RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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ISSN 2377-8016 : Volume 2019/Issue 37 September 17, 2019

Stakeholders, States in Dark over PJM Personnel Moves

'Everyone Loves Denise'

By Rich Heidorn Jr.

Denise Foster, PJM | © *RTO Insider*

State regulators and other PJM stakeholders last week expressed dismay over the announcement last week that PJM Vice President Denise Foster, head of the RTO's State and Member Services Division, was resigning and that her unit would be "realign[ed]."

The decision was announced Sept. 9 in a letter to members from interim PJM CEO Susan Riley, who said Foster will resign effective Oct. 31 and that her unit will be reorganized under Associate General Counsel Jen Tribulski.

"With Denise's decision to step down, we have decided to realign the State and Member Services Division to further demonstrate the organization's willingness to listen to key stakeholders and provide a more direct line of communication between the executive

Interim PJM CEO Susan Riley | © *RTO Insider*

Continued on page 29

FERC Considering Tx Line Rating Rules

By Michael Brooks

WASHINGTON — FERC staff last week held a technical conference to receive input from RTO officials and stakeholders on dynamic and ambient-adjusted line ratings, including whether and how the commission should require transmission owners to implement them (AD19-15).

Much of the two-day conference held at FERC headquarters focused on the current limited use of the practices on the grid, the different kinds of devices and how RTOs accommodate them. But staff — and Commissioner Richard Glick, who attended parts of the conference each day — received plenty of advice, with some urging a requirement for TOs to use ambient-adjusted ratings (AARs), and others stressing caution against a one-size-fits-all approach. Others urged the commission to force TOs to disclose how they calculate their ratings.

All seemed to agree, however, about the potential benefits of dynamic line rating (DLR) technology.

On the Sept. 11, the second day of the two-day technical conference, FERC staff and Commissioner Richard Glick hear from panelists on the ability of RTOs and ISOs to accommodate DLRs in their markets. | © *RTO Insider*

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Also in this issue:

LaFleur Elected to ISO-NE Board

Rush and VanZandt Win 3rd Terms

FERC Commissioner Cheryl LaFleur speaks at the Energy Bar Association's annual meeting in May 2019. (p.14) | © *RTO Insider*

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Situational Awareness Tool Nears Rollout

Oscillation Event Points to Need for Better Diagnostics

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No 'Hiccups' for West's RC Transition

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In this week's issue

Clarification

An article in last week's *RTO Insider* about the resignation of PJM Vice President Denise Foster, head of the RTO's State and Member Services Division, should have clarified that although Foster will be the third senior executive to leave PJM since the GreenHat Energy default, Foster had no role in the matter. (See related story in this issue, ***Stakeholders, States in Dark Over Latest PJM Shakeup***.)

Stakeholder Soapbox

Is MISO Really an 'Independent' System Operator?

By Karen P. and Mark J. Volpe

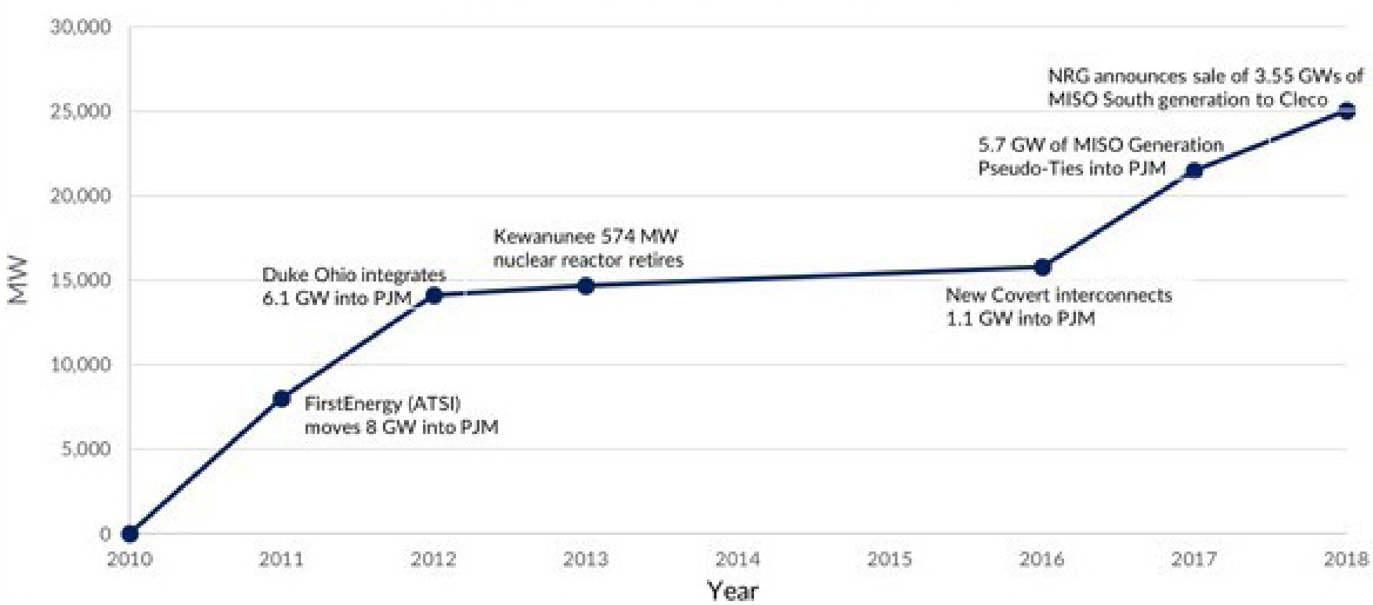
Mark J. Volpe, Coalition of Midwest Power Producers | *© RTO Insider*

Last September, we documented the gradual departure of more than 25 GW of independent power producer-owned and -operated generation out of MISO. Today we will review and disclose the fundamental cause as to why merchant generation has been forced to exit MISO. As background, more than 22 years ago, the functional unbundling of transmission and generation assets as required under FERC's landmark Order 888 was intended to promote wholesale competition among generators and preclude vertically integrated utilities from restricting access to the transmission system in order to favor their own generation resources. The first and most important fundamental characteristic FERC defined was independence, and those RTOs approved as consistent with Order 2000 were required to be independent in their decision-making process, with FERC explicitly stating, "the regional transmission organization must have a decision-making process that is independent of control by any market participant or class of participants." My late wife, Karen, had always questioned the entire concept of "ISO independence," dating back to the end of my time at FirstEnergy in 1997, when she steadfastly maintained that an ISO's independence was never a realistic hypothesis because the ISO's decision-making process would never be the product of truly independent thinking. Karen loved to ponder and debate the question of independence with family, where she concluded there was no such thing as independence. When dealing with the human element, she insisted that once we are born, it is universally true that because the human condition it is not possible to be independent. Each and every living being evolves and grows and gradually becomes a product of their environment based on their life's experiences.

To address this reality, the ISO's senior management must be populated with industry experts with a deep-seeded awareness and responsibility that it is incumbent upon the RTO/ISO to remain fair and balanced in its decision-making process and not appeal solely to the interests of those business models representing the majority. Unlike the rest of the country, RTOs are not a democracy subject to majority rule; instead, they are supposed to be independent and also represent the interests of those in the minority. The MISO transmission owners are collectively a class of participants, which, except for the standalone transcos, are composed of vertically integrated utilities that also own and operate a significant amount of affiliated generation assets. As such, MISO is purportedly independent and precluded from making market design decisions that would favor the TOs, which have voluntarily transferred functional control of their assets over to the RTO. This lack of independence is not unprecedented, given MISO senior management's favoritism of certain TOs, including Ameren, Northern Indiana Public Service Co. and FirstEnergy in the context of a preferential and more lucrative distribution of revenue sufficiency guarantee payments, which was the subject of a nonpublic investigation performed in 2007 by the FERC Office of Enforcement (IN07-32).

In 2011, things really "hit the fan," as MISO received FERC acceptance of its current Planning Resource Auction design, relying on a fundamentally flawed vertical demand curve under a residual capacity construct. This design certainly favored the incumbent TOs because by operating under a vertical demand curve, even the slightest surplus results in near zero auction clearing prices that cannot sustain merchant generation over the long term and has resulted in the continued inevitable demise of merchant generation. More recently, in a protest concerning MISO's refiling of its entire PRA construct, which has resulted in unreasonably low auction clearing prices ranging from $1.50 to $10/MW-day in recent years, the RTO's own Independent Market Monitor, David Patton, stated:

"The commission relies on well-designed competitive markets to produce prices and



Cumulative MISO capacity losses | *Coalition of Midwest Power Producers*

Stakeholder Soapbox

market outcomes that are just and reasonable. No objective analysis of the MISO capacity market could demonstrate that the outcomes under the current Module E are just and reasonable by any appropriate standard. In fact, the flawed design of the market precludes it from producing just and reasonable prices. … Further, MISO made no attempt to provide evidence that its capacity market has produced reasonable outcomes or that it is an economically sound market design."

Patton has demonstrated that with a properly shaped demand curve, the auction clearing prices would be in the range of $65 to $150/MW-day. The vertically integrated entities comprise 95% of the MISO market and are subject to traditional cost-of-service regulation administered by state regulatory commissions, where, based on publicly available FERC Form 1 data, the affiliated generators received on average $300/MW-day for capacity cost recovery as collected within the utilities' bundled retail rates. In filing this flawed approach, and arbitrarily favoring the generation assets affiliated with the MISO TOs back in 2011, the underlying silent intent on MISO's behalf was aimed at ensuring the remaining TOs stayed put in the RTO and has forced a large majority of the merchant generators to exit, leaving the TOs owning generation with the dominant market share.

While Order 888 promoted open access to the grid, MISO's TOs still retain significant influence and leverage over MISO's market design decisions, given the ever present veiled threat to pull their assets out. This has resulted in an inherent bias on MISO's behalf to support a capacity construct that favors "The Owners" and their affiliated generators. It's no coincidence that FERC accepted MISO's flawed capacity construct right after FirstEnergy and Duke Energy Ohio had decided to leave MISO for PJM's better designed forward capacity market. The continued departure of otherwise economic merchant owned generation will eventually leave consumers in a "market" dominated solely by the incumbent vertically integrated utilities owning the major market share of MISO's total generating capacity. The Organization of MISO States needs to do what is best for their ratepayers because consumers will be harmed and eventually see a rise in prices given the absence of competitive supply alternatives.

Promoting competition among wholesale generators was one of the cornerstones of Orders 888 and 2000 and has been severely compromised because of a lack of independence in MISO. This is not the result of unintended consequences. Wholesale competition in MISO is in danger of extinction given the rapid departure of competitive merchant generation. The facts demonstrate MISO purposely and consciously designed its resource adequacy construct to unduly discriminate against the economic interests of merchant generators in violation of the independence requirement, by arbitrarily benefiting the financial interests of those generation assets affiliated with MISO's vertically integrated TOs. This untenable situation is not working as originally envisioned by our federal regulators in D.C., where Orders 888 and 2000 were designed to promote wholesale competition among generators — not kill it! ■

Mark J. Volpe is the President & CEO of the Coalition of Midwest Power Producers (COMPP), a newly formed nonprofit trade association focused on the continued evolution of fully robust wholesale energy and capacity markets in MISO. He is the former Senior Director of Regulatory Affairs for Dynegy Inc.

FERC/Federal News

FERC Sends DER Data Request to RTOs

Trade Group Highlights Uses

By Amanda Durish Cook

FERC is asking RTOs for information on aggregated distributed energy resource portfolios in their wholesale markets — the first significant movement in a possible rulemaking on DER in more than a year.

On Sept. 5, FERC's Office of Energy Policy and Innovation sent identical letters to all the RTOs and ISOs seeking data on their existing aggregated DER interconnections (*RM18-9*).

"Commission staff is interested in further exploring the interconnection of distribution-connected DERs, in particular those that participate or will participate in DER aggregations for the purpose of providing wholesale service in markets operated by [RTOs/ISOs]," FERC said.

The commission asked for responses by Oct. 7, which will be followed by a 30-day comment period.

The 11-question list asks RTOs to provide data or estimates on the number of DERs in each footprint that directly participate in wholesale markets versus the DERs that don't participate. FERC also inquired about RTOs' coordination with state and local leadership about DER interconnection processes.

More detailed questions delve into each RTO's "step-by-step" interconnection process for DERs and whether the process differs if DERs are eligible qualifying facilities or are behind a retail customer meter. FERC also asked how an aggregation of DERs located at multiple points of interconnection are studied, whether RTOs have interconnection studies for bidirectional service and how an RTO would handle a study for individual, already-interconnected DERs that wish to aggregate from separate points on the grid. Finally, the commission asked how the RTOs manage DERs aggregating from both FERC-jurisdictional and non-jurisdictional distribution facilities and requested the number of distribution facilities subject to an open access transmission tariff.

RTOs and ISOs last week said they were working to prepare data submittals.

Spokesperson Meghan Sever said SPP is working to provide FERC with "as much of the requested detailed DER data as possible" by the early October deadline.

MISO said it is working with the Organization of MISO States — which has developed its own DER estimates — and its stakeholder community to understand DER interconnection across the transmission and distribution interface.

"MISO has assembled a team of its subject matter experts who are reviewing the specific data requests and developing information to provide the requested information," spokesperson Allison Bermudez said in an email to *RTO Insider*. "We will continue to coordinate with OMS and other stakeholders as we evaluate our responses."

ISO-NE also said it was working to comply with the request. NYISO said it wouldn't comment on preparations beyond its "official response to FERC."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AEE Welcomes Movement

Leadership at Advanced Energy Economy, a D.C.-based trade association with members who develop and use DERs, took the data requests as a good omen. "We think it's a good sign that the commission continues to dig into the issue and put some focus on it," said AEE Managing Director and General Counsel Jeff Dennis, who leads the group's wholesale markets advocacy.

But Dennis warned that the newest action in the DER docket now leaves any new rule waiting at least until November, and probably longer. With a draft DER rule still in a holding pattern, AEE released a *white paper* Sept. 5 outlining five case studies where DERs can be beneficial in wholesale markets. Dennis said the paper illustrates how DERs can provide service in wholesale markets to the benefit of consumers and the grid.

"As we await a final rule from FERC, there is a lot of discussion of the challenges to [DER participation] in wholesale markets. We wanted to focus on the benefits and the fact that this is already happening," AEE Director Caitlin Marquis said of the five scenarios, which include managing demand or load with solar generation, battery storage, electric vehicle fleets and microgrids.

The case studies include a microgrid that can participate in wholesale energy and demand response markets to bolster vulnerable points on the grid or help during extreme weather; aggregated battery storage installations used for demand charge management; and electric vehicle fleets that are responsive to demand. The paper also highlights commercial solar generation and storage installations used to meet corporate sustainability goals and reduce wholesale market load and aggregated residential solar/storage facilities that have cleared ISO-NE's forward capacity auction.

"This is what we could have more of if there were rules in place," Marquis said, noting that some of the case studies are based on actual DER setups from AEE's member companies.

Dennis also said there's no harm in RTOs doing more work now to prepare for a DER rule.

"What we really want to see is additional efforts by RTOs and their stakeholders to look at how DERs will contribute to the wholesale markets in the future. Many RTOs are starting to do this now, and we hope others will follow suit," Dennis said. "What's really going to be needed beyond that though is RTOs taking a full look at their markets and the services that DERs can provide in those markets … and then ensuring that there are market participation pathways for them to do that."

Dennis said AEE staff is also meeting with some RTOs to emphasize the benefits of aggregated DERs and discuss operational characteristics and implications for long-term system planning.

"Their experience so far is with large, central station power plants," Dennis said of the RTOs. "We want to help them shift their thinking and approaches to prepare for the grid of the future, which will include many more distributed resources." ■

FERC/Federal News

Glick Recusal May Mean No MOPR Ruling Before December

By Rich Heidorn Jr.

FERC may be unable to issue its highly anticipated order on PJM's capacity market rules before December, further complicating matters for the RTO and market participants.

On Thursday, Commissioner Richard Glick *disclosed* that he would have to recuse himself from any matters involving his former employer, Avangrid, until Nov. 29, 2019, because FERC's designated agency ethics official (DAEO) had changed his interpretation of the recusal rules. Avangrid has filed comments and testimony in the case.

PJM has repeatedly postponed its 2019 Base Residual Auction pending a FERC order in response to the RTO's proposal to create a resource-specific fixed resource requirement (FRR).

In June 2018, FERC ruled that PJM's capacity market rules were not just and reasonable because they failed to address growing subsidies that the commission said are suppressing prices. (See *FERC Orders PJM Capacity Market Revamp*.) The RTO made the FRR proposal in November as an alternative to expanding its minimum offer price rule (MOPR) to include all new and existing capacity receiving out-of-market payments, such as renewable energy credits and zero-emission credits for nuclear plants. The RTO's MOPR currently covers only new gas-fired units.

With the Aug. 30 departure of Commissioner Cheryl LaFleur and the vacant fifth seat since the death of Chairman Kevin McIntyre, the commission's quorum requires that all three remaining commissioners — Glick, Chairman Neil Chatterjee and Commissioner Bernard McNamee — take part.

Some stakeholders were cheered by news that McNamee received a waiver from the Trump administration on Aug. 29, allowing him to participate in proceedings with parties represented by his former employer, McGuireWoods. Like Avangrid, at least three McGuireWoods clients have interests in the MOPR case.

PJM stakeholders last week had been hopeful that the FERC order could come as soon as Sept. 19, the commission's next open meeting, but the case was not included in the meeting's agenda.

Then, late Thursday, Glick issued a statement saying that DAEO Charles Beamon had changed his interpretation of a provision in President Trump's Executive Order 13770, the so-called "ethics pledge," signed by all executive branch presidential appointees.

FERC Commissioner Richard Glick | © *RTO Insider*

Glick was vice president of government affairs for Avangrid's (formerly Iberdrola) renewable energy, electric and gas utility and natural gas storage businesses in the U.S. until February 2016, when he became general counsel for Democrats on the U.S. Senate Energy and Natural Resources Committee.

Beamon originally told Glick that he would have to recuse himself from all Avangrid proceedings until Feb. 5, 2018, two years from the end of Glick's employment with the company. On Sept. 10, however, Beamon told Glick he had been mistaken, and that the ethics pledge requires his recusal for the first two years of his appointment to the commission, which began Nov. 29, 2017. Glick would also have to recuse himself indefinitely from any proceedings for which he had "personally and substantially participated on behalf of the company."

As a practical matter, that means that without a waiver for Glick, the commission would be unlikely to issue a MOPR ruling before December. Nov. 29, the first day Glick would be permitted to participate in deliberations, is a Friday.

The reversal also raised questions about the validity of Glick's votes in other proceedings in which Avangrid participated since Feb. 5, 2018.

"In the vast majority of these matters, I suspect that Avangrid was not a substantive participant, but was only a 'doc-less' intervenor, which allows service and monitoring of the proceeding," Beamon said in a memo released by Glick. "The longstanding position of our office is that doc-less interventions do not warrant a recusal under the ethics regulations or ethics pledge, because there is no expressed position of record or substantive participation."

Nonetheless, Glick said he would avoid even those dockets with doc-less interventions by Avangrid.

Waiver Option for Glick?

However, Glick could seek a waiver like the one McNamee *received* Aug. 29 from Scott Gast, the designated ethics official for the White House.

Gast said it was "appropriate and in the public interest" to give McNamee a limited waiver "to

FERC/Federal News

ensure Commissioner McNamee's participation in significant issues pending before the commission. His duties cannot be adjusted, and his role cannot be performed by another commission employee."

Gast also noted that McNamee last worked at McGuireWoods and provided legal services to the clients more than two years ago. "Were it not for a four-month break in federal service [when McNamee left the Department of Energy for a job at the Texas Public Policy Forum], which resulted in the execution of a second ethics pledge, the restrictions of … the ethics pledge would have already lapsed."

Although their circumstances are not exactly the same, it would appear Glick could seek a similar waiver given that his vote is also needed for a quorum.

Glick and the commission did not immediately respond to questions on whether a waiver request has been made or is under consideration.

Enviros Protest

On Sept. 9, meanwhile, the Natural Resources Defense Council and Sierra Club filed a *motion* requesting that McNamee recuse himself from the MOPR case. They said at least three McGuireWoods clients — Dominion Energy, Duke Energy and Direct Energy — had actively participated in the proceeding, with Duke and Dominion's Virginia Electric and Power Co. seeking "exceptional treatment of their resources."

"Dominion has urged that any replacement rate distinguish between resources owned by 'integrated public utilities' subject to regulation by state public utility commissions (such as Virginia Electric and Power Co.) from resources in restructured states, arguing that state-regulated utilities' self-supply resources

FERC Commissioner Bernard McNamee | *© RTO Insider*

should not be subject to a revised minimum offer price rule or other mitigation in the capacity market," the environmental groups said. "Likewise, Duke argues that although state-regulated cost recovery through retail rates could be considered a 'material subsidy' triggering the MOPR, an exception should apply to the benefit of its resources."

They noted that McNamee had regularly recused himself from other dockets in which the companies are involved and said he "advised and represented Dominion regarding cost recovery for resources participating in PJM's capacity market, resources that will be directly and predictably affected by the decision pending in this proceeding."

They said he should recuse himself in this case or explain his reason for not doing so.

"Should the commission issue an order establishing a replacement rate that, for example, instituted new MOPR rules with exemptions benefiting state-regulated integrated utilities like Dominion, or carving out state support like the [Ohio Valley Electric Corp.] power purchase agreement to the benefit of Duke, it would cause a reasonable person to question the impartiality of the proceeding," the groups said. "This appearance of potential bias, irrespective of the presence of actual bias, warrants Commissioner McNamee's recusal in this proceeding."

Avangrid, which owns 6.7 GW of generation in the U.S., is a voting member of PJM and is active in the RTO's energy and capacity markets.

In May 2018, Avangrid filed *comments* expressing concern that PJM's FRR proposal "appears to contain inconsistencies, lacks clarity and does not accommodate the [renewable portfolio standards] markets."

Kevin Kilgallen, Avangrid's director of market structure and policy origination, filed *testimony* in October 2018 describing how renewable attributes are traded in the PJM region, and how the RTO's proposed changes "could be inconsistent with those transactions."

Kilgallen also filed *testimony* in November replying to PJM's initial testimony.

'Very Troubling'

Glen Thomas, president of the PJM Power Providers Group (P3 Group), said last week that the continued uncertainty over the RTO's capacity market rules is "very troubling."

"We're already starting to miss deadlines for the 2020 auction, and we haven't even had the 2019 one yet," he said. "It's tough to operate when the Tariff's been declared unjust and unreasonable." ■

Christen Smith contributed to this article.

FERC/Federal News

FERC Considering Tx Line Rating Rules

Continued from page 1

"If this country is going to meet its numerous clean energy targets established by numerous states and corporations, we're going to need a more vibrant transmission system," Glick said in opening the conference Sept. 10. "And part of that is we're going to need more transmission capacity. But it also means using our existing system more efficiently. ... Certainly, this commission needs to consider whether there are alternative mechanisms for establishing line ratings ... that can squeeze more out of the transmission system without impairing reliability."

A transmission line's rating determines how much electricity can flow through it. TOs provide their line ratings to their RTOs/ISOs. Most are static — rarely changing throughout the line's lifetime — and very conservative, often based on worst-case scenarios: high temperatures, cloudless days and minimal wind.

Some TOs use seasonal ratings, allowing for more power flow in the winter months — though a TO's definition of "winter" can vary, with some increasing the rating beginning in October and maintaining it all the way into April. As one panelist noted, April temperatures are quite different from those in January.

AARs, which change every so often (the frequency can vary from as high as every 15 minutes to daily) based on temperature forecasts, are widely used in PJM and ERCOT, and see limited use in MISO and SPP. Rarer still are dynamic line rating (DLR) devices, some of which can take into account not only temperature, but humidity, wind speed, sunlight and precipitation; others simply measure the sag of a line and adjust its rating accordingly.

Many TO representatives who spoke at the conference were positive about the technology, pointing to specific experiences their companies have had in using certain devices. But they cautioned against a hard rule from FERC for widespread implementation.

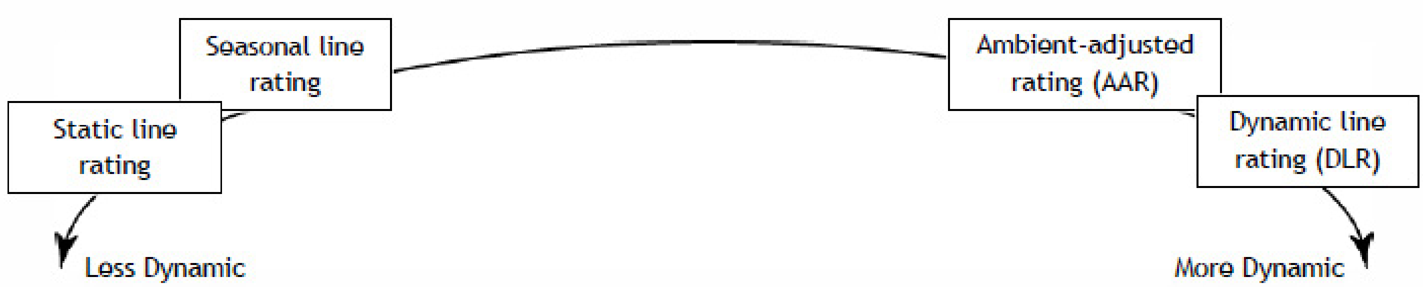
Dillon Kolkmann (second from right), of FERC's Office of Energy Policy and Innovation, led the technical conference. With him are fellow staffers (left to right) Eric Ciccoretti, Jignasa Gadani and Thomas Dautel. | *© RTO Insider*

"At a high level, the concept of AARs sounds appealing and relatively simple: adjust line ratings based upon current or near-term environmental conditions (ambient temperature and sometimes wind velocity) to increase the efficiency of energy flow on the bulk electric system," Dennis Kramer, senior director of transmission policy for Ameren, said on behalf of MISO's TOs. "The broad implementation of AARs, however, is not simple and could be very complex with impacts on multiple existing processes and procedures, as well as requiring creation of entirely new policies, requirements, obligations and capabilities."

"Individual transmission owners should be given an opportunity to determine whether implementing AAR on a particular transmission line would be beneficial to the transmission system in either alleviating congestion or enhancing the reliability of the transmission system," said Rikin Shah, principal engineer for PacifiCorp. "Requiring the transmission owners to implement AARs on every single transmission line may result in unnecessary capital investment without the return that was expected and put additional burden on consumer rates."

Carlos Casablanca, director of advanced transmission studies and technology for American Electric Power — which he said has been using AARs for more than 10 years in several RTOs — encouraged FERC to require TOs to use the technology on most of their lines, as they "can increase the value of a robust transmission system to the benefit of our customers and bring flexibility to the transmission operations environment."

But even he said that not all lines would benefit from their use. "We have some assets that are

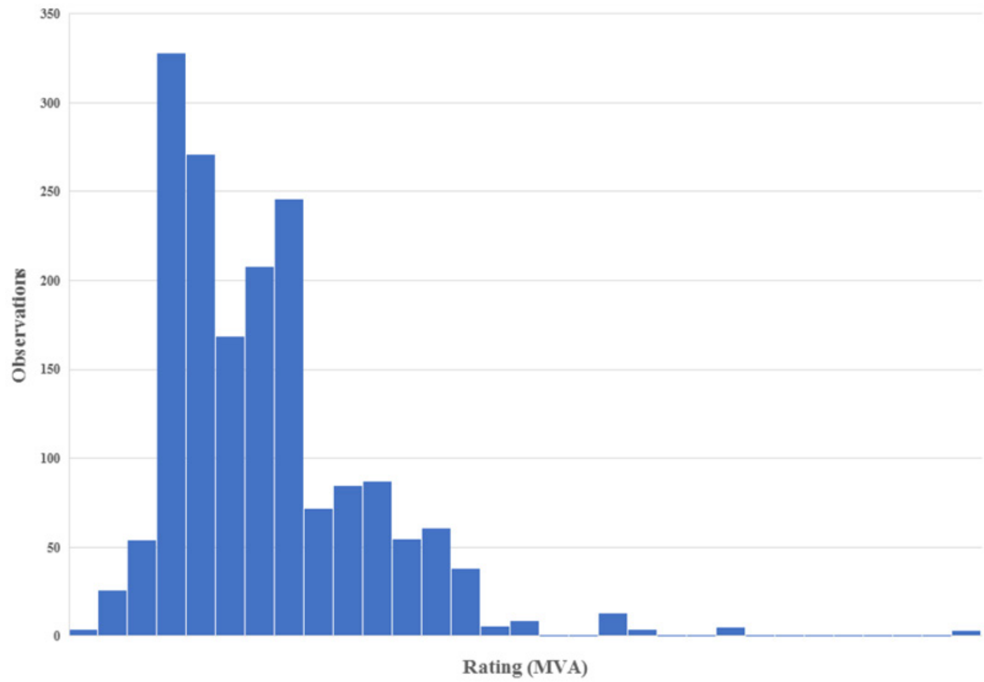


| *FERC*

FERC/Federal News

over 100 years old in some regions. ... We don't think it may be safe or prudent to apply [AARs] to those facilities."

Joe Bowring, PJM's Independent Market Monitor, said not requiring TOs to use AARs "is akin to saying, 'You have your ratings wrong most of the time.' ... PJM real-time prices are calculated every five minutes. The system operates in real time. There's no reason for line ratings to be the same [every] season, at all hours of the day."



Michael Chaisson of Potomac Economics, MISO's Market Monitor, displayed this histogram to demonstrate how many different ratings TOs use for their 115-kV lines. The graph actually extends "several more pages off to the right with outliers," he said. | *Potomac Economics*

Transparency Concerns

But regardless of the TO and their position on AARs or DLRs, line rating practices vary dramatically. As multiple speakers pointed out, for example, there is no uniform methodology for calculating static line ratings — and no requirement for TOs to explain how they calculate them.

Advocates for FERC stepping in seized upon those differences in making their case.

"The same facilities should have the same ratings under the same operating conditions regardless of the transmission owner," Bowring said. "Transmission owner discretion should be minimized or eliminated in line ratings."

Speaking about MISO, Michael Chaisson of Potomac Economics, the RTO's Monitor, echoed Bowring's sentiments. He presented a histogram showing how many TOs used certain ratings in the winter for their 115-kV lines. "You can see it's all over the map ... but this isn't even the worst of it," he said. "This histogram actually proceeds several more pages off to the right with outliers. ... You can't effectively monitor without knowing the basis for the ratings."

Michelle Pivach Bourg of Entergy Services pushed back, pointing to NERC Reliability Standard *FAC-008-3*'s requirement that TOs make their methodologies for calculating ratings available to their RTOs and reliability coordinators upon request.

The first panel of the conference on Sept. 10 served as an introduction to line rating methodologies and technologies. | *FERC*

But RTOs don't review the line ratings that TOs submit for accuracy, the Monitors said. Both Bowring and Chaisson said their respective RTOs monitor for abnormal ratings and only then request information from the TOs.

Bowring said to Bourg, "I never said that the information was not available to the RTOs. I said they don't actually do the review. There's a difference."

"I think the key phrase is 'upon request,'" Chaisson said. "What we're seeing in practice at MISO is that they don't have a comprehensive folder with all these methodologies stored, and they don't have a comprehensive database with the limiting elements. ... All they have are the ratings the TOs gave them and the ability to ask about particular ones, which they do from time to time."

Bowring also recommended that the commission require TOs to "at least engage in" pilot programs for DLR technology, not necessarily to permanently install the devices, "but to get the data."

"There's been a lot of talk about 'smart grids,'" he said. "This seems to me one of the basic elements of what a smart grid would be. You can't be smart without information."

Adam Rousselle Sr., president of Alternative Transmission Inc., agreed. "What we're seeing is the advent of great new information, and we're asking questions about how to integrate it with a system designed not to have it. ... I think we have to have the data, and after we have it, we'll have better opportunities to steer."

Rousselle advocated for "a broad, system-wide and immediate evaluation of every bulk electric transmission circuit's facility rating. ... If you put a blood-pressure cuff on every circuit ... there would be no doubt at what the rating was."

Mike Kormos, senior vice president of transmission and compliance for Exelon, balked at these suggestions. "I'd be happy for that rate base," he joked. "I think it's a real waste of money.

"Please recognize that the vast amount of line ratings on the system have no impact. Those lines are not overloaded; those lines do not go into congestion," said Kormos, a former PJM executive. "For those lines that are in routine congestion or extreme congestion, even for a short period of time, I can assure you that the first question asked is, 'Are the ratings right?' ... When I was at PJM, I asked, and now that I'm with Exelon, I will provide." ■

CAISO/West News

PG&E and Insurers Agree to Settle Wildfire Claims

$11 Billion Proposal Needs Bankruptcy Judge's Approval

By Hudson Sangree

Insurance is helping homeowners rebuild from the Tubbs Fire, which destroyed part of Santa Rosa, Calif. | *City of Santa Rosa*

PG&E Corp. announced Friday it had reached an $11 billion settlement agreement with nearly all the insurers trying to recoup their payments to victims of wildfires sparked by the utility's equipment in the past two years.

The insurers — collectively known as the Ad Hoc Subrogation Group — were the second largest bloc financially, after wildfire victims, that PG&E had to confront in its Chapter 11 reorganization proceedings begun in January.

The agreement must be approved by the bankruptcy court, along with other settlement offers by PG&E. The company had already agreed in June to settle claims by local governments and agencies against it for $1 billion.

"Today's settlement is another step in doing what's right for the communities, businesses and individuals affected by the devastating wildfires" of 2017 and 2018, PG&E CEO Bill Johnson said in a *news release*.

PG&E is attempting to exit bankruptcy by June 2020 to be able to take advantage of a new $21 billion wildfire recovery fund established by the state of California to compensate fire victims. The fund was created by Assembly Bill 1054, passed in July. (See *Calif. Wildfire Relief Bill Signed After Quick Passage*.)

It's also trying to head off what's essentially a hostile takeover attempt by its unsecured bondholders, which have offered PG&E a $30 billion cash infusion in exchange for a controlling interest in the utility and guaranteed payment of their notes. (See *Judge Weighs Competing PG&E Bankruptcy Plans*.)

In a separate statement, the Subrogation Group said it was accepting a settlement that's a little more than half of what insurers claim they're owed.

"While this proposed settlement does not fully satisfy the approximately $20 billion in group members' unsecured claims, we hope that this compromise will pave the way for a plan of reorganization that allows PG&E to fairly compensate all victims and emerge from Chapter 11 by the June 2020 legislative deadline," it said.

The deal PG&E struck with insurers is $2.5 billion more than the trust, capped at $8.5 billion, that PG&E proposed in its reorganization plan filed Sept. 9. In that plan, $16.9 billion was to be split about equally between individual wildfire victims and insurance companies. (See *PG&E Offers $16.9B for Wildfire Claims in Chap. 11 Filing*.)

Whether the increase for insurers means wildfire victims could get less will be determined in court, but victims' lawyers had already criticized PG&E's initial plan of compensation as falling far short of what they deemed acceptable.

PG&E filed a *document* Friday with the U.S. Securities and Exchange Commission showing it had secured promises of $14 billion in new equity investment to help cover its wildfire payment plan. It also said it was increasing its total compensation package for victims, insurers and local governments by $1 billion — still $1.5 billion short of Friday's proposed increase for the subrogation claimants.

PG&E filed for bankruptcy in January, saying it couldn't afford at least $30 billion in wildfire claims from a series of deadly and hugely destructive fires in 2017 and 2018.

Investigators with the California Department of Forestry and Fire Protection (Cal Fire) said PG&E equipment sparked November's Camp Fire, the deadliest and most destructive in state history, and a rash of fires in Northern California wine country in October 2017.

Cal Fire determined a private landowner's faulty wiring started the Tubbs Fire, which leveled part of the city of Santa Rosa, killed 22 people and caused billions of dollars in damages in October 2017. But Judge Dennis Montali, of the U.S. Bankruptcy Court in San Francisco, allowed fire victims and insurers to move ahead with lawsuits in state court that blame PG&E for the Tubbs Fire.

Friday's settlement includes the Tubbs Fire, a PG&E spokeswoman said, though the lawsuit remains active for now, pending the bankruptcy court's approval of the settlement.

PG&E's beleaguered stock price rose nearly 11% after Friday morning's announcement, going from $10.10/share at close of trading Thursday to $11.18/share by 4 p.m. Friday. ■

CAISO/West News

NIPPC Members 'Carry On' Without Kahn

Executive Director Died a Month Before Annual Meeting He Organized

By Hudson Sangree

NIPPC holds its annual meetings at the Alderbrook Resort & Spa on Hood Canal, a fjord in rural Washington state. | © *RTO Insider*

UNION, Wash. — Sadness over the recent death of Robert Kahn suffused this year's annual meeting of the Northwest & Intermountain Power Producers Coalition, where speakers remembered and praised the energy veteran.

Kahn, the longtime executive director of NIPPC, died in early August following a brief battle with cancer.

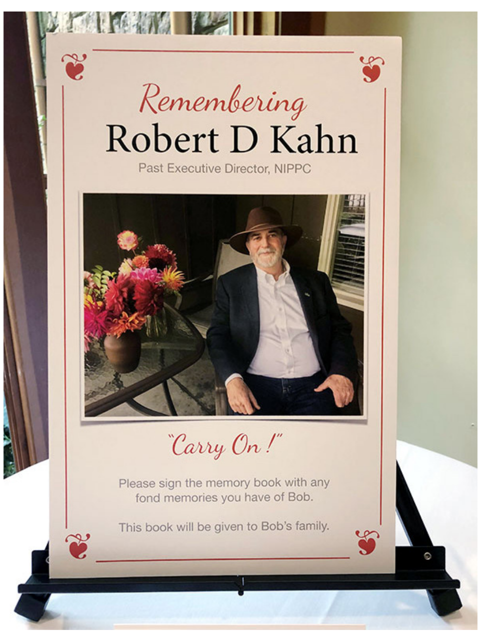
In addition to his policy expertise and advocacy, *Kahn* was known for organizing the trade group's annual meeting at the Alderbrook Resort & Spa on Washington state's Hood Canal, a natural fjord that's part of Puget Sound.

In a lunchtime address, Elliot Mainzer, head of the Bonneville Power Administration, acknowledged the rain pouring outside the hotel conference room Sept. 9.

"I think it's pretty appropriate the sky is shedding a few tears today for Bob," Mainzer said as he began his remarks.

"Bob was a really good friend," he said. "He was a guy who could take you to task and then join you for a beer. [He was] one of a kind. We're going to miss him."

A sign memorializing Kahn stood at the entrance to the meeting. It implored members to "Carry On!" — one of Kahn's favorite expressions.



Attendees remembered Robert Kahn, NIPPC's former executive director, who died in August. | © *RTO Insider*

NIPPC's lifetime achievement award was renamed for Kahn this year. Before he died, Kahn selected its recipient, Randy Hardy, a former BPA administrator and superintendent of Seattle City Light.

"I can think of no one more deserving," Kahn had written.

Hardy introduced the meeting's final presenter Sept. 10, Arne Olson of Energy and Environmental Economics.

"I felt his presence throughout this event, even in his absence," Olson said. "I think that says a lot about the size of his personality, that he can still dominate this event; the event can still be Bob's event, even after he's gone. I think that personality will really be missed in the region."

Olson said Kahn used his standing in energy circles to be "a thorn in the side of the utilities, a persistent advocate for competition and a breath of fresh air from the outside in an industry that, from my perspective, really, really needs that."

Regional Markets

As in prior years, much of the discussion at this year's NIPPC meeting revolved around participation in Western regional markets. (See *Northwest Ponders RTO with Mix of Hope and Skepticism*.)

As part of a carbon policy panel, Glenn Blackmon, with the Washington State Energy Office, noted his state recently passed a bill mandating electric utilities to rely on renewable and carbon-free energy sources by 2045. California passed a similar bill last year.

The *measure*, SB 5116, is far more detailed than California's landmark SB 100 but still requires policymakers to tackle thorny problems, he said.

"One of those areas is figuring out how to make our clean electricity policy work with the regional markets," Blackmon said. "We want to make sure that our utilities and other power suppliers are able to participate [and] get the benefits of organized markets. But we also

CAISO/West News

want to make sure we meet the clean electricity objectives of our statute.

"We'd like to see the markets develop in a way that if you want to trade clean … you're able to do that," he said.

CAISO's Western Energy Imbalance Market and SPP's new Western Energy Imbalance Service (WEIS) are generally seen as a way to buy and sell clean energy across the Western Interconnection. Concerns linger, however, about the uneasy alliance between the coal-burning states of the interior West and coastal states seeking to go all-green. (See *Patchwork of Carbon Policies Troubles Western EIM*.)

Both markets continue to sign up new customers, though the EIM remains far larger than its nascent challenger at SPP. (See *WAPA, Basin, Tri-State Sign up with SPP EIS*.)

"It looks like there is going to be meaningful competition for market platforms in the West, which I think is a good thing," Steve Wellner, FERC's director of Western regulation, said at the NIPPC meeting.

A panel on carbon policy included David Mills, Puget Sound Energy; Glenn Blackmon, Washington State Energy Office; and Kristen Sheeran, Oregon governor's office. | © *RTO Insider*


Elliot Mainzer, head of the Bonneville Power Adminstration, addressed NIPPC members at lunch Sept. 9. | © *RTO Insider*

If BPA joins the EIM, as it hopes to do by 2022, it would bring an area of the Pacific Northwest the size of France into CAISO's interstate wholesale trading market. In June, BPA kicked off a monthlong public comment process in hopes of signing an implementation agreement with the EIM this month. (See *Customers Probe BPA on EIM Impact*.)

"We got 100% support for signing that agreement," Mainzer told the NIPPC audience.

CAISO is evaluating adding an extended *day-ahead market* (EDAM) to the real-time EIM to increase its usefulness as a regional marketplace, and the BPA administrator said he believes the EDAM is needed to help move BPA's hydropower and other renewable resources across the West.

"It's not going be enough to sell all this stuff on a five-minute market," Mainzer said. ■

Texas PUC Briefs

LP&L Lines for ERCOT Integration near Final Approval

The Texas Public Utility Commission last week moved a step closer to approving the construction of two 345-kV transmission lines needed to transition about 70% of the city of Lubbock's load from SPP to ERCOT.

The single-circuit lines would be built on double-circuit-capable structures and are part of a $247 million project to integrate the West Texas city's utility, Lubbock Power & Light, into the Texas grid. Oncor will build the lines, then turn them over to LP&L.

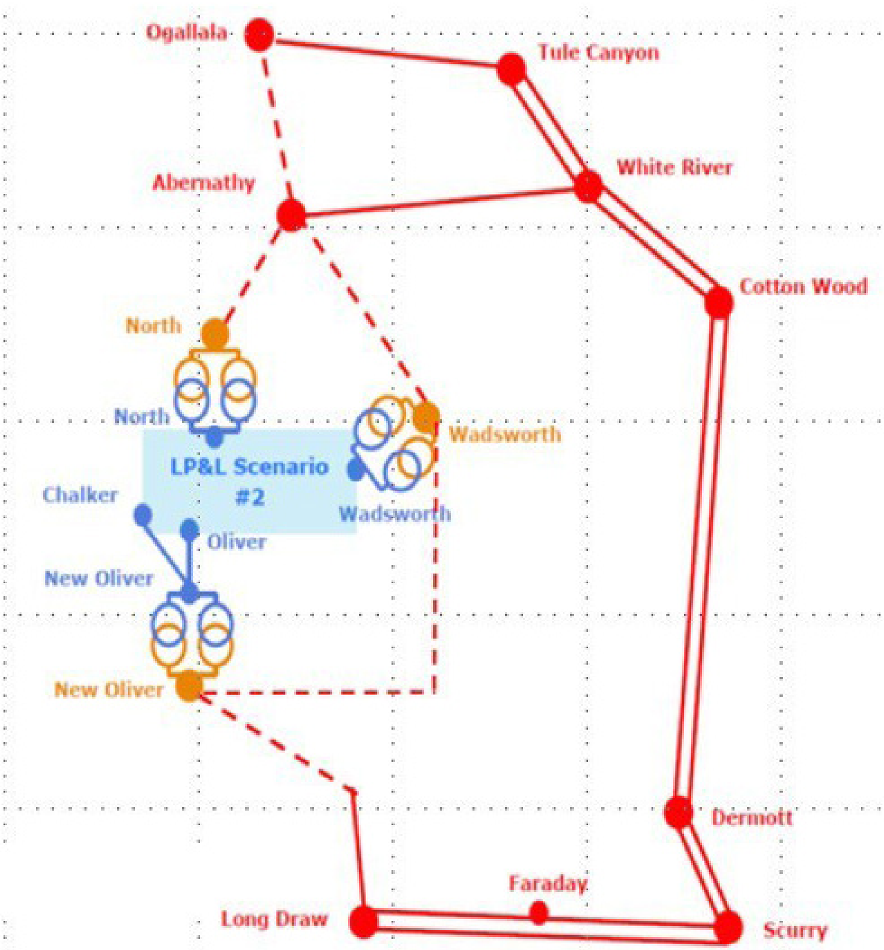
The PUC reopened the record on the project during its open meeting Thursday to include additional testimony and other information. The commissioners directed staff to file final order drafts before its Sept. 26 meeting.

One 58-mile line would connect substations in Ogallala and Abernathy at about $90 million. Associated substation work would increase the cost to nearly $100 million (*48625*).

The cost structure is part of a settlement reached between Oncor, Sharyland Utilities and Sempra Energy. (See "Commission Signs off on Oncor-Sharyland-Sempra Deal," *Texas PUC Briefs: May 9, 2019*.)

The second line would be 33 miles long and run from Abernathy to Wadsworth. The circuit and substation work is projected to cost about $74 million (*48668*).

Both lines are scheduled to be energized by June 2021, meeting LP&L's target date to join ERCOT. LP&L announced in 2015 that it intended to shift about 470 MW of its load from SPP to ERCOT, a move that was approved last year. (See *Texas PUC OKs Sempra-Oncor Deal, LP&L Transfer*.)



LP&L integration projects | *ERCOT*

PUC Director of Rate Regulation Darryl Tietjen addresses the commission.

Lowest Rate Securitization 'in the Universe'

AEP Texas finalized the pricing of $235.3 million of system restoration bonds previously authorized by the PUC, resulting in an overall average interest rate of 2.225% (*49308*).

"Is this the lowest rate for securitization ever in Texas?" Commissioner Arthur D'Andrea asked.

"It's the lowest rates of any Texas utility's securitization in the history of the universe," replied Darryl Tietjen, director of the PUC's rate regulation, as laughter filled the room.

Tietjen said the securitization beat a 2.28% rate on AEP Texas Central's $800 million bond issuance in 2012.

He also said staff do not expect to perform detailed analyses on required year-end earnings reports filed by Texas' 13 investor-owned utilities. He said staff similarly do not plan to recommend comprehensive rate proceedings for the 38 non-IOU utilities, as many have received rate orders or have pending proceedings (*49355*).

PUC Fines CPS Energy $125K

The commission approved a settlement agreement docking San Antonio's CPS Energy $125,000 for a failure to provide non-spinning reserve service as required on occasions in 2015 and 2016 (*49332*).

The PUC also signed off on distribution cost recovery factors for Entergy Texas (*49392*) and Oncor (*494279*) and an adjustment to Southwestern Electric Power Co.'s energy efficiency cost recovery factor (*49499*). ■

– Tom Kleckner

ISO-NE News

LaFleur Elected to ISO-NE Board

Rush and VanZandt Win 3rd Terms

By Michael Kuser

Vickie VanZandt | *ISO-NE*

Barney Rush | *ISO-NE*

Former FERC Commissioner Cheryl LaFleur was elected to a three-year term on the ISO-NE Board of Directors on Friday, just two weeks after leaving her job in D.C.

LaFleur will replace Director Raymond Hill, who is completing his third consecutive three-year term this month.

Re-elected were Directors Barney Rush and Vickie VanZandt, each of whom will begin their third consecutive term, the maximum allowed. Absent a waiver, an incumbent board member cannot serve more than three consecutive three-year terms.

Although LaFleur's second term on FERC ended June 30, she served until the end of August, as allowed by law in the absence of a successor. She announced she would not be appointed to a third term in January. (See *LaFleur Announces Departure from FERC*.)

Returning to New England

The announcement represents a homecoming for LaFleur. Prior to joining the commission, LaFleur worked at National Grid, ultimately serving as executive vice president and acting CEO of the U.S. subsidiary. She had served at various times as COO, president of the company's New England distribution companies, and general counsel.

LaFleur said in a statement that she was excited to join the board. "New England is my home and where I have spent most of my career, and I welcome the opportunity to be part of an organization that serves electricity consumers across the region."

ISO-NE Board Chair Philip Shapiro said LaFleur "not only will bring insights from her long tenure at FERC, but also from her experience at National Grid."

"Cheryl is a welcome addition to the ISO New England board," ISO-NE CEO Gordon van Welie said. "The sum of her career experience will be put to good use as the region's grid continues its transition to a future with cleaner, more distributed resources."

Rush also serves on the board of Azure Power Global, which develops solar plants in India, and is a senior representative for Fieldstone, a regional investment bank that raises capital for power plants and infrastructure in Africa and other emerging markets. He is the former group CEO for Mirant Corp. in Europe. He is also the mayor of the town of Chevy Chase, Md.

VanZandt runs VanZandt Electric Transmission Consulting, based in Washington state, and is the Western Electricity Coordinating Council's program manager for the Western Interconnection Synchrophasor Program. She retired from the Bonneville Power Administration in 2009 after 35 years, including a position as its senior vice president of transmission services. She served as BPA's chief engineer for a decade.

Committee Assignments

The slate of board candidates is selected by the Joint Nominating Committee, endorsed by members of the New England Power Pool's Participants Committee and confirmed by the board and the New England Conference of Public Utilities Commissioners (NECPUC). The nominating committee is composed of 14 members: six PC members representing their sectors; one member of NECPUC; and seven members of the board.

Van Welie announced that the board had also elected Director Kathleen Abernathy to replace Shapiro as chairperson. Committee assignments, as listed in the CEO report posted with the meeting *materials*, are as follows:

- Audit and Finance Committee: Michael Curran, LaFleur and Shapiro, with Christopher Wilson as chair;
- Compensation and Human Resources Committee: Abernathy, Brook Colangelo and VanZandt, with Roberto R. Denis as chair;
- Joint Nominating Committee: Abernathy, Curran, LaFleur, Rush, VanZandt and Wilson, with Shapiro as chair;
- Markets Committee: Curran, LaFleur and Wilson, with Rush as chair;

FERC Commissioner Cheryl LaFleur speaks at the Energy Bar Association's annual meeting in May 2019. | © *RTO Insider*

- Nominating and Governance Committee: Abernathy, Curran and Rush, with Shapiro as chair;
- System Planning and Reliability Committee: Colangelo and Denis, with VanZandt as chair; and
- Special Committee on Information Technology and Cyber Security: Colangelo and Wilson will serve on the temporary committee, with Colangelo as chair.

Age Limit

Voting directors on the RTO's board serve staggered, three-year terms. A nominee cannot stand for election or re-election if they have reached the age of 71.

However, on Aug. 15, ISO-NE and NEPOOL filed amendments to the Participants Agreement to authorize the Joint Nominating Committee to waive the age limit (*ER19-2616*). That filing is currently pending and, if accepted, would permit the amendments to become effective Oct. 15.

ISO-NE said each of the candidates on the 2019 slate was under the age limit but declined a request for the current board members' ages, calling it "personal information."

"I can tell you that candidates' ability to meet eligibility requirements are evaluated by the members of the Joint Nominating Committee and then by members of the NEPOOL Participants Committee, and all members of the board, including the slate taking office Oct. 1, currently meet the eligibility requirements," ISO-NE Spokeswoman Marcia Blomberg said. ■

ISO-NE News

Overheard at ISO-NE Regional System Plan Public Forum

BOSTON — More than 150 people turned out for a public forum Thursday to discuss ISO-NE's draft 2019 Regional System Plan (*RSP*), which uses a 10-year planning horizon to estimate the need for energy resources.

Anne George, ISO-NE | © *RTO Insider*

Anne George, vice president for external affairs and corporate communications at ISO-NE, welcomed the participants, including several members of the RTO's Board of Directors, as well as state officials.

Among those in attendance: New Hampshire Public Utilities Commissioners Kathryn Bailey and Michael Giaimo; Jared Chicoine, director of the New Hampshire Office of Strategic Initiatives; New Hampshire Rep. Kat McGhee; Andrew Landry, Maine deputy public advocate; and Massachusetts Department of Public Utilities Commissioner Matt Nelson.

Vickie VanZandt, ISO-NE Board of Directors | © *RTO Insider*

"We're pleased to have with us experts on not only what's happening in the energy space in New England, but what's happening in other regions and other industries as well," ISO-NE Director Vickie VanZandt said. "The energy industry is changing, and there are many questions that we're all asking. How will residences and businesses be using electricity 10 years from now? What resources will be supplying that energy?"

VanZandt on Friday was re-elected to her third consecutive three-year term, as was fellow Director Barney Rush. They shared the slate with former FERC Commissioner Cheryl LaFleur, who was elected to her first term. (See related story, *LaFleur Elected to ISO-NE Board*.)

The following is some of what we heard at the forum.

Green and Lean

Young people that want to make a difference in the world should get into the area of electrical energy, said Damir Novosel, president and founder of Quanta Technology, as he delivered a keynote *presentation* on resilient and affordable energy.

ISO-NE Director Vickie VanZandt speaks in Boston on Sept. 12 at the public forum held by ISO-NE to present its 2019 Regional System Plan. | © *RTO Insider*

Damir Novosel, Quanta Technology | © *RTO Insider*

"Sometimes we are not communicating this to the young generation," Novosel said.

He had additional advice for the grown-ups in the room.

"Another point is that as you make regulatory and business decisions, it's so important to look at the technical facts," he said. "Objective technical facts or issues are very often distorted for the sake of some business or political aspects. ... I want to make sure here that society looks at a technical fact as the key to be able to make some of the decisions going forward."

Today's decisions will affect the future grid, "so it's important we get our grid modernization priorities right," Novosel said.

Michael Henderson, ISO-NE's director of regional planning and coordination, *summarized* the draft RSP with the key messages of energy security, grid transformation and interregional planning. (See *'Grid Transformation Day' Highlights ISO-NE Challenges*.)

Michael Henderson, ISO-NE | © *RTO Insider*

"What we're finding is that retirement is a key driver for new resources ... and near load is the best place to develop new resources, particularly [in] southern New England," Henderson said. "I do ask developers to exercise caution, because resources must be situated where they work best on the system electrically."

The interconnection queue determines reliable points of interconnection, he said. As of April 1, there were more than 19,000 MW of resources in the queue, including more than 11,300 MW of wind (9,000 MW of which is offshore), almost 3,100 MW of large-scale solar and about 1,400 MW of battery storage.

"ISO-NE now uses cluster studies that can account for allocating transmission intercon-

ISO-NE News

nection costs among developers seeking to interconnect to the system. The first such study was completed for northern and western Maine, and the second one, essentially in the same area, is planned for completion by the end of this year," Henderson said.

As he had at the previous week's Consumer Liaison Group meeting in Portland, Maine, Michael Macrae, energy analytics manager at Harvard University, asked how the RTO plans to improve its emissions reporting, particularly on locational marginal emissions. (See "Emissions Reporting," *Overheard at ISO-NE Consumer Liaison Group: Sept. 5, 2019*.)

"There's always a lag in these reports," Henderson said. "The 2018 report won't come out until late this year, and that does account for the units that are locational and marginal units on our system. In terms of real-time data, I do know that it's something we've been thinking about, not so much real-time, but perhaps after the fact, maybe a week later."

Henderson emphasized that the RTO might "be looking at posting something a week or so afterward, as doing so in real time could cause any number of issues, ranging from data to releasing market intelligence that we shouldn't in real time."

Disruptive Technologies

Brook Colangelo, ISO-NE | © *RTO Insider*

ISO-NE Director Brook Colangelo moderated a panel on disruptive technologies.

Marshall Van Alstyne, professor of information systems at Boston University, discussed how new technologies are disrupting other industries and how the new phenomenon of "network economics" or "platforms" affects the energy industry.

Marshall Van Alstyne, BU | © *RTO Insider*

"We are going through a fundamental shift in the nature of how work is done," Van Alstyne said.

For evidence, he compared the market capitalizations and number of employees for century-old industrial giants like BMW and General Electric with the new titans such as Apple and Facebook, which can have three to five times the market capitalization on a mere 20% of the workforce.

Katherine Prewitt, Eversource | © *RTO Insider*

"I can promise you the engineering's always going to be the same; physics don't change," said Katherine Prewitt, president of transmission for Eversource Energy, answering Colangelo's question about her "favorite" disruptive technology. "The engineering, as complicated as it is, is the easiest part."

Mark O'Malley, chief scientist for energy systems integration at the National Renewable Energy Laboratory, said, "Your change here is irrelevant. If you think you've got issues now, wait and see what's about to come. New England is actually a fairly lackluster place when it comes to change. You've virtually no renewables on your system.

Mark O'Malley, NREL | © *RTO Insider*

"All you have to do is be nice to the Canadians, be nice to Hydro-Québec," O'Malley said. "They have supply equivalent to 2 billion Tesla cars."

O'Malley said the 2019 RSP's approximately $1.3 billion in transmission spending is a drop in the bucket compared with expenditures in other parts of the world: "The Chinese are building multiple transmission projects thousands of miles long."

As for a five-year planning horizon, O'Malley said that in 2005 planners were looking at 2 GW of wind penetration in Ireland in a couple decades, which looked like "an extraordinarily high number, way out there, but now it's 2020 and [Ireland has] 5 GW. ... My point is that if you're thinking large, in a few years it will look small.

"I think people will change, how we think [about technology] will change, so it's a social change rather than technological," O'Malley said.

David Ismay, CLF | © *RTO Insider*

"People have been moving in the absence of the grid operator, and in the absence of the utilities for years," said David Ismay of the Conservation Law Foundation. "I like what I'm starting to hear, but again, you're 10 or 15 years back."

Rep. McGhee, who sits on the state House Science, Technology and Energy Committee, said, "It's been interesting to see the ISO is dedicated to reliability, and the generators' organization is working on rates, and the overall sense of urgency with the public that something needs to be done, and it needs to be done soon.

"The goals are also not really as aligned as they should be because bending the carbon curve is the thing we should all be in service of," McGhee said. "Where does that fit into the paradigm of the regional plan?" ■

— Michael Kuser

Left to right: Damir Novosel, Quanta Technology; Katherine Prewitt, Eversource Energy; Mark O'Malley, NREL; Marshall Van Alstyne, Boston University; and Brook Colangelo, ISO-NE Board of Directors. | © *RTO Insider*

ISO-NE News

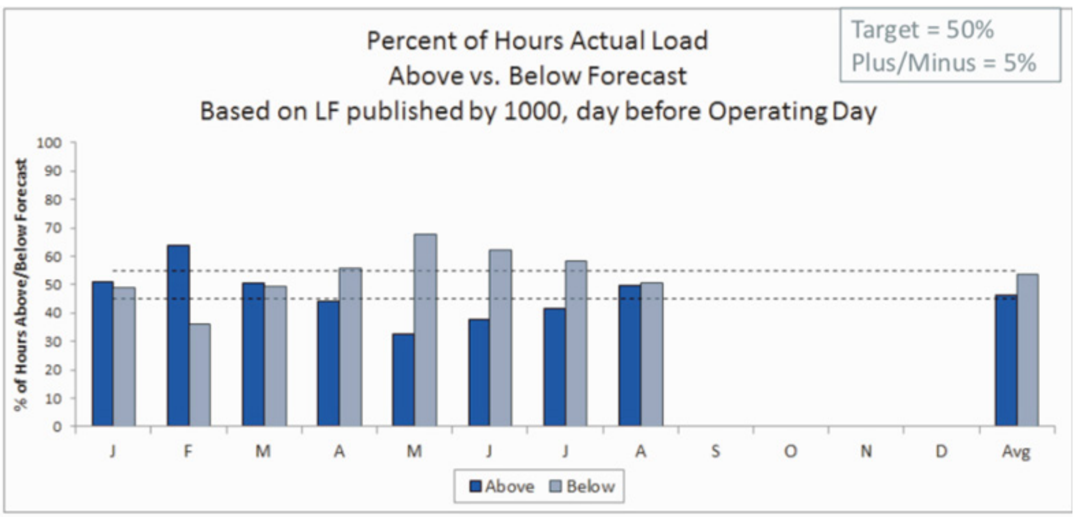
NEPOOL Participants Committee Briefs

COO Report

ISO-NE COO Vamsi Chadalavada's operations *report* to the New England Power Pool Participants Committee on Friday showed the region's energy market value dropped to $321 million in August, down $93 million from July 2019 and down $240 million from August 2018.

August natural gas prices were 11% lower than the previous month's average values, with average RT Hub LMPs ($23.58/MWh) down 19% from July. The average day-ahead Hub LMP was $25.69/MWh for the month, and average August 2019 natural gas prices and RT Hub LMPs were down 36% and 40%, respectively, from August 2018 averages.

The average day-ahead cleared physical energy during the peak hours as percent of forecasted load was 101.3% during August, up from 99.9% during July. Day-ahead cleared physical energy is the sum of generation and net imports cleared in the day-ahead energy market.



	J	F	M	A	M	J	J	A	S	O	N	D	Avg
Above %	51.1	64	50.5	44.2	32.5	37.9	41.7	49.6					46
Below %	48.9	36	49.5	55.8	67.5	62.1	58.3	50.4					54
Avg Above	211.7	224.2	162.1	184.1	126.1	144.9	268.3	230.9					268
Avg Below	-183.0	-174.3	-192.4	-161.7	-179.6	-225.1	-350.1	-220.1					-350
Avg All	30	88	-12	1	-79	-80	-108	8					-20

| *ISO-NE*

Chadalavada drew attention to slides showing that forecasting trends are shifting fast. He said the RTO is continuing efforts to improve load forecast models and tools to produce better day-ahead and long-term load forecasts.

Consent Agenda

The Participants Committee voted unanimously to approve the single item on the consent agenda, revisions to *OP-14E* to incorporate energy storage as a type of asset-related demand that can be selected on ISO-NE's form NX-12E, which provides the RTO with details that are not included in bid information.

ISO-NE and NESCOE Budgets Update

Kenneth Dell Orto, chair of the Budget and Finance Subcommittee, presented an update of the RTO's proposed 2020 operating and capital budgets, as well as the 2020 budget of the New England States Committee on Electricity.

The budgets are in the final stages of development and will be voted on at the Oct. 4 Participants Committee meeting in Boston.

A more detailed *presentation* was provided to the subcommittee last month.

ISO-NE's budget presentations to the New England state agencies, with their questions and the RTO's answers, can be found *here*. ■

— Michael Kuser

ISO-NE News

NEPOOL Reliability Committee Briefs

ISO-NE Details Tweaks to CELT 2019 Summer Forecast

ISO-NE Load Forecasting Manager Jonathan Black *provided* the New England Power Pool Reliability Committee last week with more details on the forecasting changes that contributed to a reduction in the installed capacity requirement (ICR) in the 2019 capacity, energy, loads and transmission (CELT) summer demand forecast.

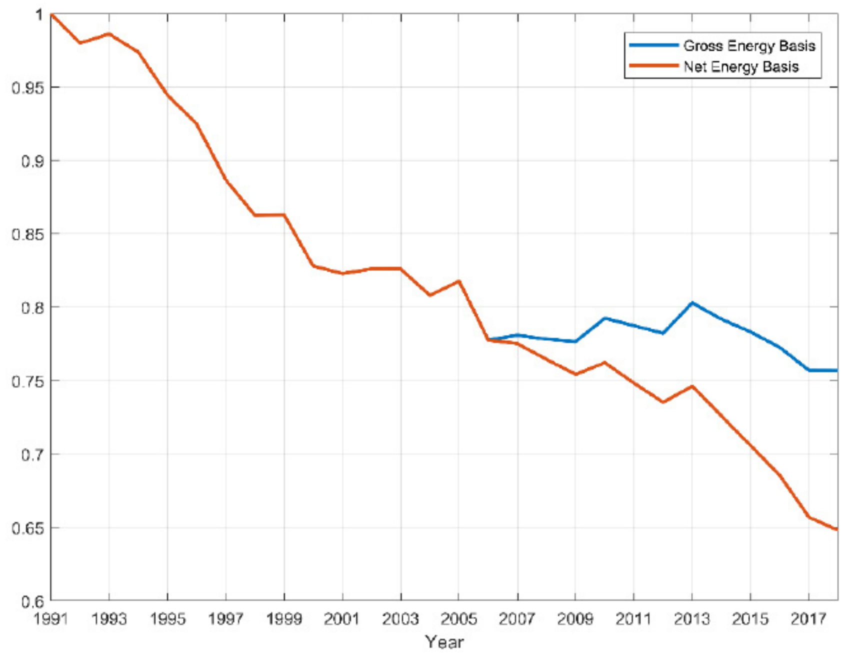
Participants at last month's Power Supply Planning Committee and the RC meetings requested more information on the load forecast changes, which produced a 1,250-MW reduction in net ICR for delivery year 2023/24.

The forecast cycle change (using macroeconomic assumptions from 2019 data vs. 2018) produced a reduction of 300 MW, while the use of a second weather variable (adding cooling degree days, in addition to the weighted temperature-humidity index previously used) caused an additional 855-MW drop.

The use of separate July and August peak load models rather than a combined July/August case was the only change to increase the ICR, responsible for a 45-MW boost.

Shortening the weather history period to 25 years from 40 years subtracted 140 MW. ISO-NE said it made the change primarily because wind speed data needed for the new winter demand model used for CELT 2019 was unavailable for all the years of the former 40-year period. The shorter history allows the RTO to keep a consistent historical weather period for both summer and winter monthly forecasts.

It is also more consistent with the practices of other grid operators such as NYISO (20 years) and PJM (25 years).



The electric energy intensity of the New England regional economy has been declining for the past few decades.| *ISO-NE*

Black also discussed the reduction in the region's energy intensity over the last two decades, largely caused by increased end-use efficiency driven by federal standards. Since 2005, he noted 45 mandatory Department of Energy efficiency standards have gone into effect.

The relationship between annual electric gigawatt-hours and regional gross state product has dropped by almost 25% since 1991 on a gross energy basis and 35% on a net energy basis, including the impact of behind-the-meter solar.

2023-2024 FCA 14	New England	Southeast New England	Maine	Northern New England
Peak Load (50/50) net of BTM PV	28,838	12,540	2,117	5,430
Existing Capacity Resources	34,637	10,928	3,456	8,270
Installed Capacity Requirement	33,431*			
HQICCs	941			
Net ICR (ICR minus HQICCs)	32,490			
Local Sourcing Requirement		9,757		
Maximum Capacity Limit			4,020	8,445

Proposed ICR-related values for capacity commitment period 2023-2024, FCA 14, including Mystic Units 8 and 9 | *ISO-NE*

Evolving ICAP Requirements

Peter Wong, ISO-NE manager of resource studies and assessments, presented a *review* of the schedule for developing the "ICR-related values" for Forward Capacity Auction 14 (capacity commitment period 2023/24).

These values include the ICR; local resource adequacy requirement; transmission security analysis; and local sourcing requirement for import-constrained Southeast New England. Also included are the maximum capacity limit for the export-constrained capacity zones of Maine and Northern New England and the marginal reliability impact demand curves.

Including Mystic Units 8 and 9, the RTO has proposed an ICR of 33,431 MW and a net ICR of 32,490 MW after a 941-MW reduction for Hydro-Québec interconnection capability credits. That is a 1,260-MW reduction from the net ICR for FCA 13. (See "ICAP Requirements and Tie Benefits," *NEPOOL Reliability Committee Briefs: Aug. 20, 2019*.)

If the RC approves the values Sept. 25 and the Participants Committee does on Oct. 4, the RTO plans to file the ICR-related values with FERC by Nov. 5 both including and excluding Mystic Units 8 and 9. ■

— Michael Kuser

MISO News

Anticipating Boom, MISO Extending Dispatch to Solar

By Amanda Durish Cook

CARMEL, Ind. — After experiencing a surge in new projects, MISO is hoping bring solar generation under the umbrella of its dispatchable intermittent registration for market participation, the RTO signaled last week.

MISO's *proposal*, issued Thursday, seeks to put solar generation on par with wind generation in the dispatch process. The method to be used provides a bit of déjà vu for some seasoned stakeholders.

Kun Zhu, MISO | © *RTO Insider*

Kun Zhu, MISO manager of resource retirement, said the proposal was precipitated by the flood of solar projects lining up for interconnection. "Quick story: Based on what's coming in the queue, we're set to have a big surge in solar," he said in opening the Market Subcommittee meeting Thursday. "Now we expect the same challenge we saw 10 years ago," referring to the wind generation boom that took hold about a decade ago.

Zhu said MISO's plan is to require future commercial solar generation to register as dispatchable intermittent resources (DIRs), as it does for wind resources. Currently, solar generators can choose to be DIRs or simply remain intermittent resources, which are price-takers in the market and ineligible for dispatch. DIRs can submit price-sensitive offers and be dispatched by the market.

While MISO currently has just 243 MW of solar under the DIR registration, it reports that more than 9 GW worth of solar projects have executed generation interconnection agreements or are close to doing so. Beyond that, about 52 GW of solar are in the early stages of the interconnection study process.

"The time is now to expect the challenge and mitigate it," Zhu said, adding that MISO can avert the growing pains it experienced in 2008 and 2009 when operators had to initially manually curtail wind generation over the phone. "It was cumbersome and not optimal and not ideal, and it caused big challenges in the control room."

MISO won FERC approval in 2011 to create the DIR category for wind.

"We're bringing solar to the same playground as wind," Zhu said, pointing out that FERC recently accepted a similar change to solar treatment in SPP.

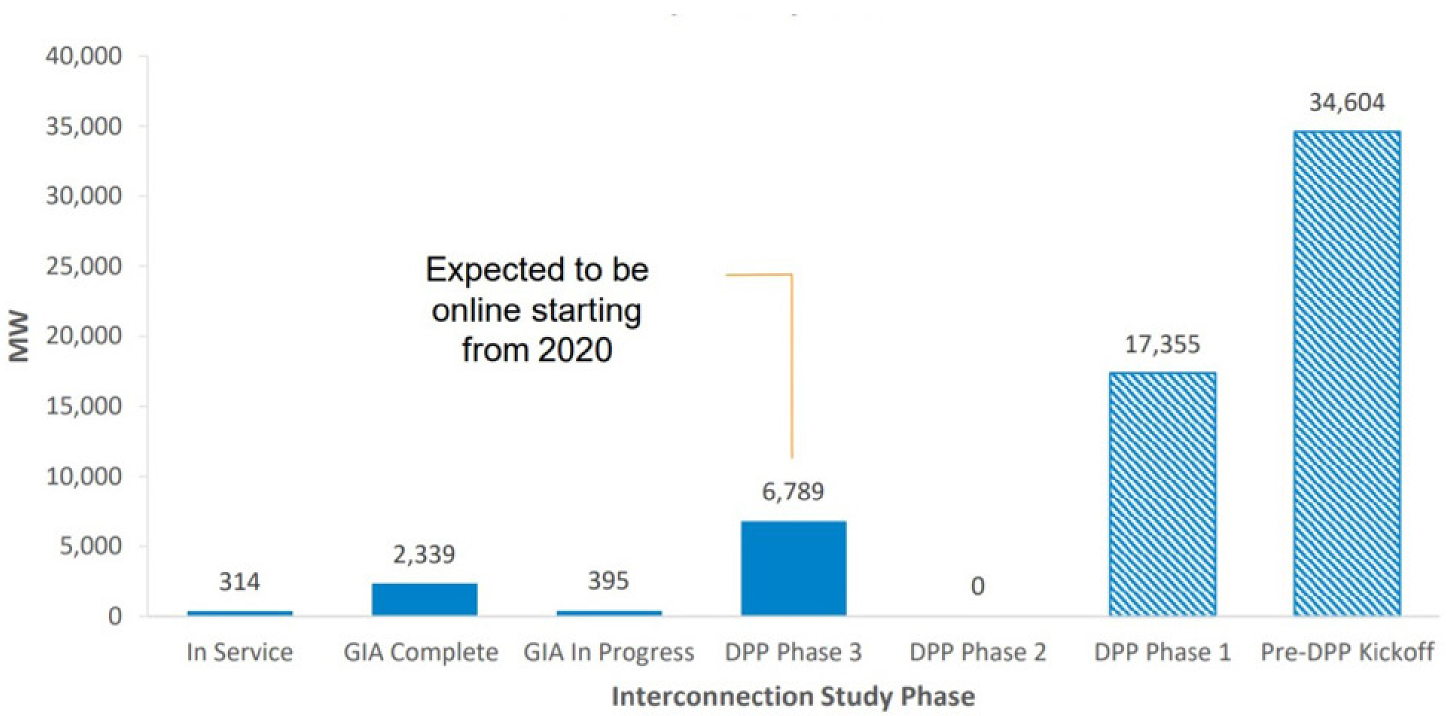
Just as in the original DIR filing for wind, MISO is proposing a two-year transition period to register solar resources. Solar projects with interconnection agreements before the time of the filing have two years to convert from intermittent resources to DIRs. Solar projects with no interconnection agreement in place before the effective date of the new tariff rule must register as DIRs immediately with no grace period.

Customized Energy Solutions' David Sapper asked how the proposal would treat hybrid solar and storage projects.

Zhu said the hybrid angle is outside the scope of the proposal — for now. MISO is holding a special workshop in early October to discuss the rules and implications around hybrid projects. (See *MISO to Host Hybrid Projects Workshop*.)

"Hybrid is a new topic. What we're discussing now is 100% pure solar generation, limited by the weather," Zhu said.

MISO hopes to make a Tariff filing sometime in December. ■



Solar projects in the MISO interconnection queue | *MISO*

MISO News

MISO Unruffled by Fall Supply-demand Outlook

By Amanda Durish Cook

CARMEL, Ind. — MISO doesn't expect any challenges meeting demand this fall, announcing last week that its supply should outpace its relatively tame peak forecast by about 36 GW.

The RTO *estimates* it will have 148 GW in total available capacity for the season, plenty to cover an expected 112-GW fall peak.

"That 112 GW is 3 GW lower than what we experienced in September 2017," Jeanna Furnish, MISO manager of outage coordination, said at Thursday's Market Subcommittee meeting.

But in keeping with the past several seasonal assessments, the RTO was careful to say that high-load, high-outage scenarios could trigger emergency procedures.

To generate its load forecasts, MISO partly relies on data from the National Oceanic and Atmospheric Administration, which has predicted higher-than-normal temperatures for the southern and eastern portions of the RTO's footprint.

Furnish began the seasonal outlook by polling stakeholders on a family dispute. "When does fall start? The astronomical definition of Sept. 23 at 3:50 a.m. [EDT], or the meteorological definition of Sept. 1?"

Those at MISO's headquarters overwhelmingly favored the astronomical approach.

MISO's fall, however, is effective throughout September, where the risk of emergency procedures is most pronounced in the face of high load. During the month, the RTO could dip into its load-modifying resources and operating reserves in a 117-GW, high-load scenario even when outages aren't considered a problem.

MISO's Jeanna Furnish | © *RTO Insider*

Furnish said a high-load, high-outage scenario paints a "bleaker picture" in which MISO might use the top end of its 13.7 GW in reserves. However, the RTO expects an average 111.3 GW of probable load during September. In October and November, MISO load is not expected to exceed 96 GW, and probable load will likely hover around 90 GW.

Furnish ended by joking she wouldn't be doing her MISO duty if she didn't urge members to submit outages as early as possible.

"Please make sure your company's outages are in, for not only this fall, but also next spring. … It's never too early to think about spring," she said. ■

MISO News

AEP Ups its Emission-reduction Targets for 2030

By Tom Kleckner

American Electric Power last week said it is revising its 2030 targets for reducing carbon dioxide emissions, increasing them to 70% from 60% over 2000 levels.

AEP also said it believes it can cut CO_2 emissions by more than 80% by 2050 from its 2000 levels. The company already has cut its emissions by 59% since 2000, a pace it said was faster than expected.

AEP CEO Nick Akins | © RTO Insider

"We've made significant progress in reducing carbon dioxide emissions from our power generation fleet and expect our emissions to continue to decline," AEP CEO Nick Akins said in a *press release* Sept. 10, adding that the company's aspirational goal is zero emissions by 2050.

AEP has achieved many of the reductions so far by shutting down inefficient, out-of-market coal plants. Coal-fired generation accounts for 45% of its capacity today, down from 70% in 2005. Natural gas capacity has increased from 19% to 28% and renewable capacity from 4% to 17% during that time.

"Technological advances, including energy storage, will determine how quickly we can achieve zero emissions while continuing to provide reliable, affordable power for customers," he said.

The Columbus, Ohio-based company, which has operations in 11 states, said it will invest in renewable generation and transmission and distribution technologies that increase efficiency and expand demand-response and energy-efficiency programs to increase CO2 reductions.

AEP's resource plans include adding more than 8.6 GW of new wind and solar generation to serve the company's regulated utility customers by 2030. The company is currently seeking regulatory approval to add 1.5 GW of new wind generation to serve customers in Arkansas, Louisiana, Oklahoma and Texas.

AEP Ohio has a case pending before the state's Public Utilities Commission to have customers finance the building of a 400-MW solar farm, the largest in the state, in southeast Ohio.

The company could also benefit from provisions in the state's House Bill 6, which will raise and distribute $20 million annually from 2021 through 2027 to help finance six utility-scale solar farms previously approved by the Ohio Power Siting Board.

Akins said last October that the company would focus on smaller renewable projects after Texas regulators rejected its proposed $4.5 billion Wind Catcher project. Wind Catcher would have included a 2-GW wind farm in the Oklahoma Panhandle that would have supplied customers in Oklahoma, Louisiana, Arkansas and Texas. (See *AEP to Focus on Smaller Renewable Projects*.)

Since then, AEP paid nearly $1.1 billion for Sempra Energy's renewable business and folded it into its own portfolio. (See *AEP Buys Sempra's Renewables Portfolio in $1.1B Deal*.)

The company plans to invest another $2.2 billion in contracted renewables and renewables integrated with energy storage in competitive markets between 2019 and 2023. AEP has added 1,302 MW of contracted renewable energy to its portfolio this year.

Over the long term, AEP plans to invest approximately $25 billion over the next five years to improve efficiency and resilience in its transmission and distribution systems.

AEP said it has factored future carbon regulations into the company's evaluation of generation resource options and will continue to do so. ■

John Funk contributed to this article.

AEP intends to shut down its coal-fired Oklaunion plant in Texas by October 2020. | *AEP*

MISO Resource Adequacy Subcommittee Briefs

RAN Respite

CARMEL, Ind. — MISO will suspend updates on its resource availability and need (RAN) project through November to allow time for analysis that may drive future draft rules.

During a Resource Adequacy Subcommittee meeting Wednesday, MISO planning adviser Davey Lopez said the RTO will skip the monthly RAN presentation at next month's meeting to analyze its loss-of-load methodology, a possible seasonal auction and new capacity accreditation for planning resources.

By the first half of 2020, MISO expects to finish a filing to alter capacity accreditation.

MISO is mulling an available capacity estimate that includes a measure of historical availability and the impact of planned and maintenance outages in addition to already-counted forced outages. The RTO is also considering distinct accreditations for intermittent, load-modifying and emergency-only resources.

MISO also wants its loss-of-load expectation modeling "more closely aligned to the real world," Lopez said. The new LOLE may rely on seasonal data and might become a seasonal result itself. More detailed data, including extreme weather scenarios, historical outages, actual load-modifying resource participation, external assistance from neighboring balancing authorities and the capabilities of intermittent resources may be incorporated.

Customized Energy Solutions' Ted Kuhn urged MISO to be innovative in adjusting or redefining seasons. He said it might be that September is found to be sufficiently risky that it warrants a spot among the summer months, or a separate loss-of-load risk might need to be defined for winter.

"Just be thoughtful when you go through these, and don't straight jacket solutions," Kuhn urged.

Lopez said MISO will examine monthly risk and whether it should change the calculations behind its planning reserve margin and local reliability requirements.

MISO's fall pause doesn't mean other smaller RAN initiatives are on hold. The RTO expects to make a filing by October to improve the modeling of LMR participation in the capacity auction and create "reasonable expectations" for capacity availability during the planning year.

New PRA Deadlines Before FERC

MISO has filed with FERC to shift the offer window times and data submission deadlines for its Planning Resource Auction (*ER19-2559*).

The changes would allow more time for market participants to prepare data submittals to MISO and end the RTO's middle-of-the-night closings and openings of the offer window.

MISO Manager of Capacity Market Administration Eric Thoms said the RTO expects a FERC ruling before the RASC meeting Oct. 9.

The filing would take effect beginning with the 2020/21 PRA, altering deadlines for demand response testing, submission of generator verification testing data, behind-the-meter registration, unforced capacity values and the posting of preliminary auction data. In most cases, the deadlines would be extended into the winter from late fall. (See "Timeline Change Next Year," *MISO Ponders Changes After Latest PRA*.)

MISO is also proposing to open and close the offer window during normal business hours instead of the usual midnight-to-midnight run of the four-day window. The RTO requested permission to open the offer window at 8 a.m. ET and close at 6 p.m.

Thoms also said the RTO is readying the 2020/21 PRA in MISO software.

CONE Increases

MISO also filed its annual update of cost of new entry values this week, with *prices* up over last year's estimates across all local resource zones (*ER19-2781*).

This year, staff and the Independent Market Monitor calculated the CONE at an average $251/MW-day for the entire footprint. Last year, the average CONE was about $238/MW-day footprint-wide.

Arkansas and East Texas' Zone 9 has the lowest CONE value of about $237/MW-day, while Lower Michigan's Zone 7 has the highest, with about $258/MW-day.

MISO's CONE is used as the RTO's maximum clearing price and maximum clearing offer in the PRA. CONE represents the estimated cost of constructing a 237-MW combustion turbine in different locations in the footprint.

Stakeholders asked why CONE numbers were up year-over-year. To that, MISO adviser Michael Robinson pointed to the philosophy behind Isaac Newton's and Gottfried Wilhelm Leibniz's *calculus of infinitesimals*.

Michael Robinson, MISO | © *RTO Insider*

Robinson said "several contributing factors" — including small upticks in cost of debt, operation and maintenance costs, and tax rates — contributed to the increase.

"When you add them all up, it contributes to about a 5 to 6% increase," he said.

Wind, Solar, Storage Focus of New Deliverability Proposal

MISO will move ahead with a stricter capacity deliverability requirement for its intermittent planning resources.

"This is something we're going forward with, so it's not up for debate if we are or aren't going to do this," MISO's Darrin Landstrom said.

Landstrom said MISO would return with a proposal and examples at the Oct. 9 RASC meeting.

According to the RTO, stakeholders were most receptive to an approach that would use an intermittent resource's transmission service request value as the maximum output for calculating the average capacity factor, which would reduce capacity credits. (See *MISO Deliverability Plan Prompts Skepticism*.)

MISO expects to make a FERC filing in December. The proposal would only apply to wind, solar and electric storage resources that offer capacity beginning in the 2020/21 planning year. The RTO draws a distinction between conventional and intermittent resources for deliverability.

Still, some MISO stakeholders maintained last week that the RTO has not demonstrated its current process is causing stranded intermittent capacity during peak hours.

But Landstrom said the proposal will stave off potential problems from MISO assuming planning resources will perform to an installed capacity deliverability level when they're only required to demonstrate deliverability up to an unforced capacity level.

"The IMM [and] FERC have recommended we close this gap, and MISO agrees with them," Landstrom said. ■

— Amanda Durish Cook

MISO News

Michigan PSC Settlement Resolves PURPA Clashes

By Amanda Durish Cook

Michigan regulators last week approved a settlement between Consumers Energy and solar developers, resolving arguments over the utility's obligation to support small generation projects under the Public Utility Regulatory Policies Act.

The Public Service Commission's approval of the agreement means that Consumers will interconnect new solar projects and is allowed to establish a new avoided-cost rate (ACR) for qualifying facilities (*U-20615*).

Consumers will now purchase power from an additional 584 MW worth of solar projects to be interconnected by 2023. About 170 MW of the projects will receive the current ACR, while the remaining 414 MW will be eligible to enter contracts at a rate based on MISO LMPs *plus* the capacity prices established in the RTO's annual capacity auction. Solar developers Geronimo Energy, Cypress Creek Renewables and sPower stand to receive a cut of the first 170 MW of projects at higher rates.

The move will more than triple solar capacity in Michigan, which currently has more than 153 MW of solar. The settlement puts to rest five separate cases between Consumers and more than 40 entities. The settlement was signed by several QFs, Consumers, PSC staff and the Solar Energy Industries Association.

Under PURPA, utilities such as Consumers are obligated to purchase electricity from independently owned QFs at rates that reflect a utility's own cost to build new generation. Consumers' existing avoided costs generally range from about $95 to $110/MWh, but the company has alleged the figures are outdated and above-market.

While the settlement will put some QFs in operation, its leaves many awaiting approval and compensation from Consumers. The company's current PURPA interconnection queue is jammed at 3.3 GW, and several QF owners complained that the first version of its integrated resource plan didn't do enough to clear the backlog. Consumers has previously mounted an unsuccessful bid with its state regulators to waive deadlines on reviewing QF applications for approval. The utility claimed it was simply overwhelmed by the more than 1,700 QF applications in the pipeline.

A previous settlement in June modified Consumers' IRP so that the utility will now conduct an annual competitive bidding supervised by a third party for adding new capacity (*U-20165*). Consumers can only own up to half of the new capacity it secures through competitive bidding; the rest must come from power purchase agreements with unaffiliated companies. Any remaining capacity needs after bidding is complete can be filled by QFs.

Consumers this fall will bid out about 1,200 MW of new solar energy for the 2019-2021 time frame. Although the bidding will focus on solar generation, the utility said QFs of all fuel types will be allowed to bid.

The June settlement also stipulates that Consumers will use a five-year horizon instead of the previous 10-year outlook to determine whether it has a capacity need. Consumers will also have to file new ACRs for regulatory approval within 30 days of each annual bidding process. Current QFs with a PURPA-based contract will continue to get new PPAs regardless of Consumers' capacity needs. Additionally, QFs 150 kW or smaller will receive PPAs based on the full avoided cost, also regardless of Consumers' capacity status.

Solar panel construction | *Consumers Energy*

Last year, Michigan regulators lifted a 10-month suspension on the state's new avoided-cost calculation for Consumers. The utility argued it didn't need any additional capacity over the next 10 years and had put about 700 MW of solar projects on hold. The PSC rejected the argument, saying the utility's IRP would determine whether it needed new capacity.

PURPA in Flux

Michigan isn't the only state in the MISO footprint where utilities have tried to alter or discontinue their obligation to pay independent developers under PURPA, arguing that rates exceed actual avoided costs for new generation.

The 9th U.S. Circuit Court of Appeals ruled in June that it could not force the Montana Public Service Commission to compel NorthWestern Energy to purchase power from solar developers at originally established and higher ACRs. (See *Montana PSC Racks up 2nd Lawsuit over PURPA Rates*.)

FERC this summer also avoided addressing whether the addition of storage facilities at the Beaver Creek wind farm in Montana would put the project's QF standing in jeopardy under PURPA when the owner withdrew applications to recertify the four 80-MW projects (*EL18-195*). NorthWestern argued last year that the addition of storage units to 80-MW wind facilities would put them over the PURPA megawatt limit.

In comments to the petition, the Edison Electric Institute said the case raised new issues for PURPA's treatment of energy storage and urged FERC to hold off on deciding on the motion until it could address the issues of "modernizing" PURPA in a more comprehensive proceeding, given that on-site storage capability could increase a facility's capacity beyond 80 MW.

FERC has been reviewing its implementation of the law since 2016, holding a technical conference in June of that year, but it has languished under numerous shakeups at the commission. However, one of its *agenda* items (E-1) for this month's open meeting Thursday concerns "qualifying facility rates and requirements" and "implementation issues" under PURPA. The item is listed under both the docket FERC opened in 2016 (AD16-16) and a new rulemaking docket (RM19-15), indicating a Notice of Proposed Rulemaking is potentially imminent. ■

MISO News

MISO Eases New Rules on Extended Outages

By Amanda Durish Cook

CARMEL, Ind. — MISO has softened a proposal to crack down on long-term outages from capacity resources, granting some wiggle room for outages taken June through August and removing a replace-or-pay requirement.

The RTO last month introduced a provisional solution that would limit extended planned outages to fewer than 90 days to qualify for participation in the Planning Resource Auction. Additionally, resources expected to be unavailable for the first 90 days of the planning year would not qualify. (See ***MISO to Limit Capacity Resource Extended Outages***.)

Now, MISO has ***relaxed*** the proposal so that resources unavailable for 90 of the first 120 days of the planning year will be disqualified from participation. Tim Bachus, MISO capacity market administration analyst, told the Resource Adequacy Subcommittee on Wednesday that the new proposal recognizes that September is becoming more summer-like in terms of hot weather-related demand.

Bachus said the rules will apply to both full and partial outages. Had the rules been in place during the last PRA, about 254 MW would have been impacted, he added. Currently, the RTO doesn't impose any penalties for capacity resources that take extended outages.

"We don't have any mechanisms in place to address this, and that's what we're hoping to do today," Bachus said.

MISO has also scrapped its original provision to make cleared resources on 90-day-plus planned outages replace their capacity or be penalized at its approximate $240/MW-day cost of new entry.

Bachus said that while stakeholders were generally supportive of the 90-day planned outage limit, they criticized the CONE payment penalty as too extreme.

"We realize that not all resources will be in a position to replace," he said.

Tim Bachus, MISO | © *RTO Insider*

Bachus stressed that the new rule is meant to be provisional. "This proposal is really only meant to cover a year or two, and then we'll have a more robust construct in place," he said. ■

NYISO News

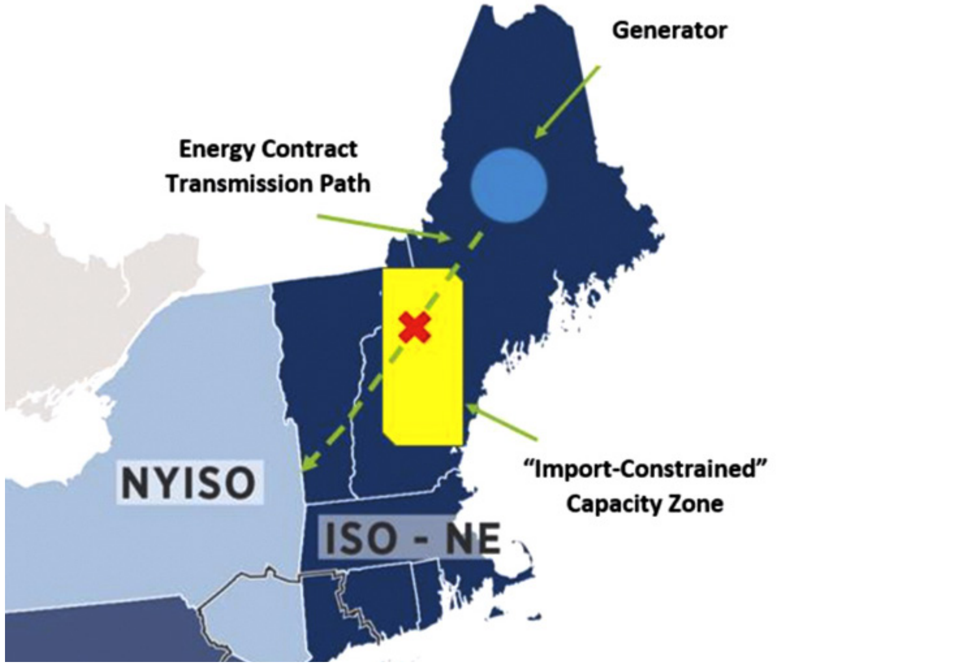
NYISO Business Issues Committee Briefs

New Rules on External Capacity Eligibility

The Business Issues Committee on Wednesday approved *revisions* to Manual 4 (Installed Capacity) for external capacity suppliers, with a focus on imports from Ontario's Independent Electricity System Operator and ISO-NE.

Section 4.9.1 was amended to add detail to the requirements for qualifying as an external capacity supplier. It requires a demonstration of deliverability to the New York Control Area border and execution of a letter certifying the supplier's control of the resource if it does not own it.

Section 4.9.3 was changed to add delivery requirements for imports from Ontario and New England. Suppliers from Ontario must provide written proof that IESO has approved their exports of power. Suppliers in New England must provide proof that they have an approved export delist bid in the ISO-NE Forward Capacity Market, or that it is not located in a capacity zone that does not permit exports.



Because the yellow ISO-NE capacity zone was identified as "import-constrained," ISO-NE transmission is not able to accommodate the generator delivering to the New York border. Without an export delist bid, the generator would not be eligible to sell capacity in NYISO auctions. | *NYISO*

FERC Updates

Presenting the Broader Regional Markets *report*, Robb Pike, director of market design and product management, provided updates on two recent FERC rulings, including one on external capacity.

On July 30, the commission accepted the ISO's proposal to implement new requirements for external installed capacity suppliers responding to a supplemental resource evaluation (SRE), effective Aug. 12. Any external resource that fails to meet delivery criteria will be subject to a penalty of 1.5 times the applicable spot price multiplied by the number of megawatts of shortfall and the percentage of the SRE call hours to which a supplier fails to respond (*ER19-2104*).

On Aug. 28, FERC accepted revisions to the NYISO-PJM Joint Operating Agreement, effective on Sept. 26, to address a previous waiver approved by FERC regarding coordination of certain types of flowgates.

NYISO and PJM asked FERC to waive the JOA to permit the grid operators to add the East Towanda-Hillside Tie Line as a market-to-market flowgate. The requested waivers enable PJM to conduct redispatch operations to control flows to the more restrictive rating on the NYISO side of the tie line without violating the PJM Tariff for a limited period of time while NYISO and PJM develop a permanent solution.

Other Manual Changes

The BIC also approved *changes* to Manual 14 (Accounting and Billing) that replaces the terms "meter service provider" and "meter service data provider" with "meter authority." It also revises Section 4.3.3 to clarify the methodology for certain calculations.

The committee also approved *changes* to Manual 27 (Revenue Metering Requirements) to add definitions of "member systems" (the eight transmission owners that make up the New York Power Pool) and "meter services entity" (an entity registered with the ISO and authorized to provide metering and meter data services to an aggregator, responsible interface party or curtailment service provider).

LBMPs Decline 16% in August

NYISO locational-based marginal prices averaged $27.83/MWh in August, down approximately 16% from July and nearly 35% from the same month a year ago, Pike said in delivering the monthly operations *report*. Year-to-date monthly energy prices averaged $34.96/MWh, a 25% decrease from a year ago.

Day-ahead and real-time load-weighted LBMPs came in lower compared to July. Average daily sendout was 487 GWh/day in August, lower than 539 GWh/day in July and 537 GWh/day in the same month a year ago.

Transco Z6 hub natural gas prices averaged $1.85/MMBtu for the month, down over 15% from July and 38.3% from a year ago.

Distillate prices were down 15.1% year over year and down slightly from the previous month, with Jet Kerosene Gulf Coast averaging $13.32/MMBtu, compared to $14.18/MMBtu in July, while Ultra-low Sulfur No. 2 Diesel NY Harbor dropped to $13.02/MMBtu from $13.71/MMBtu in July.

August uplift decreased to -20 cents/MWh from -6 cents/MWh in July, while total uplift costs, including the ISO's cost of operations, came in lower than those of the previous month.

The ISO's 25-cents/MWh local reliability share in August was down from 44 cents/MWh the previous month, while the statewide share climbed to -45 cents/MWh from -50 cents/MWh in March.

The Thunderstorm Alert cost was 33 cents/MWh. ■

— Michael Kuser

MOPR Impact Study Ruffles Feathers Ahead of FERC Ruling

By Christen Smith

As PJM stakeholders anxiously await FERC's ruling on expanding the minimum offer price rule (MOPR), a new analysis says the policy could increase capacity market prices $5.7 billion annually.

The estimated 60% spike would add $6 to the typical ratepayer's monthly bill, with consumers in Virginia and West Virginia seeing prices rise $7 or more, according to the *report* published by Grid Strategies last month.

The report attempts to estimate the cost of FERC's June 2018 order requiring PJM to expand its MOPR to include all new and existing capacity receiving out-of-market payments, such as renewable energy credits and zero-emission credits for nuclear plants. FERC said the change was needed to counter price suppression in the capacity market. The RTO's MOPR currently covers only new gas-fired units. (See *FERC Orders PJM Capacity Market Revamp*.)

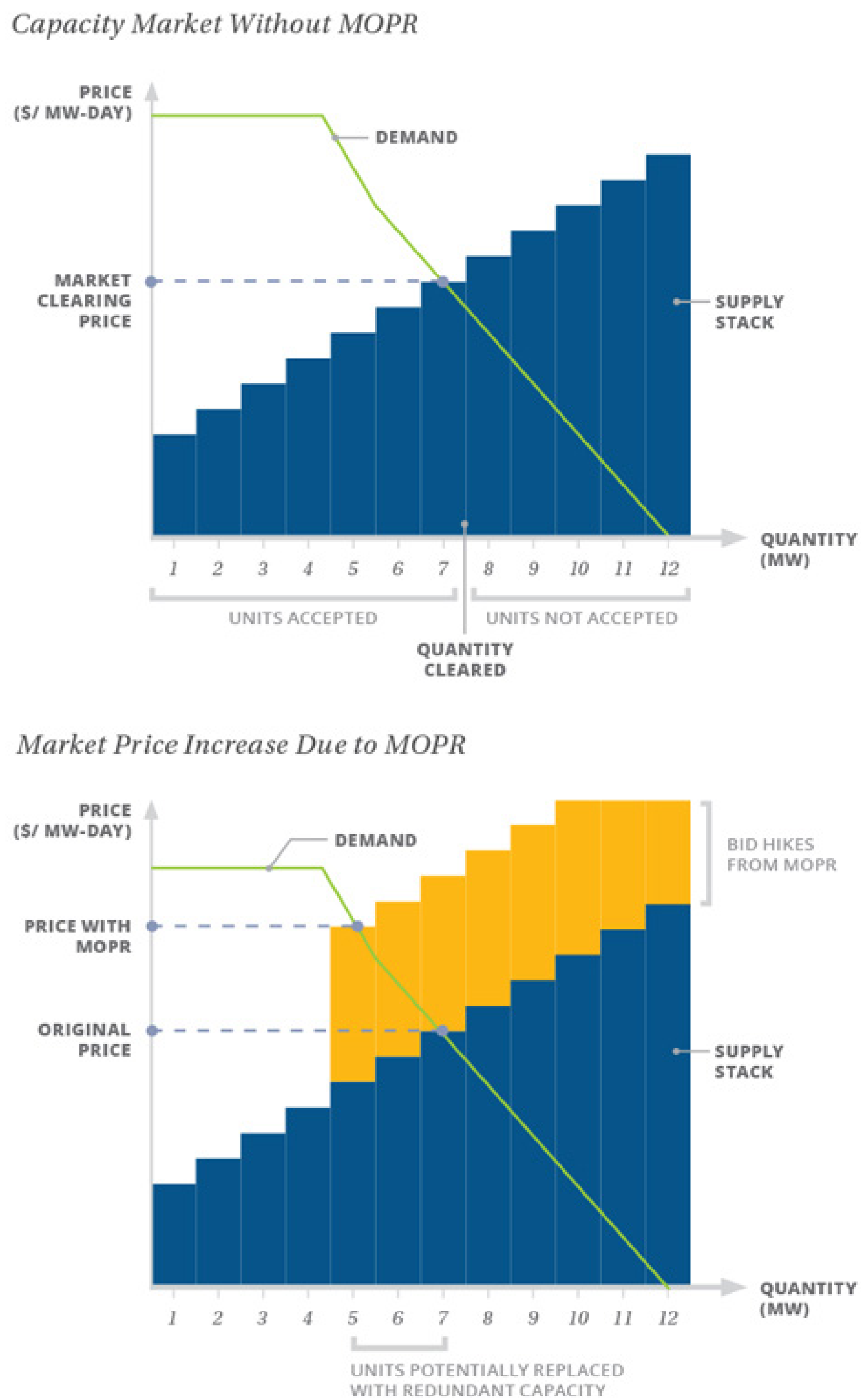
Report authors Michael Goggin and Rob Gramlich called it "a major policy shift" that was first signaled in a March 2018 ruling on ISO-NE, in which the commission said "we intend to use the MOPR to address the impacts of state policies on the wholesale capacity markets" unless it is shown an alternative to address price suppression. (See *Split FERC Approves ISO-NE CASPR Plan*.)

"For better or worse, Congress has reserved to states the authority to regulate generation, so long as those regulations are not inappropriately tethered to or aiming at matters within FERC's jurisdiction," they wrote. "If states continue to enact policies influencing the generation resource mix, as they have shown increasing interest in doing, and federally regulated RTOs impose cost increases each time, costs to consumers will rise."

The authors' staggering estimates generated much debate on Twitter, and some state officials have reportedly renewed threats to leave PJM if capacity costs rise as a result of the FERC ruling.

Regulators from New Jersey and Illinois have previously threatened to leave PJM or called for the end of the capacity market. (See *NJ Regulator Threatens to Exit PJM Amid States' Complaints* and *Illinois: End PJM Capacity Market?*)

Although none have taken any steps to do so, Maryland Public Service Commission Chair



Comparison of capacity market prices with and without the MOPR | *Grid Strategies*

PJM News

Jason Stanek told *Politico*: "If one state in the 13-state PJM pulls out resources, you'll see other states follow."

But others have faulted the firm's methodology and rejected the predictions of the RTO's destruction as a misunderstanding of how the markets work.

"The Grid Strategies report cherry-picks a 2018 PJM Market Monitor report to find the highest possible capacity price increase — produced in a completely unrelated analysis — and applies it as justification for its conclusion that a potential policy by FERC could increase costs $5.7 billion annually," said Todd Snitchler, CEO of the Electric Power Supply Association, which represents independent power producers and marketers. "The report conflates two completely different policies that results in an apples-to-oranges comparison and a startling cost estimate that is both incorrect and disingenuous."

Snitchler's response came in a Sept. 6 letter addressed to 10 Democratic senators, who had cited the Grid Strategies report in a *letter* to FERC Chairman Neil Chatterjee. The senators asked the commission to "reconsider this policy shift," which they said was unjustified and could "frustrate state efforts to address climate change."

Grid Strategies' report used data from the Independent Market Monitor's study of the capacity market impact of PJM's resource-specific fixed resource requirement policy, which the RTO has submitted to FERC as an alternative to the MOPR. In that report, the Monitor determined that 23,741 MW of accredited capacity supply would be removed from the auction, increasing prices $94.67/MW per day for a total of $5.7 billion annually.

"Because the IMM has access to confidential information about the shape of the capacity supply curve and which resources have cleared the capacity market, the IMM's estimate of the relationship between supply and price is likely to be more accurate than any estimate from an outside party," Goggin and Gramlich wrote. "As a result, the IMM's estimate … is a reasonable proxy for the impact the MOPR could have in the next PJM capacity auction."

The authors cautioned that the results "likely underestimate" the actual increase because the MOPR would increase energy costs in New Jersey and other states subsidizing nuclear resources and future offshore wind. While capacity prices will eventually level out as federal tax credit programs sunset, Grid Strategies predicts long-run costs to consumers could still reach $2.5 billion per year.

IMM Response

"We do not agree with the Grid Strategies extrapolations from our report, but our report reached a similar conclusion about the impact of the PJM repricing proposal," Monitor Joe Bowring said in an email to *RTO Insider*. "PJM's proposal would increase capacity market prices substantially. PJM's plan would create noncompetitive barriers to entry. PJM's plan should be rejected.

"But there is no indication that FERC will adopt PJM's plan, which they have previously rejected. FERC has viable options that will not result in dramatic price changes in either direction but will protect competitive markets."

Bowring said the Grid Strategies report ignores the Monitor's *proposed sustainable market rule* (SMR), which would allow all nonmarket resources to participate in the energy market but use the capacity market as a "balancing mechanism" to provide incentives for entry and exit based on competitive offers.

"SMR provides a straightforward way to harmonize federal and state approaches to the provision of power while respecting the distinction between federal and state authority," Bowring said. He maintains his plan wouldn't impact capacity prices at all.

He said states' threats to leave PJM over the MOPR ruling suggest a misunderstanding of the benefits of wholesale power markets and presuppose specific FERC actions. The narrative incorrectly suggests that states would be better off outside PJM markets, ignoring the substantial benefits PJM's markets have brought to customers over the last 20 years, he said.

PJM Weighs in

PJM, for its part, said that EPSA's letter gives "worthwhile perspective" on the issue and said that maintaining a level playing field among generators is paramount to creating "a fair market that achieves reliable electricity at the lowest cost."

"When one type of generation is subsidized over another, that is an advantage, and we have seen subsidies targeting not just renewable energy but also coal and nuclear," said Jeff Shields, a PJM spokesperson. "We're not about disadvantaging any particular resource type — the minimum offer price rule is meant to maintain the integrity of a market that includes subsidized resources, not any specific fuel type. At the same time, we respect states' authority to shape their own fuel mix."

Shields said balancing different state policies creates a complex scenario — one that PJM thinks its plan addresses while still ensuring fair market outcomes. "We look forward to FERC addressing these issues on their merits," he added. (See related story, *Glick Recusal May Mean No MOPR Ruling Before December*.) ■

STATE *	TOTAL ANNUAL COST ($ MILLIONS)	$ PER AVERAGE MONTHLY RESIDENTIAL BILL
Ohio	$1,100	$6.01
Pennsylvania	$956	$5.75
Virginia	$927	$7.71
Illinois	$864	$4.95
New Jersey	$711	$4.68
Maryland	$499	$6.72
West Virginia	$167	$7.34
Kentucky	$121	$7.52
Indiana	$91	$6.64
Delaware	$85	$6.52
DC	$70	$5.34
North Carolina	$41	$7.45
Michigan	$25	$4.52
TOTAL/AVERAGE	**$5,658**	**$6.06**

** Note: PJM serves only a portion of the consumers in some of these states, explaining the lower cost impacts in Michigan, North Carolina, Indiana and Kentucky, in particular.*

Estimated annual cost to states of the MOPR in PJM | *Grid Strategies*

GreenHat Settlement Filing Anticipated in October

VALLEY FORGE, Pa. — PJM anticipates filing a GreenHat Energy settlement on Oct. 9 that staff say will avoid costly legal proceedings, signaling a possible end to months of uncertainty and confusion for stakeholders in the wake of the company's massive default on 890 million MWh of financial transmission rights.

Jen Tribulski, PJM | © *RTO Insider*

Jen Tribulski, PJM's associate general counsel, told the Market Implementation Committee on Wednesday that a meeting is planned for mid-October for stakeholders unable to participate in negotiations to have a chance to discuss the settlement terms before filing comments with FERC. (See *FERC Denies Shell, ODEC Seat at GreenHat Settlement Table*.)

"Based on all the feedback we've gotten so far, we think the settlement will be unopposed by all parties," she said. "We think the settlement will help avoid litigation and the unintended costs and uncertainties that would extend from litigation."

In June, FERC gave PJM stakeholders just 90 days to settle all disputes about how to best liquidate FTRs left over from the default before kicking off a paper hearing on the RTO's request to clarify a previous ruling related to the debacle (*ER18-2068*). (See *FERC: PJM Settle Disputes Before GreenHat Hearing*.) On Sept. 9, PJM confirmed a settlement in principle had been reached but declined to give further details.

It's unclear how much the agreement will cost members, though PJM spokesperson Susan Buehler previously told *RTO Insider* that estimates had now dropped below $200 million — a far cry from the anticipated $430 million expense stakeholders would have faced if forced to unwind five months of GreenHat settlements as initially ordered in FERC's waiver denial in January. (See *FERC Orders PJM to Unwind GreenHat Settlements*.) ■

— Christen Smith

FERC Orders Expanded Mitigation for LG&E-KU

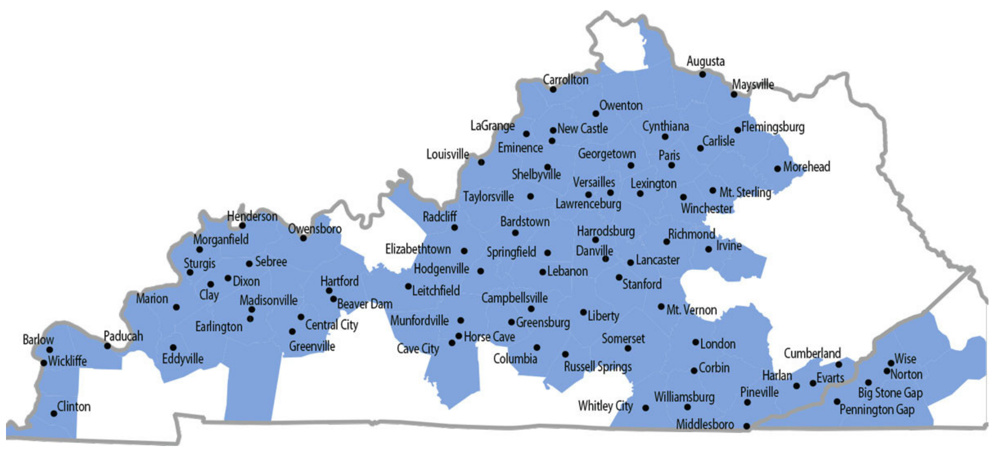
By Rich Heidorn Jr.

FERC last week rejected Louisville Gas & Electric and Kentucky Utilities' proposed transition for exiting from market power mitigation measures the commission had imposed to address the companies' 1998 merger and withdrawal from MISO in 2006 (*ER19-2396, ER19-2397*).

The rate de-pancaking mitigation provisions were imposed to resolve horizontal market power concerns. In March, the commission agreed the provisions could be removed because loads located in the LG&E/KU market would have access to enough competitive suppliers after the mitigation is removed. It conditioned the removal on a transition mechanism to protect customers that had relied on transmission service on the MISO system.

FERC said that "although it determined that there would continue to be a sufficient number of competitive suppliers in the LG&E/KU market if the de-pancaking mitigation was terminated, termination will affect the relative economics of competing suppliers in different markets by making the cost of purchases from resources located in MISO more expensive."

Eligible for the transition were contracts by the Kentucky Municipal Energy Agency (KYMEA) to supply KU requirements customers that went into effect on May 1; a requirements contract between the city of Benham and American Municipal Power; a requirements contract between the city of Berea and AMP that went into effect on May 1; and a contract between the city of Owensboro and Big Rivers Electric Cooperative.



Combined service territories of Louisville Gas & Electric and Kentucky Utilities | *LG&E/KU*

The commission said the proposed transition mechanism filed by the companies in July was overly narrow and spelled out changes the companies must make regarding which customers and power purchase agreements should be covered and the definition of "covered" transmission service requests. It also ordered changes regarding which MISO schedules are eligible for reimbursement, reimbursement adjustments and the handling of exports.

In an accompanying ruling rejecting rehearing of its March order, the commission also identified three additional customers as eligible for the transition: KYMEA and member cities Paducah and Princeton (*EC98-2-002, ER18-2162-001*).

LG&E serves 411,000 electric customers in Louisville and 16 surrounding counties. KU serves 553,000 customers in 77 Kentucky counties and five counties in Virginia. The two companies, which are now PJM members, are owned by Allentown, Pa.-based PPL. ■

PJM News

Stakeholders, States in Dark Over PJM Personnel Moves

Continued from page 1

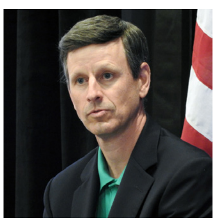
team, the states and members," Riley said.

The news was greeted with surprise and sadness.

Greg Poulos, CAPS | © *RTO Insider*

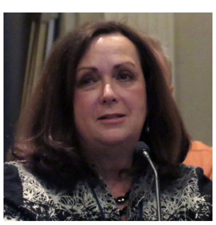
"I love Denise. Everyone loves Denise," said Greg Poulos, executive director of Consumer Advocates of the PJM States (CAPS), calling Foster's departure "very much a surprise."

"I thought everyone thought highly of Denise. I would say it's definitely a loss for advocate relations," Poulos said.



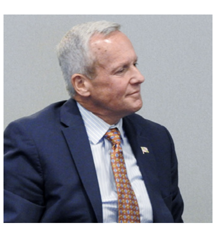
Glen Thomas, PJM Power Providers Group | © *RTO Insider*

"No, I didn't see it coming," said Glen Thomas, a former Pennsylvania regulator and president of the PJM Power Providers Group (P3 Group). "I generally had very good experiences" with Foster's division, he said. "There are a lot of things we were complaining about and focused on — and this was not one of them."



Jackie Roberts, West Virginia | © *RTO Insider*

"If Denise leaving is the answer, I'd like to know what the question is," West Virginia Consumer Advocate Jackie Roberts said. "She created PJM's outreach to members, especially advocates and the states. … There are very few lawyers with a combination of creative interpersonal skills and an understanding of the technical nature of PJM's business. It's a really hard thing to do for lawyers. Most of them are not wired that way."



Maryland Public Service Commissioner Michael T. Richard | © *RTO Insider*

"I think she's incredibly intelligent. I think she's an effective communicator," said Maryland Public Service Commissioner Michael T. Richard, president of the Organization of PJM States Inc. (OPSI). "PJM and the states were very well served by Denise Foster's work. … I don't think we've ever felt we've not been heard."

Panelists discussing the RTO stakeholder process at the 2017 annual meeting of the National Association of State Utility Consumer Advocates. Left to right: Christina Simeone, Kleinman Center for Energy Policy; Denise Foster, PJM; John Hughes, Electricity Consumers Resource Council; Bill Malcolm, AARP | © *RTO Insider*

Diminished Voice for Stakeholders?

PJM declined to say who initiated the discussion about Foster's departure and whether it was voluntary. Foster also declined to comment.

Nor would PJM explain the need to "further demonstrate the organization's willingness to listen to key stakeholders" or why Riley is making the changes now, while the board is conducting a search for a new CEO.

Asim Haque, PJM | © *RTO Insider*

Under the changes announced Sept. 9, Tribulski will become senior director of member services, with oversight of stakeholder affairs, member relations, and state and member training. Former Ohio regulator Asim Haque, who joined PJM in February, will continue as executive director of strategic policy and external affairs.

Haque and Tribulski will report to Vince Duane, general counsel and senior vice president of law, compliance and external relations. Under the old structure, Haque reported to Foster.

PJM also declined to explain how the changes would result in a "more direct line of communication between the executive team, the states and members."

Poulos and Roberts said it does exactly the opposite.

"Why was Denise's role diminished in this reorganization?" Roberts asked. "An important voice is now absent on the executive team. Everything now has to come through Vince. Before, she'd be sitting at the same table. That voice is gone because neither Asim nor Jen are on the executive team. So, I find the role being diminished as really upsetting."

Poulos said that although CAPS has a "really good relationship" with Haque, Foster's departure is a loss. "Denise was an executive. From a consumer perspective, we lost a voice on the executive team."

Did She Jump or Was She Pushed?

PJM's refusal to provide more details and the fact that Riley announced the organizational changes at the same time as Foster's resignation led to speculation among stakeholders over whether Foster was being forced out.

"She had to be asked to leave," one stakeholder said. "She's committed to the organization, and she's too young to retire."

Among stakeholders and PJM staff there was discussion over whether she was leaving to care for her partner, who has a serious illness. There was also a rumor that former CEO Andy Ott is starting his own venture and wants to bring Foster on board.

Poulos said he would like PJM to offer more information on the reason for the changes. "When you don't give us the information, people are trying to fill in the blanks," he said.

Roberts acknowledged that it is not common for corporate boards to discuss the reasons behind their personnel decisions.

"However, in this specific case, where PJM has admitted that it needs changes to its culture and how it operates, it would be best to explain how this change is consistent with that," she said. "Given how well-liked [Denise] is, it would behoove them to give us some explanation."

Second Stint at PJM

A graduate of Dickinson Law School, Foster worked for three years as an assistant consumer advocate for Pennsylvania before joining PJM as senior counsel in 2000. After five years in that post, she moved to Exelon, where she spent another five years, rising to become director of policy development. She returned to PJM, taking her current post, in 2009.

Foster had been reporting to Andy Ott, then executive vice president of markets, in June 2015 when Ott was named CEO-elect to replace Terry Boston. Foster then began reporting to COO Mike Kormos. (See *Boston Retirement Prompts Additional Promotions at PJM*.)

When Kormos left PJM in March 2016, his position was not filled, and three months later, Ott announced Duane would head a newly formed Law, Compliance and External Relations Division, with Foster as a direct report.

OPSI President Richard said he was informed of the restructuring shortly before it was announced Sept. 9 but not given an explanation of why PJM was making the changes or how it would affect OPSI and state regulators.

Richard said he was contacted by Stu Widom, manager of regulatory and legislative affairs under Haque, who joined PJM from Calpine in July.

"They told me that Denise was resigning and that they're making these changes. It seems like they're moving people around."

Richard said "there's been a desire [by OPSI] to have better communication with the [PJM] board" and said he was "very encouraged" by Riley's comments on the subject.

The OPSI board meets twice yearly with the PJM Board of Managers, Richard said, and will have an "extended meeting" at their next face-to-face in October.

The Real Source of the Friction

Asked whether he had any problems in his dealings with Foster, Richard said, "None whatsoever."

Richard also said he had not suggested any changes to PJM's structure. "Generally, they have a good shop in keeping states apprised of what's happening. … How the organization works I don't think is key to having a good relationship."

Joseph L. Fiordaliso, president of the New Jersey Board of Public Utilities | © *RTO Insider*

New Jersey Board of Public Utilities President Joseph L. Fiordaliso, who has been highly critical of PJM for failing to communicate with his state, said he didn't hold Foster responsible. And he said he knew of no other regulators who had difficulties with her. "Denise and I have always had a cordial relationship," he said.

At the Mid-Atlantic Conference of Regulatory Utilities Commissioners annual meeting in July 2018, Fiordaliso threatened to pull the state from the RTO, saying "it's not rocket science to make people feel a part of the process, … Pick up the phone. … That's all we want." (See *NJ Regulator Threatens to Exit PJM Amid States' Complaints*.)

Regulators' criticism was frequently directed at Ott.

"I think you would find a number of states that certainly would have the same concerns that [Fiordaliso] has," Illinois Commerce Commissioner John Rosales, then president of OPSI, said at the same conference. "I've made this clear to Andy that the communication could be better."

Former FERC Commissioner and Pennsylvania regulator Robert Powelson had similar criticism at a PJM issues workshop in D.C. last year. "You talk to certain state commissioners; you talk to consumer advocates; there's a concern that voices are not being heard," he said. "I think PJM — Andy has heard me say this — has to do a better job with their state outreach. … A lot of states right now are not happy."

Ott declined to comment Monday.

Rosales and Pennsylvania Public Utility Commission Vice Chairman Andrew Place, who also spoke at the workshop, agreed with Powelson's characterization.

"It becomes very frustrating for us because they'll say they listen, they'll tell us about the stakeholder process, they'll tell us everything that they've done … and then they'll just throw it out the door and say, 'We're going to go with this anyway,'" Rosales said.

"PJM is swimming and drowning in capacity. … And [PJM's] capacity repricing [proposal] only worsens that," Place said. (See *Powelson: 'Erosion of Confidence' in Stakeholder Process*.)

Place was referring to PJM's April 2018 "jump ball" filing that asked FERC to choose between RTO staff's capacity repricing proposal or the Independent Market Monitor's plan to extend the minimum offer price rule to existing resources in addition to new entries (*ER18-1314*). (See *PJM Capacity Proposals Widely Panned*.) PJM said changes were needed to insulate its capacity market from state-subsidized generation, and FERC agreed, ruling the RTO's current rules not just and reasonable in June 2018. (See related story, *Glick Recusal May Mean No MOPR Ruling Before December*.)

PJM further angered states with its energy price formation proposal, which the RTO filed unilaterally in March after a yearlong discussion with stakeholders produced no consensus. In a letter to stakeholders in December, PJM Chairman Ake Almgren had pledged that a "comprehensive" energy price formation proposal would include six elements, including a transitional offset in the capacity market to prevent ratepayers from being overcharged because of increased energy and ancillary services revenue.

But the proposal PJM ultimately filed lacked the transition, OPSI *complained*, meaning consumers would be overcharged for seven years, from implementation in June 2020 to completion of energy and operating reserve revenue increases being fully reflected in capacity prices in 2027.

PJM's proposal, which was backed by utilities, independent power producers and wind, solar and nuclear generators, is pending. (See *Gens Back PJM Pricing Proposal; Md., IMM Oppose*.)

OPSI also has repeatedly clashed with PJM's management and board over the independence of the Monitor. The Monitor's independence has been a recurring source of contention since IMM Joe Bowring accused then CEO Phil Harris at a FERC technical conference in 2007 of attempting to muzzle

PJM News

it, an allegation that ultimately led to Harris' resignation.

Improvements Seen

In an interview on Friday, Fiordaliso said PJM's communication with the state has improved with the addition of Haque in February and the July 1 appointment of Riley — a member of the board since 2005 — as interim CEO.

"I think they're making a concerted effort to keep a line of communication open with the states," he said. Riley is "a very outgoing person and a person who is more than willing to communicate and keep the member states up to date on things. My encounters with her thus far have been beyond pleasant."

Haque was the chair of the Public Utilities Commission of Ohio when he took a newly created position as PJM's executive director of strategic policy and external affairs. PJM *said* Haque would report to Foster, who in turn reported to Duane.

"It's always encouraging when you have someone you know well being brought into the inner circle," Maryland's Richard said of Haque. "He's a known entity and has a great deal of credibility [with the states]. He understands the issues of importance to the state. He's very easy to reach."

"I think everyone's really happy with him. He's a breath of fresh air," West Virginia's Roberts said. "He's objective, and he's openminded, and he's willing to hear different views and try to understand those views. He seems open to new and novel solutions to the problems that PJM has had.

"I don't see Asim coming in as any kind of force-out" of Foster, she added.

Culture Problem?

One stakeholder who declined to be identified said that Riley is attempting to address a "cultural problem" identified in the report on the GreenHat Energy default: "the idea that we've got it [under control], we don't have to tell the stakeholders anything."

A *report* by independent consultants on the fiasco concluded that "an unwarranted air of confidence facilitated GreenHat's ability to grow" and recommended PJM "create a culture and environment that encourages staff to challenge internal assertions and test their own assumptions."

The stakeholder said the culture stems from PJM's early years as an RTO under Harris, who "controlled the board" and saw stakeholders as "an irritant and a hindrance."

The "pendulum swung" toward greater stakeholder engagement under CEO Terry Boston, who "understood the need to be member-driven," the stakeholder said. (See *Retiring PJM CEO Boston Lauded for Efficiency Improvements, Management Style*.)

But under Ott, who was mentored by Harris, "it switched back to what it was under Phil," the stakeholder said.

"These are the type of crux issues that lead to mistakes like GreenHat. Sue Riley is really committed to improving the culture."

Riley has said little publicly since becoming interim CEO. Earlier this month, however, she took steps to defuse the latest clash between PJM and the Monitor. In January, PJM made a FERC filing arguing that the Monitor should not be permitted to file complaints under Federal Power Act Section 206 without a change in the RTO's governance structure (*EL19-27*).

Left to right: Phil Harris (speaking), Terry Boston and Andy Ott | © *RTO Insider*

On Sept. 5, PJM indicated it was abandoning that request, with Riley and Bowring issuing a statement that reaffirmed their "relationship of mutual respect." (See *PJM Content with IMM Role after Fuel-cost Policy Ruling*.)

Threading the Needle

Some observers worry that PJM's board is not attuned to the real reasons for the RTO's often fractious relations with its stakeholders and wonder what that means for the search for a new CEO.

In July, state consumer advocates and regulators said the new CEO should support state environmental goals to address climate change and a stronger partnership with the Monitor. (See *States, Regulators: Look Outside PJM for Next CEO*.)

But East Kentucky Power Cooperative COO Don Mosier *said* the search committee should not overlook internal candidates and the "successes of the PJM leadership team."

"The new CEO must have a vision for threading the needle between state and federal authority on market issues, while maintaining a strong rapport with both authorities, the Market Monitor and PJM members, taking into account what is best for the majority of market participants," Mosier said.

PJM spokeswoman Susan Buehler said Monday that the RTO's search committee is scheduling interviews with both internal and external candidates. "To my knowledge, [Riley] is not" a candidate, Buehler said.

One stakeholder who thinks Riley could end up the permanent CEO said she will "either be the best CEO or the worst CEO."

"Frankly, I think the board in its ignorance thought the commissioners' and advocates' and other stakeholders' objections to what PJM's doing [was because of] a lack of a relationship with them. The real problem was Andy wouldn't do it any other way than his way, and Vince was driving the car for him," the stakeholder said. "The board's culpable in all this GreenHat stuff they're trying to fix now. They believed senior management and didn't ask questions.

"I'm really concerned that the PJM board has mistaken a problem with their relationship with certain stakeholders with Denise's oversight of that. Because they're two different things. … As engaging as she is, that's not going to stop people from being disappointed in what PJM is doing." ■

Christen Smith contributed to this article.

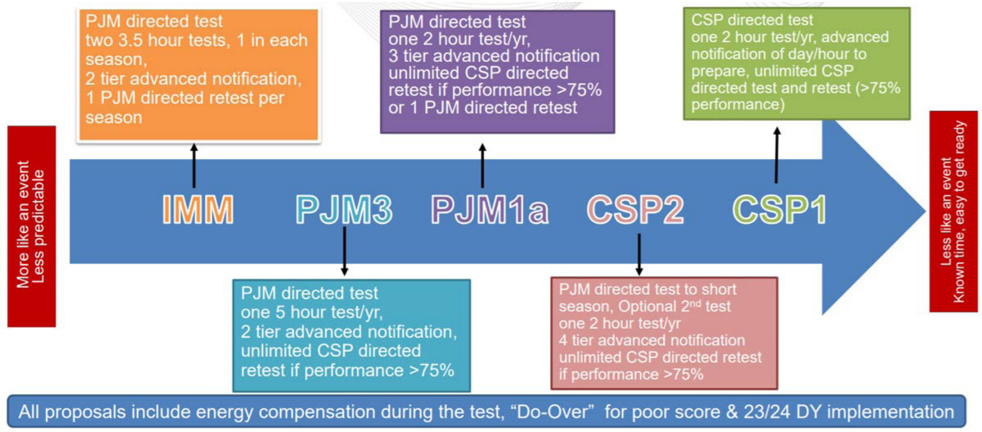
PJM News

PJM Stakeholders Support More Realistic DR Testing

By Christen Smith

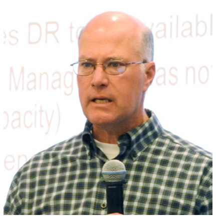
VALLEY FORGE, Pa. — The Market Implementation Committee endorsed a PJM *proposal* on Wednesday to make demand response performance testing more realistic, resisting calls from load interests to stay close to the status quo.

Nearly 75% of stakeholders preferred PJM's *plan* to replicate the "surprise element" of DR events by revising how and when the RTO makes resources aware of upcoming tests. The current rules, developed when DR availability was limited to just six hours a day over the summer, give resources a two-day warning — down to the exact hour — and provides unlimited retesting.



High-level overview of five proposals for demand response testing requirements | *PJM*

Pete Langbein, PJM's manager of demand response operations, said the RTO's proposal — just one of five developed in the Demand Response Subcommittee and up for a vote at the MIC — would better align testing with actual event conditions and the evolution of its Capacity Performance construct over the last five years. Since implementing CP, DR resources must now be available 15 hours a day year-round.



Pete Langbeim, PJM | *© RTO Insider*

"The status quo is less like an event," Langbein said. "People schedule it far in advance and it's only during summer. When we need these resources, they aren't going to know a month in advance. They probably won't even know the night before."

In its proposal, PJM wants to perform three-hour tests in different zones once a year. The three-tiered notification system would give all zones a heads-up of who will be tested on the 21st of the month before. PJM would then give a second notification to the zone the day before the test and a third on the morning of — an attempt to balance the expensive penalties that could come from springing tests upon unprepared participants with the RTO's desire for more realistic "surprise" conditions.

Load interests, however, believe DR is far more predictable than PJM's proposed testing requirements suggest, noting 13 of the last 14 events since 2007 occurred during a hot weather alert.

"Test performance has always exceeded commitments and is in fact improving," said Bruce Campbell, director of regulatory affairs for CPower. "That suggests to me a higher bar for testing isn't going to get better event performance and there isn't an obvious reliability issue here."

Bruce Campbell, CPower | *© RTO Insider*

The PJM Industrial Customer Coalition (ICC) and CPower sponsored another plan, called *CSP1*, which would expand testing to include winter and summer seasons but give resources notice of the test before the CP delivery year begins. They said limiting retests, as PJM suggests, skews the program's balance and may discourage participation. In a *poll* distributed to the DR Subcommittee in July, 92% of participants favored this plan.

"We are supportive of CSP1 because it maintains the risk/reward profile and continues to make this a viable program for participants," said Dave Mabry of the ICC. "If I have one bad day, I won't lose 120% of my capacity revenue."

Dave Mabry, PJM Industrial Customers Coalition | *© RTO Insider*

Except, argues the Independent Market Monitor, current test requirements could allow DR resources to exaggerate their capacity performance and hide reliability issues behind unlimited retests.

"If it takes you unlimited times, I don't know if that's a reliable resource," said Skyler Marzewski, market analyst for the IMM. "It needs to be there when its being dispatched, otherwise it's not reliable."

The Monitor's proposal, which only garnered 25% of stakeholders' votes, would have subjected resources to two tests a year and provided just two advanced warnings — the day before and the morning of — and allow just one retest. Of the five proposals, Langbein described this plan as the closest to simulating DR conditions.

"We cannot really look at giving a resource days or weeks to prepare when an event may just give them 30 minutes," Marzewski said.

Enel X stepped in with a fourth plan, called *CSP2*, as a compromise between PJM's and CSP1, that would give participants one-week notice of an upcoming test. Some 53% of MIC stakeholders supported the proposal, compared to just 33% who voted for CPS1.

A second PJM plan that would have only given participants notification on the day before and the morning of earned just 15% support.

Because votes for PJM's first plan and CSP2 exceeded the 50% threshold, both proposals will advance to the Markets and Reliability Committee later this month. In a nonbinding poll conducted after the votes, 67% of stakeholders indicated they preferred PJM's proposal over the status quo. ■

PJM News

PJM OC Briefs

Non-retail BTM Generation Update

VALLEY FORGE, Pa. — Exelon told the PJM Operating Committee last week it is near agreement with RTO staff on business rules for non-retail behind-the-meter generation (NRBTMG) that would exclude retail community solar and aggregate net energy metering programs.

Exelon told the Markets and Reliability Committee in August that it approves of the concepts and reporting requirements outlined in the changes to Manuals 13 and 14D but wanted more time to review the differences in the application of the rules — specifically whether community solar programs and aggregate net energy metering are within scope. It asked the MRC to delay its vote for 30 days. (See "Non-retail BTM Generation Vote Delayed," *PJM MRC Briefs: Aug. 22, 2019*.)

Since then, both parties have agreed that neither program should fall under the category of NRBTMG. Exelon will bring its revisions to the MRC meeting scheduled for Sept. 26, Sharon Midgley, the company's director of wholesale development, told the Operating Committee on Sept. 10.

NRBTMG refers to resources used by municipal electric systems, electric cooperatives or electric distribution companies to serve load. They do not participate as supply resources in PJM markets but can be netted against their wholesale load to reduce transmission, capacity, ancillary service and administrative fee charges.

Hot August Spawned 4 Weather Alerts

Soaring temperatures last month spawned four hot weather alerts Aug. 18-21. A feedwater control valve issue also tripped units at Salem 2, creating the first spinning event of the summer.

PJM's Operating Committee met on Sept. 10 in Valley Forge, Pa. | © *RTO Insider*

Manuals Endorsed

Stakeholders unanimously endorsed changes to *Manual 14D: Generator Operational Requirements*, *Manual 36: System Restoration* and *Manual 40: Training and Certification Requirements*.

Staff must update all three manuals to comply with FERC Order 841's energy storage participation mandates.

Manual 14D adds metering requirements specific to energy storage resources, outage reporting requirements and generating unit reactive capability curve specification and reporting procedures.

In Manuals 36 and 40, PJM updated the exception to critical cranking power to include non-hydro energy storage resources and added a lower megawatt threshold for electric storage resource training requirements. ■

— Christen Smith

PJM MIC Briefs

Opportunity Cost Calculator

VALLEY FORGE, Pa. — After a one-month delay, the PJM Market Implementation Committee on Wednesday endorsed two packages to update the RTO's opportunity cost calculator.

The latest *plan* from Dominion Energy and Panda Power Funds would make what the sponsors called "modest improvements" to the calculator and include Manual 15 revisions so that it more closely resembles the Independent Market Monitor's calculator that most stakeholders prefer using. Just under 84% of members voted in favor of the new package.

When polled on PJM's *package* — which maintains the status quo but also makes minor clarifications in Manual 15 — 51% of stakeholders also approved. Both plans will advance to the Markets and Reliability Committee for consideration, with the Dominion/Panda proposal considered first.

Critically, Panda and Dominion withdrew three other proposals that were discussed at the August MIC meeting, including one that eliminated PJM's calculator altogether. (See "Opportunity Cost Calculator Vote Delayed," *PJM MIC Briefs: Aug. 7, 2019*.)

Jim Davis, Dominion Energy | © *RTO Insider*

"We thought that this would be a good compromise," Dominion's Jim Davis said. "We worked with PJM to see what they would be willing to change in a timely fashion."

Monitoring Analytics, however, disagreed that the latest changes made PJM's calculator any more similar to its own and said that Manual 15 changes were unnecessary.

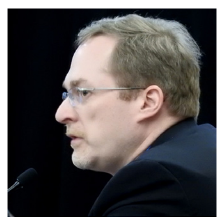
"We think these are modest changes, we agree with that, but this brings us a little closer to the IMM calculator and lets us just focus on further documentation of the IMM calculator," Davis said.

Monitor: Review ARR/FTRs to Improve the Allocation of Congestion Rights

The Monitor told the MIC that the existing constructs for auction revenue rights and financial transmission rights leaves some load zones unable to sufficiently offset their congestion costs.

Zone	ARR Credits	FTR Credits	Balancing+ M2M Charge	Surplus Allocation	Total Offset	Day Ahead Congestion	Balancing Congestion	M2M Payments	Total Congestion	Offset
AECO	$4.9	$0.0	($1.9)	$0.8	$3.0	$11.9	($1.5)	($0.4)	$10.0	30.2%
AEP	$56.8	$38.9	($23.7)	$21.8	$93.8	$129.6	($18.9)	($5.1)	$105.7	88.7%
APS	$40.8	$10.4	($9.2)	$8.9	$50.9	$53.7	($6.9)	($2.0)	$44.8	113.6%
ATSI	$43.3	$0.3	($12.4)	$6.7	$37.9	$64.8	($9.7)	($2.6)	$52.5	72.3%
BGE	$67.2	$1.5	($5.8)	$10.7	$73.6	$26.1	($4.8)	($1.2)	$20.0	367.3%
ComEd	$91.7	$10.2	($17.8)	$17.3	$101.3	$113.0	($12.7)	($3.8)	$96.5	105.0%
DAY	$39.3	$0.5	($3.2)	$1.1	$37.6	$16.1	($2.6)	($0.7)	$12.8	293.5%
DEOK	$7.2	$9.1	($5.0)	$7.7	$19.0	$28.9	($4.1)	($1.1)	$23.7	80.4%
Dominion	$41.5	$44.3	($18.7)	$9.4	$76.6	$10.2	($1.9)	($4.0)	$4.3	1798.6%
DPL	$7.1	$8.2	($3.4)	$7.0	$18.9	$84.4	($14.2)	($0.7)	$69.5	27.2%
DLCO	$9.1	$0.0	($2.5)	$1.4	$8.0	$63.0	($3.3)	($0.5)	$59.2	13.6%
EKPC	$0.0	$0.0	($2.4)	$0.0	($2.3)	$11.8	($1.7)	($0.5)	$9.5	(24.1%)
EXT	$3.4	$0.0	$0.0	$0.5	$3.9	$0.7	($4.8)	$0.0	($4.1)	(95.4%)
JCPL	$2.5	$0.0	($4.2)	$0.4	($1.3)	$24.6	($3.3)	($0.9)	$20.4	(6.2%)
Met-Ed	$7.9	$0.4	($2.9)	$1.3	$6.6	$17.9	($2.6)	($0.6)	$14.6	45.2%
PECO	$21.2	$0.2	($7.5)	$3.3	$17.2	$37.3	($5.7)	($1.6)	$30.0	57.3%
Penelec	$10.9	$4.0	($3.2)	$2.0	$13.7	$21.7	($3.4)	($0.7)	$17.6	77.7%
Pepco	$28.9	$2.0	($5.5)	$5.0	$30.3	$23.6	($4.2)	($1.2)	$18.2	166.3%
PPL	$4.4	$0.0	($7.6)	$0.7	($2.4)	$44.2	($5.9)	($1.6)	$36.7	(6.7%)
PSEG	$40.9	$0.0	($8.1)	$6.3	$39.2	$47.3	($7.0)	($1.7)	$38.6	101.5%
RECO	$0.1	$0.0	($0.3)	$0.0	($0.2)	$2.0	($0.9)	($0.1)	$1.1	(19.0%)
Total	$529.0	$130.1	($145.2)	$112.3	$625.4	$832.7	($120.0)	($31.1)	$681.6	91.8%

Zonal ARR and FTR total congestion offset (in millions) for ARR holders for the 2018/2019 planning period | *Monitoring Analytics*



Howard Haas, Monitoring Analytics | © *RTO Insider*

"There is a significant misalignment between congestion as it has been allocated and congestion as it has occurred," said Howard Haas, chief economist for Monitoring Analytics. "Even if you were to claim all the rights made available to you, you cannot offset all off the congestion assigned to you."

Existing rules generated a 91.8% rate of congestion offset recovery across all of PJM last year, but the rate varies widely from zone to zone, Haas said. For example, Dayton Power & Light only offset 27.2% of its congestion costs, while Baltimore Gas and Electric offset 367.3% of its costs, despite producing significantly different amounts of congestion, according to the Monitor's table.

Both PJM and stakeholders said they were generally supportive of exploring the issue, but some worried the *problem statement* and *issue charge* as presented were "too narrow."

"I believe the GreenHat [Energy] report said we should take a comprehensive look at the FTR/ARR design," said Exelon's Sharon Midgley, noting that the Financial Risk Mitigation Senior Task Force is instead focusing on other credit and risk policies post-default. "This issue charge is leading towards a solution that is perhaps a little too narrow."

Haas said that the key work activities listed in the issue charge provide appropriate room for that discussion. The deliverables would require stakeholders to identify the causes of congestion misalignment and decide whether changes to the market design could fix the problem.

"I would like to keep this more broad," Midgley insisted. "All stakeholders might not necessarily share the same exact view on your description of the problem to be solved here."

Other stakeholders agreed. Vitol's Joe Wadsworth said he would like to see the rolling monthly auction *option* that PJM has presented at prior task force meetings added into the scope of the Monitor's proposed review. The issue charge will be up for approval at the October MIC meeting.

Regulation Historic Performance Score

PJM presented revised Manual 11 language that would address a gap in missing historical performance scores used for regulation market clearing.

The MIC endorsed the manual *changes* in August, but at the MRC on Aug. 22, stakeholders took issue with the proposed value PJM would use when a system failure or other issue prevents the transfer of timely data.

The latest revisions will note that "if no historic performance scores are available from the last three days, then the latest available regulation qualification or regulation requalification test score for each resource by signal type is used." A previous version indicated PJM would use a default value of 1 instead. ■

— Christen Smith

PJM PC/TEAC Briefs

PC Says 'No' to End-of-life Transparency Discussion

VALLEY FORGE, Pa. — The PJM Planning Committee rejected a *problem statement* and *issue charge* on Thursday that sought to bring end-of-life supplemental projects under the purview of the RTO's regional planning process.

American Municipal Power and Old Dominion Electric Cooperative said that although incumbent transmission owners play a major role in planning for the replacement of aging infrastructure, the process "should be broader, more inclusive and more transparent."

TOs have said they don't object to shining a light on their own analyses, but they believe new rules governing increased planning coordination belong in manuals, not the Tariff or Operating Agreement. The TOs also note that many replacement projects benefit from the expertise of local planners — a knowledge source that PJM can't readily access. (See *PJM Members Debate Dueling Tx Replacement Plans*.)

After an extensive negotiating process, AMP and ODEC *modified* the issue charge to drop specific references to the OA, but it wasn't enough to sway majority support. Only 39% of stakeholders approved the document in a sector-weighted vote.

Consumer Advocates: CIP-014 Projects Need More Transparency

The D.C. Office of the People's Counsel wants to create language for PJM's manuals, Tariff and OA that addresses future management of critical transmission assets on NERC's CIP-014 list.

The issue came to a head last month when incumbent TOs asked for feedback on a Tariff attachment that details the process for vetting transmission system enhancements designed solely to remove critical assets from the CIP-014 list, of which fewer than 20 exist within the PJM footprint. NERC reliability standards deem these assets "highly critical … that, if rendered inoperable or damaged due to physical attack, could result in significant grid concerns: widespread instability, uncontrolled separation or cascading."

At the Markets and Reliability Committee meeting in August, Consumer Advocates of the PJM States (CAPS) asked why the attachment wasn't up for stakeholder discussion.

The ensuing conversation revealed concerns among states and load interests that the TOs couldn't provide enough transparency into development of the attachment, leaving yet another subset of supplemental projects "behind a veil." (See *PJM TO Tariff Filing Stirs up Transparency Concerns*.)

"We appreciate the sensitive nature of these projects, but the advocates are wondering why the development of the process wasn't brought through the stakeholder process," said Greg Poulos, CAPS executive director.

Pulin Shah, Exelon | *© RTO Insider*

In the *problem statement* and *issue charge* presented Wednesday, the D.C. OPC said the development of a process that protects confidential information about these assets and still fulfills the requirements of stakeholder participation outlined in PJM's governing documents should involve all sectors. "This is a very sensitive subject," said Pulin Shah, director of transmission strategy and contracts for Exelon. "We are concerned about reverse engineering and determining which assets these are. A lot of the deliverables that are outlined here go into areas that I know I'd be very uncomfortable talking about."

Shah later clarified that TOs have adhered to a standard process outlined in the Consolidated Transmission Owners Agreement, which requests feedback from all stakeholders at least 30 days in advance of a Federal Power Act Section 205 filing at FERC. The TOs have already raised the issue with FERC and state commissions, he said.

PJM offered no opinion on whether the filing violates Tariff and OA rules, though Vice President of Planning Ken Seiler said staff are generally supportive.

"The elephant is in the room, so it's not like we are ignoring it," he said. "PJM conceptually supports the idea of electrically making critical facilities noncritical. We think that's the best thing for this system."

PJM Recommends Sunsetting Offshore Wind Special Sessions

After six special sessions that delved into PJM's process for developing offshore wind projects, stakeholders have opted *against* recommending changes — for now.

John Reynolds, PJM | *© RTO Insider*

John Reynolds, of PJM's resource adequacy department, said 51% of stakeholders preferred the status quo over pursuing changes. Some of those changes included granting merchant TOs temporary capacity interconnection rights (CIRs) or modifying the generation request process and the studies that process involves.

Current rules allow merchant transmission developers to obtain transmission injection and withdrawal rights for DC facilities or controllable AC facilities connected to a control area outside the RTO. Under the problem statement approved in February, stakeholders considered allowing merchant transmission developers to request CIRs, or equivalents, for non-controllable AC transmission offshore. (See "PC Moves Forward on Offshore Interconnection Rights," *PJM PC/TEAC Briefs: Feb. 7, 2019*.)

Reynolds said stakeholders felt the proposed changes gave offshore wind projects special treatment and could interfere with other queue projects. Instead of pursuing further changes, stakeholders said other topics deserved higher priority for the PC and suggested broadening future discussion of offshore wind development. He recommended sunsetting the special sessions for six months.

AEP Supplemental Projects

American Electric Power presented two supplemental *projects* for consideration at Thursday's Transmission Expansion Advisory Committee meeting.

The first involves the second transformer at the Dumont 765-kV substation in eastern Indiana. AEP said the 25-year-old unit suffered a catastrophic failure in 2018.

At the Sullivan 765/345-kV substation in the southwestern corner of the state, AEP is seeking to replace a disconnected failed breaker after discovering the breaker's current transformers were developing combustible gases. ■

— Christen Smith

SPP News

SPP Seams Steering Committee Briefs

Staff Evaluating Procedures After Aug. 6 EEA

SPP staff told the Seams Steering Committee on Wednesday that they are evaluating internal procedures and improving situational awareness for its operators following a level 1 energy emergency alert in early August, the RTO's first since it became a consolidated balancing authority in 2014.

The grid operator called the EEA on Aug. 6 when capacity losses, a "significant" load-forecast error and low wind production led to tight operating conditions. The final straw came at 1:30 p.m., when a 290-MW generator tripped offline.

Load came in 1,500 MW over forecast as temperatures were higher than expected. The system also lost 2,500 MW of capacity in unplanned outages.

The RTO was able to escape the situation by calling on 478 MW of grid-switchable resources in ERCOT and curtailing up to 127 MW of non-firm export capacity.

Operations engineer Ricky Finkbeiner noted SPP was able to avoid making emergency energy transactions, as MISO did in January 2018. (See *Louisiana Regulators Question MISO South Max Gen Event*.) The RTO had secured long-lead resource commitments ahead of time as part of its "uncertainty process."

"The [reliability coordinators] were talking well before the afternoon it occurred," Finkbeiner said.

Real-time prices spiked to nearly $1,500/MWh before non-firm exports were curtailed.

SPP, which had been operating under conservative operations since 9 a.m., issued the EEA 1 at 2:45 p.m. Load peaked at 49,389 MW at 4:24 p.m., with wind and solar energy making minimal contributions (1,553 MW and 140 MW, respectively). Wind production during the EEA was about 7% of its installed capacity.

The emergency event ended at 7 p.m.

The RTO has operated under conservative operations seven times during the summer because of generation outages, higher loads and subpar wind production.

Committee Questions Latest Joint Study with MISO

Following a third unsuccessful attempt by SPP and MISO to agree on joint transmission projects, committee members asked staff why a congested flowgate responsible for almost half of the market-to-market (M2M) settlements between the RTOs wasn't more of a factor in the studies.

The Neosho-Riverton 161-kV flowgate in eastern Kansas has accumulated more than $29.3 million in M2M settlements to SPP since the RTOs began the process in March 2015. That is four times the next nearest flowgate and 45.6% of the overall M2M total.

Staff said the grid operators looked at 25 projects in the area but were unable to find enough benefits to justify a solution. Their latest attempt to determine joint projects ended this summer without success. (See *MISO, SPP Empty-handed After 3rd Project Study*.)

"It seems a lot of needs are showing, but you're not finding projects," said committee Chair Jim Jacoby, of American Electric Power. "Is it that there just isn't enough [adjusted production costs] to justify? Are the calculations skewed?"

"The benefits just weren't there," Interregional Coordinator Adam Bell said. "SPP showed some good benefits, but MISO didn't."

Bell, who will soon leave his position for another in the organization, said modeling differences and how futures are weighed are the "likely culprits" for the inability to find joint projects. He said MISO uses four futures and three model years in its studies, while SPP uses two of each.

He also pointed out that M2M payments and APC are two different metrics. M2M payments capture the effect of market flows compared to firm flow entitlements, while APC captures the impact of pool-wide dispatch.

A recent upgrade to the Neosho-Riverton flowgate expanded its capacity by 20 MW, resulting in "considerably less" congestion this year, staff said.

"We would be remiss not to at least examine the issue," the Missouri Public Service Commission's Adam McKinnie said, suggesting it would be worthwhile to use avoided M2M payments as a benefit, as MISO does for targeted market efficiency projects.

"On the MISO-PJM seam, this project type looks at less expensive projects, requires payback over a short time period and has [been] shown to get results," McKinnie said.

Bell said a final report on the RTOs' 2019 Coordinated System Plan study will be included in the background materials for October's Markets and Operations Policy Committee meeting. An advance copy will be shared with the SSC, he said.


SSC Chair Jim Jacoby, AEP | © *RTO Insider*

July M2M Settlements Nearly Even Out

July resulted in the lowest M2M settlement between SPP and MISO since the RTOs began the process in March 2015, with the latter incurring $35,455 in M2M charges.

Permanent flowgates were binding for 227 hours and resulted in $753,755 in SPP's favor. Temporary flowgates were binding for 323 hours, accounting for $718,300 in MISO's favor.

SPP has accumulated more than $64.3 million in M2M settlements since 2015. The RTO has seen positive settlements in 39 of 53 months through July.

Jacoby Nominated to 2nd Term as Chair

Members nominated Jacoby to serve a second two-year term as the SSC chair. The term, which begins in January and expires December 2021, will be Jacoby's second full term since succeeding Nebraska Public Power District's Paul Malone in January 2017.

Jacoby's nomination will now go before the Corporate Governance Committee for final approval.

The committee elected GridLiance's Bary Warren to remain its vice chair. Both votes were unanimous.

Members also made their first change to the committee's scope since 2016, adding that it will "seek opportunities to coordinate with neighboring stakeholder groups to address issues of common interest, such as market-to-market." The CGC will have the final say on the scope change as well. ■

— Tom Kleckner

Company Briefs

IKEA Owner Investing in Solar in Texas, Utah

The Dutch company that owns and operates 367 IKEA stores around the world announced it reached an agreement with Denmark-based investment firm Copenhagen Infrastructure Partners to acquire a 49% stake in two solar projects in Texas and Utah.

INGKA Holding said the investments are the first off-site solar plants for the company and will consist of 823,000 panels in Texas that are expected to come into operation in January and another 636,000 panels in Utah that will come into operation later this month.

The company expects to reduce more greenhouse gas emissions than it emits by 2030.

More: *Houston Chronicle*

SPP Sets New Peak for Wind Generation

SPP bested its four-month-old wind generation record when output peaked at 16,972 MW on Wednesday. That broke the previous mark, set in May, by 448 MW.

The RTO's total generation at the time of the wind peak was 36,328 MW. SPP has 21,578 MW of installed wind capacity.

ERCOT, which has 22,313 MW of installed wind capacity, holds the grid operator high for wind generation, set in January at 19,672 MW.

Santee Cooper OKs New Energy Plan, Drops Southern Co. Partnership

Santee Cooper's board of directors approved a new business strategy last week, shifting the South Carolina-run utility's energy forecast away from coal and toward solar power and gas-fired plants.

But the board abandoned a proposed cost-saving agreement with Southern Co. after state officials objected to the planned partnership. Mark Bonsall, Santee Cooper's new CEO, wanted to explore ways the two companies could save money by jointly managing their fuel supplies, purchasing, energy trading and coal ash waste.

"I've come to discover there are more kinds of storms in South Carolina than hurricanes, I guess," Bonsall told The Post and Courier. "It's seemed to have gathered quite a bit of attention."

More: *The Post and Courier*

Federal Briefs

Perry Says No Plans to Leave Energy Department

Energy Secretary **Rick Perry** said Friday he had no plans to leave the Department of Energy, responding to long-standing rumors he was looking to find another role or even leave the administration.

"As far as I know, President Donald Trump is very satisfied with my work at the Department of Energy and, as far as I know, has no intention to offer me another job," Perry said during a joint-briefing with the International Energy Agency, which announced it expects the U.S. to become the world's largest exporter of both oil and LNG. "I will stay and do my work and continue to go tell the great story of American energy."

Perry declined to comment when asked if he would stay with the administration if Trump is re-elected in 2020.

More: *Houston Chronicle*

Idaho Lab Partnering with Utilities to Produce Hydrogen

The Idaho National Laboratory is partnering with FirstEnergy Solutions, Xcel Energy and Arizona Public Service to find an economical way to use nuclear energy to produce hydrogen that can be stored and used to power everything from industry to personal vehicles, the Department of Energy announced last week.

DOE officials say the projects are intended to improve the long-term competitiveness of the nuclear power industry by giving it another product to sell.

"They will enable the production of commodities such as hydrogen in addition to electricity from commercial nuclear power plants," said Bruce Hallbert, director of the Energy Department's Sustainability Program at the Idaho National Lab.

More: *The Associated Press*

NRC Audit Finds No Problems with Enforcement Discretion

The Nuclear Regulatory Commission's Office of the Inspector General found that the commission's "exercise of enforcement discretion for nuclear power licensees is timely and appropriately documented in accordance with agency policy and guidance," declining to make any recommendations.

Enforcement discretion refers to special circumstances in which NRC staff may choose not to enforce requirements or regulations upon the request of a plant operator if it could jeopardize safety. "While the enforcement discretion process is infrequently used, it remains a necessary option for safe operation of nuclear power plants," according to the audit.

The OIG found that from 2012 to 2018, NRC approved 27 requests for enforcement discretion and rejected two requests based on insufficient supporting information. "OIG found that enforcement discretion decisions were timely, conducted in accordance with NRC guidance and documented with sufficient information to justify the decision," it said.

More: *NRC Office of the Inspector General*

State Briefs

ARIZONA

Tucson Electric Bills to Rise with Renewable Buildout

Customers of Tucson Electric Power will pay a little more on their bills starting next month under a new renewable energy plan and related surcharge changes approved by state regulators.

The 2019 plan belatedly approved last week by the Corporation Commission allows TEP to spend $54.6 million on renewable energy projects and programs, including major new battery-storage projects.

But TEP is authorized to collect $60.9 million from surcharges customers pay to support the programs, including $6.3 million in carryover costs the utility was unable to collect under its prior renewables plan.

More: *Arizona Daily Star*

LOUISIANA

PSC Approves New Net Metering Rates

The Public Service Commission last week voted 3-2 to adopt new rules that lower the amount traditional utility companies pay individuals for the electricity from rooftop solar panels.

The new rules will essentially relieve investor-owned utilities from paying the retail rate for electricity sold to them by individual consumers who have installed solar panels. Utilities instead will pay avoided-cost rates.

They go into effect on all residents who install panels after Jan. 1; those with panels already installed or get them before the end of the year will receive the current rate.

More: *The Advocate*

MASSACHUSETTS

DPU Warns Columbia Gas over Disconnected Gas Lines

The Department of Public Utilities raised concerns about the status of disconnected natural gas distribution lines Wednesday in a letter to Columbia Gas, warning the company that it could face up to $1 million in fines if it failed to follow its instructions on repairs.

The company disconnected 4,900 lines in the aftermath of the Merrimack Valley ex-

plosions a year ago. While they don't affect customers' service, the issues identified [in the letter] concern the department and indicate violations of department regulations," DPU Chairman Matthew Nelson wrote.

The lines require inspections and potentially additional work to properly cap them, Nelson said. State safety officials set a deadline for the initial phase of quality control work on the lines to be done by Nov. 16. "The department expects, however, that the company will prioritize this work and have it completed sooner," Nelson said.

More: *MassLive*

NEW MEXICO

Counties Pushing Federal Limits for Ozone

Numerous counties in the state are pushing the limits for ozone pollution, prompting the Environment Department to draft attainment plans.

States are required to develop such plans when regions reach 95% of the 70 parts per billion ozone standard, set by EPA. San Juan, Eddy, Lea, Doña Ana, Rio Arriba, Sandoval and Valencia counties all exceed the 95% threshold.

Environmental Analyst Robert Spillers told a public meeting in San Juan County last week one reason the counties are now having ozone readings close to or exceeding standards is because the standards were changed in 2015, from 75 parts per billion. Some of the people who attended the meeting expressed concerns that policies to reduce ozone could harm the oil and gas industry and lead to job losses.

More: *Farmington Daily Times*

TEXAS

Natural Gas Prices Get Lift from New Pipeline Capacity

After enduring months of natural gas prices that moved into negative territory in March and largely remained there until August, Permian producers are starting to see higher prices.

"The long-awaited Kinder Morgan Gulf Coast Express gas pipeline has begun receiving gas as of early August in advance of its full start up expected in September," said Suzie Boyd, founder and president of Caballo Loco Midstream. "This takeaway relief provided by the new pipeline, along with extra hot weather and increased power load, have helped prop up Waha gas prices."

More: *Midland Reporter-Telegram*

WYOMING

Blackjewel Letter Suggests Mines Could Reopen Soon

Out-of-work Blackjewel coal miners in the state received a jolt of hope last week when their bankrupt employer sent letters out hinting at a possible reopening of two idling mines.

"The company is currently considering restarting production efforts at the facilities and, as a result, may be in the position to recall furloughed workers," the letter says. "The company does not know specifically when it would restart production, but if it is in the position to do so, it could restart operations during the next several days or during the coming weeks."

The letter gave workers a deadline of Sept. 19 to respond. If workers do not reply by that time, the company "will assume that you have voluntarily departed from the company, abandoned your position with the company, or have resigned," Blackjewel said.

More: *Casper Star-Tribune*