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Your Eyes and Ears on the Organized Electric Markets

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Danly, Brouillette Advance to Senate Floor

Vote on Brouillette to Come Next Week

By Michael Brooks

FERC General Counsel James Danly (left) and Deputy Energy Secretary Dan Brouillette at their respective confirmation hearings. | © *RTO Insider*

The Senate Energy and Natural Resources Committee on Nov. 19 voted to advance to the full Senate the nominations of James Danly as a FERC commissioner and Dan Brouillette as secretary of energy.

Danly passed the committee 12-8. Except for ranking member Joe Manchin (D-W.Va.), all Democrats — and independent Sens. Bernie Sanders (Vt.) and Angus King (Maine), who caucus with the party — voted against Danly, currently FERC general counsel.

Before the vote, Manchin bluntly said that "what the White House has done is wrong," referring to President Trump declining to pair Danly's nomination with that of Allison Clements, clean energy markets program director for the Energy Foundation and the Democrats' choice for the party's open seat on the commission. (See *Danly Sails Through Hearing as Democrats Huff*.)

"I will not withhold my vote for Mr. Danly, because then I'd be no better than they are,"

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Slow Year for FERC Enforcement, Report Shows (p.7)

New PJM CEO Defends Direct Energy Stewardship

By Christen Smith

Direct Energy's regulatory problems didn't start under Manu Asthana and didn't end after Asthana — tapped last week as PJM's new CEO — left. So how much is he responsible for allegations that the company has repeatedly cheated and misled residential consumers?

Asthana, who was president of Direct's residential division from 2013 through December 2018, will take over as PJM's CEO in January. (See *PJM Taps Ex-Direct Energy Exec as New CEO*.)

While his appointment brings an air of hope to stakeholders left shaken by PJM's exodus of executive leadership over the last year, at least one group finds the Board of Managers' choice unsettling.

"I am finding it very difficult to believe that the board conducted this CEO search and didn't investigate any of these issues about Direct Energy," said Tyson Slocum, director of Public Citizen's energy program. "Like many competitive suppliers, they engaged in shady tactics." Although Public Citizen does not hold PJM membership, Slocum said his organization recently joined the Public Interest & Environmental Organizations User Group.

Slocum points to a series of public harangues from regulators across North America against Direct's retail operations for locking customers into confusing electricity contracts using deceptive business practices.

While he declined a full interview before officially joining PJM, Asthana did respond to Slocum's criticism. "I take compliance and customer experience extremely seriously," he told *RTO Insider*. "I'm very proud that my team's efforts to continuously improve in these areas led to customer complaints falling by two-thirds during my tenure."

PJM board Chair Ake Almgren defended

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Overheard at the NARUC 2019 Annual Meeting

Incoming NARUC President Brandon Presley speaks to his fellow commissioners. (p.3). | © *RTO Insider*

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In this week's issue

Overheard at the NARUC 2019 Annual Meeting

Power Markets Face Need for Change, Expert Says

SAN ANTONIO — The National Association of Regulatory Utility Commissioners held its 131st Annual Meeting and Education Conference last week, bringing state and national utility regulators, federal and state policymakers, industry representatives, consumer advocates and other stakeholders to south-central Texas.

Here is some of what we heard during the four-day event.

A 'Fabulous' Leftover

Texas Public Utility Commission Chair DeAnn Walker moderated the leadoff panel, which discussed the changes facing competitive markets and the cost and potential benefits of restructuring.

Independent consultant Alison Silverstein said markets have become more complicated since they were created to balance supply and demand through competition. So much so, she said, that she lamented being unable to find clip art for her presentation to illustrate her point: that of an elephant standing on a stool and juggling a chainsaw, flaming batons and a flowerpot.

"A lot of things have changed: falling prices; older baseload generation retiring; little demand growth," Silverstein said. "All of these things are incredibly complicated. Competition works, but the current market design is not working well. We need market changes for the next 20-plus years to deal with high decarbonization, variability and uncertainty."

Silverstein listed the four factors of market design:

- What competes in the market?
- What are the market rules for ancillary service, dispatch and price calculations?
- Who buys — and how much — in the spot market vs. self-supply or bilateral contracts?
- What is the missing money mechanism (i.e., capacity payments or an operating reserve demand curve)?

Asked by Walker what regulators should focus on, Silverstein pointed to the markets' ease of entry and exit.

"You don't want old, expensive resources cluttering up your market," she said. "Focus on energy efficiency, because your customers need as much energy efficiency as possible.

Outgoing NARUC President Nick Wagner (right) interviews FERC Commissioner Richard Glick. | © *RTO Insider*

Changes in technology and economics have changed completely what resources are available, and changes in society have changed what customers are willing to put up with.

"We need a lot of market changes to deal with uncertainty and variability," Silverstein said. "Just because you're in charge of market prices, don't think those are the only dials that matter. There's an awful lot of stuff going on that can screw up the best markets."

Mason Emnett, Exelon's vice president of competitive markets, said capacity markets "are not working out" in some portions of the country and suggested the answer could be regional resource adequacy.

"I think there's a possibility, a hope, that the regions with capacity markets could evolve into something that is optimized over a larger footprint," Emnett said. "We have hope that regional adequacy markets can evolve, but we're not holding our breath. Those types of changes take years to develop."

"When he talks about resource adequacy, that's a fabulous leftover from the generation-centric days," Silverstein said.

As proof, she offered up the "Texas experience" this past summer, when ERCOT's energy-only market was once again able to meet demand despite thin reserve margins. Prices spiked to $9,000/MWh, and demand response played a major role in negating the loss of renewable energy during critical parts of the day. (See "ERCOT CEO Briefs Commission on Summer Performance," *Texas PUC Briefs: Aug. 29, 2019*.)

"You don't have to have a sky-high resource margin or a resource adequacy construct in order to keep the lights on. That proves the fact that markets do work," Silverstein said.

"Don't let anyone say a 7.4% reserve margin doesn't make you sit on the edge of your seat every day. It does," Walker said in agreeing with Silverstein. "Generators have to come to the table to be on and produce during those [low-resource] days, but we had a huge impact from demand response. When prices hit $9,000, [industrial] loads come off. That's something we're learning."

Glick Concerned with FERC Nominating Process

FERC Commissioner Richard Glick, the only federal commissioner to show up at NARUC and the only Democrat on the soon-to-be-four-person panel, shared his concerns over the agency's nomination process during a "Nick & Glick" Q&A session with outgoing NARUC President Nick Wagner.

Glick said he has issues with the process, in large part because the tradition of pairing nominees for two or more vacancies was ignored with the recent nomination of General Counsel James Danly to fill one of two vacancies on the commission. (See *FERC General Counsel Tapped for Commission*.)

He said changes to the Senate's filibuster rules have made it difficult for Democrats to have any say in the matter. Former Commissioner Cheryl LaFleur's Democratic seat has been vacant since she left in August. Republicans

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will enjoy a 3-1 majority when Danly joins the commission.

"What does it say the next time a Democratic president and a Democratic Senate don't pick any Republican nominees?" Glick said. "That was not the way the process was designed. I hope we can go back to a more normal process."

Glick also hopes for a return to the days when FERC operated in a more bipartisan manner. He said a couple of protesters of FERC's recent pipeline approvals showed up at his house on Halloween, unnerving his 10-year-old son.

"We have our share of protesters … but going to someone's house? That's beyond the pale," Glick said.

Asked by Wagner about the relationship between state regulators and FERC, Glick said that low gas prices have resulted in additional zero-marginal-cost resources beyond renewables and "more contentious" markets.

"No doubt, state policies impact the wholesale markets, and that was true the day they invented energy policy in general," he said. "The more traditional generators are essentially insisting those continued subsidies are depressing the markets. But [fossil fuel] technologies have been subsidized for a long time. If we only recognize the more recent subsidies, particularly renewables and nuclear, we are being short-sighted. Over the long term, these other subsidies have a long-term effect over the markets."

Glick also recounted how he became a FERC commissioner. At the time, he was a staff member for U.S. Sen. Maria Cantwell (D-Wash.), and he recalled telling her that if a FERC position came open, "sure," he would be interested.

"Sometimes we're in the wrong place at the wrong time," Wagner cracked.

New President: Remember the Customer

Newly installed NARUC President Brandon Presley — yes, he's related to Elvis, a fellow Mississippian — showed off his public speaking chops with a stem-winder of an acceptance speech that highlighted his theme for the upcoming year: "Bridging the Divide."

"At the end of the day, you serve the people of this country in all 50 states and [the] territories," Presley said, encouraging his fellow commissioners and regulatory staff to avoid the use of the term "ratepayer."

"They're a customer. A person. We've got to keep that in the forefront of our minds," he said. "Many challenges exist for the least; the last; the left out; those people who are marginalized in our society. We have the biggest impact on their lives because we affect the cost of living for those people and those businesses. We have to keep this organization focused like a laser on the customer."

To that end, Presley said he plans to appoint a task force to look at how best to bring broadband service to rural communities, such as those in the northeastern portion of Mississippi that he represents. He said his goals include identifying and closing other gaps that impede regulators and industry from better representing the public interest.

"We know that gulf exists. We know the brain drain in rural America is real," Presley said. "We've got to find a way as a national association to solve this problem. I hope in the next year, we can be progressive; we can be alert and on the lookout for opportunities to make real, impacting decisions and policies that translate back to the people.

"There's no greater satisfaction in life than knowing that you left something better than you found it," he said.

Presley was first elected to the Mississippi Public Service Commission in 2007, winning re-election in 2011, 2015 and 2019. He served as mayor of his hometown of Nettleton from 2001 to 2007, being elected at the age of 23. Presley is a member of MISO's Advisory Committee.

Joining Presley as NARUC officers are First Vice President Paul Kjellander, with the Idaho Public Utilities Commission, and Second Vice President Judith Jagdmann, chair of the Virginia State Corporation Commission.

On Friday, Presley added to the Executive Committee by naming North Carolina Utilities Commissioner ToNola Brown-Bland as treasurer and Arkansas Public Service Commissioner Kim O'Guinn as one of two appointed members.

Brown-Bland was appointed to the NCUC in 2009 and reappointed in 2017. O'Guinn was appointed to the PSC in 2016.

State Commissioners Evaluate PURPA NOPR

"At long last, it is finally here — the PURPA NOPR!"

That invitation to a panel discussion on FERC's Notice of Proposed Rulemaking for changes to the 41-year-old Public Utility Regulatory Policies Act did the trick. An overflow audience overwhelmed the seating, grabbing empty spaces on the floor to listen to regulators and consumer advocates discuss the potential changes to rate-setting and which markets qualify for an exemption from PURPA's "mandatory purchase obligation." (See *FERC to Reshape PURPA Rules*.)

FERC's proposed top-to-bottom changes include the elimination of a fundamental principle of the rules: fixed-price contracts at an "avoided-cost" rate for qualifying facilities. Utilities and state commissions have been among those complaining about PURPA, though most ISO/RTO members are exempt from the rule.

"PURPA has given me more gray hairs per policy than most I've worked on," said Megan Decker, chair of the Oregon Public Utility Commission. Noting FERC declined to extend a deadline for comments on the NOPR, Decker said, "I hope that denial does not reflect FERC's intention to not engage with a number of compromise solutions put forward. We don't want continued uncertainty."

"Idaho has a pretty tormented history with

Texas PUC Chair DeAnn Walker (left) prepares to discuss competitive markets with Mason Emnett, Exelon; Alison Silverstein; and Mike Jacobs, Union of Concerned Scientists. | © *RTO Insider*

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PURPA," PUC Commissioner Kristine Raper said. "The NOPR was very responsive to the technical hearing. They clearly discounted cogeneration in the NOPR, and they looked at things like cost. These are all the things Idaho has tried to bring to the attention of FERC. FERC has narrowed the way states can interpret those rules."

"The PURPA NOPR does a terrible job of distinguishing between competitive markets and those regions that don't have wholesale competition," said Katherine Gensler, vice president for the Solar Energy Industries Association. "PURPA's structure is basically a balancing act between telling utilities to purchase a product and sellers that have to accept the price. Utilities have to buy a product they often claim they don't want, and the seller has to accept the price published by the utility commissioners. This NOPR shifts that balance … moving away from the developers' rights to give greater authority and power to the utility state commissions."

Former FERC Commissioner Philip Moeller, now executive vice president of regulatory affairs for the Edison Electric Institute, argued that the NOPR would give states additional flexibility in approving QFs.

"This is about cost. Who's paying? Are your constituents, your customers, overpaying for the projects? Most people think that's a bad thing, unless you're the one getting overpaid."

FERC Commissioner Glick, who dissented against the NOPR, said what "perturbed" him the most was that the first 50 pages describe PURPA as no longer being a necessary statute.

"You can make a reasonable argument that that's the case … but it's our duty to administer [PURPA] and carry it out," Glick said. "Congress has told us we need to facilitate small power production. To the extent a utility has a procurement practice or a market setup that allows all entrants to fully participate, you can get out of the PURPA requirements. If everyone has access to the procurement process, that seems to be best for users and consistent with Congress' intent."

Travis Kavulla (left), NRG, moderates a panel discussing FERC's NOPR on the Public Utility Regulatory Policies Act. | © *RTO Insider*

Gold Still Sees Place for Renewables

Wall Street Journal reporter Russell Gold, whose "Superpower: One Man's Quest to Transform American Energy" details Mike Skelly's failed attempt to use HVDC lines to ship renewable energy across the country, called for changes to the current regulatory system "because of what's coming." (See *Book on Tx Developer Transmits Climate Hope*.)

He noted ERCOT has 22 GW of wind energy and 2 GW of solar — "[Solar] used to be fine if you wanted to warm water," Gold said, referring to the efficiency advances for solar resources — and that the numbers will only increase as technology continues to improve and renewable energy prices stay low.

"There's no blackouts and no one's panicking," Gold said. "Coal and nuclear are having trouble competing. Natural gas is soon going to have problems competing. The question for utilities and utility regulators is how long do you want to hold on to a coal plant that is above market prices? You have the potential for lots of inexpensive renewable electricity."

But to bring that energy to market, he said, "you need to stitch this country together with HVDC transmission lines."

In the end, not even the determined Skelly could do that.

"The biggest problem was that it was hard to get [landowners] to accept the sacrifice for the greater good of less carbon and clean power," Gold said.

Speaking before a friendly audience, Gold couldn't resist putting in a plug for his book.

"I've been told my book does the impossible," he said. "It turns the regulatory process into a page-turner."

Reality 'Sinks in' for Undoing Mexican Reforms

A two-person panel on the slowing energy reforms in Mexico said reality is "beginning to sink in" for President Andrés Manuel López Obrador's administration as it marks its first year in power on Dec. 1.

José María Lujambio Irazábal, a partner with Cacheaux Cavazos & Newton in Austin and a former general counsel for the Mexican Energy Regulatory Commission, and Peter Nance, managing director for Que Advisors, said AMLO, as he is more commonly known, has made it clear that he will neither expand nor fully implement the energy reforms begun before his 2018 election and may even reverse some of the measures. (See *Overheard at GCPA Mexico Power Market Conference*.)

"If [Enrique] Peña Nieto proposed something," Nance said, referring to AMLO's predecessor, "we're against it because of those guys."

Some of the pushback has come from the Federal Electricity Commission (CFE), the state-run monopoly. The latest market reforms, begun in 2015, split up its generation into six different companies in an effort to break up its hold on the market.

"The work was not finished. It was really a matter of resistance from CFE," Lujambio Irazábal said.

"Some people have long memories and believe in the state and the role of the state in these entities," Nance said.

CFE's aging fossil plants have increased operating costs. Faced with an operating reserve margin reportedly as low as 0.7% and a succession of blackouts in the Yucatan Peninsula, the government earlier this year announced plans to build five combined cycle gas-fired plants with an aggregate capacity of 2.76 GW and has made overtures to public-private partnerships.

"In special situations, it might be possible to have private partnerships," Nance said of the new reality. "You just can't put five power plants on the balance sheet." ■

— Tom Kleckner

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Manchin said.

"I'm going to continue to implore the White House to give us a working FERC," he said at the end of the meeting.

Brouillette, currently deputy secretary of energy, enjoyed more bipartisan support, passing 16-4. Sanders and Democratic Sens. Ron Wyden (Ore.), Mazie Hirono (Hawaii) and Catherine Cortez Masto (Nev.) voted against him. (See ***Brouillette Poised to Become Energy Secretary***.) Cortez Masto cited the Energy Department's secret shipment of plutonium to Nevada from South Carolina last year as the reason for her vote.

"My vote today is a vote of concern about the Department of Energy's relationship with the state of Nevada. I am hopeful that it improves," she said. "I hope I am wrong in my vote today: that Dan Brouillette will step up and work with the state of Nevada [and] will come back and earn the trust of Nevadans."

On Thursday, the Senate voted 74-18 to invoke cloture on Brouillette's nomination just before it adjourned for the month, setting up a confirmation vote for Dec. 2. Current Energy Secretary Rick Perry's last day will be Dec. 1.

The committee also advanced several bills to the floor at its meeting, including:

- *S. 876*, which would amend the Energy Policy Act of 2005 to require the secretary of energy to establish a program to prepare veterans for careers in the energy industry, including the solar, wind, cybersecurity, and other low-carbon emissions sectors or zero-emissions sectors;
- *S. 2368*, which would amend the Atomic Energy Act of 1954 and EPAct05 to support licensing and relicensing of certain nuclear facilities and nuclear energy research, demonstration and development; (Hirono voted against this bill.)
- *S. 2508*, which would require the secretary of energy to establish a council to conduct a survey and analysis of the employment figures and demographics in the energy, energy efficiency and motor vehicle sectors of the U.S.;
- *S. 2556*, which would amend the Federal Power Act to provide energy cybersecurity investment incentives, and to establish a technical assistance program for cybersecurity investments; (See ***Senate ENR Seeks $250M for Utility Cyber Spending***.)
- *S. 2657*, intended to support innovation in advanced geothermal research and development;
- *S. 2668*, which would establish a program for research, development and demonstration of solar energy technologies;
- *S. 2688*, which would amend EPAct05 to establish an Office of Technology Transitions;
- *S. 2702*, which would require the secretary of energy to establish an integrated energy systems research, development and demonstration program; and
- *S. 2714*, which would amend the America COMPETES Act to reauthorize the Advanced Research Projects Agency – Energy program.

The bills passed by voice vote with no discussion, with much of the committee's nearly two-hour meeting devoted to debating land-use and parks bills. Sen. Mike Lee (R-Utah) voted against all of the above bills. ■

FERC/Federal News

Slow Year for FERC Enforcement, Report Shows

Investigations, Settlements down from FY 2018

By Michael Brooks

WASHINGTON — FERC's Office of Enforcement opened 12 new investigations and negotiated two settlement agreements worth $14.4 million in civil penalties and disgorgements in fiscal year 2019, according to its latest annual *report* released last week.

The number of investigations represented a 50% drop from last year, while the number of settlements was four fewer than FY 2018.

The bulk of penalties and disgorgements this year came in May from Dominion Energy Virginia, which paid $14 million to settle allegations that it had manipulated PJM's energy market to maximize its receipt of lost opportunity costs (LOCs) between April 2010 and March 2011 (*IN19-3*).

The RTO pays LOCs to combustion turbine units that clear its day-ahead market but end up not being committed in the real-time market. Enforcement found that Dominion intentionally discounted its incremental energy offers to obtain more day-ahead commitments but increased its start-up values in order to reduce the chance its units would be committed in the real-time market. FERC has dinged multiple PJM members for such a scheme; the RTO tightened its LOC rules in 2015 in order to discourage such behavior. (See *PJM Members Committee Briefs: May 2015*.)

Enforcement did see a slight increase in self-reports — 149 this year compared to 137 last year — but, as usual, "the vast majority of those self-reports were concluded without further enforcement action because there was no material harm," it said.

The office's annual reports always include examples of such self-reports, and it has been steadily adding examples of other activities that did not lead to investigations over the years, saying they "can be helpful to companies seeking to comply with the commission's regulations and orders." For example, in 2017, it included cases in which its Division of Analytics and Surveillance contacted market participants about potential violations. (See *Investigations up Sharply in FY 2017, FERC Report Shows*.)

In this year's report, the office also included examples of the 16 referrals it received this year from RTO/ISO market monitors. Of those, 11 involved potential market manipulation, seven involved potential tariff violations and four involved misrepresentations prohibited by the commission's market behavior rules. Three of the monitor referrals were the source of investigations opened this year. Though the report includes summaries of the alleged behavior, it does not reveal the identities of the members flagged by the monitors.

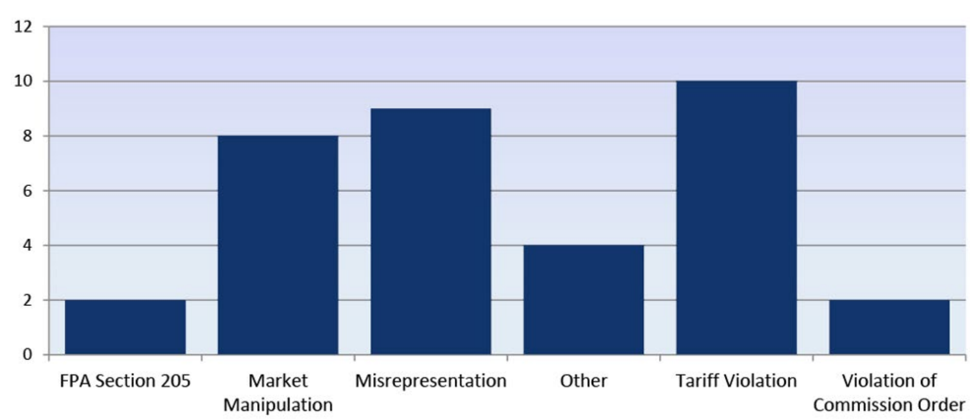
"This report highlights how the commission's enforcement program has matured, how staff has increased efforts to engage in outreach and provide transparency to industry, and how we've improved our ability to detect market anomalies early," FERC Chair Neil Chatterjee said at the commission's open meeting Thursday.

In September, Chatterjee announced the commission had shifted several employees out of Enforcement and eliminated its Division of Energy Market Oversight. (See *FERC Shuffles Enforcement Staff, Disbands DEMO*.)

The move prompted a letter from several U.S. senators that expressed "concern over the apparent erosion of the vital role the Federal Energy Regulatory Commission plays in preventing fraud and manipulation in our nation's energy and financial markets" (*PL10-2-003*). The senators — four Democrats and independent Sen. Angus King (Maine) — also noted the commission's rescission of Notices of Alleged Violations in May. (See *FERC Ends Notices of Alleged Violations*.)

At the September open meeting, Commissioner Richard Glick said he had no concerns with the division's elimination, calling it "a simple matter of administrative efficiency." In his remarks Thursday, Glick said he responded to the senators with three recommendations for legislation to improve the commission's enforcement work:

- Impose a duty of candor on FERC-jurisdictional financial traders. Glick said the commission had proposed such a requirement in 2015 but dropped it in July when it issued several new rules regarding market-based rate authority data requirements, a move he dissented on. (See "Connected Entity Info Tossed," *FERC Reduces MBRA Data Requirements*.)
- Clarify that FERC has the authority to ban recidivist market manipulators. "We see in several cases ... that there's entities and individual traders that engaged in manipulative acts, go to a different employer or form their own trading operation, and go on to continue to do the same thing again," Glick said.
- Require a vote by the entire commission on whether to terminate an Enforcement proceeding. Currently, the chairman can unilaterally end a probe at their discretion, something Chatterjee did in July in the case of alleged manipulation by Dynegy in MISO's 2015/16 Planning Resource Auction. (See *FERC Clears MISO 2015/16 Auction Results*.) ■



Types of alleged violation in investigations closed with no action, FY 2019 | *FERC*

TerraForm Exempted from Certain PUHCA Rules

By Christen Smith

FERC on Thursday exempted TerraForm Power from certain requirements of the Public Utility Holding Company Act of 2005, ruling that it doesn't need access to the renewable energy company's accounting records, including that of its fuel cell subsidiaries.

However, TerraForm must still notify FERC of material changes regarding its acquisition of electric utility companies not also considered public utilities, the commission clarified in its order (*EL19-94*).

TerraForm, headquartered in New York City, indirectly manages an international portfolio of wind and solar projects, including distributed generation and behind-the-meter solar facilities. In its petition filed in August, the company said that each of its public utility subsidiaries hold qualifying facility (QF) or exempt wholesale generator (EWG) exclusions from PUHCA reporting requirements. Some of these holdings sell power on the wholesale market, subject to Federal Power Act regulations, while others "operate solar photovoltaic facilities that sell energy only at retail."

Its fuel cell subsidiaries, however, cannot qualify as EWGs "because they will sell energy at retail to commercial and industrial customers under contracts negotiated with such customers," thus their rates are not subject to the commission's jurisdiction, TerraForm argued. FERC's regulations also disqualify others from a QF exemption because they use natural gas as fuel. Finally, the company said, its affiliation with utilities that provide jurisdictional transmission service — Smoky Mountain Transmission and Wind Energy Transmission Texas — will also extend to its fuel cell subsidiaries, contradicting the commission's longstanding policy on granting PUHCA exemptions.

FERC granted the exemption, saying that although the company is affiliated with transmission companies providing jurisdictional service, its fuel cell subsidiaries will "make only retail sales and do not have franchised service territories or captive customers."

"Therefore, there is no significant potential for transmission service customers to subsidize commission-jurisdictional wholesale sales," FERC wrote. "In addition, Smoky Mountain's transmission facilities are subject to a commission-jurisdictional open access transmission tariff, and the commission has access to the books, accounts, memoranda and other records concerning Smoky Mountain's jurisdictional transmission rates under Section 301 of the Federal Power Act. Finally, we note that granting the requested exemption will not change the commission's oversight of those holding companies with direct or indirect ownership interests in Smoky Mountain and Wind Energy."

But FERC denied TerraForm's request to waive it from change-in-fact reporting requirements for the acquisition of nonpublic utilities after it unsuccessfully argued that such information is already submitted via the FERC-65 notice.

"While TerraForm is correct that the FERC-65 filing requirements serve an informational purpose, 'the addition of a new subsidiary company that is a public utility company or holding company of a public utility company represents a material fact that should be reported to the commission,'" FERC wrote. "This requirement includes public utility companies that may not be public utilities under PUHCA 2005, such as new electric utility companies that are part of the TerraForm [holding companies'] retail operations." ■

| TerraForm Power

FERC/Federal News

Storage Plans Clear FERC with Conditions

Commission Finds Minor Faults with CAISO, MISO, ISO-NE Proposals

By Hudson Sangree

FERC on Thursday found that CAISO, ISO-NE and MISO had largely complied with Order 841, but it ordered changes to some of the grid operators' proposed tariff revisions.

With CAISO, FERC found its compliance filing, with "certain modifications," met the requirements of Order 841, intended to remove barriers to the participation of electric storage resources in organized electric markets (*ER19-468*). But the commission determined the ISO had not fully complied with the requirement that it prevent electric storage resources from paying both wholesale and retail rates for the same charging energy.

"In other words, we find that CAISO has not proposed a participation model for electric storage resources that fully eliminates the potential for duplicative retail and wholesale billing for charging by electric storage resources that later resell that charging energy back to the wholesale markets," FERC wrote. "We are requiring CAISO on compliance to modify its Tariff so that it does not charge an electric storage resource wholesale rates for charging energy for which the electric storage resource is already paying retail rates."

In the case of ISO-NE, FERC determined the RTO's Tariff revisions hadn't adequately dealt with "the application of transmission charges to electric storage resources" (*ER19-470*).

"ISO-NE proposes to exempt electric storage resources from all applicable transmission service charges (i.e., charges for regional network service and local service) when they are dispatched to charge," the commission said. Order 841, however, required "any electric storage resource that is charging for the purpose of participating in an RTO/ISO market … should be assessed charges consistent with how the RTO/ISO assesses transmission charges to wholesale load under its existing rate structure."

"ISO-NE does not meet these requirements because its proposal exempts all electric storage resources that are charging for later resale from transmission charges that are applicable to other load," FERC wrote. "Therefore, we direct ISO-NE to submit on compliance within 60 days of the date of this filing, Tariff revisions that comply with this aspect of Order Nos. 841 and 841-A by applying transmission charges to an electric storage resource."

FERC also found MISO had mainly complied with Order 841 but rejected its plan to assess transmission charges to electric storage resources dispatched to withdraw energy pursuant to their downward ramping capability (*ER19-465*).

"We are not persuaded by MISO's arguments that this dispatch is not providing a service," FERC said. "Order No. 841 specifies that electric storage resources should not be assessed transmission charges when they are dispatched by an RTO/ISO to provide a service such as frequency regulation or a downward ramping service."

Invenergy's Grand Ridge Battery Storage Facility in Illinois | *BYD*

FERC also granted MISO more time than the other grid operators to implement the order.

"While the commission … declined to provide the RTOs/ISOs with additional time for implementation, we find here that MISO's request to implement the requirements of Order No. 841 after the deadline established … is reasonable based on the specific circumstances outlined in its filings," FERC said.

MISO announced in April that it would seek at least another year to comply with the order, saying the intricacy and expense of incorporating storage into its markets was greater than it originally expected. The RTO is trying to create a new market platform, making compliance with Order 841 by December infeasible, it said. (See *More Time Needed for Storage Compliance, MISO Says*.)

"We note that MISO's request to defer the effective date of its compliance filing was not opposed," FERC said. "Therefore, we grant MISO's request to defer the effective date of its compliance filing to June 6, 2022."

McNamee, States Want Opt-out

As he did in the compliance filings of PJM and SPP in October, Commissioner Bernard McNamee issued concurring statements that said the commission "should have, at the very least, provided states the opportunity to opt out of the participation model created by the storage orders."

McNamee was not on the commission at the time Order 841 was issued but expressed his "continuing concern" that FERC had exceeded its statutory authority by not allowing states to determine whether storage may use distribution facilities to access the wholesale markets.

He also noted that state regulators, utilities and public power groups have asked the D.C. Circuit Court of Appeals to overturn part of the order, challenging the commission's refusal to allow states to opt out. (See *States, Public Power Challenge FERC Storage Rule*.)

Order 841, 20 Months Later

FERC first issued Order 841 in February 2018, requiring each RTO/ISO to establish a participation model for storage resources to

FERC/Federal News

ensure they are eligible to provide all energy, capacity or ancillary services of which they are capable, while also enabling them to set clearing prices as both a buyer and seller. Grid operators also need to establish a minimum threshold for participation that doesn't exceed 100 kW.

Order 841 "will enhance competition in these markets and help ensure that they produce just and reasonable rates," staff told commissioners at the time. (See *FERC Rules to Boost Storage Role in Markets*.)

RTOs and ISOs filed proposed tariff revisions in December 2018. Together, the filings by CAISO, ISO-NE, MISO, NYISO, PJM and SPP totaled more than 2,500 pages. (See *RTOs/ISOs File FERC Order 841 Compliance Plans*.)

FERC, grid operators and stakeholders then had a year to review, revise and implement the plans by Dec. 3.

FERC staff issued deficiency letters to all six RTOs and ISOs in April over their proposed energy storage rules, pressing for definitions, tariff citations and details on issues including metering, make-whole payments and self-scheduling. (See *FERC Asks RTOs for more Details on Storage Rules*.)


San Diego Gas & Electric's 30-MW battery energy storage facility in Escondido, Calif. | *SDG&E*

In October, FERC issued its first two orders implementing its rulemaking, mostly accepting PJM's and SPP's proposals but also objecting to some aspects. (See *FERC Partially OKs PJM, SPP Order 841 Filings*.)

For instance, FERC rejected SPP's proposed provisions related to aggregation of storage resources, because Order 841 did not address aggregation. It gave SPP 60 days to submit a compliance filing removing the provisions.

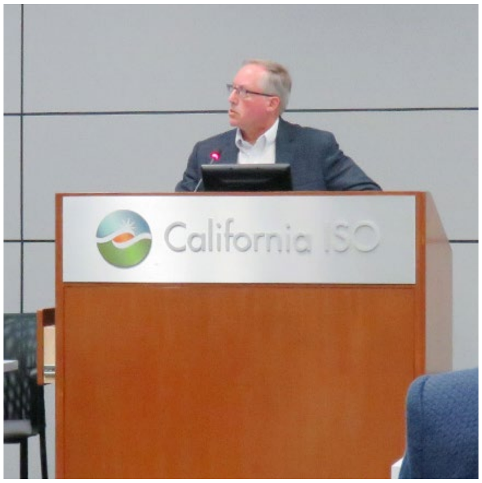
The commission also established a paper hearing procedure to investigate whether PJM's 10-hour minimum run-time requirement was unjust and unreasonable as applied to capacity storage resources.

FERC has yet to rule on NYISO's compliance filing. Speaking to reporters after the commission's open meeting Thursday, Chair Neil Chatterjee said he was "confident we will move forward with New York ISO when it's ready." ■

CAISO/West News

CAISO Planners Look at Reliability, Capacity Requirements

By Hudson Sangree



Neil Millar, CAISO's executive director of infrastructure development, spoke about economic considerations in the transmission planning process. | © *RTO Insider*

FOLSOM, Calif. — During a daylong planning session last week, CAISO engineers examined options for transmission upgrades to resolve reliability concerns and reduce natural gas generation's role in meeting local capacity requirements.

The ISO is in the second of its three-phase 2019/20 *transmission planning process* (TPP). On Nov. 18, it held the third of four stakeholder meetings to go over its findings and proposals. The goal is to provide the Board of Governors with a transmission plan to approve by March.

The annual TPP looks ahead 10 years, *assessing* CAISO's grid based on economic, policy and reliability considerations.

"In addition to those, we're also doing this sidebar where we're looking at potential [opportunities] for reducing reliance on gas-fired generation in local capacity areas," said Neil Millar, CAISO's executive director of infrastructure development. Reducing dependence on gas can create a need for economically beneficial transmission projects, he said.

California has a legal mandate to dramatically reduce its greenhouse gas emissions and increase its reliance on renewable energy sources by 2030. The 2019/20 TPP's planning horizon extends through 2029.

Over the course of several hours, engineers *presented* the results of their detailed examination of the state to identify areas and subareas where transmission upgrades could cut local capacity requirements (LCRs) and eliminate or reduce the need for gas-fired generation. The long-term LCR assessment began in 2018.

In Southern California, billions of dollars in proposed projects could potentially reduce thousands of megawatts of LCRs, though planners questioned the cost-benefit ratio of many large projects and the potential adverse impacts on the sprawling, interconnected grid in Los Angeles and San Diego counties.

In Northern California, spending $30 million on the Tesla-Delta switchyard 230-kV line reconductor in the Contra Costa subarea would reduce the need for gas to meet local capacity needs from 1,207 MW to 299 MW, CAISO planners found.

In the Tesla-Bellota subarea of Stockton, reconductoring about 200 miles of overloaded 115-kV lines, at a cost of $143 million, could completely eliminate the need for 365 MW of gas generation to meet local demand.

Both those projects, and many others on the list, were submitted by CAISO.

Reliability Projects

Planners also presented proposals for reliability projects costing less than $50 million each that require only the approval of CAISO executives. Projects that cost more than $50 million require board approval and will be included in the draft transmission planning report due Jan 31.

The proposals are intended to meet NERC standards, Western Electricity Coordinating Council criteria or ISO planning standards, which can be stricter than NERC or WECC requirements.

Pacific Gas and Electric, for example, has proposed installing a 230/115-kV transformer bank in the San Francisco Bay Area, at an estimated cost of $3 million to $6 million to prevent overloads and meet NERC reliability requirements.

PG&E has also proposed reconductoring 9 circuit miles of the overloaded 115-kV Wilson Oro Loma line in the Fresno area to meet NERC reliability standards, with a price tag of $11.3 million to $22.7 million.

Written stakeholder comments on the presentations in last week's meeting are due Dec. 2. ■

CAISO senior adviser Songzhe Zhu discussed flexible capacity deliverability. | © *RTO Insider*

PG&E Seeks to Escape Inverse Condemnation

Judge Unsympathetic

By Hudson Sangree

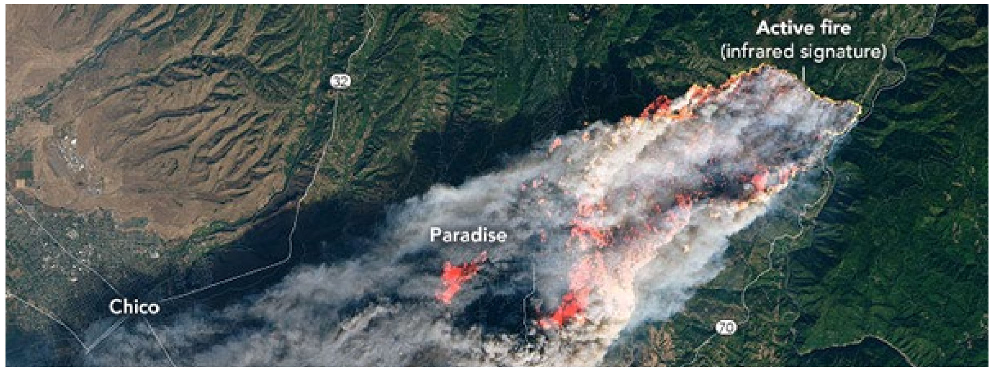
Pacific Gas and Electric tried to convince a federal bankruptcy judge last week to help it escape inverse condemnation — the bane of California's investor-owned utilities that holds them strictly liable for wildfires ignited by their equipment.

The move may have been a Hail Mary pass, however. PG&E and other IOUs have tried and failed for years to convince judges, lawmakers and state regulators that inverse condemnation isn't fair because it holds them accountable even if they weren't negligent.

So far, the IOUs haven't made much of a dent in the age-old doctrine, which is embedded in the state constitution and applies to regulated monopoly utilities, according to the state appellate courts. The rationale is that because the utilities can exercise eminent domain to seize private property — to create power-line easements, for example — they are liable for damage to private property from their equipment.

The doctrine dates to the mid-1800s when California was trying to rein in the power of the Southern Pacific Railroad.

This time, PG&E decided to try a somewhat different approach with U.S. Bankruptcy Court Judge Dennis Montali, who is overseeing the utility's immense Chapter 11 reorganization in San Francisco. The company faces billions of dollars in liability for wildfires in 2017 and 2018 started by its equipment, including the Camp Fire, the deadliest and most destructive wildfire in state history.



The Camp Fire, ignited by PG&E equipment, killed 85 residents and wiped out the town of Paradise on Nov 8, 2018. | *NASA*

Despite a number of court rulings to the contrary, PG&E's attorneys *argued* Nov. 19 that inverse condemnation applies only to public entities and that the utility is not a public entity.

The spreading around, or socialization, of the costs of a wildfire works with a municipal utility, such as the Los Angeles Department of Water and Power, because the utility can raise its own rates to cover costs, PG&E lawyer Kevin Orsini told the judge. But PG&E and other IOUs depend on the California Public Utilities Commission to set rates, and regulators will only authorize wildfire-cost recovery if they find an IOU managed its system prudently, Orsini said.

"Inverse was developed and actually works in the context of a true public entity," the lawyer said.

A senior mobile home community was destroyed by the Camp Fire in Paradise. | © *RTO Insider*

In their court filings and presentation, attorneys for wildfire victims called PG&E's effort a blatant attempt at "forum shopping" after repeated failures in other courts and the State Capitol.

"PG&E has spent the past year complaining about the fact that it is subject to inverse condemnation liability under California law and furiously lobbying to change the law," the victims' lawyers argued in their *brief*. "Because its lobbying efforts have not met with success, PG&E now asks this court to do what California's political branches have been understandably unwilling to do: bail out the utility from having to fully compensate the victims of fires caused by its equipment."

Montali seemed to dislike PG&E's suggestion that his judgment should overrule the state courts or the decisions of lawmakers. PG&E tried to convince lawmakers to modify inverse condemnation as recently as this summer without making much headway, he noted. (See *Calif. Wildfire Relief Bill Signed After Quick Passage*.)

"The California legislature all of three months ago decided not to change the law," Montali said. "If that isn't a significant marker, I don't know what is."

PG&E also argued that the application of inverse condemnation to IOUs might still be subject to review by the state Supreme Court, and they asked Montali to make findings to pave the way for an appeal.

Montali, however, said he doubted most of the high court justices would substitute their judgment for that of the legislature.

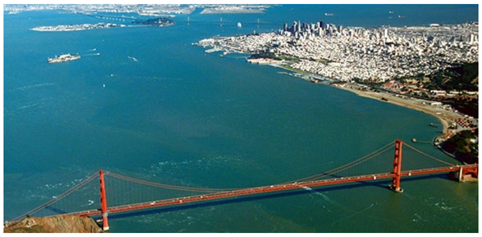
Montali said he would try to quickly issue a written ruling on the matter. ■

CAISO/West News

Undersea Cable Wants $500M Wildfire Fund

FERC Says Proposed Transmission Revenue Increase May be 'Unlawful'

By Hudson Sangree



The Trans Bay Cable runs for 53 miles under San Francisco Bay. | © *RTO Insider*

FERC was skeptical Thursday of a proposal by the new owner of a submarine transmission cable running under San Francisco Bay for an increase in its transmission revenues and a $10 million annual reserve for 50 years in case of wildfires (*ER19-2846*).

In September, Trans Bay Cable, now owned by NextEra Energy Transmission, proposed revising its transmission owner tariff to increase its annual transmission revenue requirement from $133.9 million to about $157.3 million. It also sought to extend an incentive return on equity adder of 13.5% based on its unique benefits to the San Francisco Bay Area. (See *FERC OKs Trans Bay Cable Sale to NextEra*.)

Trans Bay argued that "the project provides significant benefits to consumers that outweigh Trans Bay's total TRR and displace the need for in-city generation [in San Francisco]," FERC said. "Specifically, Trans Bay states that the project provides between $143 million and $261 million in societal and ratepayer benefits per year."

In addition, Trans Bay "proposes in the instant filing to collect a reserve fund of approximately $10 million per year over the next 50 years to address the uninsured [wildfire] risk, which according to Trans Bay amounts to at least $463 million," FERC said.

Trans Bay operates a 53-mile, 400-MW transmission line buried beneath the bay, with converter stations at either end, in San Francisco and the city of Pittsburg.

"Trans Bay notes that while the project's design limits wildfire risk, it cannot wholly prevent fire ignition resulting from its equipment due to its location, particularly related to the possibility of a fire at its Pittsburg converter substation," FERC wrote.

> **"Six Cities and CPUC note that the project's location underwater reduces wildfire risk."**
>
> —FERC

Trans Bay provides transmission between two PG&E substations in San Francisco and Pittsburg, Calif. | *SteelRiver Infrastructure Partners*

Protesters, including a group of six cities on the bay and the California Public Utilities Commission, challenged the 13.5% ROE adder and the wildfire reserve fund.

"Six Cities and CPUC note that the project's location underwater reduces wildfire risk, and that the urban nature of the above-ground components suggest low risk," FERC wrote.

Trans Bay has received a 13.5% ROE adder since its start in 2005. But the CPUC and others argued that "since Trans Bay is no longer a start-up company or independent transmission company after its acquisition by NextEra [last spring], Trans Bay no longer qualifies for an incentive ROE, and that the commission should instead apply a base ROE."

FERC preliminarily agreed with the protesters.

"Our preliminary analysis indicates that Trans Bay's proposed TRR has not been shown to be just and reasonable and may be unjust, unreasonable, unduly discriminatory or preferential, or otherwise unlawful," the commission wrote. "Trans Bay's proposed TRR, including the requested 13.5% ROE and the establishment of a wildfire risk reserve fund, raises issues of material fact that cannot be resolved based upon the record before us."

FERC accepted Trans Bay's proposed TRR, suspended it for the maximum five-month period, subject to refund, and set all issues for hearing and settlement judge procedures.

A settlement judge must report to FERC on the parties' progress within 30 days. ■

ERCOT News

Parties near Agreement on El Paso Electric Purchase

By Tom Kleckner

The Texas Public Utility Commission's scheduled hearing on a $4.3 billion private equity bid for El Paso Electric has been postponed until January to allow time for the parties to reach a unanimous settlement (*49849*).

EPE and its private equity suitors *filed* the continuance request on behalf of commission staff and the proceeding's intervenors. They said the applicants, commission staff, and "most of the intervenors" had reached an agreement in principle on the major terms and hope to resolve all issues in the next few weeks.

"The remaining parties believe additional time for further discussions is merited rather than proceeding to a hearing at this time," the applicants said.

Administrative Law Judge Hunter Burkhalter *granted* the request Wednesday. He directed the parties to file a non-unanimous settlement by Dec. 17 and invited them to provide detailed status reports during the PUC's Dec. 13 open meeting.

Burkhalter rescheduled the commission's hearing for Jan. 7-8. It had originally been set for Nov. 20-22.

J.P. Morgan Investment Management's Infrastructure Investments Fund US Holding 2 and Sun Jupiter Holdings, a limited liability company formed to enter into the merger agreement, announced their proposed purchase of EPE in June.

The parties have proposed a purchase price that is a 17% premium to EPE's closing price before the merger's announcement. The private equity firms have said the management team will remain in El Paso and no jobs will be transferred outside of Texas. They have sweetened the deal by offering a $21 million credit to current EPE customers and creating a $100 million community economic sustainability fund.

The deal has been opposed by the Texas Office of Public Utility Counsel, which says the proposal does not provide sufficient tangible, quantifiable benefits to EPE's customers and does not adequately protect them from "the additional risks created by the post-closing corporate structure and governance."

Intervenors line up before the judge during a prehearing conference Nov. 20.

The utility's industrial customers have also raised concerns over the utility's governance and financial risks. Other intervenors include PUC staff and the city of El Paso, who both say most of the regulatory commitments don't impact customer rates or promise any benefits beyond the status quo. ■

ERCOT News

ERCOT Technical Advisory Committee Briefs

Staff to Review Pricing Issues Following Software Errors

AUSTIN, Texas — ERCOT staff last week told the Technical Advisory Committee that they will be reviewing and improving their market pricing processes as they bring price-correction issues to the Board of Directors in December.

ERCOT will be asking the board for permission to correct real-time and day-ahead prices for three weeks' worth of operating days, accumulated following several software issues that led to pricing errors over three different time periods. Staff can revise pricing errors if they are caught within two business days of the operating day but must otherwise go to the board to correct the mistakes.

November's Technical Advisory Committee meeting | © *RTO Insider*

Kenan Ögelman, ERCOT's vice president of commercial operations, told the committee during its meeting Wednesday that the grid operator is intent on improving the quality and delivery of its services.

"I don't find these kinds of [market] outcomes acceptable relative to the disruption it causes," he said. "We really want to go through our processes and … review our end of it."

The pricing errors have resulted in resettled amounts as large as $123,000 and as small as $4, according to ERCOT's preliminary data.

"I don't know what 'significant' is, but I think I know what it isn't," said Morgan Stanley's Clayton Greer, jerking his thumb at a slide filled with double-figured numbers.

Ögelman agreed with Greer. He said he would propose to the board that staff "look at making some cuts on significance" and see what the directors say.

"We have to do this work anyway to determine what the magnitude is," he said. "There might have to be some better definitions."

Staff told the TAC in October it would be taking the Sept. 16-23 day-ahead operating days' prices to the board for its review after mistakes in modeling outages. ERCOT then issued a market notice on Oct. 24, saying that an update to the energy and market management system led to incorrect real-time prices for certain settlement points and energy-metered prices, requiring another board review for the Oct. 16-20 operating days. (See "ERCOT Likely to Reprice 13 Operating Days," *ERCOT Technical Advisory Committee Briefs: Oct. 23, 2019*.)

In November, staff added another eight days to the pricing review when software intended to capture the list of electrical buses that are fully disconnected from the grid under a contingency incorrectly included additional buses between Oct. 22 and Nov. 6.

ERCOT has said it will begin resettling prices about a week after the Dec. 10 board meeting.

Staff, Stakeholders to Study Summer Issues

Ögelman and committee members divvied up a list of issues for further discussion following another summer of slim reserve margins and record demand.

"There are legitimate needs to discuss a lot of these items," Ögelman said, imploring the TAC to help make the assignments.

Most of the issues will be taken up by the committee's Reliability and Operations and Wholesale Market subcommittees. Topping the list was the use of switchable generation resources (SWGRs), units that participate in both ERCOT and its RTO neighbors and which Ögelman said are not "working exactly as intended."

The subcommittees will ensure the SWGRs' settlement, operator interactions and offers align with the Protocols and intended market design. The two subcommittees will also look at the use of emergency response service and whether it can be self-deployed.

"Would ERCOT be willing to put in the Protocols that self-deployment is allowed for these resources?" Reliant Energy Retail Services' Bill Barnes asked. "If this is behavior you want to allow, maybe it should be in the Protocols."

Calling it a "fair question," Ögelman said he owed stakeholders an answer.

Other issues include:

- the use of operating condition notices;
- evaluation of the Texas Commission on Environmental Quality's enforcement-discretion process;
- the summer demand response process; and
- continued improvement of gas-electric coordination.

Comptroller to Waive QSEs' Resale Cert Obligation

ERCOT legal staff shared with the TAC a *letter* from the Texas Comptroller of Public Accounts that General Counsel Chad Seely said backed up his argument that electricity is tangible personal property and that qualified scheduling entities (QSEs) are required to provide resale certificates to the grid operator.

Teresa Bostick, the director of the comptroller's tax policy division, said that under current law and policy, the QSEs are required to provide a valid resale certificate to ERCOT. However, she also noted that because "QSEs have no use for the electricity themselves and must sell it to another entity," she would waive the requirement.

Seely said in an email to the committee that staff will work with the comptroller's office to amend the Tax Administration Code and exempt QSEs from the certificate requirement.

ERCOT News

He thanked members for their feedback and "interest in this topic," which resulted in vigorous stakeholder pushback during the TAC's October meeting. (See "Stakeholders Push Back on Sales Tax Certifications," *ERCOT Technical Advisory Committee Briefs: Oct. 23, 2019*.)

Senior Corporate Counsel Erika Kane, who bore the brunt of October's heat, good naturedly accepted apologies from several TAC members.

"I feel I may have been a little harsh on you," Barnes said, echoing others' comments.

Staff also told members they are not proposing any changes to the methodologies, which rely on historic data, used to determine ancillary service quantities for 2020. Based on feedback from stakeholders, the ERCOT will compute responsive reserve service quantities with an updated resource contingency criteria of 2,805 MW.

TAC Endorses Storage, RTC Principles

The TAC unanimously endorsed the Battery Energy Storage Task Force's first key topic/concept (KTC) *recommendations* as the principles that will be used in writing Nodal Protocol revision requests (NPRRs).

The task force reached consensus on all five KTCs. The documents recommend energy storage resources (ESRs) be treated like other short lead-time resources and security-constrained economic dispatched resources using nodal shift-factors and settled using nodal pricing when charging and discharging. The task force also determined the reliability unit commitment engine should evaluate ESRs based on the values in their current operating plans, reflecting their available capacity.

- *KTC 2*: Physical responsive capability and operating reserve demand curve reserve.
- *KTC 3*: ESR dispatch, pricing and mitigation.
- *KTC 4*: Technical requirements.
- *KTC 6*: ESR options to maintain desired level of state of charge.
- *KTC 10*: ESR study and capacity assumptions changes.

Beth Garza, director of ERCOT's Independent Market Monitor, waved off stakeholder concerns that KTC 6, which allows ESRs to submit energy offer curves immediately prior to the operating hour's start, would lead to potential gaming.

"Personally, I'm willing to accommodate the widest range of behavior we can accommodate," she said. "Battery owners shouldn't expect free rein forever. We'll be looking at their behavior in the first years. If there are problems, we will need to address them."

The TAC also endorsed *11 additional key principle* (KP) documents that will guide ERCOT's real-time co-optimization (RTC) design. The committee will hear the Real-Time Co-optimization Task Force's final group of principles during its January meeting:

- *KP 1.3* (8)c, (9), (12), (13): Outlines the key mechanisms and timelines for submitted ancillary service (AS) offers and the AS considered and awarded under RTC.
- *KP 2 (1)-(6)*: Analyzes any changes to RTC's suite of AS products.
- *KP 5 (7)*: Identifies the AS virtual offers in the day-ahead market changes necessary to align their procurement with RTC's implementation.

Left to right: Texas-New Mexico Power's Diana Rehfeldt, AEP's Richard Ross and Garland Power & Light's Russell Franklin follow a presentation. | © *RTO Insider*

Members Approve Rio Grande Valley Hub

The committee approved the creation of a 138/345-kV trading hub for the Lower Rio Grande Valley that will allow additional trading liquidity and forward-price discovery in the area.

Staff and stakeholders' review of *NPRR941* indicated that it does not require changes to credit-monitoring activity. The NPRR's cost ($250,000 to $350,000) is related to removing constraints that exist in the original system design.

Staff said work on the hub is not likely to go live until mid-2021.

The committee also approved three additional NPRRs and single revisions to the Planning Guide (PGRR), Retail Market Guide (RMGRR) and Verifiable Cost Manual (VCMRR).

- *NPRR928*: Defines "cybersecurity incident" and "cybersecurity contact," classifying the former as protected information, and creates a form for notifying ERCOT of a cyber incident. The change also allows ERCOT to notify state or federal law enforcement of a cybersecurity incident and to notify market participants in order to mitigate further effects.
- *NPRR957*: Establishes the terms "energy storage system" (ESS) and "energy storage resource" (ESR). ESS is the umbrella term for storage assets. ESRs are ESSes eligible to participate in SCED and/or provide AS. ESRs must be registered with ERCOT as both a generation resource and a controllable load resource.
- *NPRR972*: Gives ERCOT the authority to decline to open a transaction-adjustment period for a congestion revenue right auction, even if the transactions submitted exceed the limit announced prior to the auction, as long as the number of transactions submitted does not exceed the number that can be processed by ERCOT's systems.
- *PGRR071*: Updates the Planning Guide to align with *NPRR926*, which removed the 90-day period between subsynchronous resonance study approval and initial synchronization and was approved by the board in June.
- *RMGRR162*: Clarifies the purpose and appropriate use of the safety-net move-in process for competitive retailers and revises the timing for submitting such a request.
- *VCMRR025*: Removes the ESR definition from the manual, aligning it with NPRR957. ■

— Tom Kleckner

ISO-NE News

Senators Ask ISO-NE to Heed States on Clean Energy

By Michael Kuser

Seven U.S. senators from New England last week urged ISO-NE to "return to the table with stakeholders" and more closely align its fuel security initiative with state policies seeking to speed the transition to renewable energy resources.

In a *letter* to the RTO dated Nov. 18, the senators criticized ISO-NE for "pursuing a patchwork of market reforms aimed at preserving the status quo of a fossil fuel-centered resource mix" and having "charted its own path forward and pursued unpopular initiatives" such as Competitive Auctions with Sponsored Policy Resources (CASPR) and the Inventoried Energy Program.

"ISO-NE should heed the call of the states, electricity generators and others to expand the dialogue beyond the current, too narrow fuel-security reforms to tackle the region's pressing need to achieve the states' ambitious climate goals," they said. "To achieve these goals, ISO-NE should dedicate significant planning and markets resources in the coming months to evaluate, help develop and propose new electricity market structures that recognize, facilitate and are compatible with state policies."

The signatories to the letter were Richard Blumenthal (D-Conn.); Ed Markey (D-Mass.); Chris Murphy (D-Conn.); Jack Reed (D-R.I.); Bernie Sanders (I-Vt.); Elizabeth Warren (D-Mass.); and Sheldon Whitehouse (D-R.I.).

State Climate Priorities

Dan Dolan, president of the New England Power Generators Association (NEPGA), said the senators' correspondence follows two similar letters his organization has sent to ISO-NE in the last year.

"One area where we disagree with the senators' letter, however, is ... NEPGA believes that CASPR provides a viable pathway to integrate state-contracted electricity projects, while maintaining reliable though competitive markets," Dolan said.

He said there are two important parts to reforming the region's competitive electricity market to meet the needs of states, consumers and reliability criteria.

"First, state climate priorities should be integrated into the market through a meaningful price on carbon dioxide emissions on an economy-wide basis," Dolan said. "This will both help support investments in clean electricity supplies, while also helping to drive needed electrification of the transportation and heating sectors, which together account for over two-thirds of all emissions in New England.

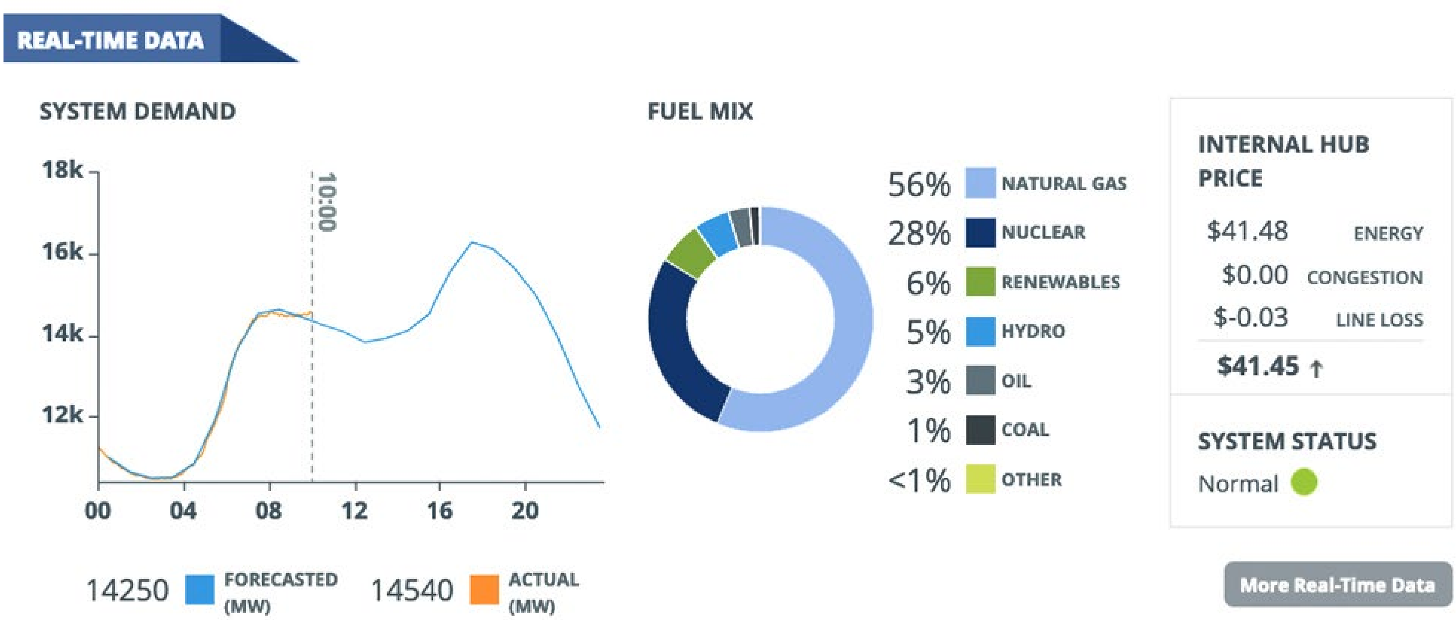
"Second, with large-scale state contracts driving increases in resources like offshore wind, the markets must be reformed to account for the changing nature of the electricity supply mix. The existing market design does not sufficiently value the performance that will be required to maintain reliability and resilience," he said.

Collaborative Tradition

ISO-NE spokesperson Matt Kakley countered that the RTO is already heading in the direction advocated by the senators, including a move to allocate staff time and resources next year for stakeholder discussions on the future of the region's power system — a measure set out in ISO-NE's Annual Work Plan for 2020 presented to stakeholders in September.

"Over the past decade, ISO New England has worked tirelessly to incorporate renewable resources into system operations, short- and long-term planning procedures, and the region's wholesale markets," Kakley told *RTO Insider*. "These efforts have allowed the region to add thousands of megawatts of renewable energy, while maintaining reliable system operations, and have set New England up well to accommodate future renewable energy development."

Kakley said those efforts required "countless hours" of stakeholder discussion "leveraging the region's strong history of collaboration." ■



ISO-NE real-time data on Nov. 19 show 60% of the resource mix running on fossil fuels, predominantly natural gas. | *ISO-NE*

NEPOOL Reliability Committee Briefs

$39 Million in PTF Cost Allocations

The New England Power Pool Reliability Committee last week voted to recommend that ISO-NE approve pool-supported pool transmission facility (PTF) costs totaling more than $39 million for three projects by Eversource Energy.

The first project involves $24 million in PTF costs for work associated with the rebuild of the 69-kV 667 line in Connecticut, with none of the costs associated with the upgrade considered localized.

The work would replace 52 wood structures with steel pole structures to mitigate deficiencies such as woodpecker damage, rot, cracks and deteriorated steel mechanical connections, Eversource engineer Bob Case said.

Based on a show of hands, all three motions passed with none opposed and no abstentions. All sectors had a quorum except End Users.

The second project has PTF costs of approximately $7 million for work associated with the 115-kV 1180 line cable replacement between Norwalk Harbor and Ely Avenue Junction.

The project will replace nearly a mile of 2,000-kcmil HPFF cable with 2,500-kcmil cable to mitigate continuous increases in dissolved gas analysis levels, which potentially result in reliability concerns as well as safety and environmental risks.

The third project has PTF costs of nearly $8.2 million for similar work associated with the 115-kV 1608 line cable replacement between Norwalk Harbor and Ely Ave, replacing 8,500 feet of 2,000-kcmil cable.

Capacity Cost Compensation

The RC also voted to recommend that ISO-NE approve West Medway Jet 4 and Jet 5 as dynamic reactive resources meeting the Capacity Cost Compensation Program eligibility requirements defined in Tariff Schedule 2.

The approval calls for the Schedule 2 business procedure compliance costs to be designated as eligible for Schedule 2 capacity cost compensation associated with the qualified reactive resource designation, to be effective Nov. 1, 2019.

Providing adequate reactive supply and voltage control service (VAR service) from reactive resources, as defined in the Tariff, is necessary to maintain reliable voltage levels on the New England transmission system. Schedule 2 defines the extent to which reactive resources are compensated for providing VAR service and transmission customers are charged for utilizing the service.

Operating Procedure Revisions

The RC voted to recommend that the Participants Committee support revision of ISO-NE Operating Procedure No. 2 to incorporate a new reference document and clarify the RTO's role in approving the scheduling of planned equipment maintenance and outages.

ISO-NE lead operations analyst Kory Haag presented for a future vote the initial proposal for revisions to Operating Procedure 11E related to black start resource administration and a designated black start resource (DBR) test log.

The proposed revisions clarify recording the amount of time the DBR is in stable operation to be consistent with Northeast Power Coordinating Council *Directory 8* covering system restoration and incorporate minor grammatical fixes.

Proposed Plan Applications

The committee voted to recommend that ISO-NE approve NextEra Energy Resources' 150-MW Lone Pine Solar facility in Maine and related transmission projects.

NextEra will install a station transformer, while Central Maine Power plans to build a new three-breaker 345-kV ring bus configured substation to accommodate interconnection of the project to the existing Section 391 line between the Buxton and Scobie Pond substations. The proposed in-service date of the project is Dec. 31, 2022.

The RC also approved a power purchase agreement by New England Power for a static synchronous series compensator at the Fitch Road substation in Clinton, Mass., with a proposed in-service date in March 2020. The compensator is a modular power flow control device to inject a leading or lagging voltage in quadrature with the line current, providing the functionality of a series capacitor or a series reactor, respectively, on the 69-kV W-23 circuit.

The RC recommended that ISO-NE approve implementation of Freepoint Solar's 20-MW solar array in Peterborough, N.H., to interconnect with a line tap on the Eversource 34.5-kV Line 313 between South Peterborough and the Monadnock substation. It also approved Freepoint's 20-MW solar array in Thornton, N.H., to interconnect with a line tap on the Eversource 34.5-kV Line 342B north of the Beebe River substation. Both projects would have a December 2022 in-service date.

The RC in one vote approved implementation of 58 individual PPAs by New England Power, known as the Western Massachusetts Distributed Energy Resource Additions Cluster (Group 1) Generation and Transmission Project. Based on a show of hands, the motion passed with none opposed and three abstentions, all from the Publicly Owned Entity sector.

Estimated Operating Reserve Deficiency

Fei Zeng, ISO-NE's lead analyst for resource studies and assessments, *reviewed* the estimated hours of system operating reserve deficiency for Forward Capacity Auction 14 (2023/24) calculated with and without Mystic 8 and 9.

Zeng said the analysis can be considered an extension of the installed capacity reserve (ICR) calculation and uses the same model and underlying assumptions. The analysis simulated all the hours of year and only found reserve deficiency hours during the summer months without the Mystic units.

The estimated annual hours of operating reserve deficiency for capacity commitment period 2023/24 (FCA 14) are higher than 2022/23 (FCA 13).

The probability of deficiencies occurring is lower for the extreme high load levels (high exposure to load-shedding conditions) in the FCA 14 forecast than in FCA 13, resulting in fewer loss-of-load events and a reduction to ICR. However, the probability of operating reserve deficiencies occurring is higher for the intermediate high load levels (high exposure to reserve shortage conditions) in the FCA 14 forecast, resulting in more reserve deficiency hours, Zeng said.

The RC will consider the issue again in December, he said. ■

— Michael Kuser

ISO-NE News

Overheard at the 2019 NECBC Energy Conference

Permitting Seen as Main Obstacle to Developing Large Projects

BOSTON — State and federal regulators last week joined industry leaders — and even a handful of protesters — at the New England-Canada Business Council's (NECBC) 27th annual energy conference, where discussion of energy policy to reduce climate change took center stage.

Avangrid CEO James P. Torgerson | © *RTO Insider*

Protesters outside the hotel held up signs denouncing Enbridge's proposed natural gas compressor station in Weymouth, Mass. At one point, a demonstrator could be heard shouting as a police officer prevented him from entering the ballroom, interrupting the session coincidentally just as Avangrid CEO James P. Torgerson was saying that the main obstacle to getting big projects off the ground is the difficulty of permitting.

Following is some more of what we heard at the meeting.

NERC and Society

NERC CEO Jim Robb | © *RTO Insider*

NERC CEO Jim Robb recalled being in Connecticut on Oct. 28, 2011, for an unexpectedly heavy snowstorm that caused "a massive amount of damage to the electric system," leading to a nearly two-week restoration effort.

"Most importantly, what I learned from that was how the relationship between society and electricity has so fundamentally changed," Robb said.

"I remember as a kid when the power was out, it was kind of fun. ... We'd play Monopoly by candlelight, but you can't do that anymore because kids only know how to play games that are on the internet, which doesn't work without electricity. You can't communicate, because most people don't have landlines anymore, and you can't get money from the ATMs. You can't get gas in your car."

Society unravels without electric power, Robb said, and that 2011 experience "developed in

The New England-Canada Business Council's (NECBC) 27th Annual Energy Trade & Technology Conference took place Nov. 20-21 in Boston. | © *RTO Insider*

me a real commitment to this notion of reliable electricity, because it really is foundational to our society."

The "incredibly complicated" electric system calls for a lot of cooperation and collaboration between NERC and other agencies, both domestically and internationally, he said.

"The industry is transforming from the isolated systems of Grid 1.0 — and the Grid 2.0 of integrated systems built around large, central station generation — to 3.0, which is going to be highly decarbonized, with variable generation, available when it's available and not when it's not," Robb said.

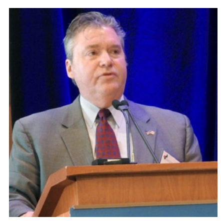
"Just having capacity to generate energy is no longer sufficient," he said.

The new grid will also feature "increasing amounts of generation on the distribution system or behind the meter from the utilities' perspective; and be highly digitized, with a strong focus on digital controls at the [uninterruptible power supply] level, and an increasing penetration of Internet of Things devices at the load side," he said.

Robb said that cybersecurity is the one thing they "lose sleep over" at NERC and that "you should stop using the term 'Internet of Things' — the real term should be the 'Internet of Threats,' because every one of those devices creates an access point and a cyber vulnerability for the system."

Political Ideas

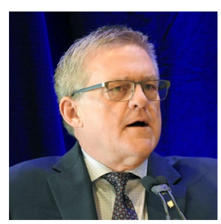
Highlighting the value of energy exchanges between the U.S. and Canada, NECBC President



Jon Sorenson, NECBC | © *RTO Insider*

Jon Sorenson, of JFS Energy Advisors, said energy trade makes up nearly 20% of bilateral trade between the countries, or $130 billion out of $759 billion.

David Alward, consul general of Canada to New England, summarized political developments since Prime Minister Justin Trudeau's Liberal Party won a narrow re-election victory in October to form a minority government,



Consul General David Alward | © *RTO Insider*

Alward called the recent selection of Jonathan Wilkinson as Canada's environment minister a "really positive move" with respect to advancing climate change policy, noting Wilkinson's experience as a clean energy technology executive and as fisheries and ocean minister.

The country's new deputy prime minister, Chrystia Freeland, was the foreign minister and will keep responsibility for free-trade negotiations and U.S. relations, "which for all you in the energy sector is a message of stability."

Canadian citizen Katie Sullivan, managing director of the Geneva-based International Emissions Trading Association (IETA), said, "Net-zero [emissions] will be top of mind for the new government of Trudeau."

ISO-NE News

Katie Sullivan, IETA | © *RTO Insider*

Leonard Kula, IESO | t© *RTO Insider*

Energy policy is a significant part of political elections in Ontario, said Leonard Kula, COO and vice president for planning, acquisition and operations at Ontario's Independent Electricity System Operator.

"One could argue that our last two changes in government were based on how well that government handled electrical energy," Kula said.

"The jury is still out on the ability of those hybrid resources" — wind plus storage, solar plus storage — to do "the heavy lifting" now assigned to nuclear and hydropower, he added.

Joseph T. Kelliher, NextEra Energy | © *RTO Insider*

On the U.S. side, former FERC Chair Joseph T. Kelliher, now executive vice president for federal regulatory affairs at NextEra Energy, said that "to the extent there's a crisis in the industry, it's a crisis of low energy prices."

"Fifteen years ago, the least efficient coal unit could generate electricity cheaper than the most efficient gas unit, and now even the most efficient coal unit cannot survive economically, mainly because of the drop in natural gas prices," he said.

Kelliher said he hates to see people talking about FERC in the elections, and also about energy policy, especially when they don't know what they're talking about.

"The idea of stopping all fracking of natural gas now is terrible," he said. "Do they think the price will stay the same?"

Seal of Approval

Avangrid expects "in the not too distant future" to get the final permits on its New England Clean Energy Connect project to bring 1,200 MW of Canadian hydropower to Massachusetts, Torgerson said. It will likely begin construction in the second quarter next year to become operational by 2022.

NECEC has been plagued by delays, controversy and opposition since it received the state contract following the failure of Northern Pass, a competing project by Eversource Energy, to win regulatory approval in New Hampshire.

The company's offshore wind joint venture, Vineyard Wind, has also seen trouble this year, as the Bureau of Ocean Energy Management in August delayed issuing a final permit in order to expand environmental impacts analysis for all such offshore projects. (See *Renewable Backers Decry Vineyard Wind Delay*.)

"The BOEM delay for cumulative impacts analysis makes sense when you step back, because with seven projects in various stages of development, you want to make sure that you get the shipping lanes right, that you don't build a patchwork of turbines out there," Torgerson said.

"All of the developers have agreed to 1 nautical mile of turbine spacing, so we hope the fishermen can do their fishing, and we expect a decision by the secretary of the interior by early January so we can start construction," he said.

Eversource CEO James Judge | © *RTO Insider*

Eversource CEO James Judge noted that his company partnered with Ørsted to form Bay State Wind, which has leased two offshore wind energy areas, one of which it bought in 2016 for $1 million, "and the three that are farther out now, maybe 15 miles beyond that, just went for $130 million each."

"The hedge fund that invested wanted me to flip it immediately and have a good quarter, but we're not doing that," Judge said.

After hearing Torgerson note that offshore wind turbines can be expected to have average capacity factors of 47%, Judge said the number "is not uniform" throughout the year.

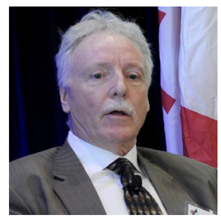
"In January, you can expect a 65% capacity factor, and in the summer probably something around 30%, which means we are freeing up with offshore wind development the very critical gas resources that come under constraint in the region during the winter months," Judge said.

Richard Levitan, Levitan & Associates | © *RTO Insider*

Richard Levitan, president of Levitan and Associates, said New England's "natural gas pipelines are running full throughout the heating season ... and gas prices briefly touched $175/MMBtu during that bomb cyclone of 2017-2018."

Hydro-Quebec CEO Éric Martel | © *RTO Insider*

"We have been building new reservoirs and new capacity since 2003 and will through 2021. And we built 5,000 MW of capacity, which is going to give us about 24 TWh," Hydro-Québec CEO Éric Martel said. "What's important to know is that the demand in Québec has been flat for the last 10 to 12 years ... so this is available either for export or growth in Québec."

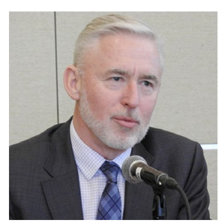


Algonquin Power CEO Ian Robertson | © *RTO Insider*

Algonquin Power & Utilities CEO Ian Robertson said, "We were green before it was hip to be green." Speaking of the company's purchase of Bermuda's electric utility, BELCO, Robertson said: "People might ask what's the point of a 160-MW utility in the middle of the ocean, but what a great petri dish for understanding the role that renewables can play to influence fossil fuels. Their generation store is almost 100% fossil fuel, meaning fuel oil equipment."

Market Mechanisms

Danielle Powers, senior vice president at Concentric Energy Advisors, asked how wholesale markets in New England need to evolve in order to maintain reliability.



ISO-NE CEO Gordon van Welie | © *RTO Insider*

"All the New England states have expressed that they want to reduce carbon emissions by around 80% by 2050," ISO-NE CEO Gordon van Welie said.

Although the region has already made significant progress on emissions, "the steep part of the ascent is ahead of us ... from 2030 to 2050," he said. "We've done the easy stuff the first few decades. ...

"CASPR, or Competitive Auctions for State-sponsored Resources, was really just a

ISO-NE News

mechanism we invented and work around to allow such resources to enter the market without crashing the price in the primary auction capacity market."


Rudy Wynter, National Grid | © *RTO Insider*

Rudy Wynter, president of National Grid Wholesale Markets, said that "the competitive markets are the most reliable and probably the most effective way" to achieve environmental goals.

"Those markets are probably evolving ... and we're probably going to need some resources in the beyond-2030 time frame that aren't even in the markets today," Wynter said.

"It's also important how we think about transmission, how it's configured, which also has to evolve," he said. "We have to make sure that all our energy infrastructure ... is enabling or facilitating the decarbonization agenda, and not inhibiting."

Wynter said that it's becoming steadily more difficult in the Northeast to site, permit and build infrastructure, "which means we need to start making our investment decisions and infrastructure plans very early. If we wait until they're needed ... it might not be there when we want it."


Karen Iampen, Repsol | © *RTO Insider*

Policy and Pressure

"I represent largely carbon, which most people don't want to even recognize," said Karen Iampen, vice president of trading and origination at Repsol. "The phase we're in right now is that gas and LNG are absolutely necessary for reliability.

"Everything is incredibly complex," Iampen said. "The region should look at carbon pricing because we do have to incorporate all the externalities in the market, but then what do we do with the revenues?"


Elizabeth Henry, ELM | © *RTO Insider*

Elizabeth Henry, president of the Environmental League of Massachusetts, said her constituency is proud of New England's leadership in developing offshore wind "but sobered by the urgency of the climate crisis."

She said the region has three main levers to transform its energy picture: offshore wind, the transportation sector and corporate action.

"In six weeks it will be 2020, which is the midpoint between 1990, commonly referred to as the baseline for emissions, and 2050, which is the date that thousands and thousands of climate scientists around the world say that our economy globally needs to be net zero," Henry said.

Despite great progress, most people would recognize that we are not halfway to net-zero carbon emissions, she said.

"Progress has not been linear, so there is going to be increasing pressure to accelerate that progress," Henry said. "I say this because getting to net zero for New England represents a massive economic opportunity."


Patrick Woodcock, Mass. EEA | © *RTO Insider*

Patrick Woodcock, undersecretary of the Massachusetts Executive Office of Energy and Environmental Affairs, and interim commissioner of the state's Department of Energy Resources, said he continues to be optimistic that New England and the eastern Canadian provinces can "meet the energy and climate challenges of our time."

"Although we have not yet perfected our markets, the key winter ability to hit price signals to attract investment ... I think that market model will originate here," Woodcock said ■.

— Michael Kuser


From left: Dan Dolan, NEPGA; Elizabeth Henry, ELM; Katie Sullivan, IETA; Richard Levitan, Levitan & Associates; Patrick Woodcock, Mass. EEA; and Kevin Conroy, Foley Hoag | © *RTO Insider*

MISO News

FERC Adopts New ROE Methodology in MISO Complaints

By Christen Smith

FERC adopted a new methodology for calculating return on equity rates for transmission owners and applied it to two MISO proceedings on Thursday (*EL14-12, EL15-45*).

The commission set the TOs' ROE at 9.88%, a figure it determined via both the discounted cash flow (DCF) and capital asset pricing models (CAPM) — the two methods "investors most commonly use to estimate the cost of equity," it said.

In the first docket, the commission granted the complaint, filed in November 2013, and ordered the TOs to implement the 9.88% ROE effective Sept. 28, 2016 — down from the previously approved 12.38% — and provide refunds for the period from the date of the complaint to Feb. 11, 2015.

FERC, however, dismissed the second complaint, filed by another group of transmission customers Feb. 12, 2015, reasoning that prospectively lowering the ROE in the first complaint rendered the second moot. This led to a partial dissent from Commissioner Richard Glick, who disagreed with the decision not to grant refunds in the second complaint.

The ruling comes two years after the D.C. Circuit Court of Appeals vacated and remanded FERC Opinion 531, finding that the commission's DCF methodology used to revise rates for New England TOs — including "setting the replacement ROE at the midpoint of the upper half of the zone of reasonableness ... rather than the midpoint of the overall zone of reasonableness" — was unjust and unreasonable.

The decision pushed FERC to reconsider the metrics it used to calculate ROEs, a methodology that had been largely unchanged since the 1980s. The commission in a briefing order had previously considered giving equal weight to results from the DCF, CAPM, expected earnings and risk premium models before settling on the methodology used in Thursday's ruling. (See *FERC Changing ROE Rules; Higher Rates Likely*.)

The new methodology adopts an equal weighting of the DCF and CAPM models to establish a "composite zone of reasonableness" but rejects use of the expected earnings or risk premium models.

"The commission will use that composite zone of reasonableness to evaluate whether an existing base ROE remains just and reasonable under the first prong of [Federal Power Act]

FERC adopted a new methodology for ROE rates and applied it to two proceedings in MISO on Nov. 21. | *© RTO Insider*

Section 206 and to establish a new just and reasonable base ROE, under the second prong of FPA Section 206, when the existing base ROE has been shown to be unjust and unreasonable," FERC wrote.

EL14-12 dates back to 2013, when industrial customers argued that the 12.38% ROE rate that TOs were collecting was too high. (See *ROE Talks Between Industrials and MISO TOs Collapse*.) In 2016, FERC lowered it to 10.32% after its remanded ruling in the ISO-NE case set the "zone of reasonableness" at 7.03 to 11.74%. (See *FERC Cuts MISO Transmission Owners' ROE to 10.32%* and *FERC Extends New ROE Policy to MISO; Seeks Comments*.) ■

FERC Orders Ameren Accounting Changes

FERC last week ordered Ameren Illinois to revise its accounting for some expenses but otherwise rejected the latest round of challenges by Southwestern Electric Cooperative to the utility's annual formula rate update (*ER18-1122*).

Southwestern challenged multiple inputs to Ameren's 2018 formula rate update.

The commission ordered Ameren to make a compliance filing within 30 days:

- Moving expenses associated with responding to formal challenges before a regulatory body into Account 928 and exclude them from the annual transmission revenue requirements (ATRR), "consistent with" the commission's rehearing order on Southwestern's 2017 formal challenge (*ER17-1198-002*). (See *Challenge to Ameren Illinois Rate Rejected Again*.)

Ameren Illinois linemen | *Ameren*

- Moving any expenses related to donations for charitable, social or community welfare programs from Account 566 to Account 426.1 (Donations), which is not included as an input to formula rate. The commission said it could not determine whether Ameren appropriately recorded only transmission-related expenses to Account 566. "To the extent Ameren Illinois is including donations for charitable, social or community welfare purposes as part of its contribution and membership expenses, we require Ameren Illinois to report the specific items and amounts as part of the compliance filing and also remove them and account for this removal in its next true-up," the commission said.
- Eliminate costs of association membership fees associated with lobbying activities from accounts included in the ATRR. ■

— Rich Heidorn Jr.

OMS to Probe State Policies After Leader's Exit

By Amanda Durish Cook

The Organization of MISO States will examine the revolving door policies of its member states after its president departed his position earlier this month to take a job with a wind energy trade association.

The move comes in response to Louisiana Public Service Commissioner Eric Skrmetta's call to create a code of conduct among OMS representatives — all of whom are state utility commissioners — governing how they transition into jobs in the industry they regulate.

"We're asking for the OMS to consider adopting a code of ethics or a code of conduct policy," Skrmetta told fellow regulators during a Board of Directors meeting Nov. 19 as part of the National Association of Regulatory Utility Commissioners' annual meeting in San Antonio.

OMS leaders said the organization will begin the effort by examining state rules on post-employment restrictions before it decides to move forward with developing any policy.

Skrmetta said he was raising the issue after former OMS President and Missouri Public Service Commissioner Daniel Hall left both posts to *become* the central region director for the American Wind Energy Association earlier this month. Skrmetta said he took issue with the fact that there was no downtime before the transition and that the move wasn't announced ahead of time.

"The turnaround is instantaneous," he said. "It's pretty obvious we have to take some steps."

OMS Executive Director Marcus Hawkins said the board was aware of Hall's plans to leave the organization about a month before his departure. Hall did not respond to *RTO Insider*'s request for comment.

"Avoiding the appearance of impropriety is an important goal for this body," Skrmetta said. He suggested OMS adopt a recusal mechanism or require members to disclose extracurricular tasks that might conflict with the aims of their offices.

Former OMS President Daniel Hall | © *RTO Insider*

Kentucky Public Service Commissioner Talina Mathews suggested OMS begin the effort by taking inventory and comparing each state's existing code of ethics on post-employment policies, a task the board assigned to an informal board subcommittee.

But even that first step prompted pushback from other regulators.

Wisconsin Public Service Commissioner Mike Huebsch said he wasn't certain cooling-off periods are constitutional. He argued requiring cooling-off periods negatively affects former commissioners' ability to find jobs after their terms end, an already daunting task.

"It's a tough thing because most of us can't talk to anyone until we leave the state," Huebsch said.

"There had to be some knowledge of the employment coming. … There has to be some acknowledgement that that's going to happen, and there has to be some kind of drawing back," Skrmetta responded.

Skrmetta said initiating a code of conduct would create protections for OMS and create an "absolute armor plate" for the organization. He also argued that as AWEA's central region director, Hall was active in MISO states immediately after leaving OMS.

"Daniel Hall took certain views in his office, and those views haven't changed. There was no influence," Arkansas Public Service Commission Chairman Ted Thomas argued. "You can talk about motivations, but you can't really separate it."

Thomas suggested OMS might add some boilerplate language that directors are bound to their state's individual code of ethics.

But Huebsch said state law and guidelines differ so drastically among states it would be impossible to create a single code of ethics for members.

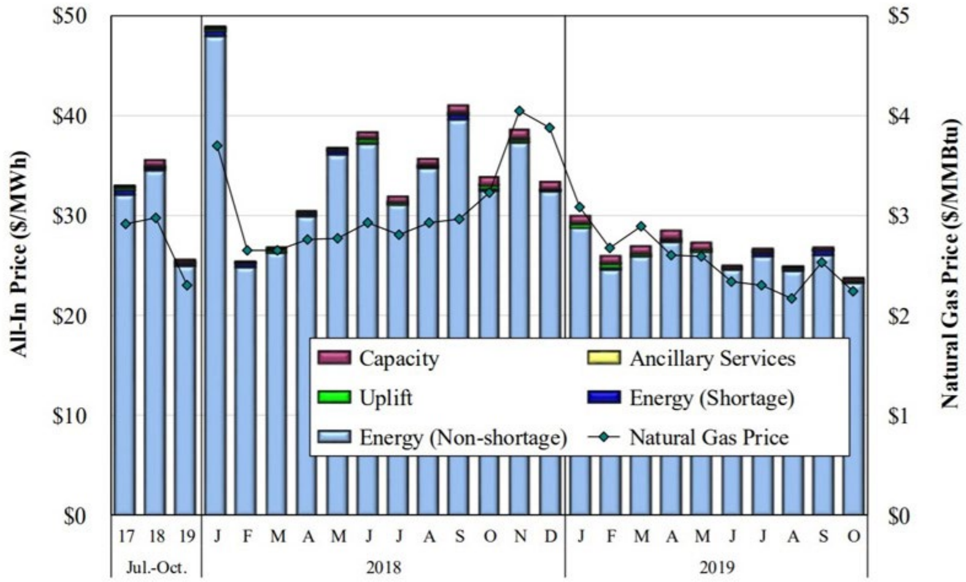
"There are things I could do in other states that would put me in jail in Wisconsin. And vice versa," he said.

OMS President Matt Schuerger asked the subcommittee to wrap up its research in time for the board's January meeting.

"It's a reasonable question that's been put before us," he said, promising more discussion. ■

MISO News

IMM Cites Smooth Summer, Outage Issues in MISO South



MISO South prices compared to natural gas prices | *Potomac Economics*

MISO's Independent Market Monitor found no major concerns with performance in MISO South over the summer and early fall, but it still wants the RTO to get a handle on short-notice and unreported generation outages in the region.

Potomac Economics' Robert Sinclair delivered a MISO South operations *report* at the Entergy Regional State Committee's annual meeting Wednesday. The report showed South prices for late summer and fall were significantly lower than in 2017 and 2018, holding to about $25/MWh, while natural gas prices hovered around $2.50/MMBtu.

"During the year, you see prices have been declining, and that's the result of declining natural gas prices," Sinclair said. Monitor staff also reported higher prices in the MISO portions of Texas in recent months because of transmission outages.

But Sinclair said the Monitor is keeping tabs on short-notice outages and extensions of planned generation outages, along with unreported outages and derates, which continue to be prevalent in South.

"A significant portion of resources continue to be unreported and short-notice," Sinclair said.

MISO Director of Operations and External Affairs Liaison Tag Short said the RTO called a maximum generation warning in South in early June because of both high load and forced generation outages.

Short said South's 32.2-GW summer peak occurring Aug. 12 came in lower than the 32.7-GW all-time peak on Aug. 10, 2015.

Sinclair also told Entergy executives that the regional dispatch transfer limit continues to provide South members with cost savings and the benefit of integration. He said the transfer limit bound much more frequently in the South-to-Midwest region August through October. MISO's agreement to use SPP transmission to facilitate transfers stipulates a 2,500-MW South-to-Midwest limit and a 3,000-MW Midwest-to-South limit. ■

— Amanda Durish Cook

MISO News

MISO Committee Revisits 'Other' Sector Spin-off

By Amanda Durish Cook

Environmental advocates are stepping up calls for MISO to split up its Environmental and Other Stakeholder Groups sector to provide them with a more singular voice — and the idea may be getting some traction.

Sector members continue to press MISO's Steering Committee to expand the number of sectors in the Advisory Committee, affording dedicated space for green advocates in RTO activities.

"In the long run, if you don't offer a new way for folks to join MISO ... there are always going to be problems," John Moore, director of the Natural Resources Defense Council's Sustainable FERC Project, said during a Steering Committee conference call Thursday.

John Moore, Sustainable FERC Project | © *RTO Insider*

Advisory Committee members in September indicated they weren't yet ready to embrace the idea of creating an 11th sector to accommodate hard-to-pin-down members. At the time, the Power Marketers and Brokers sector offered to take on the "Other" contingent temporarily to see if it was a harmonious fit. (See *Scant Support for 11th MISO Sector*.)

But the Steering Committee is now suggesting that the Advisory Committee re-examine the issue.

Moore last week sent an email urging Steering Committee members and MISO staff to revive the issue. He wrote that "regardless of the intentions for creating this sector at the inception of MISO, a sector composed of entities in addition to 'environmental' is problematic at best and creates governance challenges within our sector."

"For that reason, we encourage MISO to develop a solution that allows members to participate in the stakeholder process and governance in ways that do not render our sector dysfunctional," Moore wrote citing two instances of entities joining the sector that were not "aligned" with its mission.

"In one instance, it was several gas pipeline development companies, and in another case, it was several competitive transmission developers," he wrote.

Moore said those two instances "substantially disrupted our ability to operate as a cohesive sector." He also wrote that he fears that prospective MISO member the Lignite Energy Council (LEC) may end up in the sector because the organization "does not fit neatly into any sector because it is so diverse in its membership."

"MISO needs a durable solution that can allow for meaningful participation in the stakeholder process for entities like the LEC, who wish to become members, without forcing them into sectors with fundamentally different interests," Moore wrote.

During the conference call, Moore suggested MISO at least create a "holding" space for new members that may have a difficult time deciding where they fit in.

"We don't want our sector to become a repository for just anyone that doesn't have a home," Moore said.

"I'm very sensitive to the concerns of the Environmental sector, but where do we draw the line on creating new sectors? ... I'm struggling myself on coming up with an answer to that," WEC Energy Group's Chris Plante said.

Plante said his Municipals, Cooperatives and Transmission Dependent Utilities sector also contains groups that don't always agree with each other.

But some Steering Committee members said MISO cannot expect to persist with the same 10 sectors given the increasingly mercurial nature of the energy industry.

"The world is changing, and the industry is changing," Manitoba Hydro's Audrey Penner said, citing Bill Gates' secretive Heliogen solar *startup* that has created solar arrays capable of generating heat above 1,000 degrees Celsius with the help of artificial intelligence. She said it was an example of the "new players entering our industry."

"To the extent that we need to create new sectors, that's going to be pressed upon us whether we like it or not. We're not in a static industry," Penner reminded fellow members.

Penner argued that MISO could create as many as three new sectors, for example, and said members "could still feel comfortable and make their voices heard."

Steering Committee Chair Tia Elliott said the topic would be passed to the Advisory Committee in time for its Dec. 11 meeting as part of MISO Board Week in Indianapolis.

Remove Affiliation Obligation?

Steering Committee leaders on the same call also discussed eliminating the requirement that entities must join a sector in order to become MISO members.

Current rules dictate that organizations seeking MISO membership must declare affiliation to one of the 10 sectors in order to gain entry. Sectors are used for member voting purposes in the Planning Advisory Committee and Advisory Committee.

The Steering Committee ultimately agreed to hold off on making draft changes to MISO's Stakeholder Governance Guide until further discussion. Any revisions to the governance guide must go before the Advisory Committee before they are adopted.

Moore said dropping the requirement might be a positive step, freeing elusive and prospective members from trying to narrow down their purpose.

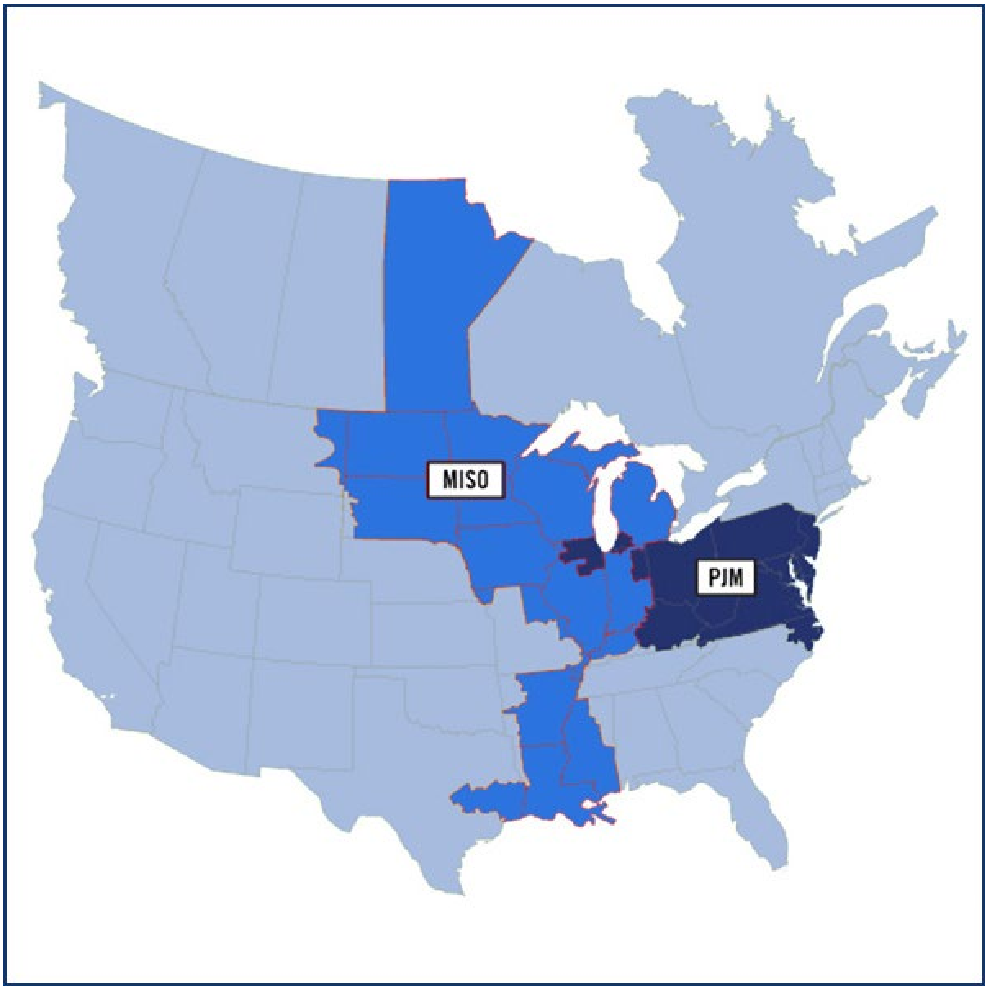
"I think it's definitely a sticking point," he said. ■

MISO News

FERC Affirms MISO-PJM Pseudo-tie Decisions

By Amanda Durish Cook

FERC last week dismissed a second round of complaints over overlapping pseudo-tie congestion charges between MISO and PJM, rejecting a call that the Midwestern RTO rework its solution and denying rehearing requests over its refund decision.



PJM and MISO footprints | *MISO, PJM*

No MISO Solution Rejection

American Municipal Power had called for a retroactive rejection of the second phase of MISO's solution to address overlapping congestion charges on pseudo-tied generation, arguing that the RTO failed to prove that all overlapping congestion charges had been resolved (*ER19-34-003*). The utility also said FERC's acceptance of PJM's second-phase solution was conditioned on an expectation that MISO would also develop a voluntary schedule-cutting mechanism like its eastern neighbor.

The RTOs in 2018 agreed to first make limited software changes to account for pseudo-tie transactions in their respective day-ahead markets, then filed separate second-phase solutions to eliminate double-charging. While PJM now provides rebates for deviations from day-ahead commitments and created a new transaction type to hedge exposure to financial risk, MISO added pseudo-tie transaction interchange schedules so pseudo-tied resources can use the day-ahead market to hedge against real-time congestion. (See ***FERC Approves MISO Pseudo-tie Proposal***.)

Contrary to AMP's claims, pseudo-tie double-charging has been wiped out, FERC said in its order Thursday.

The commission's decision relied on reports from the RTOs. It said AMP failed to point out any specific Tariff changes in MISO's second-phase solution that it believed was unreasonable. FERC also said it would not require MISO to restyle its hedging mechanism after PJM's, noting that several types of hedging mechanisms could be just and reasonable.

The commission also pushed back on AMP's contention that MISO promised to address any leftover overlap "through rebates or other means" even after the full solution was in place. FERC said neither RTO ever committed in filings to additional rebate mechanisms as part of their second-phase solutions.

FERC also expressed confusion about why AMP was calling for rebates at this point given that PJM now charges or credits congestion where pseudo-tie paths overlap between the RTOs.

The commission in October also rejected a trio of complaints from AMP over how the RTOs eliminated their overlapping congestion charges. The commission said their phased-in pseudo-tie solution did not constitute prohibited "piecemeal" ratemaking. (See ***MISO-PJM Pseudo-tie Fix Challenges Rejected***.)

No Rehearing of Refund Decision

FERC also batted away several requests to rehear its May decision that ordered settlement proceedings to determine how much the RTOs must remit to address redundant congestion costs incurred from 2016 onward. (See ***Refund Hearing Ordered in Pseudo-Tie Complaint***.)

The complainants — including Tilton Energy, AMP, Northern Illinois Municipal Power Agency and Dynegy — relied on a variety of arguments to seek rehearing.

FERC held firm that MISO didn't violate its Tariff when it began using its financial schedules for pseudo-tied customers without prior approval. The commission said the RTO had the authority to assess congestion charges "in the absence of an explicit Tariff section that applied to the situation" (*EL16-108-001*).

The commission additionally found that PJM was not in violation of its Tariff for calculating congestion charges from nodal points inside the MISO footprint. The companies had argued that PJM overstepped its authority by reaching into MISO territory to calculate congestion.

"The fact remains that the PJM Tariff explicitly gives PJM the authority to utilize either the

Continued on page 28

MISO News

Renewables Group Calls for MISO West Tx Construction

Claims Scarce Capacity and Costly Upgrades Stalling Projects

By Amanda Durish Cook

| *Madison Gas and Electric*

Renewable proponents are calling on MISO to revamp a transmission planning process that they say inhibits the development of renewable generation in the RTO's western region.

Natalie McIntire, CGA | *© RTO Insider*

"We have been hearing from our developer members that MISO West is 'closed for business' due to the high cost of transmission upgrades needed, and the cliff interconnection customers experienced recently has been foreshadowed in the last two interconnection planning study cycles," Natalie McIntire, Clean Grid Alliance (CGA) policy consultant, said in an interview with *RTO Insider*.

The alliance this month ***issued*** a "clarion call" for MISO to build more transmission capacity in the area consisting of the Dakotas, Minnesota and Iowa, pointing to the demise of 3,500 MW of proposed wind and solar projects that entered the RTO's interconnection queue in February 2017.

Development of nearly all of those 27 ***projects*** — some of which had power purchase agreements in place — was hindered by transmission upgrades necessary to accommodate interconnection at the cost of tens to hundreds of millions of dollars per project. As of this month, only a 175-MW wind farm and a 45-MW solar facility remain, though McIntire said their fates may be uncertain as well.

"It was a shock to have a whole study cycle of projects in the MISO West region just fall out of the queue," McIntire said.

A single wind or solar farm cannot be expected to fund transmission lines alone, and the lack of renewable development because of scarce transmission capacity in MISO West will mean communities that were expecting development might not see it, CGA argues.

For example, "the loss of 5,000 MW of renewable energy means losing an estimated $15 million, annually, in landowner payments," CGA said, calling the situation "a really loud wake-up call."

CGA also said the failed projects left more than $1 billion worth of production tax credits on the table.

"Without an immediate commitment to addressing the exorbitant cost of interconnecting new projects to the electric grid and a plan to strategically build new transmission lines, wind and solar development will be stalled for the foreseeable future," CGA said.

'Perfect Storm' Thwarted

CGA argues the western MISO footprint should be prepping for a boom.

"The low cost and high demand should be the ingredients for a perfect storm of development, fueling terrific job growth and economic development for rural communities that are all too often struggling to maintain basic services without draining the pocketbooks of its citizens," the group said.

Instead, CGA contends, a shortage of transmission capacity means millions in lost land leases, community tax revenue and jobs. The group points out that the National Renewable Energy Laboratory estimates that a 100-MW wind project supports 60 to 80 construction jobs and five to seven operations and maintenance jobs.

McIntire said a disconnect exists between MISO interconnection queue studies and those performed under the RTO's annual Transmission Expansion Plan (MTEP).

"What are the differences between these two study processes that show such different results?" McIntire asked, noting that interconnection studies show the need for high-cost

MISO News

upgrades when MTEP studies do not. She said the MTEP planning process "should at least be modeling" future generation resulting from customer demand and state and utility commitments.

McIntire also questioned why MISO's reliability and economic planning studies under the annual transmission plan are conducted separately, with needs examined in isolation.

"Planning processes divided into silos driven by economic, reliability and interconnection needs result in smaller projects and abandon big-picture transmission planning that can solve multiple needs more efficiently," she said, adding that the isolated studies often make for smaller, "piecemeal" transmission solutions.

MISO declined to comment for this story. However, RTO executives on a call of the Board of Directors' System Planning Committee on Friday said it would take a Tariff filing to close the gap between identifying upgrades for its generation interconnection queue and transmission planning for the purposes of MTEP.

McIntire said CGA supports the direction MISO has taken on its new proposed futures, though they may not be enough.

MISO plans to hold another workshop to discuss its new, renewable-heavy futures proposal on Dec. 5. Last month the RTO released a trio of new planning future scenarios that include Industry-Announced Plans, Advanced Fleet Change 2.0 and Fleet Electrification. (See *MISO Sets Course for New Futures*.)

"The futures provide much more realistic bookends, which we support, but it's hard to say whether those set of futures will result in the most efficient plan for all the needs on the system," McIntire said, calling for more comprehensive transmission planning.

CGA said MISO could benefit from another transmission package akin to its 2011 multi-value *portfolio* (MVP), which produced 17 projects, and CapX2020's five-project, 800-mile grid *expansion* in the Upper Midwest. The 10 Minnesota utilities behind CapX2020 have recently reunited for a CapX2050 study to identify transmission needs in Minnesota, eastern North Dakota and South Dakota, and western Wisconsin. (See *Minnesota Utilities Reunite for CapX2050 Study*.)

CGA argues that the MVP and CapX2020 have already "reached maximum capacity," although the lines have been "enormously successful at enabling development and delivery" of renewable energy.

McIntire said a future transmission buildout doesn't necessarily have to take the form of another MVP, but that MISO needs a "comprehensive long-term transmission process."

"This whole process takes such a long time, and they're behind. They really needed to start this three to five years ago," she said.

According to McIntire, a 10-year lead time before anticipated in-service dates is ideal. "The planning process requires a few years; then it takes at least a few years for permitting and siting and construction," she said.

She foresees a stalled MISO West with little renewable development over the next decade unless something changes.

"This is possibly just the beginning as similar situations to the recent interconnection request fallout may start to happen in other areas across the footprint. The region must start planning for what needs to be built next," she said.

Don't Wait on Load

McIntire acknowledges there isn't much load growth in the region but said electric vehicle adoption may change the demand picture.

But growth predictions aren't a justification for inaction, she said.

"It's a question of the resource choices that consumers, states and utilities want to make."

She said new, renewable generation can come online — not only to meet load growth — but to replace retiring thermal generation. These new resources can be the lower-cost option, even considering the costs of transmission construction to customers.

"When you're building transmission to new generation, it can still be beneficial to consumers. If the overall cost of the generation is going down, there can still be a net benefit."

McIntire also pointed out that there are costs associated with maintaining the lines and poles of increasingly aging infrastructure.

"We don't just want to build transmission for transmission's sake. We want to work with MISO and its transmission owners to help plan efficient transmission upgrades to meet a variety of needs," she said. ■

FERC Affirms MISO-PJM Pseudo-tie Decisions

Continued from page 26

source nodal point or the MISO-PJM interface," FERC said.

The commission also affirmed that only named complainants are entitled to whatever amount of congestion charge refunds stem from settlement. The Illinois Municipal Electric Agency interceded to argue that refunds should extend to everyone affected by the unjust and unreasonable charge — including itself.

"The commission has held that 'allowing a third party to join in a complaint by filing comments would circumvent our public notice requirements and deprive the respondent of the opportunity to address the assertions of that third party,'" FERC said.

It also declined to extend its usual 15-month refund period as the companies had requested, saying they did not show that the RTOs were slow to act on complex solutions to the duplicative charges.

The commission repeated its stance that the separate administrative charges MISO and PJM assessed on pseudo-tied generation cannot be considered duplicative.

"By taking transmission service in both RTOs, complainants were causing administrative costs to be incurred by both RTOs," the commission wrote.

Finally, the commission again denied AMP's previously failed argument that MISO couldn't guarantee that its phase two solution fully eliminated the double charging. ■

MISO News

La. PSC Complaints Denied in Entergy System Disputes

By Amanda Durish Cook

FERC on Thursday rejected a pair of complaints from the Louisiana Public Service Commission related to a longtime dispute over how Entergy previously allocated production costs among its operating companies and arranged for pooled use of generation and transmission assets.

In *EL01-88-019*, FERC cited D.C. Circuit Court of Appeals precedent when it affirmed a previous ruling that declined to compel Entergy to issue refunds in an 18-year old complaint from the PSC over how Entergy handled its rough production cost equalization on its system from 2001 to 2003.

The commission said a refund mechanism would be more trouble than it's worth to design and not appropriate given how much time has passed. It also noted that its "'default' position is to deny refunds in cases in which there is no net over-recovery by the utility."

Both Entergy and the PSC asked FERC to revisit unresolved issues in the proceeding given the commission's decision last year that the Federal Power Act prohibits refunds among electric companies of a registered holding company "to the extent that one or more of the electric companies making refunds cannot surcharge its customers or otherwise obtain retroactive cost recovery."

The two-year refund period covered a time when Entergy's System Agreement required that production costs among its half-dozen operating companies be "roughly equal," but before implementation of its "bandwidth" solution, which ensured no operating company had production costs more than 11% above or below the system average.

In Thursday's decision not to compel refunds, FERC cited the same three equity factors that guided the D.C. Circuit's 2018 *affirmation* of the commission's earlier decision not to issue refunds over Entergy's inclusion of interruptible service in its rate design, including:

- a principle that "past decisions made in reliance on the prior cost allocation cannot be revisited";
- the possibility of a disconnect between those who would pay surcharges and those who benefited from the previous cost allocation; and
- a "non-trivial risk" that a utility might under-recover refund costs because state regulators might block the utility from collecting surcharges from retail customers under rules against retroactive ratemaking.

Grand Gulf Nuclear Station | *Entergy*

"The commission has previously noted that refunds may not be appropriate because system operating decisions cannot be revisited and redone," FERC said.

FERC provided an example: From 2001 to 2003, Entergy Arkansas had 11 wholesale customers that made up about 14% of its peak load. Today, the utility has just one wholesale customer — which was not a customer 18 years ago — that requires less than 0.001% of its peak load. The commission also said Entergy Arkansas "experienced significant changes to its retail customers since the refund effective period."

Finally, FERC refused to hear new reasoning for refunds from the PSC, which cited the recent D.C. Circuit decision that found that Entergy's System Agreement itself — not the Federal Power Act, as the PSC originally thought — was the basis for the "rough equalization" requirement. The state commission said the court's distinction was another reason to revisit the refund question.

FERC was unpersuaded.

"We find that it is too late in this 17-year-old proceeding for the Louisiana commission to change its theory of the case and raise for the first time a new refund claim," FERC said. "Because the Louisiana commission has had previous opportunities to raise this claim and has failed to do so until now, the Louisiana commission's claim is untimely."

No Opening of Entergy Settlement

In *EL19-50*, FERC also declined to rehear the PSC's claim that Entergy Arkansas acted against the 1982 System Agreement when it had Entergy Services make off-system sales to third-party power marketers on its behalf from 2000 to 2005.

The PSC first claimed in 2009 that the sales violated the generation-sharing outlined in the System Agreement, denied customers the benefits of surplus power and was in violation of the "rough equalization of production costs" provision.

In that proceeding, the PSC focused its argument on Entergy Arkansas' sales of output from the Grand Gulf Nuclear Station from January through September 2000, saying the sales violated the System Agreement's reimbursement rules for off-system sales and harmed the other Entergy operating companies.

But FERC said Entergy's 2015 settlement that terminated the System Agreement and resolved all disputes barred the PSC from raising its claims again. The commission pointed out that the PSC was a party to the settlement's waiver and release provision, which covered Entergy Arkansas.

"We are not persuaded by the Louisiana commission's repetition of this argument in the instant proceeding and find that, by entering into the 2015 settlement agreement, the Louisiana commission has waived its right to now raise the … claims in the complaint," FERC said. ■

MISO News

MISO Continues Honing Wind Forecasts

Most Wind Farms Now Using RTO Predictions

By Amanda Durish Cook

CARMEL, Ind. — Continuous improvement of MISO's wind forecasting is more important than ever now that more than 90% of wind farms in the footprint rely on the RTO's short-term predictions, officials said during a special conference call Thursday.

MISO Manager of Forecast Engineering Blagoy Borissov said the RTO will continue to refine its wind forecasting to make it "more transparent and more available."

Forecast Engineer Cameron Saben said only about 8 to 9% of market participants still submit their own five-minute interval forecasts to MISO, a turnaround from a year ago when only a small amount of wind generators relied on the RTO's forecasts. MISO's short-term wind forecast is generated every five minutes for the next six hours.

"So far, we were in the background where we were used as the backup," Senior Operational Forecast Engineer Dorsana Desai said.

Saben said more wind operators using MISO's forecasts helps cull inaccurate information in their own forecasts.

"What we saw is bad inputs coming into MISO, which affected our ability to forecast," said Saben, adding that market participants tended to forecast their output too optimistically, creating forecasts "on the high side."

MISO has put more focus on improved wind forecasting for much of the year, ever since it misjudged output during a cold spell in January. At the time, the RTO lacked details on its wind generation's ability to operate in extreme temperatures. (See *MISO Looks to Get Better Read on Wind*.)

Since its April workshop on the subject, MISO said it has improved its forecast by synching up wind forecast intervals with its five-minute market intervals and its dispatch system, allowing the RTO to factor more real-time market data into its wind forecasting.

Fenton wind farm near Chandler, Minn.

"All of these process improvements might not have been that significant on their own, but taken together, they were more impactful than we expected," Desai said.

Saben said MISO has also collected data on the cold-weather shutoff thresholds of nearly all its wind fleet.

"Our vendor is now using this to forecast more accurately," Saben said.

MISO is working to anticipate extreme temperatures and weather events in forecasting. "All of these situations which were rare before are becoming more common," she said.

The RTO is still considering a complete redesign of it short-term wind forecasting and is contemplating using either a recent performance-based or probabilistic forecast. It also reported that it's still working through its own tendency to over-forecast wind output during ramp-down times.

"Because our capacity has grown, our wind forecast error has grown as well," Saben said. But he said the improvements MISO has made over 2019 should reverse the trend.

Desai said MISO will develop forecast accuracy metrics and start sharing accuracy reports at its monthly Informational Forums.

Saben said during MISO's all-time 16.3-GW wind record about 1 a.m. on March 15, wind generation served 25% of total MISO load.

"This is quite a large portion, and we expect to see this number grow," he said.

MISO currently has about 220 wind farms totaling 20 GW and expects to see almost 29 GW by 2023. Throughout 2019, the RTO said its day-ahead wind production has increased by about 0.5 GW.

Desai said the goal is not perfection.

"Errors are going to persist. All we can do is reduce the magnitude of the errors," Desai said.

MISO staff said they would continue to hold wind forecasting workshops over the next few years. ■

NYISO News

NYISO Management Committee Briefs

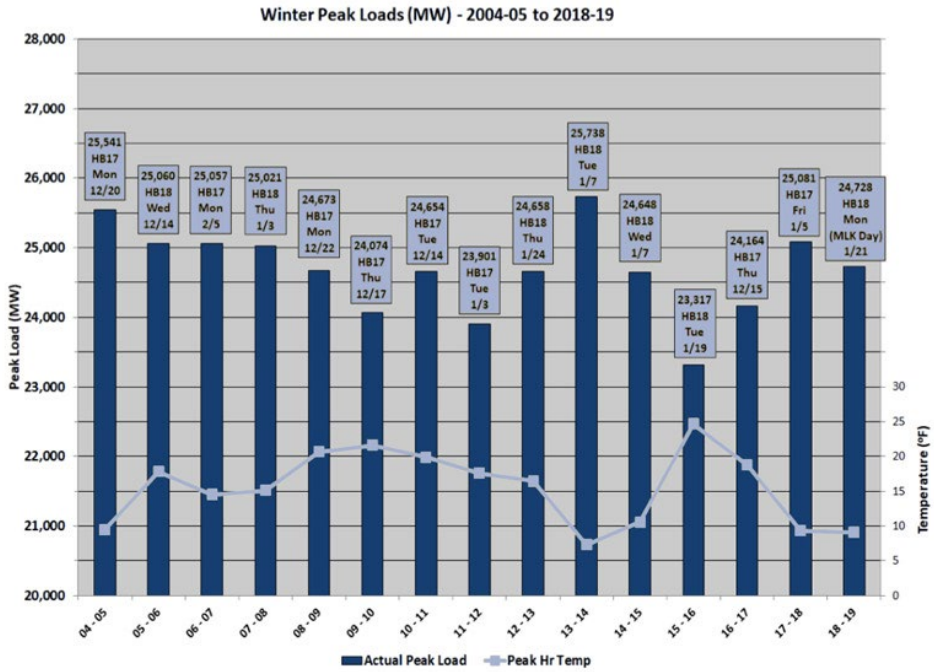
Class Year/Interconnection Queue Redesign

NYISO's Management Committee on Wednesday voted unanimously to recommend that the Board of Directors approve Tariff changes to speed up the interconnection process, as approved by the Business Issues Committee earlier in the month. (See *NYISO Business Issues Committee Briefs: Nov. 6, 2019*.)

Thinh Nguyen, senior manager for interconnection projects, presented the proposed *changes*, which would hasten the class year portion of the interconnection study and also limit the potential for delays from some projects.

Nguyen said a key objective of the proposal is to identify system upgrade facilities for projects to reliably interconnect, including detailed design, engineering and construction estimates. It also seeks to produce binding, good-faith cost estimates that provide reasonable closure on upgrade costs, as well as equitable allocation of upgrade costs.

Matt Schwall, director of market policy and regulatory affairs for the Independent Power Producers of New York, thanked the ISO for providing a "thorough and well-run stakeholder process."



| NYISO

Competitive Entry Exemptions

The committee also voted unanimously to recommend the board approve Tariff changes to competitive entry exemption (CEE) rules. The proposal would make CEE available to existing generators — called "examined facilities" — requesting additional capacity resource interconnection service (CRIS) megawatts in a manner consistent with the underlying rationale for the exemption. Those facilities are currently subject to the mitigation net cost of new entry offer floor.

Senior ICAP Mitigation Analyst Jonathan Newton presented the *revisions* to the CEE rules, which would also facilitate the repowering and replacement of existing generators by allowing existing portfolio owners that have entered into competitive short-term hedging contracts to qualify for the CEE.

The proposal also includes a change in the consequences for withdrawing a CEE request or providing false and misleading information.

NYISO intends to make the proposed rules effective for class year 2019 projects, Newton said. If the board approves the queue redesign proposals in December, the ISO anticipates making Federal Power Act Section 205 filings with FERC on or before Dec. 20, seeking a decision by the third week of February 2020.

New System Software by March

Chief Information Officer Doug Chapman said NYISO is working to deploy by February or early March a new energy management system (EMS) and business management system, both delayed last month because of problems related to both stability and synchronization of data. (See *NYISO Management Committee Briefs: Oct. 30, 2019*.)

"We expect to have the software in a completed state in mid-December, at which point we'll resume the parallel testing, which we expect to be completed by mid-January," Chapman said. "We're targeting a cutover to EMS in the first week of March but want to be ready in case we can move sooner, in February, as we're keen to begin testing new energy storage software."

The testing is projected to take six months and will lead to deployment of the new software in September 2020. The deployment could potentially be moved to August — weather permitting — if detailed test planning results in a shorter test period than the projected six months.

Chapman noted that FERC "would throw a wrinkle in our schedule" if it directs NYISO to make changes to its Order 841 energy storage compliance proposal. The ISO has not yet received an order from the commission after submitting a May 1 *letter* in response to questions about its storage plan. It is the only RTO/ISO whose compliance filing has yet to be ruled on. (See related story, *Storage Plans Clear FERC with Conditions*.)

Grid Ready for Winter

NYISO expects to meet reliability criteria throughout the coming winter with projected capacity margins of 10,900 MW for 50-50 peak winter conditions and 9,299 MW for 90-10 conditions.

"While we are projecting 10,900 MW of surplus available installed capacity, the day-ahead market only commits and schedules sufficient capacity to meet the next-day peak load forecast plus the reserve requirement; hence we would not expect to have 10,900 MW of excess capacity in real-time operations," said Vice President of Operations Wes Yeomans, who presented the winter capacity *assessment*. "The projected 10,900 MW of surplus installed capacity indicates more than sufficient capacity is available for the NYISO to schedule generation resources for cold-weather conditions."

The ISO's baseline forecast shows total capacity resources of 43,346 MW, minus assumed unavailable capacity of 5,703 MW, for net capacity resources of 37,643 MW to meet a total capacity requirement of 26,743 MW.

NYISO also models natural gas supply limitations scenarios and projects a 2,156-MW capacity margin for 90-10 peak winter conditions and loss of all gas supplies, and 4,067 MW for 90-10 peak winter conditions and retaining only units with firm gas supplies.

Existing minimum oil burn procedures defined by the New York State Reliability Council's Reliability Rules and Compliance *Manual* establish fuel-switching requirements for certain generators at specific cold-weather thresholds to secure electric reliability for both New York City and Long Island gas pipeline contingencies.

Seasonal generator fuel surveys indicate oil-burning units have sufficient start-of-winter oil inventories along with arrangements for replacement fuel.

NYISO has performed on-site visits of generating stations to discuss past winter operations and preparations for the upcoming winter, Yeomans said. ■

— Michael Kuser

FERC OKs NYPA Incentives for AC Project

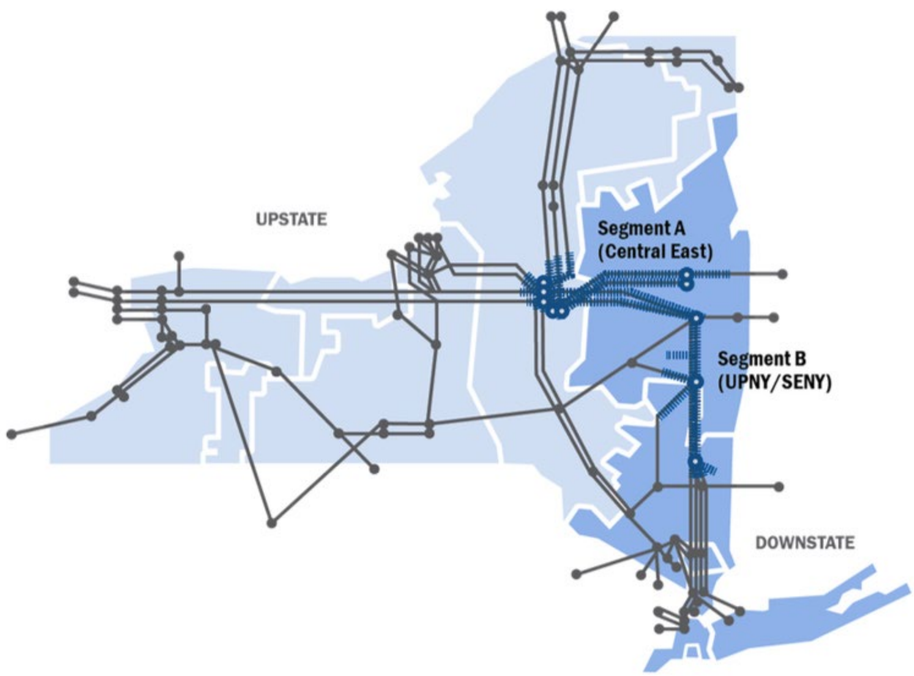
By Rich Heidorn Jr.

FERC last week approved the New York Power Authority's request for transmission rate incentives for its portion of a new AC transmission line (*EL19-88*).

The commission approved NYPA's request for:

- recovery of 100% of prudently incurred plant costs if the project is abandoned for reasons outside of the authority's control (abandoned plant incentive);
- inclusion of 100% of construction work in progress (CWIP) in rate base (CWIP incentive); and
- a 50-basis-point return on equity for the risks of developing the projects (ROE risk adder).

In April, NYISO selected NYPA and units of LS Power to build Segment A (Project T027), and National Grid's Niagara Mohawk Power and NY Transco to build Segment B (Project T019). (See *NYISO Board Selects 2 AC Public Policy Tx Projects*.)



The two AC transmission projects are projected to cost $1.2 billion and provide production cost savings of up to $1.2 billion and $9.6 billion in reduced demand congestion charges over 20 years. | *NYISO*

Segment A will add 350 MW of "Central East" transfer capacity by replacing National Grid's two existing 80-mile 230-kV transmission lines with a new 86-mile, double-circuit 345-kV line from the Edic substation in Oneida County to the New Scotland 345-kV substations, and adding a new Princetown 345-kV switchyard between them. It is expected to cost $750 million, with NYPA's share at $281 million.

Segment B will add 900 MW of transfer capacity between upstate and southeast New York. It includes a new double-circuit 345/115-kV line from a new Knickerbocker 345-kV switching station to the existing Pleasant Valley substation, a rebuild of the Churchtown 115-kV switching station, an upgrade of the existing Pleasant Valley 345/115-kV substation and 50% series compensation on the 345-kV Knickerbocker-to-Pleasant Valley line.

The two projects are projected to cost a combined $1.2 billion and provide production cost savings of up to $1.2 billion and $9.6 billion in reduced demand congestion charges over 20 years. The projects also will avoid transmission refurbishment costs of $839 million and provide capacity benefits of approximately $1.9 billion.

The projects are expected to be in service in December 2023. In its request, NYPA noted that NYISO requires both to be completed at the same time, and that the failure of one may lead to the abandonment of the other, "thus enlarging the potential for the loss of NYPA's investment."

"We find that NYPA has demonstrated that each of the requested incentives that we grant here, and the incentives package as a whole, address the risks and challenges faced by NYPA in undertaking Segment A," the commission ruled.

The commission in 2015 said it would grant NY Transco — affiliates of the New York Transmission Owners, Consolidated Edison of New York, National Grid, Iberdrola USA and Central Hudson Gas & Electric — the same transmission rate incentives requested by NYPA if NY Transco were selected for any of the AC projects (*ER15-572*). (See *Divided FERC Trims ROE on NY Tx Projects, Orders Hearing*.) ■

New Jersey Doubles OSW Target

By Christen Smith

Offshore wind | *Avangrid*

New Jersey doubled its offshore wind goal last week, committing itself to developing 7,500 MW of generation by 2035 in hopes of becoming the "nexus of the global offshore wind industry."

Gov. Phil Murphy, flanked by First Lady Tammy Murphy and former Vice President Al Gore, signed an executive *order* at the Liberty Science Center in Jersey City on Nov. 19 — the latest development in the state's march toward 100% clean energy by 2050.

"There is no other renewable energy resource that provides us with either the electric-generation or economic-growth potential of offshore wind," Murphy said. "When we reach our goal of 7,500 MW, New Jersey's offshore wind infrastructure will generate electricity to power more than 3.2 million homes and meet 50% of our state's electric power need."

In June, the New Jersey Board of Public Utilities selected Ørsted to develop the first 1,100 MW of offshore wind planned for the state. (See *Orsted Wins Record OSW Bid in NJ*.) Regulators will solicit bids for two more 1,200-MW projects in 2020 and 2022.

"As our federal government abdicates its responsibility to confront the climate crisis, our transition to a clean energy future is being led by states like New Jersey," Gore said. "Today's announcement couldn't be more timely and more needed, as climate-related extreme weather events continue to wreak havoc on our communities. With this executive order, Gov. Murphy is unleashing the unprecedented economic and job creating opportunities of clean, wind energy."

The projects represent just a fraction of the potential that researchers say offshore wind development holds along the Mid-Atlantic coast. University of Delaware professor Willett Kempton said in April his analysis concludes a hypothetical buildout from New Jersey to North Carolina could add as much as 80 GW to the grid. (See *Big Prospects for Offshore Wind in PJM*.)

Companies, however, struggle with the logistics of building offshore wind generation in PJM. Anbaric Development Partners asked *FERC* on Nov. 18 to order the RTO to allow developers of offshore transmission "platforms" to obtain injection rights, saying its Tariff violates the commission's open-access requirements and is discriminatory. (See *Anbaric Seeks FERC Help on OSW Tx*.)

The transmission developer said it was forced to file its complaint after a stakeholder initiative to consider changing PJM's rules stalled in September. (See "PJM Recommends Sunsetting Offshore Wind Special Sessions," *PJM PC/TEAC Briefs: Sept. 12, 2019*.)

Liz Burdock, CEO of the Business Network for Offshore Wind, said up to 8,240 MW of offshore wind projects are currently under development on the East Coast, with "steel in the water" promised by 2026. New Jersey's latest commitment will further encourage investment in the industry's component manufacturing inside the U.S. — a major boon for the national economy.

"This additional 3,500 MW will accelerate the development of the state's offshore wind industry and supply chain, and will translate into more economic opportunities, and more jobs, up and down the New Jersey coastline," she said. ■

New PJM CEO Defends Direct Energy Stewardship

Continued from page 1

Asthana's hiring in a statement. "The PJM Board of Managers did a thoughtful and deliberate search for a new CEO," he said. "The board is confident that Manu Asthana is well suited for the position and that stakeholders will find him to be an engaging and positive leader."

Regulatory Scuffles

With nearly 4 million customers, Direct claims to be "one of North America's largest retail providers of electricity, natural gas, and home and business energy-related services." But questions have been raised repeatedly about how it became so successful.

Asthana has been *singled out* for criticism that one of Direct's brands, Home Warranty of America, unfairly denies warranty claims.

In 2015, Alberta officials *said* complaints against the company's energy units had quadrupled during the last year.

In the company's home state of Texas, Direct and three other companies it owns — First Choice Power, CPL Energy and Bounce Energy — were penalized $1.8 million in 11 settlements over 13 years, according to a 2017 *report* in *The Dallas Morning News*.

Last year, Texas regulators told Direct and other retail suppliers to rework their multitiered pricing plans listed on PowertoChoose.org, a state-sponsored website where consumers shop for electricity.

The Texas Public Utility Commission said it received complaints about contracts that use "price cliffs" to entice customers with low prices that jump sharply when household usage exceeds a predetermined level. The website showed costs at three price levels — 500 kWh, 1,000 kWh and 2,000 kWh — and power providers offered competitive deals at those price points. But going even just 1 kWh over the limit could inundate a customer with exorbitant fees, according to a *report* from the Houston Chronicle.

Asthana told the newspaper that Direct would remove any offending products from the commission's website, saying that transparency remained "essential" to the residential market. Jesse Dickerman, a Direct spokesperson, confirmed Monday that the tiered pricing plans were no longer available online and said the company itself alerted the PUC to the practice years before regulators took notice.

In May, the Connecticut Public Utilities Regulatory Authority slapped Direct with a $1.5 million fine for misleading marketing tactics in a scathing *decision* that restricted the company from signing up new customers over the phone and door-to-door for six months. In the ruling, regulators characterized Direct's management as unrepentant throughout the authority's six-year investigation that dated back to 2013.

"Direct's callousness toward its marketing violations was exhibited repeatedly throughout the hearings," PURA wrote. "Direct's management displayed no regard for the customers affected and displayed no contrition for the company's actions."

Direct is a subsidiary of the U.K.-based Centrica, which disclosed in its 2018 *annual report* that total customer accounts in North America dropped by 65,000 during 2018 as it eliminated its "higher-cost door-to-door and third-party telesales sales channels" and replaced them with lower-cost digital channels.

Dickerman said the language used in the PURA ruling was an overzealous reaction to the company's attempt to defend itself against unsubstantiated penalty and sales restrictions written into the proposed decision several months earlier.

"Direct Energy strongly disagrees with the negative characterization of our company and our sales practices in Connecticut," he said. "Direct Energy cooperated fully in PURA's proceeding; immediately upon learning of any customer-specific issues, we took action to ensure satisfactory resolution in favor of our customers. We continue to responsibly serve thousands of electricity and natural gas customers in Connecticut."

Dickerman declined to verify whether Asthana was part of the management team criticized in PURA's ruling. He said that most utility companies face fines because of the complexity of regulations governing the industry and that violations rarely stem from malicious intent. In PURA's itemized *list* of complaints against electric suppliers, Direct doesn't even crack the top quartile, he said.

Where Does the Buck Stop?

Slocum acknowledged that Asthana was not named in the PURA decision, but he said the issues relate directly to his role at the company.

"At its core, these are all issues that were under his jurisdiction," he said. "He's not going to have his hands on everything at PJM, but as CEO, you are accountable for everything that happens below you. The buck stops with the executive in charge."

Manu Asthana, right, and former Direct Energy CEO Badar Khan, left, present the Texas Children's Hospital with a $5 million donation on Dec. 18, 2015. | *Direct Energy*

Slocum said that Asthana and PJM's board should publicly address the company's practices that helped it acquire such a large share of the market.

"PJM is not just some sort of regular corporation — it is the manager of the grid and it is funded by ratepayers," he said. "It is therefore operating in the public interest. There's no benefit of the doubt here. We need certainties."

Asthana told *RTO Insider* over the weekend that he stepped down from his role in December but stayed with the company through April to "ensure a successful leadership transition." He spent the remainder of year immersed in his work as a board member for "some fantastic nonprofit organizations dedicated to serving children and the less fortunate in Houston."

In addition to claiming customer complaints dropped dramatically under his watch, Asthana also pointed to an endorsement from former FERC Commissioner Nora Mead Brownell, who served for several months on a Direct advisory board. "Manu is an effective and transparent communicator who will carefully weigh stakeholders sometimes competing concerns," she told *RTO Insider* by email. "He will lead open discussions to [the] best outcome for markets and customers."

Asthana also received an endorsement from former Pennsylvania Public Utility Commissioner John Hanger, who helped lead the state's introduction of retail choice. "Great choice!" he *tweeted*. ■

Rich Heidorn Jr. contributed to this article.

PJM News

Dominion Challenged on RFP for New Peaker Plant

By Christen Smith

LS Power is urging Virginia officials to intervene in Dominion Energy's solicitation for a new 1,500-MW peaking plant, saying in a *letter* Thursday that the process stifles competition and profits shareholders at the expense of customers.

"Dominion's ratepayers should get the benefit of a competitive auction and not have to be burdened with higher costs to benefit Dominion shareholders," Nathan Hanson, senior vice president at LS Power, said in a statement.

The company urged William F. Stephens, the State Corporation Commission's director of public utility regulation, and state Attorney General Mark Herring "to suspend the solicitation as it is currently structured, review the requirements and implement changes that will make the process competitive, for the benefit of Virginia consumers."

Hanson sent the letter on behalf of an LS Power limited partnership, which *began operation* of two 170-MW natural gas peaking plants at the Doswell Energy Center in Hanover County, Va., in May 2018. Dominion published the *request for proposals* Nov. 6 to help close a projected 4,044-MW capacity gap identified through the company's integrated resource plan. Dominion said it is committed to building a 485-MW combustion turbine facility in 2022 as part of the solution but now seeks third-party proposals to identify "the most favorable supply-side options for its customers."

In the RFP, Dominion limits proposals to new resources only with an in-service date that's no later than June 1, 2024. The company specified units must use fossil fuel generation and would prefer a facility with a minimum runtime of 10 hours to maximize capacity value in PJM's wholesale market. The company said it will compare all proposals to self-build options before selecting a project — a process Hanson said "all but guarantees" the latter will win out.

"Typically, an RFP is utilized to assure a competitive process that will achieve the lowest cost for the consumer," he said in the letter. "However, Dominion's RFP is structured in such a way that it limits competition and will not provide the competitive results that will ensure the consumers in Virginia and not the shareholders of Dominion are the beneficiaries of the process."

Hanson said the SCC could act as an independent third party to review the RFPs and Dominion's self-build options. Further, he said, the RFP should include existing resources in PJM's "oversupplied" market — with some peaking generation coming online in Dominion's zone just last year — that "are very capable of providing ratepayers with competitive supply into the future."

Bidders should also be privy to the costs and risk associated with Dominion's self-build options, as well as reserve the right to pass the risk of environmental law changes onto customers, Hanson said.

"Without the changes described above, it is likely that this uncompetitive process will not provide the results that will ensure the ratepayers of Dominion are receiving the benefits in the form of low rates that a truly competitive process can provide," Hanson concluded in the letter. "Left in its current form, the supposedly 'competitive' process will only ensure that the ratepayers are not receiving the most competitive rates achievable."

Dominion spokesperson Jeremy Slayton told *RTO Insider* in an email Monday that the company "is reviewing the letter from LS Power." ■

Combined cycle generator at Doswell Energy Center | *Fluor*

PJM News

AEP Rejected on Ohio Renewable Projects

By Christen Smith

Regulators in Ohio last week denied American Electric Power's request to recover costs from ratepayers for proposed wind and solar projects totaling 900 MW, saying that PJM's diverse resource mix already provides enough access to renewable generation.

The Public Utilities Commission of Ohio said in a ruling Thursday that "we are not persuaded that the energy or capacity markets have, in fact, failed, as AEP Ohio asserts" and instead suggested the utility seek state subsidies or solicit competitive bids for the projects.

"Today's decision is not about any particular generating technology," PUCO Chairman Sam Randazzo said. "Rather, it is about what must be demonstrated by an electric distribution utility before Ohio law might allow the PUCO to approve the proposed charge. Indeed, Ohio's 'customer choice' framework provides AEP Ohio customers with the individual right to do directly what the proposal would have compelled all such customers to do regardless of their individual preferences."

AEP last year asked for cost recovery under the state's renewable generation rider (RGR) for 500 MW of wind and 400 MW of solar, arguing that the projects would fulfill a growing desire for clean energy, offset the price volatility in PJM associated with fossil fuels and enhance the state's economy.

The proceeding was split into two parts, with PUCO first determining the need for the projects before settling on a cost-recovery mechanism. AEP stalled the ruling in September in order to update its arguments to reflect the impacts of the recently passed House Bill 6, which curtails the state's current renewable portfolio standard and tacks on monthly fees — ranging from 80 cents for residential customers to $2,400 for large industrial plants — to electricity bills, mostly for FirstEnergy Solutions' Davis-Besse and Perry nuclear facilities. Some $20 million of the fees collected will support six solar power projects, including AEP's proposals, in rural areas of the state. (See *Ohio Approves Nuke Subsidy*.)

Protesters — including the Ohio Consumers' Counsel, Kroger, Ohio Coal Association, Direct Energy, IGS and IGS Solar — urged the commission to rule in the case anyway, calling the bill irrelevant to "the statutory issue of whether Ohio utility consumers need electricity from the proposed solar plants." The companies further alleged that AEP didn't need a second revenue stream on top of the money afforded to the projects via HB 6. (See *PUCO Delays Ruling on AEP Solar Projects*.)

"We note that our conclusion on the question of need is not intended to address the merits of the Willowbrook or Highland [solar] projects, which may provide significant benefits to the region," the commission wrote. "Nothing in our decision today precludes AEP Ohio (or its affiliates) from investing in the Willowbrook or Highland projects and pursuing the projects' claimed social and economic benefits through means other than a nonbypassable surcharge." ■

FERC: NYPA Must Pay PJM for Tx Upgrades

By Christen Smith

FERC dismissed a complaint from the New York Power Authority last week that alleged it was not responsible for PJM's upgrade charges incurred after one of its merchant transmission facilities relinquished firm transmission withdrawal rights (TWRs) (*EL17-94*).

The complaint dates to 2017, when FERC forced PJM to modify interconnection service agreements with Hudson Transmission Partners and Linden VFT to convert firm TWRs to non-firm, relieving the companies from hundreds of millions in costs under PJM's Regional Transmission Expansion Plan. (See *NJ Tx Operators Win Relief on Upgrade Costs*.)

HTP owns a 660-MW, 345-kV underwater HVDC line that connects PJM in northern New Jersey and NYISO in New York City. FERC issued a show cause order after Public Service Electric and Gas rejected HTP's request to convert 320 MW of firm TWRs to non-firm. (See *Rejecting PJM 'Wheel'-related Requests, FERC Sets Inquiry*.)

Linden VFT, which operates three 105-MW variable frequency transformers between the PSE&G system and Consolidated Edison, also filed a complaint after PSE&G rejected its request to convert 330 MW of firm TWRs to non-firm.

The two merchant projects were part of a decades-old service agreement between PSE&G and Con Ed that the latter terminated in April 2017. The service "wheeled" 1,000 MW from upstate New York through PSE&G's facilities in northern New Jersey and into New York City.

Hudson notified NYPA of the relinquishment of its TWRs with PJM on June 2, 2017, but the commission did not approve the change until Dec. 15 of that year. PJM continued to bill NYPA for RTEP upgrades between June and December — a practice that NYPA called "unjust and unreasonable."

"Because Hudson (and therefore NYPA) held firm transmission withdrawal rights until Dec. 15, 2017, and received service pursuant to those firm transmission withdrawal rights, we find no basis to support NYPA's contention that PJM should not invoice NYPA for the period prior to Dec. 15, 2017," the commission wrote in its ruling Thursday.

In a related ruling, FERC dismissed a consolidated docket of proceedings that contested ever-changing cost allocations for the Bergen-Linden Corridor (*EL15-67*). State agencies in New York and New Jersey, as well as PJM transmission owners, requested rehearing of FERC's decision to set the dispute for settlement judge procedures last year. (See *FERC Rethinking DFAX for Stability Tx Projects*.) The protesters argued that the commission should have given them a chance to comment on how the revisions to Hudson and Linden's TWRs and the canceled wheeling agreement should impact cost allocation.

Settlement negotiations were terminated in July and the original rehearing requests were punted back to FERC. The commission dismissed the filings as "moot," saying "the requests for rehearing do not challenge the commission's authority to establish settlement judge procedures." ■

Transmission lines crossing the Hudson River | © RTO Insider

SPP News

MISO, SPP Regulators Nibble Away at Seams Issues

By Tom Kleckner

SAN ANTONIO — State regulators working to improve MISO-SPP interregional planning processes and seams issues drew more than three dozen interested onlookers to their latest committee meeting Nov. 17.

Continuing a trend for much of the last year, the SPP Regional State Committee and Organization of MISO States' Liaison Committee held its meeting in conjunction with a conference of the National Association of Regulatory Utility Commissioners. But that may soon be changing.

During a discussion on timelines, North Dakota Public Service Commissioner Julie Fedorchak echoed the frustration of several members when she said, "We don't move quickly enough."

Kansas Corporation Commissioner Shari Feist Albrecht, who leads the SPP side of the committee, agreed the group's progress is hampered in part by insufficient face-to-face time between RSC and OMS members.

"It's moving too slow," she said. "I'm hoping we can develop a regular schedule of meetings going forward."

The committee intends to rectify that situation by scheduling at least one meeting in early 2020, albeit possibly through the web, for an education session on SPP's and MISO's planning processes before NARUC's next meeting.

FERC Commissioner Richard Glick | © *RTO Insider*

FERC Commissioner Richard Glick was among those who sat in on the meeting, being granted a seat at the table while others lined the walls. He declined to offer comments during the discussion but did address the session two days later at NARUC's annual meeting.

"I appreciated being invited. It was a very interesting discussion," Glick said during a Q&A session with outgoing NARUC President Nick Wagner. "It's pretty apparent that we're not necessarily building the transmission system that might be needed for the grid of the future. We're not going to resolve those issues today. If we can do a better job of planning between regions, that would really be helpful."

Commissioners Ted Thomas, Arkansas, and Shari Feist Albrecht, Kansas, lead the discussion. | © *RTO Insider*

Three separate coordinated studies between the RTOs have failed to yield a joint project. Stakeholders have laid much of the blame on differences in modeling and criteria between the grid operators, which have led to market inefficiencies. (See ***MISO, SPP to Ease Interregional Project Criteria***.)

While meeting irregularly since last year's creation, the Liaison Committee has gathered stakeholder feedback and commissioned the RTOs' market monitors to analyze the seams issues. (See ***RSC, OMS Approve Monitors' Seams Study***.)

SPP's Market Monitoring Unit finished a draft ***report*** on rate pancaking and unreserved transmission use joint dispatch in time for the meeting.

MISO's Independent Market Monitor is scheduled to wrap up a study on joint dispatch before year-end. It is also working on suggested changes to the market-to-market framework with the SPP-MISO joint operating agreement. The latter report may not be finalized until spring 2020.

The MMU's analysis indicated removing duplicate transmission charges (rate pancaking) has a very limited effect on import and export volumes. It said most transactions are "inelastic" to the market-clearing price and the majority of these transactions are already taking advantage of market import service in the SPP footprint and a comparable service in MISO.

Its study of SPP unreserved use charges since 2016 revealed they are unaffected by the SPP-MISO seam. The MMU said it could not quantify an impact of these charges on interchange volumes and "abstained" from providing an opinion on the current processes.

The work that lies ahead prompted Dana Murphy, chair of the Oklahoma Corporation Commission, to ask for clarification on just who the various studies' stakeholders are.

"My concern in general is who is asking the RTOs to do this background work?" Murphy said. "We have to be thoughtful in our communicating and what we are communicating." ■

Interested onlookers crowd the RSC-OMS meeting room. | © *RTO Insider*

FERC Finds Partial Compliance on Order 845

By Tom Kleckner and Rich Heidorn Jr.

FERC ruled last week that six utilities have partially complied with the requirements of Orders 845 and 845-A, directing the companies to address their shortcomings within 60 days.

The commission approved Orders *845* and *845-A* to increase the transparency and speed of the generator interconnection process. (See *FERC Order Seeks to Reduce Time, Uncertainty on Interconnections*.)

The commission last week ruled in compliance filings by:

- Golden Spread Electric Cooperative (*ER19-1900*);
- Tampa Electric Co. (*ER19-1920, ER19-1920-001*);
- Cheyenne Light, Fuel & Power (*ER19-1924*);
- Black Hills Colorado Electric (*ER19-1925*);
- Black Hills Power (*ER19-1926*); and
- Portland General Electric (*ER19-1927; ER19-1927-001*).

FERC found the utilities to have "generally" met the requirements of the orders. It evaluated the filings against 845's and 845-A's 10 reforms, grouped into three categories: improved certainty for interconnection customers; promoting more informed interconnection decisions; and process improvements.

The commission said the companies largely adopted its pro forma large generator interconnection procedures as is but failed to include some language that was required by Order 845.

Contingent Facilities

The commission also ordered several of the utilities, including Golden Spread, PGE, Black Hills Power and Cheyenne Light, to identify the "thresholds or criteria" they will use to identify "contingent" facilities — unbuilt interconnection facilities and network upgrades on which the interconnection request's costs, timing and study findings are dependent.

"Without this information, an interconnection customer will not understand how [a utility] will evaluate potential contingent facilities to determine their relationship to an individual interconnection request," FERC said.

It also said Golden Spread's surplus interconnection service proposal omitted language providing that the original interconnection customer, the surplus interconnection service customer and the transmission provider will agree to surplus interconnection service before it begins.

The commission also ordered PGE to add a 30-day deadline for it to conduct any studies needed to review an interconnection customer's request to incorporate certain technological advancements to its interconnection request prior to the execution of a facilities study agreement, without risking the loss of their queue positions. The commission said PGE's proposal to use "reasonable efforts" to meet the deadline failed to comply with Order 845.

FERC also faulted Golden Spread, saying it did not justify its proposal to accept technological change requests until the system impact study ended, rather than before a facilities study agreement's execution. ■

Gas turbine at Golden Spread's Elk Station plant | *GE*

Company Briefs

FERC Finalizes Tax Cut Rule

FERC last week finalized a rulemaking requiring transmission owners to reduce their rates to reflect the December 2017 Tax Cuts and Jobs Act, which cut maximum corporate income tax rates to 21% from 35%.

The order requires public utility transmission providers with formula rates under an open access transmission tariff, a transmission owner tariff or a rate schedule to modify the accumulated deferred income taxes (ADIT) incorporated in their rates. ADIT is used to account for timing differences between the computation of taxable income for reporting to the IRS and that used for regulatory accounting and ratemaking.

The commission initiated the rulemaking a year ago. (See *FERC Acts on Tax Cuts*.) The final rule, however, does not adopt the proposals in the Notice of Proposed Rulemaking that applied to public utilities with transmission stated rates. "For transmission stated rates, we instead find that a public utility's next rate proceeding is the most appropriate place to address excess or deficient ADIT resulting from the Tax Cuts and Jobs Act," the commission ruled. "The question of how to properly handle excess and deficient ADIT for public utilities with transmission stated rates following a tax rate change continues to raise complex questions that are more properly addressed in a rate case."

More: *RM19-5*

Cummins' Ambitious Environmental Plan Targets Net-zero Emissions

Cummins is targeting net-zero carbon emissions by 2050 with a plan called "Planet 2050."

The strategy outlines eight specific goals to accomplish by 2030, all following three 2050 guideposts: addressing climate change and air emissions, using natural resources sustainably, and improving communities in which Cummins has a presence. As part of reducing air emissions and addressing climate change, Cummins said it will reduce greenhouse gas emissions from all facilities and operations by half, and reduce similar lifetime emissions from newly sold products by a quarter.

The company also said it hopes to reduce volatile organic compounds emissions from paint and coating operations by 50%, and generate 25% less waste as a percent of revenue by reusing or recycling 100% of packaging plastics and reducing water consumption by 30%.

More: *Indianapolis Star*

Facebook Powering Virginia Operations with Solar PPA

Facebook has agreed to a power purchase agreement with Apex Clean Energy for 61.6 MW from its Altavista Solar project when it comes online in 2020.

At 80 MW, the Altavista Solar project will be Apex's largest solar project and the company's first renewable energy facility on the East Coast. The project will support Facebook's operations in Virginia and will help the company toward its targets of reducing greenhouse gas emissions by 75% and supporting 100% of its operations with renewable energy in 2020.

More: *Apex Clean Energy*

Ford Unveils Mustang Mach-E Electric SUV

Ford unveiled its Mustang Mach-E last week, making it the company's first fully battery-electric SUV.

Available next fall, the five-passenger 2021 Mach-E will have multiple models, battery options, and rear-wheel and all-wheel drive configurations. Ford said rear-drive models equipped with extended-range batteries are targeting an EPA-estimated range of at least 300 miles. Two additional performance trims are planned with the GT (targeting a 0-60 time under four seconds) and the GT Performance Edition (targeting a mid-three-second 0-60 time). Both would deliver 459 horsepower and 612 pound-feet of torque.

The Mach-E will start at $44,995, including a $1,100 destination charge. GT models will start at $61,600. All qualify for a $7,500 federal tax credit.

More: *The Detroit News*

Tri-State's Conflicts a Factor in Downgrade of Credit Rating

Standard and Poor's downgraded Tri-State Generation and Transmission Association's credit rating from an A to an A- on Nov. 14, citing the imminent departure of one Colorado member and the push from two others to exit. The losses would open the utility to a potential loss of 25% of its energy sales.

Tri-State CEO Duane Highley said the company still has an investment-grade rating, but the rating agency said its outlook is negative and pointed to members' retail rates, which are more than 20% above average and appear to be spurring efforts to leave or find alternative energy sources.

In July, Delta-Montrose Electric Association reached an agreement allowing the cooperative to withdraw from its contract. Earlier this month, United Power and the La Plata Electric Associations filed complaints with the Colorado Public Utilities Commission, claiming Tri-State won't name the amount of money it would take to get out of their contracts.

More: *The Denver Post*

Federal Briefs

DOE: Sondland 'Misrepresented' Perry's Role in Ukraine

The Energy Department has disputed the testimony from top Europe envoy Gordon Sondland that Secretary Rick Perry was intimately familiar with White House efforts to push Ukraine officials to announce an investigation into President Trump's political rivals.

"Ambassador Sondland's testimony today misrepresented both Secretary Perry's interaction with Rudy Giuliani and direction the secretary received from President Trump," a DOE spokesperson said in a statement. "As previously stated, Secretary Perry spoke to Rudy Giuliani only once at the president's request. No one else was on

that call. At no point before, during or after that phone call did the words 'Biden' or 'Burisma' ever come up in the presence of **Secretary Perry**."

Sondland, the ambassador to the E.U., raised questions in his testimony about whether Perry lied when he denied he had no knowledge that U.S. military aid or a White House meeting between Trump and Ukrainian President Volodymyr Zelenskiy were linked to Zelenskiy announcing that his company would conduct investigations into former Vice President Joe Biden and his son, Hunter, or the energy company Burisma. According to Sondland's testimony, Perry was included on a July 19 email in which Sondland said Zelenskiy would tell Trump he "intends to run a fully transparent investigation and will 'turn over every stone'" in a public announcement of investigations into the 2016 elections and Burisma, on whose board Hunter Biden served.

More: *POLITICO*

Fossil Fuel Production on Track for Double the Safe Climate Limit

Analysis by the U.N. Environment Program and a coalition of research organizations shows the world's nations are on track to produce more than twice as much coal, oil and gas as can be burned in 2030 while restricting rise in the global temperature to 1.5 degrees Celsisus.

The report is the first to compare countries' plans for fossil fuel extraction with the goals of the Paris Agreement on climate change, intended to keep global warming below 2 C and to aim for 1.5 C. It exposes a huge gap, with fossil fuel production in 2030 heading for 50% more than is consistent with 2 C and 120% more than that for 1.5 C. Scientists have warned that the difference between 1.5 and 2 C of heating will expose people to significantly higher risks of extreme heat waves, drought, floods and poverty.

The analysis is based on the published national plans of eight key producers: Australia, Canada, Russia, the U.S., China, India, Indonesia and Norway, which account for 60% of global fossil fuel production. The plans of other big producers, including Saudi Arabia and Iran, are not available. The researchers assumed these, and other producers, would maintain a similar share of production to today of about 40%.

More: *The Guardian*

Jordan Cove LNG Export Terminal Passes Enviro Test

Pembina Pipeline's proposed Jordan Cove LNG export plant in Oregon received federal approval for construction last week after FERC issued a final environmental report.

In the report, commission staff concluded construction and operation of the project would result in some adverse environmental impacts, but most would be reduced to less-than-significant levels with mitigation measures. Still, FERC acknowledged some impacts would be significant.

Construction would "temporarily but significantly impact housing in Coos Bay," the report said, adding the project would "permanently and significantly impact the visual character of Coos Bay." The project could also have a significant impact on Southwest Oregon Regional Airport operations and adversely affect 18 federally listed or proposed threatened and endangered species.

More: *Reuters*

TVA Hit With $145K Penalty for Inaccurate Reports About Nuke

Tennessee Valley Authority was hit with a $145,000 fine last week for submitting inaccurate information about the reliability of power service to the Watts Bar Nuclear Power Plant.

The Nuclear Regulatory Commission said a summer inspection concluded that TVA repeatedly submitted incomplete and inaccurate information about the adequacy of an off-site electric power system. Utility officials have since admitted that from 2010 to 2015, they inaccurately reported that two common service station transformers could be counted on as qualified sources of off-site power for accident mitigation. An NRC inspection team identified the transformers lacked enough capacity to provide power to safety-related equipment in certain scenarios.

The commission said TVA's failure was at the lowest level for violations that result in penalties.

More: *Times Free Press*

State Briefs

ARIZONA

Navajo Generating Station is Shut Down

The Navajo Generating Station coal-fired power plant near Page burned the last of its coal last week, marking the end of the plant's 45-year run.

The last bit of usable coal burned Nov. 18, and the power plant, which could produce 2,250 MW of power at full capacity, sent out its last power at 12:09 p.m. MT. The mine

supplying the plant had closed in August.

The facilities employed 750 people before operations began to wind down two years ago, with nearly all of the workers being Native Americans.

More: *The Arizona Republic*

CALIFORNIA

PG&E Raises Costs for EVs by 25%

Pacific Gas and Electric quietly raised the off-peak price it charges customers to charge their electric vehicles by 25% on Nov. 1.

The new off-peak price will

be 16 cents/kWh, up from 13 cents, but the off-peak hours will now run from midnight to 3 p.m. The previous off-peak times were 11 p.m. to 7 a.m. on weekdays and 9 p.m. to 3 p.m. on weekends. For EV owners, it means electricity will go from 3.25 cents/mile to 4 cents/mile, and at 10,000 miles a year, the difference will be about $70/year.

More: *Forbes*

IOWA

Adair County Put Limits on Wind Farms

The Adair County Board of Supervisors

last week approved an amendment to Wind Energy Ordinance 31B, which will now cap the number of commercial wind turbines or wind farms built within the county at a total of no more than 535. The county currently has 532 turbines completed or under construction.

More: *KSIB*

MASSACHUSETTS

Senators Call for 11th-hour Review of Compressor Station Proposal

U.S. Sens. **Elizabeth Warren** and Edward Markey sent a letter to FERC Chairman Neil Chatterjee last week asking the commission to reject a request from Enbridge to start construction of the Atlantic Bridge compressor station, and instead reopen its decision to issue a certificate of public convenience and necessity for the project.

The letter comes less than a week after U.S. Reps. Stephen Lynch and Joseph Kennedy III sent their own letter urging the commission to re-evaluate the project, considering the declining demand and the contamination at the proposed site.

Algonquin Gas Transmission, a subsidiary of Enbridge, received initial approval for the compressor station in January 2017 from FERC. The company also needed several state permits, all of which have been granted despite opposition from local officials and residents. In its decision, FERC said the project is justified because five local distribution companies, two manufacturing companies and a municipal utility have contracted for the gas that would come from the project.

More: *The Patriot Ledger*

Brookline Votes to Ban Oil and Gas Pipes in New Buildings

Brookline residents last week voted to ban the installation of oil and gas pipes in new buildings as well as in extensive renovations of existing buildings — the first such prohibition in the state. The bylaw would require homeowners and developers to install heat, hot water and appliances that use electricity. Only three of more than 200 Town Meeting members voted against the measure.

The new bylaw, which must still be approved by the state attorney general's office, is intended to curb the use of fossil fuels in buildings. It was modeled after similar measures adopted throughout California.

Still, some claimed the bylaw would hike the construction costs of new buildings and increase utility costs for individual homeowners. Others called it unfair.

More: *The Boston Globe*

MICHIGAN

Whitmer Signs Solar Bills that Won't Increase Taxes

Gov. **Gretchen Whitmer** signed bills into law last week ensuring small-scale residential and commercial solar projects won't increase owners' property taxes.

The bipartisan legislation, which cleared with near unanimous support, applies to small-scale projects up to 150 kW that offset a portion or all of an owner's electricity usage. It restores tax exemptions that were signed by former Gov. John Engler that expired in 2013.

"These bills simplify the current taxation system on on-site renewable energy," Whitmer said. "It's a positive step in advancing clean energy while increasing jobs and protecting the pocketbooks of Michiganders."

More: *MiBiz*

MINNESOTA

Willmar Power Plant to Close in 2020

The Willmar Municipal Utilities Commission unanimously approved the decommissioning of the coal-fired Willmar Municipal Power Plant last week. The plant's last day of operation will be June 30, 2020.

To keep the plant open, Willmar Municipal Utilities would have had to address maintenance issues, purchase and install a small heating boiler to keep the plant warm when not in use, and have seven certified staff on hand to operate the plant. The utilities' budget does not include those costs, and a rate adjustment most likely would have been needed. In the end, the commission decided it was best to shut down the plant instead of running it as a source of emergency generation during a catastrophic event.

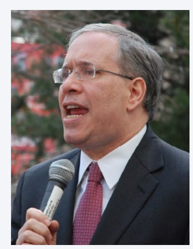
While the plant will cease operations on June 30, it could be years before anything happens to the building. The plant houses controls for the system that provides power to customers and would need to remain until a decision is made to move the controls to another location. If the decision is made to demolish the plant, it could cost up to $5 million.

More: *West Central Tribune*

NEW YORK

NYC Pension Leader Targets Utilities over Emissions Plans

New York City Comptroller **Scott Stringer**, who oversees about $208 billion in retirement assets, recently filed shareholder resolutions at Southern Co., Duke Energy and Dominion Energy.



The resolutions call for shareholder votes on whether to name independent individuals to chair boards currently led by the chief executive of each company. The change would be "useful to oversee the strategic transformation" of the companies to operate in a low-carbon economy, according to the resolutions.

Southern and Dominion have outlined plans to reduce carbon emissions but have not pledged to end them by 2050. To achieve such, "technology will have to evolve beyond where we are today," Dominion CEO Thomas Farrell said. Duke said in September it aims to reach net-zero carbon emissions by

2050. Stringer's resolution acknowledges the step but noted the utility's continued spending on natural gas infrastructure.

More: *Reuters*

NORTH DAKOTA

Construction Begins on Aurora Wind Farm

Construction has begun on the Aurora wind farm in Williams and Mountrail counties and will feature up to 121 turbines with a combined capacity of 299 MW.

Basin Electric Power Cooperative will purchase half of the electricity, as it and Enel have entered a 23-year power purchase agreement for 142 MW. Retailer Gap also has entered into an agreement to purchase 90 MW for 12 years. The farm is expected to be operational by the end of 2020.

More: *The Bismarck Tribune*

OHIO

Board Greenlights Natural Gas Pipeline

The Power Siting Board last week approved Duke Energy's proposal to build a 14-mile natural gas pipeline that will run through parts of Hamilton County.

The board said the best route for the Central Corridor Pipeline is the proposed alternate route that runs through Sharonville, Sycamore Township, Blue Ash, Evendale, Reading, Amberly Village and Golf Manor. Duke said the new 20-inch distribution pipeline will help balance the natural gas supply and improve infrastructure. Construction is expected to begin in the fall of next year and should be finished by the end of 2021.

More: *WLWT*

SOUTH CAROLINA

Solar Industry Faces Possible Shutdown Following PSC Vote

The Public Service Commission sided with major utilities last week in setting the rates power companies must pay solar firms for energy. The rates will be the lowest in the country, and the 10-year contract lengths among the least attractive in the Southeast, according to the Solar Energy Industries Association.

Solar farm developers say attractive rates and long-term contracts would help the industry expand and force utilities to buy more solar energy. Utilities contend that providing higher rates to solar companies for power would hurt customers. They say they would simply pass along costs to customers.

More: *The State*

VIRGINIA

Regulators Reject Request to Boost Dominion's Profit Rate

The State Corporation Commission last week rejected a request from Dominion Energy that would have increased the utility's profit margin through small increases in ratepayer bills. The commission ruled that it would hold the rate of return at the current level of 9.2% and in turn rejected Dominion's request for a return of 10.75%, a rate the commission said is not "consistent with the public interest."

Dominion argued that the increase was necessary to attract investments and support the billions in capital projects it plans through 2021. The commission rebutted that argument, saying the 9.2% rate "permits the attraction of capital on reasonable terms" and "fairly compensates investors for the risks assumed."

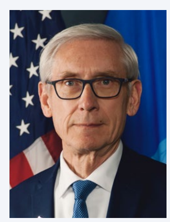
More: *Richmond Times-Dispatch*

WISCONSIN

Task Forces to Tackle Climate Change

Milwaukee and the state said last week they will each start their own climate change task forces aimed to compile recommendations for policy changes.

The city initiated a Climate and Economic Equity Task Force that will bring together 11 representatives from various groups. Many topics were discussed during its first meeting on Nov. 11, including building a sustainable green jobs economy and solving the city's riddle of renewable energy. The task force aims to reduce the city's net greenhouse gas emissions by at least 45% by 2030 and reach net zero by 2050.



For the statewide climate task force, water quality issues and flooding will be at the forefront. Gov. **Tony Evers** signed Executive Order 52 in October, which established the task force. It has also set a goal of transitioning to 100% carbon-free energy by 2050 and created an Office of Sustainability and Clean Energy.

More: *Wisconsin Examiner*