RTO Insider

Your Eyes and Ears on the Organized Electric Markets

CAISO ▪ ERCOT ▪ ISO-NE ▪ MISO ▪ NYISO ▪ PJM ▪ SPP

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September 24, 2019

FERC to Reshape PURPA Rules

By Robert Mullin

In a major setback for developers of small power projects, FERC on Thursday launched a rulemaking to overhaul its regulations under the Public Utility Regulatory Policies Act, the 1978 federal law enacted to spur competition in the U.S. electricity sector (*RM19-15, AD16-16*).

Thursday's Notice of Proposed Rulemaking signals the commission is aiming for top-to-bottom changes to PURPA, including elimination of a fundamental principle of the rules: fixed-price contracts for qualifying facilities (QFs).

In seeking the changes, FERC is responding to longstanding complaints about PURPA by utilities and the state commissions that regulate them. But the commission has also roused the objections of PURPA supporters and its lone Democratic member, Commissioner Richard

FERC ruled in 2016 that Entergy did not have to purchase power from Occidental Chemical's Taft plant in Louisiana because the PURPA generator had unconstrained transmission access and could sell its output in the MISO wholesale market. | *Occidental Chemical*

Glick, who in a partial *dissent* said the NOPR would "effectively gut" the regulations.

In a *statement* accompanying the NOPR, FERC called the effort its "first comprehensive

Continued on page 6

CAISO, CPUC Warn of 'Reliability Emergency'

Recommend Keeping Aging Gas Plants Operational

By Hudson Sangree

FOLSOM, Calif. — CAISO's Board of Governors on Wednesday heard that the ISO could face capacity shortages as soon as next year if steps aren't taken to address the potential shortfall, including keeping aging natural gas plants from retiring as planned.

CAISO VP Mark Rothleder outlined the potential resource shortage for board members. | *© RTO Insider*

In a *presentation* to the board, CAISO Vice President Mark Rothleder said summer peak demand is shifting from late afternoon to early evening. People now are going home and turning on their air conditioning around 7 p.m., just as solar power peters out, he said.

"The issue is not so much at the peak hour," Rothleder said. "It's at the near-peak hour as the sun goes down."

By next summer there could be insufficient capacity to meet the ISO's system reliability requirements, which include a 15% planning reserve, Rothleder said.

Imports that aren't already under contract could fill the gap, but tightening supply in the West makes those imports unreliable. California's neighbors are using more of their own electricity instead of exporting it, he said.

Rothleder said the shortages could start in

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Also in this issue:

ERO Insider

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SPP Western Reliability Briefs: Week of Sept. 16, 2019

NERC Panel Delays Action on Cold Weather Prep

NERC Agrees to Increase New Committee's Membership

An End to Carbon-based Spinning Reserves?

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In this week's issue

Clarification

A Stakeholder Soapbox *column* in last week's issue by Mark Volpe should have stated that it does not represent the opinion of the Coalition of Midwest Power Producers (COMPP) or any of its members.

Counterflow

By Steve Huntoon

Cue More Pixie Dust

By Steve Huntoon

Environmental advocates decided over the last year or so to fight natural gas generation, notwithstanding the fundamental problems with relying only on renewables and batteries,[1] and the fact that new natural gas, not renewables, is responsible for 90% of the reduction in carbon emissions in places like PJM.[2]

The latest salvo is Rocky Mountain Institute's claim that the bulk of new natural gas generation is/will be uneconomic.[3] Perhaps the advocates hope that if gas investment is scared off, then renewables and batteries become a *fait accompli*.[4]

RMI's study has lots of assumptions and then presents conclusions. Numbers are lacking: It's not possible to validate the data and algorithms. But we can discern at least two major flaws.

Coopting the Hypothetical Low-cost Resources

The first major flaw is that 40 to 50% of RMI's "clean energy portfolio" (CEP) comes from demand response and energy efficiency. For the sake of argument, let's go with RMI's pixie dust assumption that 78.8 GW of new DR/EE resources are available at low cost (page 33).[5]

The problem with RMI's approach is that it assumes these hypothetical low-cost resources are only available to its renewables/battery portfolio and not to a gas portfolio. So let's say DR/EE resources cost $2, renewables/batteries cost $10 and gas costs $8. RMI's approach effectively averages DR/EE's $2 and renewables/batteries' $10 to get $6 and says, aha, that is less than gas' $8. But if you average DR/EE's $2 and gas' $8, you get $5, which is less than $6. Yes, it's that simple.

The bottom line is that the economics that RMI attributes to its renewables/battery portfolio actually come from mixing in low-cost DR/EE that are not unique to that portfolio.

Much later in the report (page 39), we get an apples-to-apples comparison when RMI removes DR/EE from the renewables/battery portfolio. The result is that gas is more economic than renewables/batteries and remains so for a long time.

Supplying the Clean Energy Portfolio with Gas and Even More Coal

The second major flaw is a variation of the pixie dust problem I've written about before. This is apparent from examining RMI's Figure 6 reprinted below:

Looking at the July 20 hours, storage is drawn down, and yet the next day, storage is assumed to start off fully charged to provide maximum capacity for the seven peak hours that day. Where did the electric energy come from to charge the batteries for July 21?

At one point (page 29), RMI says, "In all cases, the CEP generates the energy needed to charge the battery storage." But on the next page, it says it is only considering (emphasis RMI's) "the economics of marginal additions," apparently meaning that traditional fossil generation is assumed to be recharging the batteries.[6] Indeed, that is the only realistic possibility.

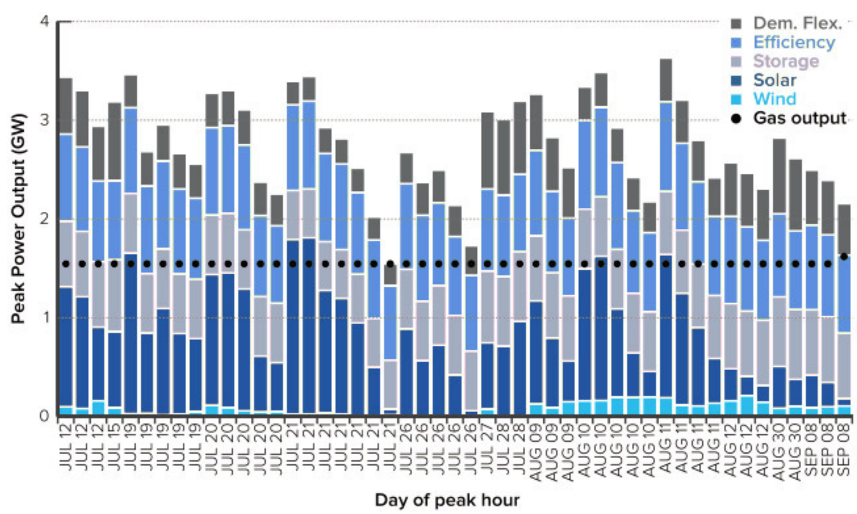
Putting aside the irony of traditional fossil generation supplying a "clean energy portfolio," there is a dilemma. If new gas investment is scared off by RMI and others, then we'll be looking at many years of the existing coal plants continuing to operate as they have in the past, with the added duty of battery recharging. The reduction in carbon emissions we're seeing in places like PJM will come to a halt.

As they say, be careful what you wish for.

A Last Pixie Dust Note

A last note: Look again at Figure 6 below, and focus on the last hour of July 21. RMI is showing that the equivalent of a 1.5-GW gas generator would be matched by: zero wind and a negligible amount of solar; batteries charged with traditional fossil generation; and huge amounts of DR and EE, neither of which are unique to a renewables/battery scenario. In other words, renewables are contributing virtually nothing to matching the 1.5-GW gas generator.

Cue more pixie dust. ■



| Rocky Mountain Institute

[1] My most recent column is here, http://energy-counsel.com/docs/Cue-the-Pixie-Dust.pdf. I've written about the overall battery value proposition before, here http://energy-counsel.com/docs/Grid-Batteries-Kool-Aid-Once-More-with-Feeling-RTO-Insider-12-5-17.pdf, and here http://energy-counsel.com/docs/Battery-Storage-Drinking-the-Electric-Kool-Aid-Fortnightly-January-2016.pdf.

[2] http://energy-counsel.com/docs/NRDC-Prescribes-More-Carbon-Emissions.pdf.

[3] https://rmi.org/insight/clean-energy-portfolios-pipelines-and-plants.

[4] The trade press certainly has taken the bait, e.g., "Gas Plants Will Get Crushed by Wind, Solar by 2035, Study Says," https://www.bloomberg.com/news/articles/2019-09-09/gas-plants-will-get-crushed-by-wind-solar-by-2035-study-says.

[5] New DR/EE resources often are forecasted as "potential" with no basis in reality. As an example of realistic DR forecasting, PJM projects an incremental 744 MW of DR over the next five years, which is 0.5% of peak demand. https://pjm.com/-/media/library/reports-notices/load-forecast/2019-rpm-load-forecast.ashx?la=en (pdf page 8). Of course, it's always possible to hypothesize more DR/EE resources than what otherwise would be, but it's ultimately a question of cost — creating 78.8 GW of incremental DR/EE resources couldn't possibly be low cost.

[6] This less-than-obvious meaning comes from an email exchange with one of the authors of the report.

Affected-system Rules Unclear, FERC Says

MISO, PJM, SPP Questioned

By Christen Smith

FERC told MISO, PJM and SPP last week that their joint operating agreements don't provide enough clarity on how the RTOs' handle generator interconnections along their seams (*EL18-26*).

The commission agreed in part with EDF Renewable Energy and ordered the RTOs to update their JOAs and Tariffs to make the queue priority process more transparent within 60 days of its ruling Thursday. The commission declined the company's related request (AD18-8) to expand the review of affected-system coordination in the generation interconnection process beyond MISO, PJM and SPP, however.

"Because the queue priority processes are not described in their tariffs or JOAs, we find that there is a lack of transparency in MISO, SPP and PJM that makes it difficult for interconnection customers to understand how affected-system network upgrade costs are being allocated to them," FERC wrote. "Requiring the RTOs to detail this information in their JOAs will provide additional transparency to interconnection customers on their potential responsibility for affected system network upgrade costs, thereby reducing uncertainty that may hinder interconnection development."

The order comes nearly 18 months after FERC staff held a technical conference with the RTOs to address the issues raised in EDF's October 2017 complaint that their governing documents, particularly the JOAs, lack details about the timing of affected-system analyses, the standards applied to determine impacts from proposed interconnections and how network upgrade costs are assigned. (See *FERC Orders Review of PJM, MISO, SPP Generator Studies*.)

FERC Order 2003 requires a transmission provider to coordinate interconnection studies and planning meetings with affected systems — electric systems other than the host transmission provider that may be affected by a proposed interconnection.

EDF argued that the lack of clarity regarding the RTOs' delivery requirements and modeling standards violates the commission's requirement for transparent, open-access interconnection service.

FERC said that despite insistence from the RTOs to the contrary, their existing documents lack transparency and cause "harm due to uncertainty" for EDF and other interconnection customers who struggle with decisions about whether to remain in the queue for fear of incurring unknown costs.

| EDF Renewable Energy

"Cost uncertainty presents a significant obstacle to the development of new resources, as some interconnection customers are less able to absorb unexpected and potentially higher costs for interconnection facilities and network upgrades that may occur once affected-system study results are considered," FERC wrote. "This lack of transparency in the current affected-systems coordination process between MISO, SPP and PJM has the potential to hinder the timely development of new resources and thereby to stifle competition in the wholesale markets, resulting in rates that are not just and reasonable or are unduly discriminatory or preferential."

The commission, however, rejected EDF's request that the RTOs unify their modeling systems and study timelines, deeming neither necessary for providing greater transparency.

The RTOs' compliance filings must include:

- Current affected-system coordination processes, including the provision of clear references to where affected-system study information can be found in their business practice manuals;
- A description of the modeling standard (external resource interconnection service or network resource interconnection service) they use to study, as the affected RTO, interconnection customers that request ERIS in the host RTO and interconnection customers that request NRIS in the host RTO;
- The location in their manuals or other coordination documents where interconnection customers can find the modeling details that they use when studying a project as ERIS or NRIS for interconnection requests on their own systems;
- For MISO and SPP specifically, a description of how they study the impacts on the affected RTO and clarify that the each RTO's study criteria apply to its own facilities;
- How the three RTOs monitor each other's systems during the course of each of their interconnection studies;
- PJM's process for monitoring neighboring systems for affected-system impacts; and
- PJM's timeline provided to interconnection customers to review affected-system study results. ■

FERC/Federal News

FERC Shuffles Enforcement Staff, Disbands DEMO

By Michael Brooks

FERC commissioners and staff just prior to the start of the monthly open meeting Sept. 19 | *© RTO Insider*

WASHINGTON — FERC has shifted several employees out of its Office of Enforcement, eliminating the office's Division of Energy Market Oversight (DEMO), Chairman Neil Chatterjee announced Thursday during the commission's open meeting.

DEMO staff responsible for reports examining broad market trends, such as the commission's annual State of the Markets, were transferred to the Office of Energy Policy and Innovation (OEPI), according to FERC. Those responsible for data management support functions in Enforcement's Division of Analytics and Surveillance (DAS) were transferred to the newly created Data Governance Division within the Office of the Executive Director (OED).

The remaining DEMO staff were shifted to other divisions within Enforcement. Employees monitoring and conducting analysis of market power using electric quarterly report (EQR) data and other market data moved to DAS. Staff administering and performing compliance functions related to EQR and financial forms moved to the Division of Audits and Accounting.

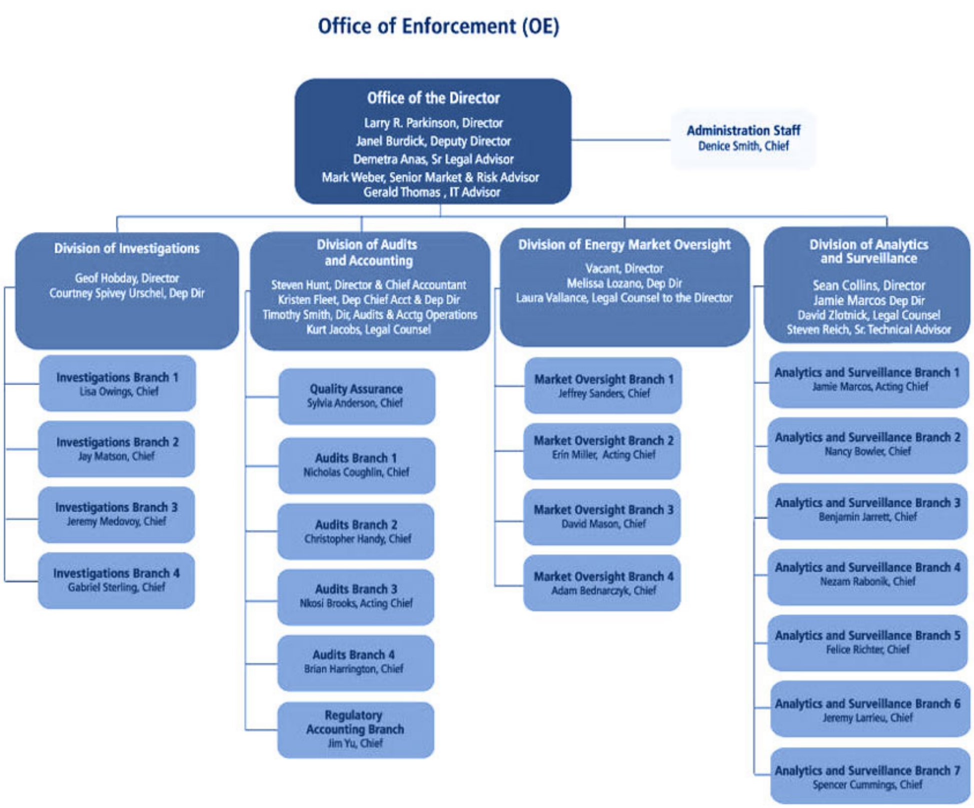
"This reorganization will allow the Office of Enforcement to be more focused on its core mission: continuing oversight of market activities, investigations and audits," Enforcement Director Larry Parkinson said in a statement. "Assessing broader market trends fits squarely in OEPI's mission."

Of Enforcement staff, 9% moved to OEPI and 2% moved to OED, according to FERC. Compliance and market surveillance functions will remain in Enforcement. The office employs 163 full-time equivalents post-reorganization, according to spokeswoman Mary O'Driscoll.

"The reorganization in no way impacts resources needed to address market oversight and compliance activities executed by the Office of Enforcement," FERC said in a statement. Enforcement "maintains sufficient resources to execute comprehensive oversight and compliance activities on behalf of the commission."

"This reorganization makes a lot of sense, and it will create efficiencies and more effectively align staff resources and functions," Chatterjee said at the meeting. Enforcement "will maintain all of the resources it needs to comprehensively address market oversight and compliance."

Noting that he has been critical of the commission for not being aggressive in its enforcement duties, Commissioner Richard Glick rebutted suggestions that the shuffle would "defang" Enforcement. "It seems to me like a simple matter of administrative efficiency, trying to move things around a little bit and make them function a little bit better," Glick said. "If I thought there was something nefarious going on, I think the chairman knows and Commissioner [Bernard] McNamee knows that I wouldn't be shy to talk about it." ■



Organizational chart for FERC's Office of Enforcement as of Sept. 13, before the elimination of the Division of Energy Market Oversight | *FERC*

FERC/Federal News

FERC to Reshape PURPA Rules

Continued from page 1

review" of the regulations since they were implemented 39 years ago.

"It's clearly time for FERC to revisit its PURPA policies," Chairman Neil Chatterjee said. "Congress told us to review our policies from time to time to ensure that our regulations continue both to protect consumers and to encourage the development of QFs. That is precisely what we are doing here."

But in his dissent, Glick said the NOPR suggested that FERC "no longer believes that PURPA is necessary" and warned that it is encroaching on Congress' authority.

"Whether PURPA's goals remain relevant is a decision for Congress, not an administrative agency. The commission should not be seizing the reins from Congress in order to isolate an important debate about national energy policy within an independent regulatory agency," Glick said.

Avoiding Avoided Cost

Chatterjee's words of assurance about QFs notwithstanding, QF developers appear to have much to lose from the outcome of the NOPR. The proposal closely aligns with a set of PURPA recommendations that the National Association of Regulatory Utility Commissioners floated nearly two years ago after complaining about the time and expense of administering PURPA projects. Many commissions have long sought to rein in the volume of PURPA projects, particularly in Western states. (See *NARUC Calls for PURPA Reforms, Outlines Proposed Changes*.)

Reflecting one of NARUC's key priorities, the NOPR zeroes in on what is sacred ground for QF developers: PURPA's requirement that utilities contract with small projects at a fixed "avoided cost" rate — or the incremental cost a utility would have to pay to generate power itself.

QF developers say that requirement is vital to their financial viability, ensuring they receive ample and predictable compensation for their output over a contract period. But utilities and regulators complain that the avoided-cost calculations currently used to set contracts increasingly exceed the steadily declining costs of power available in open markets, unjustly adding to the bills of ratepayers.

While the NOPR wouldn't erase PURPA's avoided-cost provision, it would upend the current rules by eliminating the notion of fixed-cost contracts. FERC says it would provide "flexibility to state regulatory authorities so they can accommodate recent wholesale power market developments." That flexibility would extend to granting states the ability to:

- Require that energy rates — but not capacity rates — in QF power sales contracts vary according to changes in the purchasing utility's avoided costs at the time the energy is delivered.
- Allow QFs to retain their rights to fixed energy rates, but to base them on projections of what energy prices will be at the time of delivery during the term of a QF's contract.
- Set energy and capacity rates based on competitive solicitations conducted in a transparent and nondiscriminatory manner.

The NOPR also proposes to allow state regulators to use LMPs to set the "as available" QF energy rates for resources selling into RTOs/ISOs — or to use competitive prices from liquid hubs to set those rates in areas without organized markets.

In his dissent, Glick expressed concern that elimination of fixed-price contracts "will make it more difficult — or in some cases impossible — for QFs to obtain financing. The option to enter a contract with a fixed or known price has played in essential role in encouraging QF development."

Glick also contended that the contracts "have played an important role in ensuring that QFs receive nondiscriminatory rates, especially in areas of the country with vertically integrated utilities that are guaranteed to recover the costs of their prudently incurred investments through retail rates. Neither the record nor the rationale in this NOPR addresses these concerns in a manner that is even remotely convincing."

The NOPR takes up yet another NARUC recommendation in proposing to modify PURPA's "1-mile rule," which is used to determine whether affiliated QFs located proximate to each other should be considered part of a single larger facility. Regulators in the interior West have complained that large developers have "gamed" the rule by parceling large projects in such a way that they unjustly earn PURPA treatment. (See *PURPA Critics Call for Reforms*.)

While the commission proposes to maintain the "irrebuttable" presumption that facilities 1 mile apart or less constitute a single facility, it calls for giving states the latitude to determine that facilities located more than 1 mile apart, but less than 10 miles apart, could comprise a single facility. Facilities 10 miles apart or more would still benefit from the irrebuttable presumption that they are separate facilities.

The NOPR additionally proposes to eliminate the "rebuttable" presumption that QFs with a net capacity at or below 20 MW don't have nondiscriminatory access to certain markets, replacing that threshold with 1 MW. One exception: The threshold for cogeneration facilities would remain at 20 MW.

FERC is also seeking to require states to establish objective and reasonable criteria

Joshua Kirstein of FERC's Office of General Counsel summarized the commission's PURPA ruling at Thursday's open meeting.

FERC/Federal News

to determine a QF's commercial viability and financial commitment to construction before it is entitled to a contract or legally enforceable obligation. It would also allow an entity to protest a QF self-certification or self-recertification without having to file and pay for a declaratory order.

'Meaningful Evolution'

FERC's newest member, Commissioner Bernard McNamee, issued his own *statement* in support of the NOPR.

"The changes the commission is proposing through this Notice of Proposed Rulemaking are designed to protect consumers while also encouraging the development of alternative generation and cogeneration facilities," McNamee said. "To achieve these ends, the proposed rules will provide state utility regulators more flexibility to rely on market pricing when determining the rates utilities pay to qualifying facilities under PURPA, provide more transparency to interested stakeholders, and extend the benefits of competition to a greater number of consumers."

Support came from other corners of the power sector as well.

"We applaud FERC Chairman Chatterjee for his leadership and for prioritizing PURPA reform," Edison Electric Institute President Tom Kuhn said. "By initiating this important NOPR, Chairman Chatterjee has reaffirmed that there are concrete steps FERC can take to better protect electricity customers from unnecessary energy costs and drive additional investments in renewable energy, all while meeting the commission's responsibilities under the act."

American Public Power Association CEO Sue Kelly said the electricity sector has undergone a "meaningful evolution" in its resource mix since PURPA's enactment. "We applaud FERC for recognizing the need to ensure that PURPA's implementation is aligned with today's energy landscape," she said.

"Today's vote was a much-needed first step in the process of modernizing PURPA," National Rural Electric Cooperative Association CEO Jim Matheson said. "FERC's rules implementing PURPA today promote the uneven, unplanned and uneconomic development of facilities and provide subsidies that promote these facilities at the expense of our members, system reliability and other more affordable resources."

The Electricity Consumers Resource Council (ELCON) was more measured in its endorsement of the NOPR, saying that it supports "thoughtful reform" of the 1-mile rule and "improving avoided cost estimates," while applauding FERC for recognizing that cogeneration facilities are "unique" among QFs. But the group also emphasized that PURPA still plays an "essential" role in encouraging competition.

"The majority of states remain under cost-of-service regulation, where industrial self-supply and competitive power generation face uncompetitive conditions both within and outside of organized wholesale electricity markets," ELCON CEO Devin Hartman said. "It is imperative that FERC proceed in a manner that enhances competition and reduces barriers to self-supply in regulated states, whereas loosening PURPA implementation would run counter to FERC's stated intent of protecting consumers and preserving competition."

Renewable advocates expressed disappointment in Thursday's development.

Larry Greenfield of FERC's Office of General Counsel answered questions on the commission's proposed PURPA changes.

"Rather than focusing on PURPA's goal of ensuring competition, this proposed rule will have the effect of dampening competition and allowing utilities to strengthen their monopoly status," said Katherine Gensler, vice president of regulatory affairs for the Solar Energy Industries Association. "The proposed rule is a move away from competition, and we hope FERC rethinks the most harmful portions of this proposal. We will continue to push for PURPA reforms that increase competition, transparency and enforcement."

Comments on the NOPR will be due 60 days after its publication in the *Federal Register*. ■

CAISO Takes Step Toward EIM Day-ahead Market

ISO Names Members of EIM Governance Review Committee

By Hudson Sangree

The effort to expand CAISO's Western Energy Imbalance Market from a real-time trading platform to a day-ahead market took a significant step forward Wednesday, when members of the ISO's Board of Governors and the EIM's Governing Body said they supported launching a stakeholder process in October.

The first step will be an issue paper. Then the stakeholder process is expected to continue well into next year, said Keith Casey, CAISO's vice president of market and infrastructure development. It will address issues such as resource sufficiency in a tightening Western market and interstate transmission challenges, ISO staff said.

Board Chair David Olsen and EIM Governing Body Chair Carl Linvill gave their verbal support to the stakeholder process; there was no formal vote. The occasion was a briefing on the results of an eight-month feasibility study of the extended day-ahead market (EDAM).

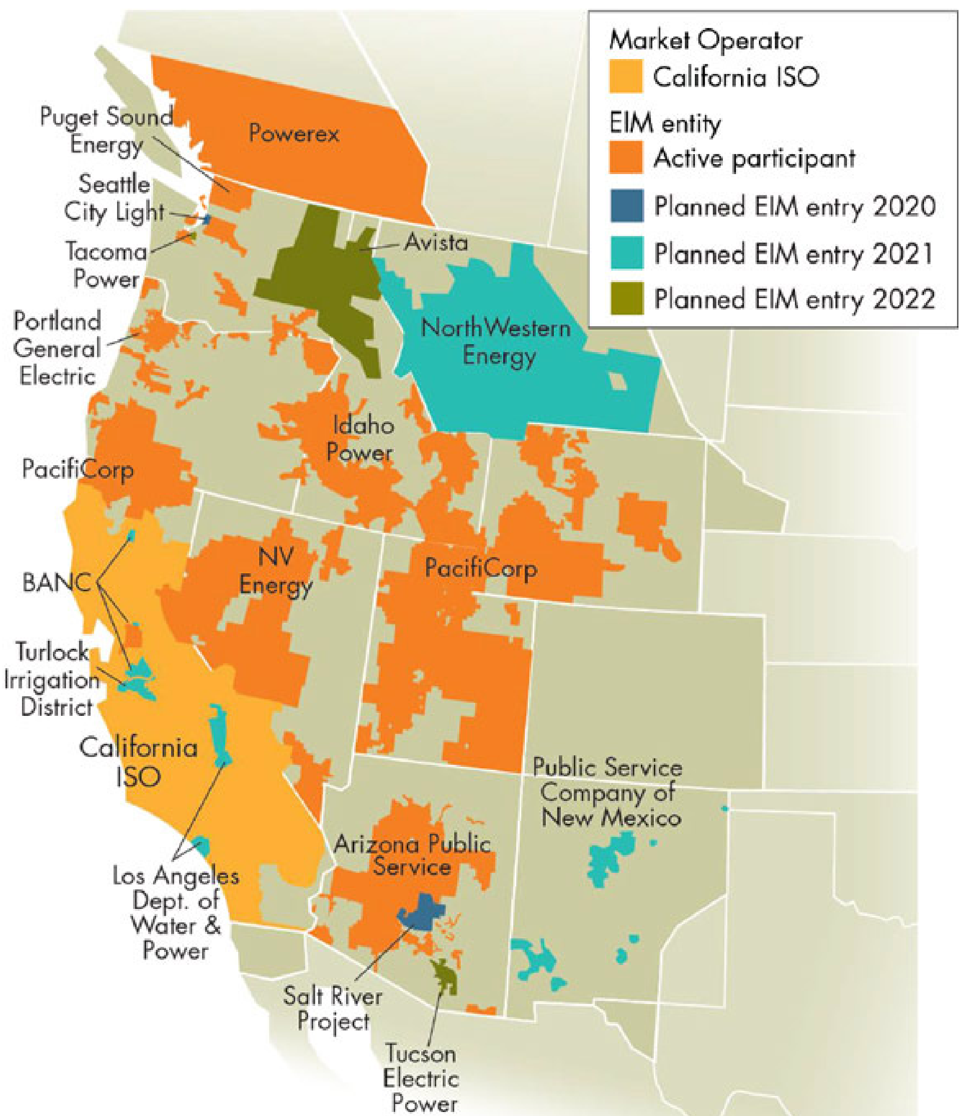
Fourteen current and future EIM entities, in addition to CAISO, participated in the assessment.

The non-CAISO entities wrote a *joint letter* to ISO and EIM leaders emphasizing they have not committed to the EDAM and want to make sure it addresses a number of concerns, including the continued independence of the Governing Body and the representation of a range of interests from across the West.

A continuing worry among EIM participants is that California politicians and CAISO might try to dominate the regional market. CAISO's bid to form a Western RTO stalled in part because CAISO's governors are appointed by the governor and approved by the State Senate.

"The issues to be resolved to make EDAM a reality should not be underestimated," the entities wrote. Those that signed the letter included Arizona Public Service, Idaho Power and PacifiCorp.

"Governance structures must be considered that reflect the new market design and the legitimate interests that all within the broader market footprint will have in the operation and rules of the day-ahead market," it said. "In addition, it is likely EDAM will need to include a test to ensure that all participating balancing authorities are not leaning on neighbors to meet their continued reliability obligations."



| CAISO

Estimated Benefits

A goal of the feasibility study was to estimate the financial benefits to EIM participants to gauge their potential level of interest, Mark Rothleder, CAISO vice president of market quality, told the board and Governing Body.

The EIM has continued to rapidly draw new members, but some entities from the interior West have cited the economic bonuses as their primary motivation while lamenting the tie to California. The uneasy political alliance is part of the reason SPP recently launched its own Western Energy Imbalance Service. (See *WAPA, Basin, Tri-State Sign up with SPP EIS*.)

Rothleder said the study group and its consultants, E3 and Brattle Group, had projected the operational benefits of a day-ahead market at $119 million to $227 million annually, which he called a conservative estimate. (In their letter, the EIM entities pointed out that the estimate doesn't consider how "benefits may be reduced should only a limited number of EIM entities elect to participate in EDAM.")

The expected financial benefits will come partly through more efficient day-ahead hourly trading and better use of available transmis-

CAISO/West News

sion in an organized market, according to Rothleder's *presentation*.

The EIM says its real-time market has saved participants more than *$736 million* since it began in 2014.

A day-ahead market could limit the curtailment of excess renewable resources by up to 2 GWh a year, sending energy where it's needed and producing tens of millions of dollars in additional revenue for generators, Rothleder said.

Environmentalists have generally supported regional markets as a way to maximize the sharing of renewable resources, for example, by sending wind energy from New Mexico to California and solar power from California to the Pacific Northwest.

Jennifer Gardner, senior staff attorney with Western Resource Advocates and a member of the committee that nominates Governing Body members, praised the move in news release. Adding a day-ahead market to the EIM would "allow utilities to better plan for and optimize renewable energy use on the grid through more efficient unit commitment and more effective integration of variable energy resources across a larger footprint," Gardner said.

Sarah Edmonds, transmission director at Portland General Electric, and Jim Shetler, general manager of the Balancing Area of Northern California, were part of the assessment team. They spoke at Wednesday's meeting and acknowledged the challenges and effects of a day-ahead market that stretches across the Western Interconnection.

"This is going to be significant and complex," Edmonds said. "It could have consequences for the Western market as a whole."

CAISO's Board of Governors and the EIM Governing Body met jointly Wednesday. | © *RTO Insider*

EIM Governance Review

The board and Governing Body also named 10 *members* of a committee to review the governance structure of the EIM, as required by the market's original charter. (See *CAISO OKs EIM Governance Review*.)

The charter recognized that the EIM would evolve over time, and the expansion to a day-ahead market could necessitate governance changes, said Stacey Crowley, CAISO vice president of external affairs.

Members named to the Governance Review Committee (GRC) included Gardner; Therese Hampton, chair of the EIM's Regional Issues Forum and executive director of the Public Generating Pool in the Pacific Northwest; and Eric Eisenman, PG&E's director of ISO and FERC relations.

Their colleagues nominated Governing Body member Valerie Fong and CAISO Governor Angelina Galiteva as representatives to the GRC.

Board Chair Olsen said he's hoping to add another member from the EIM's investor-owned utilities because he felt the committee was light on IOU representation.

The committee will eventually include 11 to 13 members, said Peter Colussy, CAISO manager of regional affairs. ■

CAISO/West News

CAISO, CPUC Warn of 'Reliability Emergency'

Recommend Keeping Aging Gas Plants Operational

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2020 with a 2,300-MW shortfall at 7 p.m., increasing to 4,400 MW in 2021 and 4,700 MW in 2022. The problem could worsen when Pacific Gas and Electric's Diablo Canyon Power Plant, the state's last nuclear generating station, shuts down in phases starting in 2024, he said.

California is on an ambitious push to use carbon-free energy, but to avoid a crisis it may be necessary to prevent older natural gas peak plants from shutting down, Rothleder told the board.

"We've got the last tranche of once-through cooling scheduled for retirement" near the end of 2020, Rothleder said. Those plants can generate about 4,000 MW, he said.

Once-through-cooling (OTC) plants are being phased out because they use water from oceans and estuaries, killing billions of marine organisms including fish larvae and shellfish, according to the *California Energy Commission*.

"We need to get on the track of procurement" to generate more energy, Rothleder said.

Increasing wind and geothermal energy production, and adding more short- and long-term storage, would provide energy after sundown without greenhouse gases, he said.

Left to right: CAISO Governors Angelina Galiteva, Severin Borenstein, Chairman David Olsen and Ashutosh Bhagwat. | © *RTO Insider*

In public comments Wednesday, speakers encouraged the board to move quickly to address the resource adequacy problem.

"We urge the ISO to continue to work on this expeditiously. Soon. Now. Not later," said Eric Eisenman, PG&E's director of FERC and ISO relations.

Board Chair David Olsen responded, "This is obviously our top priority. Front and center for us."

Edward Randolph, director of the California Public Utilities Commission's Energy Division, told the board that the commission also is acting on the threat.

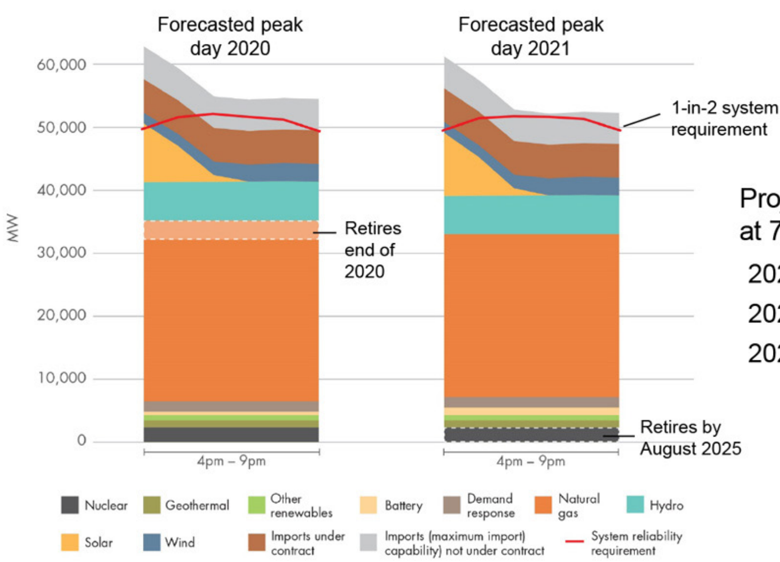
"We do take what is being raised here today pretty seriously," Randolph said.

On Sept. 12, a CPUC administrative law judge issued a *proposed decision* requiring load-serving entities in Southern California Edison's service area to procure 2,500 MW of additional resources between August 2021 and August 2023. ALJ Julie Fitch also recommended keeping the OTC plants operating, a decision that's ultimately up to the state Water Resources Control Board.

"Procurement shall be conducted on an all-source basis, including both existing and new resources, and may include LSE-owned resources when justified," Fitch wrote.

"The commission should act now to forestall a potential system reliability emergency by 2021 and require 'least regrets' actions with respect to OTC deadlines and LSE procurement," she said.

The CPUC could vote to adopt the decision as early as Oct. 24, it said. ■



| CAISO

CAISO/West News

Electric Bills Go to California Governor

By Hudson Sangree

One bill sent to California Gov. Gavin Newsom could affect the potential purchase by San Francisco of PG&E's electric grid there.

SACRAMENTO, Calif. — One of the biggest energy-related bills of the year in California shot through the State Legislature earlier this summer, well ahead of lawmakers' Sept. 13 deadline to pass legislation, but other note-worthy electricity bills landed on the desk of Gov. Gavin Newsom in recent days.

Among them was *SB 520*, which reworks the notion of the provider of last resort (POLR) in the face of the state's fast-changing electricity landscape. Traditionally, California's three big investor-owned utilities have filled that role. But with the emergence of community-choice aggregators (CCAs), lawmakers decided the old rules needed updating. (See *Calif. Lawmakers Reveal Growing Divisions over CCAs*.)

The bill would let CCAs be the POLRs in their service territory, contingent on approval by the California Public Utilities Commission. State Sen. Bob Hertzberg (D) authored the bill.

Another measure, *SB 550*, conceivably could help shepherd the sale of PG&E Corp.'s assets in bankruptcy to the city of San Francisco or other public entities hoping to buy. San Francisco on Sept. 6 offered the bankrupt utility $2.5 billion to sell its wires and poles. (See *PG&E Ends Bond Bid as SF Makes Wires Offer*.)

PG&E has made public statements appearing to reject the offer but leaving the door ajar. It said selling its San Francisco wires wasn't in the best interests of the company and its shareholders but that it remained open to discussing the matter with the city.

Under current law, the CPUC must evaluate the sale or merger of utility assets based on the net benefit to ratepayers. SB 550 would require the commission to also review the acquisition of an IOU's assets based on safety criteria. It also specifies that the commission's review would apply even if the sale is to a public entity, such as a city.

But the bill would also let the CPUC delay its implementation until July 2021, meaning SB 550 may not apply to PG&E if it becomes law — and the utility decides to accept the city's offer. PG&E must conclude its bankruptcy reorganization by June 30, 2020, to access a $21 billion wildfire recovery fund.

Two measures authored by Sen. Steven Bradford (D) — a former public affairs manager for Southern California Edison and member of the Energy, Utilities and Communication Committee — bear on the state's long-term clean-energy goals.

SB 676 seeks to ensure that adding millions of electric vehicles in coming years won't overtax the grid and lead to greater need for fossil-fuel generation. It would instruct the CPUC to establish strategies and metrics to integrate EVs, including time-of-use rates that encourage charging during the "belly" of the state's so-called duck curve, when there's a glut of cheap solar power in the middle of the day.

Bradford's *SB 155* would require the CPUC to monitor the renewable portfolio standards of load-serving entities to make sure they're meeting their goals. The larger goal is for the state to rely on zero-carbon energy sources by 2045, as required by last year's SB 100.

Newsom has yet to sign the four bills, as of press time. The governor has until Oct. 13 to approve or veto measures sent to him this legislative session. Of the 2,600 bills introduced this year, more than 100 dealt with electricity, but only about a quarter of those measures passed. ■

FERC Order Briefs: CAISO/West

Rehearing Denied in Asset Management Cases

FERC denied rehearing of two 2018 orders that concluded that Order 890's transparency provisions do not apply to "asset management" projects that provide only "incidental" increases in transmission capacity.

One case involved Southern California Edison's Transmission Owner Tariff amendment implementing an annual transmission maintenance and compliance review process (*ER18-370-002*). The other concerned Pacific Gas and Electric (*EL17-45-001*). (See *'Asset Management' not Subject to Order 890, FERC Rules*.)

Sempra Affiliate Sale Approved

The commission approved Sempra Gas & Power Marketing's request to sell resource adequacy capacity at market-based rates to its affiliate, San Diego Gas & Electric (*ER19-2422*).

FERC said that a competitive solicitation and benchmark evidence filed by the companies ensured there was no affiliate abuse.

Refund Report OK'd

FERC accepted a refund report filed by Panoche Valley Solar to address its unauthorized wholesale sales of electric power made before receiving commission approval (*ER18-855*). The commission authorized CAISO to distribute the $58,107 refund on a pro rata basis to all market participants that paid its grid management charge during the refund period, Oct. 31, 2017, through April 14, 2018.

206 Proceeding in Idaho Power Market Power Case

The commission ordered a proceeding under Federal Power Act Section 206 to determine whether Idaho Power may continue to charge market-based rates in the Idaho Power balancing authority area (*ER10-2126-005*).

The company's updated market power analysis passed the pivotal supplier and wholesale market share indicative screens in the Avista, Bonneville Power Administration, Nevada Power, NorthWestern Corp., PacifiCorp-East, and PacifiCorp-West BAAs and in CAISO's Energy Imbalance Market.

But it failed the wholesale market share indicative screen in one season in its own BAA.

FERC said Idaho Power must show cause within 60 days why the commission should not revoke the company's market-based rate authority in its BAA. "In addition to the previously filed delivered price test, Idaho Power may present alternative evidence, such as historical sales and transmission data, to rebut the presumption that it has the ability to exercise horizontal market power in the Idaho Power balancing authority area," the commission said.

As an alternative, Idaho Power may file a mitigation proposal to eliminate its ability to exercise market power or agree to accept cost-based rates, the commission said.

TEP Rebuffed on Tx Cost Recovery

FERC rejected Tucson Electric Power's request for 100% recovery of prudently incurred costs on the abandoned 345-kV Sahuarita-Nogales transmission project, saying it is entitled to only 50% (*ER19-2023*).

The project was delayed for years over siting issues, and in 2012, the Arizona Corporation Commission found it was no longer economically justified because of reduced load forecasts and UNS Electric's improvements to its electric system, including a proposal to upgrade an existing 115-kV line to 138 kV to address reliability issues in Santa Cruz County.

The commission rejected the 100% request authorized by FERC Order 679, saying that the company's work on the transmission project "largely took place prior to" the issuance of the order in 2006.

Instead, FERC said the company can recover 50% of its prudently incurred abandonment costs. The commission established a hearing and settlement procedure to determine the costs to be included and the appropriate amortization period. ■

— Rich Heidorn Jr.

CAISO/West News

Judge to Hear PG&E Takeover Plan

Bondholders, Fire Victims Band Together

By Hudson Sangree

The judge overseeing PG&E Corp.'s bankruptcy case will probably get an earful Tuesday from lawyers advocating for two warring reorganization plans.

One was drafted by PG&E and its utility subsidiary Pacific Gas and Electric, the debtors in the case. It proposes using $14 billion in new equity financing to pay off wildfire claims and to emerge from bankruptcy by June, in time to take advantage of a new $21 billion wildfire recovery fund established by the California State Legislature. (See *PG&E Offers $16.9B for Wildfire Claims in Chap. 11 Filing*.)

The other is by PG&E's unsecured bondholders, which recently partnered with fire victims. The bondholders propose injecting billions of dollars of cash into PG&E and paying $24 billion to settle wildfire claims in exchange for a controlling stake in California's largest utility and full payment of their notes.

The bondholders and victims made an impassioned plea for their plan in a *joint filing* Thursday. It says PG&E's proposal essentially is a sham offer intended to delay proceedings while benefiting one of the utility's largest shareholders. That shareholder, a high-risk hedge fund from Boston called Baupost Group, bought up billions of dollars in claims from insurance companies, known as subrogation claims, which PG&E recently agreed to settle for $11 billion. (See *PG&E and Insurers Agree to Settle Wildfire Claims*.)

Tulips bloomed this spring in a neighborhood of Paradise, Calif., leveled by the Camp Fire last November. | © RTO Insider

Fire victims would get about $8.4 billion for damages stemming from November's Camp Fire, the deadliest in state history, and a series of fires in Northern California wine country in October 2017.

That means even if Baupost loses money on its PG&E stock, much of which it bought for three or four times its current worth, the hedge fund can still make a killing on PG&E's payments for fire damages, the bondholders and victims argued.

"The settlement of the subrogation wildfire claims will enrich Baupost enormously at the expense of individual wildfire victims that have suffered actual loss," the joint motion says. "Baupost is reported to hold more than $3.3 billion in subrogation wildfire claims, much of which, upon information and belief, was purchased at approximately 35% of face value. [PG&E's plan] would pay Baupost's claims at roughly 59% of face value, allowing it to reap hundreds of millions of dollars in profit from the debtors' plan, at the expense of actual wildfire victims."

PG&E said in a news release that the plan by bondholders, led by Elliott Management Corp. of New York and fire victims' lawyers, is "a blatant attempt to unjustly enrich the noteholders who proposed it. The Elliott proposal would cost all PG&E customers billions of dollars in additional interest payments over 15 years – while providing an unfair windfall for the noteholders and plaintiffs' attorneys."

The bondholders and fire victims, called the Ad Hoc Committee of Senior Unsecured Noteholders and the Official Committee of Tort Claimants, asked U.S. Bankruptcy Court Judge Dennis Montali to end PG&E's period of exclusivity, the time it has to file its own reorganization plan without interference. That period is set to end by the end of this month if Montali doesn't extend it.

The judge will have to begin to sort through the arguments at Tuesday's hearing in San Francisco. The parties to the case are all trying to move it along so PG&E can benefit from the state wildfire fund.

The California Public Utilities Commission, which also must approve a reorganization plan, will need months to consider it, adding to the time pressure. The CPUC is scheduled to consider a *proposed order* to begin an investigation of PG&E's reorganization plan, and its effects on ratepayers, at its meeting Thursday. ■

CAISO/West News

San Diego OKs Community Choice Plan

Other Cities to Join, Forming State's 2nd Largest CCA

By Hudson Sangree

The city of San Diego and neighboring cities are trying to form a CCA that would be California's second largest.

The San Diego City Council last week approved a plan to create California's second largest community choice aggregator and the first providing electricity to all the customers of a major city.

"Today represents a monumental opportunity," San Diego Mayor Kevin Faulconer told the council as he introduced a plan that's been working its way through city government for the past year.

"Community choice is really the culmination of our climate efforts," he said. "We will have full control about where we purchase power from, and it will be clean energy."

The *joint powers agreement and ordinance*, approved by a 7-2 vote, require the CCA to obtain all its energy from carbon-free sources by 2035, ahead of the state's 2045 clean-energy timeline established in last year's Senate Bill 100.

San Diego Gas & Electric, a subsidiary of Sempra Energy, has been the city's monopoly electricity provider for decades, but Sempra has expressed interested in getting out of the retail electricity business and becoming a wires-only company.

"SDG&E is here to support the city of San Diego," Vanessa Mapula Garcia, public affairs manager at SDG&E, told the council. "We support customers' right to choose."

The company will continue providing transmission and distribution services to the city, as it has done for more than a century.

The new entity, tentatively called the San Diego Regional Community Choice Authority, will likely include a dozen other communities in the San Diego region. The cities of Encinitas and Chula Vista, with a combined population of more than 300,000, have already voted to join, and others are expected to follow suit. San Diego, the state's second largest city, has a population of 1.4 million; San Diego County totals 3.3 million.

Sempra Energy building in San Diego, Calif.

California currently has 19 CCAs, and other areas around the state are considering forming CCAs to purchase and provide power, displacing investor-owned utilities in that role. The state's largest CCA, the Clean Power Alliance in the Los Angeles area, has about 1 million customer accounts and 3 million customers.

The first CCA established, following the passage of a state law allowing CCAs in 2002, was Marin Clean Energy, formed in 2010.

State officials have expressed concern about the rapid spread of CCAs and their potential effects on reliability and resource adequacy in the areas they serve. On Aug. 30, however, a group of California stakeholders filed a plan with the California Public Utilities Commission that would replace the state's current resource adequacy framework with a "central buyer" responsible for procuring resources for multiple years.

The central buyer proposal is the product of a settlement agreement that includes SDG&E, Calpine, the Independent Energy Producers Association, Middle River Power, NRG Energy, Shell Energy North America, Western Power Trading Forum and CalCCA, which advocates on behalf of the state's growing number of CCAs. (See *Calif. Participants Float 'Central Buyer' RA Plan*.) ■

Renewable Backers Decry Vineyard Wind Delay

Skeptics Suspect Other Interests Driving Federal Go-slow Policy

By Michael Kuser

A panel addresses offshore wind energy issues to the Environmental Business Council of New England on Sept. 10 in Providence, R.I. | *© RTO Insider*

PROVIDENCE, R.I. — New England renewable energy advocates are skeptical of federal officials' claims to be acting in the public interest by delaying the final permits for the Vineyard Wind project in Massachusetts, raising the question of whether the Trump administration is slow-walking offshore wind approvals.

Early this summer, the project's biggest obstacle appeared to be local, after the Edgartown Conservation Commission denied a permit for the project's cables to come ashore on Martha's Vineyard. (See "Land Ho is Wind Woe," *New England Officials Speak on Grid Transformation*.)

But challenges rose to the federal level last month when the Bureau of Ocean Management announced it would postpone a final environmental impact statement and extend the project's permitting timeline to conduct an expanded analysis of "cumulative impacts" from the multiple offshore projects proposed for New England.

Participants at a Sept. 10 Environmental Business Council of New England (EBCNE) meeting on Vineyard Wind questioned the federal government's rationale for the delay.

Curt Spalding, IBES | *© RTO Insider*

"For years, we asked for cumulative impacts in things like port development, LNG facility development, energy development in general; and FERC said, 'No, we never do that; we never ask how many ports do we really need. ... One port rises and falls on its own merits,'" said the Institute at Brown for Environment and Society's Curt Spalding, a former EPA regional administrator for New England during the Obama administration.

Spalding said the federal review under the National Environmental Policy Act "is not simply a written, hard and fast scientific process. The key decisions are made along the way by regulators that obviously look at all the data that NEPA generates. But let's be honest: It's a very politicized process in a lot of cases."

As evidence of an overall strategy to delay development of renewable energy, and in particular offshore wind, Spalding pointed to apparent short-staffing at the National Oceanic and Atmospheric Administration, which he said "has not been given any resources to do all the reviews that we're talking about. It's a joke; it's absurd. They're being asked to review I don't know how many projects, but they're given no resources."

Every Hour Matters

A joint venture between Avangrid Renewables and Copenhagen Infrastructure Partners, Vineyard Wind in May 2018 won a contract to supply Massachusetts with 800 MW of offshore wind energy. Later that year it won another lease area off Martha's Vineyard in an auction conducted by BOEM. The company last month bid for the state's second solicitation by offering several options on up to 800 MW in additional offshore wind energy.

Rachel Pachter, Vineyard Wind | *© RTO Insider*

Rachel Pachter, vice president of permitting affairs at Vineyard Wind, described the path to construction of the large project, which could ultimately generate as much as 3,200 MW. Asked about the BOEM delay, Pachter said, "The issue as we understand it is not specifically at all about Vineyard Wind. ... This is about the other projects and their development, and them wanting to do a more comprehensive cumulative impacts analysis of all of those in order to better understand where the industry's headed."

"So they are not coming back to you asking for more information?" EBCNE President Daniel Moon asked.

"They're coming back and asking for money, since we pay for a third-party contractor, but it's really about future projects," Pachter said. "They actually have all the information they need on Vineyard Wind.

"An important way to think about offshore wind farms, the way we think about them, is they're really, really big logistics projects," she said. "What matters most to us is how we can build this most efficiently, spend the least amount of time offshore and get everything done before the [winter] weather.

"Our windows to work are extremely critical. You can lose an entire year, and when we have vessels with half-a-million to million-dollar [per] day rates, these are all extremely critical to construction of the project. Every hour matters to us. And on the opposite side, making

ISO-NE News

space for the right whale, to make sure that's protected."


Andrew Gottlieb, APCC | © RTO Insider

Andrew Gottlieb, executive director of the *Association to Preserve Cape Cod*, said that "moving the goalposts of the regulatory process is nothing more than a cynical attempt by the administration to delay offshore wind development in general."

"The senior levels of the federal government are really being captured by oil-and-gas-industry interests who see the potential for large-scale wind being a threat to wringing out the last nickel of what would otherwise be known as stranded assets," Gottlieb said.

Responding to the claims of critics, BOEM spokesperson Tracey Moriarty told *RTO Insider*: "Because BOEM has determined that a greater build out of offshore wind capacity is reasonably foreseeable — more than what was analyzed in the initial draft [environmental impact statement] — BOEM has decided to supplement the draft EIS and solicit comments on its revised cumulative impacts analysis."

NOAA backed BOEM's view, asserting that the agency "is committed to ensuring fishing activities and offshore renewable energy interests can operate in harmony," according to agency spokesperson John Ewald. "We appreciate BOEM's desire to strengthen their analysis and more fully address the cumulative impacts of offshore wind activities through development of a supplemental environmental impact statement."

NOAA did not address the contention that it has inadequate resources to expedite project reviews.

Good Jobs, Good Boats and more

The EBCNE meeting also featured a panel that provided a flavor of the logistical complexity of building a wind farm.


Maria Hartnett, Epsilon Associates | © *RTO Insider*

"Throughout this multiyear review period, there has been a considerable amount of attention focused on Vineyard Wind because they are the first project, the project that's farthest through permitting," said panel moderator Maria Hartnett, of consulting firm Epsilon Associates, which has been working on Vineyard Wind for two years.


Priscilla Brooks, CLF | © *RTO Insider*

Priscilla Brooks, vice president and director of ocean conservation at Conservation Law Foundation, said, "Our approach to offshore wind has been one of wanting to see this industry advance, with a focus on siting projects ... how to site them in an environmentally sensitive way and also ensure that they get a fair environmental review."

Jill Rowe, director of ocean science at consultancy *RPS Group*, which has been working with the project since 2017, said the company has done "many of their [construction and operations plan] sections, have provided permitting support ... but there's a lot of science." She said RPS has brought its experience from the oil and gas industries to the offshore world. ■


Jill Rowe, RPS | © *RTO Insider*

ISO-NE News

FERC: NH Bill Encroaches on Fed. Powers

By Rich Heidorn Jr.

A New Hampshire law that requires the state's utilities to purchase power from biomass and waste generators encroaches on federal jurisdiction under the Federal Power Act and the Public Utility Regulatory Policies Act, FERC ruled Thursday (*EL19-10*).

The commission granted a petition for declaratory order requested by the *New England Ratepayers Association* over the New Hampshire statute, Senate Bill 365, which requires electric distribution companies to purchase power from biomass and waste generators within their service territories, with the price equal to 80% of the default retail rate.

Seven biomass or waste generators with a capacity of 25 MW or less qualified for contracts under the law, all within the territory of Public Service Company of New Hampshire (PSNH). PSNH was previously given relief from its mandatory purchase obligation under PURPA and is not required to purchase from qualifying facilities over 20 MW.

In its ruling Thursday, the commission agreed with the ratepayers' group that the New Hampshire law is pre-empted by the FPA because it establishes a wholesale rate for energy and violates PURPA because the price exceeds the avoided-cost rate.

The commission said the law encroached on federal jurisdiction the same way Maryland's contract for differences on a state-sponsored gas-fired generator did, a policy that was struck down by the Supreme Court in *Hughes v. Talen* in 2016. (See ***Supreme Court Rejects MD Subsidy for CPV Plant***.)

"Although the facts here differ from *Hughes*, we conclude that the result is the same because SB 365 does explicitly what the Maryland program in Hughes did implicitly. Whereas the Maryland program overturned in Hughes established a wholesale rate by adjusting the revenue that the generator received in the PJM auction to reflect a predetermined rate, SB 365 directly establishes a predetermined rate and requires utilities within the state to offer to purchase electricity at that specific state-established rate. We find that the logic of the court's opinion in Hughes applies with equal force here."

The commission said the law is also "inconsistent with" PURPA because 80% of the default energy rate exceeds PSNH's avoided cost, which the New Hampshire Public Utilities Commission has said is equal to ISO-NE's real-time market price.

SB 365 was enacted after the legislature overrode Gov. Chris Sununu's veto in September 2018. The challenge to the New Hampshire law was supported by the Electric Power Supply Association and the state Office of the Consumer Advocate.

Opposing the challenge were the state attorney general and several New Hampshire generators: Bridgewater Power Co., DG Whitefeld, Pinetree Power, Springfield Power and Wheelabrator Concord.

New Hampshire had contended the ratepayers' petition was premature because the Public Utilities Commission has not reviewed any contracts under the law.

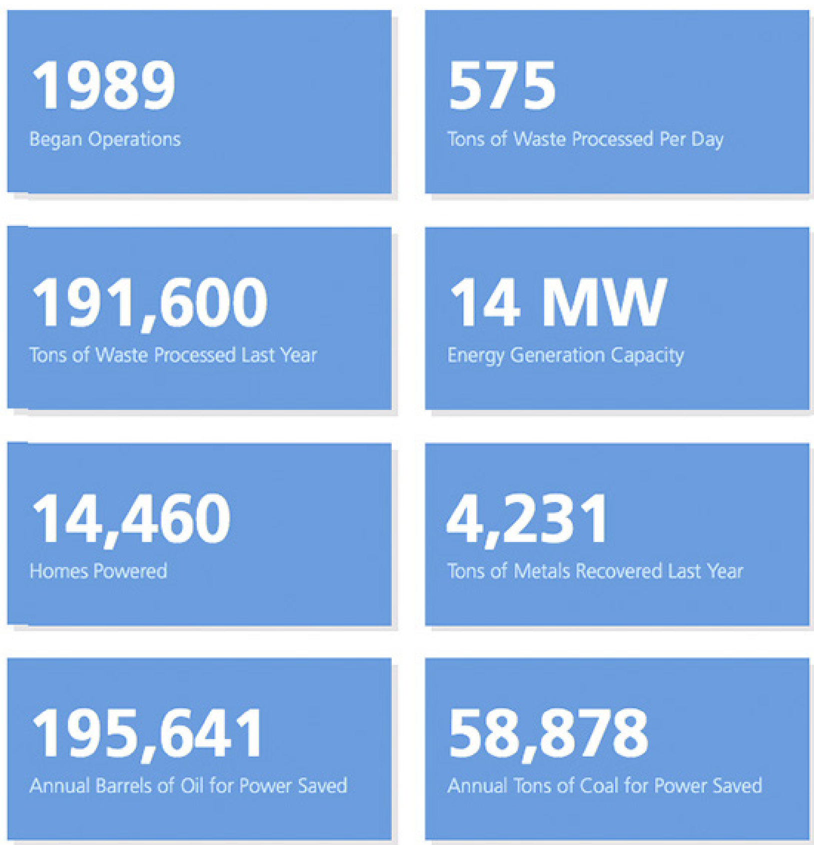
In January, the PUC issued an order saying it would "abstain from deciding the constitutional arguments" by the ratepayers' group. "If we are presented with a question that requires resolution of the pre-emption issue, and if pre-emption has not already been decided by FERC or a court of competent jurisdiction, we will consider certifying the issues to the New Hampshire Supreme Court," the commission said.

In May, Springfield Power, one of the opponents of the ratepayers' FERC case, ***shuttered*** its 17-MW biomass plant.

State Consumer Advocate Donald Kreis said Friday that the biomass plants appealed the PUC's "refusal to turn on the SB 365 money spigot while the pre-emption question was unresolved" to the state Supreme Court.

Initial briefs are due in October. "We will address their arguments in our own brief, due in early November," he added.

However, a lawyer involved in the dispute, who asked not to be identified, said the state Supreme Court proceeding may be moot as a result of FERC's ruling. The next step for the generators would be a request that FERC rehear the case, a prerequisite to appealing the ruling in federal court, the lawyer said. ■



Wheelabrator Concord in Penacook, N.H., can burn up to 575 tons daily of post-recycled waste from homes and businesses, generating as much as 14 MW of power. | *Wheelabrator Concord*

NEPOOL Markets Committee Briefs

Fuel-security Reliability Review Refinement Approved

The New England Power Pool Markets Committee voted Wednesday to amend Market Rule 1 to limit the retention of resources needed for fuel security to a two-year maximum.

One abstention from the Transmission sector was recorded.

ISO-NE's director of NEPOOL relations, Allison DiGrande, delivered a *memo* arguing that "the change will better align the fuel-security retention rules with the ISO's goal for reliability concerns to be addressed through competitive solutions, as it will appropriately limit the time and scope of resources retained for fuel security."

The RTO requested that the change become effective prior to the issuance of the Order 1000 request for proposals targeted for this December. In a *presentation* in August, the RTO said the change "will help prevent uncertainty … in the development of transmission to meet the Greater Boston Needs Assessment."

Price-responsive Demand Clean-up Changes

The MC voted to approve clean-up *revisions* to Market Rule 1 that were identified during the price-responsive demand (PRD) implementation process. One opposition from the Generation sector was recorded.

The RTO's director of demand resource strategy, Henry Yoshimura, presented two sets of Tariff changes that:

- Clarify the energy market offer requirements of demand response resources that participate in the Forward Capacity Market; and
- Eliminate the requirement that ISO-NE publish the quantity of demand capacity resources at the end-of-round price for each capacity zone as the FCA is being conducted.

Yoshimura said the energy market offer change was amended slightly from the version presented on Sept. 4 to address a concern that the original proposal could be interpreted to require a market participant with a capacity supply obligation to submit demand reduction offers into the energy market that include avoided transmission and distribution losses for the non-net supply portion of the offer.

Yoshimura, who said that such a requirement

Henry Yoshimura, ISO-NE | *ISO-NE*

would conflict with another section of the Tariff, said the proposal was amended to avoid any misinterpretation.

Order 841 Manual Changes

The MC also voted to recommend Participants Committee support for implementation of manual *provisions* to encourage electric storage participation in the New England wholesale markets.

One opposition vote from the Generation sector and one abstention from the Supplier sector were recorded.

An RTO development analyst, Catherine McDonough, presented the proposed manual revisions, which also include changes to address a stakeholder concern with how the maximum discharge limit of an electric storage facility is set when it has less than one hour of available energy.

The changes to manuals M-11, M-20, M-35, M-REG, M-RPA and M-36 also include clean-up changes to improve clarity and consistency.

The manual changes pertaining to enhanced storage participation would become effective upon PC approval; the committee's next meeting is Oct. 4. Changes related to FERC Order 841 compliance would take effect in December 2019 while those that address concerns about discharge limit would be effective in two phases in December 2019 and March 2020.

Assessing EE Resource Performance

The MC discussed the Demand Resources Working Group (DRWG) *report* issued in July on the measurement and verification of off-peak hour performance of energy efficiency resources. The RTO currently calculates only on-peak hour performance for EERs, passive, non-dispatchable measures.

Yoshimura presented an *analysis* of five options the working group considered, including calculating a single average hourly demand reduction value for all off-peak hours. Another proposal would shape on-peak savings estimates to all hours based on the relationship between estimated performance under on-peak system conditions (reference load) and all other performance hour system conditions.

Shaping Option A, which would estimate hourly EER performance as a function of established on-peak EER savings and system load levels, received the most support of the options discussed, Yoshimura said, noting that savings and load levels are generally correlated. He said Shaping Option A also was identified as the option requiring the least time and expense to implement.

The other options required obtaining data not previously captured, additional analysis that would increase the cost and require more time to implement or might "not meet current precision and confidence interval requirements," he said.

Yoshimura said the working group's report did not represent a consensus behind Shaping Option A, however, noting concerns of some that it could overstate performance.

More Analysis on ESI Impacts

Todd Schatzki of Analysis Group, with ISO-NE

ISO-NE News

Todd Schatzki, Analysis Group | © *RTO Insider*

economist Christopher Geissler, *presented* an evaluation of the impacts of implementing Energy Security Improvements (ESI) to increase generator incentives to secure energy inventory.

The analysis compares the cost and benefits to individual resources that take steps to improve fuel security under various scenarios.

The analysis evaluated inventory decisions by oil-fired resources and forward LNG contracts by gas-only resources. Benefits were identified as the "direct incentives" (revenues) created by ESI through forecast energy requirement (FER) payments and day-ahead energy options. Costs included contractual costs and holding costs for maintaining additional inventory. Analysis Group concluded that ESI would increase incentives for procuring incremental fuel compared to current market rules.

Under the "frequent stressed conditions" scenario, it found that increased revenues from FER payments and day-ahead energy options would exceed additional fuel holding costs for all categories of oil-fired resources. The results were similar under the "extended stress" case.

Under the "infrequent stressed conditions" case, all plants except those with large tanks would have increased incentives for energy inventory.

For oil-fired generators, "ESI unambiguously increases incentives for energy inventory," Schatzki's presentation said.

For oil-fired generators, "ESI unambiguously increases incentives for energy inventory"

– Todd Schatzki, Analysis Group

Schatzki also said ESI will provide incentives for gas-only plants to enter into forward LNG contracts compared with the incentives under current market rules. "FER payments increase the value of holding energy inventory by over $2,000/MW in two of three cases," he said. ■

— Michael Kuser

New Brunswick Energy Clears Market Power Review

FERC ruled that New Brunswick Energy Marketing satisfied its standards for market-based rate authority in the New Brunswick System Operator balancing authority area, terminating a Federal Power Act Section 206 proceeding (*ER14-225-005*).

The commission initiated the review in May after the company's parent, NB Power, purchased a 290-MW generation facility in the province of New Brunswick.

NB Energy Marketing told FERC it passed the pivotal supplier and wholesale market share screens in the ISO-NE market and the pivotal supplier screen in the NBSO BAA. But it said it failed the wholesale market share indicative screen in that area in all four seasons. The company filed a delivered price test to rebut the presumption of horizontal market power.

"After weighing all of the relevant factors, we find that, on balance, NB Energy Marketing has rebutted the presumption of market power for the New Brunswick balancing authority area," the commission said. ■

— Rich Heidorn Jr.

MISO News

MISO Readies MTEP 19, Debates Futures Change

By Amanda Durish Cook

ST. PAUL, Minn. — MISO staff are done assembling the RTO's 2019 Transmission Expansion Plan (MTEP 19), presenting a nearly $4 billion draft package to the Board of Directors last week.

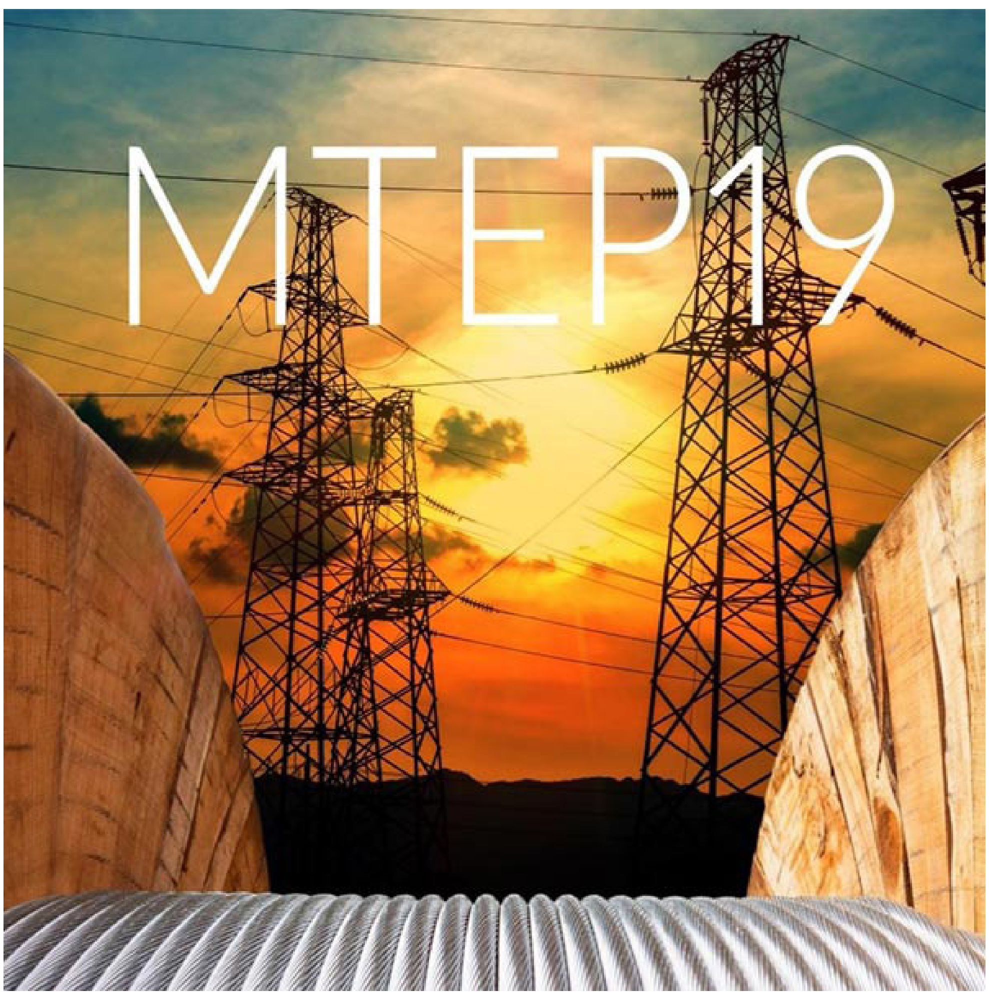
Instead of concentrating solely on this year's plan, however, MISO executives at the board's System Planning Committee meeting Sept. 17 emphasized what changes they would make to modernize the 15-year future scenarios used annually to justify transmission projects.

The proposed 2019 *portfolio* — 472 new projects totaling nearly $3.9 billion — is open for stakeholder review through the end of the month. The latest draft is trimmed from an earlier version that contained 483 projects at a cost of $3.95 billion. Even with the reductions, it's still the RTO's second-most expensive transmission buildout. (See *MISO 2019 Transmission Expansion Plan Takes Shape*.)

Vice President of System Planning Jennifer Curran told the board to expect some additional changes in response to stakeholder comments.

MISO *said* MTEP 19 is "consistent" with MTEP 18 because the package primarily consists of reliability projects. That trend appears likely to continue in the 2020 package, as the RTO has announced it would recycle its futures next year. The RTO has promised an extensive reboot of its planning projections beginning with the 2021 portfolio. (See *MISO Halts Futures Work for 2020, Plans 2021 Rebuild*.)

"I think [with] the status quo coming for 2020, there will be more interest in the 2021 futures," Director Nancy Lange predicted, urging careful thought from MISO on the new futures. "I think the pace of change is only accelerating, so it's important for MISO to think about its key planning assumptions."



MISO MTEP 19 cover page | *MISO*

Asked by Director Phyllis Currie if there was any discord as MISO prepared MTEP 19 with stakeholders, staff cited discussions over how prominently batteries should be featured in the planning landscape.

"That's a big focus for our team," said Executive Director of System Planning Aubrey Johnson, adding that MISO first must create a cost recovery mechanism for storage devices.

Director Trip Doggett asked if batteries are gaining more traction because of recent technological breakthroughs or because of their transmission capabilities.

"I think it's a 'Yes, and…' question," Johnson responded, noting that batteries can mimic generation.

MISO President Clair Moeller pointed out that MTEP 19, which recommended a single battery project, anticipates just 2.5 MW of load growth. (See *MISO Recommending 1st Storage-as-Tx Project*.) "For perspective, 2.5 MW is the size that could be compared to a large neighborhood's load," he said. Moeller said that although load growth has remained flat since about 2007, load has shifted with demographics.

"So, the standard load growth isn't driving transmission decisions. … But people are moving around," he said.

Moeller also said differing state goals regarding their energy mixes have emerged as a planning challenge in recent years.

"When we began the [MISO] market, everyone's fleet was about the same," he said. "Now, not everyone thinks high wind penetration is the future. So that complicates things."

Currie asked if neighboring RTOs were planning transmission around battery storage buildout.

"To my knowledge, we haven't seen a strong push toward batteries," Johnson said.

Futures Edit too Late?

Clean Grid Alliance's Beth Soholt made use of the public comment period to call for a rework to MISO's transmission planning strategy sooner than MTEP 21.

She pointed to utility integrated resource plans full of renewable goals, carbon-cutting pledges from state governments and a "huge

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customer preference and demand for renewables" as evidence that MISO cannot afford another year of waiting before it reshapes its future scenarios.

"Over another year, we're going to use static futures," Soholt said. "We risk the MISO system not being able to deliver what customers want in the Midwest."

Soholt cited MISO's February 2017 interconnection queue cycle, where all but 250 MW of the originally proposed 5 GW of renewable generation projects dropped out because of prohibitively expensive transmission upgrades.

"The processes and the systems in MISO are misaligned to solve these challenges," Soholt said, calling the RTO's current planning method and assumptions "frustrating and irrelevant." She said needed transmission projects are being overlooked because of MISO's continued underestimation of renewable growth.

Soholt said the $32 million, 345-kV Helena-to-Hampton Corner circuit project, originally identified in this year's Market Congestion Planning Study, should have made the cut into MTEP 19. The project was set to solve congestion in southern Minnesota, but MISO *said* that once forecasted wind generation was removed from the equation, the project quickly lost value.

A System from Interconnection Upgrades?

Organization of MISO States President and


MISO Directors Nancy Lange (left) and Phyllis Currie | © *RTO Insider*

Missouri Public Service Commissioner Daniel Hall said the RTO is ignoring "substantial" renewable growth and expressed concern over a "number of interconnection projects dropping out very late" in the queue process. He said some renewable projects were already approved by state commissions and under power purchase agreements when they were forced to exit the queue.

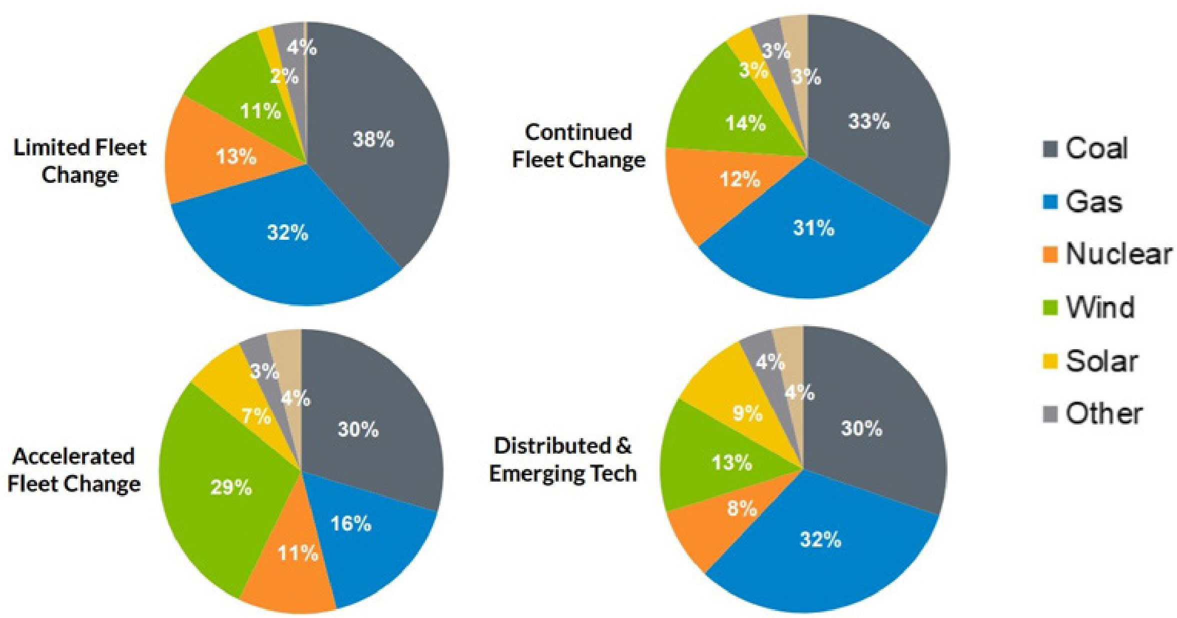

OMS President Daniel Hall | © *RTO Insider*

"We're currently trying to plan a transmission system one interconnection at a time. … It's a wake-up call," Hall told the board at its meeting Thursday.

"They're stale," Moeller admitted of the four futures.

Board members also inquired about the lack of interregional projects with SPP in MTEP 19. This year's congestion studies included focus on the seam, but the RTOs announced last month that no projects could pass MISO's 1.25:1 benefit-cost ratio. (See *MISO, SPP Empty-handed After 3rd Project Study*.)

"I think there's [been] more planning and more discussion over the two years I've been here. … I've seen more coordination. I really think it's a case of just because there's congestion there doesn't necessarily mean that it warrants a project to correct it," Johnson said. ■



MISO MTEP 19-20 futures (year 2033) | *MISO*

MISO News

MISO Seeks Market Changes After Meek Summer

By Amanda Durish Cook

ST. PAUL, Minn. — The MISO footprint didn't come close to its forecasted summertime peak and is unlikely to hit its forecasted fall peak either. But ways to improve resource adequacy in a time of grid transformation were on the minds of those at MISO Board Week here.

Times a-Changin'

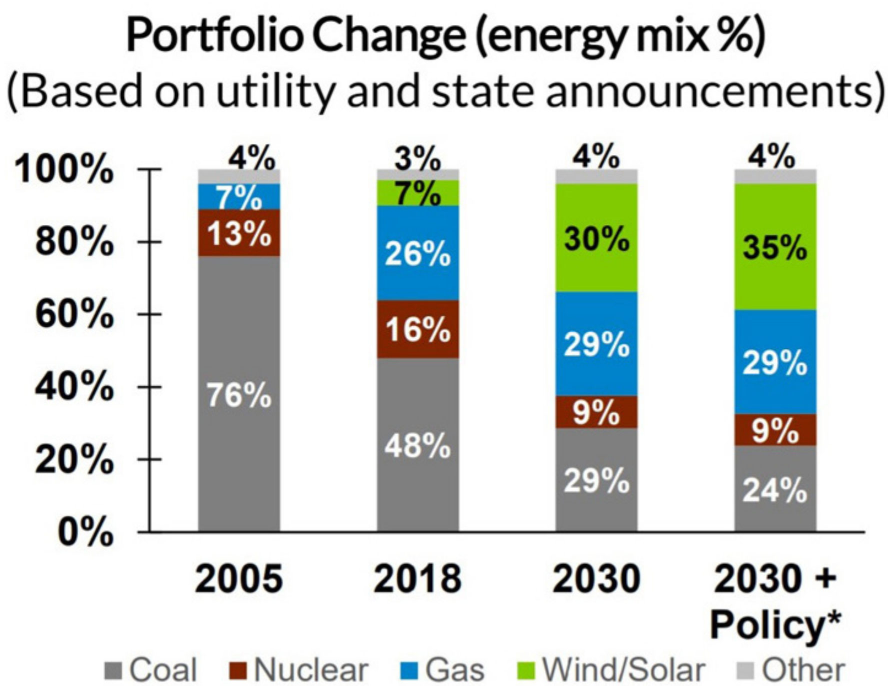
MISO's Richard Doying | © *RTO Insider*

MISO's interconnection queue is further evidence of the urgency of its resource availability and need (RAN) project, Richard Doying, president of market development strategy, told the Markets Committee of the Board of Directors on Sept. 17. RAN ideas currently include a 30-minute reserve product, a resource accreditation rethink, a seasonal capacity auction and a multiday forecast. (See ***MISO, Stakeholders Debate Merits of Seasonal Auction***.)

Based on utility and state announcements,

MISO directors Trip Doggett and Barbara Krumsiek | © *RTO Insider*

MISO ***forecasts*** wind and solar generation will overtake coal and natural gas. By 2030, wind and solar will total 30 to 35% of generation output, while natural gas and coal will have 29% and 24 to 29% shares, respectively. Nuclear's contribution is projected to be nearly halved to 9%. In 2018, MISO reported a fuel mix of 48% coal, 26% gas, 16% nuclear and 7% wind and solar combined.



MISO forecasted portfolio change | *MISO*

Proposed solar projects currently comprise 59 GW of MISO's 101-GW interconnection queue. Wind generation has a 27-GW share, while natural gas-fired resources represent 9 GW. Storage resources, still nascent in MISO, total only 3 GW. No new nuclear generation is proposed in the queue.

"We do expect to see more storage," Doying told the board, adding that MISO is particularly anticipating solar-and-storage hybrids.

"I think you can get the whole community behind this," Director Baljit Dail said, commending the RTO on RAN's catchphrase, "All hours matter."

Dail compared it — in rhetoric only — to 2001's No Child Left Behind Act. Since last year, MISO has said it needs to shift from its one-day-in-10-years loss-of-load expectation to an approach that accounts for different risks across all operating hours.

"We have not considered 'No Hour Left Behind,'" Doying laughed.

Director Barbara Krumsiek compared the RAN effort to "changing a tire [while] going 60, 70 mph on the interstate."

Director Trip Doggett asked if NERC appeared to be also shifting from its one-in-10 reliability standard.

"It is something that lots of other folks are looking at," Doying said.

But WPPI Energy economist Valy Goepfrich was quick to remind leadership that RAN is

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merely studying whether MISO needs to pivot to an all-hours risk. She said it could turn out that preparations for a summer peak still cover reliability risks in every other operating hour of the year.

"We're letting the data drive what the peak is," she told the board.

"It's still that one hour that we have to meet. The problem is we don't know when that hour is any more. It used to be a warm day in July or August. Now that's shifted," MISO CEO Joh Bear explained at Thursday's board meeting.

Peak Forecasts Averted

MISO Executive Director of Market Operations Shawn McFarlane predicted that the RTO won't hit its forecasted 112-GW fall peak, saying the highest risks of September's heat have passed. (See *MISO Unruffled by Fall Supply-demand Outlook*.)

"Right now, the highest load we've had is 107 GW on Sept. 7," McFarlane said.

MISO also fell short of its nearly 125-GW forecast summer peak, instead *experiencing* a 121-GW summer peak July 19.

The RTO weathered a heat wave and a hurricane in July without reliability problems. It *declared* conservative operations on July 18 and issued an open-ended maximum generation capacity advisory effective 10 a.m. ET on July 19 as several Midwestern cities issued excessive heat warnings and heat indexes exceeded 100 degrees Fahrenheit even in Minneapolis. Both alerts were terminated July 20. MISO's capacity advisories ask members to prepare for emergency conditions, ready load-modifying resources for a possible call-up and ensure resource availability is up to date in the RTO's communication system.

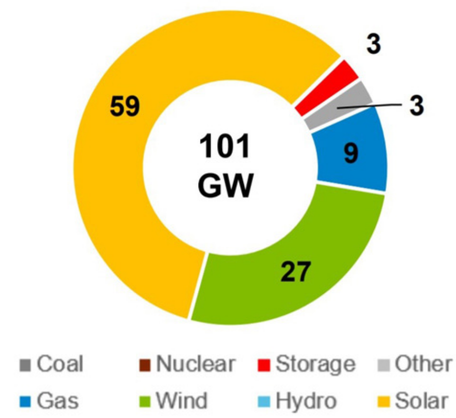
On July 11, MISO declared a severe weather *alert* for its Gulf Coast region for July 12 to 15 as Tropical Storm Barry was forming over the gulf. MISO's weather alerts ask that maintenance and testing on any critical transmission or generation system be deferred or canceled. The alert lasted through July 20 as Entergy mobilized crews to *restore power* in flooded portions of Louisiana.

Independent Market Monitor David Patton said the most exciting part of the summer occurred in eastern Texas on Aug. 13, when a transformer lost cooling in the West of the Atchafalaya Basin load pocket from 4 to 6 p.m.

"We were extremely close to shedding load; if there had been another contingency…" Patton trailed off.

Prices during the contingency spiked to $560/MWh, but just over the border in sunbaked ERCOT — which was experiencing high load — prices were $8,800/MWh

Patton said the area should have been more appropriately priced at about $4,000/MWh. He added that ERCOT prices had to be attractive to MISO members, who were prohibited from lending supply because of the RTO's own reliability risks.



MISO interconnection queue breakdown | *MISO*

"The reliability situation was far more dire in MISO than in ERCOT," Patton said.

He again called for MISO to "beef up" its emergency and shortage prices, especially for times when portions of the footprint are "on the verge of load shedding."

"As we grow our intermittent sources, we're going to see more shortages," he warned. ■

FERC Order Briefs: MISO

SWEPCO Settlement Approved

FERC approved a settlement on a power supply agreement (PSA) between Southwestern Electric Power Co. and the city of Minden, La., over the objections of the city of Prescott, Ark. The commission ruled that the benefits of the settlement for the settling parties outweighed Prescott's objections (*ER18-1225-001, EL18-122-001*).

SWEPCO supplies all of Minden's capacity and energy requirements above the city's allocation from the Southwestern Power Administration. Minden alleged that after Entergy's integration into MISO, it began seeing markedly higher congestion charges and that SWEPCO failed to effectively hedge them as required under its contract.

Prescott said it has a contract with SWEPCO that includes provisions identical to that in the Minden PSA and argued that because it was excluded from participation in the proceeding, the settlement should not be accepted. The commission disagreed, saying "Prescott's interests [are] too attenuated and that the benefits of the settlement outweigh the nature of the objections."

SWEPCO will pay Minden $400,000 under the settlement.

Extra Time for Wabash Valley 205 Filing

FERC gave the Wabash Valley Power Association up to 90 days to make an FPA Section 205 filing proposing rates, terms and conditions for the early termination of its contracts with Tipmont Rural Electric Member Cooperative, which serves 21,000 members in west-central Indiana (*EL19-2*).

Last October, Tipmont asked the commission to allow it to terminate its all-requirements wholesale power supply contracts with Wabash on Jan. 1, 2020, in return for paying any stranded costs incurred by Wabash.

Tipmont said Wabash is citing a "buyout policy" that requires Tipmont to give Wabash 10 years' notice of termination of service and to pay stranded costs at a rate set unilaterally by Wabash. Tipmont contends the policy is unenforceable because Wabash never filed it with the commission.

Both parties told FERC the issues related to the termination could be addressed in a Section 205 filing by Wabash. As a result, the commission said it would hold the complaint in abeyance pending further action.

— Rich Heidorn Jr.

MISO News

Task Team: Boost Member Role in MISO Board Selection

By Amanda Durish Cook


Exelon's David Bloom takes notes while Clean Grid Alliance's Beth Soholt listens. | *© RTO Insider*

ST. PAUL, Minn. — A special task team is suggesting that MISO revise its Board of Directors selection rules to give stakeholders a more consequential voice in board makeup.

The Board Qualification Task Team (BQTT), composed of MISO stakeholders, last week released a draft of recommendations, including that the RTO double the number of stakeholder representatives on the Nominating Committee that selects board candidates and rotate the sectors from which committee participants are drawn. (See *Task Team Zeroes in on MISO Board Recommendations*.)

The recommendation would establish four stakeholder seats on the Nominating Committee, outnumbering the three seats reserved for MISO directors. The BQTT also raised the possibility of reserving one of the stakeholder seats for a representative of the Organization of MISO States.

Task team lead David Bloom, of the Power Marketers and Brokers sector, put the recommendations before Advisory Committee members at their meeting Wednesday. The list is still open to suggestions from the committee, which also extended the life of the BQTT through the end of the year to allow it to tweak the recommendations. The AC will vote individually on them at either its Oct. 23 or Dec. 11 meeting.

Also on the list is a recommendation to require state and federal regulators to observe a yearlong "cooling-off" period before becoming eligible for nomination to the board, a policy that currently applies only to those coming out of the industry. However, the change wasn't labeled a must-have, as the task team also said it would accept if AC members ultimately don't see a need to extend the moratorium to regulators.

MISO originally required board members with financial ties to the RTO footprint to observe two-year pre- and post-service restrictions, but it reduced those requirements to a one-year pre-service restriction in 2016.

Finally, the task team also presented options for MISO to either designate one of the nine director seats for those with experience representing utility customer interests or create a new process where RTO sectors could describe what qualifications they're seeking in new board members. The Nominating Committee selects board member candidates in closed deliberations, assisted by management firm Russell Reynolds.

Reaction to the recommendations was mixed, with some AC members asking why the BQTT preferred a stakeholder majority on the Nominating Committee and others asking why all MISO sectors be represented on the Nominating Committee at the same time.

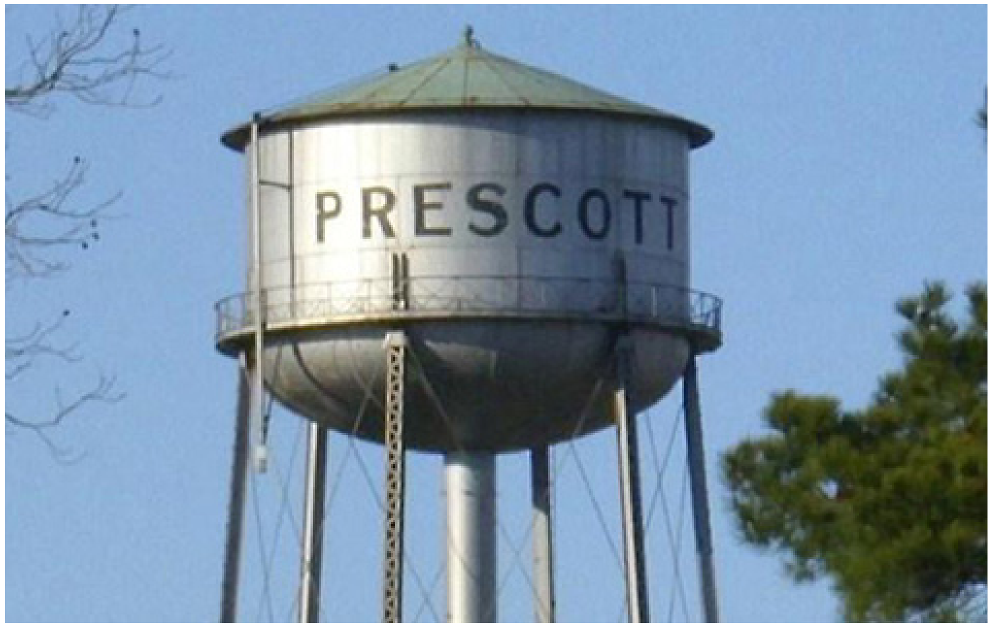
Environmental and Other Stakeholder Groups representative Beth Soholt wondered if MISO's cooling-off period unnecessarily limits the slate of board candidates. In meetings, the BQTT had mulled eliminating the period altogether.

"We note that [former FERC Commissioner Cheryl] LaFleur was appointed to the ISO-NE board without any cooling-off period. In fact, she's probably red hot," Soholt joked. (See *LaFleur Elected to ISO-NE Board*.) ■

MISO News

FERC Sets Briefings on MISO, SPP Congestion Fees

By Tom Kleckner



Water tower in Prescott, Ark. | *Waymarking*

FERC last week established briefing procedures for MISO and SPP as it investigates potential "overlapping and/or duplicative" congestion charges being imposed on pseudo-tie transactions between the RTOs (*EL17-89, EL19-60*).

The commission is looking into Tariff, contract provisions and practices imposed by the RTOs on pseudo-tie transactions in response to complaints under Section 206 of the Federal Power Act by American Electric Power's Southwestern Electric Power Co. subsidiary (*EL17-89*) and the Arkansas city of Prescott (*EL19-60*).

The RTOs admitted that in "limited circumstances," congestion charge overlap occurs on pseudo-tied transactions involving certain flowgates coordinated under their market-to-market (M2M) process. MISO said the overlap is "due to the independent application of the [M2M] process" under their joint operating agreement and their congestion-management provisions. SPP acknowledged that when M2M constraints are bound in more than one market, "it is reasonable to conclude that some overlap may occur in the congestion settlements … for pseudo-tied assets."

FERC granted the complaints on the overlapping and duplicative congestion charges and ordered the RTOs to file initial briefs within 45 days. The commission asked them to address:

- Tariff and JOA provisions that may allow overlapping congestion charges to be assessed;
- The specific circumstances under which congestion charges overlap;
- Revisions to the Tariffs, JOA or other documents or procedures that could eliminate overlapping charges;
- Existing tools or market products that pseudo-tied loads and resources can use to mitigate or eliminate overlapping charges;
- The status of discussions between MISO and its stakeholders on solutions to the congestion overlap; and
- Pseudo-tied loads or resources being assessed overlapping or duplicative congestion charges or vulnerable to overlapping charges.

SWEPCO's complaint alleged that MISO violated the JOA with SPP regarding congestion charge assessments for its loads that are pseudo-tied out of MISO and into SPP. It said the charges resulted in an overpayment to MISO of $963,974 for one four-month period in 2016.

FERC said SWEPCO did not show MISO has violated the JOA, pointing to language in the grid operators' congestion-management process that it said does not state or imply "that pseudo-tied loads … should be exempt from the congestion charges otherwise applicable under the RTOs' individual tariffs." The commission agreed with MISO that as a network service transmission customer, SWEPCO is subject to congestion and loss charges.

The commission did find that overlapping or duplicative congestion charges for loads pseudo-tied from MISO to SPP are unjust, unreasonable, unduly discriminatory or preferential. They established a refund effective date of Sept. 15, 2017.

Prescott's Section 206 complaint against MISO and SWEPCO said its municipal utility system, which interconnects with Entergy Arkansas, saw its monthly transmission costs increase from $65,000 to $175,000 with Entergy's integration into MISO in 2013 and the opening of SPP's Integrated Marketplace in 2014. The city said its load, supplied by SWEPCO resources in SPP through a pseudo-tie, is assessed both MISO and SPP M2M congestion charges.

It also said MISO and SWEPCO "thwarted" Prescott's efforts to secure power from other suppliers and asked permission to settle congestion charges based on day-ahead prices. The city also said SWEPCO had not hedged its congestion costs effectively, contrary to the power supply agreement (PSA).

FERC denied the complaint in part, saying Prescott had not shown SWEPCO and MISO thwarted its efforts and that it was "evident" MISO provided guidance to the city on its pursuit of alternative supply arrangements. The commission found SWEPCO did not have to grant Prescott's request to change its supplier and declined to terminate the company's role as Prescott's agent.

The commission also said Prescott had not "persuasively shown" that FERC should direct MISO to allow pseudo-ties to settle financially based on day-ahead prices.

The city had asked for a $770,000 yearly refund from SWEPCO, dating back to the 2019 complaint, but FERC commission denied the request. It said Prescott's request relied on a "misreading" of the PSA's terms. The commission did agree the city's load was subject to unjust and unreasonable duplicative congestion charges and established a refund effective date of April 5, 2019.

(See related story, "*SWEPCO Settlement Approved," FERC Order Briefs: Sept. 19, 2019*.) ■

MISO News

MISO Members Dissect Implications of Grid Change

By Amanda Durish Cook

Transmission Dependent Utilities sector representatives Chris Norton (left) and Kevin Van Oirschot | © *RTO Insider*

ST. PAUL, Minn. — The rate of MISO's grid transformation is at once distressingly slow and unbelievably quick, RTO members said last week in a session directed at guiding future market decisions.

And no one yet knows how high prices could go when renewables have the lion's share of the market.

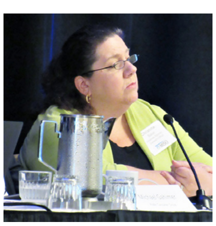
Stakeholders selected a rather broad topic for MISO's quarterly "Hot Topic" discussion, choosing to focus on the pace of change and new directions in the markets and grid strategy during an Advisory Committee meeting Wednesday.

"This isn't Festivus. This isn't the airing of grievances," moderator Kevin Gunn, an energy attorney and former chairman of the Missouri Public Service Commission, joked as he opened the discussion.

Gunn instead urged the committee to advise MISO on big-picture ways it could transform markets.

John Moore, representing the Environmental and Other Stakeholder Groups sector, called for "more active" cooperation between MISO and its participating states, saying that while the RTO appears ready to roll out more market services and products to meet demand, resource adequacy is ultimately the proprietary role of states.

"When you have high levels of renewable energy on the grid, you're going to want to make sure you can meet the need, and folks on the distribution side of the grid will play a big role in meeting that need," Moore said.


Christina Baker, Arkansas PSC | © *RTO Insider*

Arkansas Public Service Commission attorney Christina Baker reminded MISO and members that public service commissions have jurisdiction over utilities but not the data collection companies that could provide visibility into distributed resource participation.

"It's a wider range sitting at the table than has been before," she said.

Municipals, Cooperatives, and Transmission Dependent Utilities sector representative Chris Norton agreed that it was going to take much more communication between MISO and distribution facilities to manage supply.

The Independent Power Producers and Exempt Wholesale Generators' Travis Stewart pointed to the poor financial outlook for merchant suppliers in MISO. He said the harsh winter in the northern footprint reinforced the need for suppliers outside the usual regulated utilities.

"Consumers really needed those electrons on the system to maintain their quality of life and safety," Stewart said.

"One of the themes … is how fast this needs to happen," MISO Director Nancy Lange observed, asking for members' opinions on the necessary rate of market change.

"We need the price signals that will encourage us to build. And we'd like to see those sooner rather than later, because we're on a 15-year planning horizon for storage builds," Advisory Committee Chair Audrey Penner said.

Multiple members said the resource mix is changing much faster than MISO's current transmission planning can accommodate. The IPPs' Adam Sokolski said more transmission development is needed now.

"Markets, pricing can adapt a lot faster than transmission planning," Sokolski said "It's that transmission side, where we're going to have to speed up that transmission regulatory review and execution."

Legacy Costs

But Baker pointed out that customers all over the footprint are still paying for coal plant construction, even though coal plants are now generally deemed obsolete.

"We have to be able to balance that rates are still in the past," Baker said. "Shiny new things are great," she said, but she urged utilities and MISO to be mindful of the cost of new builds.

Norton agreed that "shiny new toys" saddle customers with legacy costs over multiple decades. Multiple stakeholders also said that while market pricing is very low today, rates in comparison are high because transmission and generation assets are bundled in.

Several stakeholders asked for fair market prices and incentives across all resources.

The Union of Concerned Scientists' Sam Gomburg said that he perceived tax credits

Continued on page 27

MISO Board of Director Briefs

MISO, Meet Google

ST. PAUL, Minn. — Google gained a foothold in the MISO system last week as the RTO's Board of Directors approved a subsidiary's membership application.

Google Energy joined MISO's Eligible End-User Customers sector. The subsidiary was founded nearly a decade ago in a push to power its parent's operations with 100% renewable energy. It has multiple investments and power purchase agreements with wind farms along the western border of MISO's footprint, enough by 2017 to match its annual electricity consumption.

"Although our 100% renewable milestone signifies that we buy enough renewable energy over the course of a year to match our annual electricity consumption, it does not mean that our facilities are matched with renewable energy in every hour of every day," the company *says*. Its ultimate goal "is to source enough carbon-free energy to match our electricity consumption in all places, at all times."

MISO President of Market Development Strategy Richard Doying said the RTO is anticipating more non-traditional membership applications like Google as more companies become enmeshed with distributed resources' push to join wholesale markets.

The RTO's approval of Google's membership came a day before the company *announced* a $2 billion global investment in solar and wind generation across 18 new renewable energy deals.

The board also allowed Upper Peninsula Power Co. into the Municipals, Cooperatives and Transmission Dependent Utilities sector. Both applications for membership were approved unanimously.

Lurie Joins Board

The board also filled a vacant seat with former New York Power Authority CFO Robert Lurie. The selection was made without input from MISO membership, as the seat was vacated earlier in the year by Thomas Rainwater. MISO's bylaws stipulate that vacancies are dealt with by solely the board, and not through the usual Nominating Committee process and subsequent stakeholder vote.

"We had a robust discussion of the candidates and their qualifications, and I think he will serve MISO well," Chair Phyllis Currie said.

MISO could have seen up to four new faces on its board in 2020, but the Nominating Committee opted only for existing board members as eligible candidates: Todd Raba, Trip Doggett and Barbara Krumsiek. (See *MISO Board of Director Briefs: June 20, 2019*.) The RTO will again use VoteNet Solutions to conduct its membership vote on the candidates. Electronic polls are set to open Thursday for 37 days.

This year's Nominating Committee consisted of Directors Baljit Dail, Mark Johnson and Theresa Wise; the two stakeholder seats were occupied by Minnesota Public Utilities Commissioner Matthew Schuerger and Ameren's Jeff Dodd. ■

— Amanda Durish Cook

MISO Members Dissect Implications of Grid Change

Continued from page 26

as a means for renewable resources to play catch-up with other heavily subsidized traditional resources. However, he warned MISO that absolute recovery across all resources is unattainable.

"You can't ask a nuclear plant to follow load; you can't ask a wind farm to be available next July 15 at 3 p.m.," he said.

'Catch-up' to Corporate America

Transmission Owners sector representative Jeff Dodd said MISO and transmission owners must find a way to accelerate the study of projects in the interconnection queue.

"Everybody sees these corporate renewable goals and these companies saying, 'We're going to get there with or without you,'" Dodd said.

"The biggest buyer of renewable energy is Corporate America, not utilities," Eligible End-User Customers sector representative Kevin Murray pointed out. "So, the train has left the station — we're playing catch-up."

Murray also noted that, the very next day, MISO's board would decide whether to admit Google as a member in the End-User sector, which it ultimately did. (See related story, "MISO, Meet Google," *MISO Board of Directors Briefs: Sept. 18, 2019*.)

To the Disruptors, Goes the … Bill?

Baker said that if utilities pivot to catering to industrial customers with renewable appetites, then rates will have to shift so that companies shoulder more costs of sometimes expensive technologies.

"Why are 60% of costs being borne by residential customers?" she asked rhetorically.

Wisconsin Public Service Commissioner Mike Huebsch added a caveat to what he dubbed a "transformative shift on the side of the angels." He said a transformation must be tempered so reliability doesn't suffer. He wondered aloud if "Corporate America" is as ready to accept unintended consequences of 100% renewable energy as it is willing to drive the change.

"It's not going to be an inner-city townhouse in Milwaukee that loses heat; it should be Google that shuts down for an hour," he said.

"The pace of change is never going to be fast enough for the threat of climate change," Gomburg added.

TDU sector representative Kevin Van Oirschot said the conversation reminded him of an oft-repeated line of a colleague at Consumers Energy: "The rate of change will never be this fast again, and it will never be this slow again," he said to laughter. "I think that perfectly captures this moment."

"'*With all deliberate speed*.' Got it," Gunn summed up the members' conversation, quoting the infamously vague phrase in the Supreme Court's *Brown v. Board of Education* decision.

A day after the talk at the board meeting, Board of Directors Chair Phyllis Currie thanked members for at least the consensus that new measures are necessary.

"We all agree that change is coming. We've had some deniers in the past," she said. ■

MISO News

Scant Support for 11th MISO Sector

Power Marketers Offer Temporary Home

By Amanda Durish Cook

Alcoa's DeWayne Todd, of the Eligible End-User Customers sector | © *RTO Insider*

ST. PAUL, Minn. — MISO stakeholders last week signaled that they're not yet ready to embrace creating an 11th sector in the RTO's Advisory Committee to accommodate hard-to-pin-down members.

But discussion on the matter will continue as MISO fields a growing number of membership applications from entities that don't have goals that clearly align with any of the RTO's 10 existing sectors — the "others" currently housed within the increasingly crowded Environmental and Other Stakeholder Groups sector.

By the end of the AC meeting Wednesday, MISO's Power Marketers and Brokers sector had offered to absorb the "others" into its fold for a yearlong trial period.

Committee Chair Audrey Penner said MISO could use the time as a period of "discovery" to determine the need for a new sector. "This will be an exploratory year, and I'm very interested in who will line up to join our dysfunctional group," she joked.

The committee last month considered creating a miscellaneous, 11th sector in order to give its Environmental sector a more singular voice. The committee was weighing whether to spin off the "other" contingent from the sector in response to member requests that entities with miscellaneous interests be separated from those with an environmental focus. (See *Advisory Committee Considers 11th MISO Sector*.)

The move came with many possible AC voting implications, chief among them how to mete out the Environmental sector's existing two votes. AC leaders proposed several options, including splitting them; allowing the Environmental sector to retain its votes without giving the new sector a vote; or upping the number of committee votes to allow the new sector to participate in voting.

But a poll released last month revealed a majority of sectors preferred no change at all.

Eligible End-User Customers sector representative DeWayne Todd said he wasn't convinced about the need for a new sector. He cautioned that, because any undefined entity could join, establishing a unified opinion for AC voting matters could prove "cumbersome."

"We didn't see a compelling reason to make a change at this point. We created the [Competitive Transmission Developer] sector when there was a need," Todd said. The Environmental/Other sector housed some competitive transmission developers briefly before the creation of the CTD sector in 2014. The Sustainable FERC Project's John Moore recalled conversations within the sector during that time as being stifled.

The Independent Power Producers and Exempt Wholesale Generators sector's Adam Sokolski said he would have appreciated more conversation on exactly what entities would join a catch-all sector.

As a rule, MISO does not reveal the names of companies that approach it for membership until public approval by the Board of Directors. All members must belong to one of the 10 sectors.

However, it's no secret that multiple "miscellaneous" companies are clamoring for membership.

"We know that there are companies that are approaching MISO that don't have a home. What that number is, we don't know," Penner said. She reminded the sectors that it's incumbent upon the stakeholder community to be as inclusive as possible. She also said removing hurdles to membership can further FERC's goal of RTO transparency.

"I'm going to recharacterize this as an opportunity, not a problem, because more around the table is a good thing as far as I'm concerned," Penner said. "We need a home for entities to join MISO, but it's clear the Environmental sector is not a good fit."

The Environmental sector itself voted to drop the "Other Stakeholder Groups" descriptor, retain its two votes and take no action to create a new sector.

"We would hope there would be a way to give someone a voice without creating a new sector," Clean Grid Alliance's Beth Soholt said.

David Bloom of the Power Marketers sector offered to draw up a plan to for "others" to join his sector in time for the committee's Oct. 23 meeting. He said the switch is dependent on existing members' agreement.

Director Barbara Krumsiek predicted there will be many more "others" in MISO's future as the RTO's energy landscape "remains so fluid." ■

MISO News

Entergy Scoops up Miss. Plant to Meet Zone 10 Demand

By Amanda Durish Cook

An Entergy subsidiary will purchase a financially struggling natural gas plant to satiate a need for additional capacity in MISO's Mississippi territory.

Entergy Mississippi gained FERC approval on Thursday to purchase the 810-MW Choctaw Generating Station near French Camp, Miss., for $314 million from NRG Wholesale Generation (*EC19-63*).

FERC said the transaction was unlikely to adversely impact rates or competition and would not create a regulatory gap or raise cross-subsidization issues.

The plant, located on the border of the Entergy Mississippi and Tennessee Valley Authority transmission systems, will move from the TVA balancing authority into MISO's.

The plant will also cease to be operated as merchant generation under Entergy's ownership. Entergy said it will spend $401.4 million to purchase and upgrade the plant. The company *said* the amount was "significantly less than the cost to build a comparable facility and eliminates construction time and risks associated with building a new plant, providing more immediate benefits and savings for customers."

Choctaw was developed as a merchant generating facility, but Entergy and NRG said the plant has been in financial straits since being placed in-service in 2003. The plant was mothballed for about three years from 2004 to 2007, and one of its three combustion turbines was quieted for seven years from 2010 to 2017.

Choctaw Generating Station | *Entergy Mississippi*

"Choctaw has been and continues to be uneconomic as a merchant facility, and will continue to be uneconomic as a merchant facility for the foreseeable future," FERC wrote.

Entergy said it has long identified a need for new capacity in MISO's Local Resource Zone 10. The acquisition will eliminate the utility's need to build a new combined cycle gas turbine facility to replace retiring generation to meet MISO planning reserve requirements. The subsidiary has been planning since 2016 to build a new plant by 2027, but it bumped up the construction target to 2023 last year. The utility reported that it has recently retired about 700 MW in older generation.

Simplifying matters is the fact that Choctaw is already interconnected with both TVA's French Camp Substation and Entergy's Wolf Creek substation in MISO.

The commission also said that if Entergy wants to recover the cost of the transaction in its rates, it must make a separate filing.

Entergy expects the transaction to close by the end of 2019.

The case also revived questions as to whether FERC should examine the entire MISO footprint or simply the MISO South region as the relevant geographic market in acquisitions. While FERC considered the entire MISO footprint for the Choctaw impact analysis, FERC examined just MISO South as the relevant market when approving Cleco's $1 billion acquisition of eight NRG Energy generation assets there last year. (See *FERC Clears Cleco to Buy NRG Generation in South*.) Entergy asked about the discrepancy in an additional filing to the Cleco transaction, which FERC also clarified Thursday (*EC18-63*).

Since the Cleco transaction, MISO South is no longer a submarket onto itself, FERC said, and cited "new evidence based on changing circumstances."

MISO's North-South transmission transfer limit is binding less frequently than it used to, the commission explained, adding that in 2018, the constraint only bound in 2% of day-ahead hours and 1.5% of real-time hours. FERC also said the trend of fewer binding hours will continue as new generation is brought online in MISO South.

The "commission will continue this practice of evaluating the definition of a relevant geographic market on a case-by-case basis," FERC said. ■

NYISO News

Overheard at IPPNY 2019 Fall Conference

FERC Commissioner Richard Glick addresses the 34th annual Independent Power Producers of New York Fall Conference on Sept. 17. | *© RTO Insider*

Implementation of 'Green New Deal' is Just Beginning


Gavin Donohue, IPPNY | *© RTO Insider*

SARATOGA SPRINGS, N.Y. — More than 150 people turned out last week for the Independent Power Producers of New York's 34th annual fall conference, where the group's president, Gavin Donohue, remarked that it's so far been a "year of change" in the state.

"In 2019, New York's energy landscape has seen the appointment of two new commissioners at the [Public Service Commission], a new head of the ISO, a resource adequacy proceeding at the PSC, and we're dealing with the implementation of the 'Green New Deal' in New York," Donohue said.

Donohue will be a point person in implementing the Green New Deal — known also as Climate Leadership and Community Protection Act (*A8429*). In July, State Senate Minority Leader John J. Flanagan appointed him to the Climate Action Council, a 22-member body created under the new energy law enacted earlier that month.

The new law requires 70% of the state's electricity to come from renewable sources by 2030, and for power generators to be zero-emitting by 2040.

The following is more of what we heard at the conference:

Federal Collision Course


Richard Glick, FERC | *© RTO Insider*

FERC Commissioner Richard Glick said the commission has also experienced a year of changes, with a lot of people coming and going, and only three commissioners serving after the recent departure of Cheryl LaFleur.

He said rumors are circulating that President Trump will soon nominate a fourth commissioner, "so we're still in limbo," Glick said. "Every time someone leaves or someone comes, it's a different dynamic. ... It's just different with three versus four."

He also addressed "issues about who can vote on what," explaining that he will recuse himself on some proceedings until Nov. 29 because of ethics rules that prevent federal officials from being involved in a matter they were working on in the private sector. (See *Glick Recusal May Mean No MOPR Ruling Before December*.)

One key issue facing FERC is the debate over state versus federal jurisdiction in the energy space, he said.

"The Federal Power Act says that the states have jurisdiction over energy and resource decision-making," Glick said. "FERC does have jurisdiction clearly over the markets, and wholesale markets, and that includes capacity markets."

However, FERC lacks the authority to tell a state that it cannot force its utilities to buy more renewable energy — or even coal, he said. The point gets lost sometimes in the effort to see that state policies don't adversely affect wholesale or capacity markets.

"The bigger issue is, what's the price of this debate that's going on right now?" Glick said. "New York's a great example ... with the new climate change law ... and higher targets, so that's going to continue to cause some friction in the capacity markets.

"My concern is that if we try to get some pushback from the states, and either directly or indirectly make it very difficult for the states to pursue their resource policies, we're really endangering the future of capacity markets.

"Some people argue that we don't need capacity markets. ... There's talk of the New York resource adequacy proceeding that's going on, but there's also Illinois and New Jersey ... at least some of [their] commissioners suggested that they may look into figuring out if they should require their states get their utilities to drop out of PJM.

"There's a real question not only about capacity markets, but the future of RTOs," Glick said. "At the very least, we need to figure out a way to accommodate state policy and move forward on a less combative approach. The road that FERC has taken in the past ... is leading on a collision course with a number of states."

Future of Natural Gas Pipelines

Glick also addressed the future of natural gas pipelines, the subject of another panel discussion. While developers have had difficulties getting projects permitted in New York, he focused on the federal side.

"The pipeline siting processes that we have at FERC in my opinion are antiquated and don't address the issues we need to address in the 21st century," he said. "FERC has somewhat developed a reputation of being a rubber stamp for natural gas pipeline siting, and I think a little of that is deserved. ... A lot of times, we'll grant a certificate to build a pipeline ... and the law says you have eminent domain once FERC gives you the certificate ... and it turns out there are all these environmental issues no one knew about, and it's too late — they've already bought up the land and dug up the holes."

The commission needs to revise its siting guidelines, he said, and do more to mitigate greenhouse gas emissions.

NYISO News

"Unfortunately, the commission again puts its head in the sand and decides not to address that issue at all," Glick said. "I think that creates a lot of uncertainty."


Brian Jones, M.J. Bradley Associates | © RTO Insider

Brian Jones, senior vice president of consultancy M.J. Bradley and Associates, presented a *study* commissioned by National Grid and completed in June, called the "Life Cycle Analysis of the Northeast Supply Enhancement Project."

"It's very difficult to squeeze out fossil fuel from the economy; it's everywhere," Jones said. "Many folks are looking at hitting the highest [carbon] intensity fuels first and incrementally working up, because it's a difficult transition to make in the economy. There are low-income, environmental justice issues ... but natural gas has a role to play."


Liz Moran, NYPIRG | © RTO Insider

Liz Moran, environmental policy director for the New York Public Interest Research Group, said, "It's one thing to say there is a bridge role for natural gas, but how long will a new pipeline be expected to last? We have to start phasing this out."

Chris Raup, director of Consolidated Edison's Reforming the Energy Vision demonstration projects, said "we don't see a lack of natural gas infrastructure causing electric reliability problems. We think that the dual-fuel requirements that are in place will prevent generation problems from happening."

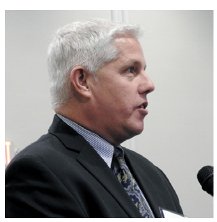

Chris Raup, Con Edison | © RTO Insider

Con Ed earlier this year instituted a natural gas moratorium for new customers in Westchester County, as did National Grid for new customers in Brooklyn, Queens and Long Island. (See *NYPSC OKs Westchester Plan, Expands EV Charging*.)

"I do think you may see generators more and more running on fuel oil as natural gas headroom on the system is soaked up," Raup said. "The temperature at which generators are required to switch over to fuel oil may rise, so that has a negative overall emissions impact on the air quality in the city."

NY Carbon Pricing

Glick also commended New York for "taking a look at" pricing carbon in the state's wholesale energy markets, a three-year effort by NYISO and the PSC that is nearing completion, with the latest study delayed a couple months to ensure that it captures all the effects of the new energy law enacted in July. (See *NYISO Management Committee Briefs: July 31, 2019*.)


Aaron Breidenbaugh, Luthin Associates | © RTO Insider

Aaron Breidenbaugh, of Luthin Associates and Consumer Power Advocates, asked PSC Chair John B. Rhodes what the state is planning or thinking.

"It's become apparent to us as original supporters of carbon pricing that, as it's proposed right now, it's not going to achieve the results by itself, and we're very concerned that we could end up paying both for the carbon pricing and for out-of-market contracts to achieve the [targets]," Breidenbaugh said. "Where is the state right now on that?"


John B. Rhodes, NYPSC | © RTO Insider

"When carbon pricing was first proposed, we were interested," Rhodes said. "As it has been shaped and subjected to analysis, we remained interested," adding that the commission's interest hinges on carbon pricing being "a more effective instrument of state policy" that allows "better achievement of the goals for fewer dollars."

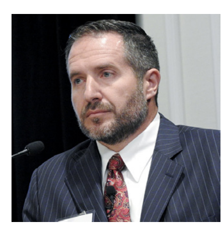
The latest work by Analysis Group will help "illuminate" what the PSC should make of that policy, he said, noting that the new energy bill signed in July includes carbon pricing policy questions.

"I fully expect that the Climate Action Council mechanism will be spinning up, and one of the first orders of business will be figuring out what to do about carbon pricing," Rhodes said. "The bill's remit is economy-wide ... and that has kicked in a timing factor. As a policy matter, if this can work, and it's better than what we're doing now, then we should switch horses and do it."


Rich Dewey, NYISO | © RTO Insider

NYISO CEO Rich Dewey said, "The status quo is not sustainable ... but our markets have never been static for 20 years."

Todd Snitchler, CEO of the Electric Power Supply Association, hit on the same theme, saying, "We can't be static."


Todd Snitchler, EPSA | © RTO Insider

"The logjam at the federal level could become unblocked soon," Snitchler said, possibly referring to a change of administrations in the 2020 presidential election. "We have to be ready ... we don't need inspiration, but we do need to tell our story better... to better respond, to better engage." ■

— Michael Kuser


Left to right: Todd Snitchler, EPSA; Vincent Albanese, New York State Laborers Organizing Fund; Brian Jones, M.J. Bradley Associates; Suzanne Mattei, Lookout Hill Public Policy Associates; Liz Moran, NYPIRG; and Chris Raup, Con Edison. | © RTO Insider

Overheard at ACE New York 2019 Fall Conference

ALBANY, N.Y. — About 200 participants turned out last week at the Alliance for Clean Energy New York's 13th annual fall conference to hear about New York's efforts to boost renewables, price carbon into NYISO markets and ramp up sales of electric vehicles.

The conference focused on the state's trailblazing climate change efforts, epitomized by the Climate Leadership and Community Protection Act (*A8429*) enacted in July, which requires 70% of the state's electricity to come from renewable sources by 2030, and for power generators to be zero-emitting by 2040.

"Despite the challenges that many developers face, there is a lot of good news to tell, [with] 49 proposed grid-scale wind, solar and offshore wind projects in New York that now have awarded contracts," ACE NY Executive Director Anne Reynolds said. "That is a significant number. And that group of projects, when they're built, will sum to 4,700 MW."

Reynolds additionally listed the many other proposed projects that will be ready to compete for contracts, a total of 138 wind, solar and hydro projects in the NYISO queue, plus 53 storage projects.

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

Climate Strike

The conference coincided with Friday's ***climate strike***, where millions of people around the world took to the streets to call for government action to fight climate change, including in Albany.

New York PSC Chair John B. Rhodes addresses the 2019 Fall Conference of ACE NY in Albany on Sept. 20. | © *RTO Insider*

"New York is on the bleeding edge of shaping a livable, just future," said Katharine Wilkinson of ***Project Drawdown***, an organization that analyzes solutions to climate change. "Part of the critical context of today is that it is strike day. ... They had the largest public rally in Australian history. ... It's incredibly beautiful to see these oceans of people calling for the kind of action that New York has committed to."

Katharine Wilkinson, Project Drawdown | © *RTO Insider*

Wilkinson pointed to the importance of listening to young people and their call to be active participants, "to do the work that science has made clear absolutely has to be done."

Food and agriculture solutions are as important as electricity solutions, Wilkinson said, but often get short shrift in conversations about reducing emissions, as have the climate benefits of guaranteeing access to healthcare and education for all girls and women.

Lest anyone doubt the power of the youth-led climate strike action, Wilkinson reminded her listeners that, "Culture always, always, always leads the way for political action."

Eleanor Stein, formerly with the Public Service Commission and now teaching climate change law at Albany Law School and the State University of New York, told of checking out the climate strike protestors in Albany that day and seeing two signs. One read, "Tell the truth," and its companion sign read, "Act as

Eleanor Stein, Albany Law School | © *RTO Insider*

Left to right: Sheila Manz, GE Energy Consulting; Stephanie McClellan, SIOW; Eric Miller, Invenergy; Ksenia Kaladiouk, McKinsey and Company; and Eleanor Stein, Albany Law School | © *RTO Insider*

NYISO News

if the truth was real."

"I think that's a very challenging and thought-provoking slogan, and I urge you to take it home and talk to your teenage children or friends, or nieces and nephews about those things," Stein said.

Carbon Pricing

Rich Dewey, NYISO | © *RTO Insider*

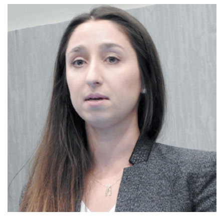
Energy markets must be able to adapt to New York's shifting policy landscape, NYISO CEO Rich Dewey said.

The effort to price carbon into the wholesale electricity markets "can help drive the transition of the generation fleet and the grid itself," Dewey said. Carbon pricing would provide a revenue incentive for zero-emitting, clean energy resources by sending a price signal using the ISO's locational-based marginal pricing mechanism in the wholesale markets, directing placement of those resources where they would be most valuable, he said.

More important, it would shift the risk of investment from ratepayers to investors, which is better for consumers and a more efficient way to achieve public policy goals, he said.

"We will not bring this down to the FERC as a proposal unless we know that we've got both the NYISO stakeholders in agreement and New York state in agreement," Dewey said. "FERC has told us that unless everybody agrees and you're moving in lockstep, they are not optimistic that they would agree and approve the changes."

"Markets are as big of a challenge as anything in terms of coordinating the effort of getting us to the right place by 2030, 2040 and beyond," said Ksenia Kaladiouk, engagement manager for McKinsey and Company. "Perhaps one of the biggest challenges is coordination sequencing and timing, so if we think we're going to see huge levels of renewables 10 years out, the transmission needs to be well on its way to catching those."



Ksenia Kaladiouk, McKinsey and Company | © *RTO Insider*

Sheila Manz, technical director at GE Energy Consulting, said New York does not face as big a challenge as people may think, because 70% by 2030 "is more like achieving 30% non-hydro renewables, which is where SPP is today."

Sheila Manz, GE Energy Consulting | © *RTO Insider*

"The panhandle of Texas also has lessons for New York to leverage, where there are no synchronous generators to help support voltage and to keep the 60 Hz that we're used to pretty stable," Manz said.

Electric Vehicles

John Williams, NYSERDA | © *RTO Insider*

John Williams, director of policy and regulatory affairs at the New York Energy Research and Development Authority, led a panel on reducing demand through energy efficiency and electrification of transportation and heating.

Left to right: Matt Stanberry, Advanced Energy Economy; Adam Ruder, NYSERDA; Andy Frank, Sealed; Rachel McCrea, National Grid; Cecil Corbin-Mark, WE ACT; and John Williams, NYSERDA. | © *RTO Insider*

Matt Stanberry, Advanced Energy Economy | © *RTO Insider*

Matt Stanberry, managing director of Advanced Energy Economy, said New York has a charging problem, ranking 30th in terms of charging stations per capita, as well as an awareness problem, with 60% of new car buyers unaware that buying an electric vehicle is possible.

Adam Ruder, NYSERDA | © *RTO Insider*

Improving consumer awareness is important, agreed Adam Ruder, program manager for clean transportation at NYSERDA.

"We need to help normalize electric vehicles in consumers' minds and really bring more partners into the fold in getting this message out," Ruder said. "The state should not be the main messenger here. The automakers are starting to up the ante on their advertising, but a lot more needs to be done."

Cecil Corbin-Mark, WE ACT | © *RTO Insider*

Cecil Corbin-Mark, deputy director of WE ACT for Environmental Justice, urged policymakers to remember people in the cities, "to think about the ways in which transportation-starved communities are better served by public transit; so the emphasis does need to be placed on ... the electrification of public transportation systems."

Rachel McCrea, National Grid | © *RTO Insider*

"Really to meet these goals, 50% of light-duty vehicle sales will have to be EVs by 2030, and our analysis says that we're at about 10% of the charging infrastructure we need to support that," said Rachel McCrea, National Grid's growth management lead for New York. ■

— Michael Kuser

NYISO News

NYPSC OKs $400 Million Debt for Upstate Tx Project

By Michael Kuser

The NYPSC held its regular monthly session in Albany on Sept. 19.

New York regulators on Thursday agreed to allow the New York Transco consortium of utilities to borrow up to $400 million to upgrade transmission lines running across the state (*19-E-0352*).

Composed of transmission subsidiaries of Consolidated Edison, Avangrid, and Central Hudson Electric and Gas, NY Transco was created to plan, develop and own high-voltage electric transmission facilities in New York. In May, it petitioned the commission to issue up to $400 million in new long-term debt securities to develop and build an electric transmission line referred to as the New York Energy Solutions (NYES) transmission project. Working with National Grid, NY Transco proposed the project through the competitive NYISO Public Policy Transmission Planning process. The project won the endorsement of the ISO's board in April. (See *NYISO Board Selects 2 AC Public Policy Tx Projects*.)

The first phase of the project includes a new 54-mile, 345-kV line that begins at a new Knickerbocker switching station in Schodack, Rensselaer County, and ends at the substation in Pleasant Valley, Dutchess County. NY Transco said it expects to submit its siting application to the commission in the near future. The project is slated to be operational by the end of 2023.

John B. Rhodes, NYPSC

"Our energy system needs smart transmission projects to move clean power, lower electricity costs, grow the green economy and reduce emissions," Public Service Commission Chair John B. Rhodes said. "Improvements such as these will benefit all New Yorkers."

The upgraded high-voltage transmission lines will reduce grid congestion and allow lower-cost electricity and renewable electricity being produced in upstate New York to flow to millions of downstate customers, the commission said.

PSEG Long Island Project Approved

The commission also granted PSEG Long Island, on behalf of the Long Island Power Authority, authority to build and operate the 7-mile Western Nassau transmission project (Case *17-T-0752*).

The entire project will be located underground except for portions located at the East Garden City and Valley Stream substations.

"This process is a reminder of what good negotiation with parties looks like," Rhodes said. "This is a project that's going to genuinely provide grid and engineering value to the system, and it comes with appropriate and widely endorsed conditions to accommodate community and environmental needs and health considerations."

PSEG, the state Department of Public Service, the Department of Environmental Conservation, and the villages of Lynbrook and Rockville Centre all supported the joint proposal.

The project in the town of Hempstead, Nassau County, will cross the villages of Garden City, Malverne and Lynbrook, and will mainly be built within the public roadway rights of way with conventional trenching and, where required, horizontal directional drilling.

The project design standards will comply with storm-hardening requirements to withstand a Category 3 hurricane. ■

PSE&G Denied Rehearing in Con Ed Dispute

FERC denied Public Service Electric and Gas' request for rehearing of the commission's September 2018 order dismissing its complaint against Consolidated Edison over the latter's termination of the "wheel" it used to move power from upstate New York to New York City via northern New Jersey (*EL18-143-001*).

PSE&G said Con Ed violated the NYISO Tariff by failing to cooperate with PSE&G to remove dielectric fluid and transmission cables from the B and C Lines, two 345-kV lines co-owned by the companies that run under the Hudson River to connect NYISO and PJM.

The commission had ruled that it lacked exclusive jurisdiction to determine the validity of PSE&G's claim, saying the issue should be resolved in federal court. The commission affirmed that the line agreements between the companies will terminate on Dec. 31, 2020. (See *FERC Dismisses PSE&G Complaint Against Con Edison*.)

— Rich Heidorn Jr.

FERC to PJM Gens: Use or Lose Capacity Rights

By Christen Smith

PJM generators seeking must-offer exceptions will lose their capacity interconnection rights (CIRs) unless they meet Capacity Performance requirements within five years under Tariff changes approved by FERC on Sept. 16 (*ER19-2417*).

Rejecting arguments from some of PJM's largest utilities, the commission said the joint PJM-Independent Market Monitor proposal was needed to mitigate market power and hoarding of CIRs.

Exelon, Duke Energy and Public Service Enterprise Group had contended the revocation of CIRs was overly punitive and that CIRs are a contractual right resulting from investments and not granted on a "use it or lose it" basis.

The commission disagreed. "The interconnection service agreement or wholesale market participation agreement, which is signed by the seller, explicitly provides that CIRs are subject to the terms of the Tariff, which may change over time. … We agree with PJM that sellers that are neither meeting nor attempting to meet the Capacity Performance resource requirements should not be able to retain capacity resource status and CIRs indefinitely through must-offer exceptions.

"We do not agree with the protesters' arguments regarding the types of hardships sellers could face if they lose their CIRs," FERC continued. "The proposed procedures for removal of CIRs because of a resource status change are the same Tariff procedures used for removal of CIRs after a resource deactivates. After a resource loses its capacity resource status, the seller is able for one year to transfer the CIRs or submit a new generation interconnection request that contemplates the use of the same CIRs. Sellers also may choose to continue to participate in the PJM markets as an energy resource."

Sellers will have up to five years to develop and complete necessary upgrades to achieve CP status, which FERC noted "is consistent with the time frames for new resources to complete upgrades and reach commercial operation."

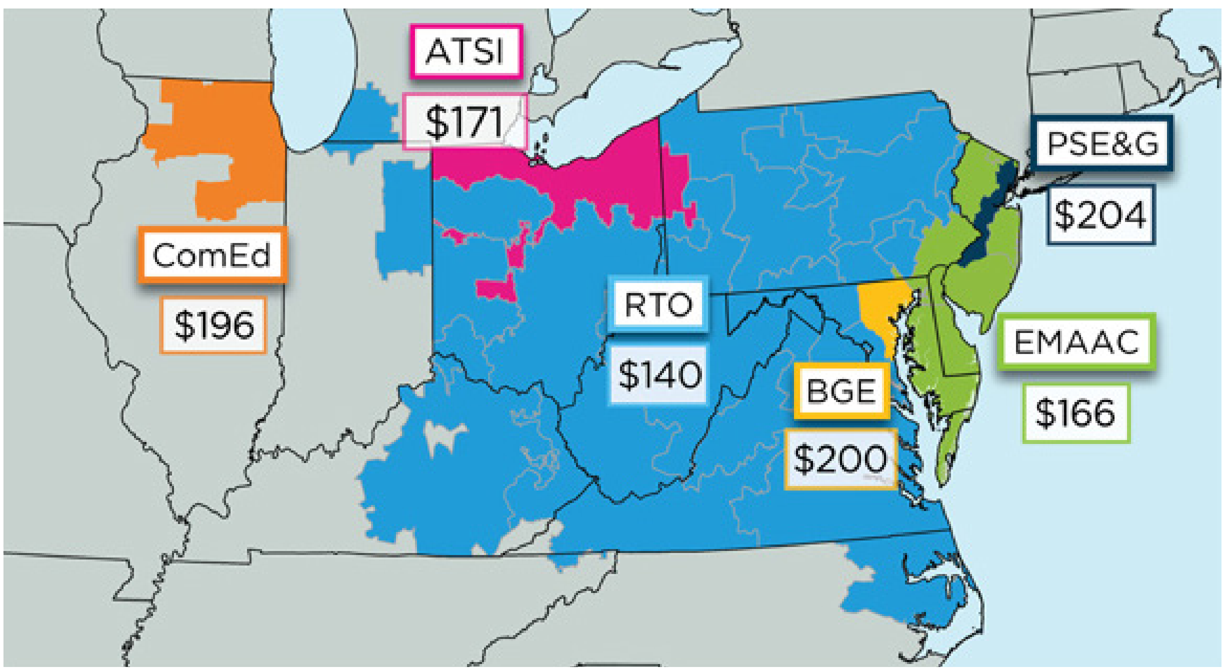
The changes, endorsed at the Markets and Reliability Committee in April, require existing capacity resources not offered in three consecutive auctions to change to energy-only status. A resource receiving a must-offer exception must also file a plan showing how it will become able to satisfy CP requirements or forfeit its CIRs. Resources would be granted exceptions for no more than two auctions. (See *Load Interests Endorse PJM-IMM Must-offer Proposal*.)

The commission approved the proposal, effective Sept. 23, with the new provisions first affecting the 2023/24 delivery year.

"The main motion would permit hoarding of CIRs inappropriately," Monitor Joe Bowring said at the time. "We continue to believe the compromise we worked out with PJM makes the most sense."

FERC shot down arguments from Exelon, Duke, PSEG and FirstEnergy that PJM has exaggerated the potential for capacity sellers to exercise market power and that the change would encourage unit retirements.

"The underlying purpose of the must-offer requirement is to ensure that sellers do not withhold capacity resources from [Reliability Pricing Model] auctions and potentially exert market power," the commission wrote. "We concur with the IMM that the historical frequency of exception requests is irrelevant and that a small number of units in constrained locations in the market could have significant impact on prices. We find that the proposed revisions to the must-offer exception procedures and limitations on the number of exceptions are consistent with the purpose of preventing sellers from physically withholding capacity. We also agree that these provisions will prevent hoarding of CIRs by resources that are not performing as a capacity resource."



FERC approved a joint PJM-IMM proposal to revoke CIRs from generators seeking must-offer exceptions without a plan to meet their CP commitments within five years. | *PJM*

FERC was also unmoved by arguments the proposal could result in generators making hasty investment decisions. "PJM has concluded a multiyear transitional period to the Capacity Performance resource requirements, and through that process, sellers have had opportunities to determine if upgrades were necessary for existing resources to meet those requirements," it said.

The commission directed PJM to submit a compliance filing to add some clarifying language and correct a ministerial error in one of its Tariff citations. ■

PJM News

PJM Remains Neutral in CIP-014 Debate

By Christen Smith

PJM says it won't take sides in a debate between transmission owners and load interests over the TOs' proposal for removing substations and other "critical" assets from NERC's CIP-014-2 list.

NERC's critical infrastructure protection standard CIP-014-2 requires TOs to identify and protect transmission stations and substations whose loss or sabotage could result in widespread instability, uncontrolled separation or cascading outages. The TOs last month proposed Tariff *Attachment M-4*, which outlines a process for vetting transmission projects to remove the assets from the list.

Some stakeholders contend PJM rules require that addressing the CIP-014-2 assets must involve an open and transparent discussion with stakeholders. But doing so, the TOs contend, could reveal the highly secretive location of these facilities.

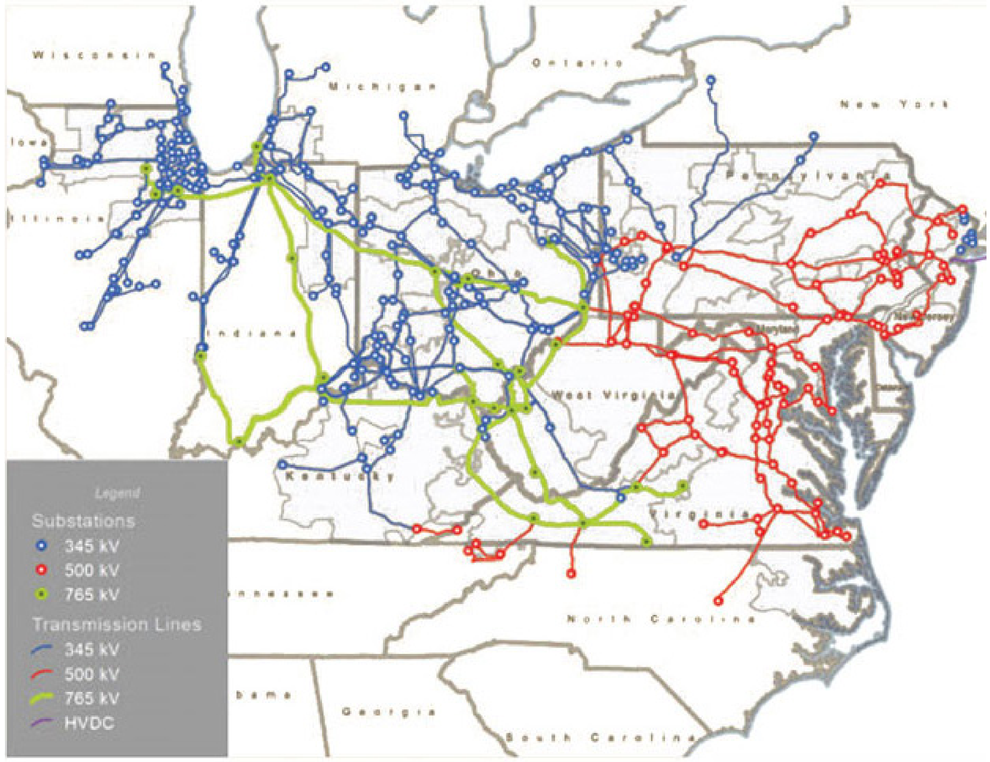
The RTO said it will stay on the sidelines of the transparency debate and encouraged stakeholders to work out the Tariff language among themselves.

"PJM is prepared to assume the role of an independent, third party to assess whether a transmission project will effectively address the critical infrastructure and associated operations and reliability risks giving rise to the CIP-014 designation in the first place," PJM spokesperson Susan Buehler said in an email to *RTO Insider*. "By so doing, PJM can ensure that projects meet the shared objective to reduce critical facilities outright. Because this is a PJM transmission owner proposal, we encourage dialogue between the transmission owners and other stakeholders."

Consumer Advocates of the PJM States questioned why the draft attachment wasn't scheduled for discussion at the August meeting of the Markets and Reliability Committee or the Planning Committee. (See *PJM TO Tariff Filing Stirs up Transparency Concerns*.)

Earlier this month, the D.C. Office of the People's Council presented a problem statement and issue charge that would require all sectors come together to manage future CIP-014 projects. (See "Consumer Advocates: CIP-014 Projects Need More Transparency," *PJM PC/TEAC Briefs: Sept. 12, 2019*.)

American Municipal Power took the debate a step further last week when the company publicized its "profound" concerns about the TOs' proposal in a *letter* to PJM's planning department and Board of Managers. Of particular concern, AMP said, was the TOs' attempt to classify CIP-014-2 projects as supplemental, which it said could hide large-scale upgrades with regional and interregional impacts behind a veil of secrecy.



PJM "backbone" transmission | *PJM*

"Given the importance of these substations to regional and possibly interregional operations, there can be little question that the planning of those substations would be conducted through the PJM-administered Regional Transmission Planning Process," AMP CEO Marc Gerken wrote.

PJM said NERC assigned TOs the role of managing physical security for CIP-014-2 facilities. Ken Seiler, vice president of planning, told the Planning Committee on Sept. 12 that staff support the idea of reducing or eliminating the number of CIP-014-2 assets in the RTO's territory, but he would not comment on the transparency concerns raised by the consumer advocates. There are less than 20 "critical" assets within the footprint.

"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."

Pulin Shah, director of transmission strategy and contracts for Exelon, said TOs "will follow the process laid out in the Consolidated Transmission Owners Agreement and the Tariff" when collecting and responding to stakeholders' comments on Attachment M-4. Exelon has led the PC and MRC discussions on the attachment thus far, though it was just one of several members of the Transmission Owners Agreement-Administrative Committee that helped develop the proposal, Shah said.

"We have extended the comment period to ensure we allow ample time for stakeholders to provide their comments and questions, as the transmission owners determine next steps," he said. "We will review and respond accordingly to relevant comments and questions through this process, as opposed to having one-off discussions that could lead to confusing the issue." ■

PJM News

New Rules to Give PJM Members More Time on Issues

By Christen Smith

VALLEY FORGE, Pa. — PJM's Members Committee will vote on rule *changes* this week that would give stakeholders more time to review governing document revisions.

The *package* — part of a larger review of the RTO's stakeholder process — would require PJM to post proposed changes online at least seven business days prior to a scheduled vote at the Markets and Reliability Committee. When possible, the RTO would also schedule "page turn" meetings during which members may propose revisions. Stakeholders would then be required to provide their feedback on the changes to PJM no later than three days before the scheduled vote.

Rebecca Carroll, PJM's director of member relations, said the changes were developed during seven special sessions of the Stakeholder Process Super Forum that convened between January and July.

Transparency

The new posting timeline comes after months of procedural skirmishes over whether specific revisions, amendments, problem statements and issue charges should have been disseminated to stakeholders sooner.

In some cases, PJM posted contentious revisions online just hours before a scheduled vote before a standing committee, frustrating stakeholders. In other instances, stakeholders warily endorsed problem statements and issue charges on a first read.

The new language proposed for Manual 34 would not only mandate a specific timeline but also build in additional avenues for feedback in the event that revisions change between an MRC vote and a FERC filing. In that case, PJM would post the changes online three business days before a planned filing and set up a dedicated email for receiving feedback from members.

Priority of Issues

Another *package* up for vote would set priorities to manage the number of issues under consideration and the number of meetings — an area honed in on when polled last year. (See *Poll: Stakeholder Process Imperfect, Necessary*.)

Under this proposal, PJM would condense and organize meetings so that similar subjects are tackled on the same day. Meetings scheduled for less than two hours would be WebEx only. The RTO would also honor two contiguous "no-meeting days" once a month and recognize major religious and national holidays.

PJM's Members Committee will vote on three sets of stakeholder rule changes this week. | © *RTO Insider*

Other proposed changes include:

- "Meeting prioritization" decisions would be made by the secretary of the MC.
- Subcommittee meetings may be scheduled one year in advance and may be shortened and consolidated when possible.
- Task forces, special sessions, etc., would be permitted to be scheduled only six months in advance to more accurately reflect their meeting need and duration.
- Stakeholders would be required to review the current committee work plan prior to the approval of a new issue charge.

Critical Issue Fast Path

The Super Forum also *proposed* creating a new section in Manual 34 that details a critical issue fast path (CIFP) that would give members "an orderly and facilitated process for contentious issues with known PJM and/or FERC implementation that were not resolved, or would be extremely difficult to resolve, within the normal stakeholder process."

PJM said the process would only be reserved for select issues and only be initiated by the Board of Managers. The board could trigger the process over a time-sensitive issue that has yet to be resolved through the typical work schedule, or members could request the board to initiate the process with a two-thirds majority vote at the MC.

The CIFP would take priority over other scheduled meetings and could require multiday meetings to meet deadlines. The process could take as little as five days up to a few months, PJM said.

After concluding the CIFP, the MC would conduct a sector-weighted vote on the packages. If any package receives greater than two-third support, PJM would file it under Section 205 of the Federal Power Act at FERC. In the event of multiple packages meeting the majority threshold, the package with the highest amount of support would advance to the filing stage.

Next Steps

All three proposals received more than 90% stakeholder support at the last Super Forum meeting, Carroll said. The MC will vote the packages on Thursday, with implementation scheduled for next year. ■

Overheard at Raab Associates' PJM Energy Policy Roundtable

WASHINGTON — More than 100 stakeholders gathered at the law offices of Morgan, Lewis & Bockius for Raab Associates' Energy Policy Roundtable in the PJM Footprint. Panelists discussed the potential for storage resources in the RTO's markets and the state of climate change politics in the U.S.

| © RTO Insider

10 Hours of Providing Energy in PJM as Storage

Scott Baker, PJM | © RTO Insider

Scott Baker, senior business analyst for PJM, had to fend off criticism from some of his fellow panelists of the RTO's compliance filing for FERC Order 841, particularly its requirement that storage offering capacity would have to be capable of continuously supplying electricity for 10 hours.

At first, panelists were careful about what they said about the proceeding to avoid making ex parte comments, as a FERC staff member was in attendance. Once that staffer left the room, however, their consternation over the requirement became apparent.

Jason Burwen, ESA | © RTO Insider

"We see the 10-hour qualification requirement in PJM, regardless of the foundation, doesn't correspond with what we see the [resource adequacy] contribution being," said Jason Burwen, vice president of policy for the Energy Storage Association. "I think that's the question: Do we have a rule that actually accords with the reliability contribution of the assets?"

Burwen acknowledged that "PJM has been in the lead on a lot of energy storage issues for quite some time" but that the 10-hour requirement, if approved, "is going to certainly delay the entry of energy storage into capacity markets in PJM." He said Order 841 "sought to give storage incredible flexibility to be able to do the operations that it can to be the most valuable."

"The 10-hour restriction makes it extremely difficult for small storage assets that we're *aggregating*," said Anne Hoskins, chief policy officer for Sunrun and a former Maryland Public Service Commissioner. "And it wasn't found to be necessary in" ISO-NE, which proposed a two-hour requirement for storage participating in its capacity market. She touted her company's *Brightbox* battery, which she said has helped manage California's infamous duck curve by storing excess residential distributed solar and flattening load during the evening hours. "These resources can be aggregated and used very effectively ... in places like PJM that has some high summer peaks at times."

Acknowledging that PJM was an "outlier" among the RTOs/ISOs with regards to Order 841, Baker responded, "Simply put, our position has always been that dispatchable resources have a 10-hour requirement, and we operate a capacity market that has a single product today. ... In order for resources to compete, to provide the same level of service in that market, there's a single product that has a single set of requirements. ... I would assume that if we were to have some sort of lesser-duration requirement for one resource type, we'd have to evaluate all resource types."

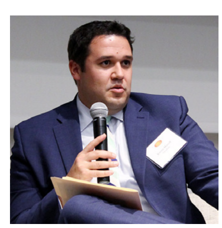
Hoskins also lamented the stakeholder process in all RTOs, not just PJM. "All of these RTO processes are so complicated and time-consuming and expensive that you're not going to hear these ideas," she said. She advised PJM to "keep in mind that many competitive providers, they don't have recovery from ratepayers for the costs that they spend on this, and this whole issue of governance with RTOs is really, really important right now so that you can actually get all these voices at the table and ... have those in-depth conversations about 10 versus eight versus four versus what we can do."

GOP Beginning to Shift on Climate Change

A second panel featured representatives of two D.C.-based think tanks — one from each side of the political spectrum — to explore the common ground Republicans and Democrats can find on clean energy policy.

Josh Freed, Third Way | © RTO Insider

Josh Freed, senior vice president for clean energy at the center-left Third Way, and Jeremy Harrell, managing director for policy at the conservative ClearPath, talked about each of their organizations' preferred policies to reduce emissions and prevent the dreaded 2-degree Celsius increase in average global temperatures.



Jeremy Harrell, ClearPath | © RTO Insider

Freed said Third Way would like to see the federal government set clear emissions targets across all sectors for states and industry and then provide funding to help meet them. Harrell said ClearPath focuses on policies related to

PJM News

the power sector that would reduce the costs of building clean energy resources, such as carbon capture and energy storage, and increase R&D funding for the public and private sectors.

But they also expressed openness to other policies in service to the ultimate goal.

"We have our preferred approach at Third Way, but there are multiple approaches being debated right now that we'd be happy with," Freed said. "We are skeptical that a carbon tax is a feasible pathway over the next four or five years, but if somehow magic happened and that was able to pass through Congress and get signed into law, great, we'd be thrilled."

"In the end, both of our organizations want to see deep emission reductions," Harrell said. "We want to see a clean American grid and ultimately a cleaner global electricity footprint."

They also strongly agreed on the importance of advanced nuclear technologies.

Besides the implications for the climate, Freed said the U.S. has "a competitive and economic imperative to invest in" advanced nuclear.

"There is [also] a safety and security imperative. Because on nuclear, if we don't do it, the Russians and the Chinese will, and we don't have faith that they will follow the same safety, security and proliferation protocols there."

Harrell said ClearPath spends a third of its time each on nuclear, carbon capture, and renewables and storage. But "I would be lying to you if I didn't say that, as an organization that works with Republican members of Congress, it's easier to work with Republicans on advanced nuclear and carbon capture technologies. It just happens to have a significant climate imperative as well."

And while they both agreed that there has been progress among the GOP in accepting the science of climate change, Freed said the Trump administration is the biggest obstacle, at least in the short term, to large-scale emissions reductions. He ticked off the list of environmental regulations the administration has rolled back, starting with the then-impending revocation of California's authority to set auto emissions rules that are stricter than federal standards.

He lauded, however, the Department of Energy, "which has been fantastically able to continue on support of the innovation goals that we support and others support." But "the broader, more comprehensive goals that we need to see set by the federal government that drive demand for clean energy ... are being hacked away very quickly and aggressively."

Harrell was more optimistic and did not directly dispute Freed's criticism of the administration. But he did say a long-term challenge is the "piecemeal system in place across the country": different state regulations, different wholesale market structures and different utility goals. "Our regulatory structures are not really well-suited to make those happen, and it's tough to have a cohesive policy in place even if there was a political environment where we could do a major climate bill," he said. "I think there will be some type of major federal legislation in the next decade or so, but how do we put forth a policy that makes sense in all these different segmented areas? It's kind of the beauty and the struggle of federalism." ■

— Michael Brooks

Stalled Pipeline Overshadows Dominion's OSW Project

By Christen Smith

Dominion Energy proposed the largest offshore wind *project* in the U.S. last week on the heels of Virginia's policy turn toward clean energy, but environmental groups see the announcement as a hollow gesture given the ongoing development of the company's Atlantic Coast Pipeline.

"It's really a stretch to believe anyone at Dominion is concerned about a transition to clean energy as long as it's pursuing close to an $8 billion fossil fuel project that would lock Virginians into fossil fuels for many decades to come," Tom Cormons, executive director of Appalachian Voices, told *RTO Insider*. "The company now has two very expensive proposals on the table, and one of those is completely antithetical to any state commitment to clean energy."

Dominion said Thursday it filed an application with PJM to interconnect more than 2,600 MW of offshore wind turbines through 2026. The project will be an extension of a pilot *program* intended to lower the cost of offshore wind development and will be located in 112,800 acres of federal waters some 27 miles off the coast of Virginia Beach.

"Offshore wind is an excellent renewable energy source, and this filing with PJM shows how serious we are about bringing commercial-scale offshore wind to Virginia, giving our customers what they have asked for — more renewable energy," Mark D. Mitchell, Dominion's vice president of generation construction, said in a statement. "Gov. Ralph Northam has made it clear Virginia is committed to leading the way in offshore wind. We are rising to this challenge with this 2,600-MW commercial offshore wind development."

Mitchell's comments reference Northam's *executive order*, signed Sept. 17, that mandates statewide energy production become 30% renewable over the next decade and 100% by 2050. His plan includes installing 3,000 MW of solar and onshore wind by 2022 and up to 2,500 MW of offshore wind by 2026.

"This executive order will help ensure that Virginia remains at the forefront of clean energy innovation, meets the urgency of the challenges brought on by climate change, and captures the economic, environmental and health benefits of this energy growth in an equitable way that benefits all Virginians," Northam said. His office did not respond to a request for comment on Monday.

Cormons, whose group is a founding member of the *Virginia Energy Reform Coalition*, said that while the clean energy targets are "laudable," it's hard to take Northam or Dominion seriously. (See *Va. Group Seeks End to Dominion Monopoly*.)

The 600-mile underground pipeline that will run from West Virginia to North Carolina remains tied up in federal court after developers lost a permit to cross 600 feet below a section of the Appalachian Trail last year. The Supreme Court will soon decide whether to hear the case, and construction on the project could resume before the end of 2019.

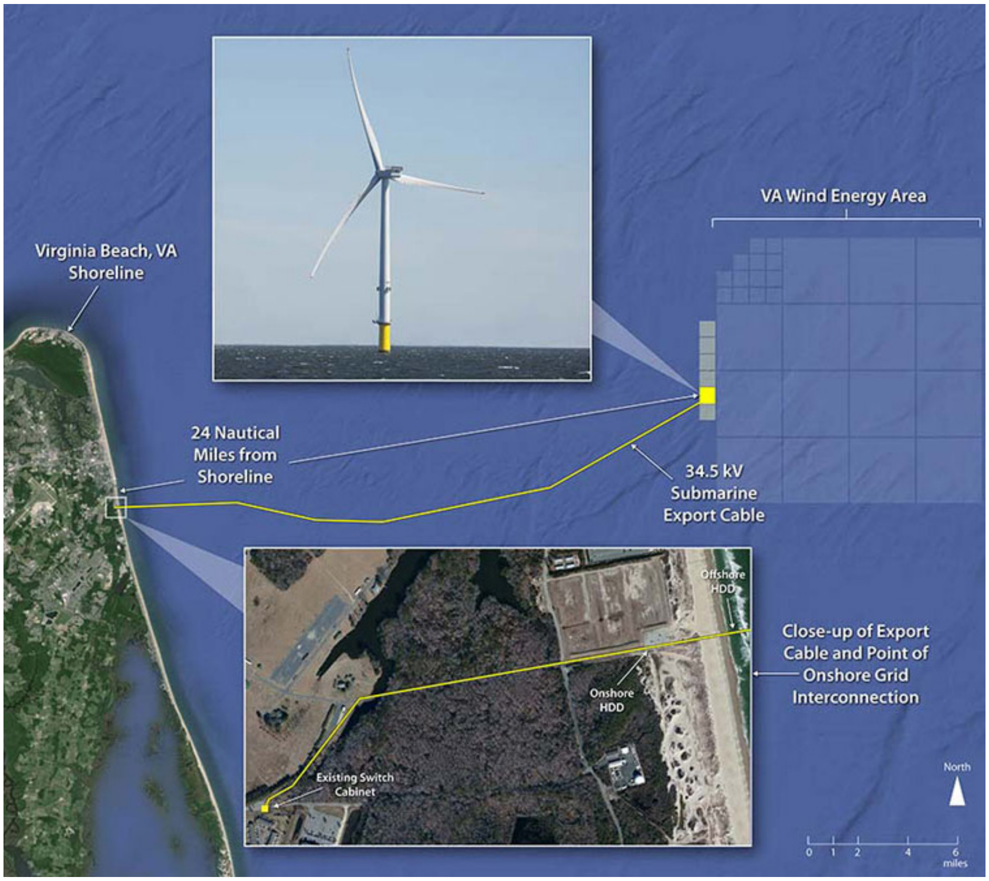
Dominion told *RTO Insider* that the pipeline "is needed more than ever" to ensure reliability and works in tandem with renewable energy — not against.

"Natural gas is a great partner for renewables," said Jeremy Slayton, a Dominion spokesperson. "It helps fill in the gaps due to the intermittent nature of wind and solar generation."

"Dominion wants to build anything and everything that the governor will approve and that they can ... charge Virginians millions of dollars for," Cormons said. "In my view, there's no way we can have a conversation about an offshore wind project until Dominion renounces its efforts to build the Atlantic Coast Pipeline."

Although many state environmental groups have echoed Cormons' sentiment — including the *Chesapeake Climate Action Network* and the *Sierra Club* — the American Wind Energy Association applauded both announcements in a statement released Friday.

"We applaud Gov. Northam's ambitious goal of 2,500 MW of offshore wind by 2026 and Dominion Energy's announcement of a large-scale project that's up to the challenge," said Laura Smith Morton, AWEA's senior director of offshore wind development. "Offshore wind will strengthen Virginia's economy with many highly skilled careers and new investments in the shipbuilding, port and coastal infrastructure needed to deploy and maintain this new American energy source." ■



Map of the planned project | *Dominion Energy*

PJM News

PJM MRC/MC Preview

Below is a summary of the issues scheduled to be brought to a vote at the PJM Markets and Reliability and Members committees on Thursday. Each item is listed by agenda number, description and projected time of discussion, followed by a summary of the issue and links to prior coverage in *RTO Insider.*

RTO Insider will be in Valley Forge, Pa., covering the discussions and votes. See next Tuesday's newsletter for a full report.

Markets and Reliability Committee

Consent Agenda (9:10-9:15)

The MRC will be asked to endorse revisions to:

B. *Manual 11*: Energy & Ancillary Services. The revisions document the procedure for addressing missing historical performance scores in the regulation market and clarify that the reserve requirements used in the market clearing process are based on the largest single contingencies that are communicated by PJM Operations and modeled in the markets clearing software.

C. *Manual 27*: Open Access Transmission Tariff Accounting and *Manual 28*: Operating Agreement Accounting. The changes, required to comply with FERC Order 841, detail PJM settlement procedures for "charging energy," which is purchased by energy storage resources for later resale. Charging energy is always billed at the applicable LMP but different categories of charging energy are subject to different sets of charges. They include "direct charging energy" — power purchased by a storage resource from the PJM energy market for later resales to the market or is lost to conversion inefficiencies — and "load-serving charging energy," which is purchased from the energy market and stored for later resale to end-use load.

1. Non-retail BTM Generation Rules (9:15-9:30)

Stakeholders will vote on revisions to Manuals 13 and 14D to clarify the reporting, netting and operational requirements of non-retail behind-the-meter generation (NRBTMG). In Manual 13, maximum generation emergency actions and deploy all resource actions are identified as triggers to load NRBTMG. (See "BTM Generation Clarifications," *PJM OC Briefs: Aug. 6, 2019*.)

The vote follows a one-month deferral requested by Exelon in order to review applying the rules to community solar programs and aggregate net energy metering. Both PJM and Exelon told the Operating Committee on Sept. 10 that compromise language was close to being finalized which excluded both types from reporting requirements. (See "Non-retail BTM Generation Update," *PJM OC Briefs: Sept. 10, 2019*.)

Members Committee

Consent Agenda (1:20-1:25)

Members will be asked to endorse the following manual revisions:

B. *Manual 15*: Cost Development Guidelines. To comply with FERC Order 841, changes were made to language on hydro resources and flywheels. Definitions were added for efficiency factor, fuel cost, variable operations and maintenance (VOM) and ancillary service costs.

1. PJM Manuals (1:25-1:45)

Members will vote on *revisions* to Manual 34: PJM Stakeholder Process that were developed during the Stakeholder Process Super Forum over the last year.

Three separate proposals will address the prioritization of issues, creating an alternative path for critical, time-sensitive issues and ensuring transparency throughout the process. ■

— Christen Smith

FERC Order Briefs: PJM

NJ Gas Plant Granted More Efficiency Waivers

FERC approved two waivers for a New Jersey cogeneration plant last week that will exempt it from having to meet qualifying facility operating and efficiency standards in 2018 and 2019 (*EL19-72*).

Kenilworth Plant — a 29-MW dual-fuel combined cycle unit that supplies electricity and steam to Merck's international headquarters in Union County — has been struggling to meet the Public Utility Regulatory Policies Act standards since 2016, when the company converted the property from a manufacturing and processing facility to a corporate campus, reducing its need for steam.

FERC granted waivers for the plant 2016 and 2017 but held off on approving one for 2018 in hopes that a scheduled overhaul of its combustion turbine would improve efficiency. Kenilworth told the commission in June that although the turbine's efficiency rating improved after the maintenance, it still fell short of the minimum qualifying efficiency standard of 42.5% for several months afterward. Further repairs and increasing on-site load at the campus, however, will eventually bring the plant back into full compliance with the QF standards.

FERC granted the waivers for 2018 and 2019 but dismissed the request for 2020, saying that a combination of the plant's investments and the anticipated growth at the Merck campus make a waiver unnecessary.

Calpine Reactive Service Settlement Approved

The commission approved a settlement that lowers reactive service rates for Calpine generating units in PJM (*ER14-874*).

The settlement between Calpine, Old Dominion Electric Cooperative and PJM's Independent Market Monitor includes an annual revenue requirement (ARR) of $10.1 million for Calpine units in Pennsylvania, New Jersey, Delaware, Maryland, Virginia and Illinois. PJM, the Monitor and ODEC had filed motions questioning whether Calpine's rates were justified.

Calpine's Bethlehem, Pa., plant will have an ARR of $2.02 million, a 25% reduction from the $2.6 million Calpine had proposed. Since the ARRs are now lower, Calpine agreed to refund the difference. ■

— Christen Smith

SPP Board OKs $9.5M to Build Western EIS Market

By Tom Kleckner

SPP's dream of operating an energy market in the Western Interconnection came closer to reality Friday with its Board of Directors' approval of start-up funding for the Western Energy Imbalance Service (WEIS) market.

The board accepted staff's recommendation to budget $9.5 million to develop and stand up the market. The Members Committee supported the recommendation, with only Xcel Energy's Southwestern Public Service abstaining from the vote during a conference call.

Committee members peppered SPP staff with questions about the proposal's costs to existing members and whether the RTO will maintain a division between Eastern and Western members. Staff assured members there will be no increase to corporate overhead.

Bruce Rew, SPP | *© RTO Insider*

Asked how the market will help "East-side members," Senior Vice President of Operations Bruce Rew said current members would benefit from the "additional use of the SPP system."

"That will provide additional revenue through corporate overhead costs and reduce the SPP administrative fee accordingly," Rew said.

Staff said they have been tracking expenses to develop the market proposal and will continue to do so. The RTO said it will add 13 employees to perform the WEIS functions and will begin the hiring process "as soon as practical."

"We have a 16-month schedule, and there's a lot of work to be done," Rew said.

SPP says it will finance the costs during the implementation period by issuing debt. It will then recover the costs from the WEIS participants over eight years, beginning in December 2020, using a formulized rate that includes projected annual production costs, start-up principal and interest charges, and current net energy for load.

Market participants who terminate WEIS services within the first eight years are obligated to pay their portion of the remaining implementation costs. Additional participants who enter the market within that period will be allocated a portion of the original implementation costs.

The WEIS will operate similarly to SPP's imbalance market, which ran from 2007 to 2014, centrally dispatching energy on a five-minute basis under a Western joint dispatch agreement. Members will operate under a separate tariff and market protocols from SPP's Eastern Interconnection members. Should a WEIS member decide to join the RTO as a transmission owner, the balance of its implementation costs would be spread out among the market's remaining participants.

SPP has long explored offering market services in the Western Interconnection and seeking new members. An effort to integrate the Mountain West Transmission Group fell apart last year, but the grid operator's attempt to provide reliability coordination services to 12% of the region's load is on schedule to meet a December timeline. (See *SPP Western Reliability Briefs: Week of Sept. 16, 2019*.)

The WEIS market will become the West's second, joining CAISO's Western Energy Imbalance Market.

SPP says the WEIS will go live in February 2021. It already has five market participants in Basin Electric Power Cooperative, Tri-State Generation and Transmission Association, and three Western Area Power Administration entities: Colorado River Storage Project, Rocky Mountain Region and Upper Great Plains. All five organizations signed contracts in September to fund the market's development. (See *WAPA, Basin, Tri-State Sign up with SPP EIS*.)

The grid operator said it will accept additional participants through Oct. 25. Market participants who want to join the WEIS after that date will be onboarded through SPP's normal processes.

Xcel, Colorado's largest load-serving entity, and three partners — Black Hills Energy, Colorado Springs Utilities and Platte River Power Authority — have announced they are evaluating both the WEIS and the EIM. (See *Colorado Utilities Examine Market Membership*.)

SPP made the WEIS public in June, distributing a *proposal* to 19 interested parties in the interconnection.

It expects to file a WEIS Tariff with FERC early next year. Legal staff said they were not aware of any necessary state regulatory filings. ■

FERC Order Briefs: SPP

NPPD Rehearing Request v. Tri-State Denied

FERC last week denied Nebraska Public Power District's request for rehearing of the commission's order dismissing its complaint against SPP and Tri-State Generation and Transmission Association over Tri-State's annual transmission revenue requirement (*EL18-194, ER16-204*).

NPPD filed a complaint under Section 206 of the Federal Power Act last year asking the commission to determine that the inclusion of certain costs in Tri-State's ATRR and failure to credit certain revenues to its revenue requirements for network integration transmission service under SPP's Tariff are unjust and unreasonable.

FERC denied the complaint, finding that each of the disputed cost components were covered by a settlement agreement that included NPPD and that the utility failed to demonstrate that its proposed modifications to the ATRR satisfy the heightened "public interest" standard.

Commission Accepts Sunflower, Mid-Kansas Merger

The commission conditionally granted Sunflower Electric Power's request for a 50-basis point adder to its return on equity to reflect its acquisition of Mid-Kansas Electric (*ER19-2273*).

The commission also set for hearing and settlement procedures SPP's proposed revisions to Sunflower's formula rate template and implementation protocols to combine the existing Mid-Kansas and Sunflower zones into a single Sunflower zone under the Tariff.

— Tom Kleckner

Company Briefs

Amazon Orders Record Number of EVs from Rivian

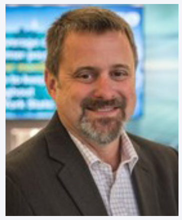
Amazon last week announced it ordered 100,000 electric vans from Rivian Automotive — the largest order of fully electric vehicles in automotive history.

Rivian spokeswoman Amy Mast said 10,000 vans are expected to be on the road by late 2022. All 100,000 are expected to be operating in Amazon's fleet by 2030. The vans are to be built at Rivian's plant in Normal, Ill.

The vans would eliminate 4 million metric tons of carbon-dioxide emissions when the fleet is fully operational, according to Mast.

More: *The Detroit News*; *CNBC*

NYISO Names Pike as VP of Market Operations



NYISO last week announced that **Robb Pike** has been named vice president of market operations.

Pike, who has been with NYISO since its inception in 1999, will be responsible for the NYISO's Installed Capacity Market Operations, Distributed Resources Operations, and Operations Performance and Analysis departments. He takes over the role from Emilie Nelson, who was promoted to executive vice president in May.

"Over many years of dedicated service, Robb has led numerous critical efforts to successfully integrate innovative market design with the reliable operation of the electric grid," CEO Rich Dewey said in a statement. "His combined engineering and management skills make Robb perfectly suited to serve as the NYISO's vice president of market operations."

More: *NYISO*

Duke Vows to Eliminate its Carbon Emissions by 2050

DUKE ENERGY®

Duke Energy is the latest major utility to commit to a carbon-free future, with a plan to cut its emissions in half by 2030 and eliminate them completely by midcentury.

Last week's commitment, which includes plans to at least double the company's solar, wind and other renewables portfolio by 2025, is the largest carbon-reduction commitment yet from a U.S. utility. More immediately, Duke's new plan improves on its 2017 goal to cut its 2030 carbon emissions by 40%, driven by "sustained low natural gas prices and declining costs for renewables and storage," the company said in a statement.

"A diverse mix of renewables, nuclear, natural gas, hydro and energy efficiency are all part of this vision," CEO Lynn Good said. "In the longer term, innovation and new technologies will be critical to a net-zero carbon future."

More: *Greentech Media*

Federal Briefs

23 States Sue Keep California's Auto Emission Rules

California sued to stop the Trump administration from revoking its authority to set greenhouse gas emission and fuel economy standards, enlisting help from 22 other states.

Federal law sets standards for how much pollution can come from cars and trucks, but since the 1970s, California has been permitted to set tougher rules because it has the most cars and struggles to meet air quality standards. Thirteen other states, plus D.C., have adopted the same standards. On Thursday, the National Highway Traffic Safety Administration (NHTSA) withdrew the state's waiver.

Gov. **Gavin Newsom** vowed the state "will hold the line in court to defend our children's health, save consumers money at the pump and protect our environment." Attorney General Xavier Becerra also cited a 2007 U.S. Supreme Court decision that rejected NHTSA's argument that greenhouse gas emission standards under the Clean Air Act interfered with its ability to set fuel economy standards.

More: *The Associated Press*

Solar Market Growth Slows this Year as Projects Pushed back

SEIA Solar Energy Industries Association®

The Solar Energy Industries Association said the U.S. solar market will grow more slowly than previously forecast for this year as some large projects were shifted to 2020.

The association now forecasts 17% growth this year to 12.6 GW (down from 25%) in its quarterly joint report with Wood Mackenzie Power & Renewables. At the same time, the report raised its five-year growth forecast by 6.7 GW, citing strong solar commitment from utilities.

Utilities may be seeking to capture government tax credits for installations that will begin to step down next year. The credit currently stands at 30% but will gradually drop to a permanent 10% in 2022.

More: *Reuters*

CPP Officially Dead; Utilities Challenge ACE Rule

The D.C. Circuit Court of Appeals last week dismissed a set of cases that had been pending since 2015 targeting the Clean Power Plan, which aimed to cut greenhouse gas emissions from the power sector.

The consolidated cases were moot in light of the Trump administration's replacement, the Affordable Clean Energy Rule, the full court said.

Nine utilities have filed a legal challenge to the ACE Rule, arguing it undermines efforts already under way to reduce greenhouse gas emissions by investing in renewable energy, electric vehicle infrastructure and energy efficiency and other clean technologies. The group of utilities, which calls itself the Power Companies Climate Coalition, includes Consolidated Edison, Exelon, National Grid, PG&E Corp., Public Service Enterprise Group, the Los Angeles Department of Water and Power, Seattle City Light, Sacramento Municipal Utility District and New York Power Authority. The petition was filed in the D.C. Circuit on Sept. 6.

More: *Bloomberg Environment*; *Reuters*

State Briefs

CONNECTICUT

Millstone, Utilities Finalize 10-year Contract

The Public Utilities Regulatory Authority last week approved a 10-year contract between the owner of Millstone Power Station and utility companies, effectively ending the yearslong political, regulatory and environmental battles to keep the plant operational.

"Had this contract not gone forward, the facility would be in danger of closing down, which would have increased greenhouse gas emissions by 25% across the New England region," said Gov. Ned Lamont, who stepped in earlier this year to help secure a deal between haggling Dominion Energy, Eversource Energy and United Illuminating. "Now we can renew our focus on offshore wind and other renewable energy resources."

The contract calls on the utilities to buy half the plant's output over the next decade. The price per kilowatt-hour in the contract has not yet been released to the public, according to Dominion spokesman Ken Holt. Department of Energy and Environmental Protection spokeswoman Kristina Rozek said pricing will be available 90 days after contract approval, unless Dominion chooses to release it sooner.

More: *The Day*

KENTUCKY

Labor Awards more than $3.5M for Laid-off Coal Miners

The U.S. Department of Labor announced that the Eastern Kentucky Concentrated Employment Program will receive more than $3.7 million to support laid-off coal miners in the area.

The National Dislocated Worker Grant funding will help with the employment and training of dislocated workers impacted by layoffs from the coal industry. EKCEP serves roughly 500,000 people in 23 counties.

More: *WYMT*

MICHIGAN

DTE to Request Bids for Solar and Wind Projects

DTE Energy is seeking to buy 25 to 200 MW of solar and 100 to 200 MW of wind. It will consider projects reaching operation between 2021 and 2023.

The utility said the additional renewable capacity will comply with the state's renewable portfolio standard, which requires the utility to supply 12.5% of its electricity from renewable sources in 2019 and 2020, and 15% in 2021. It also said the additional capacity will source its voluntary renewable energy programs and help with its commitment to reduce carbon emissions by at least 80% by 2040.

More: *The Detroit News*

NORTH DAKOTA

DOE Awards $10M to Advance Carbon Capture Research

"Project Tundra," a proposed carbon capture project at a coal-fired power plant in Oliver County, is inching closer to reality after it secured $10 million in federal funding for a study and a geologic survey last week. It is expected to cost $1 billion.

The project seeks to separate carbon dioxide from the rest of the exhaust gas created at the Milton R. Young Station. The carbon dioxide would then be injected underground, either for permanent storage or to boost oil production. It involves retrofitting the station by using a liquid solvent to bond to the carbon dioxide in the exhaust gas. The liquid would separate up to 90% of the carbon dioxide from the rest of the emissions.

The $10 million awarded by the Department of Energy would go toward a front-end engineering design study, which follows other preliminary research.

More: *Bismarck Tribune*