RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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GOP Senate May Limit Biden Climate Ambitions

Legislative Gridlock or Compromise?

By Tom Kleckner and Rich Heidorn Jr.

"Today, the Trump administration officially left the Paris Climate Agreement," former Vice President Joe Biden tweeted Nov. 4, the day after the elections. "And in exactly 77 days, a Biden administration will rejoin it."

There's no doubt the federal government's climate policy will change abruptly come January. President-elect Biden's transition website lists climate change among his four top priorities, promising to "meet these challenges on Day One" of his administration. The new president is expected to quickly undo the environmental rollbacks President Trump accomplished by executive power.

But a Republican-controlled Senate and a narrower Democratic edge in the House of

President-elect Joe Biden | Biden-Harris Transition

Representatives would likely prevent him from winning approval of his proposed $2 trillion climate plan. His ability to include incentives for renewable energy in a new economic recovery package would also be ratcheted down. (See Biden Offers $2 Trillion Climate Plan.)

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Nevada Clean Energy Amendment Winning (p.15)

Trump Demotes Chatterjee; Names Danly FERC Chair

By Michael Brooks

FERC Chairman Neil Chatterjee | *© RTO Insider*

As his path to re-election narrowed late Thursday, President Trump demoted FERC Chairman Neil Chatterjee, replacing him with fellow Republican James Danly.

Trump's move — which came as his electoral leads in Georgia and Pennsylvania appeared at risk of evaporating as vote counting continued — could be just the first of a series of personnel changes the president has contemplated, according to *The Washington Post*, which reported that he was considering sacking infectious disease expert Anthony Fauci, FBI Director Christopher Wray and Defense Secretary Mark T. Esper. (On Monday, Trump announced via Twitter that he had fired Esper.)

Chatterjee likely became a target after joining with Democratic Commissioner Richard Glick on Oct. 15 in supporting a proposed policy statement inviting states to introduce carbon pricing in wholesale electricity markets to address climate change. (See FERC: Send Us Your Carbon Pricing Plans.) Trump's action came a day after the president, who had promised to restore the coal industry, formally withdrew the U.S. from the Paris Agreement on climate change.

Chatterjee's willingness to address climate policies got the attention of the *Washington Examiner*, which published an article describing him, "a Kentucky Republican, [who] used to be known as [Senate Majority Leader] Mitch McConnell's coal guy, eager to advance President Trump's pro-fossil fuel agenda" as "staking a claim as one of the government's leading problem solvers on addressing climate change."

The author of the *Examiner* article, Joshua Siegel, tweeted that the policy statement and Order 2222 — which directed RTOs and ISOs to make their markets accessible to distributed

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FERC Sets Tech Conference on RTO Credit Policies (p.8)

Feds Revive, Seek Input on Western 'Energy Corridor'

By Robert Mullin

Federal officials are seeking input on a revised plan to use Western federal lands to create a network of energy infrastructure pathways that would likely provide a big boost to renewable project development.

The West-wide Energy Corridor — really a series of corridors — would wind through seven states, including California, Idaho, Montana, Nevada, Oregon, Washington and Wyoming.

The U.S. Bureau of Land Management, Forest Service and Department of Energy introduced the proposal in September 2005 under the authority of Section 368 of the Energy Policy Act of 2005.

Section 368 directs federal agencies to designate lands in the 11 Western states as right-of-way corridors for electricity transmission and distribution facilities, as well as oil, gas and hydrogen pipelines. It also requires the agencies designating corridors to take into account the "need for upgraded and new electricity transmission and distribution facilities" to "improve reliability," "relieve congestion" and "enhance the capability of the national grid to deliver electricity."

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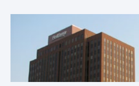
CAISO Further Reorganizes Executive Suite (p.13)



FirstEnergy Earnings Call Overshadowed by Probes (p.34)

Exelon Discusses Potential Generation Spinoff (p.35)

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Stakeholder Soapbox

It’s Time for Transparency in the Electric Grid

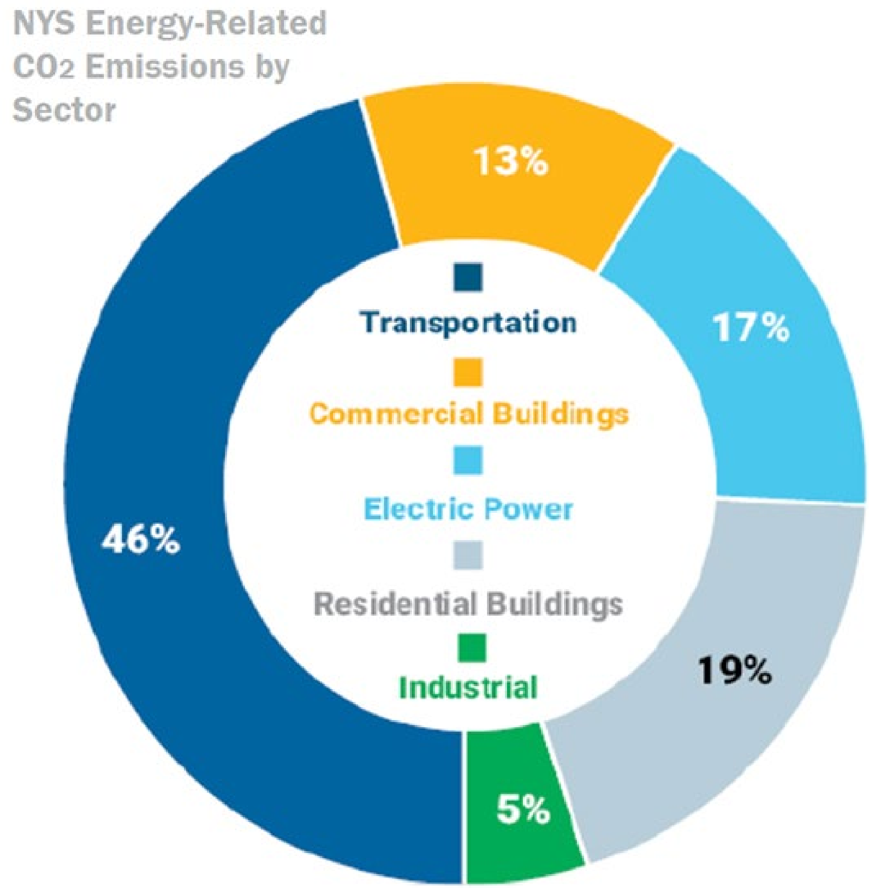
By Mike Jacobs

Mike Jacobs | *UCS*

Replacing the fossil-fueled energy supply with renewable energy requires unusual focus and substantial investment in the electricity sector. Our ability to meet these needs — elevated by climate change and the COVID-19 crisis — depends on the success of RTOs and ISOs. We at the Union of Concerned Scientists work to make these institutions more transparent, understood and responsive to science and democratically established laws.

The RTOs/ISOs evolved over decades and matured in the 1990s through a combination of electric utility industry and government regulatory desire for cooperation and efficiency. Coordination in the utility industry through competition and innovation becomes harder when the RTOs/ISOs ignore the public interest in further decarbonizing energy. The conflict between an energy market system that ignores external costs and a society and its policymakers that see the health and climate impacts of pollution from energy can’t be ignored.

These organizations have demonstrated they can deliver savings and integration of high levels of renewables.



New York state CO_2 emissions by sector | *NYISO, using U.S. EIA data*

Utilities are Different

The difference between RTOs/ISOs and better known trading platforms, such as Lyft, Uber, eBay and Amazon, is that the grid operators were established by existing monopolies. But those monopolies did not anticipate renewable energy growth driven by policy, economics or carbon limits. The influence of the incumbent players in making the rules is not found in the better known platforms. How much do the existing asset owners influence new energy technologies in the market? We can take a look at how open, transparent and interested in emissions these grid operators are.

We Have Work to Do

The RTOs/ISOs are at varied and different places on transparency and consideration of climate impacts. Broadly, the RTOs/ISOs provide regional coordination and sharing reserves through power pools that benefit consumers, allow competition and further cost savings and technology innovation. But how well does this structure, set up with advantages for the owners of existing power plants, serve to protect the climate and implement state carbon-reduction policies? When policymakers push the external costs of carbon and health into decisions that can lower carbon emissions, RTOs/ISOs should not counteract those policies and raise costs to consumers.

Transparent and Open?

Transparency builds trust. Stakeholders have to know how decisions are influenced. The public needs to know what decisions are being made.

How well members, stakeholders or even the public follow the decision-making depends in large part on the posting of meetings scheduled, agendas and the minutes of what was discussed. UCS was quick to support press access to NEPOOL when access was denied. But a wider look at the mere posting of meeting dates and agendas for the RTOs/ISOs’ governing boards differ sharply from one regional grid to the next.

In PJM, there is no schedule of board meetings available and no minutes, leaving stakeholders unsure of discussions or changes to items on which members had voted. The ISO-NE board’s meeting dates and bare agenda are available, but minutes are not. At NYISO, board meetings can be open to regulators upon request, and minutes and future dates are published. MISO mails out notices of board meetings, and even the committees of the board hold open meetings. SPP posts meeting notices and extensive minutes and materials. CAISO holds open meetings with video recordings posted on YouTube!

Carbon-aware?

The RTOs/ISOs operate in parallel (and lately in conflict) with state laws that regulate

Stakeholder Soapbox

utilities and provide consumer protections, as well as with health and safety protections that address environmental externalities. The New England States Committee on Electricity's recent vision for the grid connected the lack of transparency in stakeholder and ISO-NE board processes with the need for market reforms suited to "the New England states' legal requirements, policy imperatives and associated consumer interests."

There is a wide range in how the RTOs/ISOs keep informed and share data about emissions from power plants. Ten to 15 years ago, some ISOs developed a report of average marginal emissions for the evaluation of pollution savings from state energy-efficiency programs. Today, climate change driven by accumulated greenhouse gas is a bigger concern. Reporting totals of emissions over a year and by month or season will help decision-makers facing a wider variety of options to change fossil fuel use and cumulative emissions.

NYISO established an Environmental Advisory Council in 2004 that provides it with reports that include average marginal emission rates from its generation, as well as the cumulative CO_2 emissions in New York from all sectors (drawing data from the U.S. Energy Information Administration). PJM reports only the average marginal rate of emissions, released each spring, and it is impossible to determine if this report is shared with the RTO's board because there is no transparency. ISO-NE has, since 1993, made a similar annual report of marginal rates of emissions, though with an 18-month delay from the end of the year. CAISO makes monthly reports of emissions. SPP makes none.

Changed Energy Mix

Reporting on the energy mix is another measure of improvement on climate-harming emissions. SPP does post data showing enormous use of wind energy. In the spring and fall, SPP's energy supply mix is routinely as high as 50% wind. All the other RTOs/ISOs also display their current energy mixes on their websites. These kind of data on the resources meeting electricity demand are fundamental to the RTO/ISO function. Such displaying and archiving of energy data is a minimal level of transparency not found from utilities outside the RTOs/ISOs.

The accumulation of CO_2 in the atmosphere comes from the cumulative emissions from combustion (and other biological sources). A decent comparison and metric for RTO/ISO boards to monitor would show total greenhouse gas emissions from power plant operations, along with the sort of data EIA provides on fuel-burning emissions in other sectors of the economy in their regions. That reporting would allow RTO/ISO boards to monitor changes as members and utilities pursue electrification and electricity replaces fossil fuel in building and transportation. RTO/ISO boards should receive a report annually on how the grids they manage are affecting the climate.

What We Need from RTOs

Regional cooperation to meet energy demand requires transparency and openness now, as the public, leaders and utility industry members meet the challenge of climate change and decarbonize energy. Leaders of all these organizations need metrics reflecting their own operations and markets, both for daily business and for addressing climate-damaging emissions of carbon and methane.

People in government need the informed cooperation of citizens and corporations to implement policy on climate. With all the decision-making ahead, the RTOs/ISOs are going to be key for people, their polices and utilities to work together in new ways to move off climate-damaging fuels.

The New England states are asking for change from their RTO. The Mid-Atlantic states are in court over their RTO's objection to renewable energy policy. We have to decide: Are these organizations up to the task? ■

Mike Jacobs is a senior energy analyst for the Union of Concerned Scientists with expertise in electricity markets, transmission and renewables integration work.

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FERC/Federal News

GOP Senate May Limit Biden Climate Ambitions

Legislative Gridlock or Compromise?

Continued from page 1

Democrats still have a chance at winning effective control of the upper house, with two Senate races in Georgia headed to runoff elections Jan. 5. Winning both seats would result in a 50-50 tie that would be broken by Vice President-elect Kamala Harris.

Failing that, any legislative action will depend on Biden's ability to cut deals with Senate Majority Leader Mitch McConnell (R-Ky.), who is certain to oppose any bill that threatens what remains of his state's coal industry.

Author Anand Giridharadas expressed optimism in a *New York Times* op-ed titled, "Biden Can't Be FDR. He Could Still Be LBJ."

"Mr. Biden could turn out to be an improbably deft salesman for progressive priorities, using his disarming, folksy, median-voter-friendly patois, that 'C'mon, man' Americana vibe, to make major changes seem like common sense," Giridharadas wrote.

But former House Majority Leader Eric Cantor (R-Va.) said there are limits to Biden's powers of persuasion. "With a divided government, with the election turning out the way it is, I'm not so sure there is any incentive to all the sudden make a U-turn and everybody come together," Cantor said during the Edison Electric Institute's Financial Conference on Monday. "I think it will take a lot of work on the part of the Biden White House … to make the gestures to really, really want to work with Mitch McConnell."

With prospects for legislative action uncertain, observers are considering how much Biden can accomplish through his executive power, and how a Democrat-controlled FERC could spur policy changes.

The left-leaning Center for Policy Integrity issued a report in September on its proposed priorities for the commission, including revising its regulations to account for greenhouse gas emissions in its review of natural gas infrastructure projects. It also called for changing its transmission policies to support renewables and for the Department of Energy to delegate its authority to designate national interest electric transmission corridors to FERC.

Paris

The Biden transition site promises the president-elect will "lead an effort to get every major country to ramp up the ambition of their domestic climate targets" under the Paris Agreement. Under President Barack Obama, the U.S. made a "nationally determined contribution" (NDC) to cut U.S. GHG emissions 26 to 28% below 2005 levels by 2025.

Biden could attempt to nudge federal policy through regulations, stimulus provisions and tariffs on carbon-intensive goods. He will also have the support of state and corporate clean energy targets.

America's Pledge, launched in 2017 by former New York City Mayor Michael Bloomberg and former California Gov. Jerry Brown, annually quantifies the climate actions of U.S. states, cities, businesses and other non-federal actors. Its September 2020 report said that "bottom-up climate leadership has kept the U.S. on a path of progress" and that "ambitious, expanded action by U.S. states, cities and businesses can reduce emissions up to 37% [below 2005 levels] by 2030."

"If the federal government re-engages, invests in a green stimulus recovery and works together with states, cities and businesses to enact climate-forward policies, we can cut emissions by 49% from 2005 levels by 2030 and put America back in alignment with the Paris Agreement, reaching net zero emissions by 2050," the report said.

Mandate?

Despite Democrats' failure to gain decisive control of Congress, some observers contend Biden will enter office with a mandate for taking action on climate change.

Morning Consult's exit polling found almost three-quarters of Biden voters said climate change was "very important" to their votes. Exit polling by the Associated Press and Fox News found that two-thirds of all voters support "increasing government spending on green and renewable energy." A ballot measure requiring Nevada utilities get half of their electricity from renewable sources by 2030 won 57% support in the state — more than either presidential candidate. (See related story, *Nevada Clean Energy Amendment Winning*.)

Anthony Leiserowitz, director of the Yale Program on Climate Change Communication, told Bloomberg News that Biden will have "an enormous amount of runway to enact a bold climate agenda" and that some voters might even favor him declaring climate change a national emergency. "There's even strong support among Democrats and independents for that," he said.

Regulations, Executive Orders

Biden is expected to immediately reverse most of Trump's executive orders on energy, including ordering government agencies to take actions to cut GHG and reversing a 2017 order directing federal agencies to revoke their climate policies. (*The New York Times* reported Monday that Trump had removed the scientist responsible for the National Climate Assessment, a report from 13 federal agencies and outside scientists that the government is required by law to produce every four years.) Activists have called for creation of a White House interagency group like the National Economic Council to coordinate decisions across the federal government.

"Many agencies, like [the Federal Housing Finance Agency, Department of Housing and Urban Development and Department of Transportation] could do a lot to integrate climate into agency actions without new legislation," tweeted clean energy consultant and attorney Miles Farmer, a former member of New York Gov. Andrew Cuomo's energy team. "Tackling challenges of realigning institutional priorities now would also position them to go much further if broad climate legislation is ever signed."

Biden is also expected to order new methane limits on oil and gas wells and increase fuel economy standards and efficiency standards for buildings and appliances. He has also pledged an executive order requiring public companies to disclose climate change-related financial risks and their GHG footprints.

But Biden's autonomy could be limited by the federal judiciary, half of whom are now Republican-appointed — up from 42% in 2017 — including a 6-3 conservative majority on the Supreme Court. He is not expected to resurrect the Obama administration's Clean Power Plan, which was stalled by court challenges and discarded by Trump.

Congress

Eliminating carbon from the electric sector by 2035, as Biden has pledged, would require the closing of virtually all gas and coal generation and a huge expansion of energy storage. Efforts to get there could be aided by clean energy research and development funding and an extension of renewable tax credits.

FERC/Federal News

If Biden is unable to work with McConnell, he could seek support from moderate Republican Sens. Susan Collins (Maine), Lisa Murkowski (Alaska) and Mitt Romney (Utah). But Romney *made clear* Sunday that he would oppose any legislation to institute a "Green New Deal." And any efforts undermining coal would likely also face resistance from some Democrats, such as Sen. Joe Manchin (W.Va.) and Senator-elect John Hickenlooper (Colo.).

Former Murkowski aide McKie Campbell, now managing partner of the bipartisan energy consulting firm BlueWater Strategies, *told The Washington Post* he hopes divided government "means we may have a return of people working with each other to work out some solutions. The question is, in the middle, do you have compromise, or do you have stalemate and nothing happens?"

John Gimigliano, a principal with KPMG, predicted progress during a panel discussion Friday sponsored by law firm Norton Rose Fulbright. "I think overall, the climate is going to improve with a Biden White House for all things renewable, even with a Republican-controlled Senate," he said. "There are always deals to be made.

"The question is, how much do the Democrats have to give up to get some of these things?" he added.

"Even with a 50-50 Senate that is notionally Democrat, [Biden] is going to be substantially limited to executive actions," Christine Tezak, managing director with ClearView Energy Partners, said during the same panel. "He's going to be fairly constrained to moving forward with massive policy initiatives. Limits on greenhouse gas doesn't pencil for us. The only thing that might be possible under a 50-50 Senate is a clean energy standard, but not one broadly sketched by Joe Biden's campaign.

"You might have to bring hydrogen and nuclear along just to start the conversation," she continued. "The incrementally and substantially more conservative judiciary that has materialized over the last four years of the Trump administration is likely to challenge any administration that tries to pursue the bounds of its statutory authority. Something as ambitious as the Clean Power Plan is kind of doomed."

Cantor, now vice chairman and managing director for investment bank Moelis & Co., said Biden's reputation as a dealmaker gives him an opportunity. But he said that after Obama entered office promising bipartisan cooperation, his staff failed to make good on it. "There was just a one-party rule in [2009 and 2010], which made it very, very difficult once we claimed the majority in 2010 to even begin to work together," Cantor said.

Casey Herman, leader of PwC's U.S. power and utilities practice, told the EEI conference that Biden's support for decarbonization, clean energy investments and large-scale electrification "provides potentially an exciting opportunity for the sector."

"But if the Republicans do hold the majority in the Senate, that's going to moderate the speed and the size of those policy initiatives," he said.

FERC

How much impact could a Democrat-majority FERC have?

"It's really going to be dependent on what McConnell wants," said Tezak, who noted that Trump's nominations for two FERC vacancies, Republican Mark Christie and Democrat Allison Clements, have not cleared the Senate and Energy Natural Resources Committee yet.

If they are approved, the Republicans would hold a 3-2 majority, at least as long as Republican Neil Chatterjee, whose term expires in June, remains. Trump replaced Chatterjee as chairman last week with Republican James Danly. (See related story, *Trump Demotes Chatterjee; Names Danly FERC Chair*.)

"Danly could take his short tenure as chairman and move on to the next thing. If he doesn't and goes back to being a commissioner, I think it's intriguing to what extent does Chatterjee become the [Justice] Anthony Kennedy or the [Chief Justice] John Roberts of FERC," she said, referring to two Republicans who have been swing votes on the Supreme Court. "In terms of carbon pricing, offshore wind, transmission interconnections … he is clearly more aligned with Glick."

Carbon Pricing

On Oct. 15, Chatterjee joined with Glick in supporting a proposed policy statement inviting states to introduce carbon pricing in wholesale electricity markets to address climate change. (See *FERC: Send Us Your Carbon Pricing Plans*.)

Tezak said carbon pricing is not necessarily a partisan issue. "We're seeing the carbon price in wholesale tariffs offered as a bridge," she said. "There's a common interest there. I hope that with something like carbon pricing, we can look at it more like SO_2 and NO_x emissions. That's part of the conversation we're looking at now. Carbon has an opportunity to integrate. The conversation is … at least broadening a little bit. If FERC gets a Democratic majority, does the MOPR [minimum offer price rule] even survive?"

Some have suggested Biden could seek to add carbon pricing to a budget reconciliation bill, which would be exempt from filibuster and require only a simple majority vote in the Senate.

Herman said it would be "an aggressive" move. "But there seems to be some level of growing support that a carbon tax might provide some certainty to bolster investment as opposed to scaring people away from investment," he added.

Infrastructure, Natural Gas

George Bilicic, vice chairman of investment banking and global head of power, energy and infrastructure for Lazard, told the EEI panel that he sees natural gas-fired generation remaining "highly relevant" for the foreseeable future as a supplement to renewables and storage.

Panel moderator Richard McMahon, EEI's senior vice president for energy supply and finance, noted that EEI's Natural Gas Sustainability Initiative with the Natural Gas Association is attempting to reduce mid- and upstream methane emissions. "Hopefully, that will go a long way to satisfying the desire of the [environmental, social and corporate governance] folks and investors."

Bilicic also said that utilities and other infrastructure spending could find its way into an economic relief package because of their multiplier effects across the economy. "A dollar spent in utilities generates tremendous economic growth," he said. "To get to the best renewable resources, we're going to need a lot of investment in transmission and … help on the permitting front."

"Infrastructure might creep into the top three or four priorities" with a Republican-controlled Senate, Joe Mikrut, a partner with Capitol Tax Partners, said during the Norton Rose Fulbright session.

Infrastructure spending was also seen as possible for bipartisan spending during the Trump administration. But it never happened.

Partisan gridlock is a major reason why Americans' trust in government has diminished since the 1960s, Democratic political strategist Donna Brazile told the EEI conference.

"I hope [those just elected] understand that [voters] want us to get back to work," she said. "They want us to focus on them and their priorities and not go back to the politics as usual and this whole thing of revenge: 'I lost so now I'm going to make it hard for you. I won so I don't have to work with you.' I'm sick of that." ■

FERC/Federal News

Trump Demotes Chatterjee; Names Danly FERC Chair

Continued from page 1

energy resource aggregations — "was a clear driver in this decision by the White House."

Danly dissented on both issues.

In an interview with *RTO Insider*, Chatterjee said he was informed of the decision around 6 p.m. Thursday. He said was given no reason for the move and could only speculate that it had to do with his "promoting market-based solutions to climate change," citing the commission's policy statement on carbon pricing.

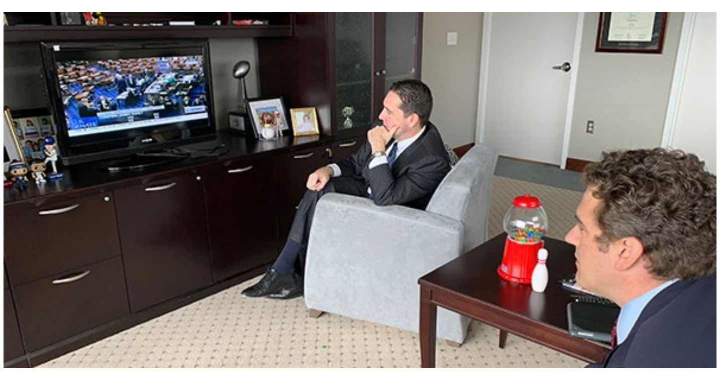
"Perhaps folks [at the White House] weren't in favor of that, and I think that validates my independence," he said.

Although he said he was given no earlier indication that the move was coming, Chatterjee said he was not surprised. "I knew I was taking a risk when I was pursued these policies."

Chatterjee also confirmed to *E&E News* that he had refused to follow Trump's *executive order* in September prohibiting diversity training at federal agencies.

FERC announced Danly's promotion in a *statement* at 9:05 p.m. Thursday night that provided no reason as to why Trump made the decision to switch chairs. Danly only became a commissioner in March after serving as general counsel since 2017.

Glick *tweeted*: "Although we haven't always agreed, I know that Chairman Chatterjee arrived at his views honestly and independently. And I appreciate his willingness to ignore party affiliation and work with me on several key initiatives that will prove beneficial to this nation."



Former FERC Chairman Neil Chatterjee photographed General Counsel James Danly (right) as he watched the Senate confirm him to be a commissioner March 12. | *Neil Chatterjee*

Chatterjee served as chair August to December 2017 while Trump's pick for chair, Kevin McIntyre, went through the Senate confirmation process. The president made Chatterjee chair again in October 2018 when McIntyre resigned from the position, ailing with brain cancer that would claim his life. (See *McIntyre Steps Down; Chatterjee Named FERC Chair*.)

In the statement and on *Twitter*, Chatterjee congratulated Danly on the promotion and said he was proud of his time as chair. "It's been the honor of a lifetime to serve as the chairman of FERC alongside my colleagues and staff, who represent some of the most talented and hardworking professionals in the U.S. government," he said.

Chatterjee also indicated he would complete his term, which ends at the end of June 2021. "Our work — my work — at the commission isn't over. I look forward to working with my friend, Chairman Danly, as well as the next administration to continue to carry out our important mission."

He posted a more emotional statement on his personal Facebook *page* early Saturday morning, saying that he didn't "give a f@&! what people think of me. I will be judged by my grandchildren. And as of this moment I am confident that I will be able to look them in the eyes when they ask me where I stood on the most significant issues of this time and be proud."

Though he told ***RTO Insider*** he was "at peace" with the move and sounded upbeat, he admitted on Facebook that "it's been a difficult few days. I have dedicated almost the entirety of my professional career to public service. I am a deeply flawed person. I know for certain I have not always made the right decision. But I can honestly say that I tried to get it right to the best of my limited abilities."

"It has been my utmost pleasure to have served under Neil Chatterjee, both as general counsel and alongside him as commissioner," Danly said via FERC's statement. "I have learned a tremendous amount from his expertise and insight, and I am proud of the work we've been able to accomplish under his thoughtful watch.

"Neil has truly left his mark on FERC and the energy sector by brokering a significant agreement allowing us to move forward with liquefied natural gas terminals, which helped secure our American energy independence," he added. "He also made a lasting impact through his commitment to protecting competitive markets, modernizing our policies under [the Public Utility Regulatory Policies Act], expediting the approvals of much needed critical energy infrastructure and so much more. I thank Neil for his leadership, and I look forward to continuing to work with him in this new role."

Up in the Air

The president cannot fire members of FERC without cause, but he can name any sitting member that is also a member of his party as the chair. Given former Vice President Joe Biden's election as president Saturday, Danly's time as chair will be limited to little more than two months.

Biden and Senate Democrats will also have control over three of FERC's five commission seats once Chatterjee's term expires. Though Biden will ultimately be able to nominate at least four commissioners during his term, only three of them may be Democrats.

In July, Trump nominated Democrat Allison Clements, energy policy adviser for the Energy Foundation, and Republican Mark Christie, chair of the Virginia State Corporation Commission, to fill FERC's two current vacancies. (See *FERC Nominees Bob and Weave Through Senate Hearing*.)

ClearView Energy Partners noted that "it is customary but not required that a chairman appointed by an outgoing administration to tender his resignation to allow a new president to fill the seat and change the majority." It is unclear at this point whether the Senate will vote on Clements' and Christie's nominations during Trump's lame duck period. If it doesn't, Biden will be able to nominate two Democrats to fill the vacancies.

While Chatterjee has said he intends to complete his term, Danly's intentions are unknown. His term ends June 30, 2023.

"We don't have anything on that right now," Mercedes Kearney, Danly's executive coordinator, said Friday when asked whether Danly would give up his seat if Biden wins. "So much is going on right now." ■

FERC/Federal News

FERC Sets Tech Conference on RTO Credit Policies

By Rich Heidorn Jr.

FERC announced Wednesday it will hold a staff-led technical conference Feb. 25-26 on best practices for managing credit risks in organized wholesale electricity markets, an effort to prevent a repeat of PJM's GreenHat Energy default (AD21-6, AD20-6).

The conference, which was requested by the Energy Trading Institute (*ETI*) last December, will consider the credit and risk management infrastructure of RTOs and ISOs; best practices and principles for capitalization requirements, financial security requirements and unsecured credit allowances; the applicability of "know your customer" protocols and other counterparty risk management tools; considerations for implementing financial transmission right-specific credit policies, such as a mark-to-auction mechanisms; and the relationship between credit policy and wholesale electric market design.

ETI asked the commission to conduct a rulemaking to update the requirements of Order 741 and section 35.47 of the commission's regulations on credit and risk management in RTO/ISO markets.

Order 741 resulted in shortened settlement cycles; limits on the use of unsecured credit in some markets; a prohibition on unsecured credit for all FTR-type markets; minimum criteria for market participation; and clarification on when ISOs and RTOs could demand additional collateral from market participants.

"Good credit policy is the cornerstone of any market, and the commission's guidelines in section 35.47 were appropriate at the time," ETI said. "However, given the recent GreenHat default and the evolution of these markets over the last decade since the issuance of Order No. 741, ETI strongly believes that the commission and industry should engage in a dialogue to ensure that credit and risk management practices and procedures in the ISOs and RTOs are robust, do not create unnecessary barriers to entry or compliance burdens, and ensure that organized markets are secure in order to meet the commission's goals of open access, competition and transparency."

ETI asked FERC to hold the conference by March 30 so that it could inform RTO/ISO initiatives to consider revisions to their credit policies. But the ISO/RTO Council (IRC) opposed the request, saying a rulemaking could upset stakeholder proceedings. (See *RTO Council Balks at Credit Rulemaking*.)

The council, which includes the six FERC-jurisdictional RTOs/ISOs, said FERC should allow the grid operators and their stakeholders to address their credit and risk management issues individually before considering a conference or rulemaking.

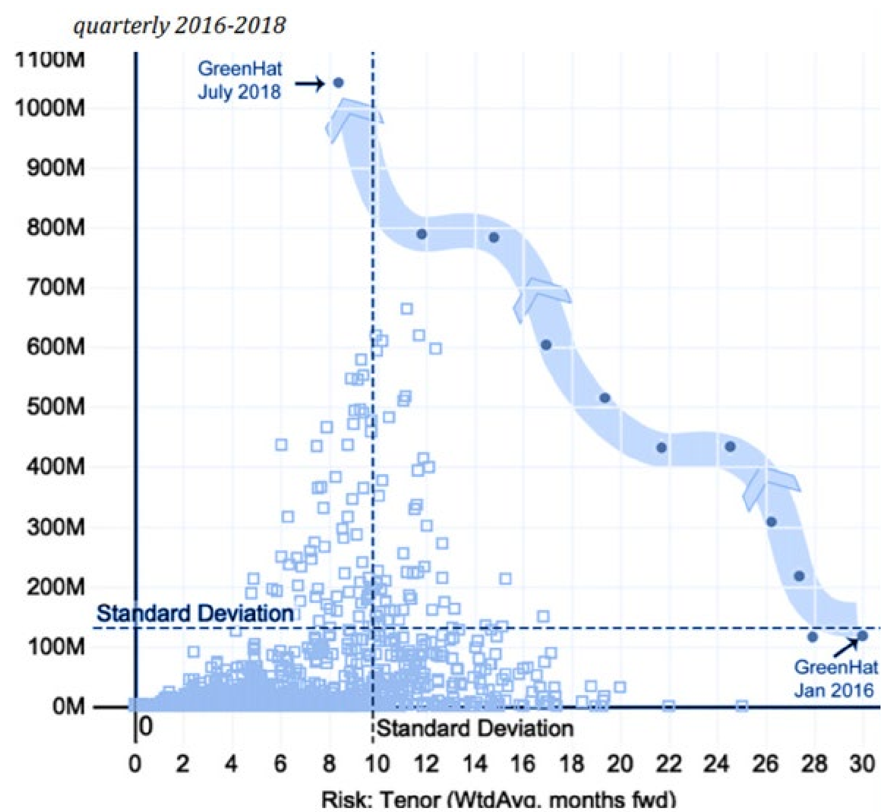
"At a minimum, these RTOs and ISOs should have time to gain experience with those rules before the commission facilitates a dialogue of best practices, schedules a technical conference and/or commences any rulemaking proceeding to examine further enhancements to credit policies and practices in organized electricity markets," IRC said.

The Edison Electric Institute said it did not oppose a technical conference but said a rulemaking would be "premature."

In June, FERC approved PJM's proposal to require companies seeking to participate in its markets to provide the RTO with more financial records, corporate information and details of prior defaults. PJM said it will determine whether a company presents an "unreasonable credit risk" based on factors including a history of market manipulation, financial defaults or bankruptcies within the past five years. It also will consider market and financial risk factors such as low capitalization, future material financial liabilities and low credit scores. (See *FERC OKs Tougher PJM Credit Rules*.)

In September, NYISO's Management Committee recommended board approval of proposed changes to the ISO's transmission congestion contracts (TCC) credit policy to address concerns raised by the GreenHat default. (See "Committee OKs Credit Policy Enhancements," *NYISO Management Committee Briefs: Sept. 23, 2020*.)

SPP's Markets and Operations Policy Committee voted in July to increase the minimum capitalization requirements for participants in the transmission congestions rights market. The revisions upped the total asset requirement from \$10 million to \$20 million, tangible net worth from \$1 million to \$10 million and the alternative minimum deposit from \$200,000 to \$2 million. It also excluded trading collateral balances held at any ISO/RTO from both total assets and tangible net worth calculations. (See "Revision Change Ups Capitalization Requirements," *SPP MOPC Briefs: July 15-16, 2020*.) ■



Size and tenor of GreenHat's portfolio | *PJM*

FERC/Federal News

EPA Sued over Coal Plant Wastewater Standards

By Jason York

Nine conservation groups sued EPA last week over the agency's move to weaken standards on water pollution emanating from coal-fired power plants.

The coal-fired Pleasants Power Station in West Virginia

The *lawsuit*, filed in the D.C. Circuit Court of Appeals on Nov. 2, challenges EPA's decision, issued last month, to alter the 2015 Effluent Limitations Guidelines (ELG), which require plants to use modern, affordable wastewater treatment technologies widely used in other industries.

It allows plants more time to reduce their wastewater pollution, extending the deadline for compliance by two years to the end of 2025. Plants can also use cheaper pollution-control technologies to remove toxic chemicals and heavy metals from wastewater if they are scheduled to retire by 2028. The agency's revisions are expected to save utilities about $140 million each year.

"This absurd step backward is little more than a gift to the dirty fossil fuels industry at the expense of people's health, endangered wildlife and water quality," Hannah Connor, an attorney with the Center for Biological Diversity, said in a statement. "Many power plants could easily adopt affordable technologies that dramatically reduce toxic discharges, but with this rule, the EPA is telling their polluter friends not to bother with these common-sense measures."

Joining the Connor's group in the lawsuit are Chesapeake Climate Action Network, Clean Water Action, Environmental Integrity Project, Natural Resources Defense Council, PennEnvironment, Prairie Rivers Network, Sierra Club and Waterkeeper Alliance.

"This administration's dangerous decision to give coal power industry lobbyists what they want will not stand without a fight," said Earthjustice's Thomas Cmar, one of the attorneys who filed the suit on behalf of the groups. "We're working with our partners to stop hundreds of thousands of pounds of pollutants from contaminating sources of drinking water, lakes, rivers and streams each year."

In response to an emailed request for comment, an EPA spokesperson told *RTO Insider* that the agency does not comment on pending litigation. ■

Microsoft, Shell Discuss Decarbonization Partnership

By Jason York

When Microsoft set a goal of using 100% renewables by 2025 and becoming carbon negative by 2030, it realized it couldn't do it on its own. So, it turned to … an oil company?

You heard that right, Mark Schütz, global senior digital strategy director for Microsoft, told a Northeast Energy and Commerce Association webinar last week.

Microsoft and Royal Dutch Shell, Europe's largest oil-and-gas company, are now *strategic partners* on decarbonization efforts, the latest iteration of three decades of collaboration by the two companies. Digital technology will play a central role.

Artificial Intelligence, Solar and Wind

Shell will supply renewable energy to Microsoft to help the tech giant meet its targets, which include erasing all historical emissions by 2050 through carbon capture and sequestration technology. Microsoft, in turn, will support Shell's plans to use artificial intelligence to transform its operations to reach net-zero emissions by 2050 or earlier.

"It all started with our joint ambition," Schütz said. "We were looking for partners, particularly in the energy industry, to make our ambitions reality. But [we also wanted] to make a greater impact with partners like Shell to accelerate the low-carbon transition worldwide."

Shell currently has more than 1.6 GW of solar generation capacity through its operated facilities and joint-venture partnerships in North America. This includes a 43% stake in Silicon Ranch, one of the largest independent power producers in the U.S. with more than 120 solar facilities across 14 states. Shell's 230-MW wind portfolio in North America includes interests in four onshore projects and energy obtained from eight partners. It has the potential to generate an additional 5 GW through joint-interest wind farms under development.

Shell and Microsoft have been working together on AI for three years. Forty-seven AI-powered proprietary applications have been deployed across Shell's businesses this year, along with real-time technology to reduce carbon emissions in the company's LNG operations. The new strategic alliance will accelerate the companies' AI work to drive efficiencies further and reduce emissions.

Additionally, Microsoft has developed technologies to help keep Shell's workers and sites safe, including the use of Azure cloud computing to power Shell's autonomous integrity recognition system, which uses image recognition algorithms to detect when equipment or parts of a site are susceptible to corrosion. The two companies will advance the use of sustainable aviation fuels and plan to use Azure and data from Shell assets to strengthen operational safety by improving risk analysis, prediction and prevention.

Shell's Transition

In 2017, Shell pledged to reduce the net carbon footprint of its energy products by about half by 2050, *upping* that in April 2020 with a pledge to reach net zero by mid-century. But it has known about the impact of carbon emissions on climate since the 1980s.

An internal report in 1988 *reportedly* predicted CO_2 levels could double by 2030 and the potential disintegration of the West Antarctic Ice Sheet, resulting in a worldwide sea level rise of 5 to 6 meters, enough to flood low-lying countries. Rising air temperatures would "drastically change the way people live and work," the company concluded. The company did not share the results of the report, however, which were *disclosed* by a Dutch news organization in 2018.

Shell, which has seen its stock price drop almost 60% this year, *told* investors last month its oil production might have peaked last year.

Daniel Silva, general manager for strategic enterprise development for Shell, said the transition to net-zero emissions is "really complex and will demand much more in-depth conversations on how we dive into those fundamental challenges." Silva added that three principles guide Shell's activities and initiatives on decarbonization: how to avoid emissions in the first place; if they are unavoidable, how they can be reduced; and how to remove and offset them.

Supporting Customers

Shell and Microsoft will work together on new digital tools to help Shell's suppliers and customers reduce their carbon footprints. Silva said there is "absolutely no solution" that does not include customers as well.

"We are the biggest [mobility] retailer in the world," Silva said. "We have more than 44,000 sites across the globe and have 30 million customers that come to our gas stations, every single day, so that's a very relevant component."

Clockwise from top left: Mark Schutz, Microsoft; Matthew Picardi, Shell; and Daniel Silva, Shell | *NECA*

Shell and Microsoft are both customer-centric organizations, but customers' behaviors and needs are changing, so "the customers of today will definitely not be the customers of tomorrow," he said.

The sheer scale of Shell's customer-facing sectors necessitates capital investment and partnerships like the one with Microsoft to achieve decarbonization, according to Silva, who is "super excited" to see the further use of AI and data-driven methods.

"We need to cater to the customers who go to our sites to buy coffee, or charge their electric vehicle, or buy premium gasoline or lubricants," Silva said. "We need to make sure that that transition is done responsibly, working with our consumers, with policymakers and with the technology partners to be able to get there."

Schütz said Microsoft recently announced a $1 billion Climate Innovation Fund to accelerate the development of carbon reduction, capture and removal technologies with a goal of carbon negativity.

"We need more technology tomorrow and the day after tomorrow, and we think we can best do that by working together to bring the new tools that we are developing, and also potentially Shell is developing, together with its expertise on energy," Schütz said.

Silva concluded that Microsoft and Shell working together on technology initiatives is the best way to "fundamentally tackle" decarbonization.

"Each one of these elements will have carbon monitoring, and out of that, you will have renewables 24/7 or at least a high percentage of the time," Silva said. ■

FERC/Federal News

NARUC Session Discusses EV Rates, Customer Views

Car Dealers' Indifference, Consumers' Lack of Knowledge Hinder Growth

By Rich Heidorn Jr.

Research scientist Andy Satchwell of Lawrence Berkeley National Lab had a caveat for the audience at the beginning of his *presentation* last week on electric vehicle rate designs and utility programs.

"The questions about what rate design and utility programs will drive EV adoption are unanswered," he told the National Association of Regulatory Utility Commissioners' Annual Meeting and Education Conference. But as a researcher, this does not make him unhappy. "This is an emerging and dynamic — and therefore really exciting — topic," he enthused.

Satchwell was joined by Patty Durand, CEO of the *Smart Energy Consumer Collaborative*, which has been asking consumers the same questions annually for more than seven years. "We have probably the longest longitudinal study of residential consumers in the nation," she said.

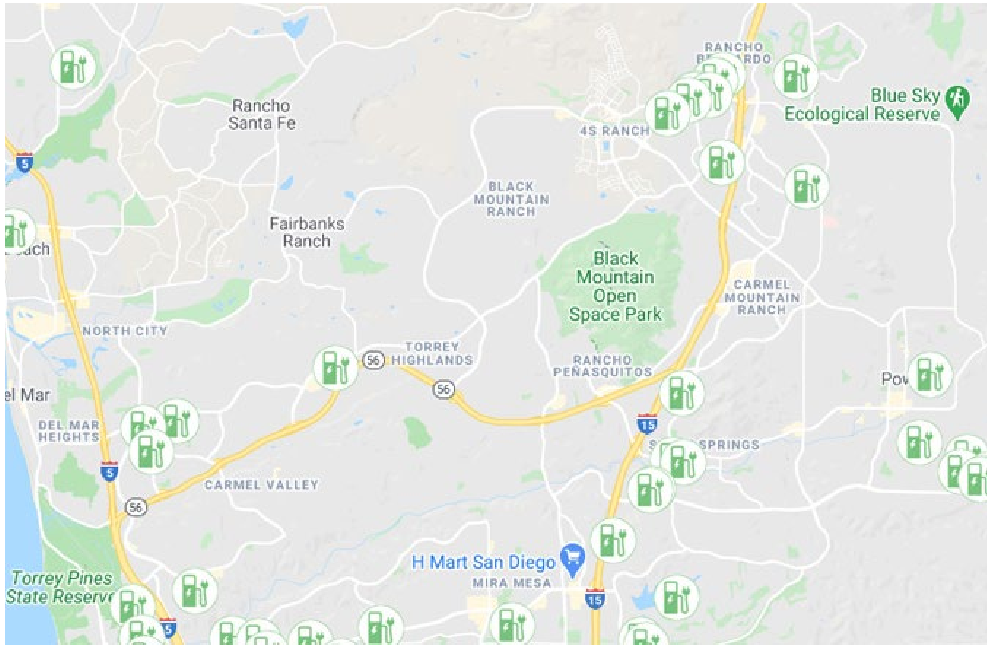
In a second panel, Chris Budzynski, director of utility policy for Exelon; Lydia Krefta, Pacific Gas and Electric's manager of regulatory, compliance and pilots for clean energy transportation; and Kelli Newman, senior marketing analyst for Georgia Power, discussed their utilities' EV programs.

Durand *said* her group uses customer segmentation as the "backbone" of its research, breaking residential consumers into four groups. The "most engaged" segments are the Green Innovators, who care about sustainability, and the Tech Savvy Proteges, who embrace the "cool" factor of new technology, Durand said.

Next comes the Movable Middle: "They care a little bit about sustainability; they care a little bit about technology. They're probably not going to do anything unless there's an incentive, a program, marketing — some kind of thing that hooks them and gets them engaged. They will engage with the right program and messaging."

Last, Durand said, are the Energy Indifferent. "They're probably not going to engage. They generally are not interested in anything to do with energy. … We recommend just leaving them alone and focusing on the majority of consumers who do care or would engage."

While only 1% of consumers currently own an EV, about 16% report they are very interested in acquiring one, and 29% are somewhat interested, Durand said. The numbers are higher



San Diego Gas & Electric's Power Your Drive program for commercial customers is based on the CAISO day-ahead market price, with an adder for top distribution feeders. | *San Diego Gas & Electric*

for Green Innovators (29% very interested, 33% somewhat interested) and Tech Savvy Proteges (25/37%).

The segments are reflected in consumers' willingness to pay more for an EV: A 10% increase in cost reduces interest among Green Innovators by 4 percentage points — from 51% to 47%. Interest from Tech-savvy Proteges also drops by 4 percentage points, from 40% to 37%. Interest among the Movable Middle drops 3 points from 27% to 24%.

EV Rate Design

Awareness of EV-specific rates is "extremely low" between 5 and 6% of the whole population, with even 91% of Green Innovators unaware, Durand said.

"We asked consumers, 'If you have an EV, are you on an [EV] rate plan or would you sign up for a rate plan?' And most consumers either didn't answer the question or said 'no,'" she said. "So, these are really terrible numbers for those who want EVs to be more common [and] want beneficial electrification to include transportation."

She added: "It's an easy-to-overcome barrier. Education is one of the easiest things to do. But this does show a problem with residential consumer awareness."

Satchwell said some states have adopted "advanced" rate designs, including the unbundling of service costs (e.g., energy, capacity and ancillary services); hourly or sub-hourly marginal prices (vs. average utility costs); and include feeder-level or more granular marginal prices (vs. rates applied regardless of grid-specific locations).

The major debate in designing EV rates is whether they should be based on demand charges or time-of-use (TOU) rates, he said. "Demand charges can impact public charging by penalizing fast chargers, but they may, arguably, better match cost causation depending on how they're designed," he said. "EV supporters believe time-of-use rates are better for customer economics and better reflect that hourly marginal value."

There are also multiple flavors of TOU rates, with some utilities offering multiple rate periods with mid-peaks and some offering super off-peak periods with significant discounts. The latter "sometimes have been referred to as matinee pricing — the same way that theaters … used to try and fill seats during the middle of the day with a huge discount," he said.

Some utilities offer flat "all-you-can-charge" monthly fees, such as Austin Energy, which charges $30/month but prohibits charging

FERC/Federal News

during peak hours.

There are also differences in metering requirements for home EV chargers. For example, Georgia Power's whole home rate applies to all household electricity usage, which eliminates the need for additional equipment or changes to data collection and billing systems. But it can be a disincentive to EV charging if the rate is tiered with inclining block rates.

In contrast, Austin Energy's EV-only rate requires a separate sub-meter and dedicated circuit, adding costs, but can allow clearer cost-based price signals.

Rates for commercial customers — such as fleet owners and public charging stations — are more likely to include locational and temporal specificity. San Diego Gas & Electric's Power Your Drive program charges customers based on the CAISO day-ahead market price, with an adder for the top 200 distribution feeder load hours.

PG&E's Business EV rate, which took effect Oct. 1, replaced demand charges with a monthly subscription charge, which the company said lowers charging costs by 40% on average. The subscription fee, based on whether consumption is above or below 100 kW, is combined with TOU rates.

PG&E also is seeking regulators' approval for a pilot project using dynamic hourly rates for commercial customers, also based on CAISO day-ahead prices.

The company powers more than 303,000 EVs in its service territory and offers $800 rebates. EVs' share of new vehicle sales in the territory peaked at 14% in 2018 before the federal Tesla tax rebate expired. It dropped to 12% in the first quarter of 2020 before falling to 6% in the second, when the coronavirus pandemic hit the state.

In Georgia, EVs' share of new car sales peaked at 3% in 2015, when the state offered a $5,000 tax credit. After the credit expired, the share dropped to less than 0.5% but has neared 1.5% since mid-2019. "We've now started to see more organic growth, and we attribute this to the affordability of some Tesla models now," Newman said. "People who got familiar and comfortable with EV driving back in 2015 are now starting to buy electric vehicles again."

Georgia Power's rates range from 1 cent/kWh for super off-peak charging (11 p.m.-7 a.m.), 7 cents for off-peak (which varies by month and weekdays vs. weekends) and 20 cents for on-peak (2-7 p.m. June through September). It said drivers that spend $170/month on gasoline would pay only $19/month in charging fees if they limited their charging to the super off-peak period.

Satchwell discussed how customers respond to EV rates, based on a review of 11 evaluation reports of offerings published between 2013 and 2020, most of them short-term pilots. Most of the pilots had at least a 2:1 peak-to-off-peak price ratio, with a small number having a ratio of 4:1 or greater. Not surprisingly, higher peak-to-off-peak ratios result in more off-peak charging, he said.

PVs and EVs

But customers who owned a PV system were significantly less responsive to prices than their non-PV counterparts, according to a review of an SDG&E residential EV rate pilot. "This maybe suggests that PV customers place a higher value on [selling PV electricity back to the grid] than the increased electric costs for EV charging," he said. "Certainly, there's more here to unpack."

Durand said she was shocked by her group's finding that 50% of those with rooftop solar also own an EV.

"The interest was very high," she said. "If as a stakeholder, you're interested in more EV purchasing or finding customers interested in EVs, pursuing the consumers who have solar … or having policies that help consumers get solar, is a way to accelerate the transition to EV ownership."

Government, Utility Incentives

Satchwell said that although some utilities encourage adoption of EVs through small rebates in partnerships with car dealers, federal and state tax credits have been the primary financial incentive to reduce that upfront cost of EVs to customers.

Satchwell's review of 30 proceedings in 19 states found that about 85% of capitalized utility costs are for EV charging infrastructure on the customer-side of the meter, which addresses "range anxiety" and allows customers to participate in retail and wholesale market opportunities to sell power back to the grid, where available.

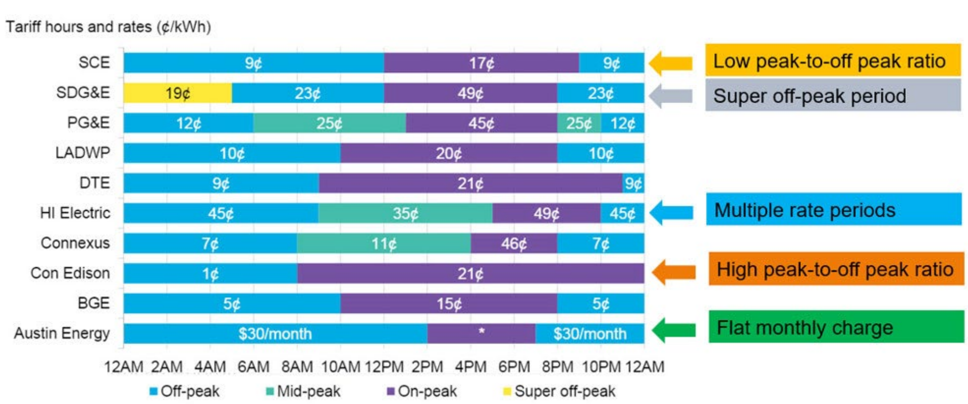
Some utilities' investments have been to modernize their distribution grid, which can provide benefits for all customers, not just EV owners, he added.

Georgia Power is offering business customers $500 rebates on Level 2 chargers on 240-V circuits for workplace and customer charging. It is offering residential customers $250 rebates on Level 2 chargers and offering builders $100 rebates for installing 240-V garage outlets in EV-ready homes.

Car Dealers' Lackluster Support

Durand said car dealers could encourage EV sales by pointing out that while their purchase price is higher than gasoline vehicles, they are cheaper over the long-term due to lower maintenance and fuel costs.

Dealers "don't know enough about [EVs]; I usually come in knowing more than they do," she said. "They are underwhelming in their endorsement of an EV. The total cost of ownership (TCO) is something that consumers don't understand. Utilities could work with dealers and have TCO stickers on the cars so that customers can browse the lot and see: 'Oh, this costs a little more upfront but then by year two I'm really saving money. Or the stickers could include state and federal incentives, which consumers don't understand or know much about." ■



Utilities have multiple flavors of time-of-use rates, with some offering super off-peak periods or "matinee" pricing. | *Lawrence Berkeley National Lab*

CAISO/West News

CAISO Further Reorganizes Executive Suite

By Hudson Sangree

CAISO said Friday it was continuing to shake up its leadership team under new CEO Elliot Mainzer and recently appointed Chief Operating Officer Mark Rothleder.

The reorganization, which took effect Monday, is a combination of promotions, expanded duties and interim appointments. All the executives involved will report to Rothleder, CAISO said. (See *CAISO Leadership Changes Continue*.) The changes will also bring together previously separate functions, including market policy, planning and operations, the ISO said.

"This restructuring will give us the opportunity to look at our roles and responsibilities from a fresh perspective and enhance alignment and integration from market policy to system dispatch," Rothleder said in a news release.

Among the personnel changes:

- Khaled Abdul-Rahman, executive director of power systems and smart grid technology development, will become vice president of power system and market technology.
- Anna McKenna, assistant general counsel for regulatory issues, will step in as interim head of market policy and performance, Rothleder's prior job, while CAISO searches for a replacement.
- Neil Millar, recently appointed as vice president for transmission planning and infrastructure development, will have an expanded role, including overseeing operations engineering services.
- John Phipps, director for real-time operations, will become executive director of grid operations.
- Janet Morris, executive director of program management, will take on an expanded role as executive director of program and application management.
- Hugo Frech, director of infrastructure engineering and network operations, will be promoted to executive director of the same areas.

CAISO COO Mark Rothleder | © *RTO Insider*

"I would like to congratulate Mark and Khaled on their executive promotions and to thank the other members of my skilled leadership team who have stepped into new roles to support this reorganization," Mainzer said in a statement.

Mainzer, the former head of the Bonneville Power Administration, became CEO on Sept. 30, a day after former CEO Steve Berberich retired. (See *CAISO Names Bonneville Power Administrator as New CEO* and *CAISO Retiring, Incoming CEOs Field Questions*.)

One of Mainzer's first actions was to promote Rothleder, one of several vice presidents at the ISO, to his new role as second-in-command.

CAISO CEO Elliot Mainzer | *BPA*

Mainzer will oversee the redesigned executive organization.

"The new team will enable Mainzer to focus on strategy, culture and stakeholder engagement while strengthening the ISO's capacity to effectively integrate new resources and enhance reliability during the transition to a decarbonized electricity grid," CAISO said. ■

CAISO headquarters in Folsom, Calif. | © *RTO Insider*

Feds Revive, Seek Input on Western 'Energy Corridor'

Continued from page 1

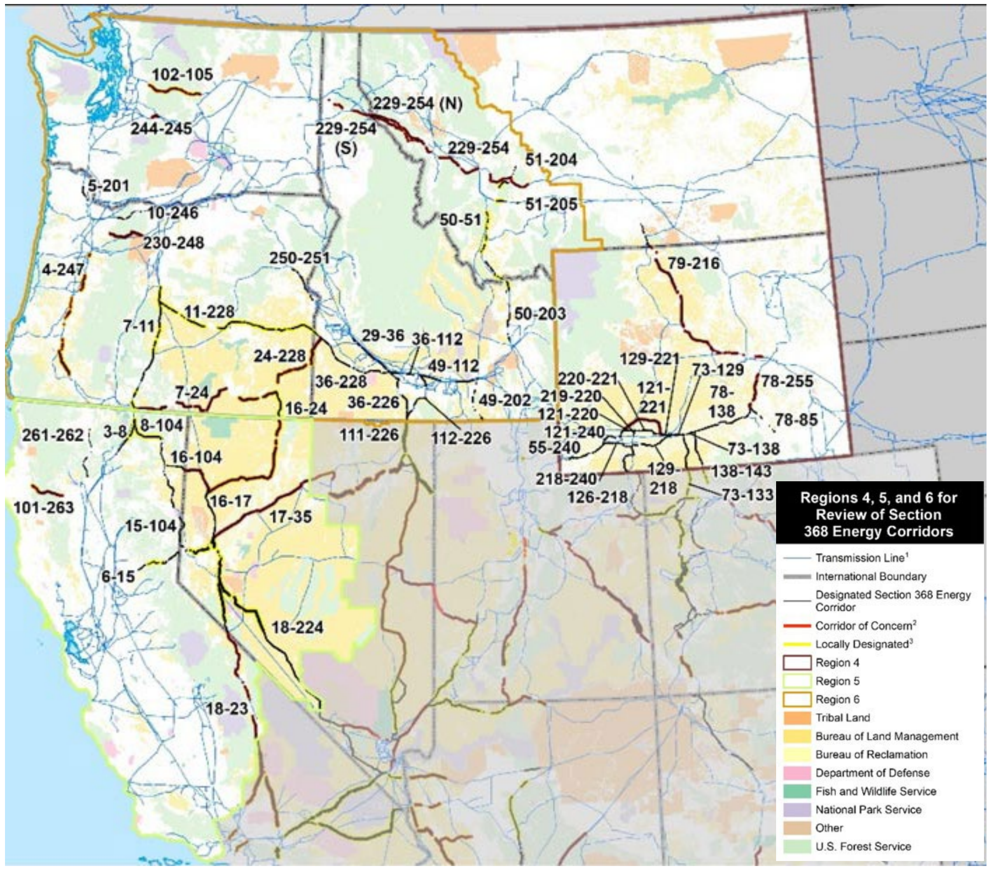
In 2009, the agencies prepared a programmatic environmental impact statement (PEIS), and BLM and USFS signed records of decision (RODs) designating about 5,000 miles of Section 368 energy corridors on BLM-administered lands and approximately 1,000 miles on USFS-administered lands.

But the effort to move ahead was stymied in July of that year when several conservation groups — including the Sierra Club and Natural Resources Defense Council — filed suit in federal court alleging that the PEIS and RODs violated the EPAct, National Environmental Policy Act, Endangered Species Act, Federal Land Policy and Management Act and Administrative Procedure Act.

In July 2012, the federal agencies signed a settlement with the plaintiffs that required the agencies to conduct regional reviews of Section 368 corridors and outline a handful of siting principles to guide those reviews.

Those principles require that the corridors must be "thoughtfully sited to provide maximum utility and minimum impact on the environment" and encourage "efficient use of the landscape for necessary development." The agencies must also define "appropriate and acceptable uses" for specific corridors.

The revised plan contains numerous proposals to shift corridors to alleviate impacts on the environment and Native American reservation lands. It also proposes to eliminate a handful of corridors while adding two new ones in Wyoming and one each in Idaho and Oregon.



The proposed West-wide Energy Corridor would run through seven Western states and increase the potential for developing new renewable projects. | *BLM, USFS, DOE*

New Paths for Renewables

Most significant for renewable developers is a settlement stipulation that requires corridors to "provide connectivity to renewable energy generation to the maximum extent possible while also considering other sources of generation, in order to balance the renewable sources and to ensure the safety and reliability of electricity transmission."

The revised plan, released Nov. 2, points out that most of the 59 corridors identified in the 2009 West-wide plan already contained existing energy transmission infrastructure that was largely constructed to transmit electricity produced by fossil fuel, nuclear and hydroelectric generating facilities. Since then, the report notes, additional energy infrastructure has been built in those corridors, and many now have pending right-of-way applications for utility-scale renewable resources.

"Renewable energy development in Section 368 energy corridors is critical for connecting renewable energy sources to the grid," the agencies said.

To bring that point home, the agencies cite the growing need for renewable energy in the West, particularly in California, combined with the remote locations of the regions with some of the greatest potential to generate that energy.

The proposal points to the large number of untapped designated solar energy zones (SEZs) on BLM land near Corridor 18-224 in Nevada.

"There is also a strong interest in solar energy development, combined with substantial existing geothermal energy production in this area. However, a lack of transmission lines to transport solar or geothermal energy to load centers presents a barrier for potential developers," the plan states.

An isolated area of southeastern Oregon near Wagontire Mountain, positioned close to three Section 368 corridors, contains "significant" wind, geothermal and solar energy potential, according to the report.

"However, renewable energy resources require an additional north-south pathway east of Corridor 7-11 into California. A corridor addition in the area could serve to connect renewable energy to demand," the plan states.

Wyoming currently has nearly 1,500 MW of installed wind capacity, with another 3,000 MW under construction, the reports notes. While the Gateway West project, slated for completion in 2024, will carry some of that generation to the West Coast, "additional infrastructure may be needed to transmit wind energy from Wyoming to out-of-state load centers, and Section 368 energy corridors could be well placed to accommodate that need," the agencies contend.

The federal agencies are seeking *comments* on the revised plan by Jan. 31, 2021. ■

Nevada Clean Energy Amendment Winning

New Mexico Reforms Public Regulation Commission

By Hudson Sangree

An array near Las Vegas is among the utility-scale solar projects that Nevadans increasingly rely on for renewable power. | *U.S. Bureau of Land Management*

A measure in Nevada to enshrine a clean energy mandate in the state constitution is heading to victory, while New Mexico voters approved an overhaul of their state's Public Regulation Commission, and Arizonans elected another Democrat to the state's Corporation Commission.

Votes remained uncounted in Nevada, but ballot Question 6 was leading 57% to 43% as of Sunday night, according to the secretary of state's website. The measure asked voters for the second time in two years if the state should make clean energy goals a part of its constitution.

A law signed by Democratic Gov. Steve Sisolak in April 2019 requires the state to get half its electricity from non-carbon-emitting resources by 2030, but environmentalists worried it could be overturned by elected officials if the political winds shift and sought a more permanent solution.

Amendments to Nevada's constitution must be approved in two consecutive elections, so the question faced a final vote this year after winning 59% support in 2018. That effort, like the current one, was bankrolled by California billionaire and environmental activist Tom Steyer. (See *Climate Policy on the Ballot Tuesday*.)

New Mexico

New Mexicans voted 55% to 45% for a constitutional amendment to revamp the PRC from a five-member body elected by district to a three-member body of at-large utility commissioners appointed by the governor.

A nominating committee will make recommendations of "professionally qualified nominees" under the measure, which prohibits more than two of the PRC's members from belonging to the same political party. The new law replaces commissioners' staggered four-year terms with six-year appointments.

It takes effect Jan. 1, 2023, ending the terms of elected members at the close of 2022.

Two members of the PRC backed the ballot measure, arguing that utility regulators should have experience in the complex field. Some of those elected to the PRC lack the backgrounds needed to understand and rule on regulatory issues, Commissioners Cynthia Hall and Stephen Fischmann wrote in an opinion piece published in a number of the state's newspapers.

"The public and the utility companies that serve them deserve to have commissioners with meaningful expertise when they begin working as commissioners," Hall and Fischmann wrote. "That means graduate-level education plus significant industry or regulatory experience. Commissioners should be experts at the outset, not rookies."

Hall was re-elected to a two-year term on the commission Tuesday; Democrat Joseph Maestas was newly elected to an open seat.

Other members of the PRC contended that allowing the governor to appoint its members would deprive voters, especially those in rural disadvantaged communities, of the opportunity to influence ratemaking and policy decisions.

"There is no requirement for any sort of geographic representation, which makes it extremely likely that the commission would be dominated by members from the urban population centers rather than rural New Mexico," Commissioners Theresa Becenti-Aguilar and Jefferson Byrd wrote in a competing op-ed.

Commissioners were also divided in their support of a landmark law from 2019 that requires the state's investor-owned utilities to get 100% of energy from carbon-free sources by 2045. Both Hall and Maestas support the measure.

Arizona

In a close and contentious race for three seats on the ACC, Democratic newcomer Anna Tovar led a pack of six candidates to win election, along with two Republicans. Tovar, one of a slate of three Democrats backed by New York billionaire Michael Bloomberg, secured nearly 18% of votes cast.

Republican incumbent Lea Marquez Peterson came in second with 17%, closely followed by Republican Jim O'Connor, who had a similar vote tally.

Left behind were Democrats Bill Mundell and Shea Stanfield and Republican Eric Sloan, each of whom fell short of the top three vote getters.

Potentially at stake in the race is an Oct. 29 commission decision to adopt a 100% clean energy mandate by midcentury. California, New Mexico and Washington also have 100% clean-energy mandates approved by lawmakers.

The commission, which currently has four Republicans and one Democrat, voted 3-2 for the mandate. Chairman Bob Burns and Commissioner Boyd Dunn, neither of whom sought re-election, voted with Democrat Sandra Kennedy in support of the measure.

With the two Republicans winning office, the decision could be reversed. Republican Commissioner Justin Olson expressed his dismay with the potential cost to ratepayers in a statement after the Oct. 29 vote. Marquez Peterson opposed the move. And O'Connor said he would vote to reverse the decision if elected, *The Arizona Republic* reported. ■

CAISO/West News

CPUC Pauses IOU Energy Efficiency Incentives

Commissioners Disagree with ALJ About Continuing Program

By Hudson Sangree

The California Public Utilities Commission voted unanimously Thursday to enact a moratorium on a longstanding program that provides $30 million to $75 million annually to shareholders of the state's three big investor-owned utilities for administering energy efficiency programs.

The commission's decision represented a rare disagreement with one of its own administrative law judges, Julie Fitch, who wrote in a proposed *decision* that the Energy Savings and Performance Incentive (ESPI) remained a useful motivator.

"Energy efficiency is still our most important resource in which we are expecting utilities to invest ratepayer funds, and we still need the most effective energy efficiency program possible as the urgency of meeting our environmental goals becomes more critical," Fitch wrote.

Energy-efficient construction and appliances are primary components of the state's efforts to reduce electricity consumption as part of its strategy against climate change.

Commissioners said they respected Fitch's careful reasoning but disagreed.

"We don't need to incentivize people with bonuses for complying with the law," Commissioner Martha Guzman Aceves said.

Senate Bill 350, passed in 2015, requires the state to double its energy efficiency by 2030, and 2018's Senate Bill 100 requires utilities to provide retail customers with 100% carbon-free electricity by 2045. The ESPI adder, which the CPUC approved in 2013, may be "antiquated" in today's changed energy landscape, Guzman Aceves said.

"We have an obligation ... regardless of whether shareholders get more money or not," she said. "I think it's time we start to reward the customers, who are the actual consumers that are conserving here, and move away from an approach of feeling that we need to give utilities extra money for doing their job."

Guzman Aceves and her four colleagues agreed with an *alternate* decision by Commissioner Liane Randolph that called for an indefinite moratorium of the program starting next year.

"The moratorium shall remain in effect pending subsequent action to assess whether, how or when a new version of ESPI or a new incentive mechanism can be devised and implemented," Randolph wrote.

Consumer groups, such as The Utility Reform Network (TURN), opposed the continuation of the shareholder incentives. The IOUs had gone from implementers of the energy efficiency programs to administrators working with third-party contractors, a role that doesn't require additional incentives, TURN contended.

San Diego Gas & Electric acknowledged that the role of IOUs in energy efficiency programs has changed. The utility said a review of the incentive program was warranted but said it should continue.

Pacific Gas and Electric argued "shareholder incentives may not be necessary to ensure the planning and delivery of robust energy efficiency programs, [but] they signal the importance and support of programs not primarily intended as resource programs," such as workforce training, marketing, and consumer education and outreach, Fitch wrote.

"PG&E believes that an incentive for investing in non-resource activities can motivate IOUs beyond minimum compliance obligations, despite internal pressure to reduce impacts to portfolio cost-effectiveness and customer bills," she said. ■

Reducing electricity consumption is a key component of California's climate change strategy. | *California Energy Commission*

Group Hopes West Can be Wired for Grid Collaboration

By Robert Mullin

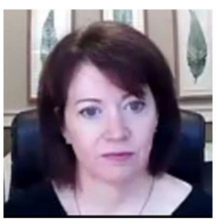
David Bobzien, Nevada Governor's Office of Energy | *WIRED*

David Bobzien, the director of the Nevada Governor's Office of Energy, summed up the key takeaway from the Western Interconnection Regional Electricity Dialogue (*WIRED*) initiative in one word.

"Coordination, coordination, coordination," Bobzien told listeners on a webinar hosted by the Committee for Regional Electric Power Cooperation and Western Interconnection Regional Advisory Board (CREPC-WIRAB) Friday.

A participant in the WIRED effort, Bobzien was referring to the initiative's conclusion that Western states must step up collaboration on grid planning to accomplish their increasingly ambitious policy targets — even if their goals don't always align.

The initiative was conceived last year to develop recommendations to Western governors on how to improve regional coordination in three key areas: *transmission planning and development*, *resource adequacy* and *greenhouse gas accounting*. Final draft reports for each topic area were issued this month.



Kristen Sheeran, Oregon Governor's Office | *WIRED*

"All three areas of the WIRED initiative … are really front-and-center, important issues for us right now in Oregon, as both policy and the market are rapidly driving the clean energy transition in our state," said WIRED participant Kristen Sheeran, energy and climate change policy adviser to Oregon Gov. Kate Brown. "And as Oregon makes that transition, we want to continue to do so in ways that complement the efforts of our other Western states."

Bobzien said he advised his boss, Nevada Gov. Steve Sisolak, that grid coordination would be "the most complicated, wonky energy policy issue you will face as governor," but also one in which he could make the most impact.

"And you can make that impact by working and continuing in the conversation with your fellow governors across the West," he said.

Bobzien pointed out that even states without strong clean energy policies are home to investor-owned utilities that "are making similar commitments on carbon reduction" as the most aggressive states.

The WIRED initiative is a collaboration between Colorado State University's *Center for a New Energy Economy* (CNEE) and the Western Electric Industry Leaders (WEIL) Group, which comprises utility executives from 10 U.S. states and one Canadian province.

Jim Shetler, BANC | *WIRED*

WEIL Steering Committee member Jim Shetler, general manager of the Balancing Authority of Northern California, said WEIL members last year became concerned about the way generation and transmission operations could be affected by the "ever increasing" number of individual state energy policies with different criteria for renewable portfolio standards and greenhouse gas accounting.

"We recognize that the physics governing the grid don't necessarily respect state boundaries, and so we have to plan for that," Shetler said.

Bill Ritter, CNEE | *WIRED*

Former Colorado Gov. Bill Ritter, now CNEE director, said he was invited to speak at a 2019 WEIL meeting after several states had passed climate and clean energy measures. He recounted that WEIL members asked him how states could improve their policy coordination and how governors could make decisions more collaboratively.

"I said, 'That's really not going to probably happen,'" Ritter said. "In some conversations, you might get some agreement among Western governors, but to have states all agree on the same renewable portfolio standard or agree on the same climate targets — that's not going to happen."

But Ritter said that conversation then turned to what steps the industry could take to "move us toward greater regionalization and collaboration."

He accompanied utility CEOs at talks with governors about the "benefits of a regional conversation," something the state leaders said they were ready to convene.

"We made an agreement with both the governors' offices and the utilities that we did not have a preordained conclusion here about a regional market, about expanding something or tying into another thing," Ritter said.

Tricky Transmission Planning

Those discussions gave rise to WIRED.

"We know that there will be further incorporation of renewable resources across the Western grid, and as pointed out by the *Western Flexibility Assessment*, if we don't address some of these issues, we're going to have some challenges in the 2030s and beyond," Bobzien said.

Published by the Western Interstate Energy Board in December 2019, the assessment found that Western states must improve policy coordination to meet the flexibility needs of the Western Interconnection as states advance on their clean energy targets over the next 15 years.

Bobzien, who took part in the WIRED working group studying transmission planning, said transmission development must be linked to resource planning because the two are "very tightly" intertwined.

He also noted that cost allocation is the "trickiest" aspect of transmission planning. "Trying to figure out cost allocation nirvana is going to be important over time."

The final draft report from the transmission working group lays out several recommendations for governors to consider in their directions to state agencies, utilities and planning entities, including:

- creating a mechanism to better coordinate development of integrated resource plans "informed by potential transmission implications and requirements" and ensuring those needs are addressed in relevant transmission planning processes;
- establishing a format for information sharing;
- supporting coordinated study processes

CAISO/West News

and timelines;

- creating a decision-making framework that includes principles for fairly allocating costs for new projects; and
- setting financial incentives that recognize and support the long-term nature of transmission investments.

The working group also advised governors to pledge that their states will evaluate their current resource planning processes "to help ensure implementation of resource planning and transmission needs identified in a formal multistate process."

While Bobzien said it was important for the West to improve coordination around transmission planning, he also counseled to avoid "stepping on toes." The goal at this point is to continue the conversation around collaboration, he said.

"No matter what your policy is ... you are in the same boat as the rest of the West," Bobzien said.

'Big and Critical'

Speaking for the WIRED resource adequacy working group, Sheeran said "it's important to note that different states are at different starting places when it comes to resource adequacy."

Oregon's Sheeran said she joined the working group because RA has "already emerged as a really big and critical issue" in the state.

"And this was even before the potential for rolling blackouts across the West this summer sort of greatly elevated the profile of this issue and fixed more eyes on this working group," Sheeran said.

The group first set out to agree on a rough definition of resource adequacy, she said. It arrived at "a forward-looking planning framework to identify future resource needs, considering transmission deliverability, resource capabilities and limitations, [and] planning for uncertainties," such as generation and transmission outages and variability in demand.

"There are many definitions of resource adequacy out there, and the goal wasn't to elevate this one above others," she said.

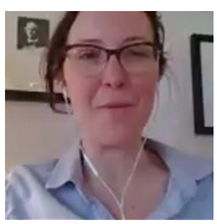
But the working group did start from the assumption that some kind of regional RA program would be beneficial for the West from a cost, reliability and policy perspective. With that in mind, the group recommended that governors issue a multistate declaration recognizing those benefits while working together to support:

- establishment of a regionwide framework "of sufficient transparency, granularity and quality" that evaluates sub-regional RA and "provides information helpful for 'unlocking' regional diversity benefits and investment cost savings";
- advancement of regional or sub-regional RA programs and industry-driven RA programs; and
- creation of state-driven RA programs that can be "harmonized" with regional or sub-regional RA frameworks or a regional RA assessment framework.

Asked whether the recommendations would have an impact on the Northwest Power Pool's current RA effort, Sheeran said, "We want to ensure this work is supportive and complementary to that effort."

Another questioner asked how the recommendations could guide Oregon in developing a state-level RA program.

"I don't think we're looking for a state-level program," Sheeran responded, noting the state is instead looking to participate in regional and sub-regional efforts and trying not to get "further out ahead of our neighbors."



Lauren McCloy, Washington Office of the Governor | *WIRED*

Lauren McCloy, senior policy adviser to Washington Gov. Jay Inslee, said the efforts of the GHG accounting working group were driven by the need to determine a more uniform way to identify the clean energy attributes of resources despite differences among states' clean energy programs.

McCloy said the group also wanted to support or maintain compatibility with other economic sectors subject to clean energy standards (CES) and also account for the potential increase in electric load from decarbonization of those sectors.

"We want to make sure we're enabling achievement of state policy goals," McCloy said.

The GHG working group urges Western governors "to align and harmonize" GHG accounting methods across states "where possible." The accounting methodologies don't have to be identical, but they should be consistent, Sheeran noted.

The group also recommends creating attribute-based systems — which are designed to prevent double-counting of clean energy attributes in different programs — for compliance with RPS and CES programs and renewable and non-emitting fuel type accounting. It also advises states to work collectively and with the Western Renewable Energy Generation Information System (WREGIS) "to consider whether a regional, attribute-based system may be developed for emissions accounting."

The group additionally recommends that any market design "should reflect or support state policy where appropriate and should not undermine state policy objectives." Relatedly, "state policy should be informed by market design to avoid unintended consequences that could undermine the operation of wholesale electricity markets."

No Missteps

Ritter lauded the efforts of the working groups, saying, "This was a broad group of stakeholders that worked very hard to get to a place of consensus."

He said the goal of the initiative is "to get some agreement on what the process would look like" for engaging in further discussion and collaboration among Western states. WIRED participants are now asking governors and WEIL participants to take time to review the final draft reports.

The group hopes to have something formal to present to the Western Governors' Association meeting next May.

Ritter acknowledged that "we don't know what shape that takes, whether it's a memorandum of understanding or a Western governors' resolution or some other thing." The document would help governors decide whether they want to participate in the next part of the process, which would "really be about fulfilling the recommendations and doing a more substantive bit of work on these kinds of issues" and getting "deeper into regionalization."

"There was no foregone conclusion about a regional market, but it's also not excluded as one of the possibilities," Ritter said. "But in watching what has happened to these discussions before about regional markets, one thing you don't want is the discussion to be undermined by a false step, or misstep, or politics, or a lack of a discussion about governance that had broad participation from all of the states and all of the stakeholders." ■

CAISO/West News

Heat Waves Spur Record EIM Benefits

By Hudson Sangree

Benefits for participants in CAISO's Western Energy Imbalance Market surged past $119 million in the third quarter of 2020 — a record amount driven by savings during the heat waves of August and September, the ISO told the EIM's Governing Body on Wednesday.

"We saw a higher level of benefits in this quarter than we normally have seen because of those conditions and the resultant high prices, especially in the Southwest," CAISO COO Mark Rothleder said.

The benefits were mainly from savings; utilities paid less for electricity in EIM transfers than they would have otherwise paid during times of tight supply and soaring prices, the ISO reported.

Load-serving entities in the Southwest and California were pressed to meet high demand during the heat events in mid-August and over Labor Day weekend. CAISO ordered rolling blackouts for two days in August and barely avoided additional outages in September. (See *CAISO Avoids Blackouts amid Brutal Heat, Fires*.)

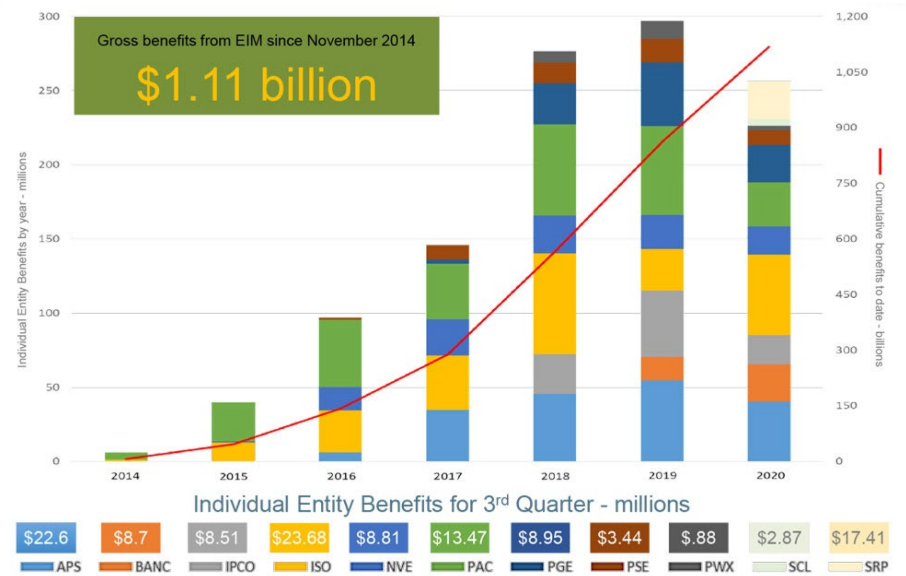
More than half the third-quarter benefits, $66 million, came in August.

Of the 11 active EIM participants, CAISO said it saved the most, reaping $23.7 million in benefits. Arizona Public Service was able to avoid $22.6 million in additional costs by procuring electricity through the EIM, and the Salt River Project, also in Arizona, saw $17.4 million in savings, CAISO *reported*.

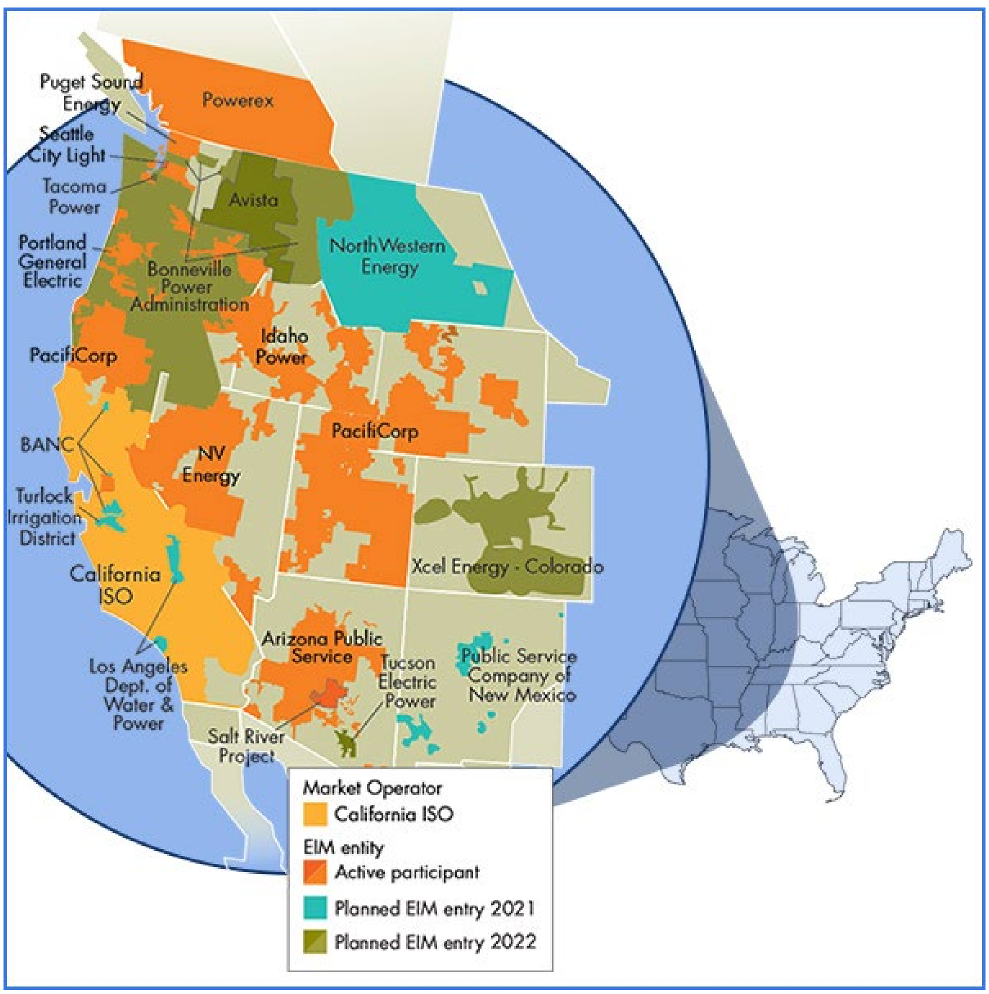
"The quarterly benefits have grown over time as a result of the participation of new balancing authority areas in the market, which results in additional benefits for both the individual BAAs but also compounds the benefits to adjacent BAAs by enabling further transfers," CAISO said in its third-quarter report.

The savings bring the EIM's total benefits to $1.1 billion since it started operating in November 2014.

Current EIM entities also include NV Energy, PacifiCorp and Seattle City Light. Eleven more entities are scheduled to join in 2021 and 2022, including the Bonneville Power Administration, the Los Angeles Department of Power and Water, and Public Service Company of New Mexico. ■



EIM benefits topped a record high of $119 million in the third quarter. | *CAISO*



The Western EIM has 11 active participants and 11 pending participants. | *CAISO*

ERCOT News

ERCOT: Record 5 GW of Installed Wind Capacity

Resource Adequacy Sufficient to Meet Winter Peaks

ERCOT said Thursday it will have enough installed capacity to meet forecasted demand this winter and spring thanks in part to a record of new installed wind capacity.

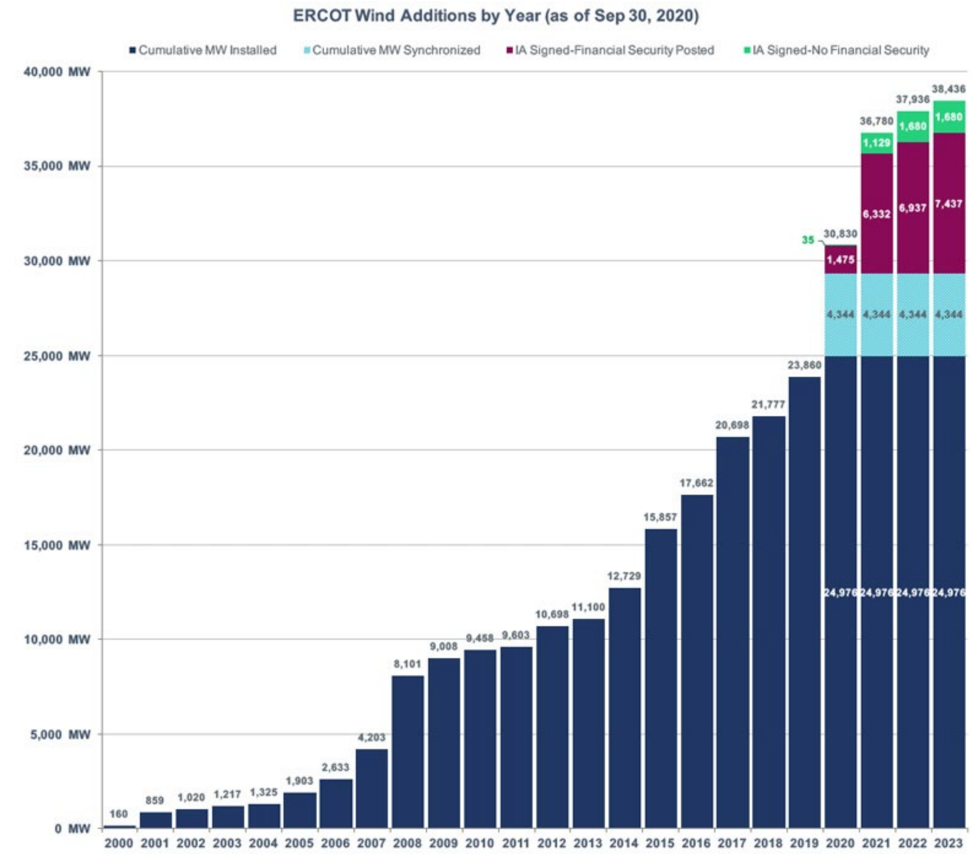
The grid operator *said* it is on track to add more than 5 GW of wind capacity this year. It currently has 29.3 GW of installed capacity and expects 38.4 GW installed or under some form of study in its *interconnection queue* by 2024.

ERCOT also expects utility-scale solar to more than double since the end of 2019. It began this year with almost 2.3 GW of solar capacity but will end it with nearly 5.2 GW, including more than 750 MW with signed interconnection agreements.

All told, the grid operator's *seasonal assessment of resource adequacy* (SARA) indicates that it will have nearly 83 GW of capacity available to meet a projected winter peak of 57.7 GW that is based on recent historical winter peaks. The assessment for December-February includes an additional 928 MW and 35 MW of wind and solar winter-rated capacity, respectively.

ERCOT's all-time winter peak is 65.92 GW, set in January 2018.

"In the winter, we're dealing with morning and evening peaks and sometimes extreme volatility in the weather," Pete Warnken, ERCOT's manager of resource adequacy, said in a statement. "We studied a range of potential risks under both normal and extreme conditions and believe there is sufficient generation to adequately serve our customers."



Wind capacity in ERCOT's interconnection queue shows no signs of slowing. | *ERCOT*

ERCOT also released its *preliminary SARA* for the spring season (March-May 2021). It includes a low-wind output scenario for the first time but still predicts ample generation capacity to meet an anticipated peak demand of 64.5 GW.

The grid operator expects to have an additional 4.3 GW of spring-rated resource capacity on hand. ■

— Tom Kleckner

ERCOT News

Vistra Reports Q3 Earnings Above Expectations

By Tom Kleckner

Texas utility Vistra said Wednesday it is taking on the "changing power generation landscape" as it announced earnings that were above management's expectations.

Vistra *reported* third-quarter adjusted EBITDA from ongoing operations of $1.19 billion, a 10.3% increase from last year's third quarter. Year to date, the company's adjusted EBITDA is at $2.96 billion, up from 2019's third quarter of $2.62 billion.

Since 2016, "we have meaningfully reduced our cost structure, strengthened the balance sheet to position the business to achieve investment grade credit ratings and enhanced the integrated model," CEO Curt Morgan said in a statement. "We are now set-up to reinvest in our business as we transform our generation fleet for a sustainable future."

In September, Vistra told investors it was developing nearly 1,000 MW of renewable generation projects in Texas, including six solar facilities and one battery, and intends to retire an incremental 6.8 GW of coal-fired generation in Illinois and Ohio.

Morgan reminded analysts that "every reputable and objective study" of electric generation sees natural gas playing a "significant role for several years to come, especially as we electrify the economy."

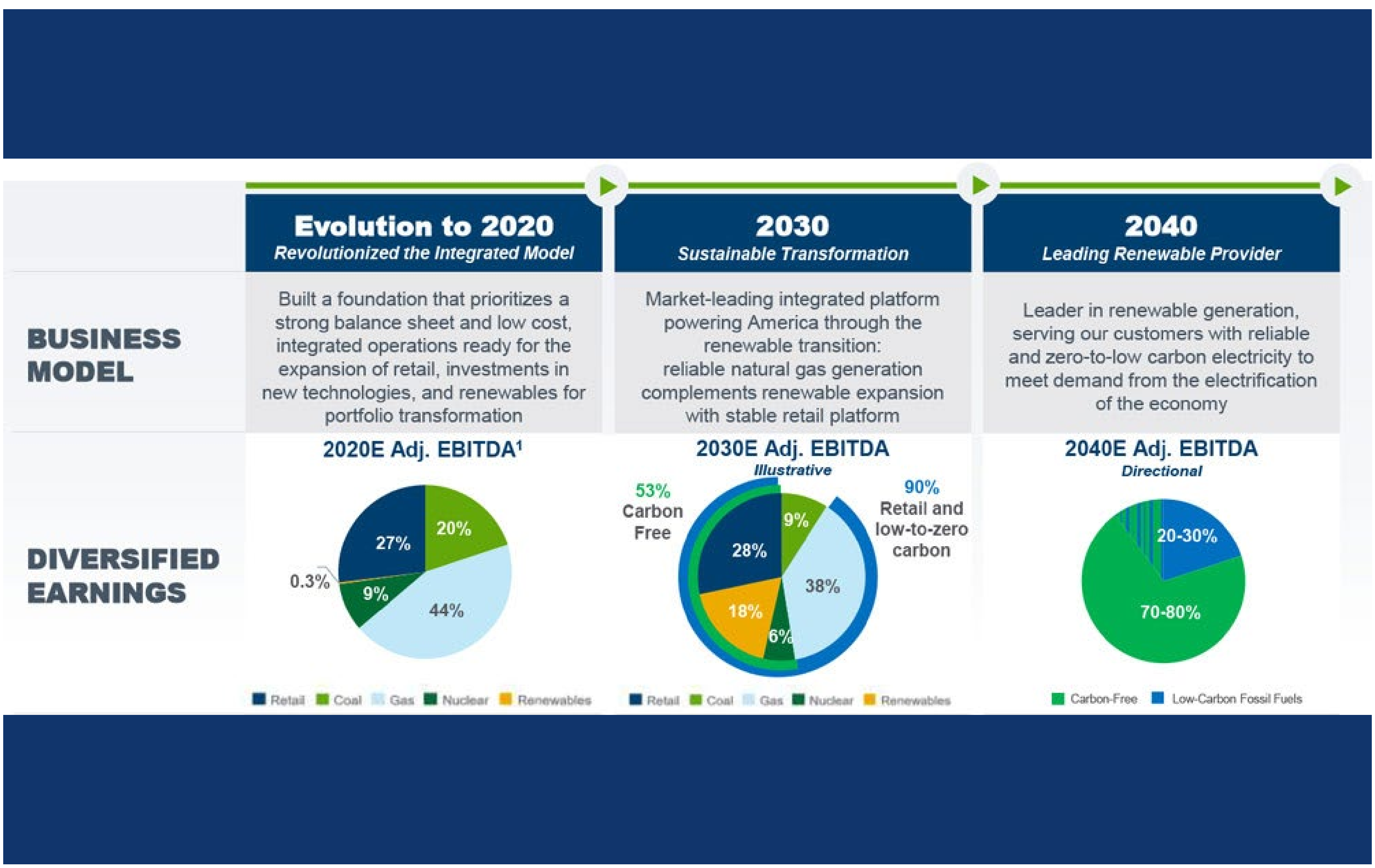
"We believe we are a natural owner of renewable and energy storage assets given our capabilities and competitive position," he said. "We have a high degree of competence that we can generate healthy return from these assets through the same skills and methodology by which we extract significant value from our existing fleet."

The Irving-based company said it expects to allocate about $1.15 billion of capital to transformational growth investments over the next two years, including its Moss Landing and Oakland battery storage projects in California. In May, Vistra entered into a 10-year resource adequacy agreement with Pacific Gas and Electric for a new 100-MW/400-MWh battery to complement the 300-MW/1,200-MWh battery already under construction at Moss Landing.

Vistra also said it had acquired the 60,000 Texas customers of Infinite Energy and Veteran Energy. That expands the footprint of TXU Energy, already the largest competitive retailer in the Texas market.

The company uses adjusted EBITDA as a measure of performance because it says that analysis of its business is improved by visibility to both that metric and net income prepared in accordance with generally accepted accounting principles.

Vistra share prices peaked at $18.82 shortly after the market's opening but finished at $18.34, down 5 cents. ■



Vistra's strategy to transform itself into a leading renewables provider | *Vistra*

ERCOT News

CenterPoint, OGE Mum on Enable Midstream

Houston Utility Shares New Strategy

By Tom Kleckner

CenterPoint Energy and OGE Energy, general partners in gas-gathering outfit Enable Midstream Partners, declined to answer questions on potential sales of their interest in the company during their respective third-quarter earnings calls Thursday.

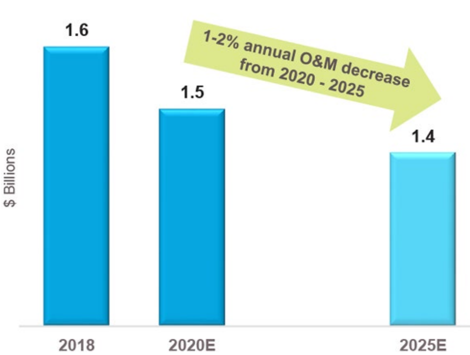
Instead, they stuck to the companies' line that they are "now well aligned in our desire to maximize the value of Enable." Reports surfaced last month that the companies were pondering a sale in the face of depressed commodity prices and other economic headwinds.

A sunny CenterPoint CEO David Lesar instead gave analysts a sneak peak of the company's future plans, saving more details for the company's investor day on Dec. 7.

"I'm even more optimistic about where we can take this great company in the future than I was 90 days ago," said Lesar, who only joined CenterPoint in June.

CenterPoint *reported* earnings during the quarter on a guidance basis of $200 million ($0.34/diluted share), compared to $241 million ($0.47/diluted share) a year ago.

Lesar shared high-level recommendations from the recently completed Business Review and Evaluation Committee's work. They include a $3 billion increase, to $16 billion, in capital investment expected to deliver 10% annual base-rate growth; investing $950 million in wind and solar generation; operations and maintenance "cost discipline"; and improving the company's balance sheet "optionality."



CenterPoint's new model and strategy going forward | *CenterPoint Energy*

OG&E is still recovering from the worst ice storm in the company's history. | *Oklahoma Gas & Electric*

"To eliminate any initial anxiety you may have, I want to immediately emphasize that our plan does not require any block issuance of new equity nor require a reduction to our current earnings per share," Lesar said.

Instead, CenterPoint plans to sell "one or two" of its natural gas local distribution companies (LDCs).

"All of our gas LDCs are good assets in constructive regulatory environments, and we hate to sell any of them, but a hard capital allocation decision needed to be made, and I made it," Lesar said.

Wall Street applauded CenterPoint's earnings, driving the share price up to $22.80 in after-hours trading, a gain of $1.24 and 5.8%.

Weather Knocks down OGE Earnings

Like CenterPoint's executives, OGE management begged off answering Enable-related questions during their analysts' call, which immediately followed that of its Texas partner.

"Whatever we do [with Enable] would be focused on the OGE shareholder," CEO Sean Trauschke said.

One analyst twice tried unsuccessfully to pry information from Trauschke, asking detailed, vague questions that left the CEO confused.

"I'm still not getting it," he said after the second question.

"I'm just trying to get information out of you," the analyst admitted.

The Oklahoma City-based utility *reported* third-quarter earnings of $177.4 million ($0.89/diluted share), compared to $250.9 million ($1.25/diluted share) a year ago. OGE blamed the loss on less favorable weather compared to the same quarter in 2019, as cooling degree days were down about 21%.

The weather calamities didn't stop there. Trauschke said the company is still restoring service from an Oct. 26 ice storm, the worst in the company's history, that resulted in 470,000 outages at its peak. Three waves of sleet, freezing rain and high winds damaged 178 structures on OGE's transmission system and damaged or destroyed 1,134 poles, 1,050 crossarms and 194 transformers.

As of Monday, OGE *said* it had restored power to 99% of its customers.

"It's kind of our job to address this," Trauschke said. "In Oklahoma, October is a summer-rate month. Instead of heat, we got an ice storm. But I believe all things even out."

OGE's share price climbed to $32.80 after the earnings release but finished the day down at $31.97, a 27-cent drop from the previous day's close. ■

ERCOT News

Texas PUC Approves ERCOT Board Members

Michigan PSC Commissioner Talberg to Renew Texas Ties

By Tom Kleckner

Texas regulators last week approved the election of Michigan Public Service Commissioner Sally Talberg and two others to three-year terms on ERCOT's Board of Directors.

"I'm not trying to pick favorites, but I'm so excited to have Sally Talberg back," Texas Public Utility Commission Chair DeAnn Walker said during the commission's open meeting Thursday. "I'm glad to have her back in the ERCOT group."

Walker said that Talberg approached her recently and asked her advice about joining the ERCOT board.

"I said absolutely," Walker said. "I'm glad to have her back in the ERCOT group."

Talberg advised the PUC from 2000 to 2004 during Texas' transition to retail competition. Pat Wood III chaired the PUC at the time and would go on to also chair FERC under President George W. Bush. Judy Walsh, due to cycle off ERCOT's board after this year, also served on the commission then.

While working on a master's degree in public affairs from the University of Texas at Austin, Talberg also worked at the nearby Lower Colorado River Authority.

Talberg told *RTO Insider* she had expressed her interest in joining the ERCOT board some time ago, "initially thinking it would be some far-off prospect after serving on the MPSC."

"But these spots were opening, so it happened earlier than I anticipated," she said.

Talberg was first appointed to the PSC in 2013, serving as chairman from January 2016 to July 2020. Her term expires next July, but she has said she will step down from the commission once her appointment to the ERCOT board is official. (See "Michigan PSC's Talberg Among Director Nominees," *ERCOT Board of Directors Briefs: June 9, 2020*.)

The PUC also approved the elections of retired ISO-NE General Counsel Raymond Hepper and incumbent Director Terry Bulger to the ERCOT board. All three will serve as unaffiliated directors.

The board's Nominating Committee has put forward former Consolidated Edison CEO Craig Ivey for the final vacant seat. Ivey will be presented to members during their virtual annual meeting in December.

The Comanche Peak Nuclear Power Plant's two units | *The Nuclear Decommissioning Collaborative*

D'Andrea Jumps the Gun

During the PUC's open meetings, Walker typically opens discussion of a docket by saying she has written a memo with suggested changes. Commissioners Arthur D'Andrea and Shelly Botkin then usually express their agreement and approve the order.

The practice caught D'Andrea off-guard last week as Walker opened discussion of Oncor's request for a limited code-of-conduct waiver from the commission's affiliate reporting and affiliate transaction rules (*50893*).

"I agreed with your memo…" D'Andrea began.

"I didn't have a memo. Arthur, why are you making it harder?" Walker responded, teasing D'Andrea. The few staffers in the socially distanced hearing room erupted in peals of laughter.

The commissioners agreed they had no concerns with the affiliate issue and approved the order.

Nuke Decommission Fund Remanded

The commission remanded back to docket management the Comanche Peak nuclear power plant's requested review of its decommissioning cost study and funding analysis, finding that they do not include evidence required by *Texas' administrative code* (*50945*).

Walker noted in a *memo* that the study and analysis were not accompanied by a report or supporting testimony and the requested annual funding amount; the decommissioning trust fund's administrator did not demonstrate the funds are being invested prudently and in compliance with their investment guidelines; and the administrator did not demonstrate efforts to achieve "optimum tax efficiency."

Comanche Peak Power Co. (CPPC) administers the decommissioning fund. It wants to continue the fund's annual contribution of nearly $20.1 million through 2025, split between the plant's two units on a 72.3/27.7% basis. The current approved allocation amount is on a 57.1/42.9% split.

CPPC said the two units have a net after-tax value of $1.32 billion. It says according to a May decommissioning cost analysis, it will cost $1.73 billion in 2019 dollars to decommission and completely dismantle Comanche Peak. The analysis shows about a -2.5% difference between the $19.4 million required funding levels and the five-year average decommissioning-fund collections of $19.9 million annually from 2015 to 2019.

In other actions, the PUC:

- authorized Southwestern Electric Power Co.'s (SWEPCO) and El Paso Electric's (EPE) adjustments to their energy efficiency cost recovery factors. SWEPCO will be allowed to recover $5.2 million (*50805*) and EPE $5.9 million during the 2021 program year (*50806*).
- allowed EPE and Entergy Texas to issue fuel refunds following settlement agreements. EPE will refund $9.4 million (*50940*) and Entergy $25.5 million (*51037*) to ratepayers. ■

ISO-NE News

NEPOOL Participants Committee Briefs

ISO-NE Shares 'Vision for the Future'

ISO-NE CEO Gordon van Welie last week *shared* the RTO's "vision for the future" with the NEPOOL Participants Committee, which he presented as "our long-term intent" that "guides the formulation of our strategic goals."

The RTO included a forward-looking statement that van Welie said seeks "to harness the power of competition and advanced technologies to reliably plan and operate the grid as the region transitions to clean energy."

Publication of ISO-NE's vision comes on the heels of recent calls for reform by the New England States Committee on Electricity (NESCOE), which wants increased transparency from the RTO and a more prominent role in the decision-making process. (See *States Demand 'Central Role' in ISO-NE Market Design*.)

The RTO's five "strategic goals" are responsive market designs; progress and innovation; operational excellence; stakeholder engagement; and attracting, developing and retaining talent.

When it comes to the first goal, van Welie said ISO-NE wants to improve the current market structure and continue to evolve and reposition its design to accommodate the states' transition to high levels of renewable and distributed resources. The RTO also wants to maintain a robust fleet of balancing resources and preserve the market's ability to attract new entry.

The progress and innovation goal includes a push to evolve capabilities to support the grid as the region transitions to clean energy. It also includes improving power system and market modeling and supporting investments in transmission infrastructure to enable renewable energy, as well as a call for integrating distributed energy resources and providing data and information-based services.

According to van Welie, stakeholder engagement requires collaboratively understanding and anticipating needs, thought leadership through high-quality analysis and communication, and nurturing productive relationships with FERC, the states and market participants.

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

Amended DDBT Passes

The committee voted to support an amended proposal from ISO-NE to recalculate the dynamic delist bid threshold (DDBT) for Forward Capacity Auction 16.

Calpine, NESCOE and Vistra's Dynegy offered a combined amendment to the RTO's proposal to lower the DDBT upper bound to 75% of the net cost of new entry (CONE) and set the DDBT at the RTO's estimated clearing price plus a margin adder calculated using 75% of net CONE.

NESCOE said it remains concerned that the ISO-NE proposal does not balance design objectives and can result in the DDBT being set too high when capacity prices increase. The organization added that the risk of the DDBT being higher, especially as it approaches net CONE, could have cost implications for consumers.

Calpine and Dynegy said the RTO's design interferes with competitive price formation, adds significant administrative burden and risks to existing suppliers, and creates an unnecessary barrier to market exit. The amendment allows a modest margin adder to low prices when supply curves are typically flat, with the adder diminishing as expected prices increase, which preserves at least some of the benefit of the DDBT.

Previously, NESCOE presented two amendments at the Markets Committee meeting in October. One would have lowered the upper bound to 85% of net CONE and add an upper bound set at 125% of the prior auction clearing price. The second would have limited the maximum rate of change in the DDBT from auction to auction to 30% of net CONE.

Calpine and Dynegy also presented amendments at the MC that would set the DDBT at ISO-NE's estimated clearing price plus a scaled margin that starts 75 cents above the RTO's estimated cost of $2/MWh, decreasing to $0/MWh at net CONE, or, as an alternative, from a fixed bid to a cap price.

At the RTO's request, the committee considered, but did not approve, the unamended DDBT proposal. The vote failed to pass with none in favor and noted abstentions.

ISO-NE News

Pathways Process Continues

Frank Felder and Frank Wolak each made presentations on "Potential Pathways to the Future Grid," with Felder returning for "Focus on Energy Only Market and Alternative Resource Adequacy Constructs" and Wolak discussing "Long-Term Resource Adequacy with Significant Intermittent Renewables."

Felder, a professor at Rutgers University and an expert in energy policy and electricity markets, told the committee that whether the minimum offer price rule (MOPR) applies to a forward clean energy market or integrated clean capacity market determines the potential for "double payment" for clean energy and price suppression. He said an energy-only market addresses the double payment issue and maintains a regional market, even more so with added carbon pricing. Additional changes to the ancillary services markets may be needed, however, to ensure sufficient balancing resources.

According to Felder, some alternative resource adequacy constructs could address the MOPR issue. He added that anticipated replacement of large generating resources throughout New England with new capacity with very different operating characteristics suggests the region will need to strongly consider changes to transmission planning and cost allocation to avoid costly investment decisions.

Wolak, a Stanford University economics professor and director of its program on energy and sustainable development, said that in a low-carbon world, the electricity supply sector would consist of more than 50% intermittent renewables.

Wolak said the growing share of renewables will also require investments in both grid-scale and distributed storage and active demand-side participation by customers with interval meters using dynamic retail electricity prices, in addition to automated distribution network monitoring and on-site load-shifting technologies. He added that market design should support business models that lead to efficient investments in those technologies.

Winter is Coming

In his report to the committee, ISO-NE COO Vamsi Chadalavada said that the energy market's value was $193 million in October, down $14 million from revised September figures and $9 million from October 2019.

Chadalavada also delivered the winter outlook, including a 40% probability of above-normal temperatures for New England from December through February. There is also an equal chance for above- or below-average precipitation in the region.

In terms of winter capacity, Chadalavada said ISO-NE is projecting the lowest 50/50 operable capacity margin of 2,574 MW and a 90/10 capacity margin of 1,232 MW for the week beginning Jan. 2, 2021. The capacity outlook will be adjusted if there are extended periods of cold weather.

The 50/50 winter peak demand forecast of 20,166 MW is 310 MW lower than the 2019/20 forecast, while the 90/10 winter peak demand forecast of 20,806 MW is down by 367 MW.

Chadalavada added that unknown societal factors would likely continue to impact demand throughout the season. He said forecasting staff are continuously evaluating load trends and frequently retraining forecasting models.

The RTO also recently hosted a Generator Winter Readiness Seminar and distributed a survey to all regional generating resources. It said survey results will enhance its understanding of winter preparations across the region, temperature-specific limitations on real-time capabilities and specific protocols followed during extreme cold-weather events.

ISO-NE will continue to perform a weekly 21-day look-ahead of forecasted conditions, which provides an opportunity for generators to act in advance of an energy emergency. In addition to the Winter Generator Readiness Survey, the annual natural gas critical infrastructure survey process has been incorporated into *Operating Procedure 21* before winter.

Other Action

The committee also acted on consent agenda items.

Without objection, the PC removed sunset of the forward reserve market (FRM) from the consent agenda following FERC's Oct. 30 order rejecting the Energy Security Improvements (ESI) proposal on which the FRM sunset was contingent. (See *FERC Rejects ESI Proposal from ISO-NE*.)

The remainder of the consent agenda was approved with two abstentions and two oppositions because of concerns about the installed capacity requirement (ICR) and related values for Forward Capacity Auction 12's three annual reconfiguration auctions (ARAs) set for 2021.

The PC approved net ICRs of 32,925 MW for ARA 3, 32,765 MW for ARA 2 and 32,980 MW for ARA 1. The HQICC value is 958 MW for ARA 3, with the amount rising to 969 MW for ARA 2 and down to 941 MW for ARA 1. ■

— Jason York

Boosted by Tx, Eversource Posts Strong Q3 Earnings

By Jason York

Eversource Energy reported third-quarter earnings of $346.3 million ($1.01/share) on Wednesday, powered by its electric transmission segment, which fueled a $27.4 million rise from the same period in 2019.

The transmission business earned $125.6 million ($0.36/share) in the quarter, compared with recurring earnings of 33 cents/share last year. The improved results were driven by investment and reliability in transmission facilities, partially offset by share dilution. Eversource earned $933.2 million ($2.76/share) in the first nine months of 2020, compared with $659 million ($2.05/share) in 2019.

The company also reaffirmed both its earnings-per-share projection of $3.60 to $3.70/share, excluding costs related to the now completed $1.1 billion acquisition of Columbia Gas in Massachusetts, and its long-term EPS growth rate of 5 to 7% from its core regulated business through the year 2024.

Eversource and its subsidiaries comprise New England's largest utility company and supply electricity, natural gas and water service to 4.3 million customers in Connecticut, Massachusetts and New Hampshire.

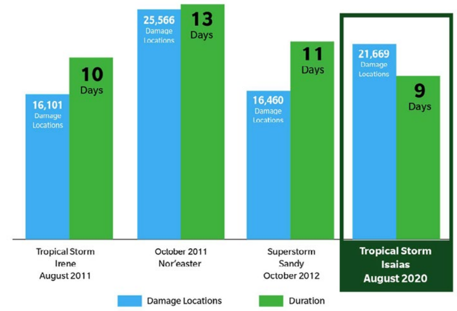
There was no discernible financial impact — yet — on damage and restoration efforts from Tropical Storm Isaias, which caused "catastrophic" damage to Connecticut, CFO Philip Lembo said on an earnings call with analysts Wednesday. The Connecticut General Assembly passed legislation following the storm requiring customer rebates and payments for spoiled food and medication from utilities during outages of a certain length in the future. Lembo compared Isaias with several major weather events in 2011 and 2012, which also led to legislation.

Isaias caused damage to 21,669 locations, and outages took nine days to restore. The number of damaged areas was more than what Eversource experienced from Superstorm Sandy and Tropical Storm Irene. Those two storms had durations that lasted a day or two longer than Isaias. Of the four storms, the October 2011 nor'easter was by far the worst, with 25,566 locations damaged and outages that lasted up to 13 days.

"We serve 149 cities and towns in Connecticut, and every one of these communities suffered damage from Isaias, much of it catastrophic," Lembo said.

The CFO added that Eversource "brought in an army of electric restoration and tree crews to restore power, all the while working on the restoration in a pandemic setting." The restoration process lasted nine days, one to two days less than previous storms that hit Connecticut, even though there were 30 to 35% more damaged locations, according to the company. There also were no workplace safety issues or COVID-19 exposure among the workers brought to Connecticut, Lembo said.

The estimated deferred cost of damage and restoration efforts in Connecticut, Massachusetts and New Hampshire will total more than $275 million, though most of it occurred in Connecticut. It included setting new poles, hanging miles of new wires or replacing hundreds of transformers, and Lembo said the costs would necessitate capitalization. The Connecticut Public Utilities Regulatory Authority will review any cost recovery and Eversource's performance during the storm by April 2021.



Damage comparison of Tropical Storm Isaias, Superstorm Sandy, the October 2011 nor'easter and Tropical Storm Irene | *Eversource*

OSW Developments

Lembo provided a "significant development" on Eversource's offshore wind work with Ørsted as the Bureau of Ocean Energy Management released a review schedule for the 130-MW South Fork project on Long Island. A decision on a construction and operations permit (COP) is due in January 2022, and the project is still expected to be in service by the end of 2023.

Lembo said BOEM's review schedules for Revolution Wind and Sunrise Wind would be set for each project next year, ultimately helping determine their in-service dates. He noted that Revolution (end of 2023) and Sunrise (end of 2024) are unlikely to meet those targets. ■

Call transcript courtesy of Seeking Alpha.

MISO News

MISO Preps Emergency Pricing Changes

By Amanda Durish Cook

MISO said it will file with FERC updates to its emergency pricing design by the end of the year, hoping to spur more action from suppliers when conditions get risky.

The changes involve two new minimum-offer floors, expanding the definition of fast-start resources and integrating costs of its Midwest-to-South transmission limit into prices.

The RTO will introduce two new minimum emergency-offer floors: $500/MWh for maximum generation warnings and $1,000/MWh for maximum generation events.

MISO Market Design Adviser Michaela Flagg told the Market Subcommittee on Thursday that the new floors "reflect the value of emergency supply" and said the $1,000/MWh minimum lines up with the grid operator's established threshold of how much it's willing to pay before entering an emergency.

Customized Energy Solutions' Ted Kuhn urged MISO to move away from static numbers in its proposal. He said tying the emergency-offer floors to the RTO's current value of lost load (VOLL) and operating reserve demand curve is short-sighted, especially because it is considering an increase to its outdated VOLL figure.

The VOLL has been unchanged since 2009. At the time, $3,500/MWh was the estimated price at which some customers would opt for service interruption.

"That $1,000 number is going to be quite different in perhaps the very near future," Kuhn said.

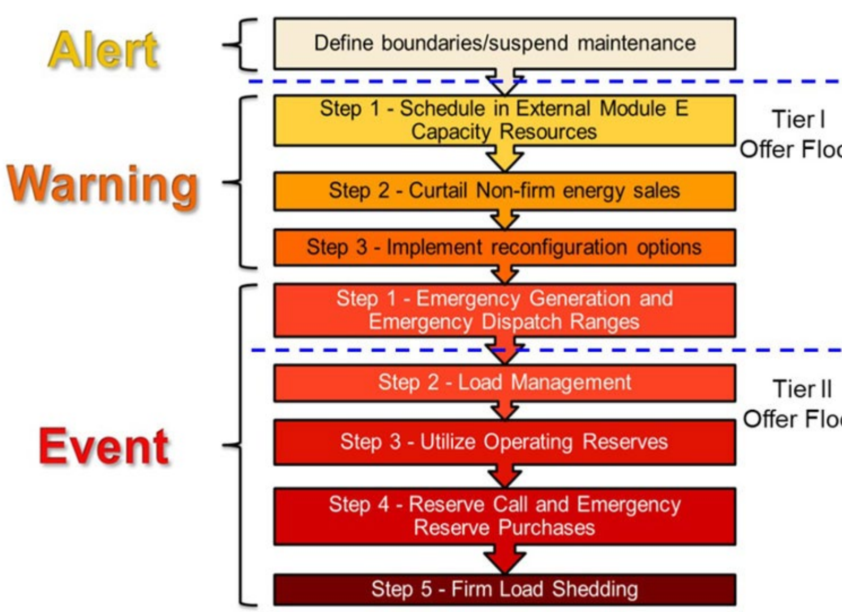
Along with the new offer floors, MISO said it will extend resources' eligibility to set LMPs during emergency conditions. It plans to include online resources with four-hour or less start-up times in the fast-start definition during maximum generation alerts, warnings and events.

MISO's current fast-start definition requires resources to fire up within 10 minutes of notification and run for at least an hour.

"We really saw the benefits drop off after four hours, so four hours seems to be a sweet spot," Flagg said. "It allows a lot of these resources to participate in pricing."

Flagg said allowing a short-lived relaxation of the fast-start lead time requirement in emergencies "better aligns with the real-time commitments made during emergency operations." Staff say it is common during emergencies for operators to commit resources with notification and start-up minimum run times between one and four hours.

"During emergency conditions, the fast-start resource definition does not align with resources committed in real-time and, therefore, prices are not able to reflect the full costs of units needed to meet system demand and reserve requirements," MISO said.



MISO emergency procedures | *MISO*

The grid operator also wants to better incorporate into energy prices the cost of managing its Midwest-to-South transfer limit.

To do that, MISO will set a marginal value of $200/MWh on its reserve procurement enhancement constraint management.

Under the existing *reserve procurement enhancement* (RPE), MISO models the effects of transmission constraints on the deliverability of reserves and adds the marginal cost of delivering them to zonal reserve market-clearing prices. The RPE ensures reserves are deliverable within the Midwest and South regions and that MISO doesn't violate its megawatt limits on the Midwest-South transmission constraint for longer than 30 minutes. The settlement agreement governing the constraint stipulates that the grid operator not exceed the contractually set megawatt limits for longer than 30 minutes.

MISO says the marginal value limit assigned to the constraint — currently administratively set between $20 and $40/MWh — does not reflect the value of meeting the reliability requirement, resulting in "insufficient reserves being cleared in the sub-region and inefficiently low prices." The grid operator said $200/MWh is more appropriate, according to its studies.

MISO said most of its sub-regional emergencies are called "due to limited transfer capability" over the Midwest-South constraint.

VOLL Questions over Hurricane Laura

Some stakeholders continue to question whether Hurricane Laura's landfall on Aug. 27 near the Texas-Louisiana border was the right time for MISO to administer VOLL pricing.

Laura's landfall saw MISO's first administrative load-shed orders and VOLL usage. (See *MISO Keeps Advisories in Effect a Week After Laura*.)

Xcel Energy's Kari Hassler said that because VOLL pricing was applied after-the-fact, generator actions as the event unfolded were motivated by circumstance, not pricing.

"I don't want to say it was a misuse of VOLL, but it didn't incent generators," Hassler said.

WPPI Energy economist Valy Goepfrich said she pictured VOLL discerning cost-causation and not for use "during a disaster." Other stakeholders agreed that cost-causation is difficult to trace in a natural disaster. ■

MISO News

DR Firm Says 2020 No Benchmark for MISO LMRs

By Amanda Durish Cook

Electric meter boxes

One demand response aggregator has asked MISO market participants not to rely on 2020 data for the 2021/22 enrollment of load-modifying resources.

Voltus said the pandemic-skewed 2020 is not a proper yardstick to measure LMRs against in the 2021/22 planning year. The company said it would not be appropriate for MISO's load-serving entities and local balancing authorities to make assumptions of LMR performance based on the unusual use patterns and reduced load.

"When registering LMRs for the 2021/22 planning year, it would be unfair to limit LMR megawatt enrollment levels based on summer 2020 load data for loads that were operating at a reduced capacity due to COVID-19," Voltus *said* in prepared remarks to MISO's Steering Committee in a teleconference Nov. 3.

MISO's LSEs and LBAs decide whether to approve LMR enrollments. They typically limit registrations based on capability and load data from the most recent summer.

Voltus Energy Markets Manager Emily Orvis said some public buildings that would have otherwise had air conditioning load were padlocked during the summer.

"Usually, you have schools that hold summer camps, but this year, they didn't. We don't want their load-modifying abilities capped on what they could do this year," she said.

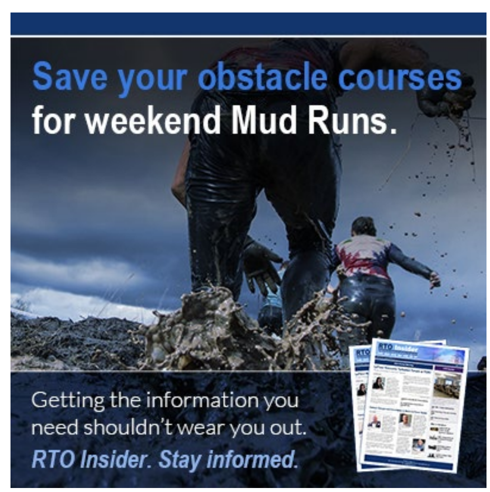
Voltus said MISO should recommend that LSEs and LBAs use 2019 data as an indicator instead of relying on numbers from the past summer.

"They think this can be accomplished outside of the need to redline any Tariff or [Business Practices Manual] language," MISO stakeholder liaison Jim Kaminski told Steering Committee members.

"While we don't have a particular position on the issue, we're certainly willing to look into it," MISO Manager of Capacity Market Administration Eric Thoms said.

Steering Committee members directed the issue to the Resource Adequacy Subcommittee for further discussion.

If approved, this wouldn't be MISO's first adjustment in response the coronavirus pandemic. In July, the RTO allowed market participants to substitute LMRs affected by the pandemic if necessary. (See *FERC OKs COVID-19 Waiver for MISO LMRs*.) In spring, it also extended by two months a deadline in its interconnection queue for certain generation project hopefuls to demonstrate exclusive land use for projects. ■



MISO News

MISO Concurs with Most 2020 Monitor Recommendations

By Amanda Durish Cook

MISO agrees with nearly all the new market recommendations its Independent Market Monitor issued this year, though the grid operator said executing the ideas may take some time.

The Monitor issued five new recommendations in June in the annual State of the Market report. The recommendations focus on better management of flows across MISO's seams, implementing dynamic transmission line ratings and disqualifying all energy efficiency resources from the capacity auction. (See *IMM Issues 5 Recs in MISO State of the Market Report*.)

Kevin Vannoy, MISO's director of market design, said staff are persuaded on four out of the five ideas, questioning only whether the RTO can single out energy efficiency resources from participating in its annual capacity auction. Vannoy said FERC itself has *included* energy efficiency in its definition of distributed energy resources with its recent order on DER participation in wholesale markets.

"We feel that's a reason that we should evaluate whether these resources can or should sell capacity in Planning Resource Auctions," he told stakeholders during a Resource Adequacy Subcommittee teleconference Wednesday.

Monitor David Patton has said energy efficiency has no place in the capacity market.

"You can see that the quantities are growing rapidly, and MISO needs to look at this before it becomes 2,000 [or] 3,000 MW," he said in July. "The only way to quantify energy efficiencies is to use a series of highly speculative assumptions, and I think MISO does a reasonable job. It's just that they're in an impossible situation."

Energy efficiency installers are already paid once through savings on their bills, Patton argued.

"It's hard to come to any conclusion but that [the additional capacity payment is] inefficient," he said.

MISO IMM David Patton | © *RTO Insider*

Staff say ambient-adjusted transmission line ratings are doable in the footprint, provided transmission owners are forthcoming with ratings. Vannoy said MISO will look for line constraints that could benefit most from variable ratings.

Patton said a "broad adoption" of ambient-adjusted ratings could have reduced the RTO's congestion costs by as much as $150 million in 2018 and 2019. Over those two same years, TOs could have saved $114 million in congestion costs had they simply provided short-term emergency ratings.

Patton said MISO routinely exceeds $1 billion in the annual value of its real-time congestion, due in part to "very conservative, static ratings by most transmission operators."

"I think more are becoming aware of this problem," Patton said, citing last year's FERC technical conference and the Organization of MISO States' interest in the footprint's TOs implementing dynamic ratings.

Vannoy said there will be more development on dynamic line ratings in 2021. The grid operator's new modular market platform will make it easier for staff to employ dynamic line ratings, he added.

Past Recommendations Put to Bed

Staff said that since last year's market report, they have fulfilled a 2014 recommendation to create a short-term energy reserve product and delivered on a 2016 recommendation to limit the duration of capacity resources' outages. Additionally, in the 2021/22 capacity auction, MISO will require full transmission deliverability of capacity resources and enforce a stricter capacity accreditation for load-modifying resources. That will check off two 2017 recommendations.

The RTO said work remains on another 2014 recommendation to use seasonal capacity market procurements. MISO is now studying which hours throughout the year — not just a summer peak — may contain loss-of-load risk. Staff said they continue to explore a more accurate capacity accreditation by accounting for planning resources' unreported or unforced outages.

MISO is also considering excluding offline resources from setting LMPs and upping its value of lost load and emergency pricing, which would button up Monitor recommendations made in 2015, 2016 and 2018, respectively. ■

MISO News

MISO Embarks on Order 2222 Work

By Amanda Durish Cook

MISO is gearing up to draft FERC-mandated rules before it welcomes potentially thousands of distributed energy resource aggregations into its markets.

Last week's preparation and discussion was in response to FERC's Order 2222, which directs RTOs and ISOs to allow DER aggregators to compete in their markets. (See *FERC Opens RTO Markets to DER Aggregation*.)

During a teleconference Thursday, MISO's Market Subcommittee voted to create a stakeholder task force to handle the work. The Steering Committee approved the task force's creation Monday.

"It was 2016 when FERC issued its first DER aggregation Notice of Proposed Rulemaking," MISO DER Program Director Kristin Swenson told stakeholders. "We've been waiting for this a long time."

Swenson said MISO must create a "coordination framework" for compliance purposes that facilitates communication among itself, regulatory authorities, distribution utilities and DER aggregations. She said the RTO's many state jurisdictions means the grid operator faces a challenge in creating multiple operating procedures.

"MISO has a tall order in front of us. … We need to learn how to work with each other in a new way to facilitate all of these new resources on the distribution system," she said. The grid operator will create a new market participation model for DER aggregators, she said.

"Some folks said that this is the first time they've seen a FERC order leading the technology development," Swenson said. "It's a pretty exciting order."

Swenson said staff will focus on how MISO can avoid double-counting DERs in metering and telemetry. "How do we avoid double-counting a DER in both the retail and wholesale markets? To be determined," she joked.

Earlier this year, Swenson said MISO views visibility into DERs as its first challenge.

"We need to obviously understand shifts in pattern [and] in load. If a lot of rooftop solar is installed, for instance, that can affect our load patterns," she said during the Reliability Subcommittee's meeting in April. "We're mindful that we need to better match some of our processes to changes in the industry."

| © RTO Insider

Swenson said staff continue to look for solutions to MISO's "aggregation balance problem," when the market system, burdened with several thousand points of generation, cannot solve. The system could have trouble locating aggregated DERs' precise location to alleviate reliability issues.

MISO has until July 2021 to submit a compliance filing at FERC. Swenson said she hopes it's "pencils down" in June to give time for legal staff to review the proposed compliance.

Swenson said the RTO is planning to hold multiple workshops on how it designs its Order 2222 compliance. The grid operator is also supportive of stakeholders and its state regulators' decision to form a task force to guide compliance, she said.

The Organization of MISO States pressed for a state regulator-led task force as soon as possible during a conference call of the RTO's Steering Committee on Nov. 3.

"OMS is interested in digging in as soon as possible," Executive Director Marcus Hawkins said.

Some Steering Committee members bristled that OMS would propose a MISO task force with handpicked leadership in mind. Hawkins said he was only giving the stakeholder community a heads-up that multiple OMS members are interested in helming a new task force. He said the usual stakeholder vote on task force chairs would naturally take place.

"OMS is just being transparent with the fact that it will put people forward," Hawkins explained.

Swenson said coordination with OMS will be pivotal to MISO's compliance filing.

"We know this is a state-jurisdictional system; so, much of how this order plays out will be determined by the [relevant electric retail regulatory authorities]," she said. "Understanding what the plans are of each state is critically important to us."

Stakeholders asked during the Market Subcommittee meeting Thursday whether FERC's rules always necessitate an RTO task force.

"It depends on the complexity of the issue. And this order touches on several areas," subcommittee Chair Megan Wisersky said. ■

MISO News

MISO to File Midwest-South Tx Rate Extension

By Amanda Durish Cook

MISO will file at FERC in December to extend a rate schedule that determines the payments market participants shell out for using the RTO's Midwest-to-South transmission path.

Staff revealed Thursday that they are only asking for a one-year extension through Jan. 31, 2022. MISO had first proposed two years.

The rate schedule, set to expire in February, lays out the cost allocation for market participants that use the subregional transfer limit beyond the 1,000-MW contract path linking MISO's Midwest and South regions. The rate schedule is separate from the RTO's 2014 settlement agreement with SPP and other parties that set a 3,000-MW limit on north-to-south flows and a 2,500-MW limit in the other direction.

MISO Director of Seams Coordination Jeremiah Doner said the shorter timeline would allow MISO to begin stakeholder discussions on a possible new cost allocation.

Doner said it makes sense to work on a longer-term rate schedule because MISO will likely continue to use the transmission transfer limit for the foreseeable future. The grid operator does not have any transmission projects lined up that can serve as an alternative. Earlier this year it ruled out using new transmission upgrades to secure more transfer capability between its subregions. (See "No Midwest-South Tx Solution this Year," *Price Tag Rising for MTEP 20*.)

"It was pretty much locked down in August. Why the sudden change?" Mississippi Public Service Commission consultant Bill Booth asked of the one-year extension.

Doner said that in August, some stakeholders seemed eager to renegotiate the rate schedule. He also said the shorter extension lines up with a possible new agreement with SPP and the joint parties.

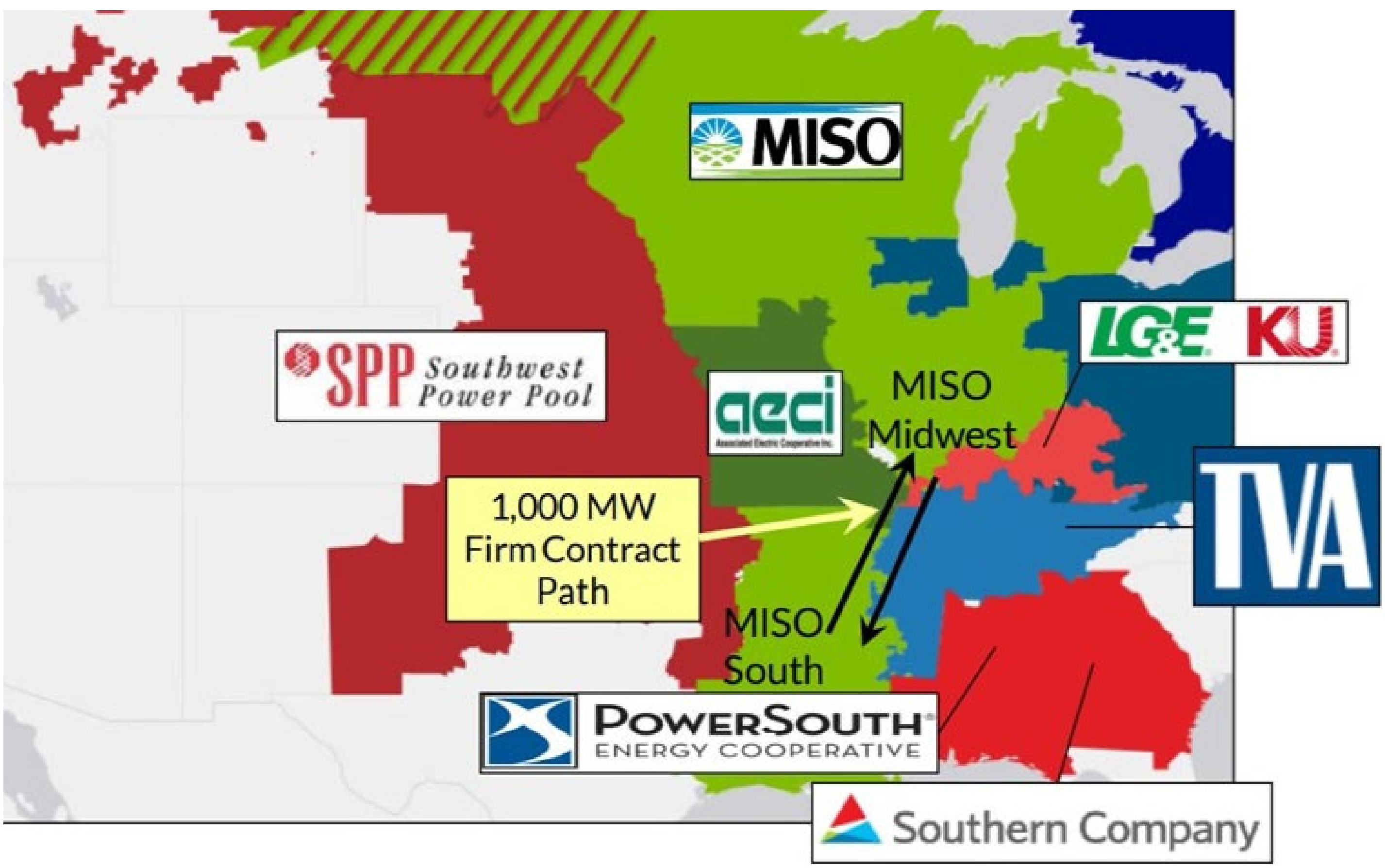
Effective Jan. 31 next year, the agreement may be terminated by any party with a year's notice. However, the parties signed a memorandum of understanding that they would not propose changes to the settlement until Feb. 1, 2022. (See *MISO Seeks Extension on Midwest-South Tx Limit*.)

Without a revised settlement, flows would be limited to MISO's original 1,000-MW contract path in either direction.

Under this approach, Doner said negotiations on the settlement and cost allocation can take place in tandem in 2022. The rate schedule would reflect any new terms from the settlement agreement, he said.

Currently, MISO's payments to SPP and other parties for flows across the transfer limit are recovered from market participants through a combination of load-ratio calculations and flow-based beneficiary allocations.

The load-based share has declined every year since 2016 as the flow-based portion increased. From Feb. 1, 2016, to Jan. 31, 2017, the allocation was 45% load-based and 55% flow-based. From Feb. 1, 2020, to Jan. 31, 2021, the mix is 10% load-based and 90% flow-based. ■



Parties to the settlement agreement for MISO's Midwest-South subregional transmission constraint | *MISO*

NYISO News

NY Power Panel Looks at Methane, Renewables

By Michael Kuser

The New York Climate Action Council's Power Generation Advisory Panel on Thursday decided to take on the issue of methane gas leakage as part of an effort to scope out by next fall a statutorily mandated path to reduce the state's greenhouse gas emissions 40% by 2030 and no less than 85% by 2050.

"After good discussion about the narrower methane leaks and associated emissions and safety consequences on the natural gas system, we're going to turn this analysis into statements that reflect collective thinking," said John B. Rhodes, chairman of both the panel and the state's Public Service Commission. The panel is one of six, each sector-specific, advising the CAC.

New York PSC Chair John B. Rhodes | *New York DPS*

The panel also discussed the broader issue of developing and integrating renewable energy resources onto the New York grid.

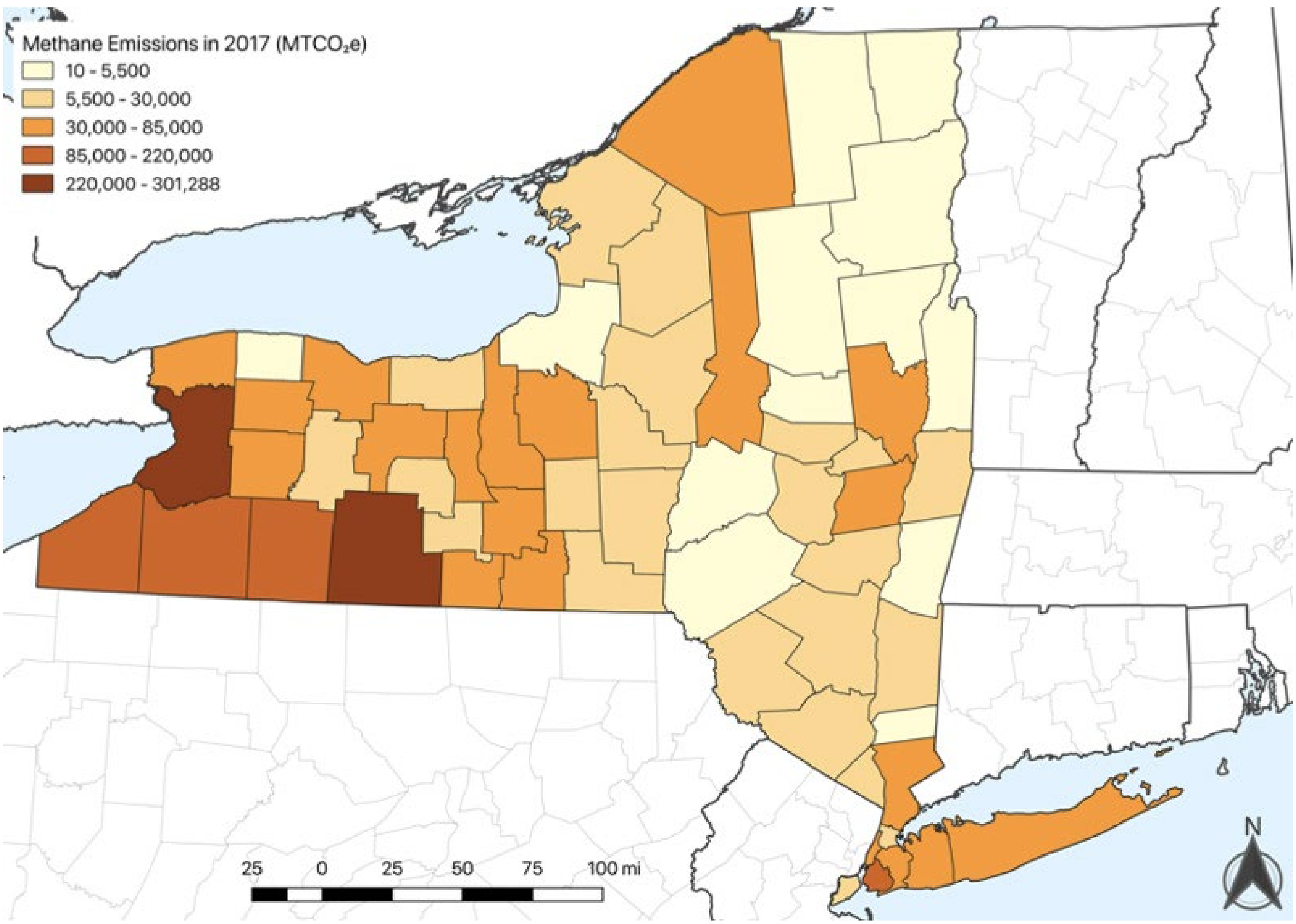
The Climate Leadership and Community Protection Act (CLCPA) directs the state's Department of Environmental Conservation (DEC) to include upstream emissions in its statewide emission calculations. New York on Oct. 27 concluded its hearings and public comment process on statewide emissions limits for 2030 and 2050 proposed by the DEC — 60% and 15%, respectively — of estimated 1990 GHG emissions. (See *New York Holds Final CLCPA Emissions Hearings*.)

The Future of Gas

Kit Kennedy, NRDC | *New York DPS*

Kit Kennedy, director of energy and transportation for the Natural Resources Defense Council, said that addressing methane leakage is a natural part of dealing with GHG emissions, but that it should be done in a way that doesn't extend the life of the natural gas system.

"We do know we are going to have to get off

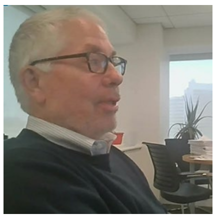


A 100-year time frame map of methane (CH4) emissions by county in New York state in 2017; officials expect in January to issue the 20-year time frame study mandated by the CLCPA. | *NYSERDA*

NYISO News

gas to meet the CLCPA goals, at least fossil gas," Kennedy said. She said she was concerned about language indicating a continued need for natural gas in the near to medium term. "I don't know what that means, [as well as] needing gas to ensure reliability. I prefer that we keep those issues as distinct as possible."

New York's GHG emissions in 2015 were virtually unchanged from 1990 levels, according to a recent study that highlights upstream impacts and the role of methane under the state's revised reporting rules. (See *NY Study Highlights Rising Methane Emissions*.)

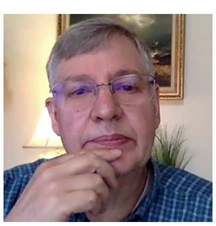

John Reese, Eastern Generation | *New York DPS*

The issue of methane leakage is inexorably tied with a solution for the missing 25% of emissions reductions in 2040, said John Reese, senior vice president of Eastern Generation, which controls approximately 5,000 MW of generation in the state, including some peaker units.

"We need to look at what it takes to mitigate the leakage, and [if we are] going to use the natural gas system infrastructure system going forward to meet some of the other needs that currently are unfilled in 2040," Reese said. "Looking at this in a stovepipe or isolated manner will be problematic. The impact piece of this is the first step before we can look at how we go about dealing with this larger issue."

Macy Testani, assistant project manager at the New York State Energy Research and Development Authority (NYSERDA), said that consumers, not utilities, pay for leaks from points beyond the main natural gas pipelines and that there is little incentive to fix the aging pipes that run to many residences and businesses. She referred to a 2019 *study* that breaks down the leakage in-state in terms of upstream, midstream and downstream sides, the latter contributing significantly to overall emissions attributed to gas infrastructure.

Rhodes interrupted to say that, "It is certainly the case that the state regulatory apparatus and the utilities are prioritizing repair to the riskiest stretches of leak-prone pipe, in this case being a safety concern of explosion."


William Acker, NY-BEST | *New York DPS*

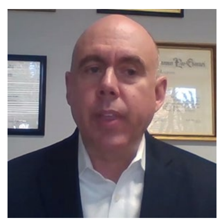
William Acker, executive director of the New York Battery and Energy Storage Consortium (NY-BEST), said that methane is more impactful but also more reactive, meaning a lot of the methane in the atmosphere is naturally consumed each year.

"You can stop the leaks, or you can react the methane and get rid of it," Acker said. "It might be that there's an economically viable path that stops the major leaks and reacts some of the methane to get rid of it. ... Has there been any research on that, or is that an area being considered at all? ... It may be a crazy idea."

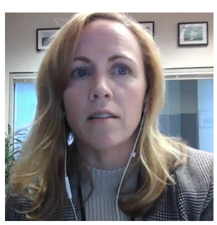
Testani said that NYSERDA and the DEC have not looked at the reactivity of methane in the current mitigation project, but "we're at the point where we need all crazy ideas to consider."

The CLCPA also requires that methane emissions be compared with CO_2 over a 20-year period rather than the 100-year time frame still used by virtually all other governments in the world. Testani said NYSERDA expects to issue the draft 20-year time frame analysis in January.

Bring on the Renewables


John Williams, NYSERDA | *New York DPS*

The CLCPA requires that 40% of the benefits of state investments in clean energy reaches disadvantaged communities, which are often located near the dirtiest oil- and gas-fired peaker plants. The state is taking "an accelerated approach" to meeting those investment goals, said John Williams, vice president for policy and regulatory affairs at NYSERDA.


Emilie Nelson, NYISO | *New York DPS*

A big challenge in retiring those peakers "is not just a peaking issue; it's also an overall energy production issue," NYISO Executive Vice President Emilie Nelson said.

Many studies show that, especially in light of climate change, sustained periods of weather patterns, such as lulls in the wind or less sunshine in winter, are not conducive to high renewable output, she said.

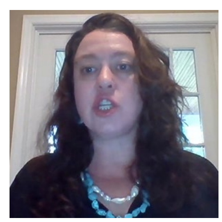
"That could happen on a seasonal basis for quite a long duration, so it's a daily cycle; it's a seasonal cycle; so, that's not just a peak issue," Nelson said.

"After good discussion about the narrower methane leaks and associated emissions and safety consequences on the natural gas system, we're going to turn this analysis into statements that reflect collective thinking."

— John B. Rhodes, New York PSC Chair

NRDC's Kennedy brought up possible barriers to developing renewables, such as the buyer-side mitigation policies from NYISO that were partly rejected by FERC. (See *FERC Rejects NYISO Bid to Aid Public Policy Resources*.)

"Despite the new siting law in New York, siting and community concerns and opposition are still a big issue ... as is access to all for renewables, which ties into equity and environmental justice concerns," Kennedy said. "I'd also like us to dig a little deeper into some of the assumptions ... like lack of suitable space for large-scale renewables downstate." She urged panel members to "make sure we are not locking ourselves into traditional thinking."


Lisa Dix, Sierra Club | *New York DPS*

Lisa Dix, New York representative for the Sierra Club Beyond Coal Campaign, brought up barriers in NYISO to dispatching storage and said she wanted to "amplify the question mark" on the lack of space issue, suggesting that NYSERDA officials assessing build-ready sites look in New York City and Long Island.

"In the process of getting rid of dirty peaker plants, how will those sites be reused?" Dix said.

In response to Dix, Nelson said that in August, "NYISO did implement a full complement of storage rules that allow participation of storage directly in our energy markets. ... So, there is an option for participation and dispatchability by storage resources within the wholesale markets." (See *NYISO's 2nd Storage Compliance Almost Hits Mark*.) ■

FirstEnergy Earnings Call Overshadowed by Probes

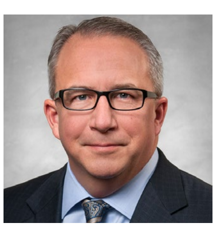
By Michael Yoder

FirstEnergy's positive third-quarter financial results were overshadowed last week by questions over the firing of CEO Charles Jones and the ongoing federal investigation into the company's involvement in the $61 million bribery scandal over the passage of Ohio House Bill 6.

Christopher Pappas, FirstEnergy board member and new executive director, told analysts Nov. 2 that the Department of Justice investigation into the bribery scheme has triggered several shareholder and customer lawsuits, and that the company is responding to a U.S. Securities and Exchange Commission subpoena received on Sept. 2. Pappas said FirstEnergy is cooperating with both agencies.

In July, federal prosecutors alleged FirstEnergy spent $61 million in bribes, "dark money" campaign contributions and advertising to elect former Ohio House Speaker Larry Householder (R) and his allies in return for their support of HB6, which provided $1.5 billion in subsidies for the utility's struggling nuclear plants. (See *Feds: FE Paid $61 M in Bribes to Win Nuke Subsidy*.)

On Oct. 29, following an internal investigation related to "government investigations," the company said it had fired Jones and two other officials, Dennis Chack, senior vice president of product development, marketing and branding, and Michael Dowling, senior vice president of external affairs, for violating its code of conduct. The firings came on the same day as the filing of guilty pleas of former FirstEnergy Solutions (FES) lobbyist Juan Cespedes and political strategist Jeffrey Longstreth, who admitted to participating in a racketeering conspiracy.



Steven Strah | *FirstEnergy*

Steven Strah, president of FirstEnergy, was later appointed as acting CEO, while Pappas was named executive director. (See *FirstEnergy Fires Jones over Bribe Probe*.)

Pappas was asked if other FirstEnergy officers or employees were in violation of the company's policies or code of conduct. Pappas said he could not comment as an investigation is still being conducted. "The investigation is still ongoing, and it would be premature to make any comments on that until we get to a more conclusive state," Pappas said.

SEC Filing

While FirstEnergy officials were reluctant to answer further questions about the inquiry, an SEC *filing* by the company on Nov. 2 gave hints as to some of the behind-the-scene actions by investigators.

In the filing, FirstEnergy said it has received requests for information related to the government investigations, and those investigations and related litigation "could have a material adverse effect on our reputation, business, financial condition, results of operations, liquidity or cash flows."

FirstEnergy confirmed that on July 21, it received subpoenas for records from the U.S. Attorney's Office for the Southern District of Ohio requesting information related to HB6, Householder and other individuals associated with the former speaker. On Aug. 10, the SEC issued an order directing an investigation of possible securities laws violations by FirstEnergy, and on Sept. 1 it issued subpoenas to the company and "certain of its officers."

The SEC filing said investigations and related litigation could divert the focus of FirstEnergy's management and result in "substantial investigation expenses" and the commitment of corporate resources.

"We are unable to predict the outcome, duration, scope, result or related costs of the investigations and related litigation, or adverse impacts on federal or state regulatory matters, including with respect to rates, and, therefore, any of these risks could impact us significantly beyond expectations," the SEC filing said. "Moreover, we are unable to predict the potential for any additional investigations, litigation or regulatory actions, any of which could exacerbate these risks or expose us to potential criminal or civil liabilities, sanctions or other remedial measures, and could have a material adverse effect on our reputation, business, financial condition, results of operations, liquidity or cash flows."

Earnings and Company Moves

FirstEnergy reported earnings of $454 million ($0.84/share) on revenue of $3 billion, compared to $391 million ($0.73/share) on revenue of $2.9 billion for the same period last year. The results beat FirstEnergy's internal expectations by a cent, company officials said, and it reaffirmed its outlook for the remainder of its fiscal year as well as long-term growth projections.

Shares of FirstEnergy were up 19 cents, or 0.64%, to $30.12 as of closing Nov. 3.

FirstEnergy also announced it had filed an application with FERC the previous week to move transmission assets in the Allegheny Power System zone to forward-looking formula rates. The move includes transmission assets in West Penn Power's territory in Pennsylvania, Mon Power in West Virginia and Potomac Edison in West Virginia, Maryland and Virginia. FirstEnergy requested an effective date of Jan. 1.

It also created a new stand-alone transmission company, the Keystone Appalachian Transmission Co., to allow for new construction in the same footprint. FirstEnergy said it filed to establish a forward-looking formula transmission rate for the new company, and it plans on transferring certain transmission assets from West Penn Power and Potomac Edison by the start of 2022.

Company officials said they are currently taking steps to improve its liquidity and have been reaching out to its key stakeholders, including ratings agencies, banks, regulators, legislators and union leadership in the aftermath of the investigation.

The board has formed a new subcommittee of its audit committee to assess and implement potential changes to its compliance program. Leslie Turner, a FirstEnergy board member and former senior vice president of The Hershey Co., will lead the effort. Company officials said the new subcommittee will work with management, create an internal audit and engage outside expertise for help and best practices.

"I agree that the actions taken by our board of directors last week were absolutely necessary and are an additional step towards addressing this matter," Strah said. "The management team is committed to working with the board to assess and implement potential changes as appropriate with the company's compliance program. We take this as a serious and important matter, and we will begin to address this immediately." ■

Exelon Discusses Potential Generation Spinoff

By Michael Yoder

Exelon officials confirmed during a third-quarter earnings call Wednesday that the company is considering spinning off its generation business into an independent company.

Exelon CEO Christopher Crane | *© RTO Insider*

CEO Christopher Crane said the company began a review of its corporate structure earlier this year with the help of outside advisers. The review resulted from the evolving landscape of the generation business and the shrinking of "competitive integrated companies in our sector," Crane said.

Exelon's Byron Generating Station's two nuclear reactors in Illinois produce more than 2,300 MW of electricity.

The news comes just a few months after Exelon announced the closing of its Byron and Dresden nuclear plants in Illinois, which face hundreds of millions of dollars in revenue shortfalls because of declining energy prices. (See *Exelon to Close Ill. Nukes as Gov. Touts Clean Energy Plan*.)

Crane said the goal of the review is to see whether two healthy companies could be created that can stand on their own financially and "provide the support needed for the balance sheets, the customers, the employees [and] the shareholders as we go forward."

"I want to emphasize that the separation of the companies would involve addressing some complex operational, financial and regulatory issues," Crane said. "No decision has been made, but we continue to do the work to determine the best outcome for our stakeholders."

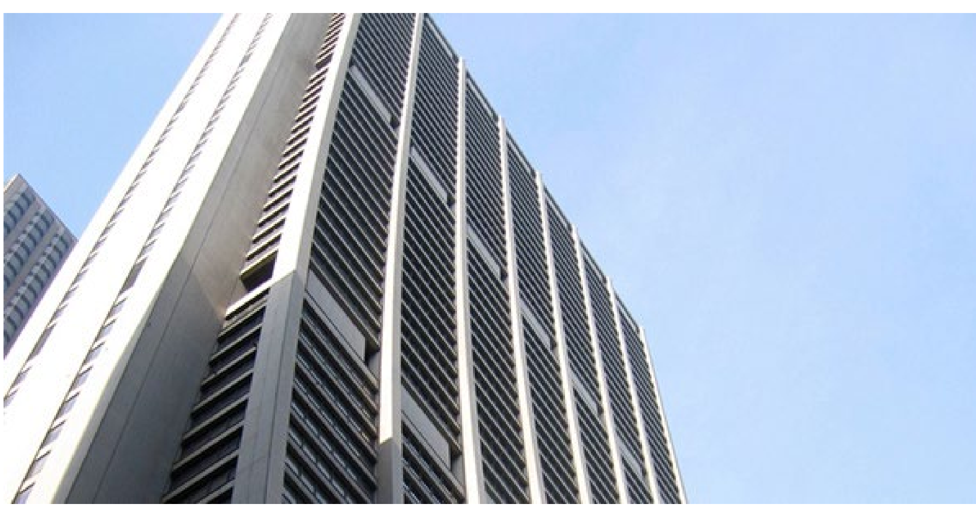
Nuclear Plants

The Byron nuclear plant is slated to close in September 2021; the Dresden plant will shut down in November 2021; and Mystic Units 8 and 9 will retire at the expiration of its cost-of-service commitment in May 2024. (See *FERC Rejects Exelon's Mystic Complaints Against ISO-NE*.)

Exelon said it experienced a "$500 million impairment of its New England asset group and non-cash charges for Byron, Dresden and Mystic of $260 million." It said the charges were related to materials and supplies, employee-related costs, construction and other items.

Crane said Byron and Dresden produce 30% of Illinois' carbon-free electricity while also employing more than 1,500 full-time employees and paying $63 million in annual taxes. He said that without the plants and others at risk of closing, Exelon customers could pay $483 million in increased annual energy costs under PJM's capacity market structure with an increase of 70% in greenhouse gas emissions. (See *Exelon's Nuclear Units Face Uncertain Future* and *Clock Ticking on Exelon Illinois Nukes Under MOPR*.)

"Despite being among the most efficient, reliable units in the U.S. nuclear fleet, they face revenue shortfalls, declining energy prices, lack of capacity revenue and market rules that allow fossil plants to underbid clean energy resources in the PJM market auction," Crane said.



Exelon's corporate headquarters inside Chase Tower in Chicago

Earnings

Exelon said it earned $501 million ($0.51/share) for the quarter, 35% less than the $772 million ($0.79/share) it earned for the same period last year. The company brought in $8.85 billion in total revenue for the quarter, slightly less than the $8.93 billion it posted last year.

CFO Joseph Nigro said the company was raising its year-end earnings guidance to $3 to $3.20/share from $2.80 to $3.10/share. Exelon has invested $4.5 billion so far this year to improve infrastructure and increase grid reliability, he said.

Shares of Exelon were down 25 cents, or 0.59%, to $42.22 as of closing on Wednesday. ■

PJM News

PJM MIC Briefs

Real-time Value Market Rules Endorsed

PJM stakeholders last week endorsed the RTO's package of updates to *real-time value (RTV) market rules* that call for additional penalties for generation operators that abuse the rules.

The RTO's package was endorsed with 73% support at last week's Market Implementation Committee meeting. In a nonbinding poll, the package received 55% support over maintaining the status quo.

Laura Walter, senior lead economist for PJM, provided an *update* on the work completed during the MIC's special sessions on the rules and reviewed the proposed packages from the solutions *matrix*.

The special sessions have been taking place since January, after stakeholders endorsed an issue charge at the Markets and Reliability Committee's meeting in December. (See "Real-time Values," *PJM MRC Briefs: Dec. 19, 2019*.) The *problem statement* said observations indicated RTVs were being used to consistently override unit-specific parameter limits or parameter-limited exceptions.

The original intent of RTVs was to provide a way for generation operators to communicate current operating capability to PJM if their resources could not meet their unit-specific parameter limits or exceptions, Walter said. Generators opting to use RTVs forfeit operating reserve credits and make-whole payments.

The PJM package would require that market participants repeatedly failing to reflect actual operating conditions in their submitted operating parameters could be referred to FERC for enforcement. A market participant would be required to enter a forced outage ticket into PJM's Generator Availability Data System (eGADS) for the period of increased notification, start-up time and/or minimum downtime.

For the timeline of an RTV submittal, Walter said, the package would require that the requested time period not exceed one market day. She said that when an RTV is requested, it would be available for that one day; then the entire schedule would revert to the previous day's values.

The package also calls for adding RTVs to the Tariff. Currently, RTVs are mentioned only in the manual, Walter said.

In a nonbinding poll conducted in August, 55% of stakeholders said they supported the PJM package, and 10% gave support for a package by the Independent Market Monitor, while 71% said they were satisfied with the status quo.

Details of the Monitor's *package* were also presented. In a vote held after the PJM package, the Monitor's only garnered 8% support.

The Monitor's proposal included removing minimum run time from the list of eligible parameters with RTV submissions. It also said units that choose to run longer could self-schedule beyond the minimum run time, with PJM operator notification.

The proposal also would have aimed to prevent withholding by using longer minimum run times. Any penalties collected would have been allocated to daily real-time load.

The PJM package will now move on to the MRC in December for a first read.

Manual 11 Revisions Endorsed

Stakeholders unanimously endorsed updates to Manual 11 designed to increase transparency and conform to the current PJM process for calculating LMPs as part of the *problem statement* regarding *five-minute dispatch and pricing*.

Vijay Shah, senior engineer in real-time market operations for PJM, *reviewed* the proposed updates to *Manual 11: Energy & Ancillary Services Market Operations*. The changes include an added reference to the day-ahead and real-time sections in section 2.2: Definition of Locational Marginal Price and change "LMP verification" to "price verification" throughout section 2.10: Verification Procedure, as verification includes review of real-time and ancillary service prices.

In section 2.11: Price-Bounding Violations, language was updated to state that all interval prices will be posted, Shah said, and any intervals that do not pass an output consistency check will be indicated on PJM's website. The section was not included in the first read of the changes at the MIC meeting in October.

Shah said the changes are not related to the five-minute dispatch and pricing short-term changes that were filed with FERC in July. (See *PJM Stakeholders OK 5-Minute Dispatch Proposal*.)

Public Distribution Microgrids

Natalie Tacka, an engineer in PJM's applied innovation department, *reviewed* a proposal and provided a first read of updates to *Manual 11: Energy & Ancillary Services Market Operations* and *Manual 18: PJM Capacity Market* regarding business rules for public distribution microgrids.

Tacka said work on the issue first began last year in the former Distributed Energy Resources Subcommittee (DERS) and has continued into the new DER and Inverter-Based Resources Subcommittee (DIRS).

A microgrid is defined as a system of generating facilities and load that can operate both while connected to and off the main grid, Tacka said. PJM is looking to define a public distribution microgrid as a microgrid that contains a PJM generating facility that can generate while connected to and "islanded" from the broader grid and uses public utility distribution wires.

Tacka said a public distribution microgrid would not include any NERC bulk electric or transmission facilities. The electric distribution company will determine if the public distribution microgrid is wholesale or retail when islanded.

The Manual 11 language includes provisions for reflecting islanded conditions in a resource's availability for energy and ancillary services, Tacka said, while Manual 18 language adds clarification for performance assessment interval treatment of public distribution microgrids serving as generation capacity resources.

The committee will be asked to endorse the manual changes at the MIC meeting in December.

UTC Uplift Changes

Ray Fernandez, manager of market settlements development for PJM, *provided* a first read of updates to *Manual 28: Operating Agreement Accounting* to conform with changes ordered by FERC regarding uplift charges on up-to-congestion (UTC) transactions (*EL14-37*).

In its order issued in July, FERC determined that PJM's current uplift allocation rules are unjust, unreasonable and unduly preferential because they do not allocate uplift to UTCs. (See *FERC Orders Uplift Charges on PJM UTCs*.)

PJM was directed by the commission to submit a replacement rate that revises the RTO's current uplift allocation rules to allocate uplift to UTCs "in a manner that treats a UTC, for uplift allocation purposes, as if the UTC were equivalent to a [decrement bid] at the sink point of the UTC."

Fernandez said UTCs will now be allocated in both real-time and day-ahead uplift.

PJM is seeking stakeholder endorsement of the manual changes at the December MIC meeting. ■

— Michael Yoder

PJM News

PJM Operating Committee Briefs: Nov. 6, 2020

Day-ahead Scheduling Reserve Endorsed

PJM stakeholders last week unanimously endorsed proposed changes to the 2021 day-ahead scheduling reserve (DASR) requirement that saw small changes from last year.

David Kimmel, PJM senior engineer of performance compliance, *reviewed* the preliminary proposed changes at last week's Operating Committee meeting, along with *updates* to Manual 13.

The DASR is the sum of the requirements for all zones within PJM and any additional reserves scheduled in response to a weather alert or other conservative operations. It is the sum of the three-year averages of both the under-forecasted load forecast error (LFE) and eDART forced outages.

Kimmel said the final 2021 DASR requirement is 4.74%, slightly lower than the 2020 requirement of 5.07%. He said the number comes from the LFE component of 2.16%, which is up 0.01% from last year, and the forced outage component of 2.59%, down 0.33% from last year.

The final 2021 DASR value will be incorporated into Manual 13 changes and be implemented in January.

	Load Forecast Error Component 80th Percentile Absolute Error				Forced Outage Rate Component All Forced Outage Tickets				Day Ahead Scheduling
Season	2018	2019	2020	Rollup	2018	2019	2020	Rollup	Req.
Winter	2.25%	2.06%	2.05%	2.12%	3.66%	2.81%	2.19%	2.89%	5.01%
Spring	2.04%	1.84%	2.73%	2.20%	3.16%	2.24%	1.71%	2.37%	4.57%
Summer	2.48%	2.48%	1.94%	2.30%	2.81%	2.43%	2.34%	2.53%	4.82%
Fall	2.33%	1.13%	1.37%	1.61%	2.59%	2.07%	2.25%	2.31%	3.91%
Annual				2.16%				2.59%	4.74%

2020/21 winter weekly reserve targets | *PJM*

Winter Weekly Reserve Target

The committee also unanimously endorsed changes to the 2020/21 winter weekly reserve target, which changed slightly from last year's.

Patricio Rocha Garrido of PJM *reviewed* the results of the winter weekly reserve target analysis. The targets for December, January and February are 23%, 27% and 23%, respectively, compared to 22%, 28% and 24% last year.

"These increases and decreases are based on the load uncertainty we have in our most recent reserve requirement study case," Rocha Garrido said. "However, the values are very close, so it doesn't make much of an impact."

Part of the reserve requirement study, the targets help staff coordinate planned generator maintenance scheduling and cover against uncertainties by ensuring that the loss-of-load expectation (LOLE) for winter is "practically zero," Rocha Garrido said. For the entire year, PJM sets the LOLE at one occurrence in 10 years.

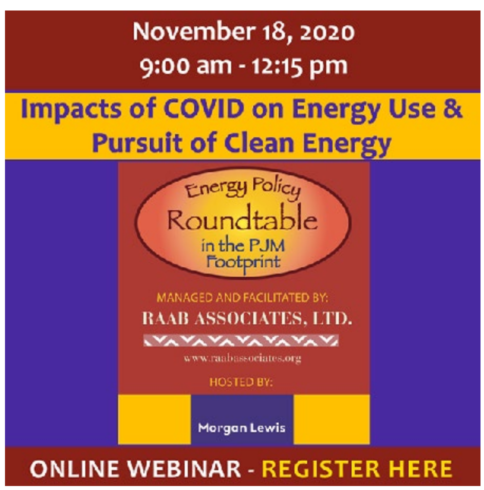
The winter weekly reserve target for each month is the highest weekly reserve percentage, Rocha Garrido said, rounded up to the next integer value.

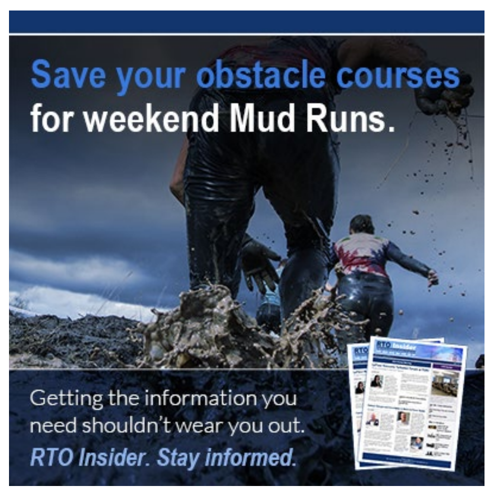
Manual Endorsements

Stakeholders also unanimously endorsed several minor manual changes.

- Maria Baptiste of PJM *reviewed* updates to *Manual 3A: Energy Management System Model Updates and Quality Assurance*. Baptiste said the changes include correcting grammatical mistakes and updating references to the behind-the-meter generation rules that took effect in September 2019. (See "Non-retail BTM Generation Rules Endorsed," *PJM MRC/MC Briefs: Sept. 26, 2019*.)
- Lagy Mathew of PJM *reviewed* updates to *Manual 3: Transmission Operations*. Mathew said the changes featured minor clarifications, including defining extra-high voltage lines as those equal to or greater than 345 kV.
- Kevin Hatch of PJM *reviewed* updates to *Manual 12: Balancing Operations* to address changes from the Market Implementation Committee's special sessions on five-minute pricing and dispatch. Hatch said the RTO has been working with the Independent Market Monitor to identify sections of Manual 12 to be updated and to improve transparency on the dispatch process. Hatch said the changes include updated terminology for "day-ahead market" instead of the outdated "two-pass system." ■

— Michael Yoder





PJM News

PJM Moves Closer to Endorsing SATA

By Michael Yoder

Stakeholders received a look at the design components of PJM's proposal to develop rules for how storage should be considered in the Regional Transmission Expansion Plan (RTEP) process.

During last week's Planning Committee meeting, PJM's Michele Greening discussed work conducted on storage as transmission assets (SATA). Stakeholders approved an issue charge at the PC meeting May 12, and they have been working on the issue at special sessions since June. (See SATA Issue Charge Moves Forward in PJM.)

Greening said the Phase 1 effort of the issue explored existing transmission planning criteria, including the performance measurement methodology and where there were gaps in planning. She said work at the special sessions developed additional criteria to be used in evaluating SATA to address reliability, market efficiency, operational performance and public policy.

PJM also examined reliability aspects of SATA and establishing clear and transparent criteria, Greening said, while receiving education on current business rules, regulatory background and FERC precedent on the issue. It also looked at the development of criteria for modeling SATA and evaluating proposals in relation to traditional transmission projects.

Greening said the RTO stayed away from examining SATA participating in the energy or ancillary services markets. She said those issues would be reserved for a Phase 2 process.

"We wanted to make sure that we have the necessary criteria in place that would allow stakeholders some transparency into how PJM would evaluate and incorporate such assets into the RTEP process," Greening said.

In nonbinding poll results, Greening said 77% of respondents indicated they would support the PJM package proposal "to ensure existing planning rules provide sufficient clarity regarding how SATA should be evaluated and incorporated into the RTEP process."

An additional 72% of poll respondents said they would support continued discussions following Phase 1 to explore SATA market participation and the resulting process and tool changes.

Jeff Goldberg of PJM presented the first read of the RTO's package, saying it would establish requirements to ensure implementation maintains system reliability consistent with NERC standards. The SATA evaluation approach also seeks to ensure there are no adverse impacts to the generation interconnection queue, Goldberg said.

Nick Dumitriu of PJM discussed the market efficiency aspects of the package, saying the RTO does not recommend any SATA-specific rule changes. Dumitriu said an evaluation of PJM rules found that the current tools and analysis techniques are already sufficient to study and assess SATA.

Greening addressed the next steps in the SATA process, including a vote on the package at the Dec. 1 PC meeting and a first read at the January Markets and Reliability Committee meeting with the supporting Operating Agreement language. After endorsement at the February MRC meeting, Greening said, the package will be submitted to FERC for approval.

PJM's intention is to wait to see FERC's response to the filing prior to drafting manual language revisions, Greening said.

Stakeholder Responses

Independent Market Monitor Joe Bowring said he questioned the logic of SATA and noted that discussions have assumed it to be a good idea, with talks focusing on implementation rather than if it is wise. It seemed as if the issue was "being brushed over at the moment," he said.

"We don't think that storage should ever be considered to be a transmission asset," Bowring said. "It's already a market asset."

Greening said the PJM package specifically limits SATA to being transmission and cannot be listed as a market asset if it's brought online for transmission purposes.

Primus Power energy pods | *Primus Power*

Aaron Berner of PJM noted that initial discussions held in the special sessions indicated support to move ahead on the issue, with the RTO receiving no "pushback" from stakeholders to abandon the dialogue.

Carl Johnson of the PJM Public Power Coalition pointed out one of PJM's design components in the package regarding cost elements in the reliability category: "SATA will not participate in its markets but will use the appropriate settlement mechanisms to settle the charging and discharging functions to offset the rate of recovery."

Johnson asked how PJM envisions the rate of recovery offset occurring. He said if a SATA is charging and discharging, it could potentially be making a profit on that action.

Berner said an entity proposing use of SATA would need to demonstrate they have established mechanisms that the net positive benefits of the energy flow would flow back to an offset mechanism to achieve the rate recovery. Berner said PJM is not anticipating making changes to how the settlements occur.

Johnson said PJM may want to establish a procedure in the Tariff and make it uniform rather than having it be a "one-off, untraceable rate filing" with FERC.

"These things are very hard to track on a uniform basis," Johnson said. "There really isn't any way to make sure these things are being properly accounted for across the system."

Sharon Segner, vice president of LS Power, asked at what point stakeholders would be able to see the Operating Agreement language for the PJM package.

Greening said the language would be presented at the January MRC meeting, provided the PC supports moving forward with the PJM package.

Segner said the "guts" of a solution and issue is in the OA language, with stakeholder discussions and support difficult before seeing what is crafted. Segner said the process is "optimized" when the OA and governing language is seen at the lowest possible committees so that discussions can start early.

"At the end of the day, the words do matter, and they especially matter when it comes to Operating Agreement language," Segner said. "It sounds a little bit premature." ■

Vote on PJM Black Start Compensation Deferred

By Michael Yoder

PJM deferred a vote until December on packages dealing with the contentious black start unit testing and compensation issue as stakeholders also delayed a vote on a proposed change of the issue charge approved earlier this year.

Paul Sotkiewicz of E-Cube Policy Associates made a motion for stakeholders to adopt proposed *amendments* to the black start unit issue charge during its first read at last week's Operating Committee meeting. The black start issue has been lingering for months, leading to heated discussions. (See *Gen Owners Balk at Change to PJM Black Start Rates*.)

The proposed issue charge language said, "Current black start units receiving the capital cost recovery rate (Schedule 6A) and units already awarded in recent black start [requests for proposals] will continue with the commitment period and capital recovery factor (CRF) rates as documented in the current Open Access Transmission Tariff."

Sotkiewicz said the black start *problem statement* passed at the May OC meeting has identical language in a footnote added to the black start CRF section indicating that PJM will not retrospectively make changes in the CRF and compensation. (See "Black Start Issue Charge Endorsed," *PJM Operating Committee Briefs: May 14, 2020*.) Sotkiewicz said the idea was to have the black start issue charge reflect the language in the problem statement.

"We would like to make this change to the issue charge and bring this up for a vote at the committee so that we can move forward with a rational discussion of black start," Sotkiewicz said.

The issue over the language emerged when stakeholders discovered the issue statement, which is officially voted on for endorsement as codified in *Manual 34*, did not include the footnote, leaving the application of CRF rates up to interpretation in the proposed black start packages.

The Independent Market Monitor's *package* calls for updated CRF rates to apply to new and existing black start units. Updated commitment periods would also apply to new and existing black start units.

Sharon Midgley of Exelon seconded Sotkiewicz's motion to adopt the updated issue charge language. Midgley said black start service is critical to reliability, and proposals retroactively changing the outcomes of an RFP process that has already been conducted "should not be entertained by this committee."

Midgley said the updated issue charge was meant to codify what Exelon believed was the initial intent of the black start work effort when it was endorsed in May.

Monitor Joe Bowring said the issue charge language presented by Sotkiewicz read as a proposed solution and not an issue. Bowring questioned whether the language fit under the definition of an issue charge and if it was appropriate to retroactively change an issue charge.

PJM's Darlene Phillips, chair of the OC, said she did not consider the updated issue charge language to be a solution and that it deals with the scope of the issue charge. Phillips said stakeholders can make a motion to modify an issue charge and believed the status of the black start issue is "in good standing in accordance with the process" to officially update it.

Stakeholder Debate

Greg Poulos, executive director of the Consumer Advocates of the PJM States, said it seemed like the updated issue charge was "curtailing discussion" among stakeholders regarding the proposed black start packages. Poulos said a first read would be helpful so that he could discuss the implication of the language with the advocates instead of passing it on the same way.

"If Supply, which has the majority vote, decides that they're going to ram this thing through, it's hard to want to do a further discussion on this," Poulos said.

Sotkiewicz said he took exception with Poulos's characterization that the issue charge was being "rammed through" the stakeholder process. He said the problem statement was very clear that updated CRF rates would only apply to new black start units.

Sotkiewicz said the issue charge language was not taking off the table the idea that CRFs can be adjusted on a forward-looking basis in the black start packages. But he said that because the black start RFP has already been conducted and units are already in service, to make retroactive changes "flies in the face" of what is conducted in other PJM markets where changes have always been prospective and not retrospective.

Tasley, a single-unit 33 MW industrial gas turbine that began commercial operation in 1972 in Tasley, Va., is a black start-capable unit. | *Calpine*

"Now we have a reputational problem, and who's going to want to put their resources forward in the next black start RFP?" Sotkiewicz said. "It's only going to increase cost for load."

David Mabry of the PJM Industrial Customer Coalition made a motion to defer the vote on the updated issue charge until December. Mabry said there have been some discussions with stakeholders in attempting to understand the issues from both sides, and by deferring the issue charge for a month could allow time to craft a compromise.

"Clearly there are two sides at this point, and both had a different understanding of what the scope of the initiative was," Mabry said.

Phillips told stakeholders that a vote deferral on the issue charge would effectively push back the overall voting on the black start packages until the December OC meeting.

"We don't want to vote on packages when the issue charge is still up in the air," Phillips said.

Stakeholders ultimately voted to defer consideration of the amended issue charge until the December OC meeting, passing the measure with 58% in favor, including 132 "yes" votes.

Sotkiewicz said he has yet to have a stakeholder identify a retroactive action in PJM markets similar to what is being discussed with black start CRF.

"I think this sets a really bad precedent overall for PJM in terms of governance and people's interests," Sotkiewicz said. ■

PJM News

PJM Cost-based Calculator Endorsed

IMM Objects

By Michael Yoder

Over the objections of the Independent Market Monitor, PJM stakeholders last week endorsed creation of a cost-based offer calculator, the result of more than a year of discussions over the RTO's fuel-cost policy (FCP).

The *proposal* by Public Service Enterprise Group (PSEG) — which calls for the development of the informational-only calculator through continued discussions at the Cost Development Subcommittee — won 69% support of the Market Implementation Committee with 136 stakeholders voting in favor. A non-binding poll asking if members preferred the package over the status quo also passed with 133 "yes" votes (68%).

Bhavana Keshavamurthy, PJM | *© RTO Insider*

Bhavana Keshavamurthy of PJM *reviewed* the PSEG proposal addressing Key Work Activity 4 of the *fuel-cost policy* enhancements *issue charge*. The work activity proposed exploring potential enhancements to FCP rules by examining a "lack of a penalty exemption and/or safe harbor for minor violations in a market sellers' fuel-cost policy, and/or lack of appropriate crediting mechanism for a market-seller's self-report of a potential fuel-cost policy violation."

The issue charge divided work into two phases, with Phase I exploring potential enhancements to FCP rules. A package by the PJM Industrial Customer Coalition was approved at the February Markets and Reliability Committee meeting, and FERC approved revised Operating Agreement language in July. (See *PJM Fuel-cost Policy Changes Approved by FERC*.)

Phase II work included exploring potential alternatives to PJM's current FCP rules and cost-based offer rules. The MIC held 14 special sessions on the issue since August 2019, resulting in the PSEG package.

PSEG Package

Keshavamurthy said market sellers sought to reduce their compliance risk for submitting cost-based offers and ensure that only competitive offers consistent with the FCP are used to clear the markets when mitigation is applied.

To deal with some of the concerns, the PSEG package includes the development of an informational only cost-based calculator. The use of the calculator would be optional by market sellers, Keshavamurthy said, and it could be used as a comparison with a market seller's calculated offer.

The initial version of the calculator would be in an Excel/SharePoint platform, Keshavamurthy said, with the final version placed in the Markets Gateway. Keshavamurthy said PJM will provide a non-binding three-part cost-based offer (start up, no load and incremental energy offer) by midnight prior to the market day, and market sellers will have the option to overwrite the fuel-cost or any other input variable in the cost offer calculation.

Gary Greiner, PSEG | *© RTO Insider*

Gary Greiner, director of market policy for PSEG, said there would be no change to the current market submission process and no manual or Tariff changes. Greiner said existing cost-based offer rules will remain status quo under the proposal, and the market seller is still responsible for submitting cost-based offers into Markets Gateway.

Greiner said regardless of the value produced by the calculator, the market seller will still be liable for penalties associated with incorrect cost-based offers under Schedule 2 of the Operating Agreement, and PJM will assume no responsibility for any errors produced by the calculator.

Greiner said cost-based offers are one of the areas of greatest exposure for generators, and a great deal of time and money is spent on creating the offers. He said the proposal makes sure that whatever fuel cost is used, the calculator would help see that "the math carries through the model appropriately."

The calculator would create more transparency regarding variable inputs, Greiner said, and serve as a "valuable tool for generators."

IMM Opinion

Catherine Tyler of Independent Market Monitor Monitoring Analytics *recommended* that stakeholders reject the PSEG proposal, saying its "real intent … is to develop a calculator that can be used by PJM to calculate reference levels (as in ISO-NE)."

Monitoring Analytic's Catherine Tyler | *© RTO Insider*

The IMM said reference prices are generic costs used in place of actual unit specific costs in setting offer caps. "PJM does not know and cannot know the fuel costs of generators in real time," the IMM said, citing bilateral transactions, which it said, "are common in times of market stress."

"PJM will face incentives to overstate fuel costs in the absence of actual information," the IMM added.

Greiner denied the proposal was a step toward reference pricing, saying that would require a different stakeholder process. He said conversations he's had among stakeholders, including generation owners, has not yielded support for reference pricing.

"There's not a covert operation going on here to sneak reference pricing into the equation," Greiner said. "And it's not a shift in accountability."

In opposing the PSEG proposal, the IMM recommended improving training for generation owners on cost-based offers, better documentation of cost calculation methods in Manual 15 and "better validation processes implemented by generation owners."

Generators have the responsibility and resources to determine their own costs correctly, Tyler said, and having PJM publish cost-based offer calculations will shift responsibility for developing the correct costs from the market seller to the RTO.

Tyler said PSEG's proposal would require three calculations – the market seller, the IMM and PJM. She said the IMM's experience with the opportunity cost calculator has shown that competing calculators cause confusion and add complexity.

To maintain accurate cost calculations for more than 700 generation units in the PJM footprint would be a "costly task" for the RTO, Tyler said, requiring several full-time staff members to complete the daily calculations.

PJM News

Tyler said if the goal is to confirm the underlying model that a market seller is using to calculate costs, that can be done in simpler ways and less expensive ways that don't require daily support.

"We know that there are going to be incorrect results, and we expect PJM to issue penalties to market sellers who use those incorrect results," Tyler said.

Stakeholder Questions


Gregory Carmean, OPSI | © *RTO Insider*

Gregory Carmean, executive director of the Organization of PJM States Inc. (OPSI), asked if the PJM calculation could be used as a reference as a defense if a generation owner is referred to FERC for enforcement. Carmean also asked if the calculator would be discontinued if PJM finds out that generation owners were improperly using the RTO's calculations to rebut FERC referrals.

Keshavamurthy said the PJM calculator is optional only and does not change the market seller's responsibility for submitting accurate cost-based offers.

Greiner said if a market seller today is currently creating its own cost-based offer and it discontinues that practice because of PJM's discretionary tool, they would be doing that "at their own peril." Greiner said PJM has no obligation to put numbers out in the tools every day, and there's no statement of accuracy in the numbers.

"For the market seller to do that would be a fairly risky proposition," Greiner said.

Paul Sotkiewicz, E-Cubed Policy Associates | © *RTO Insider*

Paul Sotkiewicz of E-Cubed Policy Associates said he thought Carmean was "reading way too much" into the proposal. Sotkiewicz said one of the issues that has been discussed at length by stakeholders in the FCP special sessions is penalties based on errors in the data.

Sotkiewicz said the calculator would provide a "sanity check" for the market seller to make sure no apparent errors exist in their cost-based offer. He said there's nothing in the proposal that relieves the market seller of its responsibility to provide an accurate and truthful cost-based offer.

Sotkiewicz said FERC enforcement staff would not rely on one number in a referral and would instead conduct a "thorough investigation," looking at all the provided data.

"I would request respectfully to turn the temperature down on the whole idea of FERC enforcement," Sotkiewicz said. "We are responsible as market sellers for the accuracy of a cost-based offer."

Monitoring Analytics President Joe Bowring said there's no way to be assured that PJM's cost calculator won't be used at FERC in the situations Carmean asked about. He said a market seller will use "anything in their arsenal" to defend themselves when challenged.

"It shouldn't be used for that purpose, but it will be," Bowring said. ■

PJM PC/TEAC Briefs

Planning Committee

Critical Infrastructure Stakeholder Update

PJM stakeholders heard a first read of the RTO's packages for mitigating and avoiding critical infrastructure under NERC rules.

Christina Stotesbury of PJM *reviewed* results from a survey on the proposed packages and background on the *Critical Infrastructure Stakeholder Oversight* issue at last week's Planning Committee meeting.

The issue originally came to a head at the Markets and Reliability Committee meeting last year when incumbent Transmission Owners asked for feedback on a proposal establishing a process for vetting transmission system enhancements designed solely to reduce the number of critical assets identified under NERC's CIP-014 standard. Fewer than 20 of them exist within the PJM footprint.

The D.C. Office of the People's Counsel proposed an issue charge in December responding to TOs' decision to file a new Tariff Attachment M-4 for the planning of CIP-014 mitigation projects. (See "Critical Infrastructure Mitigation," *PJM PC/TEAC Briefs: Dec. 12, 2019*.)

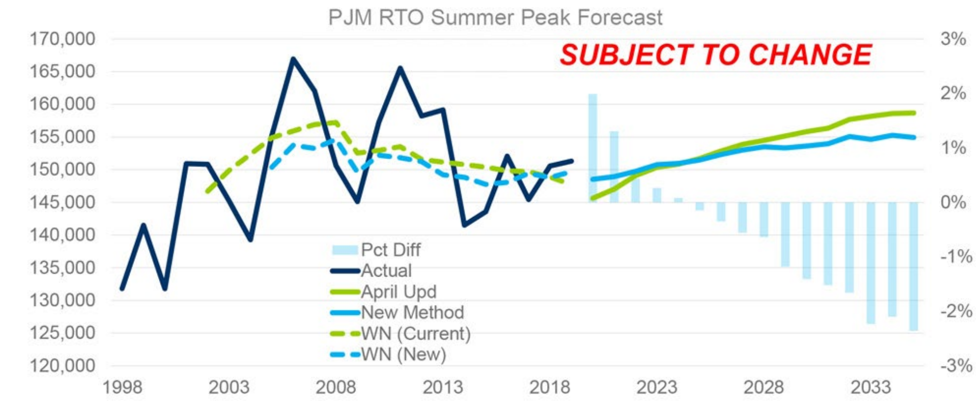
An updated issue charge was approved at the May 12 PC meeting. Exelon's *redline* of the issue charge, originally endorsed by stakeholders in December, was approved by a 61% vote. (See "Changes Approved to CISO Issue Charge," *PJM PC/TEAC Briefs: May 12, 2020*.)

Stotesbury said 11 special session meetings were held to provide education and propose solutions for mitigation and avoidance.

In a recent poll, stakeholders were asked if they could support the PJM package on CIP-014 contingencies for mitigation, Stotesbury said, with 83% responding in the negative.

When asked for feedback, stakeholders said confidentiality and protecting highly sensitive information were major concerns. Some stakeholders also considered it an overreach of PJM authority.

Stakeholders were asked if they could support the PJM package on the "Cascading Trees" analysis for avoidance, Stotesbury said, with 98% responding they would be supportive. "Cascading Trees" is PJM's visualization tool that considers the potential impact to the grid of extreme events and analyzes probabilities of what issues such events could cause.



Deviation from historical trend for PJM's summer peak forecast. | *PJM*

Feedback on the package included a request for additional discussion as confidentiality concerns remain and that the Cascading Trees analysis must replicate TO methodology for consistency.

Stotesbury said other concerns included opposition to treating non-CIP-014 facilities with the same level of confidentiality as CIP-014 facilities and that neither proposal is modeled after FERC approved Tariff Attachment M-4, which should be the framework for addressing mitigation or avoidance.

Mike Herman of PJM presented the first read of both *proposals*. Among the many components is a stipulation that if a proposed project in the Regional Transmission Expansion Plan fails resilience criteria requirements, PJM will communicate failure and analytical results to the proposing entity only.

Sharon Segner, vice president of LS Power, said her reading of that component indicates that bidders on a project could be disqualified based on information to which they don't have access. Segner said LS Power has "grave concerns" about that aspect of the package and requested PJM examine different language in the proposal.

"It's not fair to disqualify bidders when they don't have access to the information," Segner said.

Herman said PJM will take it under consideration and continue to discuss the issue.

Manual 14C Endorsed

The committee unanimously endorsed by acclamation changes to Manual 14 C as part of the biennial cover-to-cover review.

Mark Sims, PJM's manager of infrastructure coordination, provided a *second read* of *changes* to Manual 14C: Generation and Transmission Interconnection Facility Construction.

Sims said minor changes were proposed to Manual 14C, including an update of the latest Tariff provisions clarifying the filing process for title transfers and associated title documentation in Section 5.

New sections on cost tracking for baseline projects and another for supplemental cost tracking are also being proposed, Sims said.

Load Forecast Model Development

Andrew Gledhill, senior analyst in resource adequacy planning for PJM, discussed *proposed* load forecast model changes, which he acknowledged had come under criticism at recent meetings regarding forecasting methods. He said he and the entire load forecasting team have always encouraged open dialogue about the forecasting methods with stakeholders.

Gledhill highlighted three issues: model complexity; a contention that the forecast deviates from the historical trend; and that PJM should be using a 10-year estimation period in modeling for the residential, commercial and industrial sectors.

PJM agrees that the modeling has become more complicated in recent years, Gledhill said, but the complexity has been "born out of necessity." He said there are more factors influencing load trends than there have been historically, including energy efficiency and behind-the-meter solar.

"These affect different parts of the PJM foot-

PJM News

print in varying magnitudes, and it's important to refine model techniques over time to understand these trends and to seek improvement and accuracy," Gledhill said.

Last year PJM identified models broken up by sector — residential, commercial and industrial — as an improvement that would help understand trends over the last decade. Gledhill said sector models lead to more accurate load forecasting but makes the overall model more complicated.

Gledhill said PJM does not agree with the contention from some stakeholders that weather-vnormal load has been declining for more than a decade. He said the cause of trends from 2010 to 2019 was because of "significant headwinds to growth" through energy efficiency and behind-the-meter solar investment.

PJM uses a 10-year historical estimation period throughout load forecasting except for the sector models, for which it uses Energy Information Administration data dating to 1998.

Gledhill said PJM has concerns that using only the most recent 10 years of data would add instability in the model or produce results inconsistent with economics.

James Wilson, a consultant to state consumer advocates, said he was unaware of any stakeholders who proposed using 10 years of data. Wilson said he requested a sensitivity analysis on 10 years, while other stakeholders have requested using an alternative estimation period of 15 years or less.

Wilson said he would like to see PJM further evaluate an even historical time period instead of using "stale data" that skews the models.

"I would encourage you to apply a consistent estimation period throughout the modeling," Wilson said.

Transmission Expansion Advisory Committee

Dynamic Line Ratings Implementation Plan

David Quier of PPL presented his company's strategy for implementing dynamic line ratings (DLRs).

Quier said PPL is currently in the process of a heavy rebuild of transmission lines and the strengthening of physical generation plants.

He said PPL is discovering that the transmission grid isn't very "smart." There is a dependence on people and manual operations with little automation, Quier said.

PPL has started to look at how to build the grid of the future, focusing in on projects like 100% smart relays and devices, prediction of failures before they occur and grid-enhancing technologies that include smart wires and traveling wave relays.

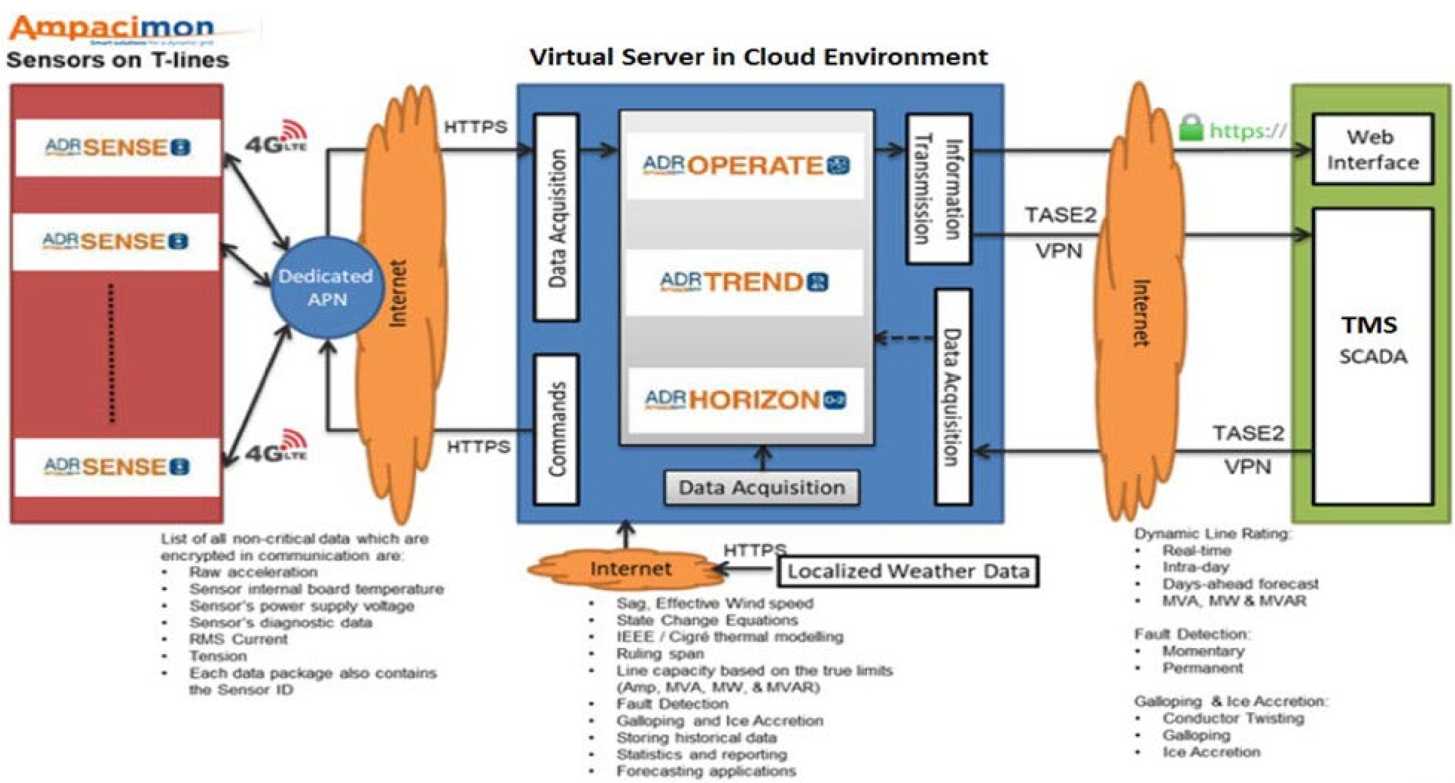
"We want to reduce maintenance, reduce costs to customers and increase reliability," Quier said.

PPL's next step, Quier said, is the installation of DLRs, which can measure wind speeds, ambient temperatures and conductor temperatures.

Quier said PPL is currently deploying DLRs on its Juniata-Cumberland and Harwood-Susquehanna line. He said PPL is seeking additional lines to install the technology.

"We are looking forward to working with PJM to fully utilize this technology," Quier said. ■

— Michael Yoder



Dynamic line rating system overview being used on PPL transmission lines | *PJM*

SPP News

SPP MMU: Summer Load up 2% in 2020

By Tom Kleckner

This summer's average hourly load in the SPP footprint was 2% higher than the year before, according to the Market Monitoring Unit's *quarterly State of the Market report* for June through August.

The MMU credited warmer weather for the increase. Heating and cooling degree days were about 16% above the summer of 2019, with June degree days 36% higher than 2019 and July and August both up about 10%. The average hourly loads in the latter two months were nearly identical to the previous two summers.

Coal-fired generation continued to slide, down a point to 35% of the total generation mix. Wind generation increased to 25% of total generation from 20% last summer.

Average day-ahead prices and real-time prices were both down 12% from 2019. Day-ahead prices were $20.32/MWh and real-time prices were $19.69/MWh.

The MMU also reported that:

- market commitment status was 75% of all offered capacity, up from 68% the year before. Offered capacity in self-commitment status was down to 23%, a drop of 7 points from the year before.
- generation outages, which had increased from summer 2018 to 2019, reversed this year, with outages falling from 26,000 GWh to 22,500 GWh.
- day-ahead make whole payments doubled, from just over $7 million to more than $15 million, with coal payments increasing from $3.2 million to almost $8.7 million, and gas, simple-cycle payments jumping from $3.4 million to $5 million. "This increase is likely attributable to more resources in market status as compared to self-scheduled status and lower prices during the period," the MMU said.

SPP's hourly average summer load for the past three years | *SPP Market Monitoring Unit*

The report's special issues section describes the MMU's involvement in SPP's transmission planning process, which has increased since 2018. The Monitor said it has served in an advisory capacity as the planning outcomes influence the market's long-term efficiency through congestion patterns, operational effectiveness, costs and reliability.

The MMU will host a *webinar* to discuss the summer report on Wednesday. ■

SPP News

Report: Evergy Rebuffs NextEra Energy Bid

NextEra Energy has been rebuffed in a bid to acquire another utility, according to a media report.

Reuters quoted "people familiar with the matter" in *saying* that NextEra had made a $15 billion all-stock acquisition for Evergy.

The sources said Evergy, which serves 1.6 million customers in Kansas and Missouri, turned down the offer in recent days. They said it was unclear whether NextEra will make a new offer.

According to Reuters, NextEra's bid valued Evergy in the mid $60s/share, a price Evergy said was inadequate.

Evergy's share price spiked from $56.85 to $62.53 on Monday before closing at $57.99. The stock remained active in after-hours trading, gaining another 36 cents.

NextEra Energy's headquarters facility in Juno Beach, Fla. | © *RTO Insider*

NextEra and Evergy were linked by market rumors in April. Evergy, created in 2018 by the merger of Kansas City Power and Light and Westar Energy, has been under pressure from activist shareholder Elliott Management to consider a sale. (See *NextEra Said to be Eyeing Evergy as Acquisition Target*.)

Evergy explored purchases by several companies this summer but called off the effort in August and said it would remain a standalone company. (See *Evergy Releases Standalone Plan Details*.)

Florida-based NextEra was rejected by Duke Energy in October when its *offer of a mega-merger* was rejected. NextEra also came up short in acquiring Texas' Oncor in 2016.

Both NextEra and Evergy have declined to comment on the acquisition.

NextEra's shares opened Monday's trading at $81.09, a 7.1% increase from its Friday close, but closed the day down at $75.51. It rose to $76.10 in after-hours trading. ■

— Tom Kleckner

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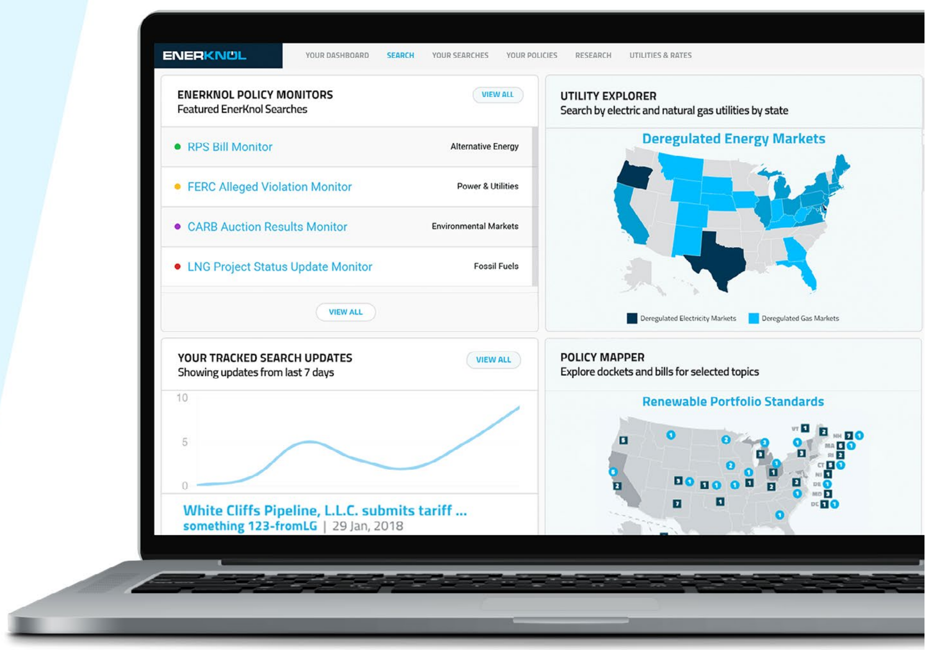

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Company Briefs

AEP Announces Leadership Changes, Coal Plant Closure

American Electric Power last week announced leadership changes effective Jan. 1 "to expand the experiences of key executives," it said.

Lisa Barton, currently the executive vice president of utilities, has been named COO. Julie Sloat, senior vice president of treasury and risk, will take over as CFO from Brian Tierney, who has been named executive vice president of strategy.

The company also announced it will close its 580-MW Pirkey coal plant in Hallsville, Texas, in 2023. It also plans to stop using coal at its 1,053-MW plant in Pittsburg in 2028.

More: *AEP*; *The Columbus Dispatch*

Black Hills Energy Announces Clean Energy Goals

Black Hills Energy last week said its electric operations in South Dakota, Wyoming and Colorado have set a goal to reduce greenhouse gas emissions by 40% by 2030 and 70% by 2040, based on its 2005 baseline levels.

Black Hills also seeks to reduce emissions from its natural gas operations by 50% by 2035.

So far, the company has reduced its emissions by 25% and 33% from its electricity and natural gas operations, respectively, since 2005.

More: *Rapid City Journal*

Dominion Closes Sale of Majority of Natural Gas Assets

Dominion Energy last week said it has closed on the sale of most of its gas transmission and storage assets to Berkshire Hathaway Energy for about $2.7 billion in cash and the transfer of roughly $5.3 billion in related indebtedness. The deal includes more than 5,500 miles of interstate gas transmission pipelines, approximately 775 Bcf of gas storage and a 25% operating stake in the Cove Point gas liquefaction facility in Maryland.

Following the cancellation of the Atlantic Coast Pipeline in July, Dominion said it had entered into a definitive agreement to sell off its gas transmission and storage segment assets for $9.7 billion, including the assumption of $5.7 billion in existing debt to abandon the project. The 600-mile, $8 billion natural gas pipeline was supposed to run from West Virginia to North Carolina.

The sale is expected to be completed in early 2021.

More: *Virginia Business*

France's ENGIE Pulls out of US LNG Import Deal

ENGIE last week said it has halted talks over a potential long-term supply agreement with U.S. LNG developer NextDecade, as the French company has come under pressure to not import LNG produced from shale gas.

Last month ENGIE said it needed more time to consider a future agreement with NextDecade after it was reported the French government and environmentalists were applying pressure on the partly state-owned company to not agree to a deal because it did not conform to the country's climate change goals.

More: *S&P Global Platts*

Stay-at-home PacifiCorp Workers to Have Pay Docked

PacifiCorp reopened its Portland, Ore., offices on Monday, and employees still have the option of working from home — with a 10% pay cut.

"The pay decrease is considered an equitable trade-off in exchange for the elimination of commute time, additional flexibility, transportation cost savings and even potential tax breaks," according to a company document obtained by *Willamette Week*.

The decision comes as COVID-19 cases hit record numbers in Multnomah County, as well as in the state.

More: *Willamette Week*

Federal Briefs

FWS Declines to Stop Mountain Valley Pipeline

The Fish and Wildlife Service last week denied environmental groups' request for a stay on its biological opinion for the Mountain Valley natural gas pipeline, standing by its opinion that tree cutting and stream fording will not imperil endangered or threatened species.

The Sierra Club immediately challenged the decision in the 4th Circuit Court of Appeals, as the court has already temporarily stayed a second set of permits in which the Army Corps of Engineers authorized the pipeline to cross nearly 1,000 streams and wetlands.

Later in the week, Equitrans Midstream, the lead partner on the project, pushed back its expected completion date to later in 2021. It also increased the expected cost of the project from $3.7 billion to between $5.8 billion and $6 billion.

More: *The Roanoke Times*; *The Roanoke Times*

GWEC Expects 71.3 GW of Wind Installed in 2020

The Global Wind Energy Council last week said it expects the world to add 71.3 GW of wind generation capacity this year. That number would be 6% below pre-COVID-19 forecasts.

There were predictions of a 20% drop, but the market intelligence platform's latest outlook shows the impact of the pandemic on the sector has been much lower than previously feared.

GWEC forecasts a record year for wind in 2021 with 78 GW of installations. More than 348 GW in total are expected to be added between 2020 and 2024, which would bring global wind capacity to nearly 1 TW.

More: *Renewables Now*

NRC Fines TVA for Nuclear Plant Violations

The Nuclear Regulatory Commission last week issued notices of violation and three civil penalties totaling more than $900,000 to the Tennessee Valley Authority as a result of a commission investigation into events that occurred during and after the start-up of Watts Bar Unit 1 following a maintenance outage in November 2015

The commission also issued notices to two managers and a plant operator for their roles in the incident. During the start-up, operators failed to follow procedures and properly document their actions in the control room log. Shift managers also failed to review the logs to ensure their accuracy.

TVA and the three people cited have 30 days to respond to the commission's enforcement actions.

More: *The Chattanoogan*

Judge Extends Order Halting Trump's Bifacial Solar Tariffs

The Court of International Trade on Friday extended a temporary block on the Trump administration's bid to expand tariffs to include two-sided solar panels.

The extension means imported bifacial solar panels can continue to enter the U.S. tariff-free, despite President Trump's proclamation in October that also increased the level of the tariffs from 15% to 18% in their final year.

Solar companies argued that the proclamation's treatment of bifacial solar was unlawful because a separate proceeding, which challenges attempts by the U.S. Trade Representative to revoke the bifacial tariff exemption, remains ongoing in the court. Though Judge Gary Katzmann did not expand the injunction to encompass the Trump's proclamation, the temporary restraining order extended on Friday keeps the administration from implementing tariffs for bifacial products.

More: *Greentech Media*

State Briefs

CALIFORNIA

PUC Says Utilities on Track to Meet Renewable Requirements

The Public Utilities Commission last week said state utilities are on track to meet renewable energy requirements for 2020, according to its annual renewables portfolio standard report.

The RPS requires utilities, electric service providers and community choice aggregators to procure 33% of retail sales per year from renewable sources by 2020 and 60% by 2030. By 2045, the goal is for the state to have 100% carbon-free electricity.

More: *Daily Energy Insider*

COLORADO

Boulder Approves New Deal with Xcel

Boulder residents last week voted to approve a measure that will enter the city into a new, 20-year franchise agreement with Xcel Energy, according to unofficial results from the County Clerk's Office. Under the deal, Xcel and the city will work in a modern grid planning partnership aimed at helping the city achieve 100% renewable electricity by 2030.

The city can opt out of the agreement in 2022, 2024 and 2028 if Xcel fails to meet certain emission benchmarks. It can also opt out in 2026, 2031 and 2036 for any reason.

More: *City of Boulder*

INDIANA

Court Upholds Approval for Solar Farm

The Madison County Circuit Court denied a request for judicial review of the Board of Zoning Appeals' approval of Invenergy's $110 million, 120-MW Lone Oak Solar Farm.

Opponents of the project pointed to the county's comprehensive plan statement of the desire to maintain farmland and not be targeted for growth. Still, the board approved an initial 850-acre special-use permit in May 2019.

"Petitioners have presented no argument or evidence that the staff report and the … study on which it relies … are somehow unreliable," Judge Mark Dudley wrote. "Instead, at the hearing, petitioners simply took the position [that] the staff report is not evidence on which the BZA may rely."

More: *The Herald Bulletin*

MINNESOTA

Otter Tail Power Seeks Rate Increase

Otter Tail Power last week filed a request with the Public Utilities Commission to increase its rates because of its clean energy generation investments.

Among the company's projects are the 150-MW Merricourt Wind Energy Center and Astoria Station, a 245-MW, simple cycle natural gas combustion turbine. The Merricourt project will begin commercial operation by the end of the year, while Astoria likely will begin operations in the first quarter of 2021. A company representative said the Astoria project "complements our wind resources by providing a low-emission option when the wind isn't blowing."

If the rate increase is approved, which Otter Tail has asked to start on an interim basis on Jan. 1, the typical residential customer's monthly bill will increase approximately $7.75.

More: *Daily Energy Insider*

OREGON

State Allows Gas Plant to Begin Construction

The state Department of Energy last week approved the construction of the 415-MW Perennial Wind Chaser Station natural gas power plant that, if built, would be one of the state's largest stationary sources of greenhouse gas emissions.

The Columbia Riverkeeper and Friends of the Columbia Gorge asked a Multnomah County court to review the decision, saying the state allowed developers to avoid required stormwater and air pollution permits and meet a Sept. 23 construction deadline. The latest court action came days after activists sent a letter to Gov. Kate Brown and Energy Department Director Janine Benner, asking them to terminate the plant's permit and investigate the department's approval process.

According to the riverkeeper, the plant would generate more than 1 million tons of carbon dioxide annually.

More: *InsideClimate News*

VIRGINIA

Botetourt County Wind Farm Granted Final Permit

The Department of Environmental Quality last week granted a permit for the Botetourt County wind farm, according to Apex Clean Energy, which plans to build up to 22 turbines on a remote ridgeline. The department's approval was the last key hurdle for Apex, which hopes construction will be completed by the end of next year.

The 75-MW Rocky Forge Wind farm will sell electricity to Dominion Energy, which has a contract to provide renewable energy to the state government. It will be built on a 7,000-acre tract of woodlands that is isolated from homes and businesses about 5 miles northeast of Eagle Rock. The turbines will be spaced evenly along a 3.5-mile segment of the ridgeline.

More: *The Roanoke Times*

WISCONSIN

We Energies to Retire Oldest Part of Oak Creek Plants by 2024

We Energies last week said it will retire the oldest part of its Oak Creek coal-fired power plant complex in 2023 and 2024 as its parent company, WEC Energy, shifts to more efficient power generation as part of its largest-ever capital projects outlay of $16 billion.

WEC had previously indicated plans to retire some of its less efficient coal-fired plants, but it did not specify the locations. Now it says, along with parts of Oak Creek, it will also retire natural gas-powered units in Weston and Marinette as early as 2023.

More: *Milwaukee Business Journal*

WYOMING

State Declines Land Lease for Wind Project

The Office of State Lands and Investments last week denied developer ConnectGen a 4,800-acre land lease to construct part of its 500-MW Rail Tie wind project.

The office's director had recommended that its five-member board, which includes Gov. Mark Gordon and Secretary of State Ed Buchanan, approve the lease given that "no substantive impairments" were identified to grazing and agricultural activities, but the board determined otherwise and declined to grant the lease.

ConnectGen anticipates moving forward with the project on private land.

More: *Casper Star-Tribune*