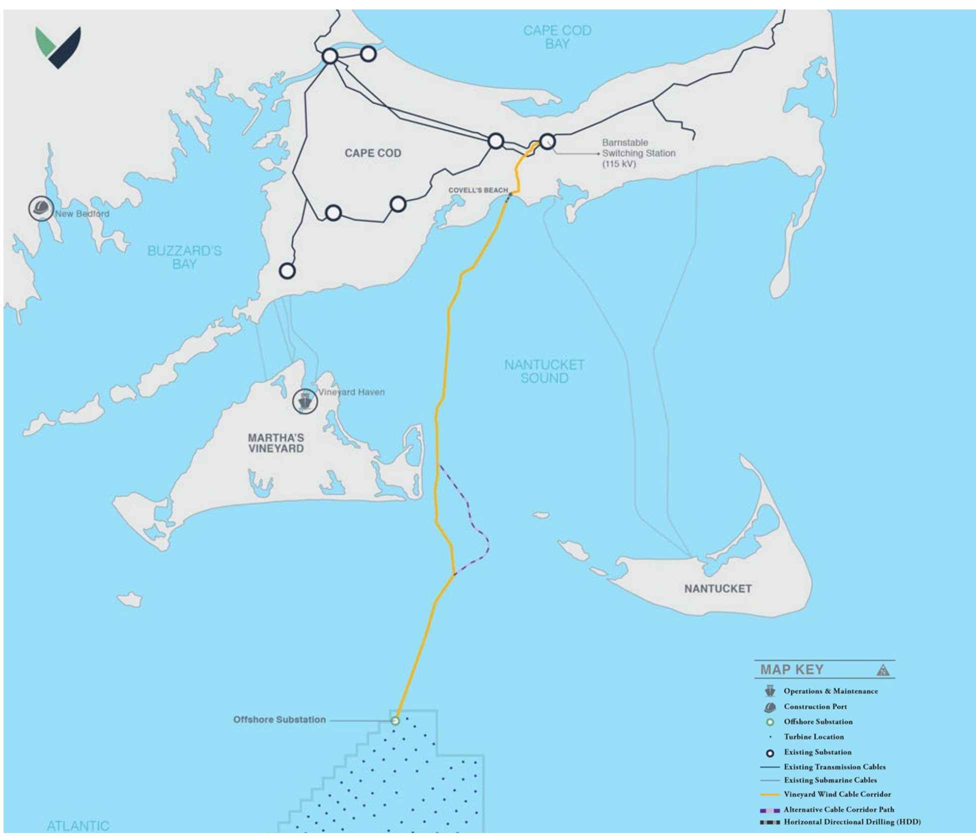
Avangrid's networks division serves more than 3.3 million customers in New York and New England through its eight electric and natural gas utilities, while its renewables business owns and operates renewable energy generation facilities across the U.S.

Arriola said Avangrid sees "strong prioritization of clean energy policy going forward" under the Biden administration, citing the president's targets to decarbonize the power sector by 2035 and reach net-zero emissions economy-wide by 2050, first with several climate-focused executive orders and then through a proposed $2 trillion investment in clean energy over the next five years.

"For us, this translates into an acceleration of renewables deployment, grid enhancements and transmission projects to support growing demand for clean energy," Arriola said.

He said NECEC is the largest clean energy project in New England and equivalent to removing more than 700,000 passenger vehicles from the road in terms of greenhouse gas emissions.

Construction of the $1 billion NECEC with Central Maine Power technically began in January, which followed a lengthy court battle over a referendum on the project that was ultimately deemed unconstitutional after tens of millions of dollars were spent by advocates for and against it.



Vineyard Wind 1, a joint venture between Avangrid and Copenhagen Infrastructure Partners, is located 15 miles off the coast of Martha's Vineyard and is slated to become the first large-scale offshore wind farm in the United States.| *Vineyard Wind*

NECEC spans 145 miles with the capacity to carry 1,200 MW of Canadian hydropower from the Maine-Québec border to Lewiston, Maine, where it will connect to the New England Control Area. The HVDC project includes upgrading 50 miles of existing AC transmission, a new converter station and substation and other upgrades. It has an in-service date of 2023.

"While we recognize there is a vocal minority in [Maine] that is basically against any infrastructure development anywhere, we remain confident that NECEC will be completed and will provide affordable clean energy and substantial economic benefits, including jobs, to the people of Maine," Arriola said.

Avangrid currently owns 8.2 GW of renewable energy in 22 states, and that portfolio is set to increase when its acquisition of PNM Resources officially closes, likely in the second half of 2021. The deal would create one of the biggest clean energy companies in the U.S., with 10 regulated utilities in six states and renewable energy operations in 24 states. (See *Avangrid to Acquire PNM Resources for $4.3B*.) Avangrid would become the third-biggest U.S. renewables operator, with most of its current portfolio being onshore wind, and a growing pipeline of offshore projects including Vineyard Wind and Park City Wind in New England.

Arriola said that the 800-MW Vineyard Wind, a joint venture between Avangrid and Copenhagen Infrastructure Partners (CIP) off the coast of Martha's Vineyard in Massachusetts, now has an in-service date of 2024 as the U.S. Bureau of Ocean Energy Management resumed its oft-delayed work on the final environmental impact study and record of decision.

Avangrid also partnered with CIP to develop the 804-MW Park City project in Bridgeport, Connecticut, which has an expected in-service date of 2025. Arriola added that the recent addition of a 30% federal investment tax credit means that Vineyard Wind will "generate additional value."

"We're one step closer to placing turbines in the water at the nation's first utility-scale offshore wind farm," Arriola said.

The CEO added that Avangrid is poised to grow its renewable energy capacity "nearly 70% by 2025, with significant growth driven by offshore wind."

Call transcript courtesy of Seeking Alpha. ■

MISO Begins Cold Snap Examination

By Amanda Durish Cook

MISO is still collecting data and reviewing the actions it took during a massive cold spell that gripped most of the U.S. in mid-February.

Frigid temperatures Feb. 14-16 across most of the RTO's footprint created paper-thin — and then nonexistent — reserve margins, particularly in MISO South. In all, MISO temporarily interrupted load Feb. 16-17 in parts of Southeast Texas, South and Central Louisiana, and South-Central Illinois. The rotating outage orders ended Feb. 17 at 1 a.m. EST.

"There's just so much to still unpack from last week. … There's going to be so much information coming out in the next few weeks," MISO Senior Director of Operations Planning J.T. Smith said during a Reliability Subcommittee teleconference Feb. 25.

Smith said while operations and actions taken were similar to previous cold weather events in MISO South, the biggest dissimilarity was how far-reaching the arctic blast was.

"This was a more widespread cold weather event," Smith said. "This time our neighbors weren't as spared."

He said the frigid air brought rain and snowstorms in addition to a band of ice storms that traveled through southern portions of the footprint.

"It wasn't just cold weather, it was also severe weather," he said.

The National Oceanic and Atmospheric Administration said nearly three-quarters of the contiguous U.S. was blanketed in snow Feb. 16.

After MISO declared the grid stable on the afternoon of Feb. 17, the South region briefly slipped back into an emergency event.

Smith said the RTO knew a week in advance that a polar vortex was imminent and began reaching out to members for their generation availability. Complicating matters, he said, was the Presidents' Day gas trading holiday on Monday. He said MISO urged members to secure all fuel needs during gas clearing on Friday.

"We tried to be as thoughtful as possible on the front end of it, but once we got into real-time … we saw the extreme cold on the generation and transmission become much more stressful," he said.

Smith said MISO issued multiple emergency declarations as it became clear the system couldn't support the demand and overcome forced outages and fuel scarcity. He said energy was initially able to flow east to west to SPP, but those flows ground to a halt as the situation deteriorated.

"To make sure we didn't lose more, we had to shed some load in a couple different instances," Smith said.

He said the grid operator shed roughly 700 MW on the evening of Feb. 16, but he did not have numbers for the other events.

"There were a lot of things moving at the same time. It truly was an unprecedented environment that happened last week. There will be a lot of conversation," he promised stakeholders. He said staff would offer more details and a timeline of the event at upcoming stakeholder meetings.

'Mixed Bag'

It usually takes the grid operator a few months to collect data and publicly present a detailed review of congestion, import capability, generation outages and emergency response performance.

Smith said MISO navigated several transmission constraints and multiple emergencies in separate parts of the footprint because of a combination of unavailable fuel supply, generation trips, system operating limits and transmission congestion.

"It was a mixed bag all across all regions. It wasn't just one area; there were outages all over the footprint," he said.

In all, Smith said roughly 60 GW of capacity was unavailable at different times across the event.

MISO had predicted "minimal risk" throughout February in its annual winter preparedness workshop in the fall. It originally said January held the lion's share of wintertime risk and that by February, generator maintenance outages

Entergy storm restoration in Louisiana | *Entergy*

MISO News

could ramp up. (See *MISO: Winter Could Get Tricky Despite Forecast*.)

"We were in February. We're usually past the risk by the end of January. We had some units that were getting ready to get on outages that our membership worked to move. In fact, one of our members had to move a planned outage twice because the cold lasted so long," Smith said.

January operations were mild compared to February's wild conditions. MISO's January load averaged 76.2 GW with a "mild" 91.3 GW peak, the lowest January peak in four years, Smith said.

"Overall, it was a fairly benign month," he said.

Guinea Pigs

Until now, MISO had recently been hosting short, uneventful meetings of its Reliability Subcommittee.

"Something tells me our next meetings won't be so abbreviated. … I think we're going to be rolling up our sleeves for the next several meetings," RSC Chair Ray McCausland said during a MISO Advisory Committee teleconference Feb. 17.

McCausland said MISO may schedule joint meetings of its Market, Resource Adequacy and Reliability subcommittees, like it did in the wake of Hurricane Laura.

The RTO's load shedding orders were much shorter than ERCOT's sustained outages, largely sparing it the public ire that the Texas operator continues to face. (See *ERCOT Provides 'Explanations, not Excuses'*.)

A week ago, MISO executives defended its last-resort emergency actions.

"MISO operators are highly trained to respond to multiple large-scale disruptions that can occur during tight operating conditions," said Executive Director of System Operations Renuka Chatterjee. "We prioritized these challenges and made quick decisions to protect the integrity of the bulk electric system."

Prior to last week's deep freeze, MISO was pursuing a redesign of its resource adequacy construct, which includes more attention on wintertime reliability risks, seasonal capacity auctions and a pivot to an "available capacity" accreditation proposal, where accreditation values are rooted in generators' past performance.

The Advisory Committee will hold a discussion on the potential new resource adequacy design during MISO's quarterly Board Week in March, which will undoubtedly feature talk on the winter emergencies.

Clean Grid Alliance Executive Director Beth Soholt asked if MISO's resource adequacy rethink will sufficiently address challenges unearthed in the deep freeze, which she said included performance issues across all resource types — frozen coal piles, unavailable pipelines and iced turbines.

"I think every resource type has had problems, in particular across Texas," Soholt said during an Advisory Committee teleconference Feb. 17. "Are we adequately factoring this in?"

Resource Adequacy Subcommittee chair Chris Plante said MISO's available capacity accreditation proposal should take an unbiased measure of resource availability.

Madison Gas and Electric's Megan Wisersky said no other capacity market uses an available capacity accreditation and the concept remains unproven.

"We're sort of guinea pigs in this. This is untested. I'm not saying it's good or bad; we're just guinea pigs," she said. ■

MISO News

Entergy Profits Unscathed by Storms, Virus

By Amanda Durish Cook

Vicious storms and an ongoing pandemic failed to hobble year-over-year profit growth, Entergy executives said Wednesday.

Entergy CEO Leo Denault began the company's year-end earnings call by addressing severe winter weather that overwhelmed ERCOT, MISO and SPP last month. Entergy carried out MISO's orders to perform rolling blackouts in order to balance the system. (See *ERCOT, MISO, SPP Slough Load in Wintry Blast*.)

"Our system is back to normal operations," Denault announced.

Denault said employees "worked around the clock in difficult conditions" to complete restoration the morning of the earnings release. The winter storm caused a peak of about 90,000 outages in Entergy's service territory.

Entergy estimated that the event caused $400 million worth of incremental fuel costs and another $125 million to $140 million to mobilize crews and restore power. Denault said the utility will work with regulators to recover costs in a way that mitigates impacts on customer bills.

CFO Drew Marsh said Entergy is still "unpacking" the events of last month. While it does, it will file with regulators in Texas, Louisiana and New Orleans to recover costs from last summer's back-to-back hurricanes that rocked those service territories. Denault said Entergy would seek to securitize the costs to shield ratepayers. (See *MISO Looks Back on Turbulent Summer*.)

The recent winter storm coupled with the active hurricane season means Entergy has followed MISO load-shed orders twice in fewer than six months.

In spite of the storms, Entergy managed year-end earnings of almost $1.4 billion ($6.90/share), compared to 2019's $1.2 billion ($6.30/share). For the quarter, Entergy said it earned $388 million ($1.93/share), better than last year's fourth-quarter performance of $385 million ($1.92/share).

The financial performance shows that Entergy can "achieve goals regardless of circumstances," Denault said.

Entergy's $800 million in transmission investments in 2020 helped it weather Hurricane Laura, Denault said. He said some new structures "withstood record winds" and "were critical in restoring power after the storm."

Entergy winter storm restoration last week | *Entergy*

Marsh said the utility implemented $150 million in cost-cutting measures in 2020, eclipsing an original $100 million cost savings target for the year. The savings offset lower retail sales volume, including COVID-19 impacts and storms, Entergy said.

Denault said Entergy created "sustainable value for all our stakeholders, even in extraordinary times."

"This past year, our employees demonstrated once again why Entergy is best-in-class in storm response," he said.

Embracing Solar

Denault said renewable energy — particularly solar generation — will be a key player in Entergy's strategy.

"We have approximately 450 MW of solar projects currently being installed. We have another 880 MW of solar resources either in regulatory review or [requests for proposals]. We plan to solicit another 800 MW of solar this year," Denault said. "This is only the beginning. And we will continue to grow the number of renewable energy facilities across our region."

Entergy currently has about 500 MW of renewable resources in operation.

By 2030, Denault said Entergy's generation portfolio will contain 5 GW of renewable generation "with the potential for more." He said that over the next decade, the utility will retire about 4 GW of legacy natural gas plants "along with the remainder of our coal assets."

Denault said going forward, Entergy won't build any large-scale generation that isn't at least partially hydrogen capable. He said that while the company's near-term carbon reductions goal doesn't include a hydrogen strategy, he believes it will be essential in reaching net-zero emissions.

Entergy in fall said it would achieve net-zero carbon emissions by 2050. To date, the company's carbon emissions have fallen about 40% from 2000 levels.

Arkansas Rate Case Unfinished

Finally, Denault said Entergy Arkansas' 2021 annual formula rate plan (FRP) continues to be a point of contention between it and state regulators.

The Arkansas Public Service Commission in December blocked Entergy's request for a statewide rate increase of about 4%, raising the average residential bill by about $4/month. Entergy has sought rehearing on the order, claiming the price hike is justified. The PSC is expected to rule on the rehearing request in mid-March

Denault said the commission's order "falls short of our expectations" and is unreasonable. The commission wrote in the order that it "expects all utilities to control their costs in a prudent and reasonable manner and not utilize the FRP as an automatic yearly 4% rate increase." ■

NYISO News

NYISO Looks to Enhance ICAP Market Design

By Michael Kuser

NYISO on Thursday discussed potential steps to better align New York State Reliability Council (NYSRC) studies for setting the statewide installed reserve margin (IRM) with the ISO's studies for establishing locational minimum installed capacity requirements (LCRs) for the zones associated with the Hudson River Valley, New York City and Long Island.

The IRM and LCR studies have historically used many of the same starting assumptions, with several exceptions, such as the former's use of the preliminary forecast of the following year's peak demand, while the LCR study uses the final peak load forecast, said Joshua Boles, NYISO senior manager for market operations. Boles presented proposals to determine market requirements to the Installed Capacity Working Group (ICAPWG).

Stakeholders discussed related proposals, such as expanding the number of peak load hours identified for use in allocating the obligations of load-serving entities in the Installed Capacity (ICAP) Market and updating procedures to better align the LCR process with the IRM process.

NYISO and its stakeholders recently adopted an economic optimization method for establishing LCRs, which resulted in the ISO, per its tariff, adding several assumptions to the LCR study process that are not present in the IRM study process.

NYISO's tariff also requires it to incorporate transmission security limits (TSLs) into the IRM study. Stakeholder proposals include using the IRM study peak load forecast in the LCR study process. The NYSRC has prioritized evaluating the appropriateness of incorporating TSLs into the IRM study.

The NYSRC will discuss this evaluation in May. "We are reviewing if tariff changes are necessary and expect to have an answer for stakeholders by mid-March or April," Boles said in response to a stakeholder who urged moving fast enough to have any possible revisions in effect for 2022.

NYISO establishes ICAP market requirements for the spot market auction construct each year to help the grid operator and the NYSRC satisfy the one-day-in-10 years loss of load expectation standard. These requirements determine the minimum quantity of ICAP that loads must purchase.

Peak Hour Forecasts

On expanding the number of peak load hours for use in allocating LSE obligations in the ICAP market, Ethan D. Avallone, NYISO capacity market design technical specialist, asked whether transmission owners could fold that additional information into their process.

The current process of setting the minimum unforced capacity (UCAP) requirements for LSEs is based on the single peak load hour identified by the ISO, which is ultimately used by the TOs to assign capacity obligations to the LSEs serving load by transmission district.

"Aside from that, when the ISO does provide a single peak load hour today, some things are already added back in, but should the TOs and NYISO add back other things into the load forecast?" Avallone said.

NYISO each September identifies the New York Control Area (NYCA) peak load date and hour for the current capability year. For example, in September 2021, the ISO will provide this information for the 2021 capability year.

The peak hour load received from the TOs includes demand reductions during that hour from all special case resources (SCRs), which are demand response resources participating in the capacity market, but the TOs choose whether their own load reduction programs that do not overlap with SCRs should be added back into the load.

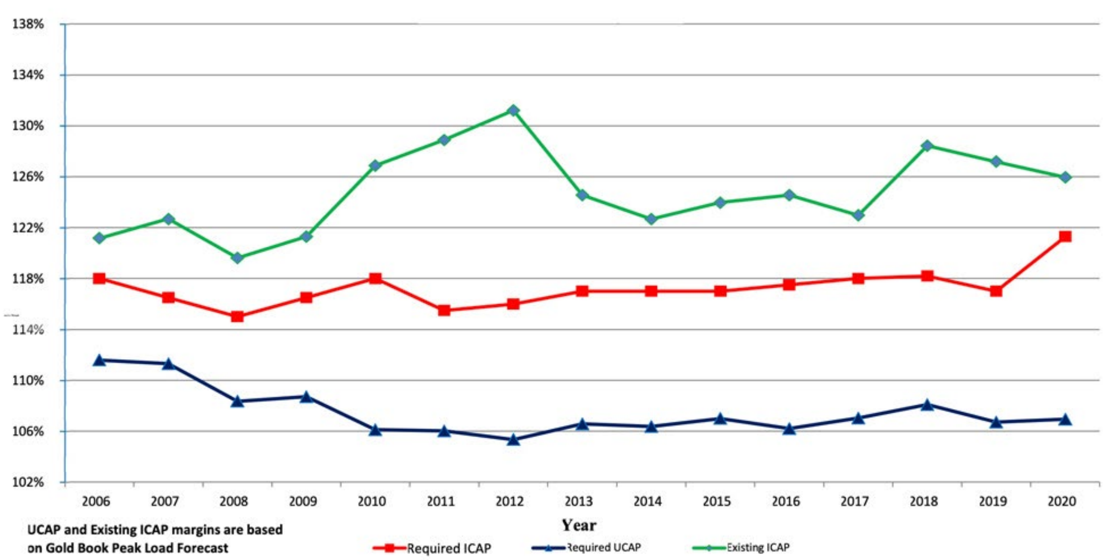
Municipal generating units that participate in the capacity market are also added back into the load, but there currently is no adjustment to add back generation from resources not participating in the wholesale markets, such as production from rooftop solar.

Ryan Carlson, NYISO senior resource adequacy analyst, reviewed possible updates to LCR procedures to better align that process with the IRM process, such as in the handling of updates to load forecasts after the October IRM Study lockdown date, and whether updates should be made only if changes are also made to the data and assumptions used to calculate the IRM.

Stakeholders want NYISO to perform additional review of year-over-year changes and include drivers of those changes as part of the informational LCR results presented to stakeholders in the fourth quarter of each year.

In presenting a comparison of the IRM final base case with the final LCRs, Carlson said, "These results were definitely discussed here very broadly, which spurred the potential idea of changing the LCR process around to reduce what some saw as volatile results."

The ISO plans to return to the ICAPWG with updates in April. ■



New York Control Area reserve margins for the years 2006 through 2020 | *NYSRC*

NYISO News

NYISO Management Committee Briefs

New FERC Should Ease Grid Transition

NYISO is looking forward to a more supportive political environment at the federal level after a challenging yet fruitful 2020 spent adapting to the pandemic and enhancing market rules to better align with New York's clean energy transition, CEO Rich Dewey said last week.

"We're much more likely to have a federal energy policy more closely aligned with the energy policy of New York" with the new Biden administration and leadership changes at FERC, Dewey told the ISO's Management Committee on Wednesday in an informal "State of the Grid" *address*. "Some of the political conflict that we've been figuring out how to navigate our way through could ebb away and really provide an opportunity for us to come up with a set of rules that recognizes that consistency between the federal and the state policy."

During his first open meeting as chair on Feb. 18, FERC Chairman Richard Glick ended several proceedings related to capacity markets, while also promising to take a new look at some issues. (See "Next Chapter on RTO Capacity Markets," *Glick Hits 'Refresh' at 1st FERC Open Meeting*.)

Dewey referred to the "tension and stress" the ISO experienced last year, "specifically around buyer-side mitigation (BSM)."

"You've seen some of the policy statements coming from the FERC, and it signals some changes that we're going to need to address, and you're starting to see developments in the way of technical conferences on capacity market changes ... particularly relating to the minimum offer price rule [MOPR] and BSM," Dewey said. "You've seen some of the statements coming from the chair that the MOPR is unsustainable and that we need to look for solutions that more effectively accommodate the entry of the public policy resources and do so in a way that we can maintain just and reasonable rates."

NYISO is working to update its BSM processes in order to compensate for the growing disconnect between the original design, intended to cover a few new resources in any given class year, and the up to 50 such resources to be evaluated currently. (See *NYISO Explores Improving BSM Processes*.)

State officials continue to fine-tune the various clean energy programs, and the New York Power Authority and Public Service Commission have been supportive of the ISO's public policy transmission process. "We're very encouraged by the prominence New York state is placing on that," Dewey said.

New York's Climate Leadership and Community Protection Act goals are coming into sharper focus, Dewey said. "When we think of getting to 70% renewable electricity by 2030 and 100% carbon free by 2040, reaching those goals will take everything we've got."

The recent supply problems in Texas serve as a reminder to keep reliability as the "paramount concern," he said.

Survey Says NYISO Satisfies Customers

The annual performance assessment and customer satisfaction survey conducted by the Siena College Research Institute (SCRI) shows NYISO last year continued to score the highest mark and improved slightly on its 2019 results.

The ISO's 2020 final scores for satisfaction of 91.5 and performance assessment of 77.6 are the highest ever recorded since the introduction of a new polling system in 2016, with a year-end combined score of 86. As in last year's survey, 60% of the combined score is satisfaction and 40% the performance assessment.

"The customer inquiry satisfaction score was the highest ever, at 98.6, and I think most of us would be happy if a child came home from school with that number on the report card," SCRI Director Don Levy said.

"I look at the survey responses every quarter, and if anyone gives a particularly negative feedback we try to address it right away and change the situation if possible," Dewey said. "I get a lot more value out of the deep dive into specific situations because it reveals how someone is thinking." ■

— Michael Kuser

Utilization of gas supply vs LDC demand in New England. | *ISO-NE*

Vote Delayed on PJM SATA Proposal

By Michael Yoder

Stakeholders voted Wednesday to delay endorsement of PJM's proposal to develop rules for how storage should be considered in the Regional Transmission Expansion Plan (RTEP) process, electing to wait until further work is done on the issue.

A vote on the storage as a transmission asset (SATA) proposal was set for Wednesday's Markets and Reliability Committee meeting after receiving 58% support at the Planning Committee meeting Dec. 1. (See PJM PC OKs RTEP Rules for SATA.)

But members decided to delay endorsement with a sector-weighted vote of 4.33 (86.6%), surpassing the 66% threshold to support the motion to defer the issue.

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

Paul Sotkiewicz of E-Cubed Policy Associates made the motion to defer the SATA issue until the conclusion of Phase 2 of work planned by PJM. He said he wanted to see more done to address the points of operations, markets and planning as stated in the original issue charge approved at the May 2020 PC meeting and worked on at special sessions since June. (See SATA Issue Charge Moves Forward in PJM.)

Sotkiewicz said the issue charge was "ambiguous" about what is included in the scope for Phase 1 of SATA. Having a "comprehensive proposal" addressing concerns about SATA competition and energy capacity ancillary services market issues would provide a more complete proposal for stakeholders to vote on, he said.

"We can come back and have a discussion and vote on the comprehensive proposal after addressing all of these issues," Sotkiewicz said. "As it stands, I think it's pretty clear this is not ready for prime time."


Sharon Segner, LS Power | © RTO Insider

Sharon Segner, vice president at LS Power, asked if there were specifics on when PJM would begin work on Phase 2 and what would be discussed among stakeholders.

Stu Bresler, PJM | © RTO Insider

Stu Bresler, PJM senior vice president of market services, said the RTO originally intended to wait until FERC ruled on the Phase 1 proposal before taking up work on Phase 2. He said the grid operator would introduce an issue charge at the appropriate committees to initiate Phase 2 "as soon as possible."

Bresler said PJM will have to decide which committees should take up the Phase 2 issue because it potentially touches on aspects of the Planning, Market Implementation and Operating committees.

PJM Proposal

Michele Greening of PJM stakeholder affairs discussed the work conducted on SATA, saying the Phase 1 effort was designed to explore existing transmission planning criteria, including performance measurement methodology. She said additional criteria were developed for evaluating SATA, addressing reliability, market efficiency, operational performance and public policy.

Greening said PJM specifically avoided examining SATA participating in the energy or ancillary services markets, deferring both measures to Phase 2.

Jeff Goldberg, a PJM senior engineer, said the proposal would establish RTEP requirements to ensure that SATA implementation maintains system reliability consistent with NERC standards. He said PJM's SATA evaluation approach also seeks to prevent adverse impacts to the generation interconnection queue.

The proposal's guiding principles state that Phase 1 reliability requirements be established to ensure that any Phase 2 dual use of SATA does not adversely impact reliability requirements, Greening said, and that SATA must remain connected to the transmission system while operating to address the system needs for which it was planned.

Amendments Proposed

Segner presented a friendly amendment to the PJM proposal, saying that developers should be included for consideration in the RTEP. She said LS Power takes the position that SATA is a better product for the market, where it should derive its revenues, but when it's important for SATA to be transmission, storage developers of all types should be included in competition.

Segner said SATA competition is consistent with language in both the problem statement and issue charge, along with the proposal matrix developed and endorsed by the PC. She added that competition was anticipated throughout the stakeholder process.

"The stakes are very high for getting this issue wrong," Segner said. "This is an infant market, and if it's not done correctly, there will be consequences and a very significant impact."

Market Monitor Joe Bowring said there is "absolutely no reason why" SATA shouldn't be open to competition, which would ensure the least-cost application.

"Competition is core to the way PJM markets function," Bowring said.

Segner's friendly amendment raised objections, even while several stakeholders agreed that competition was an important point to include in the PJM proposal. Stakeholders objected to the timing of the amendment, saying it should have been discussed more thoroughly at the PC rather than being introduced before the final vote at the MRC.

A second friendly amendment, brought forward by Tonja Wicks of Duquesne Light Co., was prompted by objections. Wicks proposed a change in the Operating Agreement language from "net" charge/discharge costs to "settle" charge/discharge costs for a SATA receiving cost-based rate recovery. ■

"Competition is core to the way PJM markets function."

—Market Monitor Joe Bowring

PJM Black Start Rules Inch Closer to Final Approval

By Michael Yoder

A new black start diesel engine was installed in the Carroll County Energy Center in Ohio in 2019 with the ability to provide 15.6 MW of energy in a 24-hour period. | *Burns & McDonnell*

PJM stakeholders narrowly endorsed a compromise proposal to settle the contentious black start unit issue at last week's Markets and Reliability Committee meeting.

In a sector-weighted vote of 3.35 (67%), members endorsed a proposal originally put forward by PJM addressing black start unit involuntary termination, substitution rules, capital recovery factor (CRF) and minimum tank suction level (MTSL). The proposal now moves on to the Members Committee for final endorsement at its March 29 meeting.

At the January MRC, PJM's alternative option 1 proposal failed with a sector-weighted vote of 2.48 (49.6%), while Dominion Energy's alternate proposal also failed with 2.47 (49.4%), leaving the black start issue in limbo for a month as stakeholders attempted to find a compromise. (See "Black Start Packages Rejected," *PJM MRC/MC Briefs: Jan. 27, 2021*.)

Susan Bruce, counsel to the PJM Industrial Customer Coalition (ICC), and Sharon Midgley of Exelon worked together after last month's MRC on a compromise amendment PJM's original *proposal*, which they asked stakeholders to endorse.

Bruce said the compromise proposal has a different "term of commitment" for black start resources: the "life of unit." PJM's option 1 had a commitment period of 20 years or greater if the unit offers more in the request-for-proposal process. The Dominion proposal had a commitment of the capital recovery period plus three years of a five-, 10-, 15- and 20-year period based on unit age at the time it entered black start service.

CRF Debated

PJM proposed future updates to CRF to be calculated at the time of the black start unit's in-service date. The CRF would be calculated using depreciation as applicable under the tax code changes in the Tax Cuts and Jobs Act of 2017.

The CRF issue emerged as the most disputed portion of the black start unit discussions, with stakeholders voting to *amend* the issue charge at the OC in December to align with language in the problem statement after it was discovered the two documents did not match. (See *Vote on PJM Black Start Compensation Deferred*.)

Stakeholders are still working through the updates to the CRF table at the Market Implementation Committee, with tariff revisions scheduled to be voted on at its March 10 meeting. (See "Capital Recovery Factors Discussion," *PJM MIC Briefs: Feb. 10, 2021*.)

Bruce said black start discussions became "a thorny issue" among PJM members after the issue charge was first endorsed at the Operating Committee meeting last May. (See "Black Start Issue Charge Endorsed," *PJM Operating Committee Briefs: May 14, 2020*.)

Constructive conversations between stakeholders over the last month helped to get members in a place where a compromise proposal was possible and to "get the rules of the road correct" to fix issues in the tariff regarding black start, Bruce said.

"It started out as a cleanup endeavor, and it's really warped into something quite different," Bruce said.

Stakeholder Opinions

Midgley thanked the ICC and the public advocate stakeholders for their discussions and work to find compromises.

"We really do think this is a good compromise option and appreciate the efforts leading up to this point," Midgley said.

Paul Sotkiewicz of E-Cubed Policy Associates thanked Bruce and Midgley. He said he had several conversations early in the stakeholder process with the ICC to find solutions, and while one wasn't initially found, he appreciated that the group was willing to listen to the concerns of generation owners.

Sotkiewicz previously challenged the stakeholder process over the black start issue, but he said the compromise proposal is "workable for everybody." (See *Gen Owners Balk at Change to PJM Black Start Rates*.)

"While it's not our most desirable proposal, it does give us certainty going forward about what we're all facing," he said.

Alternative Proposal Pulled

Greg Poulos, executive director of the Consumer Advocates of the PJM States, was set to introduce an alternative *proposal* addressing the black start issue on behalf of the Delaware Division of the Public Advocate. The proposal, which was first raised at the January MRC, included the addition of language regarding CRF from the Independent Market Monitor's proposal that failed at the OC. (See "Alternative Black Start Package," *PJM MRC/MC Briefs: Jan. 27, 2021*.)

Poulos said that after receiving input from other stakeholders and PJM officials over the last month, it became clear the proposal did not have enough support to be endorsed. Poulos requested that it be pulled from the agenda before it faced a vote, saying the advocates decided to remove it from consideration after the ICC/Exelon compromise was put on the agenda.

Sotkiewicz said he applauded Poulos's decision to pull the advocate proposal from the agenda, saying it "took an incredible amount of courage" to make the call and showed a good-faith effort by the advocates to work within the stakeholder process.

"At the end of the day, we're getting to a place where we can find some common ground," Sotkiewicz said. ■

PJM MRC/MC Briefs

Members Committee

Executive Promotions

PJM announced the promotion of several executives during last week's Members Committee meeting.

Nigeria Bloczynski, PJM's chief risk officer, was named as a vice president to go along with her officer title. Her responsibilities include corporate insurance programs, credit risk, enterprise risk management, trade risk and analytics and trade surveillance.

Bloczynski first joined PJM in 2019 as its chief risk officer, carrying more than 20 years of experience in commodity and credit risk management in financial and energy markets. She holds a mathematics degree from Morgan State University and an MBA from Johns Hopkins University.

Asim Haque, PJM's vice president for state and member services, will continues in that role but will also be a designated officer in the organization. He currently oversees state government policy, which includes both the state relations and state policy solutions functions, as well as member services, which includes stakeholder affairs, client management, knowledge management center, and state and member training departments.

Haque joined PJM in 2019 after serving as chairman of the Public Utilities Commission of Ohio. He has chemistry and political science degrees from Case Western Reserve University and a law degree from Ohio State University's Moritz College of Law.

Nigeria Bloczynski, PJM | *PJM*

Christopher O'Hara, general counsel for PJM, was named senior vice president, secretary and chief compliance officer. O'Hara oversees PJM's compliance and reliability standards and law departments and is responsible for the RTO's legal operations, including all of its regulatory, litigation and commercial needs. Before joining PJM in 2017, O'Hara had in-house and private law firm experience in the energy field. He received his undergraduate degree from the University of Pennsylvania and his law degree from the University of Maryland School of Law.

Ricardo Rodriguez, PJM's chief audit executive, was named senior director of internal audit. He oversees the RTO's internal audit department and is a member of the executive team, reporting to CEO Manu Asthana and the Board of Managers' Risk and Audit Committee. He has more than 20 years of experience in the energy, pharmaceutical and financial industries in the areas of finance, regulatory compliance, information security, operations and information systems. He holds a degree in business administration from the University of Puerto Rico and a master's degree in engineering from the University of Pennsylvania's Wharton School of Business.

All four promotions take effect on March 10.

"I am pleased to recognize the accomplishments and work of these four leaders within the organization," Asthana said. "Under their leadership, PJM has made great strides in all of their areas, and I expect that progress to continue."

MC Resolution Changes not Endorsed

Stakeholders rejected four different proposals aimed at addressing resolutions coming from the MC.

Sharon Midgley of Exelon and Jim Davis of Dominion Energy reviewed the *proposals*, along with the associated Operating Agreement *revisions*, to develop new rules to ensure a sufficient number of stakeholders participate in the approval of an MC resolution. Midgley said the issue has been discussed for nearly a year at the Stakeholder Process Forum. The goal of the effort was to ensure that if a resolution is endorsed by the membership, it reflects the actual will of a majority of stakeholders, she said.

The issue first arose in January 2020, when stakeholders endorsed a resolution objecting to a tariff attachment before FERC that would

Asim Haque, PJM | *PJM*

create a new confidential process to mitigate critical infrastructure on NERC's CIP-014 list.

Some stakeholders challenged the participation level of the resolution vote, with more than half of the members present at the meeting abstaining from the vote. Midgley said less than 3% of members supported the resolution, raising questions about whether the sector-weighted voting outcomes accurately reflected members' perspectives on the issue. (See *PJM Members Resist TO Critical Infrastructure Filing*.)

Midgley said rules should be developed to address sufficient member approval of a resolution and whether sector-weighted voting is a sufficient tool to measure stakeholder consensus for resolutions. Midgley said the proposals suggested that there should be a minimum participation level to approve a resolution, pointing out that one voting member in the Electric Distributor sector was able to carry the entire sector in the January 2020 resolution vote.

One of the *proposals*, which called for the elimination of MC resolutions and instead encouraged stakeholders to submit letters to the board on an issue, failed with a sector-weighted vote of 1.19 (23.8%). The main *motion*, which called for a two-thirds sector-weighted vote and at least five members from each of the five sectors participating in a yes/no manner on a resolution vote, also failed with a sector-weighted vote of 1.11 (22.2%).

The two other proposals, *Alternate 1* and *Alternate 2*, which had similar participation thresholds, also failed to be endorsed, each garnering

PJM News

a sector-weighted vote of 1.01 (20.2%).

Greg Poulos, executive director of the Consumer Advocates of the PJM States, was supposed to *review* an alternative proposal on behalf of the Delaware Division of the Public Advocate but pulled it from the agenda before being considered. Poulos said the advocates decided that "no change was the best course" on the issue and that they had a problem with attempting to create higher thresholds to pass resolutions.

Ed Tatum of American Municipal Power said he was "confused" by the procedure of allowing votes on four separate proposals brought at the same time by the same set of sponsors. Tatum said some of the proposals would have the unintended consequence of enabling "undue influence" by a member or group of members in that the minimum number of "yes" votes required in a sector could be used by stakeholders to block the consideration of MC resolutions through strategic non-voting methods.

The structure of PJM voting was never supposed to be based on "who has spent the most, who owns the most, nor who is the loudest," Tatum said, and having five voting sectors puts stakeholders on a "somewhat level playing field" through the sector-weighted vote.

Paul Sotkiewicz of E-Cubed Policy Associates said MC resolutions have been used infrequently in PJM and that the resolutions have no force of law, do not require any action by the RTO and cannot be filed with FERC. He said members "wasted a lot of time" talking about an issue that carries no legal weight in the stakeholder process and that he doesn't understand pursuing resolutions when members can already send letters to the board to voice opinions.

"For us to be playing around with this anymore is counterproductive," Sotkiewicz said. "We have other venues we can express our common interests and also client interests."

Endorsement of Stability Limits

Members *endorsed* proposed tariff and OA *revisions* related to stability limits in markets and operations with a sector-weighted vote of 3.95 (79%). The package was endorsed with a sector-weighted vote of 4.05 (81%) at last month's Markets and Reliability Committee meeting. (See "Stability Limits Endorsed," *PJM MRC/MC Briefs: Jan. 27, 2021*.)

The proposal aims to address the allocation of limits to multiple units by stating that the limit will apply to the sum of the output of the affected units plus ancillary service megawatts. Current rules require PJM to implement a thermal surrogate to reflect the stability constraint in the day-ahead and real-time markets and to bind the constraint, affecting the unit's dispatch.

The package also includes a measure for transparency, with PJM posting data on the frequency, location and number of affected units while maintaining confidentiality rules.

Lost opportunity cost (LOC) credits would not be paid for any reduction required to honor the stability limit. Similarly, LOC would not be paid for economic megawatts of a resource that cannot produce because of a ramp limitation.

Sotkiewicz requested a sector-weighted vote be taken on the issue after it had initially been placed on the MC's consent agenda for endorsement. He presented an alternate opportunity cost proposal, sponsored by J-POWER at the January MRC meeting, that was fundamentally the same as the endorsed proposal except for providing compensation for LOCs.

Sotkiewicz said J-POWER continued to object to the lack of payment for LOCs.

"We believe that the PJM proposal should be rejected and the OA language remain as it is to pay for lost opportunity costs for units being backed down for reliability," Sotkiewicz said.

Consent Agenda

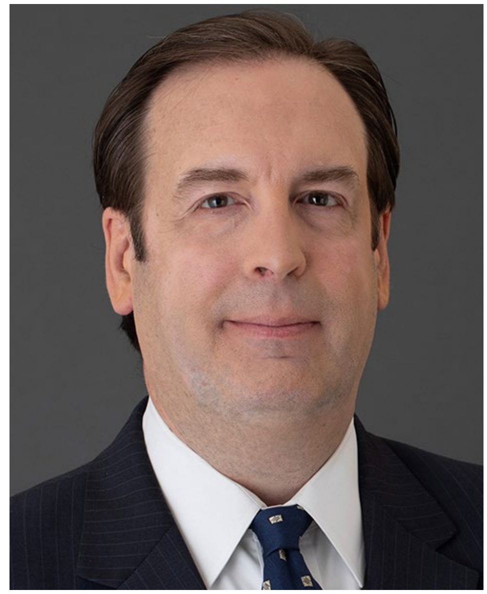
Stakeholders unanimously endorsed two issues on the consent agenda, including:

- Tariff Attachment K and OA Schedule 1 *revisions* addressing market rules for real-time values. The package was endorsed with a sector-weighted vote of 4.9 (98%) at the January MRC meeting. (See "Real-time Values Market Rules," *PJM MRC/MC Briefs: Jan. 27, 2021*.)
- *Tariff*, *OA* and *Reliability Assurance Agreement* (RAA) revisions addressing the disposition of price-responsive demand credits. The package was unanimously endorsed by acclamation vote at the January MRC meeting. (See "PRD Credits Disposition," *PJM MRC/MC Briefs: Jan. 27, 2021*.)

Markets and Reliability Committee

TLR Buy-through 1st Read

Chris Advena, senior lead engineer for PJM, *reviewed* revisions to remove the transmission loading relief (TLR) buy-through congestion process from the OA during a first read at the MRC meeting last week.



Christopher O'Hara, PJM | *PJM*

Advena said TLR buy-through is the tool PJM uses to curtail interchange transactions that are causing loop flow to the RTO around the time emergency procedures are being conducted to reduce the impact on a flowgate or a transmission facility. Advena said TLR is narrow in its scope and applies only to interchange transactions that aren't physically in the PJM footprint.

TLR was created when PJM was fully within the Mid-Atlantic region and was issued more frequently than it is today, Advena said. It was also put in place prior to joint operating agreements and congestion management with MISO, NYISO and SPP. He said it has rarely been used despite existing for more than 20 years.

Advena said TLR also carries reliability considerations, including the need for manual implementation by operators that can slow down the curtailment process, and that it "doesn't have value" for PJM or stakeholders.

PJM is using the "quick fix" process to remove the language from the OA, Advena said, and is seeking final approval at the MC's meeting April 21.

"We're going through the quick fix because this seems like it's relatively not impactive and there aren't any system changes required," Advena said. ■

— Michael Yoder

Company News

Exelon to Split Tx, Generation Businesses

Big Losses Seen from Texas Outages

By Ted Jackson

Exelon announced a major restructuring Wednesday, saying it will separate into two publicly traded companies, one for its regulated transmission and distribution business and the other for its merchant power generation.

Expectations were widespread that Exelon would announce a major restructuring coincident with its fourth quarter 2020 earnings release. It had announced it was considering the separation in November. (See *Exelon Discusses Potential Generation Spinoff*.)

The company's stock rose in pre-market action, trading as high as $42.34 after closing at $40.80 on Feb. 23. It closed Wednesday at $40.19.

Exelon reported higher than expected Q4 earnings but said it may have lost as much as $950 million because of outages at three Texas natural gas plants idled during the arctic blast that left much of the state in the dark for days.

Restructuring

Exelon said the restructuring will create the nation's "largest fully regulated transmission and distribution utility," with six utilities in five states and D.C., and the largest producer of carbon-free power — thanks mostly to its 18.7 GW nuclear fleet. It also owns 12 GW of hydropower, solar, wind, gas and oil generation.

The company said the separation "better positions each company within its comparable peer set" and will allow them to pursue business strategies tailored to their sectors. It "aligns our business mix with investor preferences and overall market trends," it said.

"These are two strong, distinct businesses that will benefit from the strategic flexibility to focus on their unique customer, market and community priorities," CEO Chris Crane said in a statement.

The company hopes to complete the transition, which will require approvals by FERC, the Nuclear Regulatory Commission and the New York Public Service Commission, by the first quarter of 2022.

One spinoff company, temporarily named RemainCo, will hold the assets in Exelon's six regulated service areas. Another new company called SpinCo will hold the merchant generation assets.

Questions on Ill. Nuclear Plants

Exelon, by far the largest nuclear generator in the U.S., reported that its fleet's capacity factor was 95.4% in 2020, the second highest ever for its owned and operated units. But nuclear power has been a troubled part of Exelon. The company said last year it may be forced to shut down its Illinois nuclear plants without state legislation to subsidize the units, which have been pinched as natural gas and renewables have depressed wholesale power prices.

The company is hoping to win relief as part of sweeping Illinois energy legislation expected to be considered this year.

Crane asserted that Illinois Gov. JB Pritzker "has called for passing an energy bill this session that protects our nuclear fleet, grows renewable energy and supports customers and job creation."

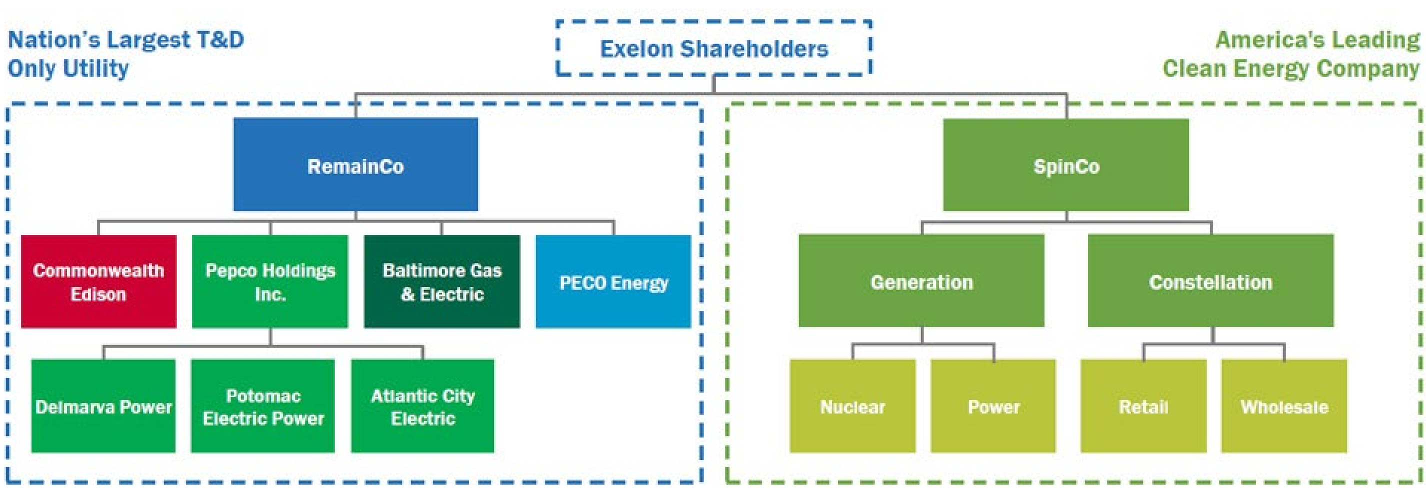
But Illinois industry observers say that the governor remains undecided on his exact stance.

Gov. Pritzker has said only that he supports the principles behind the Clean Energy Jobs Act, which is supported by many legislators in the both the state Assembly and Senate. It does not provide for the nuclear bailout that Exelon seeks.

There is much debate about the profitability of Exelon's Illinois nuclear plants. The company says they are not profitable and need state support. But Pritzker is skeptical and has hired a consultant to dig into the company's financials.

In response to an analyst question in the conference call, Crane admitted the company faces "a cloud" in Illinois, its reputation badly tarnished in the wake of a $200 million bribery scandal that resulted in the indictment of former ComEd CEO Anne Pramaggiore. (See *Ex-ComEd CEO, Officials Charged in Ill. Bribery Scheme*.) Federal officials said ComEd sought favorable legislation by giving jobs and contracts to allies of Assembly Speaker Michael Madigan, who resigned Feb. 18.

Illinois PIRG Director Abe Scarr said the company's separation plans will reduce, but not eliminate, conflicts of interests that



Exelon plans to separate it regulated transmission and distribution utilities from its merchant generation unit. | *Exelon*

Company News

harm consumers.

"Every year, Exelon bills hundreds of millions of dollars of services to ComEd, a subsidiary it controls, a subsidiary which can fully recover those costs from its captured customers," Scarr said. "The Illinois General Assembly has the opportunity this spring to begin undoing the policy harms of the ComEd bribery scandal. That means winning restitution for ComEd customers, restoring effective utility regulation by ending automatic rate hikes through formula rates, and reforming utility political influence by no longer allowing utilities to charge their customers for charitable contributions. Addressing the conflicts of interest that persist beyond an Exelon breakup should remain on the General Assembly's agenda."

Exelon said it faces up to $950 million in pre-tax losses after three of its natural gas generators in Texas, including the Colorado Bend plant (pictured), were unable to operate during last week's arctic freeze. | *Google*

Texas Losses

The company estimates pre-tax losses of $750 million to $950 million because its Colorado Bend, Wolf Hollow and Handley plants in ERCOT were unable to operate when prices hit the $9,000/MWh price cap during the cold front.

Crane said the range "includes our best estimate for load obligations, ancillary charges and bad debt," but he cautioned that the estimate was preliminary and would be updated in Exelon's Q1 conference call in the spring.

"As you know, last week's events have raised many questions about Texas market design and associated risks," Crane said. "And this has not been a new conversation. It's been one that's been around for a while. And we hope that through this that the proper actions can be taken on the design. As a result, we are evaluating all our options with respect to our ERCOT business."

Laura Starks, CEO of Texas-based energy consultancy Starks Energy Economics, said it's difficult to forecast the losses to utilities from the Texas fiasco, especially after five ERCOT board members resigned in the wake of the outages.

Earnings

Continuing a streak of quarterly results that have beaten market expectations, Exelon announced adjusted Q4 earnings and revenues that outperformed market estimates. Other major utilities have also been beating Q4 expectations, including NextEra, Dominion and Xcel.

Exelon reported adjusted (non-GAAP) earnings of $0.76/share, beating analyst expectations by $0.06. But GAAP EPS significantly underperformed expectations at $0.37, $0.60 lower than the market was anticipating. One-time plant retirement costs accounted for much of the difference, totaling $0.38/share.

Revenues for the quarter were $210 million higher than estimates at $8.12 billion.

Full year GAAP 2020 results took a major hit compared to 2019; GAAP EPS was $2.01 versus $3.01 for 2019. Adjusted operating earnings were steady in 2020 at $3.22/share.

Exelon gave adjusted (non-GAAP) operating earnings full-year guidance for 2021 of between $2.60 and $3/share. In the conference call the company said it expects to grow its rate base about 7% per year through 2024. ■

Company News

AEP CEO Calls for More Stringent Reliability Measures

By Amanda Durish Cook

American Electric Power CEO Nick Akins used the company's year-end earnings review Thursday to call for stepped-up reliability measures following a winter storm that ravaged the Texas grid.

Akins said 2020 was a year of "tremendous challenges, the likes of which we have never seen, and it appears that 2021 has thus far had its own set of challenges."

"A little over a month into the year, and we've experienced ice storms in the East and record cold temperatures in the West," Akins said.

AEP Texas followed ERCOT's instructions to curtail load in order to maintain "the stability and integrity of the Texas grid" during the unprecedented weather, he said. (See *ERCOT: Grid was 'Seconds and Minutes' from Total Collapse*.)

"During this event, our focus centered on responding to the directives from ERCOT to ensure that the flow of available power continued throughout this crisis. We also worked with our communities to identify critical load such as hospitals and other first responder resources in an effort to mitigate the impacts of key resources within our communities," Akins said.

"This event serves as a sober reminder as to the critical nature of our nation's energy supply and maintaining and supporting not only our economy, but also our fundamental way of life," he added.

AEP Texas is a transmission and distribution utility in ERCOT, not a generator or a retail electric provider, Akins reminded shareholders. He said AEP expects little, "if any," financial impact from the Texas event.

He said AEP load-shedding in SPP was minimal, but fuel costs were high during the storm. The company will seek alternative fuel cost recovery mechanisms to lessen ratepayer impacts.

Three AEP wind farms in the ERCOT region experienced cold weather outages Feb. 10, he said.

"We expect all three wind farms to be returned to full availability soon," Akins said, emphasizing that the financial impacts from the wind outages would be immaterial.

Akins also said AEP's Appalachian Power and Kentucky service territories sustained significant ice and tree damage to the transmission and distribution system in recent back-to-back storms. Restoration crews continue to make headway on the damage, and AEP intends to file for cost recovery of storm-related impacts, he said.

Call for Action

"These events, along with others around the country, have indicated the need for specific policy changes that focus on further refinements in reliability and resiliency of the grid," Akins said. "Specifically, we would encourage more robust reliability assessments across electric, gas and other critical infrastructure classes determined where interdependencies exist and market designs that promote adequate capacity levels and increased generation reserve margins to provide a sufficient safety net during emergency situations."

Akins called for winterization standards for power plants and natural gas delivery systems.

He said if "substantial" parts of the country are depending on natural gas, utilities should make sure plants and pipelines are able to perform under tight conditions. He also said better interregional transmission planning across RTOs' seams and more DC ties into Texas can "enable regions to lean on each other in times of crisis."

"All stakeholders must do better to address the issues that led us to these failures that have impacted so many customers at the worst possible time," he said. "Whether it's winter and summer weather event reliability or the speed at which the clean energy future can occur, AEP stands ready to be an active participant in resolving these issues, both from a state and national perspective."

Akins predicted he would soon be testifying about the events. He said utilities should have greater insight into the "interaction and interoperability" of generation resources with distribution and transmission systems.

Akins said utilities need to make and announce clean energy decisions this year. He said AEP will propose in its integrated resource plan up to 330 MW of new renewable energy to serve Southwestern Electric Power Co. in the 2025-2028 time frame.

AEP has accelerated its carbon-reduction goals, targeting an 80% decrease from 2005 levels by 2030 and net-zero carbon emissions by 2050.

"I am reminded of one of my favorite movies, 'Gladiator,' in which Maximus Decimus Meridius says, 'The time for half-measures and talk is over,'" Akins said. "It is time for serious execution by AEP to transform ourselves to embrace our clean energy future on behalf of and for our customers and communities."

Earnings and Post-COVID Hopes

AEP earned $2.2 billion ($4.44/share) in 2020, compared with $1.9 billion ($3.89/share) a year earlier. The utility has upped its 2021 guidance to $4.55 to $4.75/share.

Profits were shaped by favorable taxes and investments and "certain regulatory outcomes that went our way," Akins said.

However, Akins said AEP is disappointed in the outcome of Appalachian Power's triennial rate case in Virginia, where state regulators in November denied the utility a rate increase.

AEP is seeking a rehearing and appeal of the decision with the Virginia Supreme Court.

"More to come on that," Akins promised.

CFO Julie Sloat said load in AEP's service territories generally fared better than other parts of the country because the areas had shorter and fewer economic shutdowns in response to the COVID-19 pandemic. The pandemic also provided opportunities for cost-cutting through inexpensive virtual training and travel reductions.

Sloat predicted the commercial and industrial sectors would steadily recover "as we migrate back to our post-pandemic lives" in 2021. She said load from schools, churches, restaurants and hotels is picking up, and overall load recovery "will likely track with vaccinations."

Akins said he was optimistic about load recovery and growth in 2021. He said AEP load still trails pre-COVID levels but is improving. A push to harden grid infrastructure, especially following last month's winter storm, should also bolster industrial load, he said.

Despite the obstacles of 2020 and early 2021, Akins predicted a promising year as the nation emerges from the pandemic. He paraphrased the lyrics to Johnny Nash's "I Can See Clearly Now": "I can see clearly now the rain has gone — and we can remove all obstacles in our way to a bright sunshiny day." ■

Company News

CenterPoint, OGE Look to Exit Enable

Companies Take Year-end Losses Excluding the Transaction

By Tom Kleckner

OGE Energy and CenterPoint Energy executives last week added color to their agreement disposing of their master limited partnership in Enable Midstream Partners, a gas-gathering business being acquired by Energy Transfer.

Both companies said Energy Transfer's $7.2 billion all-equity acquisition of Enable will allow them to focus on transitioning to a fully regulated utility business model and lessen their exposure to the gas market's volatility.

The acquisition was announced Feb. 17. (See *Energy Transfer to Acquire Enable Midstream*.)

CenterPoint CEO David Lesar reminded financial analysts during an earnings call Thursday of his earlier comments to them that the Houston-based company is "absolutely focused on reducing and eventually eliminating our midstream exposure through a disciplined financial approach."

"And now have a transaction that we expect to achieve … exchanging our interests into a more liquid security, which will facilitate an accelerated exit, increased autonomy … giving us flexibility to make decisions about our exit strategy, and, of course, that reduces risk to distributions while we wind down our position," Lesar said. "This transaction will have zero impact on our broader strategic goals."

As CenterPoint's earnings call concluded, OGE's began.

"Let me be clear: We will exit our midstream investment, and we will do so in a responsible way that does not create overhang to the Energy Transfer units," CEO Sean Trauschke told many of the same analysts. "We will do what we're focused on … making sure that we continue to take costs out of our business to minimize that impact to customers at the same time."

Trauschke said the company plans to reinvest the reinvest the transaction's proceeds back into its utility business, Oklahoma Gas & Electric.

"We are not constrained or limited in any way in terms of the opportunities we see in our growing service territory," he said.

OGE holds a 25.5% limited partner interest and a 50% general partner interest in Enable. CenterPoint owns 53.7% of the common units

CenterPoint Energy crews restoring power in Texas following February's winter storm | *CenterPoint Energy*

representing Enable's LP interests. It will own approximately 3% of Energy Transfer's outstanding LP units after the merger's consummation, which is expected later this year.

CenterPoint will also pay OGE $30 million when the transaction closes.

Lesar also addressed the company's restoration efforts following the Feb. 15 power outages that almost knocked out the ERCOT grid. He said once power was restored to CenterPoint's system, the utility was able to bring power back to 98% of its 2.6 million electric customers in about 12 hours.

"This was a systemwide failure across the state, as has been well written," he said. "There'll be something that comes out of [the state legislature] from this, but people have done a good job of understanding our role in this."

The company spent an additional $1.25 billion buying natural gas during the outage, Lesar said. CenterPoint will work with regulators to recover the costs.

CenterPoint *reported* fourth-quarter earnings of $15 million ($0.27/diluted share), up from 2019's closing quarter of $128 million ($0.25/diluted share). Year-end earnings resulted in a $949 million loss (-$1.79/diluted share), compared to a $674 million ($1.33/diluted share) profit the year before.

On a guidance basis that excluded income and debt from the Enable preferred units and other impairments, earnings were $173 million ($0.29/share) for the quarter and $793 million ($1.40/share).

The company's share price finished the week at $19.44, a 6.4% drop from Wednesday's close of $20.78.

OG&E Files $1B Cost Recovery

OGE also *reported* a loss for 2020, saying year-end earnings were $173.7 million in the red (-$0.87/diluted share), compared to 2019's earnings of $433.6 million ($2.16/diluted share). For the quarter, earnings were $54.8 million ($0.27/diluted share), compared to $35.4 million ($0.18/diluted share) a year ago.

The company said OG&E was among several utilities that *began recovery proceedings* at the Oklahoma Corporation Commission over restoration costs following February's severe winter storm. OG&E is seeking to recover $1 billion for natural gas and purchased power costs, more than 2019's total fuel costs.

Trauschke said OGE has secured $1 billion of additional bank financing or liquidity to cover the costs.

"We certainly understand the pressure that this event will have on our customers, and we will work with our commissions to help mitigate the impact to our customers' bills," he said.

OGE's stock price fell 5.5% following the earnings release, closing the week at $29.27. ■

Company News

PSEG Presses for Higher Nuke Subsidies

Sale of Solar, Fossil Generation 'On Track'

By Jonathan Berr

Public Service Enterprise Group CEO Ralph Izzo used the company's earnings call Friday to lobby for increased subsidies for its New Jersey nuclear plants and predicted the sale of its non-nuclear generation by the end of the year.

PSEG has requested a three-year extension to New Jersey's controversial zero-emissions certificate (ZEC) program, which paid the company $300 million last year to continue operating the Salem and Hope Creek nuclear plants. The subsidy works out to $10/MWh, which Izzo said is not enough to make the plants competitive with natural gas and zero-marginal-cost renewables.

Izzo said the company is pleased that the staff of the state Board of Public Utilities recently concluded that Salem and Hope Creek will remain eligible for ZEC payments when the current subsidy order expires in 2022. But he said the payments are too low considering falling PJM forward power prices. He added that the three-year ZEC cycle is too short to give the company confidence to make major capital improvements or consider relicensing the plants when their current licenses expire between 2036 and 2046.

The company would retire the plants if the ZEC payments were reduced below $10/MWh, he said.

"The nuclear plants need more than $10, and what we've said is we'll look at longer-term solutions for that and hopefully coming out of the federal government with a carbon price," Izzo said during the earnings call with analysts. "And the only reason why we would accept $10 now is that that's all [the state] can do. So that's not a negotiation."

The BPU's ZEC decision is expected April 27, Izzo said.

Generation Sale, ESG Report

Izzo said PSEG has received "initial indications of interest" from potential buyers for its 467 MW of solar generation and its 6,750-MW fossil generation fleet in New Jersey, Connecticut, New York and Maryland, which it put up for sale last July. Izzo declined to name potential buyers but said "we are on track to announce an outcome in the second half of 2021."

The company is selling the generation assets as part of its planned transformation to a "primarily regulated electric and gas utility," Izzo said.

Responding to an analyst's question, Izzo said the widespread generation outages that accompanied subfreezing temperatures in ERCOT will have no impact on the company's operations. "Our near-death experience in January of 2014 with our own polar vortex really has winterized these assets in a way that I'm sure Texas will now follow suit with," he said.

In January, PSEG released its first environmental, social and governance (ESG) performance report, which included an expanded disclosure of employee demographics along with new goals for fleet electrification and waste reduction. The company's carbon-reduction plan calls for an 80% decrease in emissions below 2005 levels by 2046, with the goal of achieving net-zero by 2050.

By 2030, the utility said, it will convert all passenger vehicles, 62% of medium-duty vehicles and 90% of heavy-duty vehicles to battery electric vehicles, plug-in hybrids or "anti-idle job site work systems."

It also pledged to reduce the total weight of waste that is landfilled and incinerated to 4.78% of the total waste generated by Public Service Electric and Gas by 2023.

The report also mentions the BPU's approval in January of $205 million in spending by PSE&G on EV infrastructure. (See *NJ BPU OKs $205M EV Spending by PSE&G*.) And it noted that the company will retire its last coal-fired unit, the 383-MW Bridgeport Harbor 3 generating station, in June.

Looking ahead, Izzo said PSE&G is forecasting capital spending of $14 billion to $16 billion through 2025, with 50% going toward carbon-reduction investments, including energy storage, energy efficiency, methane emission reduction and advanced metering infrastructure.

Offshore Wind

However, Izzo noted the capital spending forecast does not include any potential investments in offshore wind. PSEG agreed in December to take a 25% stake in Ørsted North America's 1,100-MW Ocean Wind project, which won the BPU's first offshore wind solicitation. Construction on the project, 15 miles off the Atlantic City coast, is expected to begin next year, with commercial operation expected in 2024.

Hope Creek Nuclear Generating Station is one of two PSEG nuclear plants receiving ZEC payments from New Jersey. | *NRC*

PSEG has an option to increase its stake in Ocean Wind by an additional 25%. Izzo said the company is taking a cautious approach and would not seek to increase its stake beyond 50%. "The commercial risk is completely mitigated by the [power purchase agreement with New Jersey]. And the operational risk is mitigated by making sure you partner with a world-class partner. And we think we have that in Ørsted," he said.

He was bullish on the company's chances to build the onshore transmission needed to connect New Jersey's OSW to PJM's grid.

"There is likely to be a transmission solicitation that will be managed by PJM on behalf of New Jersey that we feel very confident that we could do something of that sort without necessarily needing partners, although we will be welcomed to partnerships in that regard too," he said. (See *NJ Asks PJM to Seek Bids for OSW Tx*.)

Q4 Results

PSEG reported declining profit and revenue in its most recent quarter, blaming mild weather for depressing electricity demand.

Net income was $431 million ($0.85/share) in the fourth quarter of 2020, compared with $437 million ($0.86/share) a year earlier. Revenue fell to $2.4 billion, below the $2.73 billion predicted by analysts.

On an adjusted basis, profit was 65 cents/share, in line with Wall Street's expectations. Most of the difference was attributed to a 31-cent/share gain from PSEG Power's nuclear decommissioning trust fund.

Earnings call transcript courtesy of Seeking Alpha. ■

Company Briefs

EV Maker Xos to go Public via $2B SPAC Merger

Commercial electric vehicle maker Xos last week agreed to go public via a merger with NextGen Acquisition in a deal valuing the combined entity at $2 billion.

The deal will provide Xos with $575 million in gross proceeds, including a $220 million private investment led by Janus Henderson Investors and a group of truck dealers led by Thompson Truck Centers.

Xos rebranded itself from Thor in 2019 and builds electric trucks designed to replace diesel vans.

More: *Reuters*

Ex-SCANA CEO Pleads Guilty to Fraud in SC Nuclear Fiasco

Former SCANA CEO **Kevin Marsh** last week plead guilty to fraud charges and formally accepted responsibility for his role in the failed expansion of the company's V.C. Summer nuclear power plant. Marsh will spend at least two years in prison and pay back at least $5 million, according to the plea deal.

Marsh's main crime while managing the project, according to Assistant U.S. Attorney Jim May, was failing to tell regulators and the public about the ongoing supply chain, design and construction problems that were dooming the effort. Instead, Marsh and his colleagues presented positive projections and assessments of the progress, even as lead contractor Westinghouse struggled to assemble the two reactors.

Marsh has spent the last six months as a criminal informant and will continue to be a witness for state and federal prosecutors who continue to probe the project's failure. He faces up to 10 years in prison if he does not fully cooperate with the investigation.

More: *The Post and Courier*

Indianapolis, Dayton Power & Light Change Names

As of Feb. 24, Indianapolis Power & Light has changed its name to AES Indiana.

In a major rebranding, the utility is dropping the name of its headquarters city and taking on the name of its parent company, AES Corp. The change comes 20 years after AES bought IPL for $2.2 billion.

Dayton Power & Light also changed its name to AES Ohio.

More: *Indianapolis Business Journal*; *AES Ohio*

Federal Briefs

Biden Increases the Social Cost of Carbon

President Biden last week changed the way the government calculates the real-world cost of climate change by boosting the social cost of carbon to $51 per ton, a rate more than seven times higher than that used by the Trump administration. The number could reach $125 per ton once the administration conducts more analysis.

The ultimate figure will be incorporated into decisions across the government, including what sort of purchases it makes, the kind of pollution controls it imposes on industry and which highways and pipelines are permitted in the future.

While the Biden administration has set an initial price to inform its analysis of policies, it will embark on a months-long process to determine a longer-lasting one. That price will take other factors into account, including recent scientific findings on climate impacts and the fact that the poor suffer more from climate change than the wealthy.

More: *The Washington Post*

DC Circuit Says Mountain Valley Pipeline Construction Can Continue

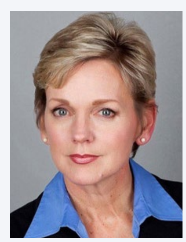
The D.C. Circuit Court of Appeals last week ruled that construction can continue on the Mountain Valley Pipeline despite environmental groups claiming the pipeline isn't needed.

The Sierra Club, Appalachian Voices and four other groups filed a petition in the D.C. Circuit seeking to block FERC's orders allowing work to continue on all but eight miles of the 300-mile pipeline. They said that falling demand for natural gas and a surplus of pipeline takeaway capacity undermined claims that the pipeline would serve the public interest.

The court sided with the four pipeline companies, saying in an order that the groups didn't "satisfied the stringent requirements for a stay."

More: *Bloomberg Law*

Granholm Says Texas Outages Show Need for US Power Systems Changes



Energy Secretary **Jennifer Granholm** last week made a case for sweeping changes to the nation's energy markets to help meet President Biden's pledge to make the U.S. carbon neutral by 2050.

Granholm used the recent cold weather event in Texas to press for reforms to the state's power systems and said one big lesson from the outages is that Texas needs to weatherize and winterize its energy systems. She said it may make sense for the state's independent energy infrastructure to be connected to the national grid "in some way, shape or form that allows its neighbors to help" in an emergency.

Granholm also responded to state leaders who blamed renewable energy sources for most of the power failures. Wind and solar were a "very small part" of what happened, she said, noting that a larger driver of the outages were coal piles that froze and natural gas lines that weren't winterized.

More: *NPR*

State Briefs

ARIZONA

APS to Pay Overcharged Customers $24M

A settlement between Attorney General Mark Brnovich and Arizona Public Service will have the utility pay $24 million to about 225,000 customers who were placed on new pricing plans that were not the cheapest available option following a 2017 rate increase approved by the Corporation Commission.

About 210,000 customers will receive $98 payments or bill credits, while another 17,500 customers will receive payments totaling $3.3 million.

Brnovich launched an investigation after reports showed an online calculation tool used to choose the cheapest plan was giving incorrect recommendations. Investigators later learned some customers were misled by letters from the utility suggesting cheaper plans.

More: *The Associated Press*

COLORADO

Lawmakers Pitch Power Authority to Beef Up Grid

A proposed law, Senate Bill 72, would create a "Colorado Electric Transmission Authority" that would have the power to issue debt, declare eminent domain to acquire needed property and negotiate transmission corridors to other states. The bill would also create a faster review process for approving transmission projects.

With growing demand for clean power and corridors needed for other services, Sen. Chris Hansen said failing to act "is the equivalent of the railroad missing your town in the 19th century. We have to have a robust grid."

The state's major power providers are not enthusiastic about the bill, noting it appears to create new layers of regulation and oversight while they are taking adequate backup measures on their own.

More: *The Colorado Sun*

Price Hike Coming for Colorado Springs Utilities Customers

The Colorado Springs City Council, which also serves as the utilities board, last week said it will consider a range of price hikes in early March to pay for the natural gas needed during February's deep freeze.

The Utilities Finance Committee is said to be leaning toward an increase of about $18.10 (7.8%) on the average residential bill and about $373.98 per month on a commercial bill. If the midrange price increases are approved, they would show up on bills through April 2022. If the board approved lower price hikes, they would be in place longer, possibly through January 2023.

The price hikes are needed due to the frigid weather from Feb. 13-16 when natural gas prices increased from $2.50 to nearly $200 per dekatherm.

More: *The Gazette*

Xcel Energy Pledges 85% Greenhouse Gas Reduction by 2030

Xcel Energy-Colorado last week pledged to cut its greenhouse gas emissions 85% by 2030, an increase of 5% from its original goal.

The company is also proposing to retire its remaining coal plants by 2040. Xcel would convert its Pawnee plant to natural gas in 2028 and push up the retirement date of its Comanche 3 facility from 2070 to 2040. The unit, which was out of operation for most of 2020, would be run at no more than a third of its capacity after 2030.

The plan also calls for adding 5,500 MW of wind and solar power and battery storage. If it is approved, Xcel would more than double the amount of renewable energy and battery storage available in its state system.

More: *The Denver Post*

KANSAS

Corp. Comm. Rejects Evergy's Plans to Charge Solar Customers More

The Corporation Commission last week rejected both of Evergy's proposed solutions to accommodate solar users and will instead wait until the company's next rate case to address the subsidy issue. The decision came after the state Supreme Court said the original plan was discriminatory, as it had solar users paying an additional special demand charge.

Evergy had wanted to charge people with solar panels a monthly grid access fee of $3 per kW ($20-$30 per month), even if their home doesn't take electricity from the grid. Otherwise, it wanted to charge all customers a minimum bill of $35 per month, though bills already above $35 wouldn't see additional charges.

Evergy has 30 days to implement the changes from this order.

More: *The Topeka Capital-Journal*

LOUISIANA

New Orleans Launches Investigation into Entergy Blackouts

New Orleans City Councilmembers last week launched an investigation into Entergy after the utility said it cut three times as much power as needed during the historic cold snap two weeks ago.

Under intense questioning from the council's utility committee, Entergy administrators revealed that they shut off 81 MW of power on Mardi Gras despite being ordered by MISO to turn off just 26 MW. Roughly 26,000 customers in the city faced temporary blackouts during the night. Councilmembers and others also noted that maps released by Entergy suggested the cuts occurred in poorer and Blacker areas of the city.

"We left people in the cold then that didn't need to be left in the cold," said Helena Moreno, the chair of the council's utility committee.

More: *The New Orleans Advocate*

MAINE

New Anti-CMP Corridor Referendum May Be on November Ballot

Proponents of a referendum requiring the Legislature to approve the construction of "high-impact" transmission projects over a certain size and passing through the upper Kennebec Valley region, such as Central Maine Power's $1 billion New England Clean Energy Connect, gathered more than 80,000 valid signatures. The initiative now goes to the Legislature, which could pass it as written or send the issue to the voters.

Clean Energy Matters, the campaign arm of CMP, said it would be reviewing the signatures.

An earlier referendum attempted to rescind a permit issued by the Public Utilities Commission but was deemed unconstitutional by the state Supreme Judicial Court. This effort differs by trying to retroactively change state law by requiring lawmakers to approve any transmission project on public land with a two-thirds vote in both chambers.

More: *Bangor Daily News*

MICHIGAN

Judge: PSC Doesn't Have to Consider Climate Change in Line Permitting

Administrative Law Judge Dennis Mack last week ruled that while the Public Service Commission must consider environmental impacts of Enbridge's proposed Line 5 tunnel project, those impacts will not include the context of climate change and the need for Line 5 oil overall.

With the ruling, Gov. Gretchen Whitmer's recent order for Enbridge to shut down Line 5 by May will not require a shift in scope to include climate change-related factors in the pending case before the PSC.

Mack had previously ruled for Enbridge in October by strictly limiting the scope of the PSC's case to the project itself and without consideration of variables like environmental impacts.

More: *Michigan Advance*

MINNESOTA

Heating Bills Could Be Higher Because of Southern Storm

Minnesotans will pay up to $400 more for their February heating bills due to a spike in gas prices after the historic cold wave in the South, the state's largest gas utilities said last week during a special meeting called by the Public Utilities Commission.

CenterPoint said in a PUC filing that beginning on Feb. 12, U.S. natural gas spot prices were as much as 100 times above the typical purchase price. The Commerce Department also presented data showing that on Feb. 15, there was about a 60-fold run-up in spot gas prices at the Ventura hub in Iowa, the primary delivery and pricing point of gas entering Minnesota.

The larger gas charge incurred in February won't show up on bills until September. The cost would normally be spread over 12 months, however regulators might spread it out over a longer period of time.

More: *Star Tribune*

MISSISSIPPI

PSC to Review Utility Infrastructure

The Public Service Commission last week unanimously voted to launch a comprehensive review of the state's public utility infrastructure in light of the events of the recent winter storm.

The PSC said the goal is to ensure that all reasonable steps are taken to protect the reliability of electric, gas, water and sewer service at all times, and added the storm presented new challenges to utilities that must be addressed immediately.

The PSC conceded that all electric utilities performed well during the weather and that the natural gas utilities avoided supply disruptions. However, the commission said it does not negate the responsibility of regulators to ensure that utilities are doing all they can ensure its systems are resilient.

More: *WTOK*

MISSOURI

House OKs Ban on Eminent Domain for Wind Power Line

The GOP-led House last week voted 123-33 to pass a bill that would ban the use of eminent domain for the Grain Belt Express wind-energy power line.

The bill aims to stop the project's developers, Invenergy Transmission, from pursuing condemnation if landowners won't sell easements and allow a piece of their land to be used for the power line.

The measure heads to the Senate for consideration.

More: *The Associated Press*

PSC Opens Case to Investigate February Cold Weather Event

The Public Service Commission last week said it has opened a case to investigate the February cold weather event and its impact on investor-owned utilities.

A report will summarize analysis performed by the RTOs, market monitors, FERC, NERC and any other relevant body and is to be filed no later than April 22, 2021.

More: *Missouri PSC*

NEW MEXICO

AG Eyes Utility Costs During Freeze

Attorney General Hector Balderas last week opened an inquiry into utility costs during the recent winter blast that upended the natural gas market. Balderas said the weather emergency caused tremendous damage and he wants to ensure customers won't be further harmed by skyrocketing bills.

Balderas' office had set a Feb. 26 deadline for utilities to provide customer impact analysis and options for addressing the potential price shock. The utilities also are being asked to explain to their customers the circumstances and the steps being taken to mitigate the situation.

Utility executives testified Thursday before a panel of lawmakers that they were able to cushion some of the blow by shifting from natural gas to other fuel sources. Still, they acknowledged that higher prices would trickle down to customers through increases in their bills. The utilities will have to seek regulatory approval to recover the costs.

More: *The Associated Press*

OHIO

Power Siting Board Approves Solar Projects

The Power Siting Board last week approved Yellowbud Solar's application to construct a 274-MW solar-powered generating facility.

The Yellowbud Solar Project will occupy approximately 1,383 acres within a 2,040-acre project area and will consist of large arrays of ground-mounted photovoltaic panels on a tracking system that will rotate with the sun.

More: *Farm and Dairy*

SOUTH CAROLINA

Dominion Plans to Retire Coal Plants by 2030

Dominion Energy last week said it plans to retire two coal-fired power plants and convert a third to natural gas by 2030.

The company's initial proposal could have kept at least one coal furnace running until 2071, however that plan was turned down in December by the Public Service Commission. Now, its preferred plan would close the Williams and Wateree Stations by 2028 and convert the Cope Station to gas by 2030.

Dominion spokesman Paul Fischer said the utility still plans to study how it will retire its coal units.

More: *The Post and Courier*

UTAH

House Defeats Bill to Hike EV Registration Fees

The state House of Representatives last week voted 44-27 to turn down a bill that would have increased six-month and yearly registration fees for owners of electric vehicles, plug-in hybrids and other alternative fueled vehicles.

Proponents of the bill said the only two options to fixing the transportation funding problem as more EVs take to the road were to increase registration fees or charge a road usage fee. Opponents worried about discouraging residents from purchasing EVs and hampering efforts to improve air quality.

More: *Deseret News*

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