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June 23, 2020

PG&E Sentenced; Bankruptcy Plan Approved

By Hudson Sangree

A federal judge approved Pacific Gas and Electric's \$60 billion Chapter 11 reorganization plan Saturday, two days after a state judge sentenced the company to \$4 million in fines and costs, the maximum allowable, for starting the November 2018 Camp Fire that killed 84 people and destroyed the town of Paradise.

It was the state's deadliest and most destructive wildland blaze and the worst of the catastrophes that led PG&E to seek bankruptcy protection in January 2019.

The approval of PG&E's reorganization plan by U.S. Bankruptcy Court Judge Dennis Montali in San Francisco came after 17 months of negotiations between the utility, fire victims and other creditors, and Gov. Gavin Newsom. It allows the country's largest electricity provider to resume its role as monopoly utility for most of Central and Northern California.

The utility will leave bankruptcy burdened with



A USDA Forest Service law enforcement and investigations team searched through wreckage after the Camp Fire swept through the communities of Paradise, Magalia and Concow on Nov. 8, 2018. | Forest Service/Tanner Hembree

billions of dollars in debt and operating under the scrutiny of judges, elected officials and an angry public.

In Chico, Calif., on Thursday, Butte County Superior Court Judge Michael Deems said he couldn't imprison a corporation, but he repeat-

Continued on page 5

FERC Announces Tech Conferences on Carbon, OSW

By Michael Brooks

FERC on Wednesday announced it will hold two technical conferences later this year: one to examine carbon pricing in the wholesale electricity markets and another to consider its transmission policies in relation to the growth of offshore wind.

The first conference, to be held Sept. 30

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'Macro Grid' Seeks to Connect Grid's Regions



Long-haul transmission lines are key to the Macro Grid Initiative. (p.4) | Southwire

PJM Stakeholders Endorse End-of-life Proposal

By Michael Yoder

PJM members endorsed a proposal to open end-of-life (EOL) projects to competition Thursday, setting up a showdown with transmission owners at FERC.

The joint stakeholder *proposal*, which was sponsored by American Municipal Power (AMP), Old Dominion Electric Cooperative (ODEC) and others, cleared the two-thirds threshold with a sector-weighted vote of 3.45 (69%) to win the Members Committee's endorsement. The measure had fallen short with a 3.23 (65%) vote at the Markets and Reliability Committee meeting May 28. (See PJM End-of-life Proposals Fail at MRC.)

In the interim, the Transmission Owners Agreement-Administrative Committee (TOA-AC) on June 12 filed Attachment M-3 amendments with FERC, laying out their own EOL proposal, which aligned with the position of PJM staff (ER20-2046). (See TOs Vote to File End-

of-life Rules with FERC.) [Late Thursday, ODEC and AMP Transmission filed a motion seeking to have the TOs' filing dismissed on procedural grounds. The companies said the TOs issued the 30-day notice of their filing without a formal vote of the TOA-AC, violating the Consolidated Transmission Owner Agreement and AMPT and ODEC's rights as PJM TOs.]

PJM General Counsel Chris O'Hara said after Thursday's vote that the RTO will file the stakeholders' proposal with FERC within two weeks, even though it believes it violates its governing documents.

"This is obviously a difficult spot for PJM," he said, citing the "tension between PJM's obligation to ... comply with all of its governing documents [and its] obligation to accomplish

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GreenHat Maneuvers to Remove FERC from Shell Case (p.27)

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Monitor Breaks with MISO over RA Concerns

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In this week's issue

FERC/Federal

Correction

In the June 15 article, "MISO's 1st Competitive Tx Project Completed," RTO Insider omitted a sentence explaining that the \$64.9 million total project cost of the Duff-Coleman project also included costs of Vectren and Big Rivers Electric to expand their substations to accommodate the project. Those costs were not contemplated in Republic Transmission's original \$49.8 million proposal for the work, and the article made Republic's cost overruns appear inflated.

FERC/Federal News



FERC Announces Tech Conferences on Carbon, OSW

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and led by the commissioners themselves, is in response to a petition and subsequent supportive comments earlier this year from a diverse array of stakeholders, including independent power producers, environmentalists and renewable energy trade associations. (See IPPs, Renewable Groups Seek FERC Carbon Pricing Conference.)

"When such a broad group of voices asks the commission to convene an exchange of ideas, I think it is important that we do so," Chairman Neil Chatterjee said during the commission's monthly open meeting Thursday.

The main topic will be whether FERC even has the legal authority to regulate prices on carbon in regions with commission-jurisdictional markets, Chatterjee told reporters during a teleconference after the meeting. He noted that the petitioners merely asked FERC to "start the conversation" and not for the commission to create a specific rule. "I'm not going to prejudge where the conversation will lead, but I do think it's significant we're having this conversation." he said.

The announcement was *celebrated* by the groups that submitted the original petition, including the Electric Power Supply Association, American Council on Renewable Energy and R Street Institute.

"Very happy to see this and appreciate FERC's leadership in convening this conversation," tweeted Jeff Dennis, general counsel for Advanced Energy Economy and a former commission staffer. "I led the development of a few of these conferences in my time and recognize

that they are not simple endeavors and require a great deal of staff and commissioner time."

However, Justin Gundlach, a senior attorney for the New York University School of Law's Institute for Policy Integrity, warned stakeholders not to "get too excited," *noting* that the commission's language in its announcement meant that the conference "is *not* going to be about RTOs or other federal entities adopting a carbon price."

"The purpose of this conference is to discuss considerations related to state adoption of mechanisms to price carbon dioxide emissions, commonly referred to as 'carbon pricing,' in regions with commission-jurisdictional organized wholesale electricity markets," FERC said (AD20-14).

"I didn't have a role in the drafting of the press release issued yesterday, but [Gundlach's interpretation] wasn't my understanding," Commissioner Richard Glick told *RTO Insider*. A FERC spokesperson noted that the commission is still working on a detailed agenda for the conference.

The second conference announced Wednesday will be held Oct. 27 and will be led by staff. Participants will "discuss whether existing commission transmission, interconnection and merchant transmission facility frameworks in RTOs/ISOs can accommodate anticipated growth in offshore wind generation in an efficient and effective manner that safeguards open-access transmission principles" and "consider possible changes or improvements to the current framework should they be needed to accommodate such growth" (AD20-18).



Vinyard Wind

Asked by reporters what prompted this conference, Chatterjee said that "the time is ripe to start a dialogue" given the expected growth of offshore wind resources. There are about 26 GW worth of projects going through the federal permitting process, and states have collectively established procurement targets of more than 28 GW, according to the American Wind Energy Association.

Chatterjee was also asked whether the conference will address concerns that offshore wind will be priced out of PJM's capacity market because of the commission's expansion of the RTO's minimum offer price rule. He did not directly answer the question, noting that the commission was still working on an agenda but stressed, as he has "time and time again," that the commission's "efforts to protect markets are fuel-neutral."

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FERC/Federal News



'Macro Grid' Seeks to Connect Grid's Regions

ACORE, ACEG Combine on Educational Effort

By Tom Kleckner

Two environmental advocacy coalitions are combining forces on an initiative to build support for expanding, upgrading and stitching together the nation's transmission grid to bring renewable energy to high-demand urban centers.

The American Council on Renewable Energy (ACORE) and Americans for a Clean Energy Grid (ACEG) last week said their Macro Grid Initiative would push for transmission allowing the U.S. to "harness its abundant renewable resources and balance electric demand across the country."

The Macro Grid Initiative will undertake "wide-ranging" educational efforts supporting transmission expansion and recognizing the "substantial" benefits of new regional and interregional transmission. ACORE and ACEG said this can be accomplished by connecting grid regions like MISO, PJM and SPP.

The 15 states between the Rocky Mountains and Mississippi account for 88% of the nation's wind technical potential and 56% of solar technical potential, the organizations said. However, the region is home to only about 30% of the expected electricity demand in 2050.

ACORE CEO Gregory Wetstone called for im-

proving the nation's "outdated and balkanized electricity transmission system" to compete in the 21st century economy and "properly tackle" the climate crisis.

"A Macro Grid will allow for better integration of low-cost renewable energy, resulting in a more resilient, efficient grid and a dramatic reduction in carbon emission," he said.

"We believe every supporter of clean energy should be a supporter of a stronger backbone transmission grid," said Rob Gramlich, ACEG's executive director. "Americans for a Clean Energy Grid looks forward to working with ACORE to explain to the public and policymakers why that is the case and to build support for its development."

The initiative's priorities include an expanded Eastern Interconnection with a focus on the MISO, PJM and SPP regions.

The effort was endorsed by officials of the American Wind Energy Association, Solar Energy Industries Association, Advanced Power Alliance, WIRES, R Street Institute, Union of Concerned Scientists, Natural Resources Defense Council, ITC Holdings and the Clean Grid Alliance.

ACEG and ACORE say upgrading the U.S. transmission system is a cost-effective way to alleviate transmission congestion and



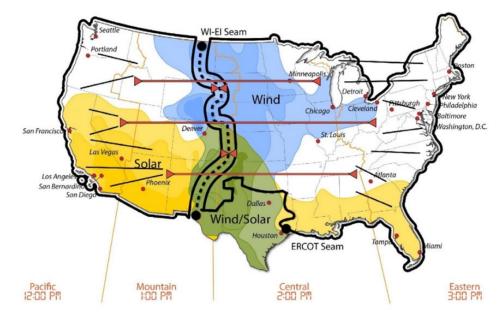
The Great Plains are home to much of the U.S.' wind resources, including KCP&L's Slate Creek Wind Project. | Evergy Companies

integrate new generation. They cited several recent studies to support their case:

- a ScottMadden study for WIRES that said expanding and upgrading interregional transmission lines would help utilities, corporate and institutional buyers and other consumers meet carbon and clean-energy goals by affordably and reliably integrating low-cost renewable resources.
- the National Renewable Energy Laboratory's analysis of interconnection seams that found increased transmission development could save consumers more than \$47 billion and return \$2.50 for every dollar invested.
- a paper in the journal Nature Climate Change on carbon dioxide emissions that said a nationwide HVDC network optimized for the nation's best wind and solar resources could reduce CO2 emissions by 80% without increasing electric bills.

Former FERC Chair Pat Wood said in a statement that the 2000-2001 California/Western energy crisis and the 2003 North American blackout revealed that power markets require a robust infrastructure.

"Today, that means strong electrical ties between and across all the power regions," said Wood, now CEO of Hunt Energy Network. "I welcome the refreshed focus on this issue: Without a strong national power grid, we won't come anywhere close to the low-cost, low-carbon grid customers demand — and deserve." ■



Stitching together the power system's major regions would allow the U.S. to harness its renewable resources. | National Renewable Energy Laboratory

CAISO/West News



PG&E Sentenced; Bankruptcy Plan Approved

Continued from page 1

ed the words of U.S. Judge William Alsup, who oversees PG&E's probation for felony convictions related to the San Bruno gas pipeline explosion that killed eight people in 2010.

"If there was ever a corporation that deserved to go to prison, it's PG&E," Deems said, quoting Alsup. "This court is adopting that sentiment. If these crimes were attributed to an actual human person rather than a corporation, the anticipated sentence ... would be 90 years to be served in state prison."

PG&E pleaded guilty June 16 to 84 counts of involuntary manslaughter and one felony count of unlawfully starting a fire as part of a sentencing agreement with the Butte County District Attorney's Office.

'Back to Business'

Fire victims who lost family members in the Camp Fire made statements to the court all day Wednesday and on Thursday morning.

Mike Hanko, a retired truck mechanic, broke down in sobs as he recalled the death of his brother, Dennis Hanko, in the Camp Fire and the devastating effects on their family. The brothers had lived together in Paradise, helping each other through hard times, until a month before the fire, Hanko said.

Hanko, speaking on behalf of himself and his three sisters, said it upset him that PG&E seemed to care more for profits than human lives.

"They just file for bankruptcy, pay fines, money to people they have harmed, and then it's back to business," Hanko said. "How can you put a price on a life?"

District Attorney Michael Ramsey read a statement by Tammie Hillis, whose father, T.K. Huff, died in the Camp Fire. Hillis said her father was able to make it to the edge of his property in his wheelchair, where he had apparently tried to protect himself with a hose and water bucket.

Hillis said her family will never know if her father died quickly or suffered at length as the Camp Fire raced toward his home in the hamlet of Concow, which the fire destroyed shortly before it hit Paradise. His burned remains were identified through a DNA match.

"We are left to picture his last heart-wrenching moments on Earth," she wrote. "Please explain to me why my father had to die this way ...

alone, afraid of what was coming down the hill. This was a flaming monster, destroying everything in its path. Our father died from the ultimate monster, PG&E. Their complacency year after year is pure evil. They knew and chose to do nothing, which makes them murderers."

Ramsey released a report June 16, based on grand jury testimony, that detailed PG&E's failure to maintain its aging transmission lines near Paradise. A C hook that cost 22 cents when it was made in 1919 broke after nearly 100 years of wear. That dropped a 115-kV line that arced on its steel tower, sending molten metal onto dry brush below, Ramsey said Thursday. (See PG&E Pleads Guilty to 84 Homicides and Arson.)

He said his office had been unable to show that any PG&E executives approved decisions over the course of decades that led to the fire, but he warned the utility it should know that future disasters could result in individual prosecutions.

"Now, as a result of the investigation and the prosecution and the distribution of the report to the executives of PG&E, those folks are now tasked with the knowledge of their company's reckless behavior in failing to maintain their equipment," Ramsey said. "They are on notice."

He likened it to the procedure in California courts of warning repeat drunk drivers that they will be charged with second-degree murder if they kill someone while driving under the influence of drugs or alcohol.

PG&E Director Bill Smith, who will take over as acting chief executive when current CEO Bill Johnson retires at the end of June, represented the company at Thursday's hearing. (Johnson had pleaded "guilty, Your Honor" 85 times on June 16.)

Smith promised, as PG&E executives have vowed numerous times since the utility filed for bankruptcy in January 2019, that the company would change and that its equipment would never again cause a tragedy like the Camp Fire.

"Your Honor, we have come before this court [and the] Camp Fire victims ... with humility and respect, ready to be held to account for this tragedy and committed to regaining the trust that we have broken," Smith said.

Bankruptcy Approved

On Saturday, Bankruptcy Judge Montali signed an order approving PG&E's bankruptcy

reorganization plan, as he had said he would in a written order Wednesday and again on Friday, during a hearing to resolve remaining objections.

"These cases are among the most complex in U.S. bankruptcy history," Montali wrote in his Wednesday order. "They involve difficult legal, financial, practical and personal issues. They were filed because of overwhelming damage claims following the devasting 2015-2018 Northern California wildfires, leaving thousands of victims who suffered from those wildfires owed billions of dollars, plus thousands more of traditional non-fire creditors of various types also owed billions of dollars."

Like Deems. Montali said he felt he had little choice

"If the court does not confirm the plan, the only option appears to be leaving the debtors where they have been for the last 17 months," he wrote. "Leaving tens of thousands of fire survivors, contract parties, lenders, general creditors, allegedly defrauded investors, equity owners and countless others with no other options on the horizon is not an acceptable alternative."

PG&E had met the requirements of the U.S. Bankruptcy Code by offering a plan that is financially feasible and will not leave the utility facing liquidation after it exits bankruptcy. Montali said. PG&E had also resolved major disputes with objecting parties, and it had won approval for its plan from the California Public Utilities Commission under Assembly Bill 1054, which establishes a wildfire insurance fund for the state's investor-owned utilities. (See CPUC Approves PG&E Bankruptcy Plan.)

The company reached negotiated settlements with creditor committees, agreeing to pay \$13.5 billion to fire victims. \$11 billion to insurance companies and hedge funds that hold third-party subrogation claims and \$1 billion to local governments and agencies for wildfire expenses. PG&E plans to finance its bankruptcy with billions of dollars in stock and debt offerings, which it has already begun filing with the U.S. Securities and Exchange Commission.

On Monday, PG&E announced it had raised \$8.9 billion in debt, including \$3.5 billion for capital investments and \$5.4 billion as its contribution to the AB 1054 wildfire fund. (The fund will be financed equally by ratepayers and utilities.) The company said it expects to close Tuesday on an additional \$4.75 billion in debt. ■

ERCOT News



ERCOT Briefs

Staff Approve Austin Energy Units' Retirement, Mothballs

ERCOT last week approved two suspensionof-operations requests from Austin Energy, saying both generating units are not required to support the system after it conducted a reliability analysis.

On June 16, the Texas grid operator gave the go-ahead to retire Decker Lake 1, a 49-yearold gas-fired steam unit with a capacity of 315 MW. The unit will be decommissioned and retired permanently as of Oct. 31.

The next day, ERCOT signed off on Austin Energy's request to place the Nacogdoches Generating Facility into seasonal mothballs, with an operating period of May 15 to Oct. 15. The wood-fired East Texas plant is the country's largest biomass plant at 105 MW.

Austin Energy has told ERCOT it intends to retire both steam turbines at its Decker Lake facility. Decker 2 will be retired following the 2021 summer peak. Both units are nearing the end of their normal life expectancies. (See "Austin Energy to Retire 735 MW of Gas Units," ERCOT Briefs: Week of June 1, 2020.)

The municipal utility acquired Nacogdoches from Southern Power last year. It has a 20year power purchase agreement for the plant's



The Nacogdoches Generating Facility during its construction | Southern Co.

energy that expires in 2032.

System Demand Nears Pre-COVID Levels

ERCOT's system demand is almost back to normal pre-pandemic levels, according to the "backcast" model the grid operator uses to compare the coronavirus's effect on energy usage.

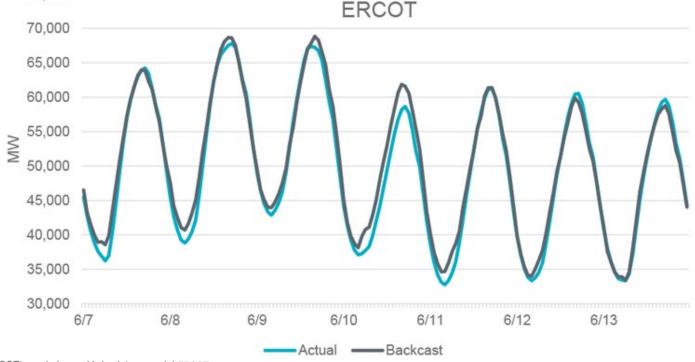
Staff said "it appears" the pandemic had less effect across all hours for the week beginning June 7. Weekly energy use is down by about 1%, and there have been no impacts on daily

peak demand.

ERCOT came close to a monthly record on June 8-9 when demand approached 69.1 GW. The grid operator did set a monthly record in April with a peak demand of 55.2 GW.

The backcast analysis compares model results using actual weather versus actual hourly load. The model was last updated in January and does not reflect the pandemic's effects.

- Tom Kleckner



ISO-NE News



Boston RFP Review Draws Unexpected Crowd

By Michael Kuser

About 170 stakeholders turned out Thursday for ISO-NE's teleconference *review* of the Phase One proposals in its Boston competitive transmission solicitation, overwhelming the Planning Advisory Committee's phone line and forcing the RTO to open another connection with greater capacity.

The RTO on June 8 surprised many stakeholders — and elicited a swift legal challenge — when it announced that it had narrowed the 36 responses to its first competitive request for proposals under FERC Order 1000 to a single finalist, a \$49 million project by incumbent utilities National Grid and Eversource Energy. (See National Grid, Eversource Finalist for Boston Tx Plan.)

ISO-NE Vice President of System Planning Robert Ethier prefaced the review with a defense of the RTO's evaluation process.

"While the results of this process may be different than some people had hoped or maybe even expected, arriving at the least-cost solution that requires no transmission siting and very little permitting is, to me, a clear success," he said.

Director of Transmission Planning Brent Oberlin "and his team did not operate in a vacuum," Ethier said. "ISO management was kept well informed of the progress as we went along, having regular meetings with Brent and his team and certainly vetting each of the significant decisions along the way."

Questions on Results, Methods

Seeking to extend its Mystic Generating Station cost-of-service contract for an additional year, Exelon on June 10 filed a *complaint* with FERC accusing the RTO of violating its Tariff by shortcutting its transmission security review and prematurely culling bids received in response to the solicitation. (See *Exelon Challenges ISO-NE RFP in Bid to Extend Mystic.*)

During the PAC meeting, stakeholders also questioned why certain proposals were rejected.

"I guess I was a little surprised, looking through this presentation, at how many of the proposals were eliminated just because of the right-of-way provision, and not meeting the reactive capability requirement," said Abigail Krich, president of Boreas Renewables. "Both of those struck me as things that should have



Mystic Generating Station, on the Mystic River in Everett, Mass.

been pretty clear in the process, and the project proponents should have known whether their projects met the requirements.

"Given how many were screened out because they didn't meet those, it raised the question in my mind whether this was confusion on their part; maybe these requirements weren't made as clear as they could have been," she continued. "Do you think a number of proposals that were submitted ... that even though they didn't meet the criteria, that they might still be able to move forward?"

"I can't speak to what others were doing, but while we did have a number of proposals that tripped up on things, there were also some that did not," Oberlin said. "As far as the instructions, we talked about the need for a dynamic reactive device at the PAC meeting; we provided it in the report; it was pretty clear what needed to be done at the POI [point of interconnection]. I don't know why people didn't do that."

Among eight qualified transmission project sponsors that submitted bids for the RFP was

Anbaric Development Partners, which made two submissions. The first was an AC project that would move 900 MW of electricity on two tri-core cables between the former Pilgrim station area in Plymouth, Mass., to the Mystic substation in Everett. The second was a proposal for a 1,200-MW HVDC cable bundle between the same two points.

The RTO disqualified Anbaric's AC proposal for missing a required step-up transformer to accompany its static synchronous compensator (STATCOM).

"For the STATCOM, if the transformer is included in the proposal and not the model — and in my experience the majority of STATCOMs in the Eastern Interconnection are modeled without the transformer — it seems to me that this would be an easy question for a deficiency cure," said Phil Tatro of EN Engineering, which worked with Anbaric on the proposal.

Tatro noted that the STATCOM was included in both the project's one-line diagram and the switching station layout, both of which were a

ISO-NE News



part of Anbaric's publicly posted bid.

"This is a feasibility assessment at this stage, and even if you wanted a transformer modeled, it doesn't seem necessary in a feasibility assessment," Tatro said.

Oberlin replied that ISO-NE's goal was to determine whether or not a proposal met the need identified and specified in the RFP's addendum report.

The RTO found a number of proposals that included the necessary transformer or other equipment but nonetheless weren't able to meet the requirement, he said.

"Additionally, we did look through the proposals, and there were a number of files that were supposed to be attached that describe all of the electrical equipment ... and also we had a section on transformers, and the [transformer] wasn't described there." Oberlin said.

Technical and Legal Challenges

The RTO also disqualified proposals, including Anbaric's, for planning to interconnect using the Mystic 8 terminal, saying that facility is engaged through May 31, 2024.

Regarding the use of the Mystic 8 terminal, Adam Hickman of trucking company Trans-Force New England suggested that the RTO might consider using a planned outage to accommodate a transmission solution.

"We do encourage the ISO to go back and look at those property and [transmission owner] facility use provisions," said Theodore Paradise, Anbaric senior vice president for transmission strategy. "We do think that how the ISO came out conflicts with both section 2.05 of the TOA [Transmission Operating Agreement], which

requires interconnection of facilities and in fact good-faith negotiations to be engaged in by any signatories to the TOA, but also Section 210 of the Federal Power Act.

"Twenty-two of 35 projects were disqualified on that basis, and it's just hard to believe that, with all the successful, sophisticated bidders who have won projects across the country, so many got it wrong," Paradise said. The \$49 million proposal from the incumbents is "probably not the least expensive project for consumers when you look at things like avoided transmission upgrades, or impacts on the energy market. One of our projects is less than 30 cents/month on a retail bill for a project that does a lot to bring in zero-priced renewable energy and also to avoid over \$600 million in additional system upgrades for state policies."

Michael Macrae, energy analytics manager at Harvard University, referred to the "the absence of any sort of an environmental impact" being included in the RTO's evaluation criteria. He quoted from a June 5 letter from Massachusetts' two U.S. senators "that highlights this concern and raises the question about how the outcome here aligns with New England state goals."

In their letter, Sens. Ed Markey and Elizabeth Warren, both Democrats, criticized the RTO's planning process for listing "environmental impact" in the lowest priority category for the evaluation and noted that "public health impacts are not called out at all." (See Mass. Senators to ISO-NE: Think Clean on Boston RFP.)

"As we laid out in the RFP itself that was issued in December 2019, we proposed a tiered approach to the evaluation of the proposals," Oberlin said. "The environmental impacts would be considered as we got through evalu-

ating each of the proposals; assuming that they had met the needs and were all cost competitive with each other, we were going to use that to separate the proposals."

Several stakeholders asked about whether the RTO's recommended project utilized a usually prohibited remedial action scheme — or special protection system (SPS).

Oberlin explained that the \$49 million project did use an SPS as defined by the Northeast Power Coordinating Council, but that he expected that definition to change in the future. Asked whether any of the other reliability projects use such a scheme, he responded that they do not.

Steve Kerr of Exelon asked whether the proposed solution would meet the system needs and allow Exelon to retire Mystic if the New England Clean Energy Connect (NECEC) project designed to carry 1,200 MW of Canadian hydropower to Massachusetts is not built. ISO-NE counsel Kevin Flynn interrupted and directed Oberlin not to answer, saying the RTO "would not speculate."

Paradise also noted that the ISO-NE final needs assessment from June 2019 shows additional needs without the NECEC line and said it was not speculation that the proposed solution does not meet the needs without that project moving forward. A public referendum on the NECEC project is planned in Maine in November.

ISO-NE requested that PAC members complete their review of the Phase One proposals report and send their comments to *pacmatters@iso-ne.com* by July 2. The RTO plans to post the final listing of qualifying Phase One proposals on or before July 17, Oberlin said. ■







Stay-Tuned for Full Agenda and Registration Information (late July)



ISO-NE Planning Advisory Committee Briefs

2019 Economic Study OSW Tx Results

About 5,800 MW of offshore wind can be interconnected using AC cable connections to interconnection points along the southern New England coast without significant upgrades to the onshore transmission network, according to ISO-NE's 2019 Economic Study Offshore Wind Transmission Interconnection Analysis.

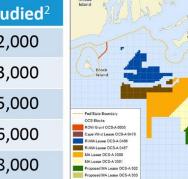
ISO-NE Director of Transmission Services and Resource Qualification Al McBride *presented* the analysis, which noted that some local 345-kV reinforcement and/or expansion is still likely to be needed for this scenario, and that additional interconnections to these points would drive the need for significant network upgrades.

The New England States Committee on Electricity (NESCOE), Anbaric Development Partners and RENEW Northeast last year each requested separate studies from ISO-NE. (See "Modeling More Offshore Wind, Slowly," ISO-NE Planning Advisory Committee: March 18, 2020.)

Alternatively, additional offshore wind could be connected while avoiding significant onshore transmission upgrades by using HVDC connections from the offshore wind farms to load center substations, McBride said.

Anbaric has proposed the Southern New England Ocean Grid, an open-access, 1,200-MW HVDC network that would interconnect future

	of New e Wind ¹	Total MW Studied ²
By 2030	1,000	2,000
	2,000	3,000
	4,000	5,000
By 2035	5,000	6,000
	7,000	8,000



Offshore wind scenarios studied | ISO-NE

offshore wind projects in the federal wind lease area off the coasts of Rhode Island and Massachusetts.

Such an undersea network interconnecting an expected surge in offshore wind projects would save New England developers and ratepayers more than \$1 billion in onshore grid upgrades, The Brattle Group said in a study commissioned by Anbaric. (See Brattle Study Highlights Benefits of Offshore Grid.)

"There are also potentially hybrids, where you go part of the way with AC, part of the way with DC, or the other way around," McBride said

"Just to compare the alternatives, for what we

call the AC alternative, you are continuing to add a lot of cable to the water." he said.

The study also determined that 2,200 MW could be connected using HVDC without major onshore transmission upgrades, which, in addition to the 5,800 MW connected using AC cables, provides a total of 8,000 MW of connected offshore wind off the southern New England coast.

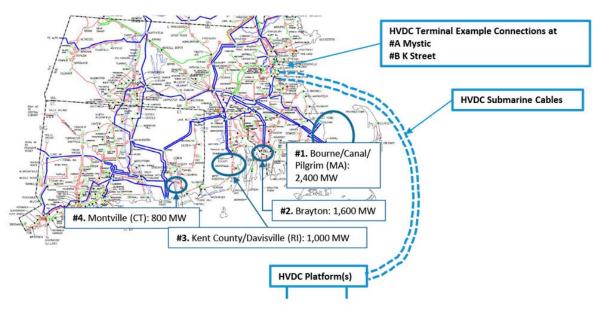
No Public Policy Tx Need

Director of Transmission Planning Brent Oberlin *reviewed* the steps ISO-NE took in the 2020 Public Policy Transmission Upgrade process that concluded there was no need to proceed with a Public Policy Transmission Study (PPTS)

this year.

The RTO agreed with NESCOE's position that none of the stakeholder submittals regarding public policy requirements identified a federal law that drives a transmission need and said it is not aware of any such requirements that drive the need for transmission.

Similarly, the RTO reviewed NESCOE's submittal and found that the states have determined that there are currently no state or local requirements that drive transmission that should be studied in a PPTS.



The 2019 Economic Study Offshore Wind Transmission Interconnection Analysis finds that HVDC alternatives can avoid major onshore transmission additions. | ISO-NE

– Michael Kuser

ISO-NE News



'Grid Mod' Still Advancing in Conn., Mass., Regulators Say



Clockwise from top left: Kathryn Dube, CPES; Eric Johnson, CPES; Matthew Nelson, Massachusetts DPU; and Marissa Gillett, Connecticut PURA | CPES

By Michael Kuser

Connecticut and Massachusetts are both continuing efforts to modernize their electric grids despite the lockdown in recent months caused by the COVID-19 pandemic.

So heard 100 participants Thursday in a webinar hosted by the Connecticut Power & Energy Society (CPES) and the Connecticut Bar Association's Energy, Public Utility and Communications Section.

Connecticut Public Utilities Regulatory Authority Chair Marissa Gillett shared the stage with her counterpart from Massachusetts, Matthew Nelson, chair of the state's Department of Public Utilities. Eric Johnson, president of CPES and ISO-NE director of external affairs, led the discussion about each state's approach to grid modernization.

Defining Terms

Last October, the PURA issued an interim decision outlining its framework for investigating methods for realizing an equitable modern electric grid in Connecticut, as well as for plans for ensuring continued grid developments through a biennial integrated distribution system planning process (Docket No. 17-12-03).

"On May 6 we issued the [request for proposals] and the request for program designs in the first six proceedings" of the effort, Gillett said. "Those are still pending before us ... so I'm going to abstain from speculating about where

we're going since those are open proceedings."

The first track was energy affordability, which could have its own webinar, and the second track was advanced metering infrastructure (AMI), she said.

Nelson said that in 2012, Massachusetts was "one of the first out of the gate on grid mod," a term that covers a lot of territory, with AMI being the most prominent in most people's minds.

"There's how customers interface with the grid; there's how rates are designed; there's the automation in the distribution side of it ... communications," Nelson said. "Companies are always concerned with billing systems, and they're pretty much the only ones who want to talk about billing systems, other than maybe competitive suppliers.

"The DPU approved some grid modernization, but we divided it into two parts: a grid-facing side and a customer-facing side," Nelson said.

COVID-19 Challenges Affordability

"One interesting thing that came out of the pandemic was in the first track in our grid modernization docket, on energy affordability," Gillett said.

"We had some ongoing sprints trying to tackle a few key barriers, and we had launched these sprints and were right in the middle of them when the pandemic was first really taking hold in Connecticut," she said. "We were really adamant that our advocates for those affected groups be active participants in the sprints, and we realized that those advocates had more pressing short-term challenges serving their client populations."

The remainder of Connecticut's grid modernization docket is with PURA's stakeholders now, and "we're anxious not to lose momentum," Gillett said.

"I'm not going to sit here and say I have any knowledge of what the long-lasting impact of COVID-19 is going to be," Nelson said. "I think that energy is going to be affected by it. ... Both Marissa and I have been looking at what is the impact to society."

"Commercial and industrial customers, unlike in most of the other recessions we've seen, are uniquely impacted here," Nelson said. "I think there's going to be a shift in everything, and the key is, when you see that shift occurring, and you know when you're on the other side of it, we have to be a lot more cautious and careful about selecting programs that we're going to use ratepayer dollars on."

"While we're going to have to continue to try to balance ratepayer interest, as we always do, I think there's a lot of momentum and things that could come out of our grid mod docket that would shore us up against future issues," Gillett said.

"C&I customers will always value price, but

Continued on page 11

NEPOOL Transmission Committee Briefs

Counsel on FERC Cost Recovery Order

New England Power Pool Counsel Eric Runge delivered a memo to the Transmission Committee regarding FERC's May 26 order approving recovery of costs related to compliance with NERC critical infrastructure protection (CIP) requirements for facilities designated as critical for the determination of interconnection reliability operating limits (IROL) (ER20-739).

The order approved the addition of Schedule 17 to ISO-NE's Open Access Transmission Tariff with no modifications or further compliance requirements, effective March 6, as the RTO requested. (See FERC OKs Payment Rules for IROL Facilities.)

The cost recovery provisions apply primarily to generators but also to Cross Sound Cable or similarly situated transmission facilities designated as critical for determining IROL.

"More specifically, Schedule 17 provides for ISO-NE to act as a billing and payment agent for recovery of eligible costs of IROL-critical facilities that have filed with FERC and had accepted individual Section 205 cost recovery filings," the memo said.

The primary issue of controversy in the proceeding was whether past IROL-related costs could be recovered, or whether their recovery would be barred by FERC's filed-rate doctrine and rule against retroactive ratemaking, the memo said. The same issue had been considered by the TC in its discussions, and the RTO took a neutral position on it in the proceeding.

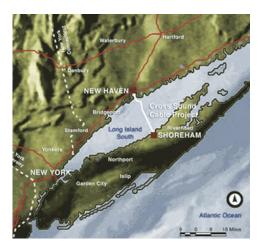
The commission also noted the preference of some parties for a formula rate treatment of IROL costs and stated that they "may seek formula rate treatment in their proposed [Federal Power Act] Section 205 filings," according to

"We expect that some parties will file requests for rehearing on the past cost recovery issue." the memo said. Any requests for rehearing are due 30 days from the date of the order.

Schedule 9 and Schedule 1 Rates

Mary Bimonte of Eversource Energy, chair of the Participating Transmission Owners Administrative Committee's (PTO AC) Rates Work Group, presented Schedule 9 and Schedule 1 rates that became effective June 1.

The formula rates for Schedule 9 Regional Network Service (RNS) and Regional Schedule 1 Service have been updated to reflect actual data for 2019, forecasted data for 2020, and the annual true-up and associated interest. Bimonte's report said. The resulting rates for RNS and Schedule 1 Service were included for



The Cross Sound Cable and similarly situated transmission facilities are critical for the determination of interconnection reliability operating limits. | ABB

stakeholder informational purposes.

The PTO AC approved the filing of the RNS and Schedule 1 rates at its June 11 meeting. An informational presentation will be made to NEPOOL stakeholders at the Reliability and Transmission committees' joint summer meeting Aug. 18-19. The PTO AC will submit an annual informational filing to FERC on or before July 31. ■

– Michael Kuser

'Grid Mod' Still Advancing in Conn., Mass., Regulators Say

Continued from page 10

I still maintain that reliability is core, and I don't think anything else really comes close at the end of the day," Nelson said. "We're the economic regulator, but we're also in charge of safety, and to a large degree, that's a very interesting dilemma. FERC doesn't really deal with the safety side of it."

Storage Benefits

"I think of storage as having benefits for all aspects, behind the meter, in front of the meter, grid scale, customer-sited," Gillett said. "The lack of a storage market in Connecticut has been truly to our detriment.

"Connecticut has been interesting for me because it doesn't have some of the use cases that we were looking at when I was at the Maryland commission, and Maryland still has

a lot of congestion," she said. "Connecticut is not experiencing that, so some of the more obvious uses of storage are not there, but that doesn't mean there aren't a million other uses that we're hoping to get responses to in our request for program design.

"I've been very adamant that we're not looking for pilots, and we're not looking for one-offs," Gillett said. "I think we really need a storage policy that is going to drive toward a deployment target and have all the pieces work together."

There's been some unfair talk about storage in environmental communities, she said.

"Articles come out and talk how storage actually increases emissions, and I always find those conversations so misguided because storage itself is just a tool," Gillett said. "It's going to do what we tell it to, so if it's driving up emissions

or not achieving your environmental goals, it's because the regulators and policymakers haven't told it how to."

"We're just at the beginning of understanding how storage can be deployed," Nelson said. "In terms of [solar] distribution saturation and excess power overflow, there is precedent, and we understand how we can save and dispatch excess energy. The manner in which we're doing that is very infantile right now, and the price signals in the market are not aligned to incent the sunk costs of buying a storage unit and developing a model that allows storage to monetize the benefit it brings, because a lot of those benefits are hard to measure."

Solving the storage puzzle is challenging, but Nelson said he's bullish on the "perfect technology for what we're trying to achieve collectively for a more dynamic and responsive grid." ■

ISO-NE News



ISO-NE Stopgap Fuel Security Program Gets OK

By Michael Kuser

FERC on Thursday approved ISO-NE's Inventoried Energy Program (IEP) as a "reasonable" and "technology-neutral" short-term solution to compensating resources that provide fuel security during New England's winters (*ER19-1428*).

The commission denied rehearing of its automatic acceptance of the IEP in August 2019. The four-member commission lacked a quorum on the matter at the time. Then-Commissioner Cheryl LaFleur had recused herself from all matters involving ISO-NE, later becoming a member of its Board of Directors after she left the commission. (See Lacking Quorum, FERC OKs ISO-NE Energy Security Plan.)

Thursday's ruling affirms ISO-NE's ability to implement the IEP for the capacity commitment periods covered by Forward Capacity Auctions 14 and 15, allowing it to compensate resources for maintaining inventoried energy during the winter months of 2023/24 and 2024/25.

The IEP is a voluntary program that consists of five components, including a two-settlement structure, a forward rate, a spot rate, trigger conditions and a maximum duration. Under

the two-settlement structure, participants can choose to participate in either the forward and spot market components of the program or just the spot market.

"Participants that opt to participate in both components take on a financial obligation for inventoried energy during the program delivery period (December through February) at the forward rate in the first settlement period," FERC explained. "Any deviations from inventoried energy maintained for each event trigger (an inventoried energy day) are settled in the second settlement period at the spot rate."

ISO-NE proposed a fixed forward rate of \$82.49/MWh for inventoried energy sold forward during the delivery period, an estimate of the minimum rate that a gas-only resource would require to sign a winter-peaking supply contract for LNG.

The RTO estimates the program will cost between \$102 million and \$148 million per year, depending on participation, resource performance and winter severity. It assumed that 1.2 million to 1.8 million MWh of inventoried energy, respectively, would be sold forward and maintained for each inventoried energy day per year.

The commission agreed with ISO-NE that a

"misaligned incentives" problem in the current market design may cause fuel-secure resources to be insufficiently incented to invest in energy supply contracts, which may have adverse efficiency and reliability consequences.

Although IEP does not constitute a fully market-based solution, "the proposal is a step in the right direction ... while ISO-NE finishes developing a long-term market solution," the commission said.

Commissioner Richard Glick dissented in a separate statement, calling the IEP "an ill-conceived giveaway that acts as if throwing money at a problem is always just and reasonable."

ISO-NE kicked off a two-year effort to address regional fuel security after its January 2018 Operational Fuel-Security Analysis (*OFSA*) showed that the loss of 1,700 MW from Exelon's Mystic 8 and 9 gas-fired units would deplete 87 hours of 10-minute operating reserves and result in 24 hours of load shedding during the winters of 2022/23 and 2023/24. (See *Report: Fuel Security Key Risk for New England Grid.*)

The Energy Security Improvements filing by the RTO in April 2020 comprised long-term proposals prompted by FERC's July 2018 finding that ISO-NE's Tariff was not just and reasonable because the RTO lacked a way to address fuel security concerns. (See ISO-NE Sending 2 Energy Security Plans to FERC.)

Comments and Protests

Several commenters supported the IEP, with FirstLight Power Resources urging the commission to resist requests to amend the proposal because they would be an unhelpful distraction from the long-term market design efforts.

Calpine and Vistra Energy stated that the IEP's forward component is the key to winter fuel security because it incentivizes market participants to take the necessary steps to achieve fuel security, including procuring an adequate amount of fuel and fully optimizing their existing fuel infrastructure.

Algonquin Gas Transmission supported the IEP but said that the long-term solution can only address New England's fuel security challenges if it addresses the lack of firm natural gas transportation and storage in the region.

On the other side, the New England Power Pool stated that neither the IEP nor any other proposal had sufficient stakeholder support to

\$/MMBtu



Natural gas spot prices spiked during New England's extended cold snap of 2017-2018. | EIA

ISO-NE News



win its endorsement. It said the commission "should not direct specific changes that were not already addressed in the stakeholder process without full stakeholder consideration of such changes through the commission-approved participant processes." The Environmental Defense Fund meanwhile said the interim nature of the IEP does not permit deviation from the just-and-reasonable standard and that no provision under Federal Power Act Section 205 permits the commission to accept filings on an interim basis.

Several commenters also said ISO-NE had failed to demonstrate that the IEP will benefit customers. NRG Energy urged the commission to reject the program and provide guidance for a substitute interim fuel security proposal. The Massachusetts attorney general stated that the program lacks evidentiary support and will result in arbitrary and discriminatory rates. The Maine Public Utilities Commission argued that, without a determination of need, there is no ability to measure the program's success.

The commission countered the complaints, saying that the IEP "will likely provide reliability benefits, such as incenting up to 1.8 million MWh of inventoried energy to be available during stressed winter conditions," while also asserting authority under Section 205 to accept interim solutions proposed by applicants.

Rebutting the demonstrated need argument, the commission found "that a detailed cost-benefit analysis is not required for the commission to find proposed Tariff provisions just and reasonable."

The commission disagreed with a joint protest by New England Consumer-Owned Systems and Energy New England that the IEP cannot be deemed just and reasonable because it is neither market-nor cost-based.

"By setting a fixed forward rate based on a winter-peaking supply contract for LNG, ISO-NE estimated the minimum value that would incent program participation from a natural gas-only resource, thereby approximating the price that would occur if inventoried energy was competitively procured through a market-based mechanism where a natural gas-only resource was the marginal resource that established the price paid to all resources providing the service," the commission said.

FirstLight and NRG contended that the program does not correct for the suppression of FCA clearing prices that occurs when resources seeking retirement are held in the market for fuel security reasons and included in the FCA as price-takers, arguments the

commission found were "outside the scope of this proceeding."

The commission also disagreed with arguments that the existing fuel security cost-of-service Tariff provisions or Pay-for-Performance (PfP) negates the need for the IEP, or that its costs are duplicative to those of PfP, again citing the "misaligned incentives issue."

"It is premature to judge whether the costs of the Inventoried Energy Program are duplicative to those of the long-term market solution because the long-term solution is pending before the commission and is not before us in this proceeding," the commission said.

FERC said that establishing rates in advance increases the IEP's effectiveness in deterring retirements by enabling participants to better forecast expected program revenues even if the forward rate is not fully precise. "Accordingly, we disagree with parties suggesting that the forward rate be updated closer to the time of delivery to capture prevailing market conditions," the commission said. "We also decline to adopt the alternative proposals proposed."

Rehearing and Program Revenues

On rehearing, several parties reiterated the same arguments made in their underlying protests, the commission said.

The New England States Committee on Electricity argued that the commission erred by failing to articulate a satisfactory explanation and otherwise engage in reasoned decision-making in accepting the IEP because it failed to respond meaningfully to the arguments before it, address substantial evidence in the record, or explain its departure from precedent.

"The commission acted consistent with the directives of FPA Section 205 given the lack of quorum in this proceeding at that time," FERC said. "Now that the commission has a quorum, we have determined that, based on a review of the evidence in the record, the proposed Tariff revisions are just and reasonable."

The commission agreed with ISO-NE and its Internal Market Monitor that net revenues from the program should be treated as revenue from an ancillary service in the calculation of an existing resource's net going-forward costs. The revenues will also be reflected in the Forward Capacity Market's delist bid mitigation.

"We acknowledge that there are many factors that influence a resource's retirement decision

and that IEP revenues will vary from resource to resource. And, as ISO-NE asserts, the program is not intended to deter the retirement of a specific resource," the commission said. "However, we find that these revenues appropriately compensate resources that contribute to winter energy security. Moreover, we agree with ISO-NE that it is important that the program be in place in time for participants considering retirement decisions for FCA 14 and FCA 15."

Dissent on 'Fatal Flaws'

Commissioner Glick said that the willingness to spend customers' money without evidence of a commensurate benefit will make stakeholders, including both states and customers, suspicious of actions by the commission and ISO-NE that purport to address fuel security, potentially undermining more serious efforts to actually address the issue.

"I am particularly troubled by the evidence in the record that the program will hand out tens of millions of dollars to nuclear, coal and hydropower generators without any indication that those payments will cause the slightest change in those generators' behavior," Glick said. "Handing out money for nothing is a windfall, not a just and reasonable rate. ...

"Although the simplicity of ISO-NE's proposal may, at first, seem appealing, the program contains a number of what should be fatal flaws," he said.

Most important, Glick said, the RTO does not point to any evidence that there is a near-term operational problem that cannot be adequately addressed by its existing rules, or any evidence that the IEP would address such a problem by making the region more fuel secure.

"Creating a program to funnel money to uneconomic resources in order to prevent their retirement would seem to undermine a key element of the balancing act that the commission relied upon when it found the Capacity Auctions with Sponsored Policy Resources (CASPR) program just and reasonable," Glick said.

The RTO's willingness to propose a program that will "work at cross-purposes with the CASPR's substitution auction raises serious questions about the durability of the CASPR construct," he said. The proposal "does not possess even the basic principles of an effective market-based solution [and] evaluated against those principles, the [IEP] gets a failing grade."

*

NEPOOL Reliability Committee Briefs

Load Forecast Methodology Changes

ISO-NE Load Forecasting Manager Jon Black last week *presented* the New England Power Pool's Reliability Committee with a proposal to improve how the RTO measures the impact of passive demand resources (PDRs) participating in its Forward Capacity Auctions. (See "Load Forecasting Methods Evolving," *NEPOOL Reliability Committee Briefs: May 19, 2020.*)

To ensure that PDRs are not double counted as both a load-reduction and a supply resource in the FCA, the RTO "reconstitutes" PDR demand reductions — most of which is energy efficiency — into historical loads. The goal is to ensure the EE in the gross demand forecast approximates how much EE that will participate in the upcoming FCA.

Since 2010, the RTO has performed reconstitution using total EE measures installed, believing it to be roughly equal with the amount of capacity supply obligations (CSOs) obtained by EE resources cleared in the FCA. But the RTO says it now realizes that EE program administrators install and report EE measure quantities above the CSOs acquired in the FCA. The RTO has no way to differentiate which measures are installed to meet a CSO and which measures are not.

Under the revised methodology, the gross

load forecast will be tied to EE's participation in each FCA rather than all EE that is installed and reported to ISO-NE.

"What we've seen is the CSOs for the [Annual] Reconfiguration Auctions are higher than the primary auctions, so we're trying to correct things for the upcoming primary auction, and now we're trying to adjust that gross load forecast accordingly to reflect the known differences in the amount of CSOs and PDR that clears in the Reconfiguration Auctions," Black said.

[Note: Although NEPOOL rules prohibit quoting speakers at meetings, those quoted in this article approved their remarks afterward to clarify their presentations.]

The proposed methodology for adjusting the gross load forecast for the ARAs is based on the average difference between the two most recent reconfiguration auction CSOs and those of the FCAs for the corresponding capacity commitment periods.

The proposed changes would cut forecast 2020 50/50 gross summer peak demand by 652 MW, rising to 1,355 MW for the 2029 forecast. No changes will be made to the existing methodology utilized to reconstitute active demand resources.

The change in load forecasting methodology

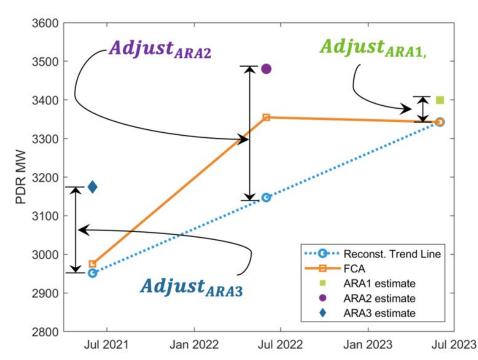


Illustration of gross load forecast adjustments | ISO-NE

is the first of three related initiatives the RTO introduced to NEPOOL technical committees so far this year. The second initiative considers the impact of behind-the-meter solar PV on future planning assessments, and the third is intended to improve integration of the FERC Order 1000 solicitation process into the reliability delist bid review, starting with FCA 15.

The RTO will present the load forecasting methodology changes to the RC for an advisory vote in July. If the Participants Committee approves them in August, the RTO will file the Tariff changes with FERC with a requested effective date of Oct. 5.

Operating Changes for Storage

The committee recommended PC support for revisions to Operating Procedure 18 (*OP-18*) to enable DC-coupled facilities to participate in ISO-NE markets as separate assets.

ISO-NE Manager of Demand Resource Administration Doug Smith presented the *proposal*, which passed with opposition from two Publicly Owned Entity sector members and an abstention from one Transmission Owner. The proposed effective date is Aug. 6, 2020. (See "Metering for DC-coupled Assets," *NEPOOL Reliability Committee Briefs: May 19*, 2020.)

Several market participants are installing electric storage and intermittent generation behind the same point of interconnection.

Because some of those co-located facilities are DC-coupled — both the storage and intermittent components share one or more inverters — there is a need to address the metering of such assets.

Load Power Factor Correction

ISO-NE Manager of Real Time Studies Dean LaForest delivered an introductory *presentation* on improvements proposed for the tracking of the load power factor, the ratio of real power flowing to load versus apparent power in the circuit.

Under Operating Procedure 17 (*OP-17*), the RTO monitors load power factor by requiring participants to submit survey data for six discrete points in time over the 12-month survey period. But there are "no significant consequence[s]" for failing to meet load power factor standards, LaForest said.

Under the proposed change, the RTO would monitor performance using data from its supervisory control and data acquisition system, allowing it to track every hour of the year.

ISO-NE News



Poor load power factor at high loads — in which reactive power is absorbed from the system — can require unit commitments to support post-contingent low voltage. Poor load power factor at light loads — with reactive power injected into the system — is more common and can require unit commitments to support pre- or post-contingent high voltage, LaForest said.

The RTO would use the more robust data to report on areas where poor performance hurts reliability or increases unit commitment costs.

Compliance with the load power standards for each area would be "consistent" with current operating procedure compliance practices, LaForest said.

Noncompliant entities would be allowed an opportunity to improve their performance; continued failures would result in actions under "existing compliance mechanisms," he said. The RC will review redline changes to OP-17 in July, with a vote expected in September and

PC action in October.

Committee Actions

The RC's notice of *actions* included approval of several power purchase agreements.

The committee approved the New England Clean Energy Connect HVDC transmission project from Eversource Energy and Central Maine Power. Based on a voice vote, the motion passed with two Publicly Owned Entity members opposed and eight abstentions.

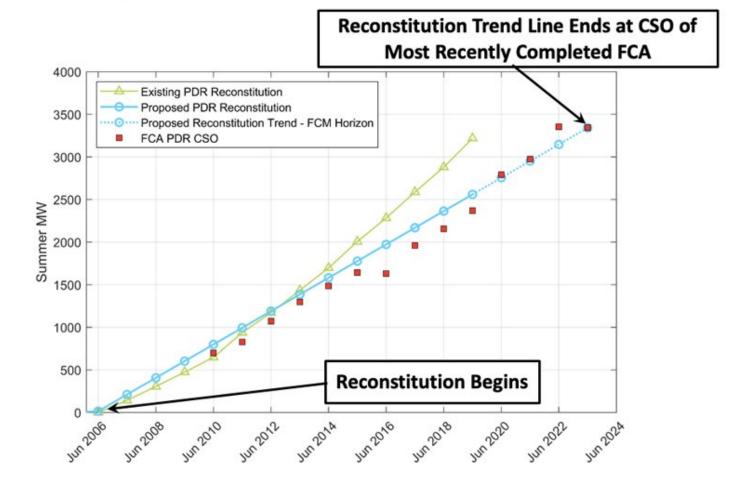
Also approved were the:

- King Street Comprehensive Solar Cluster Project (New England Power);
- ASO South Comprehensive Cluster Project (New England Power);
- Wareham Cluster Solar and Battery Project (Eversource);
- Versant Power Cluster Solar Project (Versant Power/Emera Maine);

- Great River Hydro AVR Replacement and Digital Governor Retrofit Project (Great River Hydro);
- Highland Avenue Dartmouth Cluster Solar and Battery Project (Eversource);
- Bridgeport Fuel Cell Project (Avangrid/United Illuminating);
- CMEEC New London Navy Fuel Cell Project (Connecticut Municipal Energy Electric Co.); and
- Waterford Solar Project (Eversource).

The committee also recommended PC approval of revisions to Planning Procedure No. 5-1 to update the form for submitting PPAs, with a proposed effective date of Aug. 6. In response to an increase in PPAs and generator notification forms being processed monthly, the revised procedures require submittals 10 business days before the monthly RC meeting date.

– Michael Kuser



Proposed PDR reconstitution methodology | ISO-NE



Monitor Breaks with MISO over RA Concerns

By Amanda Durish Cook

MISO and its Independent Market Monitor are at odds over how — and exactly how quickly — the RTO should address its resource adequacy, board members heard last week.

Both sides presented their opinions during a June 16 virtual meeting of the Board of Directors' Markets Committee.



MISO IMM David
Patton | © RTO Insider

Monitor David Patton said MISO's worsening resource adequacy situation is a top concern for his staff, noting that RA solutions will be a centerpiece of his annual State of the Market report due out this week.

Patton said he continues to have "diplomatic disagreements" with MISO over how to handle RA, calling attention to low capacity prices in the April Planning Resource Auction, despite a historically high cost of new entry price for Lower Michigan's Zone 7. (See MISO: New Outage Rules Boosted Mich. Capacity Prices.)

MISO's other zones cleared at \$5 to \$7/MW-day, "inefficiently low at less than 3% of the cost of building a new peaking resource," he *said*. Capacity should be priced at or above \$200/MW-day in those zones, or about 80% of the cost of building a new resource.

Reliability is "almost free" in MISO based on

capacity prices, Patton argued. He also said current prices nudge coal generators to retirement and prompt other capacity resources to sell outside the footprint.

"As MISO's capacity margin continues to fall and renewables enter, it will be increasingly important to send efficient long-term price signals," Patton warned.

The subregional transmission limit from MISO South to Midwest often binds on the 2,500-MW maximum, restricting supply that can be sent from South, whose zones are often in a better capacity position than those to the north.

"Replacing a megawatt of coal in the north with a megawatt of gas in the south is not contributing effectively to the planning reserve margin," Patton said.

The Monitor presented its viewpoint after a review of results from the Organization of MISO States-MISO survey, released earlier this month.

The five-year RA survey forecasts MISO will have 0.8 GW of excess firm capacity beyond the planning reserve margin for 2021, although the surplus could reach as high as 7.2 GW. But MISO may confront a 0.4-GW shortfall as early as 2022, with 2023 to 2025 seeing anything from a 6.8-GW deficit to a 12.5-GW surplus, depending on the volume of new resources that come online. It also said some of that surplus in local resource zones could probably cover potential scarcities in

other zones. (See OMS-MISO Survey Sees Uncertain Supply Future.)

More Coming than Going

MISO's generator interconnection queue currently contains 417 projects, totaling about 64 GW, with solar generation accounting for nearly 60% of proposed megawatts. Last year, the queue hit a peak of about 100 GW.

MISO is anticipating a little more than 9 GW to interconnect by year-end and expects 8 to 39 GW of new resources to join the queue in 2020. And while MISO has executed about 36 GW in generation interconnection agreements from 2015 to 2019, only 18 GW of generation retired over the same time period.

"More has come on than has actually retired on an installed capacity basis," MISO Executive Director of Systems Planning and Competitive Transmission Aubrey Johnson told board members.

Director Barbara Krumsiek said she was not particularly concerned about a near-term shortfall, although "the press picked up on it." However, she asked if the possibility of a capacity shortage in a few years might prod MISO and OMS to conduct the survey more frequently than on an annual basis.

"That would be more important if we saw more red [deficits] in 2021 or some more potential shortfall in 2022.... I think right now we're not contemplating a more frequent survey," Executive Director of Market Operations Shawn McFarlane said.

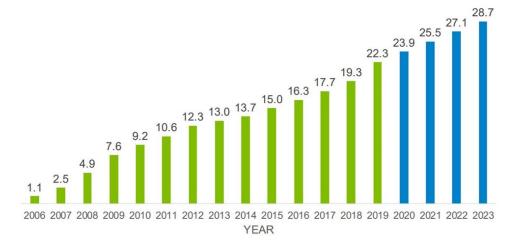


Shawn McFarlane, MISO | © RTO Insider

Director Theresa Wise suggested that stakeholders would be more reassured if MISO also provided details about how closely past surveys matched eventual supply.

"Would it help this message if we saw what was predicted for 2021 or 2022 four years ago?" she asked.

McFarlane said he was "almost positive that six years ago, 2021 would have showed red." He said the survey's indications of retirements and increasing planning reserve margins likely prompt some resource owners to make their generation more available, helping to avoid capacity shortages.



MISO's growing wind capacity | MISO



"I think that's a constant iteration of this process, these actions and reactions based on data," McFarlane said.

But he added that capacity additions in the interconnection queue are overwhelmingly renewables and intermittent in nature, making efforts to ensure future reliability imperative.

"The resource shift shows no signs of waning," McFarlane said.

Patton also pointed out that wind resources represent virtually all recent generation additions in Midwest.

"It's important to keep an eye on that trend; it might cause a capacity problem in the north," he said.

Spring Easily Managed

The auction played out against a spring backdrop where real-time average energy prices fell to \$18/MWh compared to an average of \$24/MWh in 2019 and about \$30/MWh in 2017 and 2018.

"Prices remain low across the MISO footprint,

and when you compare to last year, it's a 25% decrease," Executive Director of System Operations Renuka Chatterjee said, adding that the low prices were a product of falling natural gas prices and stay-at-home orders in response to COVID-19.

Patton said the spring price drop was the largest he's ever seen in MISO.

Overall, spring temperatures were about 2 to 3 degrees Fahrenheit above the 30-year average in Midwest and about 1 to 2 degrees below normal in South.

Prior to the pandemic, MISO predicted spring energy usage would peak at 100 GW in May which peaked at just 80 GW. (See MISO Foresees 'Typical' Spring.)

"The load was lower, so we didn't have any significant reliability issues," Chatterjee said.

Patton said his team observed a 35% drop in day-ahead revenue sufficiency guarantee (RSG) payments and a 57% decrease in real-time RSG payments compared to last spring. He said the dip was expected and a good sign.

"It signifies that the markets do a really good job of responding to supply," he said.

Chatterjee said MISO is seeing a return to more normal load levels as states allow a staggered reopening of businesses. MISO continues to forecast day-ahead demand using a "COVID and non-COVID model" to more seamlessly return to predicting normal loads.

"In the early days [of the pandemic], we struggled to get our model to learn the impacts," he said.

MISO said a forecast for a warmer-thannormal summer with higher air conditioning demand might counter the load-reducing impact of the pandemic. However, it warned that the return of full-force closures could again constrict demand. The RTO projects a 125-GW summer peak. (See MISO Preps for Balmy Summer with Pandemic Effects.)

"There's still a degree of uncertainty as we head into summer," Chatterjee said.

"The reality of COVID isn't a complete crash in demand." MISO President Clair Moeller told board members.

MISO Board Addresses Racism, Social Unrest

By Amanda Durish Cook

MISO made a rare foray into addressing political and social events Thursday when its CEO and board members condemned systemic racism and vowed to listen to minority employees in order to effect organizational change.

Board Chair Phyllis Currie said directors and executives had engaged in "considerable discussion" in a closed session about the "longterm disparate treatment of African Americans by the police and in the workforce."

"These issues impact our employees, so in turn, they impact MISO," Currie said during a virtual board meeting.

"Obviously, racism and prejudice still exist, and we need to eradicate them in all their forms," Director Baljit Dail said.

"Obviously, we've all been shocked into realizing there's so much more to do," added Director Barbara Krumsiek. She said the board will be more open to adopting actions to assist MISO employees and go further in promoting diversity.

The board's comments come about three



A boarded-up storefront in downtown Indianapolis following protests on May 31. MISO's headquarters are located in nearby Carmel, Ind. | © RTO Insider

weeks after Minneapolis resident George Floyd was killed while in police custody, galvanizing racial justice protests that have reverberated around the world.

During the meeting, Director Mark Johnson reflected on a recent blog post his daughter wrote on experiencing racism.

"Being an African American parent, you try to insulate them from the racism. But it's unavoidable that anything you try to do, they will experience it," Johnson said.

"It's a community in pain right now," CEO John Bear said of African Americans. Bear said

MISO has recently instituted all-hands meetings discussing systemic racism and historical inequalities. He also said the RTO's leaders plan to embark on "listening tours" inside the company.

Bear also lauded the U.S. Supreme Court's recent decision granting protected class status to gay and transgender employees.

"I am proud of the diversity on our board and in our senior leadership. ... But I think we can take that much further," Bear said.

"This is not a flash; this is something we will press on," he promised.



Pandemic Operations Steady, MISO Members Report

By Amanda Durish Cook

MISO members say that work-from-home measures and social distancing mandates in workplaces aren't generally impeding their pace of work, but they do miss the personal collaboration afforded by in-person meetings.

The RTO asked Advisory Committee members to discuss how the novel coronavirus has impacted their company operations during a teleconference Wednesday.

"COVID has impacted every industry, every business around the world," MISO Vice President of Strategy and Business Development Wayne Schug said in opening the discussion.

He asked stakeholders "what a path to normality" looks like for their companies, or if they could even return to complete normalcy.

"Once the stay-at-home orders were in effect, many of us found ourselves at home, probably taking way too many virtual meetings," Schug said.

According to a MISO survey, only about 14% of member companies had had more than 25% of their workforce working remotely before the pandemic hit. Now, most MISO member companies have more than a quarter of their employees reporting from home.

"In large part, our projects are on schedule. There have been some delays to accommodate this new work environment," Otter Tail Power's Stacie Hebert said, referring to rescheduled public meetings and temporarily closed courthouses.

DTE Energy is returning employees to the



Nick Griffin, DTE | © RTO Insider

field to resume maintenance work, reported the company's manager of wholesale power markets, Nick Griffin.

North Dakota Public Service Commissioner Julie Fedorchak said it was at first difficult to maintain the pace of the commission's work remotely while still honoring open meeting requirements. However, state commissions now largely have the remote format down pat.

"I think commissions got to the point where they could do just about anything," Fedorchak said, adding that her commission had already been laying the groundwork for more virtual meetings prior to the pandemic. She said the commission was able to honor all biweekly regular meetings, as well as permitting and routing meetings, while many employees worked from home. She also said about 75% of commission staff have returned on-site.

When MISO Director Todd Raba asked what member companies do when employees come down with a COVID-19 infection, multiple members said their companies have yet to confront that situation. Griffin noted that cases among DTE's 11,000 employees jumped from about 50 to about 200 "after an isolated incident at one of our power plants."

Audrey Penner said her fellow Manitoba Hydro employees would return to offices "not earlier than the end of the summer."

Director Barbara Krumsiek asked how member companies are preparing for a possible second wave of infections in the fall.

Many companies are targeting a return to work at year-end or spring of 2021, Griffin responded.

"I would expect more telecommuting practices even after the pandemic," he said.

Missing Meetings

Schug asked how MISO members are faring under an entirely virtual stakeholder process.

LS Power's Pat Hayes said an online stakeholder process has been working "rather well," though connectivity during meetings sometimes lags. "Of course, you're hearing some dogs bark and some family conversations in the background."

Hayes also lamented an inability to directly interact with people at meetings and make personal connections. He wasn't alone.

"It's about getting to know people in the pro-



Wayne Schug, MISO | © RTO Insider

cess. But it's also about when you have a differing opinion, maybe meeting in the hallway to have a follow-up, asking clarifying questions, having a meeting of the minds," Beth Soholt of Clean Grid Alliance added.

"It's impossible to read body language," said Kevin Murray, representing the Coalition of MISO Transmission Customers, about virtual meetings.

"A lot of the work that we do is based on in-person interaction," noted Travis Stewart of Gabel Associates, who requested that MISO find a way to facilitate more spontaneous conversations.

"I dearly miss sitting around a table and the congeniality," Penner said of quarterly MISO Board Weeks. "I'm looking forward to getting back into a room together."

MISO has halted all in-person stakeholder meetings at its offices through the end of the year. Offsite meetings — such as Board Week — have also largely been converted to a virtual format, though RTO executives hold out hope that the December Board Week in Orlando may yet be spared. MISO has also begun allowing employees back on-site on a voluntary basis at its three office locations.

MISO also plans to hold virtual Nominating Committee meetings through November, where new board candidates are vetted and selected for member voting.

Directors Theresa Wise and Baljit Dail will reach their term limits at the end of the year. Wise is eligible to serve another three-year term, while Dail has already exceeded his total three-term limit through a special waiver in

2017, which was granted to retain his IT expertise. (See "Committee Permits Consideration of Extra Term for Dail," MISO BoD Briefs: June 22, 2017.)

"We miss seeing you in the auditorium. We're doing this virtually, but we'd much rather do it in person. As soon as it's safe to do so, we're going to resume these," Board Chair Phyllis Currie said during the Thursday board meeting.

Difficult Times

Schug asked how companies are considering stressed-out ratepayers under the pressurecooker combination of the pandemic's economic fallout and social and racial justice protests in every state.

"There's a lot of pressure on customers right now ... manifesting in a lot of ways," Public Consumer Advocates sector representative Christina Baker said. "The economic effect is going to be around for years to come."

She said "all customers — not 1% of customers" - are experiencing stressors related to the pandemic and the push for societal change.

"For the customers, it's a much broader, longer, multilayered time for them," Baker said.

Krumsiek agreed: "For the end-use customer, there's no return to normal. Our vulnerable populations for COVID run along the same lines as those affected by racial injustice."

Schug asked if MISO members anticipate a slowdown in the political push for renewables



Audrey Penner, Manitoba Hydro | © RTO Insider

and carbon reductions given the political and social turmoil.

"I don't anticipate a reduction in demand for renewable energy because of the pandemic. I really don't," Fedorchak said.

Soholt also expects carbon-reduction goals to continue as planned.

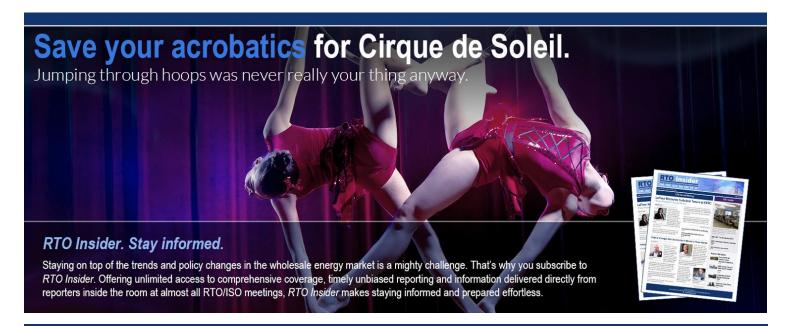
"I think our sector expects to see some of these issues percolate up in integrated resource plans," she said, adding that a renewable buildout could put some people back to work.

In the MISO footprint, load dipped by about 11% during the country's strongest lockdown measures. Now, Schug said load is currently trending about 5% below weather-adjusted norms.

Murray said his clients are experiencing different load recoveries. For instance, he said steel companies, automobile manufacturing and oil and gas production have been significantly dragged down. Other manufacturers are less affected.

Further waivers of MISO Tariff requirements might still be necessary, Griffin said. MISO has so far put together a waiver of loadmodifying resource registration deadlines for the capacity auction and a 60-day grace period on the June 25 deadline to demonstrate exclusive land use for some generation projects in the interconnection queue. (See MISO Drafts COVID-19 Waiver for LMRs.)

"We'd like MISO to remain flexible," he said. ■





Regulators not Sold on MISO Tx Planning Synch

By Amanda Durish Cook

Some state regulators aren't convinced about the wisdom of merging MISO's transmission expansion planning with generator interconnection studies, a move supporters say could improve cost effectiveness.

MISO is conducting an in-depth review of its planning processes in response to a proposal to synchronize its annual Transmission Expansion Plan with network upgrades needed to accommodate generator interconnections. Proponents say a coordinated planning process could identify projects that satisfy multiple needs. Renewable developers have complained that MISO is relying on network upgrades — paid by generators seeking interconnection — to plan the system. (See MISO Floats Ideas on MTEP, Interconnection Coupling.)

Speaking during an Advisory Committee teleconference Wednesday, North Dakota Public Service Commissioner Julie Fedorchak said members of the Organization of MISO States (OMS) are split on the idea. She said some state regulators view the push for synchronization as an attempt by renewable developers to shift the cost of network upgrades to others that does not merit a change in planning processes.

Clean Grid Alliance's Natalie McIntire, speaking on behalf of MISO's Environmental and Other Stakeholder Groups sector, said she understands new transmission "fatigue."

"I don't think anyone loves to see new transmission lines. It's a tough process to get them through state approvals," McIntire said. But she added that one larger, well-planned project can meet the needs of many small transmission projects.

DTE Energy's Nick Griffin said a more consolidated transmission plan could be more cost-effective for customers and lead to a more robust capacity supply. He said his utility has encountered delays in the interconnection queue while trying to bring more capacity online.

"While the queue advertises a 500-day process, there are sometimes when it's a 1,000-day process," Griffin said.

He stressed that the benefits of any multipurpose transmission projects need to be traced to ensure beneficiaries pay their fair share.

The Union of Concerned Scientists' Sam

Gomberg said MISO should also investigate "bridge solutions" like dynamic line ratings, which could allow more power on the system.

OMS recently partnered with MISO's Independent Market Monitor to gather more information on the use of dynamic and temperature-adjusted transmission line ratings in the RTO. Once OMS has exhaustively researched dynamic line ratings, it will announce a position on the topic. OMS President and Minnesota Public Utilities Commissioner Matt Schuerger said OMS believes there's a "lack of transparency and consistency" among TOs' existing line ratings.

Fedorchak also said OMS regulators are in general agreement that another long-term transmission package like 2011's Multi-Value Project portfolio may address some of the transmission needs resulting from an increase in renewable generation.

MISO's generator interconnection queue currently contains 417 projects, totaling about 64 GW, with solar generation accounting for nearly 60% of proposed megawatts. MISO expects to interconnect about 9 GW of resources in 2020 and add 25 GW in new projects to the queue for the year.



Midwest Reliability Organization

-

More Work Needed on MISO Order 845 Compliance

By Amanda Durish Cook

MISO has four months to make two more filings to comply with Order 845, FERC ruled last week.

The commission's order Thursday marks the second time MISO has been directed to refine its proposed compliance with Order 845, meant to increase the transparency and speed of generator interconnection processes. (See MISO Almost There on Order 845.)

This time, MISO must clear up language relating to surplus interconnection service and studies of projects' technological advancements (*ER19-1823-002*, *et al.*).

FERC said MISO still hasn't properly explained why it gave itself 60 days to decide whether to conduct additional studies when an interconnection customer seeks to include technological advancements in its project prior to an

interconnection facilities study agreement. The commission prescribed 30 days to decide on new studies and told MISO in December to either justify the 60-day timeline or halve it.

In response, the RTO had proposed to "perform the required studies and communicate the results to the customer" within 30 days "after receipt of any additional data that MISO requires the interconnection customer to submit." FERC's latest ruling said that language could still allow MISO more than 30 days to decide whether a technological advancement to a project would constitute a material modification and warrant further study.

FERC also said MISO interchangeably used the titles "Surplus Interconnection Service Agreement" and "Surplus Interconnection Service Interconnection Agreement" in monitoring and consent agreements, which the RTO drafts to list the roles and responsibilities of a transmission owner and an interconnection

customer seeking to interconnect through surplus interconnection service.

"We find that the proposed revisions create a lack of clarity that may cause confusion to interconnection customers," the commission said, suggesting that MISO might avoid confusion by swapping the two terms with "Surplus Interconnection Facility's Generator Interconnection Agreement."

But FERC did accept MISO's fuller description of how it determines which projects in its annual Transmission Expansion Plan are "contingent facilities." Order 845 defines those facilities as a generation project's unbuilt interconnection facilities and network upgrades that, if delayed or canceled, "could cause a need for restudies of the interconnection request or a reassessment of the interconnection facilities and/or network upgrades and/or costs and timing."

FERC said MISO's description of the impact criteria it uses in its distribution factor analysis fit the bill.

No Rehearing

The commission also denied the American Wind Energy Association's rehearing request that it direct MISO to remove "barriers" preventing interconnection customers from exercising the option to build network upgrades.

AWEA contested the compliance filing's inclusion of Tariff language describing a TO's right to self-fund network upgrades for interconnection customers. FERC last year ordered MISO to reinstate TOs' rights to self-fund the network upgrades, and the RTO requested an independent entity variation in its compliance filing to note the change, which the commission accepted. (See MISO Gauging Aftershocks of TO Self-fund Order.)

AWEA argued that "interconnection customers have had very little success exercising the option to build since the commission issued Order No. 2003 and that the commission, in Order No. 845, intended to restore that right."

But FERC agreed with MISO that "not harmonizing a transmission owner's right to self-fund with the expanded option to build could impermissibly undermine a transmission owner's right to self-fund." It said the RTO had no choice but to reconcile Order 845's expanded option to build for interconnection customers with the TOs' right to elect to provide initial funding for standalone network upgrades.



National Renewable Energy Laboratory

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Pandemic Pause Leaves MISO Under Budget

By Amanda Durish Cook

The great pause brought on by the novel coronavirus pandemic could have one upshot for MISO: It will likely save millions of dollars this year.

The RTO is currently 3% — or \$2.6 million under budget in base operating expenses for 2020, primarily the result of a halt in employee travel and training initiatives and lower staffing levels because of a slowdown in new hires.

"COVID has introduced quite a bit of volatility in our financials," CFO Melissa Brown told MISO's Board of Directors during a virtual meeting Thursday.

Reductions in utility bills and building maintenance also contributed to the savings, as have delays in work being done by third-party contractors, a product of physical distancing measures, she said.

And while it was "challenging" to conduct remote interviews with prospective MISO employees while lockdowns were at their

strictest, Brown said the RTO is now back to interviewing and onboarding.

"I think it's the shock factor that occurred during the March-April time frame," she said. "Most of delays, we're already seeing reversals out, and we expect them to reverse completely by the end of the year."

Still, MISO predicts to be about \$7.3 million or 2.7% — below its base operating budget by the end of 2020. Brown cautioned the board that MISO's year-end prediction could change as the pandemic evolves. The RTO had a \$264.7 million base operating budget planned for 2020.

"There are still quite a lot of unknowns in the back end of the year," Brown said. "We expect to continue to have a lot of variability. It could go up or down, and we don't claim to know the future."

Other MISO budgets have suffered larger impacts from the pandemic.

Brown said MISO's other operating expense

budget is so far \$6.8 million — or 18% — below what was budgeted for 2020, as fewer FERC assessment fees roll in and the third-party studies the RTO depends on for its own engineering studies are held up. By year-end, MISO expects other operating expenses to be down nearly \$16 million. And project investments so far this year are down \$1.4 million, or a little more than 9% below budget, she said, though MISO expects to be back on track in spending for those investments by the end of the year.

MISO also earned \$3.9 million less than it projected to make in interest so far this year.

"What we're seeing in interest is a marked reduction on interest income," Brown said, adding that MISO expects to make about \$10 million less than it originally anticipated in interest income by the end of 2020.

However, MISO still expects to have a \$150.3 million year-end cash balance, slightly higher than the \$148.7 million it planned for in its 2020 budget. ■



NYISO News



NYISO Stakeholders OK Peak Forecast Tweak

By Rich Heidorn Jr.

NYISO's Management Committee voted last week to revise the ISO's Tariff to address a concern regarding the peak load forecast and minimum unforced capacity requirements for load-serving entities.

The forecast is determined using the New York Control Area's (NYCA) highest actual hourly load in the prior calendar year adjusted to "design conditions," which are expected to occur on a non-holiday weekday in July or August.

NYISO Associate Planning Analyst Ying Guo said the ISO was concerned about situations in which the highest hourly actual load occurs outside the "design conditions" as in 2019, when the highest actual load occurred on a Saturday in July.

The minimum capacity requirement is allocated among individual LSEs, determined by their consumption during the highest hourly actual load in the NYCA, regardless of whether that is consistent with consumption at design conditions.

The Tariff revision would require the use of the highest NYCA load hour occurring on a non-holiday weekday during July or August when calculating the NYCA peak load forecast. About 80% of the highest coincident NYCA peak load hours have occurred in July and August.

The change will ensure that each LSE's share of the minimum capacity requirement is consistent with the design conditions used to calculate the minimum capacity requirement.

If the highest load hour occurs on a weekend or holiday, it would be adjusted to account for expected additional load that would have occurred if the highest load hour had been a non-holiday weekday. Similarly, load also would be adjusted when the highest load hour occurs outside July and August.

If the temperature is higher than the design temperature, load will be removed to reflect



| NYISO

the expected lower load that would have occurred if the highest load hour had taken place at the "design" temperature. The ISO said the change should ensure that the incentive to reduce peak demand aligns with when the peak demand is expected to occur.

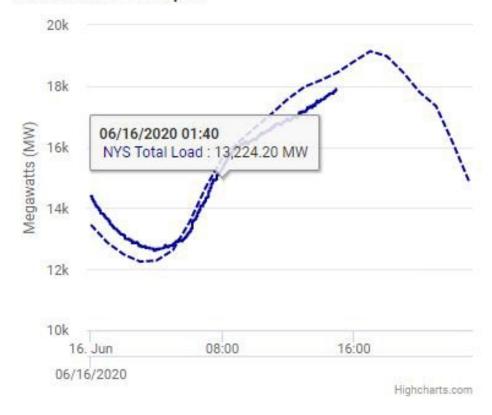
Following board approval, the changes are expected to be filed with FERC in July, with the ISO seeking an effective date in time for the 2021/22 capability year.

Dave Clarke of the Long Island Power Authority said the change "makes some sense in the short run" but asked whether the rules would need to change again if increasing solar generation transitioned the ISO into a winterpeaking region.

"If we shift to a ... winter-peaking system, this wouldn't be appropriate," agreed Nate Gilbraith, NYISO resource adequacy and ICAP specialist. "In 10 years or so, if we need to make this change again, we will and that will be made with a whole suite of things we'd need to accommodate a winter-peaking system."

Gilbraith said the change approved by stakeholders June 16 "doesn't have any administrative or coordination challenges." But he said a project considering moving from a one-hour peak calculation to one involving five or 10 peak hours would be more complicated. "That's why that's a project — bigger scope," he said.

6/16/2020 2:55pm



NYISO load (solid line) vs. forecast (dotted line) on June 16, 2020 | NYISO

More Transparency Ordered on PJM 'Immediate Need' Tx

FERC Clears SPP, ISO-NE

By Rich Heidorn Jr.

PJM has failed to comply with FERC's conditions for exempting "immediate need" transmission projects from competition under Order 1000 and must increase the transparency of its practices, the commission ruled Thursday (EL19-91).

Separately, the commission terminated investigations under Section 206 of the Federal Power Act into ISO-NE (*EL19-90*) and SPP (*EL19-92*), concluding they were in compliance with the exemption rules.

FERC opened investigations into the three RTOs' practices in October 2018, questioning whether they were thwarting Order 1000's competition mandate by abusing the immediate-need exemption. (See FERC to Probe Order 1000 Competition Exemptions.)

Order 1000 requires RTOs to eliminate any federal right of first refusal (ROFR) from commission-jurisdictional tariffs and agreements but allows a ROFR for reliability projects whose needs are so urgent that there is insufficient time to hold a competitive proposal window.

Five Criteria

Saying the exemption should be used only in "certain limited circumstances," the commission set five criteria to limit the RTOs' discretion for applying it.

In Thursday's order, FERC concluded PJM was complying with only two of the criteria, ordering it to make Operating Agreement changes regarding the other three within 60 days.

The commission said PJM complied with the first criterion that projects exempted from competition must be needed in three years or less to solve reliability criteria violations. PJM also complied with a requirement to post annually a list of immediate-need reliability projects to be built by incumbent transmission owners.

But FERC said it agreed with stakeholders' comments that PJM's explanations "do not provide sufficient detail" of the reliability violations and system conditions for which there are time-sensitive needs. "Similarly, we find that PJM generally fails to include any discussion about system conditions related to the reliability violations in its TEAC [Transmission

Expansion Advisory Committee] presentation materials. For example, we find one-line labels (e.g., 'short circuit,' 'end-of-life,' 'overstressed') identifying the reliability violation driving the immediate-need reliability project insufficient to comply."

FERC said it was not requiring "an exhaustive description" but said PJM "may provide details regarding the specifics of the violation; why the violation arose; when it first occurred; the implications of the violation in terms of generation, load, congestion, etc.; the severity of the problem; and expectations for the violation's severity in the future (i.e., will the problem get worse or have a cascading effect at a later point in time)."

The commission also cited PJM for failing to post a "full and supported written description" on any decision to award a project to an incumbent TO, including an explanation of other transmission or non-transmission options that the RTO considered and the cause of the need and why it was not identified earlier.

'Little Insight'

"The TEAC presentation materials provide little insight as to PJM's reasoning," the commission said. "In addition, we find that PJM does not provide in its presentation materials an explanation for its determination that there was insufficient time to open a full or shortened proposal window."

Going forward, FERC said, PJM must "expound on its description to support the designation of its immediate-need reliability projects, specifically addressing the time-sensitive nature of the need, why the incumbent transmission owner was selected, alternatives considered and why the need was not identified earlier. ... PJM could also explain the urgency of the violation and compare it to the typical timeline of a standard or shortened competitive proposal window, explaining how the proposal window would delay the solution further."

Although its prior order did not specify how much time PJM should allow stakeholders to comment on project descriptions, FERC said the RTO's practice of posting materials three days before meetings at which the projects are to be discussed "is not sufficient." It noted that the RTO gives stakeholders 10 days to review materials for supplemental transmission projects under its Attachment M-3 process.



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"As a result, we direct PJM to submit a compliance filing to designate a specific time period greater than three days for stakeholders to provide comments in response to the project description," it said.

PJM also failed to provide transparency in addressing stakeholder questions about immediate-need projects, FERC said, ordering the RTO to post on its website all stakeholder comments and its answers, "whether provided in writing or submitted verbally at TEAC meetings."

The commission also said PJM must make it easier for stakeholders to locate information on immediate-need projects, noting that the RTO has put such information in more than 60 locations on its website. "While we do not find that PJM must post all immediate-need reliability project information to a single webpage to meet the transparency requirements ... we direct PJM to post all information regarding immediate-need reliability projects in a manner that is more easily accessible to stakeholders than the current approach."

'Reasonable Balance'

The commission rejected other requested relief, including LS Power's request to eliminate the immediate-need exemption and the New Jersey Board of Public Utilities' request that the commission hold a technical conference to determine whether it should continue to allow other exemptions from competition such as those for lower-voltage projects and substation equipment.

The commission noted PJM's statement that it is working to reduce the use of immediate-need designations by improving the efficacy of its five-year model. PJM said improved modeling and testing has already begun to re-



duce the use of immediate-need designations. In 2019, PJM said that it reported only eight immediate-need reliability projects — totaling 11 baseline upgrades.

FERC also declined a request to shorten the three-year time threshold for immediate-need projects, saying it "continues to strike a reasonable balance" between reliability and competition.

In addition, it rejected LS Power's request to exclude end-of-life (EOL) projects from the immediate-need category. LS Power said EOL projects represent a large portion of immediate-need designations.

The commission also refused LS Power's request to require TOs to provide PJM with information on EOL projects seven years in advance and American Municipal Power's call for more frequent and timely submission of information by TOs on load changes to aid system modeling.

"We make this determination because such a requirement is outside the scope of the proceeding. We expect that, as PJM has committed to do, PJM will continue to improve its processes, to both timely receive the relevant system information from transmission owners and timely incorporate this information into its planning models, to potentially reduce reliance on the immediate-need reliability project exemption," FERC said. (See related story, PJM Stakeholders Pass End-of-life Proposal.)

SPP, ISO-NE Cleared

FERC terminated the Section 206 investigations into SPP and ISO-NE, saying they had not produced evidence that the RTOs were implementing the exemption "in a manner that is inconsistent with or more expansive than the commission directed." It noted that no stakeholders had accused either RTO of violating their tariffs.

SPP said that it had designated only five transmission projects as "short-term reliability projects" out of 144 projects identified in its Integrated Transmission Planning studies since study year 2016.

The Connecticut Public Utilities Regulatory Authority had argued that ISO-NE's need-by dates are artificially early because the RTO performs its needs assessments under assumptions more conservative than those used by day-to-day operations. But FERC said ISO-NE had "sufficiently justified" its approach. The RTO explained that its operators do not have

to respect certain contingencies if they don't have impacts outside of the local area where they occur. It also said the operators have access to a wider range of equipment ratings and system operating conditions than are allowed in transmission planning.

Several New England state agencies, including the attorneys general for Massachusetts and Connecticut and the Maine Public Advocate, said FERC should find ISO-NE's exemption unjust and unreasonable because the region was the only RTO that had not completed a competitive transmission procurement. "Although ISO-NE's lack of a competitive solicitation was one reason the commission instituted this proceeding, this outcome is not a sufficient reason to find the relevant Tariff provisions unjust and unreasonable," FERC said. (On June 8, the RTO announced that it would recommend a project by incumbent utilities National Grid and Eversource Energy as the lone finalist in its first competitive solicitation.)

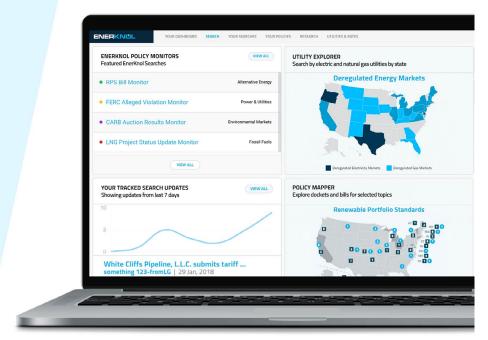
The commission also rejected arguments regarding the efficiency of New England's transmission spending, its accommodation of non-transmission solutions and its "reactive" planning process as beyond the scope of the proceeding.

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PJM Stakeholders Endorse End-of-life Proposal

Continued from page 1

the will of the members."

"We understand there's a pending TO [Section] 205 proposal at FERC, so we will act with reasonable diligence to accomplish this filing," O'Hara added.

On Thursday, the joint stakeholders' proposal won support from 100% of End-Use Customers, 97% of Electric Distributors, 83% of Generation Owners and 51% of Other Suppliers. It was opposed by all but two of the 14 Transmission Owners. The difference maker was a shift by Other Suppliers, who only gave the proposal 41% support at the May 28 MRC meeting, and Generation Owners, whose support increased by 12 percentage points.

Under the stakeholders' proposal, TOs would be required to notify PJM and stakeholders of any facility nearing the end of its life at least six years before its retirement date so that the project could be included in five-year planning models and potentially opened to competitive bidding. It would also modify the supplemental project definition to exclude EOL projects, which would become a new category of regionally planned projects.

The MC vote was one of two victories for advocates of transmission competition in PJM on Thursday as FERC ruled that the RTO has failed to comply with its conditions for the "immediate need" exemption under Order 1000. The commission said PJM must increase the transparency of its practices. (See related story, More Transparency Ordered on PJM 'Immediate Need' Tx.)



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The Proposal

Mark Ringhausen of ODEC gave a presentation on the joint stakeholder proposal, saying the goal is to improve transparency and incorporate the EOL determination process into the Regional Transmission Expansion Process (RTEP).

Ringhausen said he wanted to clarify some misconceptions about the proposal, explaining that the language allows TOs that don't want to utilize the EOL process to continue to use maintenance activities for their transmission facilities. The new rules would only impact TOs declaring an entire line or facility as having reached its EOL, he said.

"It's very clear in the CTOA that maintenance activities are 100% under the purview of the transmission owners," Ringhausen said.

The stakeholder proposal should also lead to fewer supplemental projects from the TOs, he said. PJM has reported that TOs' supplemental projects totaled almost \$3.4 billion in 2019, more than double the less than \$1.5 billion in regionally planned baseline projects. It was the fifth year out of the last six in which supplemental projects exceeded baseline projects. (See Stakeholders Urge PJM: Plan 'Grid of the Future'.)

"It just gives PJM the ability to plan a better transmission system to allow market participants to use going forward," Ringhausen said.

Sharon Segner of LS Power offered a series of friendly amendments to the OA changes. Segner said the amendments were a result of conversations with PJM staff and other stakeholders to clarify definitions and other language in the proposal.

Segner said PJM staff made it clear they were not endorsing the changes when discussions took place but simply wanted to provide legal comments on what was being proposed and help edit draft language.

Some of the changes included making sure the TOs, not PJM, are responsible for the EOL lookahead program, Segner said.

"I think it's fair to say there continues to be policy differences with PJM, but it's certainly been a good-faith effort on everyone's part," she said.

Dave Souder, PJM senior director of system planning, presented the RTO's response, including a May 27 letter from the Board of

Managers, detailing the RTO's concerns with the stakeholder package.

Souder said the stakeholder proposal introduces a "dichotomy" by requiring a final EOL determination six years in advance when final EOL determinations typically occur at the one- to three-year time frame. Forcing a final binding six-year EOL determination may result in premature retirement of transmission facilities, he said.

Supporters

Cynthia Holland, director of federal and regional policy for the New Jersey Board of Public Utilities, said the joint stakeholder proposal provides a path to transparency in the planning process.

"We appreciate the efforts of the stakeholders who have put forward this proposal," she said. "We do think it has merit."

Susan Bruce of the PJM Industrial Customer Coalition (ICC), which co-sponsored the joint proposal, said that consumers have been living with "unprecedented transmission costs" for years and that her members experience difficulties budgeting for the rising costs of transmission each year.

She said many ICC members are pursuing clean energy, and generation interconnection is a key issue for them.

"It's important for this issue to be before [FERC] for us to make progress," Bruce said.

Disagreements

Robert Taylor of Exelon said the stakeholder proposal is "substantively and legally flawed."

Alex Stern, director of RTO strategy for PSEG Services, went even further in his critique of the proposal, saying the result of Thursday's vote calls into question the entire stakeholder process. He said the TOs spent six months trying to work with other stakeholders only to find "divide and a disconnect" in the stakeholder process.

He said the OA changes will hinder, not facilitate, "the grid of the future."

The proposal would confront needed transmission projects with "unnecessary roadblocks while some gamblers in the crowd hope there's uncertainty that brings competitive opportunities," Stern said. ■



GreenHat Maneuvers to Remove FERC from Shell Case

By Michael Yoder

GreenHat Energy has filed a motion to bar FERC's Office of Enforcement from working on a breach-of-contract case involving Shell Energy North America, alleging commission officials conspired with an independent consultant hired by the PJM Board of Managers to change the report on GreenHat's 2018 default.

In its June 4 filing, GreenHat alleges that in March 2019, it learned that one or more members of Enforcement's investigative team had met with Robert Anderson, an independent third-party expert retained by PJM's board to prepare the Report of the Independent Consultants on the GreenHat Default. The filing further alleges that FERC officials had a draft copy of the report and asked Anderson to "alter or remove language in the draft favorable to GreenHat."

The company said that in early July 2019, it received an anonymous whistleblower letter alleging that a representative of Enforcement asked the team conducting the default review to "avoid including any information that could be exculpatory to GreenHat."

"Enforcement's unsavory conduct over a year ago may be out of the commission's hands at this point. But walling off Enforcement and others who worked on the investigation is not," GreenHat wrote in its filing.

FERC and Anderson declined to comment on the GreenHat filing. Officials from PJM said the filing was still being reviewed by the RTO.

The motion comes after a May 29 petition by Shell asking FERC to intercede in a Texas state court case in which GreenHat filed a breach-of-contract claim against the energy company regarding bilateral contracts to transfer financial transmission rights. Shell is asking the commission to interpret PJM's Tariff provisions regarding bilateral transfers of FTRs (EL20-49).

Shell said in its petition that GreenHat does not allege the FTR agreements were breached but instead "makes the extraordinary claim that entering data into PJM's platform for reporting FTR transfers created additional separate, binding contracts, which Shell Energy allegedly breached."

Shell entered into three agreements with GreenHat between August 2016 and February 2017 in which it agreed to what it called a "consignment" arrangement in which GreenHat would transfer FTRs to Shell, which would attempt to sell them in the next PJM long-term FTR auction.

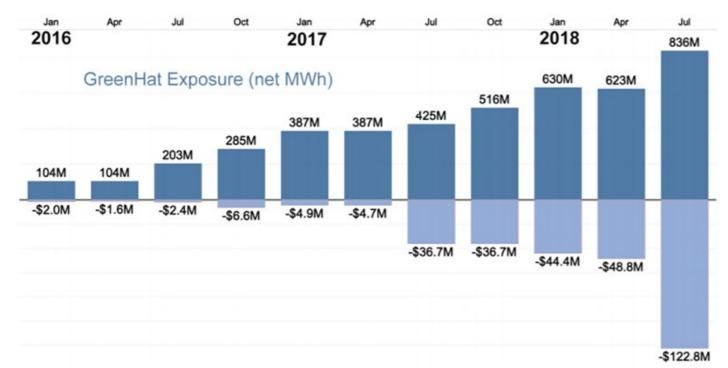
GreenHat transferred the FTRs to Shell and reported the transfer in PJM's FTR center without any compensation.

Shell agreed to pay GreenHat 73% of the revenues it generated from FTRs that sold in the auction. Shell agreed to return to GreenHat any FTRs that failed to clear or to purchase them at "an agreed-upon price, also based on auction clearing prices."

Shell said it fulfilled its obligations under the first two bilateral agreements on Oct. 18, 2016, and Feb. 10, 2017, by making one-time lump-sum payments to GreenHat of the final purchase price for cleared FTRs and those uncleared FTRs that it did not return to GreenHat.

The company executed the third agreement on Feb. 27, 2017. In the meantime, FTR trader DC Energy told PJM in February 2017 that it believed "GreenHat's portfolio would lose between \$35 [million] and \$40 million by the time the positions settled in two to three years." (See Shell Demands Seat at GreenHat Settlement Table.)

In a June 1 *notice*, FERC set a June 29 deadline for comments in the proceeding. The deadline for comments was later changed to July 14 after FERC *granted* GreenHat's motion for extension on June 11. ■



GreenHat's significant growth in exposure and MTA loss | PJM



FERC OKs Revised Forecast for PJM Incremental Auction

By Michael Yoder

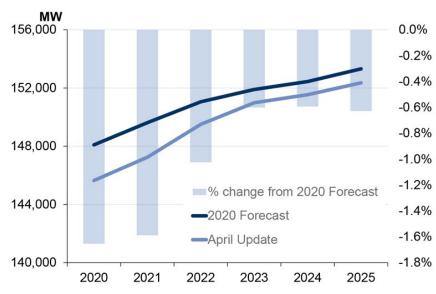
FERC last week granted PJM permission to use a lower peak load forecast for its second Incremental Auction scheduled for July, reflecting the impact of the COVID-19 pandemic (ER20-1870).

On May 20, PJM requested a one-time Tariff waiver to replace the summer peak load forecast it had filed earlier this year, before states started issuing stay-at-home orders.

PJM stated that because it has already held the Base Residual Auction and first IA for the 2021/22 delivery year, capacity commitment levels, clearing prices and zonal capacity prices were already largely set for the year. It said the waiver would primarily affect parties newly releasing or taking on capacity commitments in the second IA and was necessary because of "the impact of the unforeseeable economic consequences of the COVID-19 pandemic."

Without a change, its summer 2021 load forecast would be "significantly overstated," the RTO said.

"While the lack of record evidence is not dispositive, under the circumstances presented here, we find that any potential harm to prices in the second Incremental Auction for the 2021/22 delivery year is outweighed by using auction parameters that reflect the significant economic forecast change and associated decrease in the forecast summer peak result-



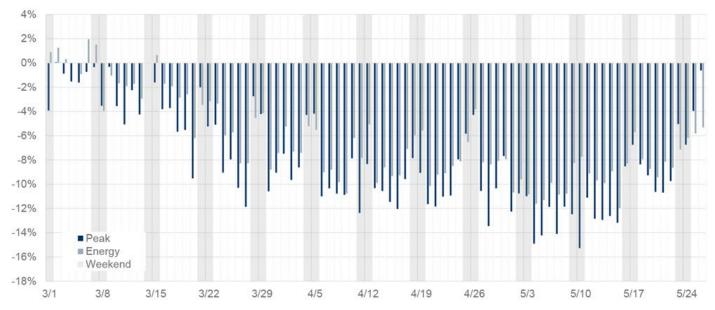
Estimated impact of COVID-19 on daily peak and energy | PJM

ing from the economic consequences of the COVID-19 pandemic," FERC said in its June 15 order approving the waiver.

PJM forecasters have *updated* stakeholders on pandemic-related impacts for several months, saying weekday load peaks have come in 10.4% less, or about 9,300 MW, than what would be anticipated without the outbreak. At the May 12 Planning Committee meeting, PJM told members new parameters were being used for the forecast. (See "Load Forecast Update." *PJM PC/TEAC Briefs: May 12, 2020.*)

The new parameters incorporate an updated economic forecast PJM received from Moody's Analytics in April.

PJM said the April report's forecast for third-quarter 2021 real gross domestic product is 7.1% lower than that assumed in Moody's September 2019 forecast and that the drop, along with the "associated significant" decrease in forecast peak load, was "too large to ignore." It said the waiver would "align the auction parameters with currently expected conditions."



PJM RTO summer peak forecast | PJM



PJM MRC/MC Briefs

Markets and Reliability Committee

Emerging Technologies Forum

Stakeholders unanimously endorsed the charter for the new PJM Emerging Technologies Forum at Thursday's Markets and Reliability Committee meeting.

Eric Hsia of PJM reviewed the charter, saying significant changes were made after some stakeholders expressed concerns with adding another subcommittee to the schedule. The subcommittee was instead changed to a forum with no formal decision-making role. (See "Emerging Technologies Subcommittee Proposed," PJM MRC Briefs: April 30, 2020.)

Hsia said the forum is designed to keep stakeholders abreast of technology pilot programs PJM is seeking to implement and to facilitate discussions with technology providers. It will work to ensure transparency through a periodic review of the advanced technology pilot program, Hsia said, and continue fostering collaboration with technology providers and stakeholders.

The forum will not make selections of pilot projects and programs, Hsia said, with PJM maintaining management over the selection. Hsia said no official votes on issues will be made at the forum, but members will be able to conduct nonbinding votes and make recommendations that stop short of creating and

voting on solution packages.

The group is currently targeted to meet monthly, with the first forum expected in August.

Greg Poulos, executive director of the Consumer Advocates of the PJM States, expressed support for the forum and urged PJM staff to consider cost-benefit analyses in discussing projects. He said costs are one of the primary concerns of consumer advocates when discussing new initiatives.

Adrien Ford of Old Dominion Electric Cooperative said the changes made to the charter by PJM after stakeholder feedback have made it a stronger and more focused group.

Stakeholder Group Sunsets

Members unanimously endorsed sunsetting seven stakeholder groups that PJM staff said had achieved their original goals.

Dave Anders of PJM said stakeholder feedback resulted in modifications to the original list introduced at the May MRC meeting. (See "Task Force Sunset." PJM MRC Briefs: May 28, 2020.)

Anders said the Modeling Generation Senior Task Force was struck from the sunset list. The task force met on June 10. Anders said, and members at the meeting expressed support for continuing to meet as needed to provide guidance and feedback.

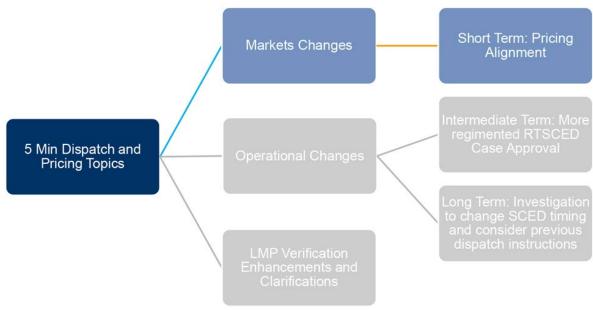
The other suggested change based on feed-

back was to keep the Energy Price Formation Senior Task Force, Anders said. Although FERC last month approved PJM's proposed energy price formation revisions, several members thought additional commission guidance could be received that will require more work related to the task force's charter, he said.

FERC ordered PJM to submit a compliance filing in 45 days modifying the capacity market's energy and ancillary services offset to reflect the additional revenues resources will receive under the new rules. (See FERC Approves PJM Reserve Market Overhaul.)

The groups being sunset are the:

- Generator Offer Flexibility Senior Task Force, which last met November 2015;
- Energy Market Uplift Senior Task Force, which last met March 2017:
- Incremental Auction Senior Task Force, which last met January 2018;
- Summer Only Demand Response Senior Task Force, which last met September 2018;
- Primary Frequency Response Senior Task Force, which last met December 2018 (PJM provided a separate presentation on the work of the task force.);
- Distributed Energy Resources Subcommittee (DERS), which last met in May: and
- Intermittent Resources Subcommittee (IRS), which last met in March.



PJM's "work streams" for improving coordination of its five-minute dispatch and pricing | PJM



Erik Heinle, of the D.C. Office of the People's Counsel, asked for clarification regarding the two subcommittees on the list, the DERS and IRS.

Anders said the intention is to form a new subcommittee, the Distributed Energy Resource and Inverter-based Resources Subcommittee (DIRS), combining the scope of work of the two groups. Anders said DIRS will report to the Market Implementation Committee, which is set to approve its charter at the July 8 meeting.

5-Minute Dispatch and Pricing

Debate continued on PJM's proposal to improve coordination of its five-minute dispatch and pricing during a first read of the Operating Agreement and manual language changes.

Adam Keech of PJM presented the highlights of the package, which calls for "work streams": short-term market changes to address pricing alignment: "enhancements and clarifications" to LMP verification; intermediate operational changes to implement more "regimented" real-time security-constrained economic dispatch (RT SCED) case approvals; and long-term operational changes to investigate changing SCED timing and consider previous dispatch instructions.

The RTO's proposal will be voted on at the July MRC and Members Committee meetings. Pending FERC approval, implementation is tentatively slated for October.

The measure was endorsed nearly unanimously at the MIC meeting. (See PJM 5-Minute Dispatch Proposal Endorsed.)

Keech said PJM decided to break the process up into short-term, intermediate and long-

Generator Offer Flexibility Sr. Task Force (GOFSTF)

Energy Market Uplift Sr. Task Force (EMUSTF)

Summer Only Demand Response Sr. Task Force

Energy Price Formation Sr. Task Force (EPFSTF)

Modeling Generation Sr. Task Force (MGSTF)

Intermittent Resources Subcommittee (IRS)

Distributed Energy Resources Subcommittee (DERS)

Incremental Auction Sr. Task Force (IASTF)

Primary Frequency Sr. Task Force (PFRSTF)

Committee

(SODRSTF)

term efforts based on how quickly they could be implemented.

PJM's proposed short-term fixes would align the locational price calculator (LPC) to use the reference RT SCED case for the same target time. The LPC would calculate prices for the interval from 11:55 a.m. to 12 p.m. ET using the RT SCED solution for a 12 p.m. target time.

Much of the debate has centered on stakeholders' desire to implement long-term dispatch changes along with the short-term and intermediate changes.

Keech said PJM is dedicated to working with stakeholders on the long-term changes and determining if there are formulation changes needed for dispatch by doing side-by-side comparisons with the different dispatch methods used at MISO, SPP, CAISO and ER-COT. PJM is proposing holding the long-term discussion as a working issue at the MIC with reports provided to the Operating Committee, Keech said. Detailed discussions could start at the MIC by September.

Ford said she was glad PJM is committing to look at long-term solutions and suggested making the discussions a special session of the MIC because of the education needed to understand the concepts.

"September sounds as good a time as any to start so that we're not waiting too long," Ford

Paul Sotkiewicz of E-Cubed Policy Associates said PJM's short-term proposal and the process moving forward on long-term issues are "eminently reasonable." He said the point of stakeholder discussions are to get to a place where PJM is using the most up-to-date infor-

Issue Status/Notes

Order on rehearing denied (3/26)

Work completed – separate report

received with short time for

Work completed, and order recently

Separate report on agenda - potential

Separate report on agenda - potential

Implemented

Implemented

Recent order

compliance-

Separate report

combination with IRS

combination with DERS

posted

mation possible, making dispatch and pricing more reflective of conditions.

Keech said PJM is looking forward to engaging with stakeholders on the discussions and solutions.

"I can assure you and the entire stakeholder community that we are committed to continuously getting better," Keech said.

Members Committee

PMA Credit Requirements

Stakeholders unanimously endorsed Tariff revisions related to peak market activity (PMA) credit requirements to address a regulatory change in Ohio concerning the billing of network integration transmission service (NITS). The change was endorsed through acclamation, with one abstention.

Bridgid Cummings of PJM reviewed the revisions.

In 2015, the Public Utilities Commission of Ohio moved NITS and other related charges to a non-bypassable rider that is the responsibility of the electric distribution company. The change means competitive retail electric suppliers serving load in Ohio are no longer allowed to collect NITS or any other transmission-related charges from end-use customers.

PJM requires load-serving entities to sign NITS agreements and post collateral based on their PMA and gives itself the ability to make changes to a participant's PMA requirement when the RTO determines the PMA is not representative of expected activity. (See "'Quick Fix' on PMA Credit Requirements," PJM MIC Briefs: April 15, 2020.)

Surety Bonds as Collateral

Members endorsed Tariff revisions to approve surety bonds as a form of collateral. The revisions passed with three objections and three abstentions in the consent agenda portion of the meeting.

The proposal allows the use of surety bonds as collateral for all market purposes except financial transmission rights, with a \$10 million cap per issuer for each member and a \$50 million aggregate cap per issuer.

PJM said it will require the use of bond companies on the U.S. Treasury Department's certified list and a minimum credit rating of A with S&P Global Ratings, Fitch Ratings and AM Best, or A2 with Moody's Investors Service. PJM also will require one-day payment demand terms.

The MRC approved sunsetting seven stakeholder groups but agreed to retain the Modeling Generation Senior Task Force and Energy Price Formation Senior Task Force. | PJM

Last Meeting Date

11/12/2015

3/2/2017

1/19/2018

9/20/2018

12/5/2018

3/14/2019

5/15/2020

5/18/2020

3/2/2020

Michael Yoder

1

Xcel Energy Completes \$400M Tx Project

'Power for the Plains' Initiative Strengthens Ties with SPP

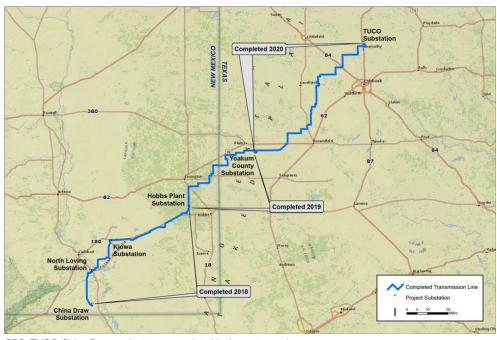
By Tom Kleckner

Xcel Energy subsidiary Southwestern Public Service has completed a major transmission project in Texas and New Mexico, part of a multibillion effort to expand and modernize the region's grid.

The \$400 million, three-year project came in 9% under budget and involved the construction of 240 miles of 345-kV transmission lines from SPS' TUCO substation north of Abernathy, Texas, to the China Draw substation southeast of Carlsbad, N.M.

The TUCO-China Draw project is part of Xcel's *Power for the Plains* initiative, designed to update the region's grid to improve reliability, meet demand and provide new renewable energy outlets. SPS' network comprises more than 7,000 miles of high-voltage lines that cover the Panhandle and South Plains regions in Texas, portions of eastern and southeastern New Mexico, and also reach into the Oklahoma Panhandle and southwestern Kansas.

Xcel said much of the initiative's work has



SPS' TUCO-China Draw project was completed in three stages. | Xcel Energy

focused on strengthening its connections with

Crews erect an H-frame structure as part of work on the TUCO-China Draw transmission line. | Xcel Energy

SPP, enabling it to tap abundant and economical sources of electricity that have lowered purchased power costs by as much as \$60 million annually. The investments have quadrupled Xcel's import capabilities and boosted the region's power supply during peak demand months, the company said.

"Xcel Energy is committing a large amount of capital as a sign of our faith in the economies of eastern New Mexico and West Texas," said David Hudson, president of Xcel's New Mexico and Texas operations. "We are focusing resources on projects that will not only provide our communities the safe, clean, abundant and affordable power they require for development but also keep the cost of electricity at or below the rate of inflation. The Power for the Plains transmission enhancement program is a foundational aspect of that strategy."

The region's energy and agriculture economies are expected to expand in the coming years, though the crash in oil prices has dampened some of those projections.

Xcel said it has invested more than \$3 billion in grid and power generating improvements in Texas and New Mexico since 2011. That includes an expansion of wind resources that puts the company on track for an 80% reduction in carbon emissions by 2030. ■

SPP News



SPP Briefs

WEIS Market's Approval Faces 2-Month Delay at FERC

SPP is facing a two-month delay in gaining FERC approval of the Tariff for its Western Energy Imbalance Service (WEIS) market, staff said last week (ER20-1059, ER20-1060).

Regulatory Policy Manager Nicole Wagner told the Western Market Executive Committee (WMEC) on Friday that SPP, in responding in May to a deficiency letter from the commission, has asked for approval by July 21. The RTO had requested a May 21 approval date when it filed its proposed Tariff in February. (See "WEIS Tariff Approved, on to FERC," SPP Board of Directors/MC Briefs: Jan. 28, 2020.)

The grid operator plans to launch its Western Interconnection energy imbalance market on Feb. 21, 2021.

FERC in April asked SPP for additional information in 14 categories, ranging from implementation and administrative costs to whether marketing employees will sit on the WMEC

and how the RTO will ensure committee members do not "run afoul" of separationof-function rules.

The RTO's May response drew protests from a number of western utilities, led by Xcel Energy. The company said the WEIS Tariff could impair a joint dispatch agreement involving many of the entities. The company also said market flows may harm the Western Interconnection's unscheduled flow mitigation plan and that SPP disregards the Northwest Power Pool's activities.

Asked whether SPP would respond to the protests, Wagner said, "We have discussed the possibility of filing additional information with

SPP's WEIS market, with eight participants, is an alternative to CAISO's Western Energy Imbalance Market. CAISO and PacifiCorp started the EIM in 2014 and have nine participants. They plan to add 10 more by 2022.

Staff said the WEIS implementation program's

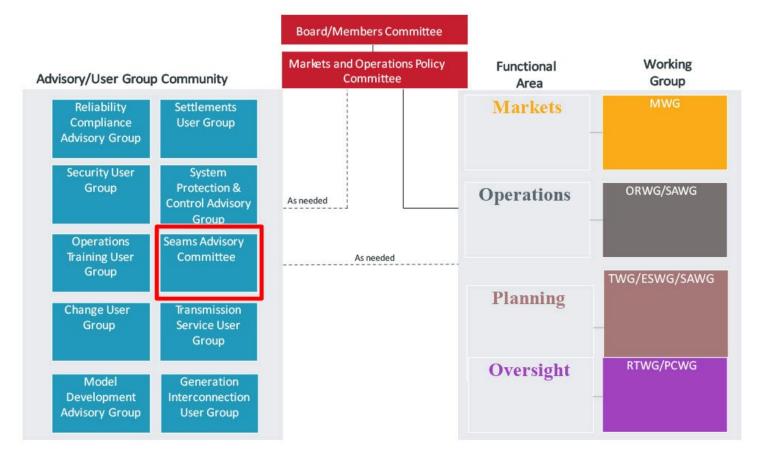
various projects are all on schedule, now that it has taken delivery of the market engine that will make everything work. "That was big news for us and why we're back on schedule," said David Kelley, SPP's director of seams and market design.

The program's costs are trending at or less than 5% above budget. Market trials begin July 1 with connectivity testing. Structured and unstructured testing is scheduled for Aug. 3-Nov. 20.

Staff Close to Seams Agreement with AECI

SPP is working with Associated Electric Cooperative Inc. (AECI) to address remaining reliability concerns over a sidelined competitive interregional upgrade, staff told the Seams Steering Committee on Thursday.

The 105-mile Wolf Creek-Blackberry project in Kansas and Missouri, projected to cost \$152 million, was approved by SPP's Board of Directors last year and included in the 2020



SPP's proposed reorganization aligns the MOPC's stakeholder groups with primary functions and oversight responsibilities and renames the Seams Steering Committee as the Seams Advisory Committee. (See next page.) | SPP

SPP News



Transmission Expansion Plan. The board suspended the project's notification to construct (NTC) in April to give both grid operators an opportunity to hash out an agreement over costs and scope. The agreement must be approved by FERC before a request for proposals can be issued. (See "Directors Suspend Competitive Upgrade," SPP Board/Members Committee Briefs: April 28, 2020.)

Cautioning members that he didn't want to give a false sense that "we have fully crossed the finish line," SPP Senior Operations Engineer Neil Robertson said additional analysis has indicated the 345-kV project would increase flows on some lower-voltage systems that would need to be mitigated.

"We're working with AECI staff on those concerns. We have at least a tentative agreement for a mitigation plan," Robertson said.

The AECI board of directors plans to take up the proposed agreement this week. SPP staff hope the RTO's board will reconsider the NTC during its July meeting.

Robertson said staff are also trading possi-

ble needs solutions with MISO as they work toward completing a project portfolio for the 2020 coordinated system plan. (See MISO, SPP Staff Recommend 2020 Joint Study.)

"Hopefully, this will culminate in a set of projects that look like they have the possibility of meeting [criteria] thresholds by both organizations." Robertson said.

The Seams Steering Committee will likely next meet as the Seams Advisory Committee. Its July meeting has been canceled, but the Markets and Operations Policy Committee plans to recommend a reorganized structure for its stakeholder groups to the board later that month.

The reorganization aligns the MOPC's stakeholder groups with SPP's primary functions and oversight responsibilities, allowing the committee to focus on policy-level work.

"It's just a name change," System Planning Director Casey Cathey told the SSC, noting that the SAC will continue to participate in the RTO's interregional planning stakeholder advisory committees with MISO and AECI.

Near Record \$5.98M in M2M Settlements for SPP

SPP in April accrued a near record \$5.98 million in market-to-market (M2M) settlements from MISO, staff said during the SSC videoconference. SPP has now piled up \$82.32 million in M2M settlements since the two neighbors began the process in March 2015.

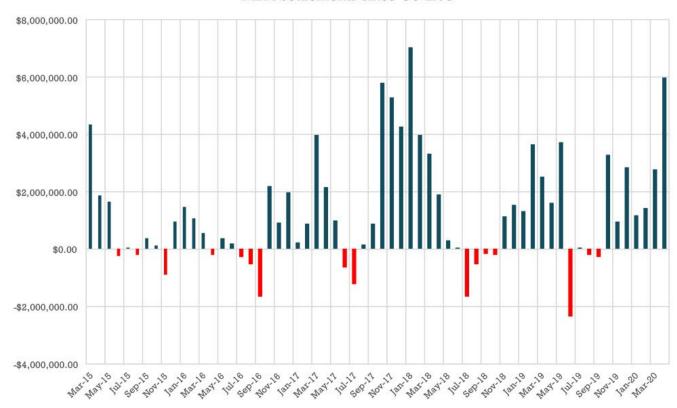
The process allows the RTOs to dispatch electricity on the most economical routes when congestion leads to constrained flowgates. Settlements have been in SPP's favor for 46 of the 62 months.

Two temporary SPP flowgates along the Kansas-Missouri border accounted for \$2.81 million of the settlements. High winds and outages led to the constraints.

Temporary flowgates were binding for 890 hours, resulting in \$3.87 million in settlements to SPP. Permanent flowgates were binding for 369 hours during April, resulting in another \$2.11 million in settlements, again in SPP's favor. ■

- Tom Kleckner

M2M Settlements since Go-Live



Note: Positive values are payments to SPP from MISO; negative values are payments from SPP to MISO.

Market-to-market settlements were again in SPP's favor in April. | SPP

Company Briefs

Avangrid Names New CEO



Avangrid last week named Sempra **Energy Executive** Vice President and

Chief Sustainability Officer Dennis Arriola as its new CEO, effective July 20. Arriola will succeed the retiring James Torgerson.

During his 25-year career, Arriola has served as chairman, president and CEO of Sempra subsidiary Southern California Gas. He also held leadership positions with SunPower and was CFO of both San Diego Gas & Electric and SoCalGas.

More: Power Engineering

Greentown Labs to Open Second **Location in Houston**



Massachusetts' Greentown Labs, the

nation's largest clean energy incubator, last week said it will open its second U.S. location in Houston next spring.

The site for Greentown Labs Houston was not disclosed but will be near downtown. The lab is raising \$7.5 million, which should be enough to cover its first three years of operation. Funding will come from venture capital firm American Family Insurance Institute for Corporate and Social Impact and the private equity firm SCF Partners. Tudor, Pickering, Holt & Co. will provide strategic and financial advice.

More: Houston Chronicle

Lyft Pledges Shift to 100% EVs by 2030



Lyft last week announced that it is committing to have 100% electric vehicles on its platform by 2030 in an

effort to get ahead of new emissions regulations under development in California.

The pledge will require the company to transition all its vehicles to EVs "or other zero-emission technologies" over the next decade. Lyft will have the ability to source EVs directly for its Express Drive rental car program, its consumer rental car program and its autonomous vehicle program. However, most vehicles used on its network are driver-owned, meaning the company will take on a bigger role in facilitating the transition to EVs more broadly. That will include connecting drivers to existing EV incentive programs, as well as advocating for new incentive policies at various levels of government.

More: GreenTech Media

UTC Board Names New President, CEO

The Utilities Technology Council board of directors last week named Senior Vice President of Finance and Operations Sheryl Riggs as its new president and CEO. Riggs has served as interim president and CEO since January.

Riggs first joined UTC in 2017 as director of accounting and administration. She was then promoted to senior vice president of finance and operations in 2019 prior to being named interim CEO.

More: UTC

Federal Briefs

Clean Energy Sector Jobs Down 18% **During Pandemic**

According to analysis of unemployment data conducted by BW Research Partnership, the U.S. clean energy sector has lost more than 620,000 jobs (18% of its work force) as the COVID-19 pandemic has slowed the demand for solar panels and energy-efficient systems while curbing production of EVs.

The numbers appear to be on track to fall short of a forecast BW made in May when it said the sector would suffer 850,000 job losses by the end of June. However, the report warned that many of the sector's jobs are being supported by a federal program to help cover the payroll costs of small businesses and that the expiration of the program "may result in a fresh round of layoffs in clean energy if there is no further intervention."

More: Reuters

Dominion Seeks More Time for Atlantic Coast Pipeline

Dominion Energy last week asked energy



more years to complete the \$8 billion

Atlantic Coast Pipeline from West Virginia to North Carolina, which the company now expects to enter service in early 2022.

FERC approved Dominion's request to build the pipeline in October 2017 and authorized the company to complete the project by October 2020. But the nation's most expensive natural gas pipeline has been one of several projects delayed by state opposition and local and environmental legal and regulatory battles.

Earlier in the week, the Supreme Court removed a major obstacle to the pipeline's construction when it ruled via a 7-2 vote that the U.S. Forest Service has the authority to grant the pipeline a right of way under the Appalachian Trail in the George Washington National Forest.

More: Reuters; The Washington Post

EPA to Reopen DC Office

EPA will reopen its D.C. headquarters today, according to an internal email, and employ-



ees will "have the option to return to the office." The reopening also applies to its satellite office in Arlington, Va.

The move is the first stage of President Trump's three-phased COVID-19 reopening plan. That phase will last at least two weeks, after which agency leadership will decide whether to move on to the next step. Until then, employees in the region are still encouraged to telecommute.

Despite the plans, workers and their unions continue to push back against the reopening plans, saying the data do not suggest it is safe to bring workers back and arguing that they will not be able to maintain social distancing.

More: Bloomberg Law

EVs to Set New Market Share Record

The International Energy Agency last week said it expects electric vehicle sales to set a new market share record in 2020, estimating they will account for 3% of global car sales and surpass the 2019 record of 2.6%.

According to the IEA, 17,000 electric cars were on the roads in 2010. By 2019, EV sales reached 2.1 million and brought the total number on the roads to 7.2 million.

More: S&P Global Market Intelligence

Goldman Sachs: Renewable Spending Will Surpass Oil and Gas in 2021

Goldman Sachs analysts last week said green-energy spending will surpass that of oil and gas for the first time ever next year and account for roughly 25% of all energy spending, as the transition to renewable power will create a \$16 trillion investment opportunity through 2030.

Goldman said economic downturns have historically slowed efforts to boost clean energy investing, but it sees the COVID-19 downturn bucking that trend and accelerating the nationwide pivot.

"We believe this time will be different, especially for technologies that are now mature enough to be deployed at scale and can benefit from a falling cost of capital and an attractive regulatory framework, unlocking one of the largest infrastructure investment opportunities in history on our estimates," the Goldman team said.

More: Markets Insider

JEA Loses Plant Vogtle Power Lawsuit

U.S. District Judge Mark Cohen last week denied Jacksonville Electric Authority's (JEA) attempt to get out of its 20-year power purchase agreement with the Plant Vogtle nuclear power plant, ruling that the utility is legally bound to do so.

JEA said its cost for the agreement could



amount to \$4 billion over 20 years and warned it will force an increase in electric rates, although company administrators have not yet made any presentations to its board for a rate boost. JEA is said to be reviewing Cohen's order and has not decided how it will respond.

The utility signed the agreement in 2008 with the Municipal Electric Authority of Georgia MEAG, a part-owner of Plant Vogtle, when nuclear power cost less and the utility wanted to expand non-carbon fuel sources. Cost overruns and construction delays have delayed the project, and as costs skyrocketed, JEA appealed to MEAG to stop the project.

More: The Florida Times-Union

Mountain Valley Pipeline Extension **Gets FERC Approval**

FERC last week authorized Mountain Valley Pipeline to build MVP Southgate, a \$468 million extension of the natural gas pipeline that runs through West Virginia and Virginia. The extension would start at the 303-mile pipeline's terminus in Pittsylvania County and run for another 75 miles into North Carolina.

Several conservation groups and the North Carolina Department of Environmental Quality argued that the developers overstated the demand for the extension. FERC relied largely on a contract between Mountain Valley and Dominion Energy, which will receive about 80% of the pipeline's gas for distribution, as sufficient evidence for demand, citing commission precedent.

Still, FERC ruled that work on the extension cannot begin until the company secures all the permits for the mainline system. Construction of the pipeline is currently on hold while permits are reconsidered by several federal agencies. Mountain Valley has said it hopes to begin work on the project this year.

More: CP19-14; Roanoke Times

FERC Updates EQR Requirements

FERC on Thursday issued several minor revisions to its Electric Quarterly Report (EQR) requirements.

The commission will now require filers reporting transmission capacity reassignments to report time zone information in the Contract Data section of the EQR. It also clarified that filers should report only seller-level (not unit-specific) information to minimize the possible disclosure of sensitive information.

FERC did not, however, adopt several proposals it made in a Notice Seeking Comments issued in September 2016, a couple months after it last updated the EQR requirements. (See FERC Clarifies Electronic Quarterly Report Rules.) For example, it declined to require transmission providers to report ancillary services transaction data, as well as the collection of certain tariff-related information that is currently submitted into the eTariff system.

More: RM01-8, et al.

State Briefs

ARKANSAS

Four Utility Workers Injured in Blast, **Fire**

A gas explosion and fire in Maumelle on Thursday injured four CenterPoint Energy employees after an underground natural gas main reportedly ruptured.

According to Fire Department Division Chief Michael Cossey, firefighters received a call about a gas-line rupture about 10:10 a.m. related to a contractor working in the area. Utility workers were investigating at

the scene when the gas ignited and caused a fire, CenterPoint spokesman Ross Corson

The four employees were transported to a hospital, and two were released later that day, Corson said.

More: Arkansas Democrat-Gazette

PSC Rejects Entergy's Solar Power Offering Plan

The Public Service Commission last week rejected Entergy Arkansas' plan to offer a solar energy purchase option that would



sell solar power to towns, counties and other nontaxed entities at a lower

rate than the 10 cents/kWh it charges for basic retail power.

The commission ruled that Entergy's proposal "does not adequately protect the interests of nonparticipating ratepayers and is not just and reasonable or in the public interest." Former Lt. Gov. Bill Halter, now the CEO of Scenic Hill Solar, also argued that the special rate would derail private solar development in the state and "kill jobs in the

middle of a pandemic and unemployment crisis."

However, the PSC noted that Entergy had committed to re-evaluating its plan in light of a recent ruling on the net metering rate structure in the state and could resubmit its offering to comply with the order. If the utility revises and refiles the plan, "the commission will determine ... whether the revised offering constitutes a competitive solar product that is more attractive to customers than that originally offered."

More: Arkansas Business

COLORADO

Larimer County Coal-fired Plant to Close Early



The Platte River Power Authority (PRPA) last week said it will shut down the 280-MW coal-burning unit at its Rawhide power plant in Larimer County 16 years ahead of schedule in 2030 as it tries to make good on promises to provide its customers with 100% carbon-free electricity.

PRPA CEO Jason Frisbie said the utility is making plans to move workers at Rawhide Unit 1 to new roles after it closes. Rawhide also generates power using natural gas and solar.

A 2019 report by Strategen found that PRPA customers could save \$22 million if the plant were to close by 2023 and be replaced by solar and power purchased from other generators.

More: The Colorado Sun

PUC to Open Electric Rates Survey

The Public Utilities Commission last week announced its intent to conduct a survey of utilities' retail rates in compliance with 2019 legislation.

Senate Bill 236 mandates that the PUC survey rates of public utilities and issue recommendations for how to reduce the rates in areas that are "materially greater" than the state average. The commission must also define what "materially greater" means and report back to the legislature by Feb. 1, 2021.

The U.S. Energy Information Administration reported in 2018 that the average monthly residential bill in the state was \$83.90.

More: Colorado Politics

ILLINOIS

Regulators Extend Utility Shutoff Moratorium

The Commerce Commission last week unanimously approved an agreement with the state's major utility companies to extend the moratorium on service disconnections and the suspension of late payments because of the COVID-19 pandemic until Aug. 1.

Under the agreement, the policies will be extended through July or when all four regions of the state have entered phase four of Gov. J.B. Pritzker's "Restore Illinois" reopening plan. All four regions are on track to enter phase four this Friday. Residential and small business customers will get an additional 30-day reprieve.

More: Chicago Tribune

MASSACHUSETTS

Deal Reached in Pilgrim Nuclear Plant Dispute



State officials last week announced a settlement with Holtec International with regards to the purchase of the Pilgrim nuclear power plant.

Holtec's purchase was approved by the U.S. Nuclear Regulatory Commission last August after the company promised to decommission and demolish the site within eight vears. However, the state filed two lawsuits and a federal petition amid concerns that Holtec lacked the funding to clean the site safely and store spent nuclear fuel. As part of the settlement, the company must maintain at least \$193 million through most of the cleanup in case the project faces delays or other unexpected costs, as well as secure a \$30 million pollution insurance policy.

Holtec said it is in the process of removing the spent fuel and placing it in a storage

facility. It plans to complete the cleanup by the end of 2027.

More: The Associated Press

NEBRASKA

Judge Revokes FWS Permit for R-Line Tx Project



U.S. District Judge William Martinez last week revoked a federal permit for the Nebraska Public Power District's (NPPD) 225-mile, 345kV R-Line transmission project, placing the under-construction line on hold.

Last year, the U.S. Fish and Wildlife Service approved NPPD's incidental take permit, which laid out the utilities' plan to mitigate the impact on the American burying beetle and cultural sites in the line's path and allowed for construction to begin. However, a Colorado landowner filed a lawsuit and claimed the agency had failed to adequately address effects on the endangered whooping crane.

Martinez said that FWS had used the best scientific information available in overruling the objections about the crane. But the judge found that the agency failed to adequately consider the effect on O'Fallon's Bluff — which still holds wagon ruts from the 1860s where travelers crossed the historic California and Oregon trails.

More: Omaha World-Herald

NEW JERSEY

State Aims to Become 'Houston of **American Offshore Wind'**



Gov. **Phil Murphy** last week announced that the state plans to turn 30 acres along the Eastern Shore of the Delaware River into a staging area to assemble 800-foot turbines. The state has also set aside 25 acres for potential

turbine part manufacturers. Another 160 acres will be available for future development.

The site, to be located on Artificial Island, is 5 miles from the nearest residential area. There are no bridges between it and the open ocean, which is important because af-

ter being assembled, the turbines are often stood upright and moved into place by ship.

The goal is to start construction next year and launch operations by 2024.

More: The Washington Post

NORTH CAROLINA

Duke Energy Notches Early Win in Coal Ash Suit



Judge Louis Bledsoe, the chief judge in the state's Business

Court, last week ruled that insurers failed to prove beyond dispute that Duke Energy intentionally and knowingly caused millions of dollars of environmental damage at its Mayo Steam Plant coal-ash pond. The ruling comes in Duke's suit to force about 24 former coal-plant insurers to pay at least \$600 million for coal ash leaks at 15 current and former plants in the Carolinas.

Bledsoe is deciding whether the evidence shows as a matter of law that there is no issue between the two sides in the case. which means in most of these cases he is not determining what the facts would ultimately show but simply deciding whether the facts are undisputed and the law is clear. If that's the case, the court says the issue is already settled.

More: Charlotte Business Journal

Rocky Mount Attempts to Retract Emails on Councilman's Unpaid Bills

City of Rocky Mount officials last week attempted to walk back their decision to release emails that identify Mayor pro tempore Andre Knight at the center of a nearly \$50,000 unpaid utility bill scandal.

City records show Knight received \$47,704 in write-offs for utilities, including electric, water, irrigation, wastewater, stormwater, refuse, natural gas and area lights. The emails released state Knight is to be left alone concerning his utility accounts, which State Auditor Beth Wood determined to be preferential treatment.

City attorney Jep Rose determined the emails constitute public enterprise billing information and are not public records as provided by General Statute 132 and should not have been released. Public enterprise billing information is defined as any record or information in whatever form compiled or maintained with respect to individual customers.

More: The Enterprise

RHODE ISLAND

North Smithfield Solar Farm Gets Final **Approval**



A 160-acre, 48.5-MW solar farm in North Smithfield received final approval last week, according to developer Green Development.

The company agreed to pay the town more than \$5.3 million over 20 years and will pay an additional \$287.500, or pay for construction services to improve the concession stand and restroom facilities at the Paul Joyce Athletic Fields.

National Grid will purchase the energy from the project.

More: Providence Business News

TEXAS

First Solar, Dow Sign PPA

First Solar last week agreed to a 15-year power purchase agreement for 75% of the 200-MW Horizon Solar project with chemical company Dow.

Under the agreement, Dow will power its Gulf Coast operations with power generated by the project in Frio County. The deal is part of Dow's efforts to achieve its sustainability target of supplying power from 750 MW of renewable sources by 2025.

More: Renewables Now

Kyle Postpones Utility Disconnections into July

The Kyle City Council last week voted to postpone utility disconnects until July 29 while staff work on an emergency grant to help residents make their payments during the COVID-19 pandemic. The deferment applies to all Kyle utility customers.

The city's finance director said staff are in the process of "finalizing guidelines for an emergency utility bill grant program" and are planning to bring the proposal forward for approval at the July 7 council meeting.

More: KXAN

VIRGINIA

SCC Extends Moratorium on Utility Shutoffs

The State Corporation Commission has issued an order to extend the moratorium on service disconnections for utility customers through the end of August because of the COVID-19 pandemic.

Utilities must also offer payment plans with no late fees to customers who cannot pay bills because of the pandemic.

More: The Associated Press

Wood Group Signs Contract for Solar **Projects**

Scotland-based Wood Group last week announced it has secured a deal to build two solar power contracts worth more than \$200 million from an energy company in the state. Wood did not name the client, but Dominion Energy is behind the contracts.

Wood, an engineering and consulting company, won contracts for a 70-MW plant in Chesapeake and a 120-MW facility in Pittsylvania County. They are to become operational in 2021 and 2022, respectively.

The Clean Economy Act, which was passed in April, requires the state's electricity be 100% carbon-free by 2050.

More: insider.co.uk

WISCONSIN

Utilities on Pace for 40% Reduction in Carbon Emissions by 2026

According to the draft Strategic Energy Assessment released earlier this month, state utilities are on track to achieve a 40% reduction of 2005 carbon emissions by 2026. However, the report shows almost all of the gains will be made this year thanks to recent coal plant retirements.

The forecast could turn out better than expected though, as the assessment does not include a coal plant retirement announced in May or the 500 MW of solar power Alliant Energy plans to acquire by 2024. It also excludes solar farms being developed by nonutility companies.

Since the last assessment in 2018, WEC Energy and Alliant have committed to cutting carbon emission by 80% by 2050, while Xcel Energy and Madison Gas and Electric say they intend to cut all carbon emissions.

More: Wisconsin State Journal

