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RTO Insider

YOUR EYES AND EARS ON THE ORGANIZED ELECTRIC MARKETS

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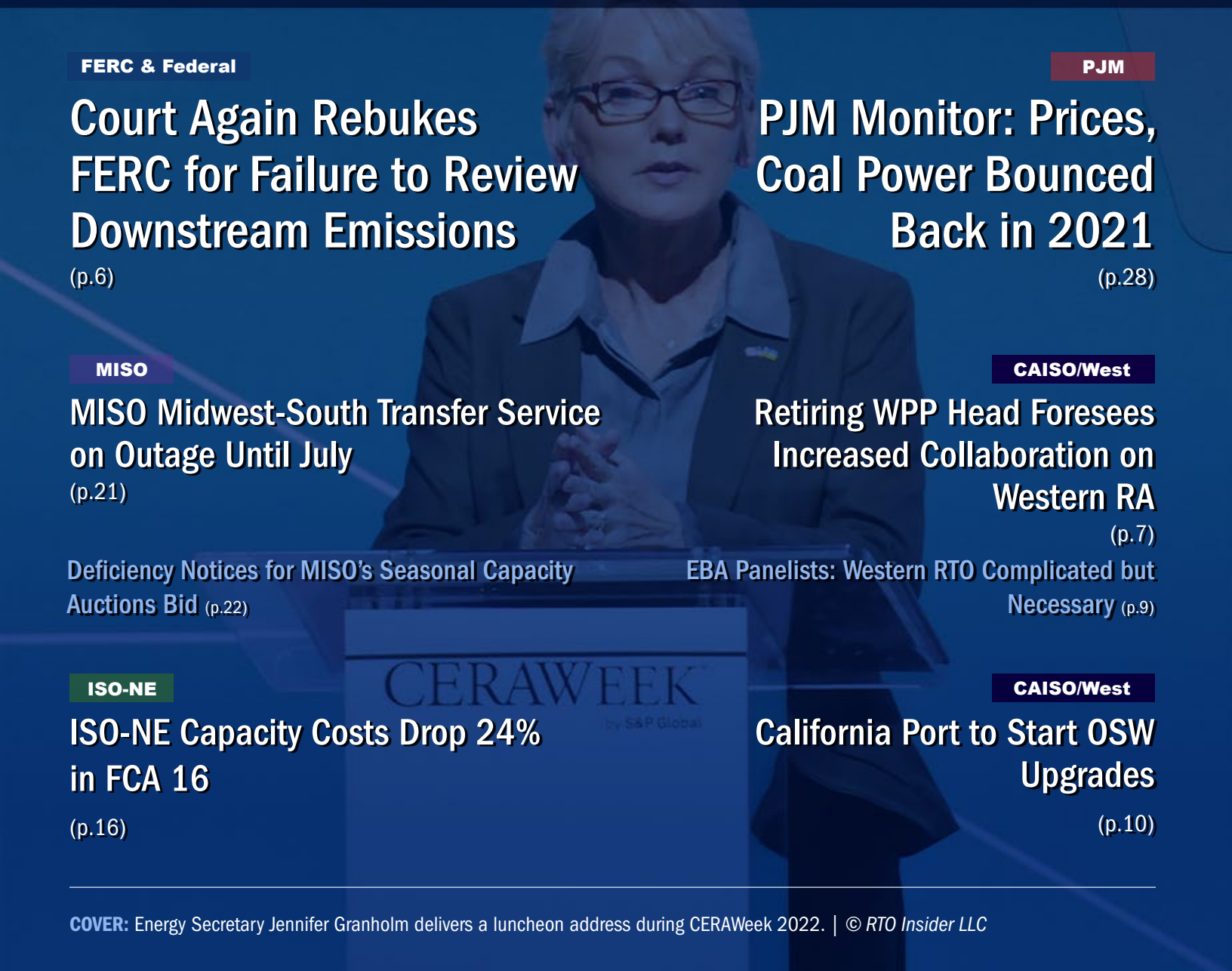

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RTO Insider LLC
10837 Deborah Drive
Potomac, MD 20854
(301) 658-6885

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FERC/Federal News

Russia Top of Mind at CERAWeek 2022

Manchin Criticizes BBB, Stresses Energy Independence vs. Putin

By Tom Kleckner

HOUSTON — Taking his turn in the CERAWeek by S&P Global's briefing room Friday, U.S. Sen. Joe Manchin (D-W.Va.) wasted no time as a reporter began to ask a question about possible negotiations to reconfigure the Build Back Better Act.

Cutting the journalist off, Manchin said, "There is no Build Back Better."

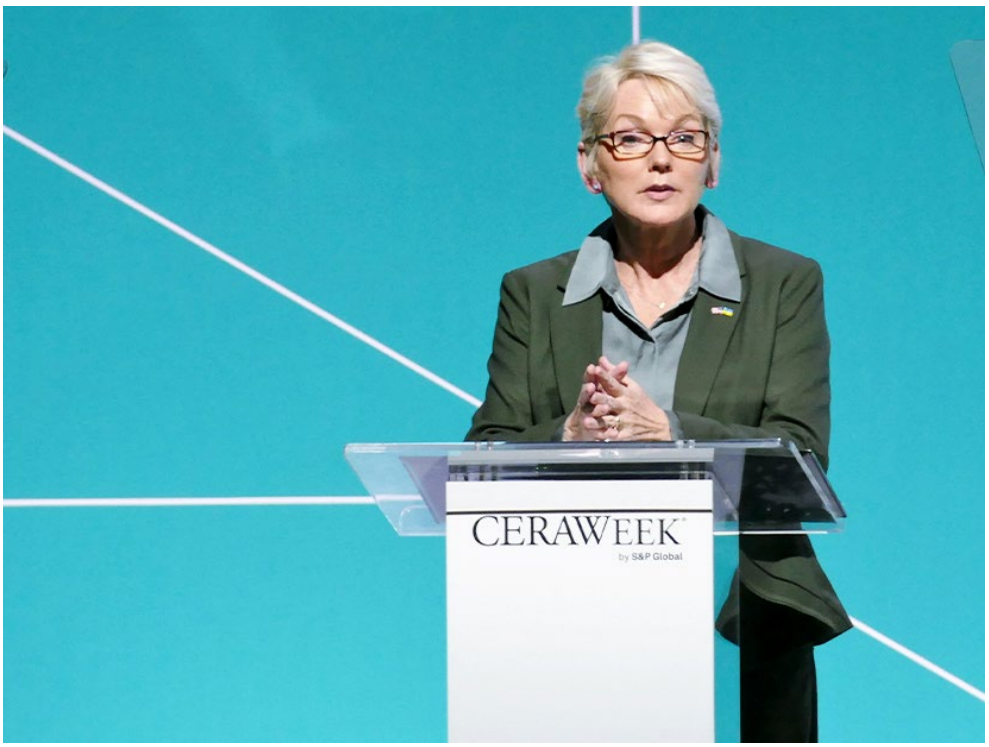
An awkward silence fell over the room. Manchin, whose announced opposition to the $2.2 trillion reconciliation package in December effectively killed the legislation, took notice.

"Look, I don't mean to be sarcastic. That bill was as a major, mammoth piece of legislation, OK? I had concerns from Day 1 that we shouldn't be doing that much policy," he said.

Manchin said the Democrats' use of reconciliation to pass the bill was wrong, saying the process was not designed for policy but to "get our financial house in order."

"Here we are changing the whole social restructuring of our society, and that was the biggest thing that I had with it," he said, acknowledging there are "many good things" in BBB. "Our debt grows every day, every day. You've got to change that trajectory. Get a tax code that's competitive and fair and allows us to compete and grow and be prosperous, but pay the bills and then use the revenue from that to pay down debt and get your finances in order."

Manchin was joined by Sen. Lisa Murkowski (R-Alaska), his former partner on the Senate Energy and Natural Resources Committee, and 900 other speakers during CERAWeek. The global energy gathering, often called the "Davos of energy," attracted a record 5,800 delegates, bettering the attendance for the most previous in-person CERAWeek in 2019.



Energy Secretary Jennifer Granholm delivers a luncheon address during CERAWeek 2022. | © RTO Insider LLC

Most speakers addressed Russian's invasion of Ukraine and the alarming upheaval in energy, commodity and financial markets it has created. They discussed energy independence, supply chain disruptions, new business strategies and an accelerated "pace of change" brought on by the economic and geopolitical turmoil.

"My hope is that with [the] situation in Ukraine ... all the eyes in the world [are] truly focused on energy in a concerted and directed way that we have not seen before," Murkowski said. "Now everybody's talking about it. I think we have an opportunity, we have an avenue, but it's not something that we can just talk about. We've got to be acting in administration. Let's acknowledge that we have resources that are available to us, and let's focus on what we have here. Why are we going to places where they hate us? It makes no sense. There are no good answers."

"We are on the cusp of things we've never seen in my lifetime. I'm more concerned right now that this thing will take off, and we have no idea what the endgame is going to be," said Manchin, who remembered clearly the Cuban Missile Crisis in 1962. "We've allowed [Russian President Vladimir] Putin to weaponize energy. ... You better have a weapon just as good, if not better. By God, we've got to start using that, and that's energy, energy independence,

Sen. Joe Manchin (D-W.Va.) | © RTO Insider LLC

Sen. Lisa Murkowski (R-Alaska) | © RTO Insider LLC

FERC/Federal News

energy productivity in this country."

"It is very sobering, and it's a reminder to us of the leadership responsibilities that we have and how we, again, step into those roles," Murkowski said. "How we assume that leadership, how we take the tools that we have at our disposal, to not only make us less vulnerable, but to help our friends and allies, which again, takes us back to energy and the role that the United States can play. I think there is a moral obligation here.

"If we can, we should do that in a responsible way that recognizes that climate is still a very, very serious issue for us," she added. "We don't have to put it off the table. Again, what we can do to contribute to the safety and the security and the resiliency of people that we care about who are fighting for their own freedom and democracy?"

Granholm Asks Industry to Work with DOE

During a luncheon address to CERAWeek's attendees, U.S. Energy Secretary Jennifer Granholm placed her remarks in historical context.

"We could not be having this conversation at a more intense, troubling, shocking time in world history ... with enormous consequences for the future of energy," she said. "I'm in a mood to cut to the chase here and tell you what I really think about where we are at as a country and as a part of the energy sector. We are on a war footing — an emergency — and we have to responsibly increase short-term supply where we can right now to stabilize the market and to minimize harm to American families."

Granholm said releases from the world's strategic oil reserves will help, but she also asked energy companies to produce more now,

EPA Administrator Michael Regan | © *RTO Insider LLC*

where they can. But she said that doesn't mean she is setting aside climate change concerns or the clean energy transition, which is already happening.

"You all know that. You're wrestling with it yourselves. You've got businesses to run and employees who are nervous about the change," Granholm said. "We have to do this right, with the right timing, the right technologies, the right partnerships. But we can't do it if we are fighting internal battles. Some people here seem to think this is the time to recycle old talking points."

She pointed out that natural gas and LNG are at record levels, and that oil production will be there by next year. She also reminder her audience that 9,000 onshore drilling permits "are sitting unused."

"We'll walk and chew gum at the same time. So yes, right now, we need oil and gas production to rise to meet current demand," Granholm said. "We are here to work with anyone and everyone who's serious about taking a leap toward the future, by diversifying your energy portfolio to add clean fuels and technologies ... by creating good-paying jobs for your talented workforce in the energy industry of the future, and by reaping the rewards of a clean-energy market that will exceed $23 trillion by the end of the decade."

Granholm said the Department of Energy is ready to partner with the private sector through the $62 billion the agency received last year from the Infrastructure Investment and Jobs Act.

"The truth is, the U.S. government has always partnered with the energy industry in times of need. For over 100 years, the oil and gas industry has powered our nation and gotten us where we are today," she said. "We are eternally grateful for that, and we want you to power this country for the next 100 years with zero-carbon technologies."

Bringing her hands together, Granholm closed by saying, "Aren't we ready to finally work together to confront this moment of crisis and come out stronger on the other side?"

Glick: FERC Investigating 'Market Anomalies'

FERC Chairman Richard Glick said the commission is investigating whether natural gas operators may have manipulated the market during the February 2021 deep freeze.

"We are investigating potential allegations of manipulation that may have happened in jurisdictional electricity markets, and we did find

FERC Chair Richard Glick during a CERAWeek 2022 panel discussion. | © *RTO Insider LLC*

some anomalies," Glick said. "Those are being further investigated."

Glick told reporters investigations like this one take time and that no conclusions have been made.

"One thing that I have tried to make clear under my chairmanship is that if wrongdoing occurs, we're going to go after that, and that's certainly going to be the case in this in this situation too," he said. "It just takes a while to go through the evidence."

FERC isn't looking at market manipulation claims within ERCOT, as it is not within the commission's jurisdiction. It is also limited in its regulation over interstate gas pipelines in Texas once they are operating.

"We have authority over pipelines when they're sited, and we also have authority over the rates that [interstate] pipelines charge throughout the life of the project," Glick said.

Asked his thoughts about ERCOT's market-redesign efforts, he said in that instance, he was glad the commission doesn't have jurisdiction over the Texas grid operator.

"We have enough problems in terms of market redesigns and the ones we actually overseeing. I wish them luck," Glick said.

EPA Offering 'Regulatory Certainty'

EPA Administrator Michael Regan countered several speakers that argued the Biden administration is actively discouraging investments to increase U.S. energy production by pointing out 90% of natural gas extraction is done on private land.

"That continues to move forward," he said, "I think this president is very smartly focused

FERC/Federal News

on a transition that is equitable but also that is cognizant of the current state of play in the world. We all want affordable, reliable, energy and electricity, and I think the smart regulatory approach is to capture where the private sector has been going on for the last decade is the right way to get 80 to 90% of capacity coming online this year."

Regan said he remains confident the U.S. will eliminate emissions from fossil fuels in the power sector by 2035 and promised to present a "suite of rules" to the industry.

"Obviously, as we develop these rules, we actually quantify the performance of these rules. We will do sort of the quantification to look at the reductions we would get from those targeted pollutants. … By presenting all of these rules at the same time to the industry, the industry gets a chance to take a look at this suite of rules all at once and say, 'Is it worth doubling down in investments in this current facility or operation? Or should we look at that cost and say now it's time to pivot and invest in a clean energy future.'

"If some of these facilities decide that it's not worth investing in and you get an expedient retirement … that's the best tool for reducing greenhouse gas emissions. The industry wants us to keep our eyes on all of the balls that are up in the air so that they can have regulatory certainty and they can make the best investment strategies possible."

Ukraine Nukes' Safety 'at Risk'

In a hastily arranged addition to CERAWeek's agenda, Nuclear Energy Institute representatives held a briefing on the state of play in Ukraine following the Russians' capture of Chernobyl and the Zaporizhzhia nuclear power plant, the largest such facility in Europe.

International Atomic Energy Agency Director General Rafael Mariano Grossi has said several of the IAEA's seven "*indispensable pillars of nuclear safety*" are already at risk following the Russian takeover of Zaporizhzhya. Those pillars include allowing the operators to fulfill their safety and security duties and be able to make decisions "free of undue pressure."

"We understand the Ukranians are continuing to operate all these power plants," NEI CEO Maria Korsnick said Wednesday, noting a "military structure" is in place over Zaporizhzhya's staff.

The plant "continues to operate safely," she said. "We have verification that operators are changing shifts, so those are healthy indications that it is operating well during these stressful times."

Zaporizhzhya has six reactors. NEI *said* one unit is operating at 60% power as of March 9; two have undergone controlled shutdowns; two others are being held "in reserve" in low-power mode; and the sixth is down for maintenance.

The last undamaged reactor at the Chernobyl nuclear plant was shut down in 2000, with spent fuel rods placed in cooling water and "sufficiently cooled," said John Kotek, NEI's senior vice president of policy development and public affairs.

Kathryn Higley, a professor at Oregon State University's School of Nuclear Science and Engineering, said Chernobyl's radiation monitors have not shown any releases. Ukranian regulators say diesel generators continue to provide backup power at the plant and to the spent fuel storage facilities at the 1986 accident's site after transmission lines were severed Wednesday; additional fuel supplies were delivered Friday.

Ukraine's nuclear utility, Energoatom, continues the operate the country's other nine reactors at three different sites. ■

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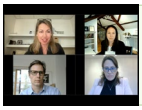

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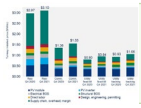

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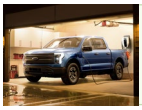

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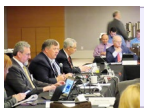

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FERC/Federal News

Court Again Rebukes FERC for Failure to Review Downstream Emissions

By Sam Mintz

The D.C. Circuit Court of Appeals on Friday handed more fuel to FERC's Democratic majority for its new policies on natural gas infrastructure, ruling that the commission has to take another shot at reviewing downstream greenhouse gas emissions from a Massachusetts compressor project.

The court *granted* a petition for review and remand from Food & Water Watch, which had challenged FERC's approval of a project by Tennessee Gas Pipeline to upgrade a compressor station in Agawam, Mass.

"The commission's environmental assessment failed to account for the reasonably foreseeable indirect effects of the project — specifically, the greenhouse gas emissions attributable to burning the gas to be carried in the pipeline," Judge Sri Srinivasan wrote in the court's opinion.

The environmental group had argued that FERC's decision failed to comply with the National Environmental Protection Act in four ways, and the court agreed with one of those arguments: that FERC failed to adequately consider the effects of the emissions associated with the consumption of the gas that the project would carry.

The commission had asked for data from Tennessee Gas, and the pipeline company provided them, but FERC found the information was "too generalized" to estimate downstream emissions at all, an argument which the court rejected.

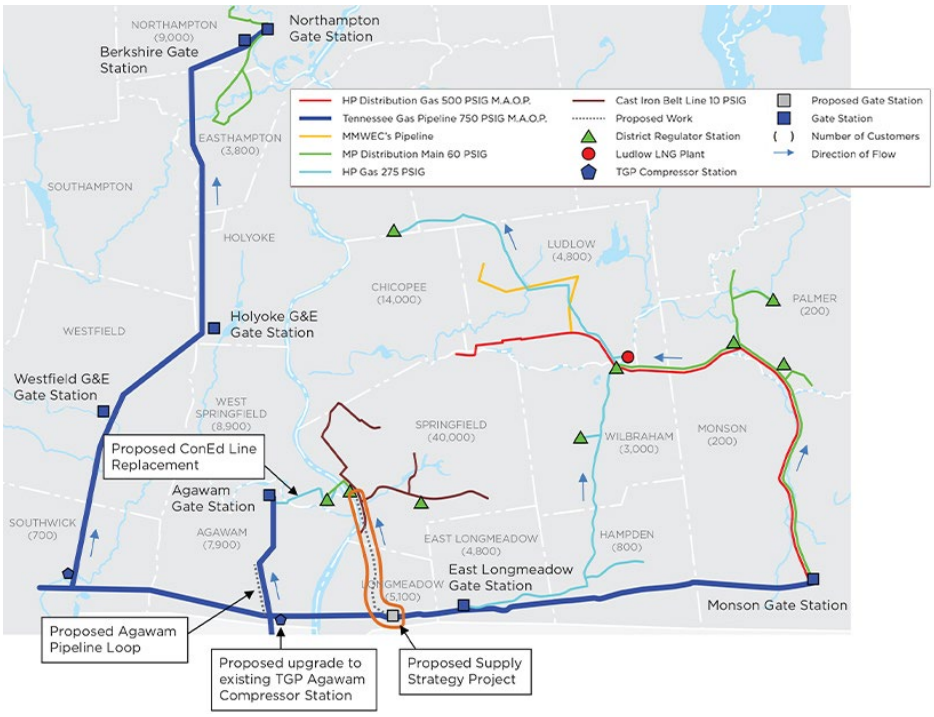
The court relied heavily on its 2017 *decision* in *Sierra Club v. FERC*, better known as "*Sabal Trail*," a similar case in which the Sierra Club challenged FERC's approval of three pipelines in the Southeastern U.S.

"Our decision in *Sabal Trail* points the way to concluding that the available information was sufficiently specific to render downstream emissions reasonably foreseeable," Srinivasan wrote.

The court ordered FERC to "perform a supplemental environmental assessment in which it must either quantify and consider the project's downstream carbon emissions or explain in more detail why it cannot do so."

Well Timed for Glick

The ruling will fit neatly into the argument that FERC Chairman Richard Glick has been making around his decision to revamp the commission's pipeline approval process to more closely consider emissions, which has been challenged by Republicans and even some Democrats in Congress.



An Agawam, Mass., compressor is at the center of the D.C Circuit Court's ruling. | *Columbia Gas*

In a Senate hearing just days before the latest ruling, Glick pointed specifically to the D.C. Circuit's past opinions to defend his move to update FERC's policy statement governing natural gas infrastructure certificates. (See *Glick: No Regrets over Gas Policy Statements*.)

"The D.C. Circuit has spoken on several occasions, and unless the court's interpretation is reversed, we have no choice but to follow with unambiguous guidance," Glick said.

The changes "will lead to project orders that are more legally durable," he added.

Things Left Unsaid

The ruling notably did not take a position on the "significance" of downstream emissions, but only whether FERC has a duty to tally them.

"We see nothing that provides any view on whether FERC has the authority to require mitigation of those emissions as a general matter," ClearView Energy Partners wrote in its analysis of the ruling. "Since FERC did not make a call on significance in this case, and the petitioner failed to properly raise it, this case provides no incremental insight into this issue."

The court also didn't shed any light on the assessment of upstream emissions or the use of the social cost of carbon, so those will have to be adjudicated in future cases. "Those fights still lie ahead," ClearView wrote.

Reactions

"Today's decision adds to a growing list of cases affirming that FERC is required to consider these climate impacts," said Sarah Ladin, an attorney at the Institute for Policy Integrity at the New York University School of Law.

"More broadly, today's decision affirms that the commission's new policy statement is an appropriate action to ensure it properly considers greenhouse gas emissions in assessing pipeline applications," Ladin wrote in a statement.

Gillian Giannetti, a senior attorney at the Natural Resources Defense Council, wrote that FERC's work on the Agawam project was the "kind of shoddy review that FERC aims to correct in updating its policy statements."

"It doesn't benefit anyone for FERC to lose over and over and over on this issue," she *tweeted*. ■

CAISO/West News

Retiring WPP Head Foresees Increased Collaboration on Western RA

Afranji Debriefs WECC Board on WRAP Before Stepping Down

By Robert Mullin

Outgoing Western Power Pool (WPP) President Frank Afranji envisions a deepening relationship between his organization and WECC as the WPP rolls out its Western Resource Adequacy Program (WRAP) over the next two years.

On the cusp of retiring from the WPP after leading the organization for four years, Afranji shared his views on the WRAP at a WECC Board of Directors meeting last Wednesday.

"This is probably the last presentation I make before I retire at the end of this month … and I'm sure many people out there are looking forward to seeing me gone," he joked.

The WRAP came about because of a confluence of factors in the Western Interconnection, Afranji told the board. Two of those factors — the decommissioning of coal-fired generators and increased adoption of variable energy resources — largely stemmed from state clean energy policies. The third — reduced surplus hydroelectric capacity in the Northwest — was the product of that region's load growth.

"As time passed on and loads increased, it became very evident that we're going be heading into capacity adequacy problems," Afranji said.

In April 2020, the WPP (then called the Northwest Power Pool) announced its intention to develop a resource adequacy program to help address looming capacity shortfalls in the West. (See *Western Resource Adequacy Program in the Works*.)

Two months after the WPP announced the RA effort, WECC laid out plans to redefine its own organizational mission by becoming the primary forum for discussing and tackling resource adequacy challenges in the West. (See *WECC Seeks to 'Invent' Future with RA Forum*.)

The overlapping pursuits could have spelled competition over which entity would become the authority on RA issues in the West.

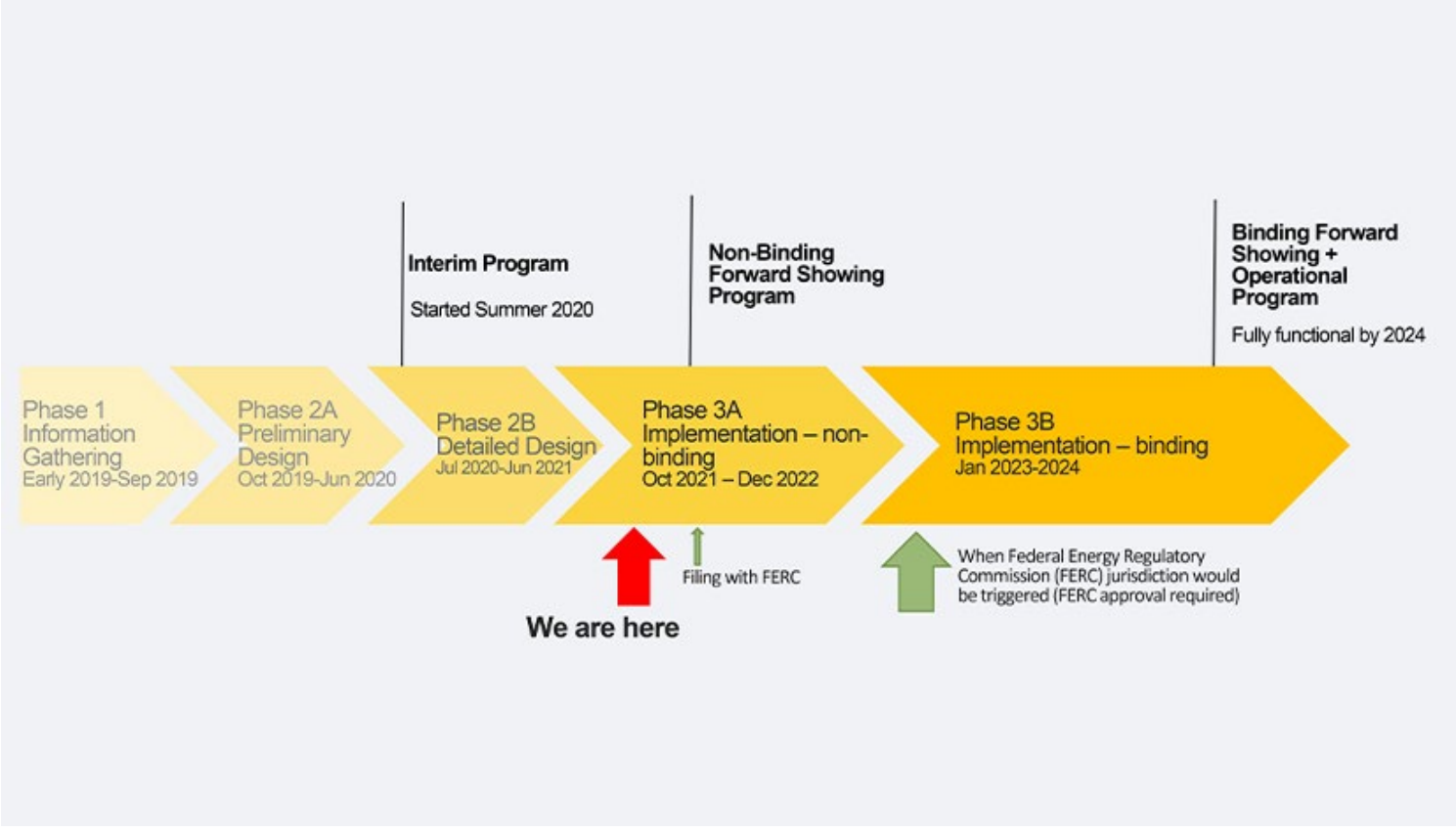
Afranji anticipates a more collaborative outcome.

"In my mind, as WECC works on their own capacity assessment of the West, there is such a point of interaction on this that we have to work hand-in-glove on this, no different than we're working with the [California] ISO," Afranji said.

Afranji lauded WECC for being at the forefront of the Western capacity issue through its work on the Western Assessment of Resource Adequacy (a regional companion to NERC's RA assessments), which he thinks the regional entity should continue to produce. (See *WECC Warns West Heading for Resource Adequacy Shortfalls by 2025*.)

"If anything, as we get the [WRAP] up and running, I think we should intensify the work, and my instructions to the staff have been always, 'As soon as we get something that we could really say is working, we need to work closely with the WECC,'" he said.

Afranji also noted that WPP COO Greg



WPP is on track in the timeline for its Western Resource Adequacy Program. | *WPP*

CAISO/West News

Carrington has been asked to join WECC's Joint Guidance Committee. "So there are many points of interconnection."

On Track

Addressing the progress of the WRAP, Afranji said the "train is on the track, and it's moving."

"I have to say we ended up with an amazing group of folks working on this probe project from across the West."

Afranji explained that the WRAP will be divided into two pieces. The first is the forward showing program, designed to demonstrate the resource adequacy and availability from participants seven months in advance of a program season.

The second piece, Afranji said, is the operational program, which will determine the WRAP's capacity requirements.

"What are we going to need, going forward, to create these efficiencies and to have a much better planning reserve margins?" he said.

The operational component will also help WPP to determine the capacity contributions of various resources, including hydro, run-of-river hydro, pumped storage, wind and solar.

Once that part of the program is in place, participants will submit their resource portfolios to the WPP to assess deficiencies, which will need to be "cured" ahead of the operational season.

WPP teams are currently working to calculate the WRAP's specific "qualifying capacity contributions."

"Historically, people would just throw out a number for their own wind or their own solar or their own run-of-the-river," Afranji said. "Our teams zeroed in on different zones, different areas, different technologies, to figure out what truly is the qualifying capacity contribution of a certain element in a certain area, so that when we do the assessment, it's not really just a socialized number that may not really contribute much to reliability."

Fixing a Misnomer

Richard Campbell, vice chair of the WECC board, pointed out that when the WRAP begins its binding forward showing program in 2023, major electricity consuming and producing regions will still sit outside its footprint, resulting in "suboptimization" of the RA process.

"How do you plan to sort of deal with these other large areas and entities that are outside of your purview?" Campbell asked.

Afranji said the WPP has already been meeting with CAISO regarding seams issues to ensure that their respective operations "are not going to clash or not really be in sync."

"And certainly we're working with SPP, because we hired SPP to be the [program operator], meaning we're using their infrastructure to go ahead and implement the program on a contractual basis," he said.

Afranji also explained the reason behind the Portland, Ore.-based WPP's recent name change.

"Since 1942 we've been known as the Northwest Power Pool, but it started becoming very clear that this is a misnomer, because our footprint extends way beyond that … and with that the various executives of the participants urged us to really look at a name that is more descriptive of our footprint."

The WPP currently has 44 members, 26 of which will initially participate in the WRAP. ■

CAISO/West News

EBA Panelists: Western RTO Complicated but Necessary

By Rebecca Santana

The Rocky Mountain chapter of the Energy Bar Association this month hosted a panel to discuss the intricacies of creating an organized market in the West.

Each panelist at the March 3 "Winter Energizer" gave a short presentation on their organization and its part in the energy transition. And each made it clear that an organized market would be crucial to reaching the region's decarbonization targets.

"The aim of this conversation is to decarbonize … the power system as quickly as possible, as reliably and as cost effectively as we can," Erin Overturf, director of clean energy programs for Western Resource Advocates, said. "We see regional markets as … a key tool to be able to achieve those aims."

But the panelists acknowledged that the political diversity of the West means designing this market will not be a simple undertaking. Being flexible enough to accommodate states and their varied interests is key to creating a system that benefits states, utilities and ratepayers alike.

"Letting states speak for themselves about what it is that they need to be able to get out of a regional market in order for it to work, I think is absolutely critical," Overturf said.

But designing a market that is mutually beneficial for all participants would only be the first step to widely decarbonizing the West. To curb greenhouse gas emissions more rapidly, interregional transmission will need to be constructed throughout the entire footprint. And as seen with MISO and SPP, an organized market does not inherently lead to the construction of interregional transmission, said Carrie Simpson, director of western markets for Xcel Energy Colorado.

"I don't know that an RTO automatically just opens the door for transmission because I think it's all about what the rules are and what the policies are and what the cost allocation rules are," Simpson said.

Though membership in an RTO may improve a utility's situational awareness and allow it to better assess what kind of interregional transmission projects may be most beneficial, it does not necessarily ease the process of constructing these projects.

The main drawback states and utilities face when considering an organized market is the fear of a lack of autonomy. Rachel Bryant, a principal consultant with PA Consulting, said states have seen how some markets in the East have been rigid and were designed without diverse state policies and adaptability in mind.

"Breaking through that sort of stigma that you're going to lose all your rights and be forced to do things you don't want to do — I think is a huge part," she said. "I feel like markets almost need a marketing manager to make this seem appealing to the people who are most resistant." ■

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EPA Restores California Tailpipe Standards — NetZero Insider


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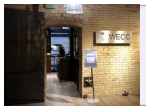
WECC Sets May 1 Target for Resumption of In-person Meetings — ERO Insider

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CAISO/West News

California Port to Start OSW Upgrades

By Hudson Sangree

A Northern California port intended as a major staging area for offshore wind development received a $10.5 million grant Wednesday from the California Energy Commission (CEC) to begin work on upgrading its facilities.

The Port of Humboldt Bay is slated to serve the 1.6 GW Humboldt Wind Energy Area. The Bureau of Ocean Energy Management designated Humboldt as one of two California coastal regions for offshore wind development; the other is in Central California near Morro Bay. Leases for both areas are expected to be auctioned this fall.

The funds will help the Humboldt Bay Harbor, Recreation and Conservation District revitalize the historic timber port on the state's Redwood Coast, beginning with preliminary engineering and design work. The money will also be used to attract matching grants from the federal government.

Eventually, a new marine terminal will be able to handle heavy cargo vessels and floating platforms, the CEC said.

New CEC Commissioner Kourtney Vaccaro lauded the state's "opportunity to partner with the [harbor district] in their pursuit of revitalizing their port to support the necessary infrastructure for deploying ocean-based clean energy resources that will benefit Californians."

Humboldt Bay in Northern California could be home to a major West Coast wind port. | *U.S. Army Corps of Engineers*

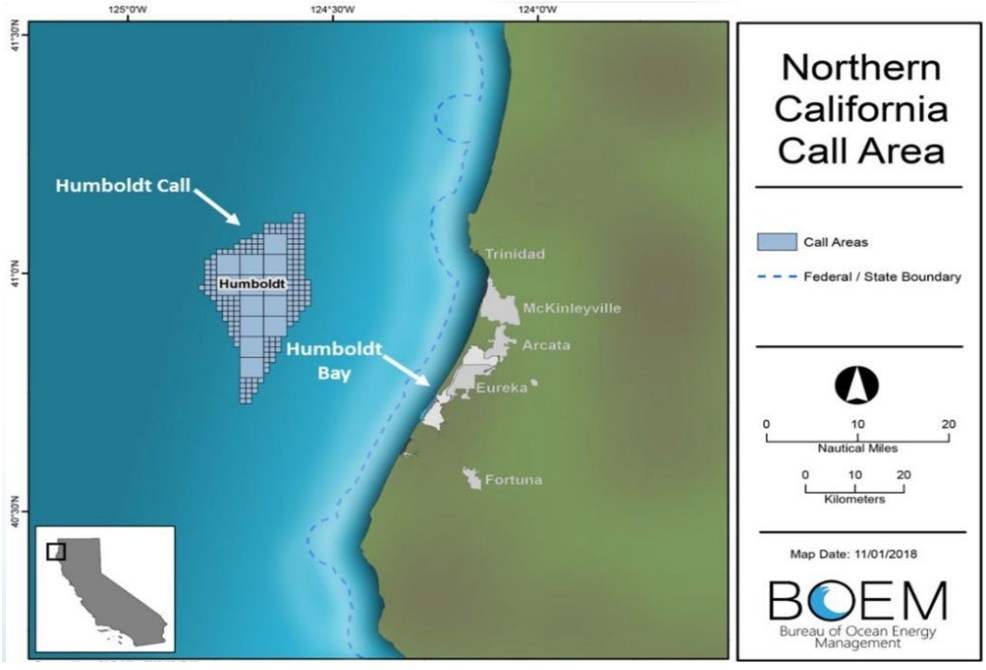
Humboldt Bay lacks the bridges and other impediments to developing wind ports in larger deep-water harbors, such as San Francisco and San Diego bays.

"Humboldt Bay has the optimal conditions to serve as the primary port for the offshore wind industry for the entire West Coast," harbor district board president Greg Dale said in a CEC news release. "We are fully dedicated to prepare our port for this remarkable opportunity."

The funding allocated by the CEC was originally approved as part of the 2021-22 state budget. Gov. Gavin Newsom has proposed allocating $45 million for investments in waterfront facilities to support offshore wind in his 2022-23 budget plan, now working its way through the state legislature.

The CEC recently started work on an offshore wind strategic plan to help the state achieve its 100% clean energy goal while maintaining a stable grid. Wind off California tends to pick up in the evening as solar power wanes, a critical time in the state's struggle to keep the lights on during the clean energy transition.

"Offshore wind is an important part of the state's clean electricity future, providing critical supply at night to complement our abundant solar resources," Vaccaro said in the CEC statement. ■



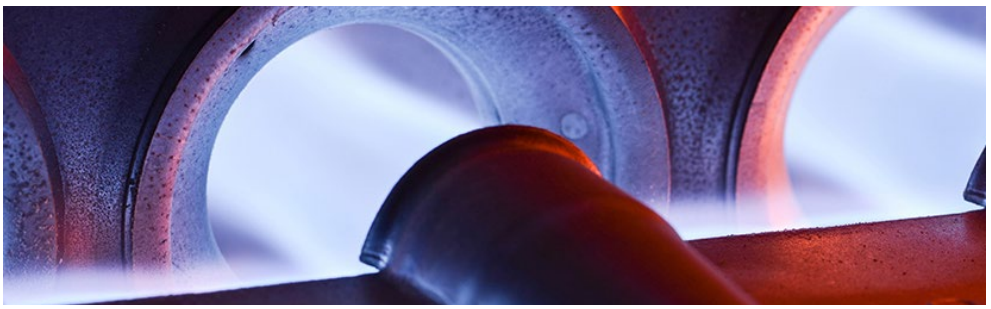
Humboldt call area | *BOEM*

CAISO/West News

California Takes Steps to Decarbonize Gas

Energy Commission Report and New Proceeding Share Common Aim

By Hudson Sangree



The California Energy Commission wants to replace gas furnaces with heat pumps. | *Shutterstock*

The California Energy Commission adopted a key report on gas decarbonization last week and opened a proceeding to explore options to replace gas derived from fossil fuels with options that include green hydrogen and electric heat pumps.

"The importance of this really can't be overstated," Commissioner Andrew McAllister said. "This is a generational shift, and we're laying the foundation" for the transition away from fossil gas over the next quarter century, he said.

The *report* approved March 9 was one of four volumes in the Energy Commission's 2021 Integrated Energy Policy Report, a biennial roadmap of state energy policy. It examined major issues, including the potential impact of the replacement of gas space- and water-heating with electric heat pumps, the affordability of natural gas as demand declines, and maintenance of aging gas infrastructure.

It addressed the potential for generating green hydrogen on-site at solar arrays and using gas produced from organic waste along with plans to retire the Aliso Canyon Natural Gas Storage facility in Southern California, site of a massive methane leak in 2015. An independent consultant is currently assessing options for closing Aliso Canyon between 2027 and 2035 and replacing its role as the region's primary gas storage facility.

"The particular challenge is how to transition away from reliance on Aliso Canyon, recognizing the importance it plays in the reliability, safety and economic hedging for the greater Los Angeles area and Southern California more broadly," the IEPR report said.

Another topic was the grid's dependence on natural gas to meet demand as the state tries to achieve its 100% clean energy goal by 2045.

"The role of gas generation in the electricity system is shifting with the addition of large amounts of renewable generation, primarily solar and wind," it said. "Gas generators not only ensure reliability but are key enablers of increasing amounts of renewable resources, which are the primary source of greenhouse gas emission reductions in the electric sector.

"A stable grid is essential to achieving emission reductions from electrification of residential and commercial buildings and electric vehicles to decarbonize the transportation sector," it said.

The report noted that "defining pathways for gas system decarbonization and addressing key policy issues associated with the gas transition" require a long-term planning process that does not currently exist. As a start to fixing the situation, the CEC unanimously approved a new *proceeding* examining gas decarbonization strategies.

"As California decarbonizes its energy system, the state faces rapidly emerging gas issues," the order instituting an information proceeding (OIIP) said. "These issues include declining long-term gas demand from building electrification, the critical interdependencies between the gas and electricity systems, and the potential role of renewable gas, renewable hydrogen, and other low carbon fuels and technologies.

"One of the overarching themes of the 2021 IEPR is that to address these issues the state needs a comprehensive, inclusive, long-term gas planning process to ensure a safe, reliable and equitable transition away from fossil gas," it said. "This OIIP launches a proceeding to continue the dialogue on gas transition topics and begin carrying out the 2021 IEPR recommendations." ■

ERCOT News

ERCOT Board of Directors Briefs

Governance Changes for TAC, Stakeholder Process Remain Unclear

ERCOT's Board of Directors left the grid operator's top stakeholder committee, the Technical Advisory Committee, in a bit of limbo last week as it continued to debate governance and stakeholder coordination.

The directors on March 8 first deferred confirmation of the TAC's leadership, normally a routine matter, until the board's April 27-28 meeting. That meeting was rescheduled from April 12 and would have conflicted with a TAC meeting. However, the committee moved its April 27 meeting up to April 13 to help push an urgent protocol revision request through the stakeholder process.

The directors then approved the creation of a board-level meeting committee to oversee ERCOT's core functions. As proposed by staff, the Reliability and Markets Committee would focus on markets, planning, reliability and resilience. The scope would also include information technology and project delivery.

Both actions followed an extensive executive session that began March 7 and ended the next day.

TAC Chair Clif Lange, with South Texas Electric Cooperative, said the delayed vote on his confirmation caught him by surprise and wasn't telegraphed by ERCOT staff. He said he only became aware of the board's actions when he started receiving texts from TAC members the morning of March 8.

"We didn't see that coming," Lange told *RTO Insider*. "Nothing had been communicated to us."

He said nothing in the meeting materials indicated to him that the TAC would answer directly to the board and said that further modifications to the committee could be in the offing.

The board, which has met with all 11 members just twice since December, has been vocal in its previous meetings about the time it takes protocol revisions to clear the stakeholder process. The TAC is responsible for vetting and endorsing protocol revisions that come up from the working groups, while market participants' heavy involvement in ERCOT's governance has drawn attention since the February 2021 winter storm.

The TAC, for its part, has discussed the potential changes to the stakeholder process several times in recent months. (See "TAC Members Look for Direction on Governance Structure, Stakeholder Process," *ERCOT Technical Advisory Committee Briefs: Jan. 31, 2022*.)

"I know we on the TAC are a little concerned that not engaging stakeholders and shutting them out will result in suboptimal products for ERCOT," said Lange, who added that he plans to take his concerns to interim CEO Brad Jones.

ERCOT officials say the eight new independent board directors are grappling with their new responsibilities.

Chris Ekoh, interim CEO of the Office of Public Utility Counsel (OPUC) and the only non-independent voting board member, read a memo into the record that expressed his concerns for the stakeholder process and with the new board committee. He asked whether the TAC will be disbanded or made "subservient" to the new board committee.

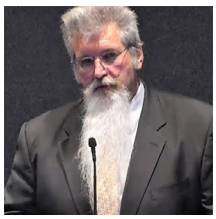
"It is not clear to OPUC how the creation of the new Reliability and Markets Committee will impact or coexist with the current stakeholder process," he said. "How will the proposed Reliability and Markets Committee interact with TAC? How does the committee and TAC work together, if at all? How does it impact the protocol revision process?"

Ekoh also asked whether there were compliance concerns for ERCOT if the revision process is modified.

"Those are questions everybody has about how TAC is going to interact with the board," Lange said.

There was no public discussion of Ekoh's comments among the board members.

Upward Pressure on Admin Fee



CFO Sean Taylor reviews ERCOT's finances with the board. | *ERCOT*

CFO Sean Taylor told the directors that ERCOT's costs are projected to continue to grow at a rate faster than shown in its current 2022-2023 budget, which was approved last year. He said additional demands placed on staff as a result of last year's winter storm include new regulatory requirements, protocol and planning revisions, and increased IT support costs for new or improved services that were not expected.

ERCOT's Board of Directors gathers for its March meeting. | *ERCOT*

"There is upward pressure on the 2023 budgeted system administration fee rate," Taylor said. "That fee will not be as adequate as previously thought."

ERCOT has maintained a system admin fee of 55.5 cents/MWh since 2016. It had projected increasing the fee to 66.5 cents/MWh in the 2024-2025 budget.

Staff reported a preliminary negative net variance of $25.5 million for 2021, with system admin fees coming in $10.9 million under expectations because of less energy sold. The grid operator had projected 413.1 TWh of energy sales in 2021, only to see 393.3 TWh of energy sold.

Expenditures were $14.4 million overbudget, primarily because of outside legal services, hardware and software support and maintenance, higher insurance premiums, and professional consulting.

ERCOT has operated with a biennial budget since 2014, at the Public Utility Commission's request. Its filed budget includes four additional years of forecasted numbers.

Board Approves Firm Fuel Product

The board approved three revision requests that cleared the TAC with dissenting votes, including a nodal protocol revision request (*NPRR1120*) that creates a firm fuel supply service (FFSS) designed to provide additional grid reliability and resilience during extreme cold weather. The NPRR also compensates generators that meet a higher resilience standard in the face of a natural gas curtailment or other fuel supply disruption.

The PUC has directed that the standalone, auction-based product be procured similarly

ERCOT News

to ERCOT's black start program and serve as a stopgap should weatherization not be incorporated into a load-serving entity's obligation.

- *OBDRR039*: removes FFSS-deployed resources' high sustained limits from the ORDC's reserve calculation.
- *PGRR095*: establishes minimum deliverability criteria over the entire real power capability range of each ERCOT resource whose output is primarily within the grid operator's control through dispatch instructions.

The directors also approved eight additional NPRRs, a Nodal Operating Guide revision (NOGRR), three more OBDRRs, single changes to the Planning Guide (PGRR) and the Retail Market Guide (RMGRR), and three system change requests (SCRs).

- *NPRR1095*: contains revisions that the Texas Standard Electronic Transaction (Texas SET) Working Group has determined are necessary to support the Texas SET V5.0 improvement list.
- *NPRR1097*: creates reports posted three days after each operating day that document forced outages, maintenance outages and forced derates of generation and energy storage resources.
- *NPRR1098*: establishes reactive power capability requirements for new DC ties interconnecting to the ERCOT system and existing DC ties replaced after Jan. 1.
- *NPRR1099*: grants ERCOT greater authority to move a resource node in the network operations model when deemed necessary to properly reflect point-of-interconnection (POI) changes or resource retirements.
- *NPRR1102*: allows ERCOT to adjust back-casted non-interval data recorder load profiles.
- *NPRR1111*: expands the use of the security-constrained economic dispatch (SCED) base point below the high dispatch limit flag to signify that ERCOT has instructed an intermittent renewable resource (IRR) or DC-coupled resources not to exceed its base point.
- *NPRR1113*: adjusts the real-time ancillary service imbalance payment/charge's definitions to prohibit double-counting of the regulation-up schedule when calculating capacity in the imbalance settlement for controllable load resources available to SCED.
- *NPRR1114*: establishes processes to assess and collect securitization uplift charges to qualified scheduling entities representing LSEs pursuant to one of the PUC's two debt obligation orders (*52322*).
- *NOGRR234*: revises the guide to be consistent with NPRR1098's reactive power capability requirements for DC ties, specifying DC tie operator responsibilities related to real-time operational voltage control.
- *OBDRR034*: allows ERCOT to move network operations model resource nodes for POI changes or resource retirements.
- *OBDRR037*: caps the power balance penalty curve at $5,001/MWh (the HCAP plus $1/MWh), effectively setting the curve's price at its maximum value when violations are above 100 MW. The measure also reduces the generic transmission constraint shadow-price cap for base case voltage violations from $9,251/MW to $5,251/MW. Gray box language describes how the curve will work with the new HCAP upon real-time co-optimization's implementation.
- *OBDRR038*: updates the ORDC's minimum contingency level to 3,000 MW within the relevant methodology document.
- *PGRR099*: provides that an entity will not be eligible to begin or maintain a generator interconnection or modification (GIM) if it or any other owner of the project meets any of the company ownership (including affiliations) or headquarters criteria listed in the state's Lone Star Infrastructure Protection Act. Any entity that seeks to initiate a GIM will be required to submit an attestation confirming that it does not meet the statutory criteria.
- *RMGRR169*: updates the Texas SET's continuous service agreement (CSA) bypass validations at ERCOT; allows for rejection of move out (MVO) transactions if the CSA owner and MVO competitive retailer (CR) do not match; allows ERCOT to issue a move in transaction for the appropriate CSA CR when an MVO is submitted; and revises the inadvertent gain process to align with SCR817's proposed MarkeTrak enhancements.
- *SCR816*: unlocks congestion revenue right bid credit on the same day auction results are posted.
- *SCR817*: adds validations/requirements to existing MarkeTrak subtypes, revises existing workflows and suggests new subtypes to align with current market practices for more efficient issue resolution.
- *SCR819*: improves dispatch of base points to resources to account for ramping uncurtailed IRRs. ■

— Tom Kleckner

ERCOT News

Texas PUC Pushed on Reliability Charges

ERCOT's Use of RUCs to Procure Standby Reserves Under Question

By Tom Kleckner

The one-year anniversary of ERCOT's near grid collapse during last February's disastrous winter storm was marked by a glut of reports, webinars and opinion pieces recapping what went wrong and detailing the changes made to ensure it doesn't happen again.

Connect the Texas grid to the rest of the country, *said* an energy institute. Because about 61% of Texan households now use electric heat, a group of academics *determined* that ERCOT's grid is more susceptible to cold weather. Another university study *posited* that 100% clean energy and renewable energy would prevent blackouts.

One politician *said* Texas fixed its problems quickly because it isn't connected to the national grid, while another *wrote* that Texas is on the right track. An energy fellow at the University of Houston *blamed* the problems on the energy-only ERCOT market, which places all the risk on the consumer.

The truth is out there. Somewhere.

Yes, the grid has survived three cold snaps and an arctic front, but none of them was as severe as last year's winter storm. The lights and heat stayed on, but not before raising anxiety levels among Texans still suffering from PTSD.

Alison Silverstein | *Texas Tribune*

During one of her many recent webinar appearances, energy consultant Alison Silverstein didn't wait for questions on the grid's performance, asking them of herself. She said the grid is in better shape than last year with "lots more to do" but that ERCOT's performance during these latest cold-weather events are not proof that everything is fixed. (See *ERCOT Breezes Through Latest Winter Storm*.)

"Absolutely no," Silverstein said during a panel discussion last month set up by Advanced Power Alliance. Last month's weather "was not enough of a stress test to really show that the grid is better."

ERCOT's regulator, the Public Utility Commission of Texas, has made several major changes, directed by the numerous power-related bills lawmakers passed last year. Power plants have been ordered to winterize, with ERCOT conducting inspections and the PUC penalizing those that have failed to comply.

The commission has also lowered the price cap from $9,000/MWh to $5,000/MWh; the previous commission set prices at the old cap for four days during last year's storm, resulting in $45 billion in market transactions that week and several bankrupt participants. Ancillary service prices have also been limited after last year, part of several tweaks around the edges in what is called Phase 1 of the market improvements.

At the PUC's prodding, ERCOT has been practicing a "conservative" approach to operations, calling on more reserves more quickly and increasing the number of reliability unit commitments (RUCs). London Economics said in a recent *study* that 96% of the RUCs last year were to maintain additional online reserves and not for resolving local issues.

"That is a good thing in terms of having more resources ready to operate, but we're also paying a bundle to make that happen, and we haven't had any public accounting of that those costs yet," Silverstein said.

Partnering with the Texas Consumer Association, Silverstein *filed a petition* with the PUC asking it to direct ERCOT to calculate the costs spent on grid reliability. The filing says the reliability costs, along with a 36% increase in natural gas prices from April 2020 to February 2022 and new charges for securitizing generator and retail electric providers' losses during the storm, "are being passed through higher electric bills" to the 27 million individuals the grid operator serves.

"The rough information available in the PUCT proceedings to date suggest that costs could exceed several billion dollars for past [Winter Storm] Uri costs (which will not improve future reliability) and at least another billion for recent reliability improvements," Silverstein wrote.

During a one-on-one interview with PUC Chair Peter Lake as part of a weeklong virtual symposium last month, "*The Winter Storm, One Year Later*," *Texas Tribune* CEO Evan Smith said he had been told ERCOT had spent $25 million procuring reserves during one day of the arctic front and as much as $500 million since the middle of last year.

Asked to confirm the numbers, Lake deferred to ERCOT.

"I don't know the numbers off the top of my head, but yes, more reliability costs more … and we know we need more reliable power in Texas," Lake said.

Stoic Energy President Doug Lewin harkened back to ERCOT CEO Brad Jones' September testimony to the state Senate Business and Commerce Committee. Asked about the RUC costs, Jones estimated that they were $40 million/month during the summer.

"That's a lot of money for consumers to shoulder, potentially a 5 to 10% surcharge on top of already higher bills," Lewin said. "These numbers are rough estimates. I'd love to replace them with more accurate figures, but we need transparency from ERCOT and the PUC on these costs."

Lewin *estimated* $1 billion in additional reliability costs, assuming ancillary service costs have gone up two or three times from 2020's $381.5 million bill and $50 million in monthly costs since the summer.

On March 8, Jones told *RTO Insider* that those numbers are way off. He pointed out that the $40 million was the cost during summer months for all ancillary services and said that ancillary costs were $270 million from last summer through early February.

"To put that into context, that's less than $1 a customer per month, on average," Jones said.

He said staff assumed 380 million MWh of energy production in ERCOT, with the average consumer using about 1 MWh/month in deriving the figure, with RUC costs being "shockingly low."

ERCOT's annual RUC report shows there were 3,853.1 effective RUC resource-hours in 2021, up from 220.1 in 2020. Total RUC make-whole payments were about $5.3 million last year and were covered through capacity short charges, staff said, with about $3.1 million in excess profits clawed back from generators. In 2020, those numbers were about $404,000 and $484,000, respectively. (See "RUC Usage Skyrockets," *ERCOT Technical Advisory Committee Briefs: Jan. 31, 2022*.)

"These actions have also moved us significantly toward a capacity market since these are mostly out-of-market capacity payments," Lewin said. "Whatever you think about capacity markets, those decisions should be made with transparency, not by opaque regulatory changes." ■

ERCOT News

ERCOT Seeks Greater Transparency into Gas Market

Jones Pushes for Gas Desk; Lawmakers Suggest Gas Monitor

By Tom Kleckner

ERCOT interim CEO Brad Jones last week continued his push for a Texas gas desk in testimony before state legislators, who are toying with the idea creating a gas market monitor after disruptions in fuel supplies nearly collapsed the grid during last winter's major storm.

Appearing Wednesday before the Senate Business and Commerce Committee, Jones compared ERCOT's lack of transparency into the state's natural gas system with looking through a peephole in the front door.

"We see images, we see shapes, but we don't necessarily see the full picture of what we need to see. We don't have a full view of the reliability situations in the gas market," he said. "This is important today in our market as we try to assess the reliability of natural gas generators to get the fuel they need to produce the generation we need."

Jones told the committee that ISO-NE, NYISO and PJM all have gas desks manned by staff 24/7. He has for several months pitched the grid operator's board and stakeholders on the idea of having staff who "can gather that information and make sure we have the situational awareness we need at ERCOT."

"We don't know when a pipeline is out for maintenance or a compressor station on outage for something that is broken," Jones said.

In October, he said staff "discovered by happenstance" that one generator it was counting on for power during a future low-wind day would not be able to operate because its gas supply transportation system would be undergoing maintenance. After a few calls and with the regulators' help, staff was able to identify the transportation company and have the maintenance outage rescheduled "in a very cooperative way."

"It was very helpful they did that, but the key is we didn't know the information we needed to know," Jones said.

For the moment, Jones believes the grid operator can get the information it needs through "voluntary cooperation," but with the Texas Energy Reliability Council's lead. The agency is made up of leaders from ERCOT, state regulators and industry. It has been meeting once or twice a month lately, helping improve coordination between the electric and gas sectors.

ERCOT CEO Brad Jones makes a point before the Senate committee. | *Texas Senate*

Asked whether Jones needed anything from legislators to make the gas desk a reality, he said not for the time being.

"The TERC has the capability to work through these issues," he said. "Absent a cooperative environment, which I fully believe we have with the gas companies, TERC has the ability to make those recommendations to the legislature for the next legislative session."

Increasing Oversight

The back-and-forth revealed that legislators may be conflating an operations desk like some gird operators have with the market monitors that keep an eye on wholesale electricity markets.

However, the gas industry is commonly seen as the weak link in ERCOT's ability to meet demand with supply. While the grid operator's generation and transmission facilities were required to be winterized and inspected before this winter, gas facilities don't have to meet the same requirements until next winter.

The Railroad Commission (RRC), which regulates Texas' intrastate oil and gas industry, is seen as being too chummy with the industry it regulates and has been accused of slow-walking regulatory changes. The commission's first winterization rules allowed companies to opt out for a $150 fee, but that was changed after political pushback. (See *Texas Senators Call for New RRC Weatherization Rules*.)

A joint report by FERC and NERC pointed to the lack of consistent natural gas supplies to power plants as among the major causes for the widespread outages that followed last year's winter storm. Natural gas supplies again dropped this year during several cold fronts, indicating shut-in production at Texas natural gas facilities, Bloomberg said.

"We need to continue our oversight responsibilities," Committee Chair Charles Schwertner (R) said. "I think what happened last February has in some part the responsibility and blame of the legislature for lack of oversight."

RRC Chair Wayne Christian was evasive in several of his responses to the committee. He told the committee there is "no state, nation, anything" that has daily monitoring and reporting of the gas supply.

Christian, who faces accusations of ethics violations, is in a Republican primary runoff with oil and gas attorney Sarah Stogner, who gained attention with a racy video involving her riding a pumpjack.

"I hesitate to add another layer of government regulation to the free market natural gas system." Christian said.

He may not have a choice. Sen. Donna Campbell (R) said she might file legislation to gain greater transparency into the natural gas market when the 88th Texas legislature goes into session next January.

"I haven't heard of any agency that wants more regulation by the legislature, but I will take that up," Campbell said. ■

ISO-NE News

ISO-NE Capacity Costs Drop 24% in FCA 16

By Sam Mintz

Capacity prices in Southeast New England fell to $2.639/kW-month in Forward Capacity Auction 16, a 34% decrease from last year's auction, ISO-NE *reported* Wednesday. The total cost of the FCA 16 was $1.04 billion, a $320 million (24%) drop from 2021.

ISO-NE said the auction procured 32,810 MW of capacity for the 2025/26 period.

Prices were mostly flat outside of the Southeast zone, coming in at $2.531/kW-month in Northern New England and Maine, and $2.591/kW-month in Rest of Pool.

"New England's clean energy transition is well underway, and the region's wholesale markets are playing a vital role by sustaining a reliable power system, maintaining competitive prices and creating opportunities for the resources that will be the backbone of our clean energy future," said Robert Ethier, ISO-NE's vice president for system planning.

Nearly 5,000 MW of renewables, energy storage and demand resources cleared the auction, making up 15% of the total capacity, ISO-NE said. That includes more than 700 MW of energy storage, 500 MW of solar generation and 275 MW of existing wind generation.

Resources worth 256 MW submitted retirement bids, all of which cleared, and 1,540 MW worth of generation was delisted.

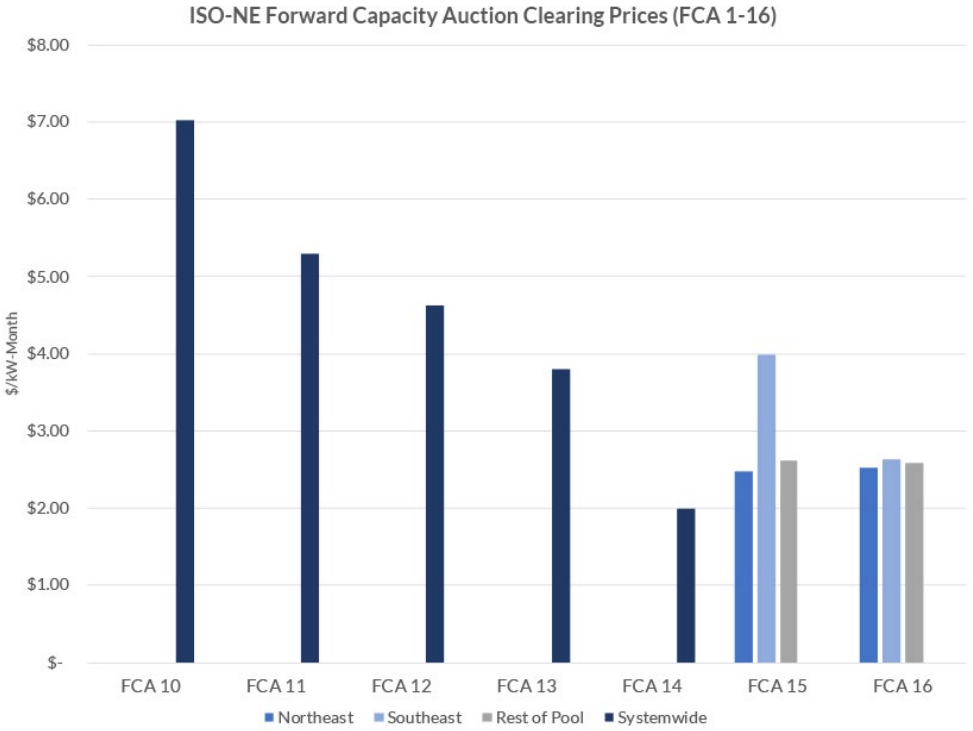
No Delist for Merrimack Power

The owner of New England's last active coal plant, Merrimack Station, submitted a static delist bid, seeking to remove its two units from the capacity auction if prices dropped below a certain point (the dynamic delist bid threshold).

But the bid was rejected by ISO-NE's Internal Market Monitor, which reviews delist requests, and subsequently withdrawn by the operator of the plant.

Resources successfully submitting retirement bids included Potter II, a 96-MW combined cycle plant owned by Braintree Electric Light Department; two units at Schiller Station in New Hampshire, which shuttered in 2020; and two units burning kerosene and gas at the West Springfield Generating Station.

Information about which individual resources cleared the auction will be published when ISO-NE sends its filing to FERC, expected to occur as early as this week.



Prices dropped sharply from FCA 10 through FCA 14, before rising last year. Prices were uniform across the RTO in FCA 10-14 but separated by zone in the last two auctions. | *ISO-NE*

A Disjointed Process

The results were delayed by several weeks because of the uncertainty over the Killingly Energy Center, which won a last-minute stay from the D.C. Circuit Court of Appeals allowing it to temporarily take part in the auction. (See *Killingly Uncertainty Could Delay Capacity Auction Results Another Month*.)

ISO-NE ended up tallying results both with and without Killingly participating, and when the Connecticut natural gas plant under development by NTE Energy ultimately lost its appeal at FERC and forfeited its financial assurance, the grid operator was able to confirm that it would be using the results without the plant.

Killingly's exit from the market had an effect on the auction's outcome, said Dan Dolan, president of the New England Power Generators Association.

"We saw with the removal of Killingly less supply than the prior year's, and when matched with the lower demand this year versus FCA 15, it led to relatively flat pricing overall," Dolan said. "There are continued historically low capacity prices across the board."

NEPGA's members have been frustrated with the uncertainty created by the Killingly delay, Dolan said, but they are relieved that the results have been released and that the grid operator is working quickly to start the process for next year's FCA 17.

"There is a feeling of 'we can make this work.' This is now a manageable timeline and process overall," he said. ■

ISO-NE News

Overheard at ISO-NE Consumer Liaison Group: March 10, 2022

The head of Maine's Public Utilities Commission called for better regional coordination and governance changes at ISO-NE during the Consumer Liaison Group's meeting Thursday.

Phil Bartlett — who was giving the keynote address because it was Maine's turn to host the quarterly meeting, which has turned virtual during the pandemic — emphasized that energy consumers "are going to be footing the bill" for many of the changes occurring in the region's energy transition.

"We need to come together as a region to plan and effectively communicate what we're trying to accomplish," Bartlett said.

He also warned that New England needs to be thoughtful about its transmission planning, especially in light of the failure of the New England Clean Energy Connect, shot down by Maine voters in a decision that is still in court.

"That's something we need to confront head on and think about how to tackle," Bartlett said, warning that it would be hard to build any infrastructure if every new transmission line faces opposition from incumbents.

Bartlett also said he sees an impending clash between state energy contracts and the region's markets.

"There's a real risk that markets won't be sustainable," he said. "If states are putting so much under contract, the markets, which are designed to provide competitive pressures, are going to have a difficult time doing that. We need to have these honest discussions."

And lastly, Bartlett reiterated calls for ISO-NE to improve its transparency and involve states more in its process.

"At this point, any sort of market reform or transmission planning is going to implicate state policies, and it's important that states be at the table," he said. "We also need to make sure that consumer costs are getting better attention and consideration as decisions are going to be made."

Order 2222

A panel of speakers also discussed ISO-NE's approach to complying with FERC Order 2222, which directed RTOs to facilitate distributed energy resource aggregations' participation in their markets.

"Bundled together, we see them as something that could respond to price, to be the balancing resource, to change production or change load on the system in conditions of over- or under-generation," said Henry Yoshimura, the RTO's director of demand resource strategy.

The industry has been critical of the ISO-NE approach, saying that it leaves up many barriers for resources to successfully participate.

The fate of the New England Clean Energy Connect transmission line should serve as a warning about future projects, said Maine PUC Chair Phil Bartlett. | *Roger Merchant*

(See *'Beautiful Symphony' or Bust on Order 2222, Advocates Say*.)

"Our members have told us they don't think ISO-NE's proposal will allow them any more avenues than they already have," Jeff Dennis, managing director of Advanced Energy Economy, told the CLG.

Ian Burnes, program manager at Efficiency Maine Trust, noted that a challenge with tapping into the benefits of demand resources is consumer awareness.

"Most consumers don't care about their energy. They don't care until the bills get high, or their hot water isn't on, or their house gets cold, or their light bulb has burnt out," he said. "So we have a real challenge of delivering on this great promise of aggregating loads to reduce the cost of decarbonizing our economy."

"I look forward to working with everybody at ISO, in the markets and in New England to make sure we can get this right, but it's going to take a real attention to detail and a real commitment to make it work so we can meet customers where they are," Burnes said.

RTO Update

Anne George, ISO-NE's vice president for external affairs and corporate communications, gave an update on what the grid operator has been working on.

She highlighted numerous studies and initiatives the RTO is undergoing to improve its forecasting and adjust to the energy transition. George also gave a summary of the messy process of completing February's Forward Capacity Auction. And she ran through the events of January, which included near-record prices and increased emissions, because of cold weather and higher electricity demand.

"It was a pretty interesting January. But thankfully, some of the issues we saw take place didn't result in any sort of emergency procedures," George said.

Leadership Change

Rebecca Tepper is stepping down as chair of the CLG's Coordinating Committee after seven years and 25 quarterly meetings.

She's handing the duty over to Elizabeth Mahony, an assistant attorney general in Massachusetts. ■

— Sam Mintz

ISO-NE News

GlobalFoundries Concedes to Vt. Energy Standard in Case for Utility Status

By Jennifer Delony

Semiconductor manufacturer GlobalFoundries is moving forward with a petition to become a self-managed utility in Vermont to help bring down electricity costs at its facility in Essex. | *GlobalFoundries*

After a year of debate, semiconductor manufacturer GlobalFoundries has agreed to comply with Vermont's Renewable Energy Standard if regulators grant its request for self-managed utility status.

The company filed a request last March to oversee its own electricity purchases through the ISO-NE market to power its manufacturing operations in Essex, Vt. In its petition (*21-1107-PET*), GlobalFoundries claimed that it should be exempt from RES compliance because it would not be reselling electricity. (See *Negotiations Stall in GlobalFoundries' Bid for Vt. Utility Status*.)

On Feb. 17, the Public Utility Commission issued an order finding that it does not have the statutory authority to grant that exemption.

"GlobalFoundries' exit from [Green Mountain Power's] service territory would either make GlobalFoundries a public service company ... or an entity that is not currently authorized under Vermont law," the order said. "There is no statutorily authorized third option for what GlobalFoundries seeks: to operate with some of the functions of a public service company but without the statutory obligations of a public service company."

The PUC gave the company three weeks to decide how it would proceed with the application.

GlobalFoundries filed a proposed certificate of public good (CPG) Friday that indicates it will, as a self-managed utility, comply with the RES and any forthcoming changes to it. A bill (*S.264*) currently before the state legislature proposes to increase the state's RES from 75% by 2032 to 100% by 2030.

"GlobalFoundries will continue to work with the state to meet the greenhouse gas reduction targets set by the [2020] Global Warming Solutions Act," Shapleigh Smith, an attorney with Dinse, Knapp & McAndrew, said in a letter Friday to the commission. "This includes, among other things, GlobalFoundries' commitment to an entirely carbon-neutral electricity supply for its Essex facility."

If approved, the proposed CPG would obligate GlobalFoundries to:

- make payments to offset the loss of gross revenue taxes it would have paid as a utility customer;
- continue to participate in Vermont's energy efficiency program; and
- pay into the state's Home Weatherization Assistance Fund.

The CPG would also exempt the company from "requirements applicable to traditional public utilities that are intended to protect ratepayers and other members of the public but which are not necessary in the context of a self-managed utility." Those requirements include, for example, rate setting and least-cost integrated planning.

The Conservation Law Foundation, a party to the case, filed a memorandum Thursday seeking clarification of the scope of the PUC's order regarding an RES exemption. GlobalFoundries believes that the order establishes that the commission has the authority to grant the company's request to become a self-managed utility, CLF said in the memo. CLF, however, disagreed with that assessment.

The company's "ongoing effort to establish a 'self-managed utility' appears to flout the commission's order," CLF said.

In its order, the commission said that there is no concept in Vermont statute for a self-managed utility. As such, CLF said, the commission made it clear that by discontinuing service with GMP, GlobalFoundries would either be a regulated public service company or an entity not authorized by Vermont law.

In a separate memo filed Thursday, AllEarth Renewables (AER) agreed with CLF's reading of the order, adding that the commission failed to take the order to its "clear conclusion."

By finding that the PUC can authorize a public service company but not create a utility entity as described by GlobalFoundries, the commission "has effectively and correctly decided the entire case," AER said. Given that finding, AER said, the PUC should dismiss the case.

GlobalFoundries filed a proposed docket schedule that calls for technical hearings in June and a final order from the PUC on the petition by Sept. 1. ■

Northeast news from our other channels

Mass. Startup Pitches Event Waste Management for Cleantech Accelerator — NetZero Insider

VC Firm Sees Key Role for Tech in Clean Food Systems — NetZero Insider

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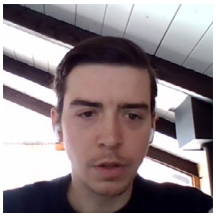
ISO-NE News

NY Bight Winners Talk Supply Chain at NECA Renewables Conference

By Michael Kuser

Offshore wind developers and experts, including representatives of three of the six winning bidders in last month's federal New York Bight auction, see robust supply chain opportunities growing in the Northeast.



Jordan Shoesmith, Copenhagen Offshore Partners | *NECA*

There is $500 million of state funding available in New York for supply chain infrastructure, including ports, manufacturing and other types of investment, with a potential of $2 billion in total investment, said Jordan Shoesmith, head of business development in the U.S. for Copenhagen Offshore Partners.

The Danish company owns the southeasternmost lease area off Massachusetts and won the smallest lease area in the New York Bight auction in February. Six companies offered more than $4 billion for leases representing 5.6 GW of offshore wind capacity in the New York Bight. (See *Fierce Bidding Pushes NY Bight Auction to $4.37 Billion*.)

The public funding is not only "a lot of money, but also a huge opportunity to deliver the kind of real supply chain that's going to last for generations," Shoesmith said during the Northeast Energy and Commerce Association 2022 Renewable Energy Conference Thursday.

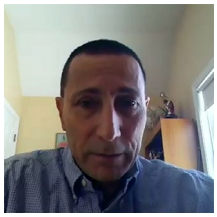
Carrie Cullen Hitt, NOWRDC | *NECA*

Supply chain issues are challenging for everyone in the business, and increasingly, both from a regional and international perspective, leadership from the federal administration and even the states could be quite helpful, said panel moderator Carrie Cullen Hitt, executive director of the National Offshore Wind Research and Development Consortium.

The consortium recently selected six organizations to receive a total of $3.4 million for projects related to supply chain efficiency, asset monitoring and inspection.

"New innovation is happening really quickly in terms of the materials that will be used and where and how they will be produced, so it's really great to see some response from industry now that we actually see real commitments and deployments start to occur," Hitt said.

With the U.S. offshore wind industry scaling quickly, National Grid Ventures' Nabil Hitti says "it's crucial to get the supply chain moving in the right direction urgently." | *BOEM*



Nabil Hitti, National Grid Ventures | *NECA*

With the "obvious" scaling of OSW in the U.S., "it's crucial to get the supply chain … moving in the right direction urgently," said Nabil Hitti, head of U.S. offshore wind at National Grid Ventures, which launched a joint venture, Community Offshore Wind, with RWE Renewables on Wednesday.

The partnership secured the largest lease area in the recent auction, nearly 126,000 acres, where it plans to develop up to 3 GW of capacity.

State solicitations are tending to put more weight on environmental benefits and economic investments that a project will bring, including the developer's willingness to invest in supply chain development and jobs programs, said Christen Wittman, project director at Attentive Energy, provisional winner of the second-largest lease in the recent auction and a subsidiary of TotalEnergies.

Christen Wittman, Attentive Energy | *NECA*

"You'll see developers submitting into New York, New Jersey and other states really full packages of what the project will look like and what commitments we would intend to make for the full structure and supply chain … but also incorporating elements of demonstrating project viability [and] risk mitigation," Wittman said.

New Jersey is pushing its next solicitation back to early next year while the state considers an independent, coordinated transmission buildout, and New York released a draft OSW renewable energy certificates solicitation on Friday for comment. The state has not set a date for the official release of the solicitation.

New York's strategy "is about being savvy with the investments in order to accelerate deployment," said Adrienne Downey, principal engineer and U.S.-Canada manager at Sweden-based floating project developer Hexicon. Downey served previously as principal

ISO-NE News

engineer for OSW at the New York State Energy Research and Development Authority (NYSERDA), which manages the state's solicitations.

Adrienne Downey, Hexicon | *NECA*

"We know that we achieve cost benefits if we work on deployment ... but also that the Public Service Commission has taken a very enlightened and nuanced view that now we can create and cultivate a self-fulfilling prophecy of a declining cost curve by investing strategically in the supply chain," Downey said.

Transmission Choices

States and RTOs are taking a more proactive approach to transmission, and in addition to the PJM-New Jersey state agreement approaches, there is also NYSERDA's approach with the mesh-ready system design, which is also trying to solve these issues with innovative policy choices, Shoesmith said. "I think more and more we'll see policymakers heading that direction."

There's legislation in Massachusetts (*H.4515*) to include a requirement for a transmission-only solicitation to occur this year, he said.

"We'll see if it actually gets passed in time for that to happen, but I think it is something we have to think about very proactively," Shoesmith said.

ISO-NE has been working in partnership with the transmission owners and distribution companies to identify how interconnection studies and cluster studies are done, said Al McBride, director of transmission services and resource qualification at ISO-NE, speaking on a panel about state goals and grid policy.

Al McBride, ISO-NE | *NECA*

"That's in the near term, and in the longer term we're also undertaking a 2050 study looking at what the transmission system might need to look like after all of these resources have entered and the system is changed to more transportation and heating being provided by electricity," McBride said.

The grid operator is working to update how resources are accredited for the full capacity market to capture the balance between intermittent and baseload generation, according to McBride.

Others just want to get going with their projects.

"Put turbines in the water and let people see what the actual implications are and the actual benefits, and I think it becomes a lot less intimidating," Wittman said. "To kick off site investigations by the end of the year is key for us." ■

Northeast news from our other channels

Vt. Climate Council Extends Deadline to Find TCI-P Alternative — NetZero Insider

New Yorkers Support 10-GW Solar Target — with Reservations — NetZero Insider

Mass. Net-zero Building Code Proposal Faces Barrage of Criticism — NetZero Insider

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MISO News

MISO Midwest-South Transfer Service on Outage Until July

By Amanda Durish Cook

MISO said last week that the transmission line linking its Midwest and South regions has been out of commission since December and is expected to remain offline until July, raising the cost of energy transfers.

The RTO said it will replace the contract path capability between its regions with non-firm service on April 10 until the line returns to service. It said members should prepare for "financial and operational implications."

The 1,000-MW contract path, a 500-kV Associated Electric Cooperative Inc. line, went offline Dec. 10. The line, which stretches from southern Missouri into northern Arkansas, is MISO's only physical tie between its Midwest and South regions. MISO said it expects the line to remain on an extended outage through June 30, leaving it dependent on non-firm transfers from neighboring grids.

During a Thursday Market Subcommittee meeting, senior adviser Jack Dannis said a Dec. 10-11 tornado outbreak that *bombarded* the central and southern U.S. took out 17 towers and four miles of the line. He did not specify which state the line damage occurred in.

The tie was originally expected to be back in service by the end of February. Dannis said he couldn't speculate on whether the work requiring the outage would be extended beyond June.

Clean Grid Alliance's Natalie McIntire said she was surprised that MISO waited so long to report the status of the contract path.

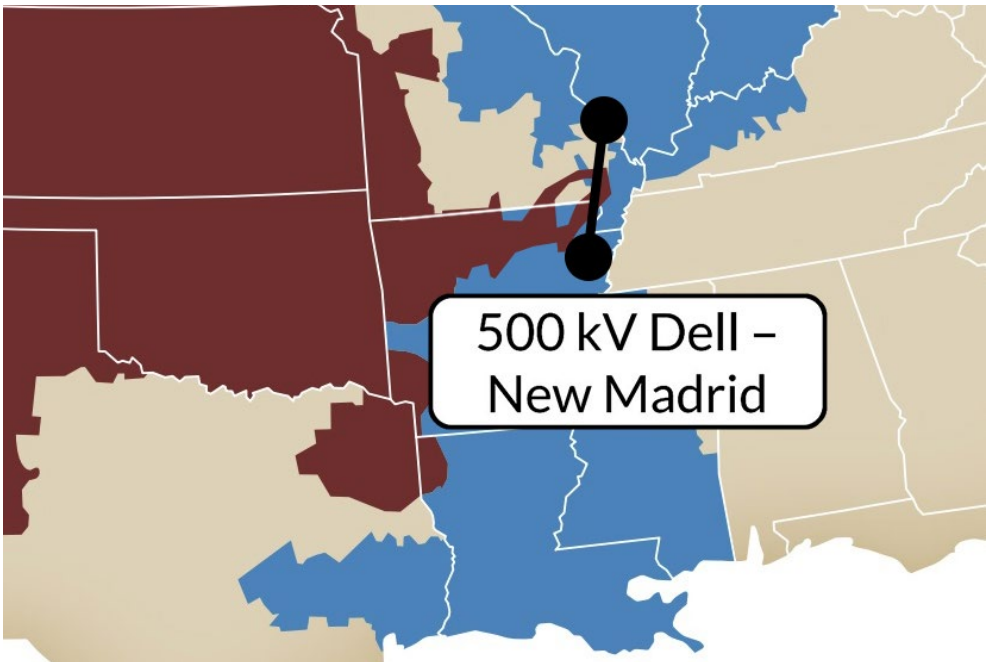
"This happened in December, and the first I heard about it … was yesterday," she said. "I'm wondering why MISO hasn't alerted stakeholders to this beforehand."

McIntire pointed out that the grid operator's leadership has delivered two executive updates to stakeholders since the line went down. Neither mentioned the line's outage.

As a rule, MISO doesn't reveal specific generation or transmission outages on its system.

Andy Kowalczyk, with activist group 350 New Orleans, said he was also concerned that staff didn't communicate the significant outage, especially considering that a winter storm passed through the area a few weeks later.

Dannis said MISO only recently became aware of the outage's extension into summer. He said



Associated Electric Cooperative Inc.'s 500-kV Dell-New Madrid line, which supplies MISO's 1,000-MW contract path | *MISO*

the RTO will replace the firm capacity with "non-firm, as available" transmission capacity after it exhausts its four-month grace period, according to a usage agreement of the line with SPP, AECI and other joint parties. The agreement provides that the grid operator can pay an additional $667/MW-month "for every decreased megawatt of contract path capacity."

Assuming the line is back in service by July, MISO would need to pay about $1.3 million to secure 1,000 MW of non-firm transfer capability. It will divide the cost among market participants using its current market-based allocation design that assigns costs based on excess congestion across its regional directional transfer constraint.

Kevin Vannoy, director of market design, said though MISO's usual 1,000-MW contract path becomes non-firm because the physical line is out of service, it can still flow up to its usual 2,500-3,000 MW non-firm transfers under its agreement with SPP and the joint parties.

"We think there's enough physical transfer capability on the system to continue operating as we normally have," he told stakeholders.

However, Vannoy said it's possible that conditions might force MISO to order transmission loading relief to reduce transfers. The RTO's use of non-firm transfers can be curtailed down to zero to prevent load shedding or during system emergencies.

Minnesota Public Utilities Commission staffer Hwikwom Ham asked whether MISO has considered a hypothetical heat wave striking it and SPP at the same time, forcing transfers to be curtailed.

Staff said they're increasing coordination with members but haven't devised any special mitigation plans.

Stakeholders questioned why MISO didn't make updates to either its spring reliability outlook or the delivery estimates in its capacity auction because of a major transmission line's loss.

Dannis said MISO has been operating for three months now with "minimal" operational impacts. He said he expects little difficulty during the shoulder maintenance season.

MISO Director of Settlements Laura Rauch said the impacts should be strictly financial.

"We can still operate as we normally do. This is about dollars, not anything that would preclude us from operating," she said.

Stakeholders asked why it's taking six months to complete line repairs.

Dannis said he was aware of some supply chain issues for equipment needed to fix the line but said he couldn't offer anything further. ■

MISO News

FERC Finds Deficiencies in MISO's Seasonal Capacity Auctions Bid

By Amanda Durish Cook

FERC doled out two deficiency letters to MISO on Wednesday over the grid operator's plans to institute a four-season capacity market, availability-based resource accreditations and a 50% minimum capacity obligation.

The commission said it lacked several specifics on the resource adequacy overhaul, including a fuller defense from the RTO of the minimum capacity rule's new accreditation and deadline information.

MISO late last year sought FERC's approval to perform four seasonal capacity auctions with separate reserve margins by 2024 and apply a seasonal accreditation based on a generating unit's past performance during tight system conditions (ER22-495).

The RTO also made a related filing to establish a minimum capacity obligation that requires a load-serving entity to demonstrate it has secured at least 50% of the capacity required to meet their peak load before the voluntary auctions (ER22-496).

Stakeholder reactions have been mostly negative. They have said a stricter accreditation based on risky hours that can't be predicted with certainty would result in volatility and unfair penalties to generation. Others also have said staff hasn't explained the reliability problems the minimum capacity obligation is meant to correct. (See *MISO's Seasonal Capacity Proposal Opposed at FERC*.)

The commission told MISO "quantitative evidence" that demonstrates historical performance of units is "more indicative of future performance during emergency periods" than the existing unforced capacity accreditation process.

FERC said it was interested in seeing analyses that show the need for a higher reserve margin requirement in the winter than the summer in some zones during certain years. It asked why MISO intends to clear four seasonal auctions simultaneously instead of conducting sequential, single-season auctions. The commission also said it needed a rationale as to why the RTO would allow clearing prices in a single season to exceed generation's cost of new entry.

The commission asked MISO to explain why it wasn't similarly ascribing seasonal variability to its planning reserve margin analysis and local clearing requirements within resource adequacy zones. It also asked what steps the RTO will take to establish a seasonal planning reserve margin and how the new availability-based resource accreditation will factor into loss-of-load calculations.

FERC said it was unclear whether MISO intended to use different predicted risky hours across different units for accreditation. It also asked whether a unit's performance in other seasons would be used as a basis for accreditation in another season.

The commission said it did not understand why the grid operator didn't extend the availability-based accreditation beyond thermal resources to its solar and wind resources, which are under an existing accreditation that's also based on availability during times of system need.

FERC also asked for justification in requiring its demand response resources to increase their availability for more calls in a seasonal paradigm versus an annual construct.

Finally, the commission asked MISO to more fully explain its requirement that units replace their capacity if they're on outage longer than 30 days when there is a requirement for a 120-day period between a unit's planned outages.

On the minimum capacity obligation, FERC wondered why the RTO said it will initially apply the obligation on a systemwide basis and then transition to a subregional application of the rule in 2025.

The commission asked MISO to explain how it settled on a five-month period for a market participant that receives an obligation before submitting proof it will meet 50% of its load before. It also asked the grid operator to describe the health of its bilateral market and the ability of market participants to secure excess capacity. ■

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MISO News

Midwest Experts Say Tx, Market Changes Key to Reliability

By Amanda Durish Cook

Transmission construction and MISO market facelifts can help the Midwest reliably adjust to a new resource reality, panelists said March 8 during an Energy Bar Association (EBA) teleconference.

"This is a time that is really a seismic shift in the industry," Ameren Director of RTO Policy Jeff Dodd said during a discussion hosted by EBA's Midwest chapter.

MISO counsel Michael Kessler said the grid operator is besieged by declining reserve margins as aging baseload units are replaced with renewables. He said even a growing natural gas fleet might not be able to procure enough fuel to keep the grid reliable at times.

Scott Wright, the RTO's executive director of market strategy, said the changing resource fleet has placed MISO at the doorstep of reliability problems.

"This is not a far and distant problem. This is here now," he said.

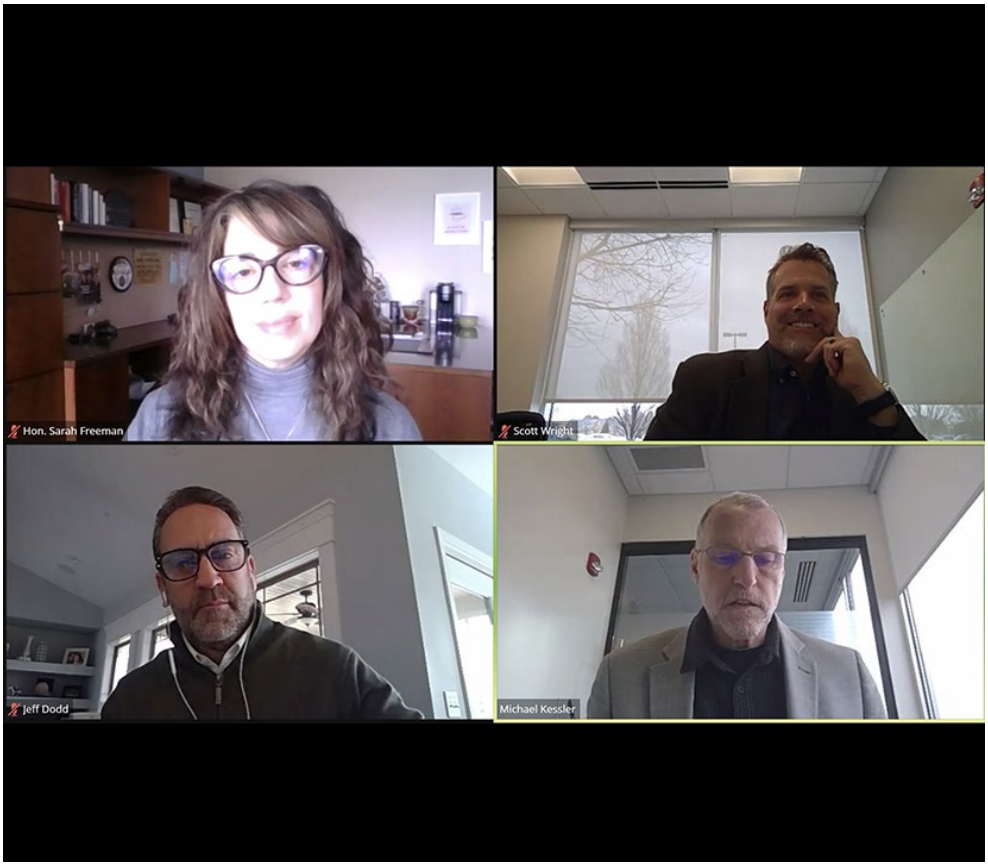
Wright said, "excess reserve margins are a thing of the past" and the grid operator now navigates challenging conditions carefully and with little capacity to spare.

He said MISO must build long-range transmission to bring an additional 120 to 330 GW of additional capacity online by 2040. Those figures are necessary to meet members' carbon-reduction goals or bring the footprint to net-zero carbon emissions, Wright said.

The RTO recently revealed a potential multi-stage long-range planning portfolio. (See *MISO Long-range Tx Plan Overlaps with SPP Study*.)

"It used to be a moderated pace of change. To me, it's [now] a rush," Wright said. He also called environmental and social governance awareness "the new kid on the block" that stands to hasten fleet change.

Wright said natural gas generation used to be viewed as a bridge to clean energy. "Now, they're burning the bridge," he said, referencing utilities focusing on renewables over needed centralized power.



EBA Midwestern reliability panel clockwise from left: IURC's Sarah Freeman, MISO's Scott Wright, Ameren's Jeff Dodd and MISO's Michael Kessler | *EBA*

Wright questioned whether "storage has come along enough" to meet instantaneous load. He said the RTO's operations will become much more complex in the coming years by optimizing load and managing decentralized resources.

"There's a lot of different 'minding of the store' that's going to need to happen here," Wright said. He added that he didn't mean to sound "defeatist" or "sensational" and said MISO has a solid, well-functioning market in place today that simply requires adaptation.

Dodd said distribution companies, transmission planners and state regulators must engage in a level of coordination that wasn't necessary a few years ago.

"A lot of utilities are starting to understand we need all these groups in the same room," he said.

Organization of MISO States President Sarah Freeman, an Indiana Utility Regulatory commissioner, called the path to net-zero emissions a "juggling of the chainsaws." She said that just as MISO's geography and resources are diverse, "cultures among governing bodies" are also diverse within the footprint.

"I say Indiana is a red state voting green," she said.

Dodd said in Ameren's experience, customer preference, not state policy, is driving the clean energy conversion. The company has a 2050 net-zero emissions goal, but Dodd said that target could be accelerated. He also noted Ameren Illinois must cease all fossil generation in the state no later than 2045, according to state law.

Dodd called transmission "a facilitator" in the transition to a cleaner generation portfolio.

"MISO has success with this scenario planning," Dodd said of the three 20-year planning futures used to justify transmission projects. He said the 2011 Multi-Value Project (MVP) portfolio continues to deliver benefits well in excess of the $6.5 billion cost.

The MVP portfolio had a "'Field of Dreams': if you build it, they will come" approach, Dodd said. With MISO's long-range planning, there's now little doubt that new lines will be useful, he said.

"Those lines were fully subscribed as soon as they were built," he said of the MVPs' success. "I think MVPs laid the groundwork for the long-range transmission plan." ■

MISO News

Stakeholders Divided on MISO Long-range Cost Allocation's Fairness

By Amanda Durish Cook

MISO's subregional cost-allocation plan for its long-range transmission projects had both fans and critics at FERC last week.

The RTO has proposed a 100% postage stamp allocation to load for the long-range projects, limited to two of its subregions, in a filing at FERC. Entities had until March 7 to file comments, protest or intervene (ER22-995).

Industrial customers denounced the cost recovery plan, arguing against the sub-regional allocation for yet-to-be-determined projects. Consumers Energy said it was concerned that the grid operator hadn't yet shared specific calculations of benefits for actual projects.

Others said the RTO's separate-but-equal allocation application is inherently unequal.

MISO hopes to have the allocation plan, limited to its Midwest and South regions, in place by mid-May. The first long-range projects, all in MISO Midwest, are targeted for board approval in June.

WPPI Energy said if FERC accepts the filing, it should "prevent" MISO from violating the commission's cost-allocation principles by requiring the RTO to explain when it will use a subregional versus region-wide cost recovery. The grid operator should also defend its strategy to use a different allocation design for the final two cycles of projects in its long-range transmission plan, WPPI said. The utility said it might be unfair to employ a different cost allocation once MISO begins planning long-range projects in its South subregion.

The recovery design relies in-part on a Brattle Group analysis that shows Midwestern projects are unlikely to produce benefits that seep into MISO South unless the subregional transmission transfer capacity limit is increased. Multiple stakeholders have said they're hopeful that the long-range planning effort's third and fourth cycles produce a project that broadens transfer capability between Midwest and South.

Staff have repeatedly said the RTO's postage stamp rate separated by subregion is meant to be temporary and only applies to the first two project cycles. The grid operator has already begun stakeholder talks on a more permanent allocation design. (See *MISO Seeking New Tx Cost Allocation for Major Buildout*.)

Other stakeholders told FERC the plan represents the best option for now.

Americans for a Clean Energy Grid said the cost allocation design will confront an "existing roadblock to regional transmission development." The group said FERC should permit flexibility in cost allocation "if it enables regions to gain stakeholder support for new transmission expansion."

NextEra Energy said it "strongly supports" the proposal because it's a step toward developing necessary transmission infrastructure.

The Organization of MISO States said it supported both the bifurcated postage-stamp approach and the plan to create a new allocation methodology for the second half of long-range projects.

DTE Electric said the establishment of two separate cost-sharing subregions is appropriate because it follows FERC's "roughly commensurate" benefits standard for allocation.

| © RTO Insider LLC

DTE also asked that MISO include tariff language that ensures staff and members also consider customer affordability when planning new transmission.

"Customer affordability metrics should be established and used as a tool in the planning process to ensure that transmission investment is financially feasible for customers across the entire MISO footprint," DTE wrote.

Entergy, which accounts for the lion's share of MISO South, also supported the filing. The utility said although the plan was "not perfect," it characterized a compromise among stakeholders. Entergy also noted that MISO Midwest "is clearly at the forefront of the portfolio transition that MISO describes as a driving force behind" its long-range transmission plan.

Chairs of the Senate and House energy committees in the Minnesota legislature wrote to "stress the urgency of MISO's long-range transmission planning process to affordably allow carbon-free energy to be built at the scale required and demanded in Minnesota." They said the state's utilities, including Xcel Energy, Great River Energy and Minnesota Power, "are some of the most forward-looking utilities on clean energy in the country." ■

MISO News

MISO: 2021 Member Savings Exceeded $3B

MISO said Wednesday that it saved members more than $3 billion over the course of 2021.

The grid operator said its value proposition analysis showed a range of $3 billion to $3.8 billion in savings for members that participate in the markets only through bilateral contracts.

The value proposition measures the collective annual savings for members. Last year, MISO estimated it saved its members around $3.5 billion in 2020. (See *MISO Touts $3.5B in 2020 Savings for Members*.)

The grid operator said on average, it saves its membership about $3.4 billion annually.

MISO said it quantifies benefits through the more efficient use of generation, reduced need for new generation, and the stronger reliability that comes with a resource sharing pool. The grid operator said it has tracked about $36.3 billion in savings since 2007.

The diverse geographic footprint offered the biggest value to members in 2021, saving them $1.7-$2.3 billion, the RTO said. It said differing loads and diverse generation sources has allowed it to operate with a reserve margin of 17.9%. It had been more than 20%.

MISO Carmel, Ind., headquarters | © *RTO Insider LLC*

The grid operator said the system's additional wind generation has yielded $467-$530 million in savings. MISO also said its ability to optimally dispatch the most economic energy in its real-time and day-ahead markets saved members anywhere from $471 million to $521 million over the year. It estimated savings from heightened reliability at $285-$310 million.

"Our grid is changing at a rapid pace, and MISO is working closely with our member utilities to better understand how their plans will impact the MISO grid," Wayne Schug, vice president of strategy, said in a *press release* accompanying the report. "We are committed to ensuring MISO's value proposition evolves and aligns with the changes impacting our members and MISO." ■

— Amanda Durish Cook

MISO News

Annual RA Survey Adjusted for MISO's Seasonal Capacity Market

By Amanda Durish Cook

The annual resource adequacy survey conducted by MISO and the Organization of MISO States will become more frequent as the RTO moves to seasonal capacity auctions.

"One thing you couldn't help but notice is MISO is moving to a seasonal construct," MISO adviser Stuart Hansen joked during a Resource Adequacy Subcommittee (RASC) meeting Wednesday. "The question has been, will the OMS-MISO survey follow suit? … The short answer is 'yes.'"

Hansen said staff has begun conversations with OMS staff and regulators and is "hashing out details internally." He said the organizations will update stakeholders at future RASC meetings and have a new process in place by the third quarter. The changes will affect 2023-24 planning year readiness.

Hansen said the RTO is strengthening its data import capabilities so market participants aren't overwhelmed with requests for four times the amount of usual information. He said staff envisions market participants responding to the survey once per year for all seasons.

However, MISO's plans for seasonal capacity auctions are in doubt following FERC deficiency letters on the grid operator's minimum capacity obligation proposal and its bid for a four-season capacity market using a resource's past availability for accreditation. (See related story, *Deficiency Notices for MISO's Seasonal Capacity Auctions Bid*.)

MISO plans to post what could be its final annual auction results on April 14. The grid operator has 177 GW of installed capacity, 136 GW in members' confirmed unforced capacity, a 122-GW coincident peak forecast and a 135-GW planning reserve margin requirement.

Eric Thoms, the RTO's senior manager of resource adequacy operations, said that confirmed unforced capacity values could still rise as members verify capacity amounts with MISO.

Stakeholders are pushing staff to reinstate a brief stakeholder teleconference to discuss auction results. MISO has historically hosted a call to review auction results the day after releasing them, but it has decided to replace this year's discussion with a presentation during the April 20 RASC meeting.

Stakeholders said the day-after call is useful, particularly when zones clear at unusually high prices or capacity export limits bind.

"A typical, run-of-the-mill auction probably doesn't need a workshop, but interesting results require one," WEC Energy Group's Chris Plante said.

MISO staff said they would reassess the need to schedule a call. ■

DB Wilson Station | *Big Rivers Electric Corp.*

NYISO News

FERC Approves ROFR for NY Transmission Upgrades

Commission Rejects Call for Cost Caps

By Rich Heidorn Jr.

FERC last week ruled that New York transmission owners (NYTOs) can exercise a right of first refusal (ROFR) for upgrades to their transmission facilities without being bound by other developers' cost caps.

The commission's ruling Friday adds rules for implementing a federal ROFR for upgrades that are part of another developer's public policy transmission project under Order 1000 (*EL22-2-001*).

FERC had ruled in April 2021 that the NYTOs — Fortis' Central Hudson Gas & Electric; Consolidated Edison and Orange and Rockland Utilities; the Long Island Power Authority; the New York Power Authority; Avangrid's New York State Electric & Gas and Rochester Gas & Electric; and National Grid's Niagara Mohawk Power — have a federal ROFR under the ISO-TO Agreement and other "foundational agreements" (EL20-65). (See *FERC Confirms NYTOs' Right of First Refusal*.)

NYISO filed tariff changes to implement the ROFR in October under Federal Power Act Section 206 — requiring it to demonstrate that its existing rules were unjust and unreasonable — after stakeholders were unable to reach consensus on a filing under the lower threshold of Section 205. (See "MC Nixes ROFR Tariff Changes," *NYISO Management Committee Briefs: Aug. 25, 2021*.)

The commission agreed with the ISO that the lack of rules governing the ROFR "will likely result in disputes at the commission and in court, which will cause delays and potentially harm competitive transmission development in New York." It noted that the commission has already accepted tariff provisions implementing federal ROFRs in CAISO, PJM, SPP, MISO and ISO-NE.

The tariff revisions create separate categories for public policy transmission projects: new transmission facilities and upgrades to existing transmission facilities.

Under the new rules, which are effective as of Oct. 12, 2021, a NYTO will have 30 days to notify NYISO if it does not intend to exercise its federal ROFR for an upgrade. In such cases, the ISO will designate the upgrades to the developer that proposed the project.

Cost Cap Controversy

The new rules revise NYISO's voluntary cost-containment requirements, clarifying that transmission upgrades will not be subject to any cost cap. The ISO said that requiring a NYTO to accept another developer's cost cap would undermine the NYTOs' federal ROFRs.

A group filing as "New York Consumer Advocates" — including the New York Public Service Commission, New York State Energy Research and Development Authority (NYSERDA), New York City and the Natural Resources Defense Council — protested that the lack of cost containment on upgrade projects would subject consumers to higher costs. Transmission developer LS Power separately contended it would undermine competition by causing developers to stop proposing cost-containment measures.

The commission sided with the ISO, saying that "making a developer's proposed cost cap binding on the NYTO would raise complex implementation issues because the developer's cost-containment proposal may or may not represent a reasonable expectation of the NYTO's upgrade costs."

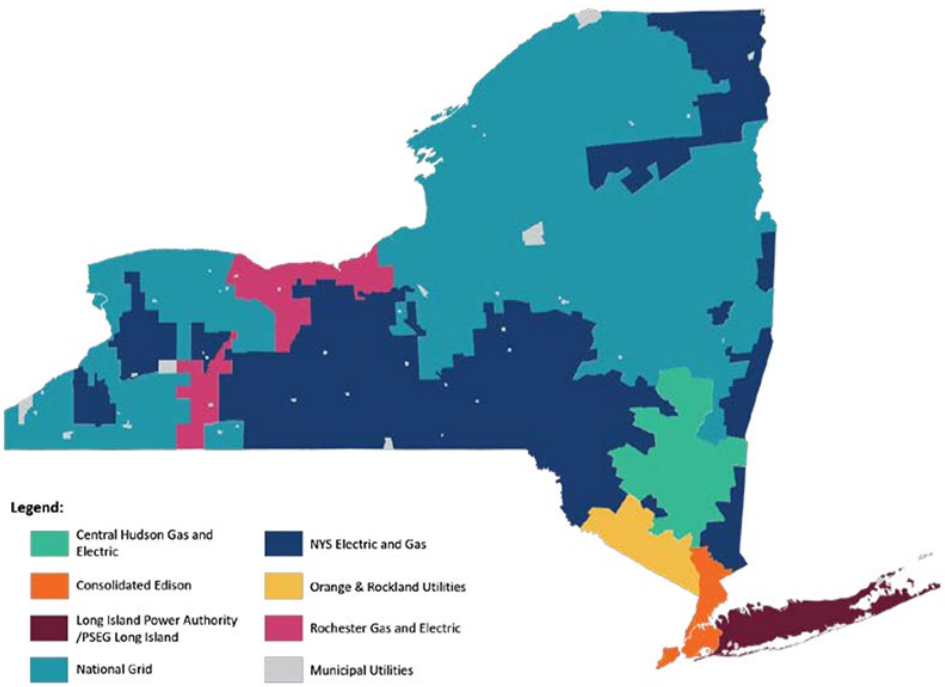
It added: "While Order No. 1000 required evaluation of competitive proposals that result in the selection of the 'more efficient or cost-effective' transmission solution to an identified regional transmission need, it did not mandate that the transmission provider select the least-cost transmission project or apply cost containment for any project."

FERC noted that four other grid operators — PJM, SPP, MISO and ISO-NE — either do not subject upgrades to a competitive evaluation process or do not allow nonincumbent developers to include upgrades in their proposals.

In a joint concurring statement, Commissioners Allison Clements and Mark Christie said they share the "absolutely legitimate" cost concerns expressed by the PSC and NYSERDA.

Christie went further in a separate statement, noting that NYISO is a single-state grid operator and that its agencies may reject a proposed transmission project because it is "too costly to consumers or that less costly alternatives are available."

"And, of course, the ultimate recourse for consumers and consumer advocates concerned about the costs of New York's — or any other state's — public policies is to the ballot box," he added. ■



New York State electric service territories | *New York Open Data*

PJM News

PJM Monitor: Prices, Coal Power Bounced Back in 2021

By Michael Brooks

PJM energy prices last year surged to their highest levels since 2014, more than making up for declines from the pandemic-driven economic downturn in 2020, according to the Independent Market Monitor's annual State of the Market *report*, released Thursday.

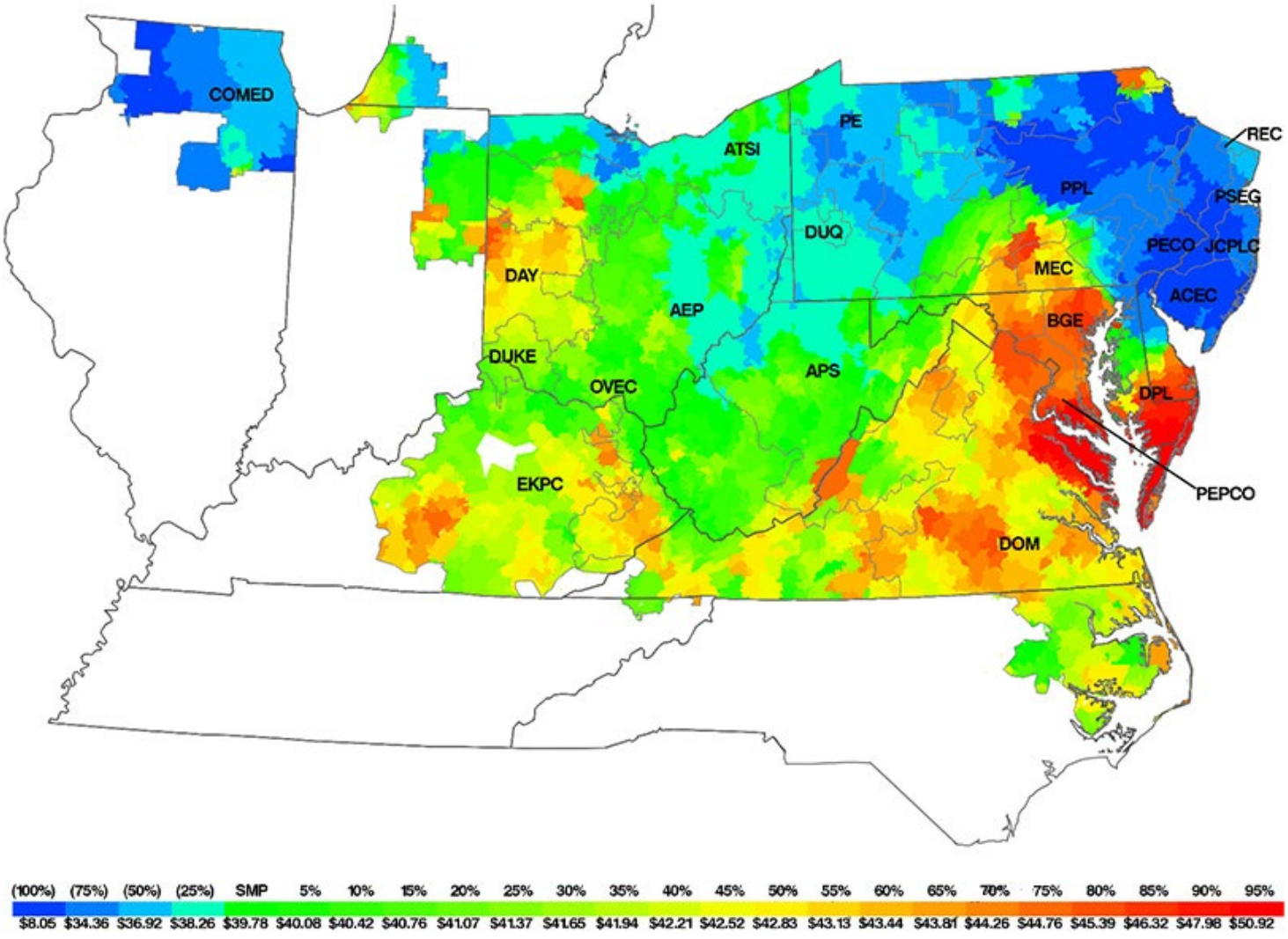
The RTO's average load-weighted real-time LMP ricocheted to $39.78/MWh, up 82.8% from 2020's record low of $21.77. While the increase was perhaps to be expected, real-time load only increased by 3.6%, returning to pre-pandemic levels after falling by 4% in 2020.

The increase in energy prices was mostly a direct result of increased fuel costs for generators, including higher natural gas prices. In a press conference Thursday *presenting* the report, Monitor Joe Bowring said that among the factors driving the increase in gas prices was reduced production in 2020 and severe weather events, including the February 2021 winter storm.

The Monitor did not measure the impacts of the storm on PJM separately, but Bowring said "it definitely had an effect, especially in the Midwest." It also raised a concern that the Monitor has about the gas market.

"There's no logical reason to have gas prices be $2,000/dekatherm, or even $1,000/dekatherm," he said. "So we're very concerned about market power on the gas side ... during extreme conditions. That's outside our purview, but it's at least partly within FERC's purview, so we think that needs to be looked at."

In its report, the Monitor wrote, "The role of gas-fired generation highlights the importance of ensuring that PJM has real-time, detailed and complete information on the gas supply arrangements of all generators and that PJM consider rules requiring capacity resources to have firm fuel supplies. It is also essential that FERC consider and address the implications of



LMPs were higher across most of PJM mainly as a result of increase gas prices, except notably in the Marcellus Shale region, where several new combined cycle plants have come online since 2016. | *Monitoring Analytics*

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the inconsistencies between the gas pipeline business model and the power producer business model and the issue of market power in the gas commodity market under extreme weather conditions."

Return of the King

While gas remained the dominant fuel source in PJM, coal-fired generation shot up last year.

Electricity generation from coal rose 17.8%, compared to a 2.4% decrease in gas-fired output. Coal also made up 22.2% of the fuel mix in 2021, compared to 19.3% in 2020. Oil-fired generation rose 11.5%.

Coal prices likely increased on the back of rising gas prices. But as coal mines continue to shutter unabated, supply continues to thin. "The changes in relative fuel prices slowed but did not change the long-term decline in the share of coal and the increase in the share of gas," the Monitor wrote.

The Monitor's report came after the International Energy Agency *reported* March 8 that energy-related global CO_2 emissions increased by 6% in 2021, mostly from the use of coal-fired generation.

"The recovery of energy demand in 2021 was compounded by adverse weather and energy market conditions — notably the spikes in natural gas prices — which led to more coal being burned despite renewable power generation registering its largest ever growth," the IEA said.

While solar nearly doubled its output last year, increasing by 91.6% to 7,412.2 GWh, it still only makes up less than 1% of the fuel mix in the RTO. Renewable output — including solar, wind, waste, hydro and biofuel — only rose by about 10.2% and just barely increased its share of the fuel mix, mostly because of the increase in solar.

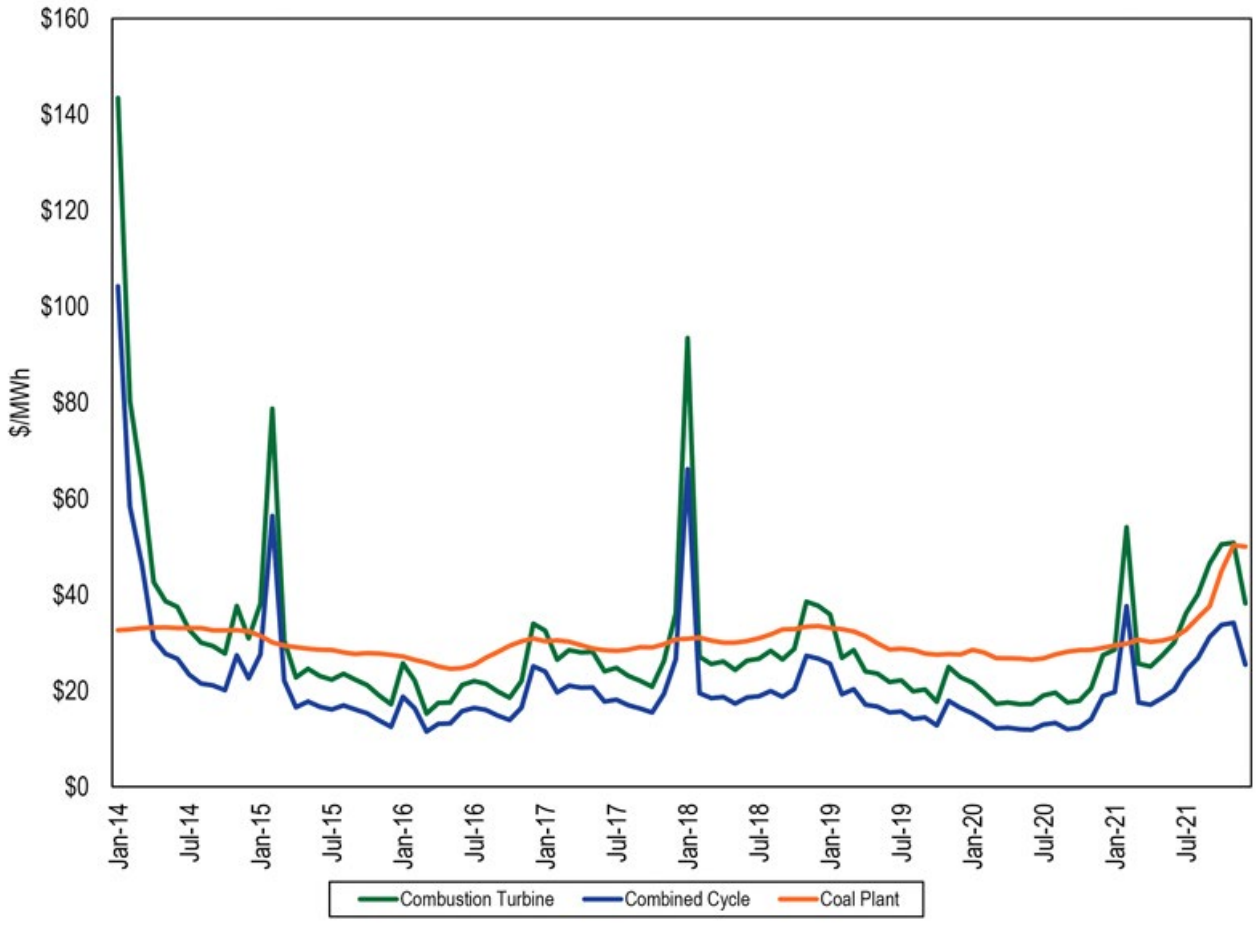
REC Market

The Monitor included 13 new recommendations for PJM in its report, but Bowring singled out an old one, dating back to 2010, in his presentation: a single PJM-operated forward market for renewable energy credits.

The recommendation has perhaps taken on more urgency as some states aggressively increase their renewable portfolio standards each year up to 2030.

"Given that states are going to continue to subsidize renewable energy through RPS standards and through RECs, the markets would work better for everybody" with a single market for RECs, Bowring said, with an agreed-upon definition for what qualifies for credits and a single clearing price. "Of course, all of that would be dependent on the states wanting to do it and agreeing to do it. But we think that would be a way to make the provisions of those subsidies ... significantly more efficient."

The Monitor still recommends a single, PJM-wide carbon price as the most efficient way to reduce emissions, but a single REC market would be the next best thing, it wrote. Such a market "would provide better information for market participants about supply and demand and prices, and contribute to a more efficient and competitive market and to better price formation. This could also facilitate entry by qualifying renewable resources by reducing the risks associated with lack of transparent market data." ■



Average short-run marginal costs in PJM since January 2014 | *Monitoring Analytics*

PJM News

Renewables Highlight 2021 PJM RTEP Report

By Michael Yoder

PJM saw interconnection requests for solar generation more than triple since 2019, now making up more than half the interconnection queue, according to the 2021 Regional Transmission Expansion Plan (RTEP) *report* released March 8.

The annual report highlighting transmission projects approved last year by the PJM Board of Managers features several trends, including the continuing shift in the RTO's generation mix driven by new natural gas-fired plants, the deactivation of coal-fired plants and the increasing volume of renewable generation.

PJM processed 1,351 new service requests in 2021, nearly triple the 476 requests made in 2018. The new service requests totaled 104,316 MW of nameplate capacity in 2021.

A total of 139,937 MW of generation interconnection requests was actively studied by PJM last year, a number nearly equal to the RTO's all-time winter peak of 143,295 MW set on Feb. 20, 2015.

On the renewable energy front, solar generation currently makes up 58% of the interconnection queue, a total of 94,000 MW of the 160,000 MW of resources in the queue. In the 2019 RTEP, solar requests stood at 47% of the 75,432 MW in the queue.

"Previously, solar projects were smaller in size and limited to a handful of areas," the report said. "Now, individual projects can reach hundreds of megawatts, driven by states' renewable portfolio standards goals, and are seeking interconnection in every PJM transmission zone."

Project Numbers

The PJM board approved a total of $920 million among 118 baseline transmission projects in 2021.

Of the projects, 52% ($478 million) of them were driven by transmission owner criteria, 25% ($229 million) by PJM and NERC criteria and 23% ($213 million) by 52 generator deactivations or retirements.

PJM noted that large-scale transmission projects above 345 kV remain "uncommon" in the RTO, as load growth fell below 1% to a normalized 10-year RTO summer peak growth rate of 0.6%. The average 10-year-annualized summer growth rates for individual PJM zones ranged from -0.5% to 1.5%.

"Load forecasts from the past five years reflect broader trends in the U.S. economy and PJM model refinements to capture evolving customer behaviors," PJM said in its report. "These include more efficient manufacturing equipment and home appliances and distributed energy resources, such as behind-the-meter, rooftop solar installations."

PJM said the projects approved in 2021 responded to "diverse needs" such as upgrades and replacement of aging equipment and facilities to meet reliability and resilience criteria, the "minimization" of system congestion for market efficiency, localized reliability needs and generator deactivations.

In preparation for new generation resources coming onto the grid, the board also approved 34 network system enhancement projects totaling more than $47 million. The board has approved network facility reinforcements totaling more than $6.5 billion since the inception of the RTEP process in 1997.

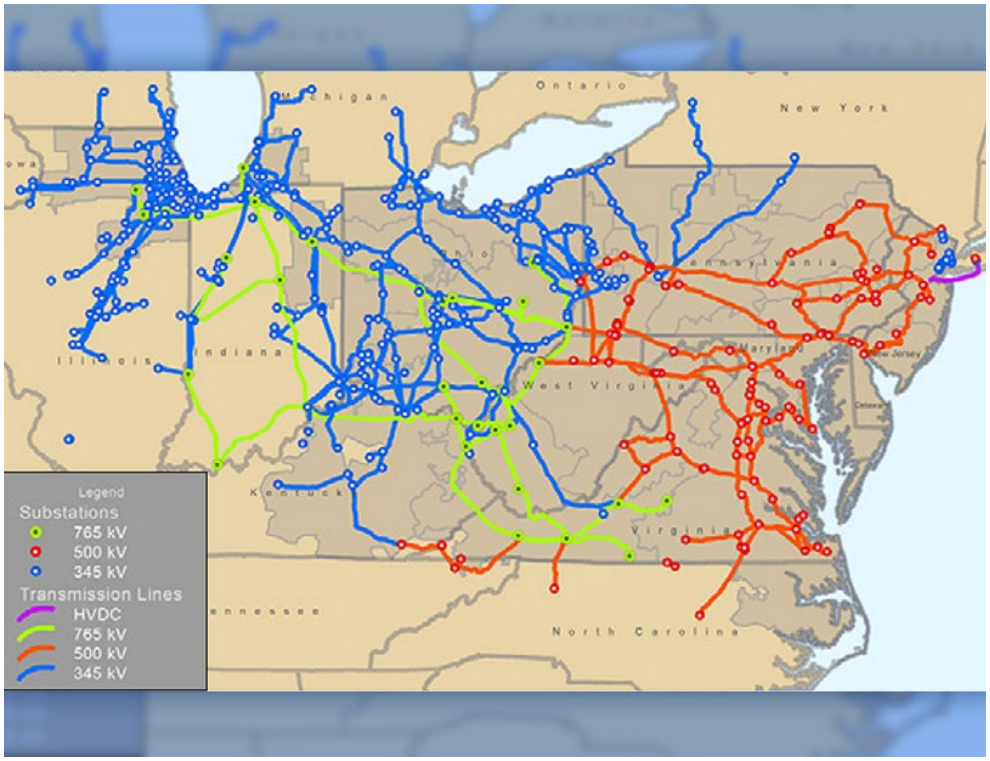
Offshore Wind

With the growing number of offshore wind projects coming into the interconnection queue, PJM said the injection of thousands of megawatts of power will change how power flows across the grid in the Northeast and Mid-Atlantic. PJM said "efficiently harnessing" the new power source is going to require extending the existing transmission grid to offshore generation sources and deliver their energy to load centers along the East Coast.

Maryland, New Jersey and Virginia have established offshore wind targets totaling 14,723 MW with planned in-service dates of 2035.

In 2021, PJM planned for the offshore wind transmission expansion, partnering with NYISO and ISO-NE with the goal of achieving 30 GW of operational offshore wind by 2030. The RTO also worked with New Jersey under the "state agreement" approach to help identify the most efficient and economic solutions to accommodate offshore wind.

"Although offshore wind is on a longer planning horizon, the potential for development is substantial," PJM said in the report. "Future system enhancements will solve the challenges that these locationally constrained resources present. Moreover, they will also address the interregional implications associated with wind lease areas that can also serve adjoining systems north and south of PJM's RTO borders." ■



PJM's backbone transmission system | *PJM*

PJM News

PJM MIC Briefs

New Start-up Cost Offer Proposal

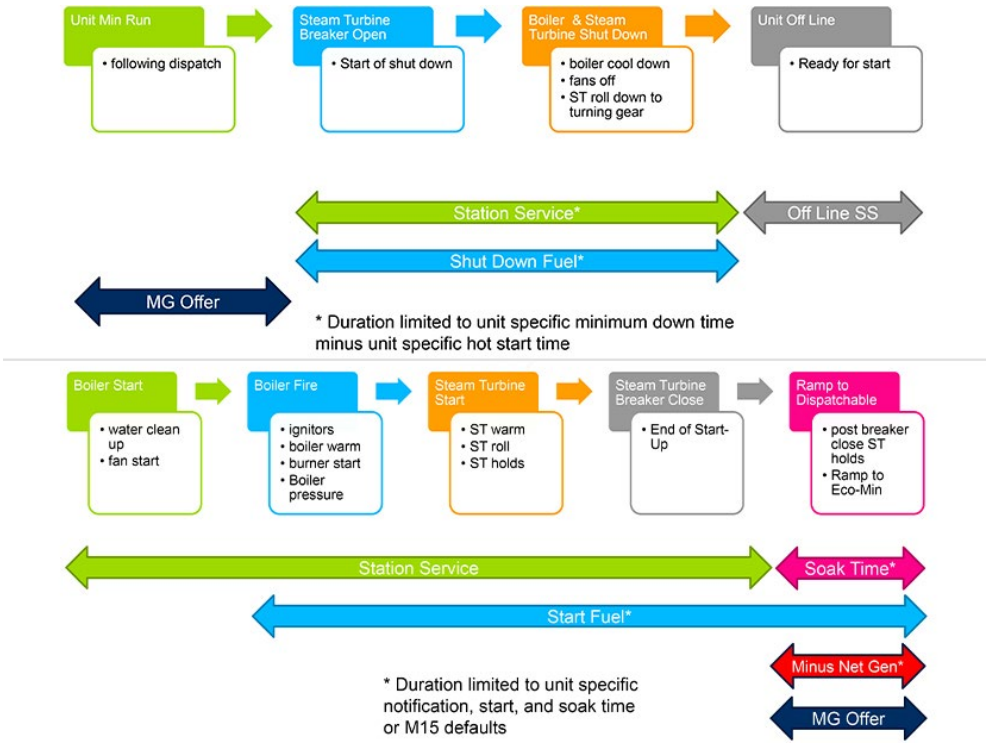
PJM presented an updated proposal addressing start-up cost offer development at last week's Market Implementation Committee meeting after being sent back to a subcommittee for more work on the issue.

Tom Hauske, principal engineer in PJM's performance compliance department, *provided* a first read of the revised PJM/Independent Market Monitor proposal to revise *Manual 15* that emerged from the Cost Development Subcommittee (CDS).

The CDS initially brought two proposals for first reads to the October MIC meeting. (See "Start-up Cost Offer Development," *PJM MIC Briefs: Oct. 6, 2021*.) But a vote on the proposals was postponed so more discussions could take place and have stakeholders reach a consensus on a single proposal.

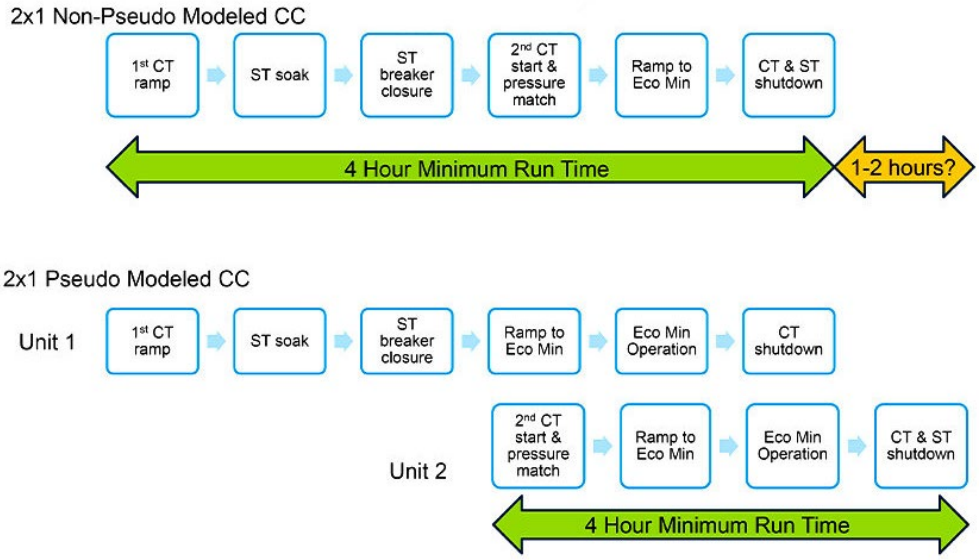
Manual 15 currently allows combined cycle units to include fuel costs after generator breaker closure and synchronization to the grid in their calculations of start-up costs that other unit types, like steam and nuclear units, cannot. The proposed revisions would align start-up cost for all units with a soak process, or units that use steam turbines.

For units with a soak process, including steam, combined cycle and nuclear units, some of the soak costs would be included in the start-up costs from PJM's notification to the "dispatchable output" and from the last breaker open to the shutdown process.



Revised steam unit start-up and shutdown calculations under PJM's new start-up cost offer development proposal | *PJM*

Units that don't have a soak process, like combustion turbines and reciprocating engines, would maintain the status quo, with start-up costs including costs from PJM notification to first breaker close and from last breaker open to the shutdown process.



Comparison of a 2x1 combined cycle unit with a pseudo-modeled 2x1 combined cycle unit when dispatched on a parameter-limited schedule | *PJM*

The revised proposal features several other changes to Manual 15 to provide additional guidance and clarification, including equations to calculate start-up costs, station service calculations for units with and without a soak process, and unit-specific parameter limits on includable costs.

Hauske said PJM's intent is to provide a six-month window for implementation to allow market sellers the opportunity to have their fuel costs or net generation used for the offset to be reviewed by the Monitor prior to the proposal going into effect.

"We're trying to avoid the possibility of putting someone in a compliance trap where a unit today could wind up having a smaller start-up cost and then have a fuel-cost policy penalty," Hauske said.

The committee will be asked to endorse the proposal at next month's meeting.

Minimum Run Time Guidance Endorsed

Members unanimously endorsed PJM's proposal addressing pseudo-modeled com-

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bined cycle minimum run time guidance after stakeholders asked for more time last month to analyze the changes.

Hauske *reviewed* the *proposal* that included adding language to *Manual 11: Energy and Ancillary Services Market Operations* that would require market sellers to update the minimum run time of any subsequent pseudo-modeled unit to remove the associated steam turbine start-up time included in the parameter limit when it's dispatched.

Hauske said market sellers can model a combined cycle generation unit as multiple "pseudo units" that are made up of a single combustion turbine and a portion of a steam turbine. But he said the potential exists for one or more of the pseudo-modeled units to operate for a period beyond the minimum run time parameter limit compared to an identical non-pseudo-modeled combined cycle unit if the market units of a pseudo-modeled combined cycle unit are dispatched at different times because the steam turbine takes extra time to reach operative levels.

PJM would provide guidance developed in the initiative to any pseudo-modeled combined cycle unit requesting an adjustment during the review period, Hauske said, or to existing pseudo-modeled combined cycle units with an approved unit-specific minimum run time parameter.

The proposal will receive a final vote at the Markets and Reliability Committee meeting next week. Hauske said PJM wants to have a final endorsement at the next MRC meeting because the RTO's unit-specific parameter adjustment process started Feb. 28, and PJM must provide a determination on the requests by April 15.

Manual 18 Revisions Endorsed

Stakeholders unanimously endorsed manual revisions conforming with several FERC orders related to PJM's capacity market.

Jeff Bastian, PJM | *© RTO Insider LLC*

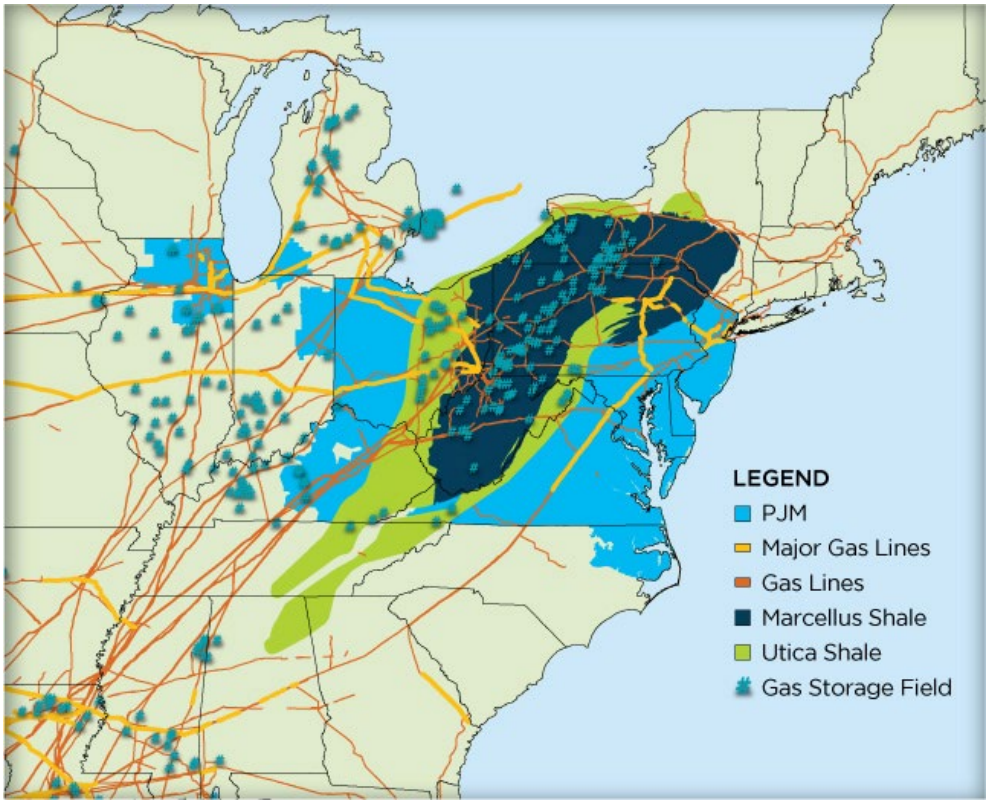
Jeff Bastian, senior consultant in PJM's market operations department, *reviewed* several revisions to *Manual 18: PJM Capacity Market*, including:

- revisions to the application of the minimum offer price rule, which became effective by operation of law in September when the commission deadlocked (ER21-2582);
- an October compliance filing to amend several sections of Attachment DD of the tariff establishing a replacement market seller offer cap (EL19-47);
- restored tariff provisions reinstating the prior backward-looking energy and ancillary services (E&AS) offset for the 2023/24 Base Residual Auction and beyond (EL19-58); and
- the removal of the 10% cost adder for the reference resource used to establish the variable resource requirement curve (ER19-105).

Bastian said language in section 3.3.2 was updated to reflect that the net E&AS of the reference resource combustion turbine will be calculated using the forward-looking methodology with the application of the 10% adder for only the 2022/23 delivery year. The net E&AS will be determined using the historical approach and without the application of the 10% adder for all other delivery years.

The revisions also delete language in section 5.4.5.2 describing the consequences of accepting a state subsidy after electing the competitive exemption or certifying that a resource is not state-subsidized.

Members will vote on the manual changes at next week's MRC meeting for final endorsement.



Natural gas infrastructure in PJM | *PJM*

Critical Gas Infrastructure Approved

Stakeholders unanimously approved an issue charge to address critical gas infrastructure recommendations for demand response.

Jack O'Neill of PJM's demand response department reviewed the *problem statement* and *issue charge* addressing the recommendation for DR participation found in the FERC and NERC *report* on last February's winter storm in Texas and other parts of the South.

The report included a recommendation "to require balancing authorities' operating plans (for contingency reserves and to mitigate capacity and energy emergencies) to prohibit use of critical natural gas infrastructure loads for demand response."

PJM began discussions with curtailment service providers (CSPs) through the Demand Response Subcommittee (DRS) to identify impacted loads for the 2021/22 winter season, O'Neill said, and the committee developed a preliminary definition of critical gas infrastructure loads.

O'Neill said CSPs have cooperated with PJM to identify impacted loads in the RTO's DR Hub

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application so dispatchers have "operational awareness." PJM estimates about 20 facilities of critical gas infrastructure load participate as DR in the RTO's wholesale markets, amounting to about 95 MW of winter capability and 190 MW of summer capability.

The key work activities of the issue charge include defining critical gas infrastructure loads and PJM market participation rules in compliance with FERC/NERC recommendations and developing a transition mechanism if new participation rules impact member's capacity commitment.

Work on the issue is assigned to the DRS and is expected to last 12 months. O'Neill said the goal is to file any necessary tariff changes with FERC in the first quarter of 2023.

Operating Reserve Clarification Endorsed

Stakeholders unanimously approved an issue charge to address clarifications and potential enhancements to the rules for paying operating reserve credits to resources running when requested by PJM.

Phil D'Antonio, PJM | © RTO Insider LLC

Phil D'Antonio of PJM's energy market operations department reviewed the *problem statement* and *issue charge* developed by the RTO to find opportunities to strengthen incentives for supply resources to operate consistent with PJM's directions.

PJM pays energy uplift to market participants under specified conditions to guarantee that competitive market outcomes "do not require efficient resources to operate for the PJM system at a loss," D'Antonio said. Uplift payments are one of the incentives for generation owners to offer energy for dispatch based on short-run marginal costs and to operate units through the direction of the RTO's operators.

D'Antonio said PJM wants to clarify the definition of "operating as requested by PJM" in both the tariff and manuals because it "lacks the type of systematic approach" found in the definition of "following dispatch," which is used in assessing balancing operating reserve deviation charges. He said PJM and the Monitor have debated the meaning of the definition and want to clear it up.

Key work activities in the issue charge include determining a definition of "operating as requested by PJM" as it relates to payment of operating reserve credits. It also seeks to establish alternative rules addressing the megawatt level to which balancing operating reserve credits should be paid to resources found not to be closely following PJM's commitment and dispatch instructions.

D'Antonio said stakeholder discussions led to an additional key work activity to determine how intermittent resources are treated under the definition of "operating as requested by PJM" with respect to dispatch megawatts and/or forecast megawatts.

Stakeholders will work on the issue at the MIC beginning in April, D'Antonio said, with the potential for scheduling of special MIC meetings as needed. Work on the issue is expected to last around nine months. ■

— Michael Yoder

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PJM News

PJM Operating Committee Briefs

By Michael Yoder

Reliability Products and Services Assessment

PJM wants the Resource Adequacy Senior Task Force (RASTF) advance discussions to evaluate the RTO's need for procuring additional reliability-based generation as more intermittent resources are integrated into the grid.

Chris Pilong and Alex Scheirer of PJM *provided* a first read at last week's Operating Committee meeting of a proposed "initial direction" regarding reliability products and services required in the RASTF charter.

Pilong said stakeholders began looking at the list of generator "reliability attributes" at the beginning of the year, examining PJM's renewable integration studies and papers to determine the recommendations for addressing potentially new reliability services and next steps in the process at the RASTF and other committees and task forces.

Pilong said stakeholders will discuss reactive capability and supply issues in the Reactive Power Compensation Task Force to make sure PJM is able to "utilize, measure and compensate the full reactive capability of synchronous and non-synchronous generators independent of their power output." The issue also calls for discussions on the ability of all resources to follow voltage schedules and demonstrate performance.

From a regulation perspective, Pilong said, stakeholders recommend reviewing existing regulation market signals and considering future system needs as part of the regulation market redesign issue charge approved by the Market Implementation Committee. (See "RTO to Propose Review of Regulation Market," *PJM MIC Briefs: Nov. 3, 2021*.)

"If the signals are going to be reviewed and looked at, we should be looking at what are the right signals for the future," Pilong said.

Members recommended that the Energy Price Formation Senior Task Force consider how to value flexibility of generation within the existing or modified ancillary services, Pilong said, while another recommendation would have RASTF explore how to value fuel assurance for all resources that can be relied upon for "unexpected system conditions."

Pilong said PJM and stakeholders may evaluate methods for data submission and review the existing penalty structure if data reporting requirements in PJM manuals are not followed. He said a potential problem statement and issue charge could be brought to the OC to examine manual language changes.

"We do see, in some instances, the data is not as accurate as we need it to be, especially as the fleet of inverter-based resources begins to grow," Pilong said. "We really need to make sure we have accurate forecasts."

Stakeholders will vote on the recommendations at the April 14 OC meeting.

UFLS Requirements Applicable to EKPC

Denise Foster Cronin of the East Kentucky Power Cooperative (EKPC) *provided* a first read of a *problem statement* and *issue charge* to appropriately document EKPC's under frequency load shedding (UFLS) requirements in PJM.

Foster Cronin said EKPC is seeking stakeholder approval of limited PJM Operating Agreement, tariff and Manual 36 changes to document the UFLS.

The purpose of the UFLS requirement is to avoid an uncontrolled loss of load situation, Foster Cronin said, and the requirements establish a total percentage of load shed that must be achieved when the system frequency drops to a certain level to maintain the system.

All electric distributors must comply with the UFLS requirement established by their respective NERC region. When EKPC integrated into PJM in 2013, the cooperative was in the SERC region of the ERO.

Before EKPC's integration, PJM's OA documented a UFLS requirement for entities in the "PJM Mid-Atlantic Region," the "PJM West Region" and the "PJM South Region." But the OA was not changed with EKPC's 2013 integration to incorporate the cooperative's applicable UFLS requirement, and it wasn't included in any of the regions.

In 2018, EKPC was added to the PJM West Region when the RTO worked with stakeholders to clarify the region definitions in its governing documents. However, other entities included in the PJM West Region are in the ERO's ReliabilityFirst region, while EKPC remained in SERC, which has slightly different UFLS requirements.

Forster Cronin said a recent review of the region revisions "highlighted a potential confusion" of EKPC's appropriate UFLS requirement. She said the oversight did not create a reliability problem or a "compliance vacuum" for the cooperative.

Chris Pilong, PJM | © *RTO Insider LLC*

"There hasn't been any gap with respect to the actual compliance and reliability," Foster Cronin said.

Foster Cronin said EKPC has been working with PJM on the language correction issue.

The OC will be asked to approve the issue charge and endorse the proposed solution at the April meeting. The Markets and Reliability Committee and Members Committee will ultimately endorse and approve the solution and corresponding OA revisions.

"We're hoping the committee agrees this is a pretty straightforward item and only impacts East Kentucky Power Cooperative," Foster Cronin said.

Manual 1 Updates

Bilge Derin, PJM senior engineer, *reviewed* changes to *Manual 1: Control Center and Data Exchange Requirements* as a part of the periodic review.

Derin said the manual changes partially resulted from revisions in *NERC* standards CIP-012, COM-001 and EOP-008.

Minor changes were made throughout the manual, Derin said, including removing revision numbers from where NERC standards are referenced and replacing the term "member" with "PJM member" where applicable to keep the term uniform throughout the manuals.

In Section 2.5.6: Recovery Procedures, PJM clarified the loss of control center functionality

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procedures and documentation relating to EOP-008 and TO/TOP Matrix.

In Section 3.2.1.1: PJMNet Communications System, the language was clarified to ensure PJM is responsible for protecting all real-time assessment and real-time monitoring data through the PJMNet private network as the data is "in transit" between the PJM control centers and its routers. The RTO must also make sure all data is encrypted.

The committee will be asked to endorse the changes at its April meeting.

Manual Changes Endorsed

Several manual changes resulting from the periodic review were unanimously endorsed by stakeholders, including:

- *Manual 12: Balancing Operations*, with a *review* of the language that included changes to attachment references and other minor revisions.
- *Manual 13: Emergency Operations*, with a *review* of the language that added columns with winter values for estimated peak load and estimated load reduction in the voltage reduction summary table.
- *Manual 37: Reliability Coordination*, with a *review* of the language that corrected Silver Run Electric to properly show as a transmission owner in Attachment A of the manual. ■

Historical marker honoring the founding of the East Kentucky Power Cooperative | *EKPC*

PJM News

PJM PC/TEAC Briefs

Planning Committee

Deactivation Process Timing Update Endorsed

PJM stakeholders at last week's Planning Committee meeting endorsed an update to the generation deactivation process as some members asked the RTO to slightly modify the proposed timing language.

The issue charge, developed by PJM, received 148 votes in support (99%), with two members voting against it. In a vote asking stakeholders if they preferred the proposal over maintaining the status quo, 109 (83%) favored the proposed and 22 the status quo.

David Egan, manager of PJM's system planning modeling and support department, *reviewed* the proposed update, presenting the *problem statement*, *issue charge* and revisions to *Manual 14D* and the *tariff*.

The tariff currently provides 90 days advance notice and 30 days to complete deactivation studies, Egan said, causing "insufficient" time for PJM staff to determine adverse impacts on reliability if more than one deactivation notice is made in a single study period. Industry trends and state energy policies are increasing the number of deactivation notices, Egan said, putting even more pressure on staff to finish deactivation studies in a timely manner.

PJM's issue charge calls for tariff and manual changes that "provide more time to complete analyses, allow additional and improved studies, and provide the ability for more efficient work control and consistency regarding timing of deactivation studies," Egan said.

The proposed deactivation process would establish quarterly study times for requests, with periods beginning Jan. 1, April 1, July 1 and Oct. 1. PJM staff would study deactivations as a batch. For example, the Jan. 1 study period would result in a reliability notification at the end of February.

Egan said the quarterly schedule would allow sufficient time for additional required seasonal, interim year and short-circuit analyses, scheduling upgrades and cost estimates. It would also allow PJM operations to identify additional needed operational measures, he said.

As a comparison to other RTOs and ISOs, Egan said MISO requires advance notice of 26 weeks for a deactivation, and the studies include 75 days to identify issues and 26 weeks to complete the deactivation study. NYISO requires advance notice of 365 days for deactivation, and studies are conducted in the subsequent quarter.

J-Power's Elwood Energy Center, a 1,350-MW natural gas turbine in Illinois | *J-Power*

Becky Robinson of Vistra said she had concerns about possible upcoming actions on generation plants through EPA's Coal Combustion Residuals Rule, which required most of the country's 500 unlined ash pits to stop receiving waste and begin to close by April 2021. EPA began reinforcing the rule, established under President Barack Obama, this year after being targeted for rollback under President Donald Trump. (See *EPA Coal Ash Enforcement Impacts Midwest Coal Plants*.)

Robinson said a plant could be ordered to stop using ash pits within 135 days, effectively shutting it down and conflicting with the new deactivation timing. Resources affected by the rule have made compliance filings, she said, but EPA has yet to act on most of them, leaving the timing of their deactivation in limbo.

Paul Sotkiewicz of E-Cubed Policy Associates said he agreed with Robinson's assessment of the EPA rulings. Other enforcement actions that can take place on a unit-specific basis through EPA or state rules don't necessarily have well defined timelines for actions, he said.

Sotkiewicz recommended that PJM insert tariff language that "doesn't pin" a generator down to a specific time frame and to create exemptions if a unit is forced to deactivate through actions of EPA or states. He said a goal of the new timeline should be to avoid running afoul of EPA or state environmental agency rulings.

"I'm trying to save everybody a lot of work and heartache here by putting in some language," Sotkiewicz said.

Dave Souder of PJM said the RTO was willing to add appropriate tariff and manual language before the update is voted on at the Markets and Reliability Committee meeting in April.

Illinois Clean Energy Jobs Act Study

Egan also *updated* the committee on plans for a joint PJM/MISO study on the impacts of the *Illinois Climate and Equitable Jobs Act* (CEJA).

Gov. J.B. Pritzker signed the legislation Sept. 15. It requires all investor-owned baseload coal-fired power plants and remaining oil peaker turbines in the state to shut down by 2030. (See *Illinois Senate Passes Landmark Energy Transition Act*.) Gas turbine plants, including ones currently under construction, must also close by 2045 under the terms of the bill, although the state has the option to retain plants that are critically needed.

PJM created a draft reliability guidance *document* to send to Illinois regarding the law and

PJM News

its impacts on the region. (See "Illinois CEJA Reliability Guidance Update," *PJM Operating Committee Briefs: Feb. 10, 2022*.)

Egan said PJM has already identified retirement assumptions for two study periods in Illinois, with 9,905 MW impacted from the present until 2030 and 5,845 MW impacted from 2035 until 2045 for a total of 15,750 MW of generation in the state.

PJM will conduct additional sensitivity studies later this year, Egan said, with methods similar to a deactivation study using Regional Transmission Expansion Plan (RTEP) criteria for thermal and voltage studies. The RTO plans to have the study completed by July.

Egan said PJM is coordinating with MISO to conduct a study on the deactivations and have agreed to use a 2031 base case of the Multi-regional Modeling Working Group (MMWG). The RTOs will model already announced generation deactivations and assumed deactivations based on the Illinois legislation. The models will also use projects in the interconnection queues for the generation replacement from deactivations.

PJM will work with the affected transmission owners for case assumptions and identifying any mitigation upgrades, schedules and costs resulting from the deactivations, Egan said.

Interconnection Subcommittee Initiative

Jason Connell, director of infrastructure planning for PJM, discussed the possibility of forming a new subcommittee to continue discussions of interconnection process changes after work in the Interconnection Process Reform Task Force (IPRTF) finishes.

PJM's proposal regarding the development of new rules for the interconnection process that came out of the IPRTF won near unanimous support from stakeholders at the January PC meeting. (See "New Interconnection Rules Endorsed," *PJM PC/TEAC Briefs: Jan. 11, 2022*.)

Connell said PJM staff have had discussions for several weeks internally and with stakeholders about creating a new subcommittee to continue discussions on additional interconnection issues identified in the task force. PJM is working on formulating a subcommittee charter to bring to the April PC meeting for a first read. Connell said the intention is to begin holding meetings of the new subcommittee by June and establish a near-term agenda if it's endorsed by stakeholders.

Manual 14F Update

Joseph Hay of PJM's infrastructure coordination department *provided* a first read of *Manual 14F: Competitive Planning Process* regarding the biennial review. Hay said the review involved two main changes to the manual.

First, the critical energy/electric infrastructure information (CEII) in Manual 14F was referenced over to Manual 14B because that manual is the source document for PJM's CEII. Hay said the change will eliminate the requirement to edit Manual 14F whenever a change is made to 14B.

The second significant update was that the Secure File Transfer Tool used to submit all proposals was replaced with a requirement to use "Competitive Planner" to submit proposals. Hay said the Secure File Transfer Tool is still available for stakeholders and will be used to submit supplemental data on an "as needed" basis.

Stakeholders will vote on the manual changes at the April PC meeting.

Manual 21A Revisions

Joshua Bruno, senior analyst in PJM's resource adequacy planning department, *provided* a first read of revisions in *Manual 21A: Determination of Accredited UCAP Using Effective Load Carrying Capability Analysis*. The revisions are part of an effective load-carrying capability (ELCC) model run timing update and other changes to reflect the continuation of the current method of providing unit-specific backcasts only as requested.

The committee will be asked to approve an *issue charge* and *problem statement* and endorse the proposed manual revisions as part of the "quick fix" process at the April PC meeting.

PJM rules allow voluntary submission of unit-specific wind and solar parameters for development of backcasts for newer resources, Bruno said, but current manual language has an expiration date of March 1 for voluntary submissions. The submission of unit-specific parameters for all wind and solar is mandatory after the expiration date.

The alternative method is to use a zonal backcast, Bruno said, which PJM has found to be an "adequate" process.

The quick fix calls for removing the March 1 expiration date, Bruno said, which would allow PJM to continue the current practice where newer resources have the ability to elect to submit the unit-specific data or use the zonal backcast.

Bruno said another change included in the proposal is that the 2025/26 Base Residual Auction would use the December 2022 ELCC run instead of the older July 2022 run. He said the change would allow for the most recent data to be used for the when calculating the accredited unforced capacity (UCAP) for the 2025/26 BRA.

Transmission Expansion Advisory Committee

NJ Offshore Wind

Aaron Berner, PJM manager of transmission planning, *provided* an update on the New Jersey offshore wind state agreement approach (SAA) proposal window at last week's Transmission Expansion Advisory Committee meeting.

Berner said PJM has divided Option 1a, which involves onshore upgrades to existing transmission facilities, into several different geographical clusters to help in the review process. The clusters include: Northern New Jersey; Central New Jersey; Southern New Jersey; the Southern New Jersey border; and the Pennsylvania-Maryland border.

PJM is also continuing a market simulation analysis for the project combinations selected for a reliability analysis, Berner said, along with constructability and independent cost reviews of both the onshore and offshore proposals.

Berner said the New Jersey Board of Public Utilities recently posted a *notice* regarding a series of stakeholder meetings to collect stakeholder input on the evaluation of the transmission proposals. The first meeting takes place on March 22 with a focus on the SAA goals, the evaluation process and a review of the applications received.

A second meeting on March 30 deals with how the potential transmission projects will integrate with future offshore wind projects.

Generation Deactivation

Phil Yum of PJM's system planning modeling and support department *provided* an update on two recent generation deactivation notifications.

The 1.9-MW Ottawa County Landfill in Ohio's American Transmission Systems Inc. (ATSI) transmission zone requested a deactivation date of May 31, while the 81-MW Essex 9 gas-fired generation unit in the Public Service Enterprise Group zone in New Jersey requested a deactivation date of June 1.

Yum said reliability analyses for both units are currently underway. ■

— Michael Yoder

PJM News

FERC Accepts PJM ARR/FTR Changes

By Michael Yoder

FERC on Friday accepted PJM's revisions intended to increase transparency into and the efficiency of the RTO's auction revenue rights (ARR) and financial transmission rights markets (*ER22-797*).

The commission's decision marks a milestone for PJM after it and its stakeholders spent several years discussing changes to the markets after the GreenHat Energy default in 2018.

PJM filed the *proposal* in January after stakeholders endorsed the revisions at the Markets and Reliability Committee and the Members Committee in the fall with majority support. The FTR portion of the tariff revisions will take effect on Sept. 1, and the ARR portion on Feb. 1, 2023.

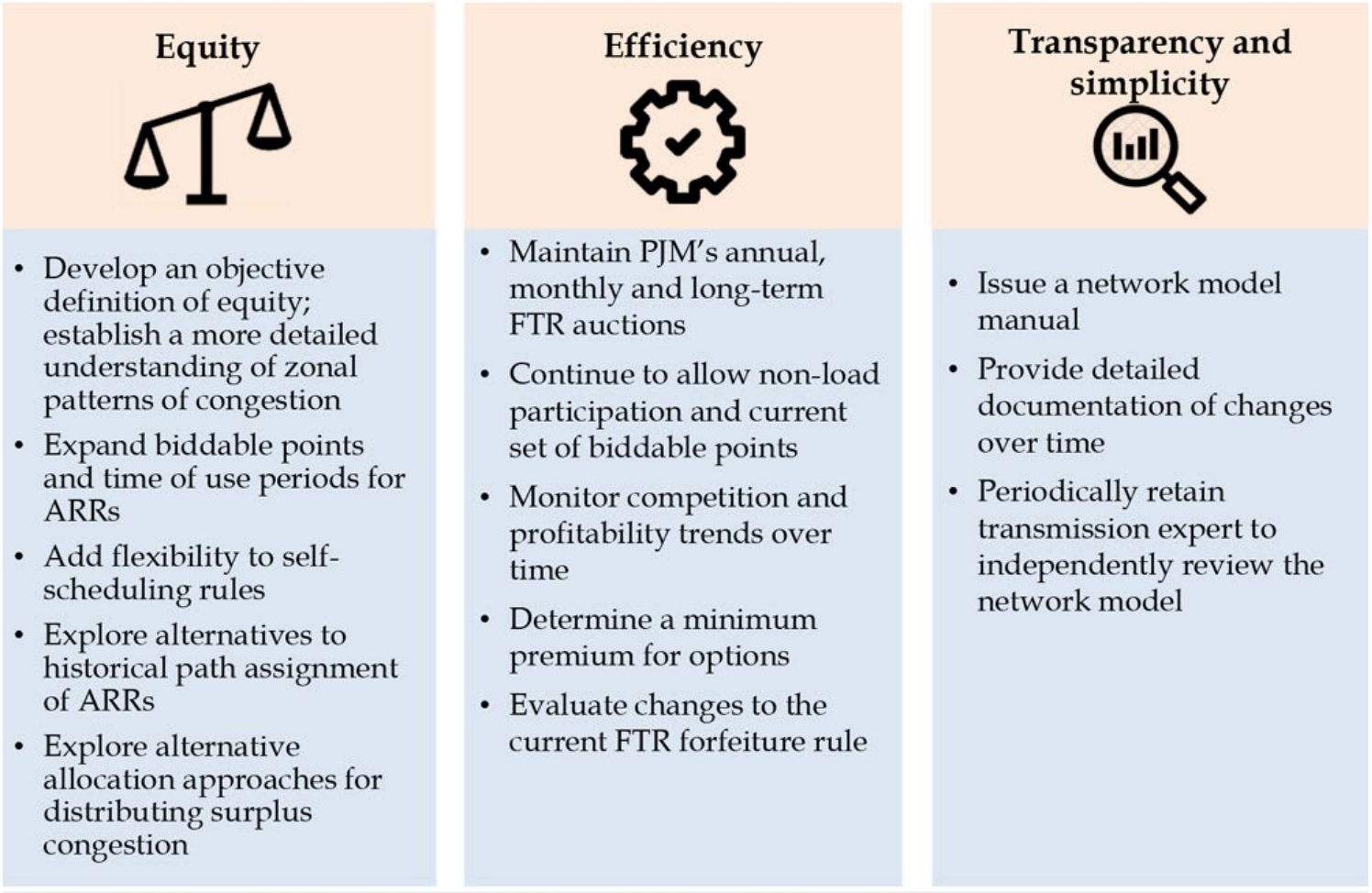
"We find that PJM's proposal is just and reasonable because it enhances hedging opportunities for load and helps enhance market liquidity and future price discovery," the commission said.

PJM's proposal included revisions to its *tariff* and the *Operating Agreement* that were guided by the findings of a *report* developed by London Economics International (LEI).

The RTO said its proposal aimed to recognize recommendations made in the LEI report and address concerns raised by the Independent Market Monitor and stakeholders. The proposal also sought to maintain the consultant's conclusion that the existing FTR product is "reasonable and generally achieving the intended purposes" of serving as a financial equivalent to firm transmission service and to ensure "open access to firm transmission service by providing a congestion-hedging function."

"The LEI report found that PJM's FTR/ARR market design is achieving its dual purposes of facilitating the return of congestion charges to load and enabling hedging and supporting forward market activity, and overall is 'creating overall positive value for load,'" the commission said. "However, the LEI report outlined potential enhancements to PJM's FTR/ARR market design, focused on the themes of equity, efficiency and transparency, which PJM reflected in the instant proposal."

The revisions make it so ARRs are allocated based on 60% of network service peak load, rather than zonal base load. They also provide additional self-scheduling options for ARR holders; add new FTR class types for on-peak weekday, on-peak weekend and holiday, general everyday off-peak and 24-hour products; increase the bid limits in all FTR auctions from $10,000 to $15,000; and add a $1/MW-period class clearing price floor for all FTR option products.



Proposed enhancements to PJM's current ARR/FTR market design. | *London Economics*

PJM News

Protests

Several stakeholders protested portions of PJM's proposal.

A group of consumer advocates — including the D.C. Office of the People's Counsel, the Citizens Utility Board, the Delaware Division of the Public Advocate, the Maryland Office of People's Counsel, the New Jersey Division of Rate Counsel, the Pennsylvania Office of Consumer Advocate and the PJM Industrial Customer Coalition — said they supported PJM's proposal but maintained that it "does not go far enough in some respects."

The advocates argued that even though a more direct alignment of congestion revenues and costs is "undoubtedly a step towards a more efficient and equitable FTR/ARR market," the change doesn't address situations where surplus congestion or auction revenues occur and "should be returned to the load that paid for the transmission upgrades that made those surplus revenues possible."

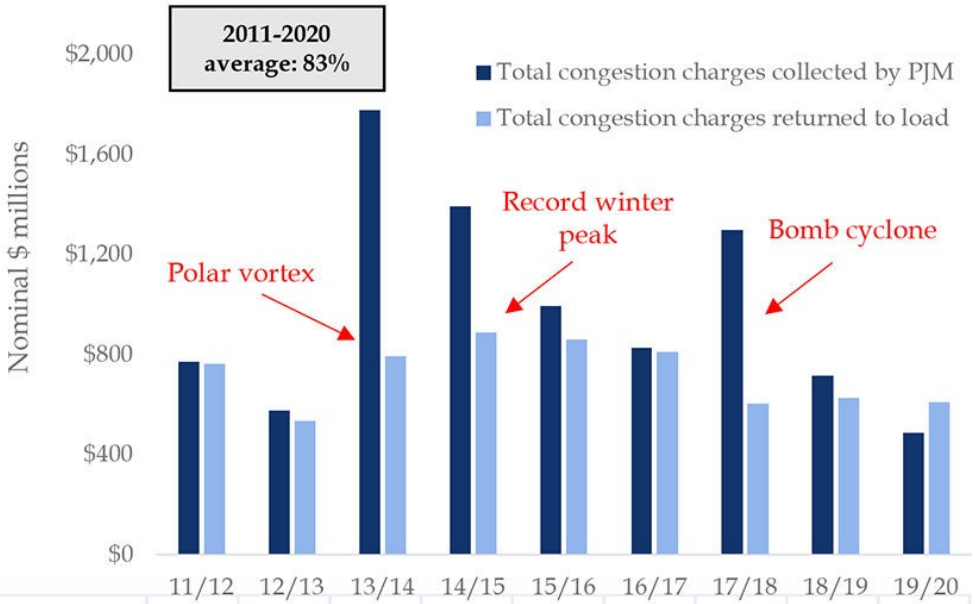
Dominion also expressed support for portions of the proposal, but it argued that the revisions don't fully address the "under-allocation of congestion revenues" for load and an inability of certain load-serving entities to "come close to covering their congestion costs." Dominion said PJM's filing "does little" to address "disparate outcomes" under the current ARR/FTR construct that "persistently creates results where the congestion cost recovery by LSEs varies greatly."

The Monitor alleged that PJM's filing "perpetuates or worsens fundamental flaws in the existing PJM FTR/ARR market," saying the current market design "consistently failed to return the congestion revenues to the load that paid it."

It also argued that the total congestion offset paid to load is "inequitable and varies by zone," with some zones receiving more in offsets than the total congestion payments and other zones receiving less in offset. The offsets "are a function of the assignment of ARRs and the valuation of ARRs in the FTR auctions" and that the expansion or modification of the path-based rights available to load and the market will "simply change the arbitrary allocation of congestion among ARR holders and participants in the FTR market and will not correct the arbitrary allocation of congestion."

FERC Determination

The commission said it determined the ARR market construct were just and reasonable and that the expansion of the source/sink combinations of the ARR allocation process "provides load the first rights to the transmission system before FTR holders can purchase such rights and, therefore, increases the network capacity allocated to load."



Total congestion payments collected by PJM versus congestion charges returned to load | *London Economics*

"While not the sole purpose, one of the purposes of the FTR/ARR market is to return congestion charges to load, and this proposed change is consistent with that purpose," FERC said.

FERC said the proposal's call to replace zonal base load "protects zonal native load hedging ability by increasing up-front capability to load." The commission said PJM's selection of the 60% standard was a "reasonable limit at which additional value could be guaranteed" without significantly increasing violations or producing additional transmission constraints.

It also said that "PJM's proposal to not award FTR options with a market-clearing price of less than $1 mitigates risk-free profit by ensuring all FTR options that clear have, at least at the time they were bid and awarded, actual value," the commission said. "We also find that PJM's proposal to create new FTR class types provides more flexible hedging opportunities."

The commission said it disagreed with the challenges to how congestion surplus is allocated and the "fundamental nature" of a path-based FTR/ARR construct. It said the protests citing concerns regarding provisions of the existing FTR/ARR market construct were outside the scope of the proceeding.

FERC also disagreed with the Monitor's argument that the revisions in the proposal do not return "sufficient" congestion revenue to load, saying it rejected the "foundational argument" that the "sole purpose of FTRs is to return congestion revenue to load and the market should therefore be redesigned to accomplish that purpose."

"PJM's proposal is not rendered unjust and unreasonable simply because the IMM thinks a further allocation to load would be desirable," FERC said. "Consistent with commission precedent, we reiterate that 'the purpose of FTRs to serve as a congestion hedge has been well established.' FTRs were designed to serve as the financial equivalent of firm transmission service and play a key role in ensuring open access to firm transmission service by providing a congestion-hedging function." ■

SPP News

FERC Again Rejects Invenergy's SPP Waiver Request

By Tom Kleckner

FERC on Thursday modified its discussion of a previous order rejecting Invenergy's request to waive SPP's financial security posting requirements, denying a rehearing request by operation of law.

The commission said in a letter order that it continued to find Invenergy's waiver request does not address a concrete problem, as required under FERC's four-part waiver criteria (*ER21-2807*).

Invenergy Wind Development and Invenergy Solar Development asked for the rehearing after the commission in December found that developer did not demonstrate that its potential loss of posted financial security "is a concrete problem that warrants waiver." (See *FERC Splits on Waivers from SPP IC Process*).

The renewable developer said it had eight interconnection requests pending in the same SPP queue cluster as another developer. It alleged that the RTO said the study would need to be redone because requests higher in the queue were withdrawn from an earlier cluster. Invenergy said a discussion with SPP staff about the upgrades and assigned cost allocations left its questions unresolved.

Invenergy said that, faced with the choice of withdrawing its requests or posting a third financial security to preserve its option to stay in the queue and avoid losing previously paid security amounts, it chose to post security under protest for three of its eight projects.

FERC said Invenergy's waiver request would address the potential to lose its posted financial security if it were to withdraw from the queue with a corresponding impact on the cost and timing of the remaining and lower queued interconnection customers.

"We continue to find that this potential loss is not a concrete problem that warrants waiver of the tariff as Invenergy has not been confronted with forfeiture of its financial security at this time," the commission said.

Commissioner Mark Christie, who dissented from the previous order, concurred this time, saying it "represents the least bad alternative at this time."

"It is undeniable that the commission's 'case-by-case' implementation of its waiver policy has allowed it to, in this instance, provide undue preference for one interconnection customer over another without adequate justification," Christie said. "Here, however, my colleagues have taken advantage of this discretion to reach outcomes that are both arbitrary and unduly discriminatory, and in doing so have undermined whatever value remained of the commission's four-pronged waiver 'test.'

"I hope going forward, we can reexamine the commission's waiver policies to provide clear guidance that can be consistently and fairly applied going forward," he said. ■

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

Company Briefs

Chevron Stakeholders Want to Cut Emissions, Oust Board Chair

Majority Action, a Chevron shareholder advocacy group, last week filed papers with the Securities and Exchange Commission asking investors to oust the chairman and another board member because of the company's failure to reduce carbon emissions.

The group argues that even though a majority of shareholders last year called for Chevron to "substantially" reduce carbon emissions, the company is planning to cut as little as 5% of the emissions intensity from its energy products. The group aims to displace Michael Wirth, chairman and chief executive since 2018, and Ronald Sugar, a board member since 2005. The group is not seeking to fire Wirth as CEO; it wants to remove him from the 12-member board.

The Chevron board opposed the measure, saying the company was supporting an approach to achieve the goals of the Paris agreement. However, more than 60% of shareholders sided with Majority Action.

More: *The Washington Post*

WATT Coalition Transitions to Trade Association

The Working for Advanced Transmission Technologies (WATT) Coalition has expanded and incorporated as a 501c6 trade association to push deployment of grid-enhancing technologies such as dynamic line ratings (DLRs), advanced power flow control and topology optimization. The coalition, which formed in 2017 with six members, has grown to 11 with the addition of VELCO, Pine Gate Renewables and Invenergy.

"We've reached a turning point in the energy transition, where stakeholders across the electricity industry realize we need to use our existing infrastructure more efficiently to accelerate the pace of transformation," WATT Coalition Chair Ted Bloch-Rubin said in a statement. "The WATT Coalition's growth will help develop and implement the best policy solutions to more fully utilize America's grid infrastructure."

The group's incorporation won shout-outs from officials of Advanced Energy Economy, the American Council on Renewable Energy, Solar Energy Industries Association, Sustainable FERC Project and the Business Council for Sustainable Energy. In February, FERC opened a Notice of Inquiry to build an evidentiary record on the use of DLRs, building on its Dec. 16 order calling for the end of static transmission line ratings. (See *FERC Opens Inquiry on Dynamic Line Ratings*.)

More: *WATT Coalition*

DTE Executive Chairman to Retire

DTE Energy Executive Chairman Gerry Anderson announced last week that he will retire this summer after almost 30 years with the company.

Anderson, 63, will retire on June 30 after joining DTE in 1993. Jerry Norcia, who succeeded Anderson as DTE's CEO in 2019, will assume the role of chairman of the board on May 5 when Anderson's term ends.

More: *The Detroit News*

Rivian Racks Up $4.7 Billion Loss

Electric vehicle startup Rivian reported a net loss of $2.5 billion in the fourth quarter of 2021 and $4.7 billion for the full year.

The company cited ongoing tight supplies of computer chips, components and raw materials and said the issues will limit its production to 25,000 trucks this year.

Despite the losses, Rivian said it ended 2021 with $18.4 billion in cash and equivalents and that it has an additional fundraising capacity with an asset-based revolving credit line. It raised about $11 billion as a private company, from backers, including Amazon and Ford, and a further $13.7 billion from its 2021 IPO.

More: *Forbes*

Federal Briefs

Coal Drives Energy-related CO_2 Emissions to Record High in 2021

Energy-related carbon dioxide emissions last year rose by 6% to their highest levels in history, the International Energy Agency said.

The organization pointed to coal as the main driver behind the 36.3 billion metric tons of carbon dioxide. It said the fossil fuel was responsible for more than 40% of overall emission growth, hitting a record of 15.3 billion metric tons. Natural gas accounted for 7.5 billion tons, while oil accounted for 10.7 billion tons.

The IEA noted that renewables and nuclear managed to supply a bigger share of generation than fossil fuels in 2021. Generation based on renewables exceeded 8,000 terawatt-hours last year, which was described as an all-time high.

More: *CNBC*

NRC to Reconsider Environmental Impact of Point Beach Extension

The Nuclear Regulatory Commission last week suspended its review of NextEra Energy's application to extend the operating licenses for its Point Beach Nuclear Plant while the agency completes a new review of its environmental impacts.

The original 40-year licenses for the two units were renewed in 2005 and are set to expire in 2030 and 2033. NextEra has applied for a 20-year extension, known as "subsequent license renewal." However, the commission has suspended all subsequent license renewals after concluding a generic environmental impact statement completed in 2013 did not meet federal requirements. Instead, the NRC will complete site-specific reviews for Point Beach and other plants seeking extensions.

More: *Wisconsin State Journal*

Senate Postpones Robinson Nomination, Advances Others

The Senate Committee on Energy and Natural Resources last week postponed a vote on Maria Robinson's nomination for assistant secretary in the Office of Electricity, citing a lack of in-person votes.

Nine of the committee's 10 Democrats

were physically present at the meeting to consider a number of President Joe Biden's nominations, with Sen. Bernie Sanders — an Independent who caucuses with Democrats — voting by proxy. However, under committee rules that ascribe more power to in-person votes, that left Sen. Joe Manchin one vote short of what he needed to push Robinson's nomination through if the panel's 10 Republicans lined up in unanimous opposition. Manchin's office said it will reschedule the vote for when every Democratic senator could be in attendance.

The committee did advance other nominations: Joseph DeCarolis, administrator of the Energy Information Administration; Asmeret Asefaw Berhe, director of the Office of Science in the Department of Energy; and Shalanda Baker, director of the Office of Minority Economic Impact in the Department of Energy.

More: *State House News Service*

US Push to Export LNG Amid Ukraine Crisis Slowed by Climate Concerns

White House efforts to boost U.S. liquefied natural gas exports and reduce Europe's reliance on Russian gas after the invasion of Ukraine are proceeding slowly because of concerns about the impact on climate change, government and industry sources said.

The Biden administration was weighing the announcement of an interagency review of ways to boost LNG exports to Europe; however, the review has been shelved for now after some argued it would counter the administration's efforts to wean the U.S. off fossil fuels consumption and production and tackle climate change.

Russia supplies Europe with about 40% of its natural gas.

More: *Reuters*

State Briefs

ARKANSAS

Two Men Sentenced in Connection with Failed Wind Farm

U.S. District Judge Tim Brooks last week sentenced Jody Davis and Phillip Ridings to federal prison in connection with the development of a wind turbine that was never operational and a proposed wind farm in Washington County that was never constructed.

Davis and Ridings were charged with wire fraud, aiding and abetting wire fraud, money laundering and aiding and abetting money laundering; they were sentenced to 15 years and 97 months in prison, respectively. Both were ordered to pay $1.13 million in restitution.

According to court documents, Davis and Ridings formed two limited liability companies, Dragonfly Industries International and Arkansas Wind Power, to develop what they told investors was a revolutionary wind turbine design that would be installed on a proposed wind farm. According to the superseding indictment, Davis and Ridings conspired with Cody Fell and others, beginning as early as June 2014 and continuing through March 2018, to obtain money from investors who were told that it would be used to build a prototype of the turbine and develop wind farms. Evidence showed that the two employed most of the $700,000 they obtained from investors for personal use.

More: *Talk Business & Politics*, *U.S. Department of Justice*

CALIFORNIA

DESRI Developing State's Largest Solar, Storage Project

Renewable energy producer D. E. Shaw Renewable Investments and the Sacramento Municipal Utility District last week announced they are planning the utility's first solar-plus-storage project.

The project, which will offer 200 MW with 400 MW of storage, is the largest combined solar-plus-storage facility announced in northern California under PPA contract.

The project is expected to be operational by 2024.

More: *Solar Power World*

FLORIDA

Lawmakers Approve Path to End Solar Net Metering

The Senate last week voted 24-15 to pass a bill that will set a timeline to end net metering in the state.

Starting in 2024, the financial credits some rooftop solar homeowners receive on their bills will gradually decrease until they are reduced to a level that the Public Service Commission determines is no longer considered a subsidy. The bill would kick in at the start of 2024 with panel owners getting a 75% credit. That would fall to 60% in 2026 and 50% in 2027 before dropping to the market rate in 2029.

The bill will grandfather in solar panel owners and lessees, allowing them to maintain their entry credit rate for 20 years.

The legislation now heads to Gov. Ron DeSantis.

More: *Florida Politics*, *Miami Herald*

INDIANA

New Law Makes It Harder for HOAs to Say No to Solar

Gov. **Eric Holcomb** last week signed House Bill 1196, making it harder for Homeowners Associations to prohibit residents from adding solar panels to their homes.

A review of hundreds of HOAs across central Indiana suggested that as many as half expressly prohibit all solar panels while many others have vague or limiting language that leaves the decision unclear and up to committees devoid of any objective criteria. The new law creates a system for homeowners to petition their HOA boards to install solar panels, and if they meet certain requirements they can't be denied.

More: *Indianapolis Star*

IOWA

Page County Officials Turn Down Wind Ordinance Moratoriums

The Page County Board of Supervisors last week voted 2-1 to reject a pair of wind ordinance moratoriums.

The board discussed and voted down both a 180-day and a 90-day moratorium on the submission, acceptance or implementation

of any wind energy conversion system applications and any recording of easements while the ordinance was reopened for review.

One of the primary concerns raised by citizens is the setback, which is from an occupancy rather than property lines. However, Supervisor Chuck Morris said during the ordinance development process, the board could not find another county that used the property line in its ordinance.

More: *KMA Land*

OHIO

Judge Demands Answer on Bribe Payments

U.S. District Judge John Adams last week abruptly ended a hearing when FirstEnergy Corp. attorney Jeroen Van Kwawegen refused to say who at the company was responsible for paying bribes to a dark money group in the HB6 corruption scandal.

Adams told Van Kwawegen, "You are wasting my time. You are not here to answer my questions. You are here to duck and avoid," before ending the hearing. Van Kwawegen had told Adams it was a senior executive but said he could not disclose the name while the settlement is pending.

The hearing concerned a proposed settlement of lawsuits filed by shareholders on behalf of FirstEnergy against board members and top executives.

More: *The Associated Press*

OREGON

Energy Department to Offer Grants for Community Solar, Wind Projects

The state Department of Energy last week announced it will release $12 million in grants for community projects to boost renewable energy access.

The money is for projects such as adding more electric vehicle charging stations and adding solar panels to public buildings. Money will also go to energy resiliency projects, such as wind and solar storage systems that can kick in during an emergency. Applicants can partner with community groups, nonprofits and private businesses on projects, with priority given to those that address environmental justice, energy resiliency and efficiency

Applications for the grants are due by June 10.

More: *Oregon Capital Chronicle*

TENNESSEE

MLGW Refuses to Disclose Electricity Bidders

Memphis, Light, Gas and Water said while it has received more than 20 bids from companies that are looking to supply the city during the next 30 years, it will not disclose the names of the bidders. MLGW has said it will release all the information when bidding is complete.

A public records expert said there is no requirement that MLGW release the bids under the Tennessee Public Records Act but said there is nothing preventing them from at least naming names.

The only know bidder is the Tennessee Valley Authority.

More: *Memphis Commercial Appeal*

UTAH

Companies Agree on New Solar Sharing System

Provo City Power and Spanish Fork Power, two of Utah County's largest power providers, announced last week that they are teaming up for a new solar power sharing program that allows customers to access solar power resources even if they don't own solar panels.

Open enrollment for the SharedSolar program began March 7 with a first-come, first-serve model for residents in Provo, Spanish Fork and Nephi. Residents in the program will have access to 3,000 leases of 200 kWh blocks from a facility in Spanish Fork that is shared among customers.

More: *KSL.com*

VIRGINIA

Judge Says Botetourt County Wind Farm Needs Further Review

Circuit Court Judge Joel Branscom last week said the Department of Environmental Quality made procedural errors in approving a Botetourt County wind farm and sent a modified permit back to the agency for more review.

The DEQ will likely have to hold another public comment period on the Rocky Forge Wind farm, which has undergone many revisions and postponements since it was proposed in 2015 by Apex Clean Energy.

The project calls for 13, 612-foot turbines.

More: *The Roanoke Times*

WISCONISN

Dairyland Considers Adding Nuclear Power to its Portfolio

Dairyland Power Cooperative last week entered into an agreement with NuScale Power to explore using smaller scale nuclear generating technology to provide power to residents in Wisconsin, Minnesota, Iowa and Illinois.

Company officials are viewing the potential development of a new nuclear power source to provide a carbon-free alternative to sources such as wind and solar. They are also looking at other alternatives, including battery storage for the wind and solar power it already generates.

Dairyland is the second Wisconsin utility to partner with NuScale in the past year. Xcel Energy entered into a similar agreement last summer.

More: *Wisconsin Public Radio*