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Thousands Oppose Bid to Undo Net Metering

By Michael Kuser and Rich Heidorn Jr.

Thousands of individuals and groups urged FERC to reject a request by a purported ratepayer group to outlaw net metering for rooftop solar generation.

As the comment deadline closed Monday, the commission had received more than 500 individual comments or requests to intervene in the docket opened in April by a group called the New England Ratepayers Association (NERA). The group's *petition for declaratory order* asked FERC to essentially outlaw net metering by ruling that the commission has exclusive federal jurisdiction over wholesale energy sales from generation sources located on the customer side of the retail meter (*EL20-42*).

Bidirectional meter

NERA said such sales should be priced under the Public Utility Regulatory Policies Act of 1978 or the Federal Power Act, which could require individual homeowner-generators to have a rate on file with FERC.

RTO Insider's review of comments found few supporting NERA's position, with state officials and others alleging it would upset two decades of legal precedent supporting state and local policies used by 2.3 million net metering participants in 49 states.

NERA describes itself as a nonprofit advocacy group seeking to protect "families and businesses" from excessive utility rates.

But other commenters complained NERA has

Continued on page 3

'Plan B' for PG&E Takeover Moves Forward

By Hudson Sangree

SACRAMENTO, Calif. — State lawmakers advanced a bill last week that would let the state appoint a receiver or take over Pacific Gas and Electric if the utility fails to provide safe and reliable service after it leaves bankruptcy.

Senate Bill 350, called the Golden State Energy Act, cleared the State Assembly's Utilities and Energy Committee on June 9 by a 12-2 vote.

In his *remarks* to the committee, bill author Jerry Hill (D) said the measure is a "plan B" if PG&E doesn't undergo the safety transformation it has promised.


Sen. Jerry Hill addressed the Assembly's Utilities and Energy Committee on June 9. | *California Assembly*

"As much as we push forward with that change, we must also be prepared to step in should the company not meet its obligations or commitments

Continued on page 8

Exelon Challenges ISO-NE RFP in Bid to Extend Mystic

Alleges RTO Violating Tariff on Evaluating Proposals, Tx Security

By Michael Kuser and Rich Heidorn Jr.

Seeking to extend the Mystic Generating Station's cost-of-service contract for an additional year, Exelon on Wednesday accused ISO-NE of violating its Tariff by shortcutting its transmission security review and prematurely culling bids received in response to its Boston competitive transmission solicitation.

In a *complaint* filed with FERC on Wednesday, Exelon alleged that the RTO is putting the reliability of the Boston area at risk "by prematurely substituting the uncertain outcome" of its transmission request for proposals "for the certainty provided by Mystic" (EL20-52).

The filing came two days after ISO-NE surprised many by *announcing* it had narrowed 36 responses to its first competitive RFP under FERC Order 1000 to a single finalist, a $49 million project by incumbent utilities National Grid and Eversource Energy. (See *National Grid, Eversource Finalist for Boston Tx Plan*.)

The RFP was issued to address transmission violations expected after the shuttering of Mystic Units 8 and 9, whose retirement was extended to May 30, 2024, under a two-year, $400 million cost-of-service contract to preserve the region's reliability. The project *recommended* by the RTO on June 8 has a projected in-service date of Oct. 1, 2023, eight months before the end of the contract.

In its complaint, Exelon alleges that ISO-NE is violating its Tariff by prematurely rejecting the

Continued on page 20

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RTO Insider

CAISO ERCOT ISO-NE MISO NYISO PJM SPP

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In this week's issue

Thousands Oppose Bid to Undo Net Metering

Continued from page 1

misrepresented itself, saying its funding — 10 unnamed members contributing $20,000 and five giving $5,000, comprising 92% of its 2018 funding — makes it akin to a trade group.

"Low-income families cannot afford to make $5,000 or $20,000 annual contributions to ratepayer associations," declared Public Citizen, which said FERC should dismiss the petition because NERA has falsely characterized itself to conceal its backers' motives. Public Citizen said FERC's rules requires all parties to provide "sufficient factual detail" of their interest in docketed proceedings. "NERA has provided no such detail: Its petition is silent on detailing net metering's impact on its members," Public Citizen said.

The Energy and Policy Institute has said NERA's "lobbying and regulatory advocacy often align with the interests of investor-owned utilities and the fossil fuel industry" and that the group has close ties to New Hampshire Gov. Chris Sununu.

Public Citizen noted that NERA President Marc Brown also helped found a group called the Ratepayers Legal Defense Fund, which shares a phone number with Sununu Enterprises and Sununu Partners, and a business address with Sununu Holdings.

NERA's Argument

NERA's petition cited Energy Information Administration data showing that "in some parts of the country, such as New York, New England and California, residential retail rates are now approaching or exceed 20 cents/kWh. In contrast, wholesale energy prices in most of the country have recently averaged between approximately 2 and 6 cents/kWh."

NERA argued that as a result, people selling their excess solar under a net metering agreement "are generally paid a price for that energy that is several times greater than the wholesale price for energy."

The petition also cited a National Renewable Energy Laboratory 2019 report on net metering as showing "that many states are not even in compliance with existing commission precedent for determining whether a wholesale sale has taken place."

Citizens Against Government Waste supported NERA, saying net metering policies allow rooftop solar customers to avoid paying for

Solar panels line the roof of a turkey barn in Iowa. | *Iowa Farm Bureau*

many of the fixed costs of the grid, resulting in "substantial cost shifting."

"Most [net metering] policies uniformly require utility companies to purchase excess power from a rooftop solar customer at the higher full retail rate, also called full net metering, rather than the lower wholesale rate, even though it would cost the utility companies less to produce the electricity themselves," the group said.

NERA's petition also won support from Americans for Tax Reform, the Competitive Enterprise Institute and the Heartland Institute, which calls itself "the world's leading public policy organization promoting climate realism and countering climate myths."

"There are more than sufficient technical, market and policy reasons for FERC to exercise jurisdiction over what is ultimately a wholesale transaction in interstate commerce," said Thomas Tanton, a policy adviser to the institute who formerly worked for the California Energy Commission and Electric Power Research Institute.

Outnumbered

Comments opposing the petition greatly outnumbered those in favor, however.

Among those in opposition were the National Association of Regulatory Utility Commissioners, American Public Power Association, National Rural Electric Cooperative Association, the Organization of PJM States Inc., Organization of MISO States and the New England States Committee on Electricity.

"NERA has not provided any specific examples from any state on which it has based its petition, yet wants to falsely assert that net metering programs, rates and regulations in nearly every state are unlawful, placing them under a rigid federal regime," said Mississippi Public Service Commissioner and NARUC President Brandon Presley.

The Electricity Consumers Resource Council said the petition "reflects another prong in utilities' efforts to soften competitive mechanisms under PURPA."

A bipartisan coalition of 31 attorneys general sent FERC a letter urging rejection of the petition. The Sierra Club sent FERC the names of 14,000 club members who signed a statement asking the commission to reject the petition and personalized comments from almost 2,900.

A large coalition of environmental groups, including the Sierra Club, Natural Resources Defense Council and Sustainable FERC Project, commented that "the commission should reject the petition as procedurally improper because it seeks an abstract opinion on how the FPA applies to retail billing practices affecting

FERC/Federal News

millions of retail customers across 49 states, without a concrete set of facts or sufficiently defined controversy."

The environmentalists assert that "NERA fails to identify its own stake in the outcome; facts about any actual retail billing practice under any specific retail net metering tariff; or a matter posing discrete legal uncertainty, as opposed to seeking a change in law."

"It would be bad public policy to exalt the purported interests of a private, anonymous group over the interests of groups that are committed to public participation and transparent regulation," *commented* the National Association of State Utility Consumer Advocates. NERA "has offered no evidence that it in fact represents any identifiable 'ratepayers.'"

Iowa Gov. Kim Reynolds *commented* that "ruling in favor of NERA would be an extreme overreach that diminishes states' regulatory authority."

"Iowa farmers have been leading the way on renewable energy, including livestock producers who have suffered some of the worst effects of the COVID-19 pandemic," Reynolds said. "A favorable ruling by FERC of NERA would upset the finely struck balance between state and federal jurisdictions and would have a devastating impact on their bottom line and would lead to higher energy costs for livestock producers who have already invested in solar energy projects on their farms."

Conservative Texans for Energy Innovation, a nonprofit clean energy education and advocacy organization, said NERA's petition "represents an anticompetitive effort to usurp the power of state regulators and cede more power to a federal government that is further removed from the particularities of each state's energy portfolio."

'Wild Claim'

Conservatives for Responsible Stewardship (CRS), which claims more than 20,000 members, *said* the "NERA petition is flawed and, like the organization itself, seems intentionally designed to mislead."

"The organization's wild claim that distributed solar is not beneficial is based on cherry-picked information and tortured logic. Public utility commissions across the nation, especially in Southwestern states, attribute enormous benefits to distributed solar," CRS said.

The South Carolina Small Business Chamber of Commerce *objected* to the petition, saying it would benefit special interests that find it easier to influence one group of federal commissioners rather than legislators, regulators and consumers in 50 individual states.

The Center for Rural Affairs (CRA) *cited analysis* of distributed solar in California highlighting that solar generation likely saved ratepayers between $650 million and $730 million from 2013 to 2015, in part from reducing demand during peak hours, lowering wholesale prices and limiting procurement costs for utilities.

"For many states, this petition would have a significant impact on net-metered facilities, as it would set pricing for generation at avoided cost rather than the carefully tailored pricing set by state policymakers in collaboration with other stakeholders," CRA said.

"This petition is a solution in search of a problem," said the Solar Energy Business Association of New England, *calling* it "a significant threat to net metering policies throughout the country."

Allco Renewable Energy, which operates qualifying facilities under PURPA, said, "Even the retail rates that are received by generators from a variety of forms of net metering arrangements vastly understate the benefits that solar energy brings as it reduces the death and destruction from New England's fossil fuel use."

Theresa Becenti-Aguilar, chair of the New Mexico Public Regulation Commission, said NERA's request would "improperly impose FERC jurisdiction on local distribution networks that are not within its legal purview since small distributed generation installations almost never send energy back through substations and on to transmission lines that cross state boundaries."

It also would "create red tape that makes new distributed residential and small commercial grid-tied solar installations almost impossible," she said.

"Energy transfers from a ratepayer to a local utility are retail-level transactions," two dozen congressional Democrats said. "Customers are not installing systems to become large electricity producers; they are simply seeking to lower their power bills by investing in cost-saving and clean technology."

Adam Frazin of Poolesville, Md., echoed that in a *letter*, saying he bought solar for his home to reduce pollution and his electric bill. "I am a citizen, not a wholesale electricity generating corporation," he said. ■

FERC/Federal News

Menezes Nomination Clears Senate Panel

Nevada Democrat Balks over Nuclear Testing Concern

By Rich Heidorn Jr.

The Senate Energy and Natural Resources Committee last week approved Department of Energy Under Secretary Mark Menezes' nomination to be the department's deputy secretary.

Menezes, a former utility lobbyist, was approved on a voice vote June 9, with Nevada Democrat Catherine Cortez Masto casting the lone vote in opposition.

President Trump nominated Menezes to the department's No. 2 post to replace Dan Brouillette, who was named secretary after the resignation of Rick Perry in December.

At his confirmation *hearing* on May 20, Cortez Masto pressed Menezes to clarify comments he made during a House Energy Subcommittee hearing in February in which he indicated the Trump administration was pursuing Nevada's Yucca Mountain as a permanent nuclear storage site. That contradicted the White House's proposed 2021 fiscal budget, which included no money for development of the site, 100 miles northwest of Las Vegas.

"The president has been very clear on this. The administration will not be pursuing Yucca Mountain as a solution for nuclear waste," Menezes testified, without explanation for his earlier remarks. "And I'm fully supportive of the president's decision, and I applaud him for taking action when so many others failed to do so."

Cortez Masto opposed Yucca's selection and is cosponsor of the Nuclear Waste Informed Consent Act, which would ensure states, local governments and tribal communities have a voice in any nuclear waste siting process, including interim storage.

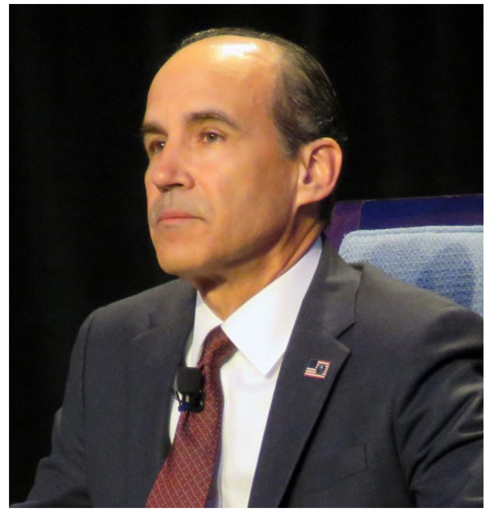
Menezes said the administration had not taken a position on the senator's legislation. "However, we do know that the solution for nuclear storage will rest with Congress, and we do pledge to work with you," he said.

Testing Concerns

In a statement later that day, Cortez Masto said that while she "appreciated [Menezes'] clarification of the administration's position that it will no longer pursue Yucca Mountain as the nation's permanent nuclear waste disposal site," she voted "no" because of recent *reports* suggesting the administration is considering resuming explosive nuclear testing.

The senator noted that Nevada was the site of more than 900 atmospheric and underground nuclear tests between 1945 and 1992, when the federal government developed a plan to ensure nuclear weapon readiness without explosive testing.

"Annually, the safety, reliability and effectiveness of the nation's nuclear stockpile has been certified by the directors of the Los Alamos, Sandia and Lawrence Livermore National Laboratories, along with the secretaries of Defense and Energy," she said. "Yet, reports are suggesting that this administration is prepared to jeopardize the health and safety of Nevadans, undercut our nation's nuclear nonproliferation goals and further weaken strategic partnerships with our global allies just to flex its muscles on the global stage.



Energy Under Secretary Mark Menezes | © *RTO Insider*

"There has been a changing tide in the administration on Yucca Mountain, and I believe Secretary Brouillette has played an important role in improving our communications with the department, but these recent events only suggest that the department still has work to do to earn back the trust of Nevadans," Cortez Masto said.

Senate Floor Vote

Committee Chair Lisa Murkowski (R-Alaska) began the committee meeting by praising Menezes as "well qualified" for the deputy's post, noting his prior work on Capitol Hill and his prior Senate confirmation. "I'm hopeful that Mr. Menezes will again draw strong bipartisan support and that we'll be able to confirm him quickly once his nomination reaches the Senate floor," she said.

Confirmed as under secretary in 2017, Menezes previously worked in the D.C. office of Berkshire Hathaway Energy. He also is a former partner at Hunton & Williams, where he headed the Regulated Markets and Energy Infrastructure practice group, and former chief counsel for energy and environment for the House Energy and Commerce Committee.

Before coming to D.C., he was a vice president with Central and South West. After its merger with American Electric Power, he was AEP's associate general counsel for federal and state legislative and regulatory affairs. ■

The Senate Energy and Natural Resources Committee approved Mark Menezes' nomination as deputy energy secretary.

FERC/Federal News

FERC Revises Pipeline Policy on Landowner Concerns

No Construction While Rehearing is Pending

By Rich Heidorn Jr.

Seeking to address due process concerns over its use of tolling orders, FERC said last week it will no longer permit gas pipeline developers to begin construction until it acts on the merits of any rehearing requests (Order 871, *RM20-15*).

The commission issued the final rule June 9 as it awaits a ruling by the D.C. Circuit Court of Appeals on its controversial practice of issuing tolling orders granting rehearing for the "limited purpose of further consideration." Under the Natural Gas Act and Federal Power Act, rehearing requests are considered denied if not acted on by the commission within 30 days.

The commission typically takes months — in some cases years — before acting on the merits of the requests, during which pipeline developers have sometimes completed construction.

The D.C. Circuit previously ruled that issuing a tolling order within the 30-day time frame meant that FERC had "acted upon" the request under the language of the statute, and that parties must wait until the commission's review of the request is actually complete before seeking relief in federal court. But at oral arguments in April, the court seemed to be rethinking its position. (See *DC Circuit Skeptical of FERC Tolling Orders*.)

D.C. Circuit Judge Patricia Millett has called the commission's practice a "Kafkaesque regime" that allows "the commission [to] keep homeowners in seemingly endless administrative limbo while energy companies plow ahead, seizing land and constructing the very pipeline that the procedurally handcuffed homeowners seek to stop."

FERC's new policy applies to pipeline projects under Section 7 of the Natural Gas Act and import and export requests under Section 3.

Natural gas pipeline construction | *Williams*

The new rule follows Chairman Neil Chatterjee's September 2019 pledge that FERC would seek to reduce tolling orders and act on landowner rehearing requests within 30 days. In February, the chairman announced the creation of a new rehearing section within the Office of the General Counsel to expedite action.

"These are complex issues, with a diverse array of stakeholder input, but I remain firmly committed to doing what we can to make the FERC process as fair, open and transparent as possible for all those affected while the commission thoroughly considers all issues," Chatterjee said in a statement.

In a partial dissent, Commissioner Richard Glick called the policy change a "step in the right direction." But he said it fell short because it still allows pipeline companies to commence eminent domain proceedings under Section 7 before landowners can go to court to challenge the certificate.

Glick said the commission should presumptively stay Section 7 certificates pending its action on the merits of any rehearing requests.

"The harm to an individual from having his or her land condemned is one that may never be fully remedied, even in the event they receive their constitutionally required compensation. Bearing those basic facts in mind, there is something fundamentally unfair about a regulatory regime that allows a private entity to start the process of condemning an individual's land before the landowner can go to court to contest the basis for that condemnation action," Glick wrote.

Although the rule will not take effect until 30 days after publication in the *Federal Register*, the commission said it will not authorize construction on any projects pending rehearing in the interim.

After issuing the ruling, FERC filed an "*additional submission*" advising the D.C. Circuit of its action.

In a note to clients, ClearView Energy Partners said the commission's order is an attempt to preserve its ability to issue tolling orders and prevent certificates from being stayed during the rehearing process. "We also think that the FERC's action lowers risk that it could lose the ability to toll rehearing action across all its activities, including the considerably more numerous electric proceedings it acts on each year," ClearView said. ■

CAISO/West News

PG&E Names Mostly New Board of Directors

Former FERC Commissioner Brownell Among Those Leaving

By Hudson Sangree

PG&E Corp. named a nearly new board of directors Wednesday to guide the troubled utility after it emerges from bankruptcy, probably later this month.

Eleven new board members will join three current members. The boards of parent PG&E Corp. and utility subsidiary Pacific Gas and Electric will be largely the same, the company said in a *news release*.

The new board members include Mike Niggli, a 13-year veteran of Sempra Energy, who served as president of San Diego Gas & Electric from 2010 to 2013; Craig Fugate, the administrator of the Federal Emergency Management Agency from 2009 to 2017; and retired Adm. Mark Ferguson, former commander of U.S. Navy forces in Europe and Africa.

Among those departing will be Chair Nora Mead Brownell, a former FERC commissioner and Pennsylvania utility regulator. Kristine Schmidt, a former member of CAISO's Western Energy Imbalance Market Governing Body, who was an adviser to Brownell at FERC, will also be leaving.

The board shakeup is intended to meet the demands of Gov. Gavin Newsom and California Public Utilities President Marybel Batjer to appoint more Californians and members with greater safety expertise. (See *PG&E Tries to Appease Governor with New Plan*.)

Bill Smith will remain on the board and serve as interim CEO after Bill Johnson's departure on June 30. | *PG&E*

Former FERC Commissioner and PG&E Corp. Chair Nora Mead Brownell is among those who will leave the board. | *PG&E*

"Putting in place a new board is a critical component of PG&E's plan to emerge from bankruptcy as a reimagined utility — one that is in touch with its customers and communities and is safe, reliable, financially stable and capable of helping California meet its energy goals," Brownell said in a statement.

PG&E CEO Bill Johnson previously announced he will retire June 30 — the deadline for the company to exit bankruptcy and participate in a state wildfire insurance fund. Remaining board member Bill Smith will serve as acting CEO until Johnson's replacement is named.

Liabilities from two years of massive wildfires sparked by its equipment drove PG&E to seek bankruptcy protection in January 2019.

The utility's lawyers made their closing arguments in the bankruptcy case June 8, and U.S. Bankruptcy Judge Dennis Montali is expected soon to rule on whether to accept or reject PG&E's Chapter 11 reorganization plan. (See *Lawyers Close PG&E Bankruptcy Case*.) ■

PG&E is headquartered in San Francisco's downtown financial district.

CAISO/West News

'Plan B' for PG&E Takeover Moves Forward

Continued from page 1

in the future," Hill said. "SB 350 is our preparation. I hope it's unnecessary and that it's never triggered. But we owe this preparation to the residents of San Bruno and Santa Rosa and Napa and Butte County and Paradise" — communities devastated by PG&E-caused catastrophes in the past decade.

It is unlikely the state will try to seize PG&E anytime soon, especially with its budget in shambles from the COVID-19 shutdown. The purchase of PG&E would cost tens of billions of dollars and saddle the state with the task of performing the estimated $40 billion in upgrades that the company's aging infrastructure requires.

State investigators, for example, blamed a poorly maintained 100-year-old PG&E power line for starting the November 2018 Camp Fire, the state's deadliest and most destructive wildland blaze. That fire and a series of conflagrations in 2017 caused PG&E to file for bankruptcy in January 2019. The utility is expected to emerge from its Chapter 11 reorganization later this month.

As PG&E has been trying to leave bankruptcy, state officials have been putting mechanisms in place to allow for a takeover of the utility if needed.

The California Public Utilities Commission recently approved PG&E's reorganization plan, along with a process of enhanced oversight and escalating enforcement that could lead to the commission revoking the utility's certificate of public convenience and necessity (CPCN), its license to operate as a monopoly utility in Central and Northern California. (See *CPUC Approves PG&E Bankruptcy Plan*.)

In a May 28 meeting, CPUC Commissioner Martha Guzman Aceves said her vote for PG&E's bankruptcy plan was bolstered by the likely passage of SB 350. The bill would authorize the CPUC to ask a court to appoint a receiver for PG&E or to revoke its CPCN. It would also allow the governor to establish a nonprofit public-benefit corporation called Golden State Energy to take over PG&E's assets and operations.

"This bill will give ratepayers a genuine alternative," Guzman Aceves said. "If PG&E fails to provide safe, reliable and affordable energy service, then the commission could petition the court to appoint a receiver or revoke PG&E's CPCN."

The bill next faces a vote on the Assembly floor and a Senate vote on Assembly amendments. After that, it could go to Gov. Gavin Newsom for his signature. The governor has indicated he supports the bill. ■

CAISO/West News

Calif. Panel OKs Electrification Rules

CEC Approves Millions in Grants for Electrification Projects

By Hudson Sangree

Two San Francisco Bay Area cities will join a growing list of communities in California with building electrification ordinances, following the state Energy Commission's approval Wednesday.

The CEC unanimously accepted ordinances passed by the city councils of Richmond and Hayward. The new rules needed commission approval because they exceed the efficiency requirements of the state's 2019 energy code.

Richmond's ordinance requires new residential buildings to be mainly electric, with gas allowed for cooking and fireplaces. It requires new high-rise buildings, both residential and nonresidential, to be all-electric.

In Hayward, new low-rise housing must be all-electric.

"The city of Hayward was one of the first California cities to adopt a climate action plan in 2009, and sustainability remains a top priority," the city's mayor, Barbara Halliday, told the commission. The city, popular with Silicon Valley workers, is expected to add 2,000 housing units in the next 10 years, she said.

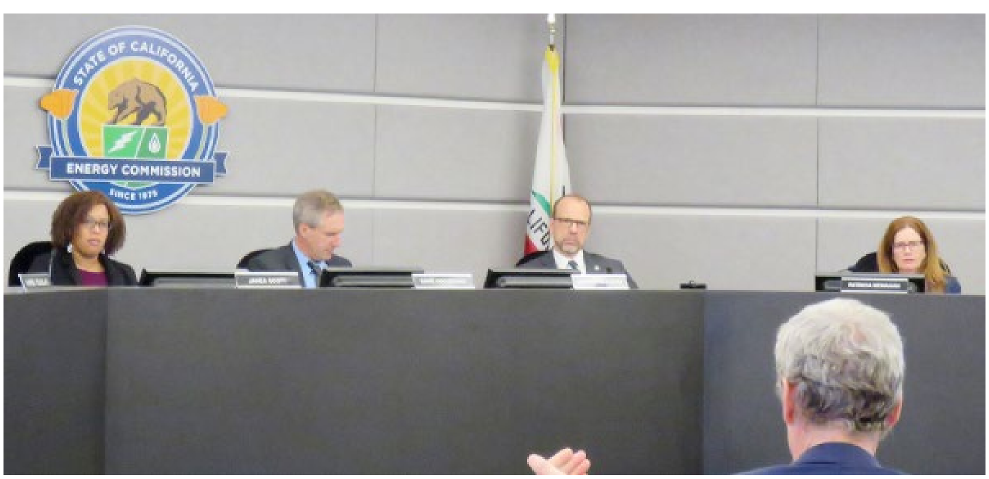
There are now 25 cities with CEC-approved electrification ordinances, according to commission staff, including San Jose, Santa Rosa and Berkeley. Some require types of new construction to be fully electrified, while others have less stringent rules. The city of Los Altos Hills, for example, requires new homes to have electric space and water heating.

Richmond, Calif., will join a growing list of cities with building electrification requirements.

The CEC and the California Public Utilities Commission have prioritized the switch to electric appliances, including heat-pump water heaters and HVAC units, and away from methane-emitting gas appliances. The State Legislature devoted $200 million to jump-start the electrification effort in 2018, with grants administered by the CEC. (See *California Travels down Electrification Road*.)

On Wednesday, the CEC awarded more than $4.3 million in grants to the Association for Energy Affordability, a group that advocates for energy-efficient buildings. The grants were for two programs to advance "next-generation heating, cooling and water heating systems," including a pilot project to install central heat-pump water-heating systems in apartment buildings in low-income communities.

The CEC also awarded more than $8 million in grants to lower greenhouse gas emissions from health care facilities and large commercial buildings. The awards to five entities included nearly $1.5 million to Southern California Gas to demonstrate "an emerging and replicable gas heat pump technology that can reduce natural gas consumption for hot water heating by at least 35% in large commercial buildings." ■



California energy commissioners, meeting here in February, held their business meeting June 10 via Zoom. | © *RTO Insider*

California PUC Approves Microgrids, Fire Plans

Adopts Central Procurement for LSEs and Shutoff Rules for Nonpayment

By Hudson Sangree

The California Public Utilities Commission adopted measures Thursday to prepare for this year's fire season by accelerating the deployment of microgrids and approving the wildfire prevention plans of investor-owned utilities.

The commission also approved a controversial proposal to ensure the state's community choice aggregators meet resource adequacy requirements through a central procurement mechanism. And it passed rules protecting customers who cannot pay their bills.

The wildfire measures were a priority, with the state's summer-and-fall fire season looming.

Pacific Gas and Electric's decision to shut off power to vast swaths of its service territory last year to prevent wildfires spurred the microgrid measure, Commissioner Genevieve Shiroma said.

Legislation passed two years ago, Senate Bill 1339, directed the CPUC to "facilitate the commercialization of microgrids for distribution customers of large electrical corporations." The commission established a new section in its energy division focused on microgrids and opened rulemaking on the matter in September 2019.

"Shortly thereafter, on Oct. 26, 2019, in the face of winds approaching almost 90 mph, we experienced PG&E turning off power to almost a million customers across 38 counties in an effort to minimize the risk of catastrophic wildfires," Shiroma said. "From this experience, we learned that not only was PG&E's execution of

Commissioner Genevieve Shiroma | *CPUC*

PG&E cut power to large swaths of its service territory in 2019 to avoid wildfires. | *PG&E*

the public safety power shutoff protocols inadequate, but that the commission would have to use a multipronged approach to mitigate the effects of" PSPS.

The CPUC retooled its rulemaking to focus on microgrids and resilience ahead of the 2020 fire season, along with the long-term commercialization of microgrids under SB 1339. (See *CPUC Proposal Would Promote Microgrids*.)

Shiroma called the microgrid effort "a sprint and a marathon."

The measure adopted Thursday ordered IOUs to streamline and expedite interconnection processes for microgrid resilience projects and to work with local and tribal governments to bring the projects online by late summer to keep electricity flowing during power shutoffs.

The state's peak fire season typically lasts from early September into November, when rain returns after months of drought in California's Mediterranean climate.

The plan calls for utilities to standardize application processes for microgrids, to expedite signoffs on installed projects and to increase staffing to accelerate interconnections.

The CPUC approved controversial plans by PG&E to deploy diesel generators to power substations and key facilities but only for the 2020 fire season. Commissioners expressed dismay at the idea of using diesel fuel amid the state's push for clean energy but said it was the only immediate solution to widescale power shutoffs.

PG&E praised the CPUC's decision.

"As PG&E continues our enhanced and expanded efforts to reduce wildfire risks, we are also working to reduce the scope, duration and impact of future PSPS events," Andrew Vesey, the utility's CEO, said in a statement. "A key piece of this strategy is developing and deploying microgrids."

Wildfire Mitigation Plans

The CPUC also criticized PG&E during a vote on the 2020 wildfire mitigation plans of the state's IOUs — all of which were approved but some with provisos.

PG&E equipment started conflagrations in 2017 and 2018 that were among the state's deadliest and most destructive blazes, forcing it to file for bankruptcy in January 2019.

PG&E met minimum requirements in its latest wildfire prevention plan, said Caroline Thomas Jacobs, director of the commission's Wildfire Safety Division, established last year. The utility's main causes of fire ignition were objects contacting its power lines and equipment failures.

PG&E plans to install covered conductors to enhance vegetation management to harden

CAISO/West News

its grid to deal with the problems, but the company failed to provide specifics on how its measures would curtail risks, Thomas Jacobs said.

In her written assessment, Thomas Jacobs said, "PG&E outlines improvements being made to its risk assessment tools, but it is unclear how these tools are used to drive prioritization of specific wildfire mitigation initiatives to minimize wildfire risk and PSPS."

The CPUC ordered PG&E to correct its deficiencies in the coming weeks.

Commissioners also praised the division's newly developed wildfire risk measurement tools, including a "*Maturity Model*" that "evaluates the utilities' wildfire risk mitigation efforts across 10 categories and 52 specific capabilities and helps identify utility best practices and current strengths and weaknesses," according to a CPUC press release.

"The Wildfire Safety Division's approach has enhanced the state's ability to conduct oversight of utility wildfire risk reduction by imposing clear requirements and expecting improvement each year," the release said.

Central Procurement

The CPUC approved another controversial proposal that names PG&E and Southern California Edison as central buyers to procure local, multiyear resource adequacy for load-serving entities in their service territories.

The measure addressed the difficulty some community choice aggregators have had procuring sufficient resources to meet demand, with the state facing a potential capacity shortfall starting next year. (See *Calif. Lawmakers Reveal Growing Divisions over CCAs*.)

The CPUC rejected a settlement among entities, including CCAs and CAISO, that would make CCAs primarily responsible for procurement with a "residual" central buyer to step in where needed. The CPUC instead adopted a hybrid approach that tasks the two big IOUs with ensuring reliability but allows CCAs to procure RA when possible.

CCAs remained opposed to the measure.

CalCCA, the main advocacy group for CCAs, said in a statement that it was "disappointed that the commission has adopted a central procurement framework for local resource adequacy that puts investor-owned utilities, rather than an independent entity, in the powerful role of central buyer."

Shutoffs for Nonpayment

With the COVID-19 pandemic wreaking financial havoc, the CPUC approved a major initiative to limit the circumstances in which utilities can cut off power to customers who can't afford to pay their bills.

It ordered four major IOUs — PG&E, Southern California Edison, Southern California Gas and San Diego Gas & Electric — to implement policies and rule changes that protect customers from disconnections.

The changes include a payment management program that forgives customer debt in return for future on-time payments and a cap on charges to customers based on income. Customers with medical conditions can qualify for increased assistance.

"Disconnecting utility services has significant societal and health impacts, and now more than ever we need to ensure the lights are staying on," Commissioner Martha Guzman Aceves said in a statement after the vote. ■

COVID-19 Complicates Western Firefighting Efforts

By Hudson Sangree

The Sprague Fire burned through Glacier National Park in September 2017. | *National Park Service*

A U.S. Senate hearing last week addressed the issue of fighting wildfires amid the coronavirus pandemic, a widespread concern in the West this year, including in California, where utility-sparked wildfires and public safety power shutoffs wreaked havoc in years before the virus spread.

"This summer fire season is shaping up to be as severe as any," Sen. Lisa Murkowski (R-Alaska), chair of the Senate Energy and Natural Resources Committee, said June 9. "As fire activity increases, we can expect over 20,000 firefighters to be mobilized by the [U.S.] Forest Service, Interior [Department] and their state, tribal, local and volunteer cooperators.

"At a moment's notice, fire personnel will be traveling by airplane and vehicle across state borders," Murkowski said. "Large concentrations of firefighters, support specialists and private service contractors will be assigned to incident command posts — fire camps — where they will eat, rest and stage equipment and supplies. What was operationally routine before may be exactly the kinds of activities that now risk spreading the coronavirus around the fire services."

The hearing took place in a sparsely populated meeting room where Senate staff members wore masks and kept their distance from each other, and panelists testified by video.

John Phipps, the deputy chief for state and private forestry at the U.S. Forest Service, outlined steps being taken to combat fires while keeping firefighters from spreading infection. He said this summer is expected to be an especially bad wildfire season, requiring new approaches, including an increase in the number of firefighting aircraft.

Sen. Lisa Murkowski chaired the June 9 hearing. | *U.S. Senate*

"Based on long-term weather forecasts and expected dry conditions, 2020 is projected to be a higher-than-average year for wildland fire," Phipps said. "Aggressive initial attack, supported by airtankers and helicopters, will be used wherever possible to extinguish wildfires quickly and minimize the need to bring large numbers of firefighters together."

Firefighters will work in small units rather than gathering in large fire camps, he said, and will be screened for COVID-19 symptoms.

"Consistent and continual monitoring of personnel will be a crucial step in preventing the movement of potentially infected individuals and the spread of COVID-19," Phipps said. "A 'module as one' approach is being used for crews and modules to insulate as one unit and reduce exposure to the public and other crews."

Amanda Kaster, acting deputy assistant secretary for land and minerals management at the U.S. Department of the Interior, said Bureau of Land Management firefighters will work as "family units to protect people, property and themselves."

With a lower-than-average snowpack in the mountains and faster-than-average snowmelt, Northern California and parts of Oregon face a heightened fire potential, she said.

Fire Season Arrives Early

Already this year, BLM has sent smokejumpers to Colorado, Nevada and Utah in response to wildfires, Kaster said. Firefighters in New Mexico and Arizona have responded to several incidents, and crews from Montana were sent to Arizona twice, including to national forest land.

"So far in 2020, we are seeing increased levels of wildfire activity in the Great Basin, [Southwestern] and Rocky Mountain geographic areas," Kaster said. "Based on the most recent seasonal outlook compiled by the National Interagency Fire Center's Predictive Services Program, we can expect potential for above-normal fire activity in 2020."

Norm McDonald, director of fire and aviation for the Alaska Division of Forestry, testified remotely from his state, where it was 6 a.m. He said Alaskans are concerned about firefighters coming from out of state and traveling to small remote communities to fight fires and potentially spreading the coronavirus.

"In Alaska, all incoming personnel are being asked to take a COVID-19 test upon arrival," McDonald said. "Testing occurs at either of the two major jetports upon arrival, and results are available in 24 to 48 hours. The incoming staff are asked to quarantine at their billets until test results are provided.

"This service will also assist with any COVID-19 cases in the fire ranks and will transport, care for, isolate, house and feed any firefighters that come down with COVID-19 while on assignment in Alaska," he said. "This is a unique arrangement, but it will help to allow teams to stay focused on what they know best, fighting fire, while third-party medical units care for staff infected with COVID-19." ■

ERCOT Board of Directors Briefs

Grid Operator in 'Sound Financial Position,' Despite COVID-19 Effects

The COVID-19 pandemic and the associated economic crash has forced ERCOT to lower its financial forecasts for this year and into 2025, but the Texas grid operator said it is still in a "sound financial position."

"We're feeling comfortable with where we're getting to in 2020 and 2021," CEO Bill Magness told his Board of Directors during a June 9 videoconference.

ERCOT is facing a $29.3 million budgetary shortfall this year, primarily because of a $16.2 million drop in interest income that is part of a 10% unfavorable variance in net available revenues. Expenses are up $4.5 million as a result of "timing differences" related to a data center refresh and major software projects.

The grid operator's system administration fee collections are down $8.5 million through April, forcing staff to revise their expectations for the year. Based on revised weather forecasts and economic conditions, ERCOT now expects to bring in $218 million in administrative fees and interest income, down from original projections of $242.6 million.

"That's similar to historical performance," CFO Sean Taylor said as he detailed *future expectations* for the board. "There's not yet a reason for large concerns."

Taylor said ERCOT's administrative fee of 55 cents/MWh still seems "appropriate, given current projections."

There were no questions from board members after Taylor's presentation. Director Peter Cramton did urge Magness to continue moving forward with the data center refresh and "innovative" software solutions.

"I don't want to slow down at all," Cramton said.

Demand Down, but Record Peak Expected

Staff said they still expect a record demand peak this summer, albeit about 1.5 GW lower than earlier forecasts. ERCOT's final seasonal resource adequacy assessment reduced its projected peak demand to 75.2 GW, still above last year's record of 74.8 GW. (See *ERCOT's Summer Reserve Margin up to 12.6%*.)

The grid operator will begin the summer with a 12.6% reserve margin. ERCOT survived last summer with an 8.6% reserve margin, calling two emergency alerts when wind resources unexpectedly dropped during the early afternoon amid above-average forced outages.

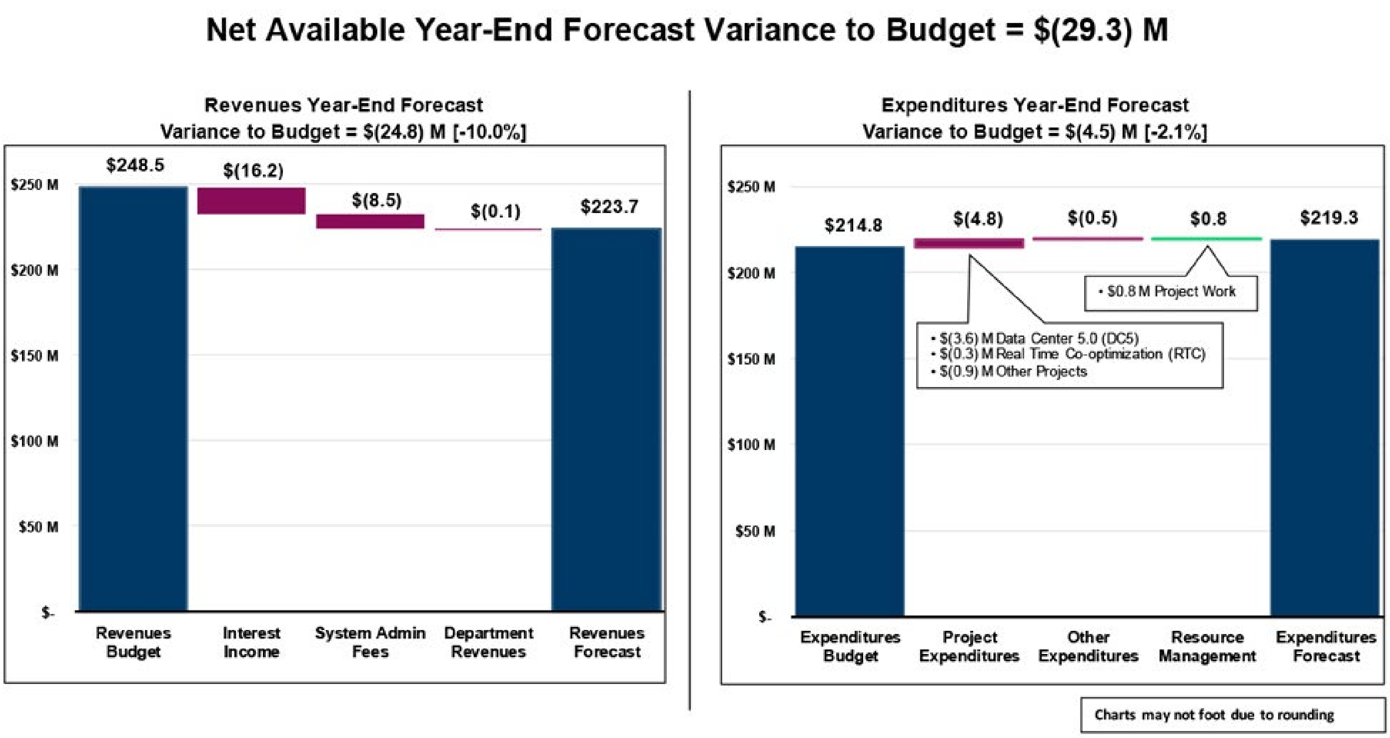
"We're still in the range where we could call energy emergency alerts because of higher-than-expected demand, a larger number of forced outages or lower-than-expected wind, but we don't expect any reliability concerns," *said* Dan Woodfin, ERCOT's senior director of system operations.

Woodfin said that while the grid operator has seen lower demand in the early-morning hours while Texans sheltered at home, it hasn't experienced much of a shift from normal peak demand. "That's largely driven by air conditioning load," he said.

Consumer demand, down 3 to 4% during the early weeks of the pandemic, is now down 1 to 2%.

Mark Ruane, ERCOT's director of settlements, retail and credit, reminded the board that the market's operating reserve demand curve will operate with a 0.25 standard deviation shift this summer, the second of two such shifts directed by the Texas Public Utility Commission in 2018. That will result in higher and more frequent price adders, he said.

ERCOT's daily average August forward prices on the Intercontinental Exchange have



ERCOT is projecting a $29.3M negative variance to its 2020 budget. | *ERCOT*

ERCOT News

dropped from almost $100/MWh in mid-March to just above $80/MWh by mid-May.

Michigan PSC's Talberg Among Director Nominees

Sally Talberg, Michigan PSC | © *RTO Insider*

The directors unanimously approved a special meeting of ERCOT's corporate members to consider three nominees for the ERCOT board, including Michigan Public Service Commission Chair Sally Talberg and retired ISO-NE General Counsel Ray Hepper.

Talberg and Hepper have been put forward by the board's Nominating Committee to serve three-year terms as unaffiliated directors. The COVID-19 pandemic has hampered the committee's ability to complete interviews for the third nominee.

Assuming their approval by corporate members followed by that of Texas' Public Utility Commission, the nominees will replace Board Chair Craven Crowell, Vice Chair Judy Walsh and Director Karl Pfirrmann, whose terms all expire on Dec. 31. The meeting has been scheduled for *July 10*.

The Nominating Committee also recommended unaffiliated Director Terry Bulger receive a second term after his current term expires March 30, 2021.

Talberg was appointed to the Michigan commission in 2013 by former Gov. Rick Snyder and became chair in 2016. Her term ends in July 2021, but Talberg said she would step down from the PSC should she be appointed to the ERCOT board. She has previously worked in an advisory capacity with the Texas PUC, served on the Organization of MISO States' board (and as its president) and holds a master's degree in Public Affairs from the University of Texas' Lyndon B. Johnson School of Public Affairs.

Hepper retired from ISO-NE in 2018 and serves on the board of trustees for the Perkins School for the Blind in Watertown, Mass. He spent time with the U.S. Department of Justice during part of his career.

Walker Reminds MPs of PUC's Role

Texas PUC Chair DeAnn Walker again brought up her concerns that commission staff's anonymous comments on an ERCOT change request are not being considered by some market participants, a repeat of her comments during a May 14 open meeting. (See "Commissioners Defend PUC Staff," *Texas Public Utility Commission Briefs: May 14, 2020*.)

Walker said she had since talked to one of the market participants involved and received further information on the May 13 Protocol Revision Subcommittee meeting, where stakeholders discussed a Nodal Protocol Revision Request (NPRR) seeking to clarify battery-storage technologies' interconnection and operations.

She said a meeting summary she had read showed a market participant had asked for the names of the commission staff that provided comments on the change request. Walker added that the market participant indicated staff's comments "hold little bearing" and that the NPRR would not be considered until they heard from the commissioners.

"I find it totally unacceptable that a market participant or multiple market participants believe they can demand action from this commission prior to the ERCOT market participants doing their duty as market participants," she said. "I wanted to address this here so people are clear that ERCOT market participants don't

Adjusted SAF Revenues and Interest Income with Resulting Cash Balance / (CRR Borrowings Balance)
($ in Millions)

Line	Per Approved 2020-2021 Budget	2018 Actual	2019 Forecast	2020 Budget	2021 Budget	2022 Projection	2023 Projection	2024 Projection	2025 Projection	2019-2025 CAGR
1	System Administration Fee (SAF) Revenues	$209.9	$211.7	$222.6	$229.3	$ 236.2	$ 242.9	$ 250.0	$ 255.9	3.2%
2	Interest Income	13.1	20.0	20.0	20.0	20.0	20.0	20.0	20.0	
3	Total SAF Revenues and Interest Income	$223.0	$231.7	$242.6	$249.3	$ 256.2	$ 262.9	$ 270.0	$ 275.9	
4	Cash Balance / (CRR Borrowings Balance)	$ (12.6)	$ 26.2	$ 55.9	$ 84.6	$ 109.0	$ 119.8	$ 134.9	$ 165.8	

Line	Adjustments	2018 Actual	2019 Actual	2020 Forecast	2021 Forecast	2022 Projection	2023 Projection	2024 Projection	2025 Projection	2019-2025 Totals
5	System Administration Fee (SAF) Revenues	$ -	$ 2.3	$ (8.5)	$ (9.2)	$ (8.3)	$ (8.0)	$ (10.3)	$ (13.5)	$ (55.5)
6	*SAF Revenue % Change vs Approved Budget*	0.0%	1.1%	-3.8%	-4.0%	-3.5%	-3.3%	-4.1%	-5.3%	
7	Interest Income	-	0.4	(16.2)	(20.0)	(20.0)	(20.0)	(20.0)	(20.0)	(115.8)
8	Total SAF Revenues and Interest Income	$ -	$ 2.7	$ (24.7)	$ (29.2)	$ (28.3)	$ (28.0)	$ (30.3)	$ (33.5)	$ (171.3)
9	Cash Balance / (CRR Borrowings Balance)	$ -	$ (1.8)	$ (26.5)	$ (55.6)	$ (83.9)	$(112.0)	$(142.3)	$(175.8)	

Line	Adjusted Amounts	2018 Actual	2019 Actual	2020 Forecast	2021 Forecast	2022 Projection	2023 Projection	2024 Projection	2025 Projection	2019-2025 CAGR
10	System Administration Fee (SAF) Revenues	$209.9	$214.0	$214.2	$220.1	$ 227.9	$ 234.8	$ 239.7	$ 242.3	2.1%
11	Interest Income	13.1	20.4	3.8	-	-	-	-	-	
12	Total SAF Revenues and Interest Income	$223.0	$234.4	$218.0	$220.1	$ 227.9	$ 234.8	$ 239.7	$ 242.3	
13	Cash Balance / (CRR Borrowings Balance)	$ (12.6)	$ 24.4	$ 29.5	$ 29.0	$ 25.0	$ 7.8	$ (7.4)	$ (10.0)	

Schedule may not foot due to rounding

ERCOT has revised its revenue projects based on the current economy, including a $55.5M reduction in system administrative fees through 2025. | *ERCOT*

ERCOT News

dictate to this commission what this commission does."

Walker suggested ERCOT stakeholders read the *Texas Public Utility Regulatory Act* to correct their "basic misunderstanding" of the commission's — and its staff's — role in ERCOT proceedings and the PUC's "exact authority over ERCOT in any market matters." She said in reviewing the grid operator's Protocols, she found language indicating commission staff may comment on revision requests.

"That's exactly what this staff did, was comment on a revision request," Walker said. "I could get into trouble if I keep going."

"I couldn't agree more with your comments," Crowell said, noting he was unaware of what Walker planned to say. "I'm assuming your comments will serve to correct the situation going forward."

Crowell opened the phone call to further comments, but there were none.

Parakkuth Approved as ERCOT's New CIO

The board approved Jayapal "JP" Parakkuth as vice president and chief information officer, effective with his May 11 start date.

According to his LinkedIn *profile*, Parakkuth, a power engineer, has more than 24 years of experience in "successfully visualizing, designing and implementing software solutions" for the grid. He has spent more than 20 years with Siemens, specializing in the digital grid and delivering major projects to PJM and CAISO.

Parakkuth has a master's degree in power systems and electronics from the Indian Institute of Technology in Bombay and an MBA in information systems and finance from the University of Minnesota. He replaces Jerry Dreyer, who left ERCOT on May 1.

Parakkuth "hit the ground running here," Magness said.

Corpus Christi Tx Project Gets OK

The directors approved the Regional Planning Group's (RPG) $219 million *Corpus Christi North Shore Project*, which addresses more than 1 GW of future industrial load growth expected by 2024 on the north shore of Corpus Christi Bay. (See "Corpus Christi Tx Project Gets OK," *ERCOT Technical Advisory Committee Briefs: May 27, 2020*.)

The RPG classified the project as a Tier 1 project because its price tag exceeds the $100 million threshold. Previously endorsed by the Technical Advisory Committee, the project comprises 36 miles of 345-kV lines, 8 miles of new and upgraded 138-kV lines, two new 345-kV substations and three 345/138-kV transformers.

An independent staff review found multiple NERC and ERCOT reliability planning criteria violations in the area. Staff identified several options that supported voltage needs but were unable to analyze the dynamic characteristics of the coming load. ERCOT and American Electric Power, the project's owner, agreed to revisit reactive compensation needs as short lead-time projects, once the load dynamic characteristics information becomes available.

Board Approves Bylaw Amendments, 13 Changes

During their July 10 special meeting, corporate members will consider *bylaw amendments* that widen the definition of "urgent matters" to allow virtual board and committee meetings by various electronic means. The board approved the amendments, along with other voting items, through a series of roll call votes.

ERCOT's legal staff have approved the use of electronic votes by stakeholders during the national emergency, asking only that such meetings use communications equipment that allows attendees to hear each other. If necessary, votes can be validated after the meeting, staff said.

The directors also approved a consent agenda that included nine NPRRs, a change to the Nodal Operating Guide (NOGRR), an Other Binding Document revision request (OBDRR) and two system change requests (SCRs):

- *NPRR933*: Adds specific timing requirements for retail electric providers and non-opt-in entities to notify ERCOT of the demand response and price-response programs they offer to customers, the level of participation in those programs and the deployment events associated with those programs.
- *NPRR975*: Clarifies that load forecast models will be used to select the seven-day load forecast based on expected weather and requires ERCOT operations to explain its selection, improving transparency for market participants.
- *NPRR987*: Includes the contribution of energy storage resources (ESRs) to physical responsive capability and real-time online reserve capacity in the ancillary service imbalance calculation.
- *NPRR989*: Establishes ESRs' technical requirements for voltage support service (including reactive power capability) and primary frequency response.
- *NPRR1006*: Returns emergency response service resources in a linear curve over a four-and-a-half-hour period following recall, instead of 10 hours, and changes the process for annually updating the parameter.
- *NPRR1018*: Clarifies several provisions regarding the termination and suspension of a qualified scheduling entity (QSE) and the ability of a load-serving entity or resource entity to act as a "virtual" or "emergency" QSE.
- *NPRR1019*: Addresses switchable generation resources (SWGRs) moving from a non-ERCOT control area to the ERCOT control area by creating a proxy energy offer curve with a price floor of $4,500/MWh for each RUC-committed SWGR and including a lost revenue cost component to the switchable generation cost guarantee.
- *NPRR1021*: Shortens the default uplift invoice's issuance timeline from 180 days to 90 days and allows ERCOT to use the best available settlement data when calculating each counterparty's share of the default uplift.
- *NPRR1022*: Modifies how QSEs and congestion revenue right account holders (CRRAHs) submit banking information changes to ERCOT by removing the ability to submit the information with a Notice of Change of Information via email or fax. Creates a new form, Notice of Change of Banking Information, that a QSE/CRRAH must execute and submit through the market information system's certified area.
- *NOGRR204:* Together with NPRR989, codifies concepts described in the Battery Energy Storage Task Force key topics and concepts No. 4 (*KTC 4*) and establishes ESR technical requirements.
- *OBDRR017*: Aligns language within the operating reserve demand curve's methodology for calculating the real-time reserve price adder with protocol revisions under NPRR987 and changes the real-time operating reserve calculation to consider an ESR's state of charge when calculating the resource's contribution to the online operating reserves.
- *SCR807*: Increases the CRRAHs' total CRR transaction limit by 33% to 400,000 market transactions during CRR auctions.
- *SCR809*: Updates the validation rules imposed on ERCOT's external telemetry and used in the resource limit calculator. ■

— Tom Kleckner

ERCOT News

Vistra, Oncor in for COVID-19's Long Haul

Company CEOs: No Hurry to Return Staff to Workplaces

By Tom Kleckner

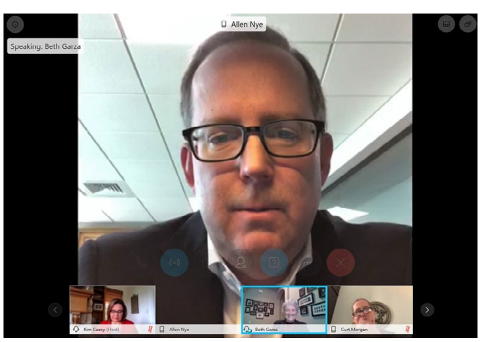
Two of Texas' largest power companies say they are in no hurry to return employees to their offices, an indication of the electric industry's caution around the coronavirus pandemic and its importance to the economy and everyday life.

Vistra Energy CEO Curt Morgan and Oncor CEO Allen Nye both said during a recent Gulf Coast Power Association video panel discussion that they are taking great care in returning their staff to the workplace.

"We'll probably be one of the last to go back to the workplace. We have no intention of bringing anyone back until we're certain we can do so in a healthy manner," Nye said during the June 4 discussion. "We recognize the critical nature of the service we provide. It's been made abundantly clear to me that we have to keep the lights on. We have productivity in the company and the lights are on."

"How, as the CEO of a company, can you bring people back if you can get the same productivity from people at home but you're adding incremental risk to your people?" Morgan said. "It's a very simply equation for us. Our people don't want to do it. They're afraid. Some have kids and don't want to bring anything home. We're not coming back until we have a vaccine or a therapeutic that works."

It's not just electric utilities taking a go-slow approach. MISO has gone so far as to call off all in-person meetings until next year. (See *Wary of Contagion, MISO Bars Visitors for 2020*.) CAISO has *shut down* in-person meetings until mid-September. PJM's companywide telecommuting posture is likely to extend well into the fall.



Oncor CEO Allen Nye details COVID-19's impact on the company. | *GCPA*

"How, as the CEO of a company, can you bring people back if you can get the same productivity from people at home but you're adding incremental risk to your people?"

—Curt Morgan, CEO, Vistra Energy

SPP said last week it has postponed by two months its plan for returning staff to its facilities in Little Rock, Ark. — until Sept. 8, at the earliest. The RTO had originally planned a July 6 phased return, but the state has experienced a *rise of confirmed cases*, with hospitalizations up 88% and active cases nearly doubling since Memorial Day.

In an email to stakeholders, CEO Barbara Sugg said SPP "will always put [employees'] health and safety first" when deciding to return them to the office. The grid operator has hired an epidemiologist to tour its corporate headquarters and review the controls it has put in place.

"We are also examining internal policies and resources to support a longer-term transition" that also allows for continued telecommuting, Sugg said.

The RTOs and utilities have discovered that the office environment is actually *conducive* in spreading the coronavirus. Elevators, coffee machines and office kitchens, once taken for granted, now present dangers in a COVID-19 world.

"I've found from other [companies] sending people back that the restroom is the issue," Morgan said, pointing to social-distancing requirements that would force employees to wait in lines. "It's going to be really difficult to be productive when you have to stand in line to go to the bathroom."

Vistra CEO Curt Morgan participates in a GCPA panel discussion. | *GCPA*

Vistra has organized a "planning-ahead" team to determine how best to bring back about 1,000 employees to its large open office space. Morgan said the team is working on more than 100 tasks to ready the office. The company also has an in-house doctor and is trying to get access to testing.

"I'm anxious to get back. Employees are asking us when we'll return," Morgan said. "Safety is bigger than anything else. Health is bigger than anything else."

Cultural Shift

Vistra shut down its offices very early, Morgan said. He said the company has a "number of folks" from China, including some from Wuhan, where the coronavirus originated. As early as mid-February, Morgan said, Vistra started getting reports "that there was something terribly wrong in China."

The company's early focus was on Luminant, its competitive generation business. The company began testing employees, primarily at power plants, and discovered "a number" of people with high temperatures. "That made people think, 'This is really serious,'" Morgan said.

Concerned employees were allowed to stay home without taking paid time off. That created a cultural shift for power plant staff and others, Morgan said.

"Power plant employees want to go to work. They want to be at the plant," he said.

Luminant added portable washing stations at its plants and tried to socially distance as much as possible. Contractors helping with spring maintenance outages stayed in local hotels and

ERCOT News

were required to undergo temperature checks before entering the plants' front gates.

"Those types of things were important to also get contractors to have that same mindset [as staff]," Morgan said. "We got a little pushback, but we told them they would not step on site if they didn't do the things the way we did."

Through it all, a staff of 3,000 or so Luminant employees and contractors completed 86 outages without a single plant-related infection.

"I don't think it's a coincidence," Morgan said. He did note a couple of employees tested positive for COVID-19, "but that was because of contact tracing."

Closer Through Distancing

Oncor took similar early action, dusting off its 13-year-old pandemic plan and implementing it in early January. By March 16, the company reached the highest of four levels and sent everyone home.

Everyone, that is, except the 1,200 or so service staff, line workers and other field employees. Each employee was assigned a vehicle that could be taken home at night and sanitized. Because it moved early, Oncor was able to lease enough additional vehicles and secure personal protection equipment for those in the field.

The company has adapted its processes to the new normal. Safety meetings are now conducted virtually. Employees are no longer shared with other teams, and they have to make appointments at their shops to pick up tools. Backup facilities are used so that as one group finishes its 12-hour shifts, that facility is cleaned during the next 12 hours while employees work out of the primary facility. Catered food is brought to the field, where employees can eat in their trucks.

Nye said only two employees have tested positive for COVID-19 and both have recovered. "That indicates the plan is working very well.

"I had my doubts when we started this," said Nye, who participated in the panel after an earlier video call with 800 employees. "It's an entirely different world. We've never gone this remote, this virtual, but I'm very pleased with how the technology has held up. We're all working longer and harder, but overall, I've been very encouraged and very relieved that it's worked out as well as it has."

Like Nye, Morgan said communications with a virtual staff had held up well. Vistra is attracting as many as 3,000 employees to its weekly live streams, and executives are answering as many as 400 comments after each event. A recent request for pictures of staff's home offices and their helpers drew hundreds of photos.

"It's interesting how many people have pets," Morgan said. "I think our company today is closer than we were prior to this. I like being in the same room with people, but we try to do the best we can with what we have." ■

ISO-NE News

BOEM Issues Revised EIS for Vineyard Wind

By Rich Heidorn Jr.

Offshore wind advocates said Wednesday they were encouraged by the U.S. Bureau of Ocean Energy Management's release of its supplemental *environmental impact study* (SEIS) on the 800-MW Vineyard Wind project, raising hopes that developers could begin construction as soon as next year.

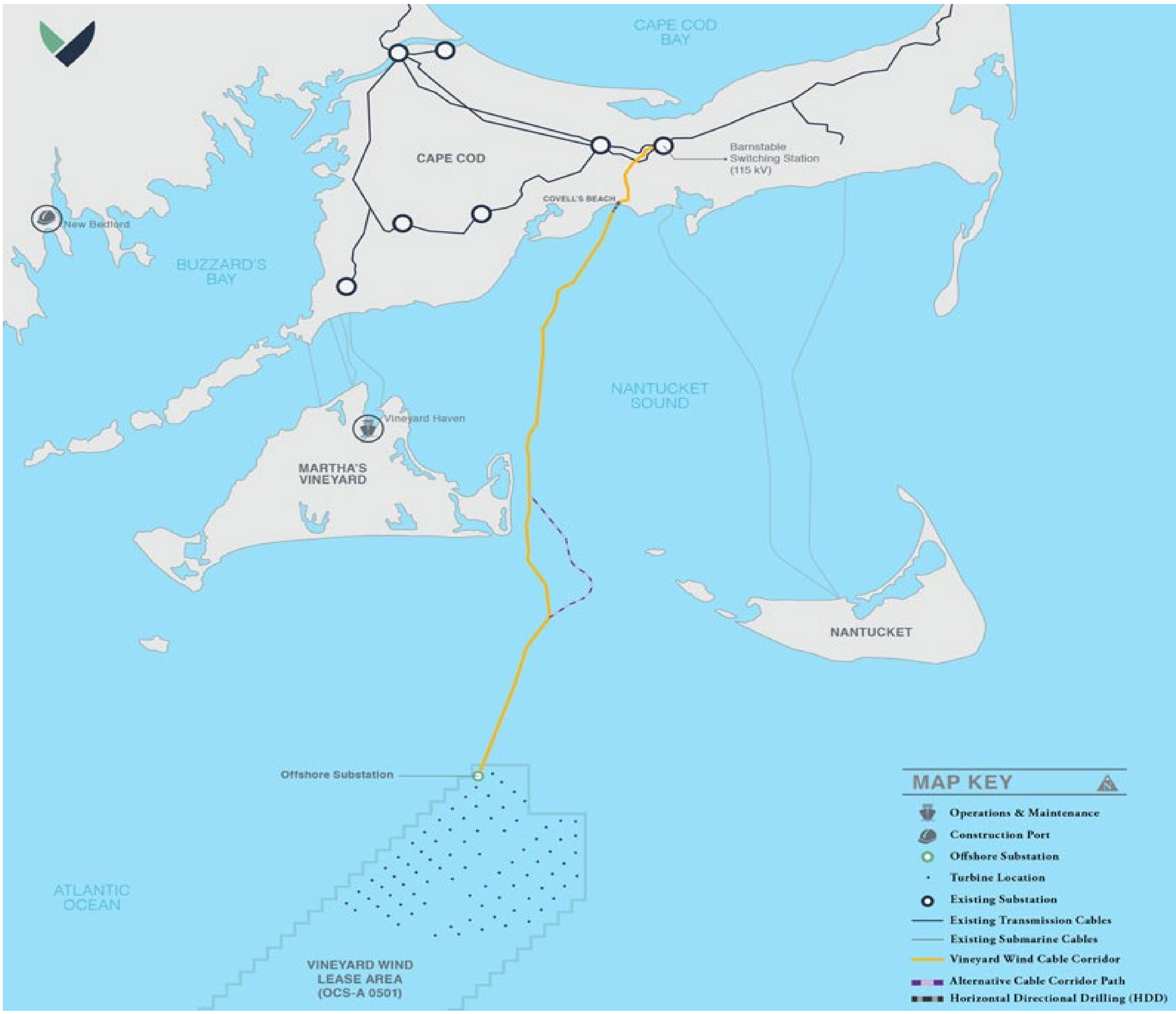
BOEM had issued its draft EIS in December 2018, leading to expectations that the agency would issue a record of decision approving the project in 2019. But last August, BOEM said it would not issue the final EIS until it completed a supplemental report looking at the cumulative impacts of Vineyard Wind and other offshore wind proposals in development.

The new report, issued June 9, considers 22 GW of Atlantic Ocean offshore wind projects from New England to Virginia.

The report found that the cumulative effect of the projects could have major impacts on navigation and vessel traffic, commercial fisheries and military and national security uses.

The report reflects changes to the project since the draft EIS — replacing 696-feet-tall, 10-MW turbines with 837-feet tall, 14-MW turbines.

It also includes a new alternative proposed by the Responsible Offshore Development Association, a fishing industry group, calling for "transit lanes" at least 4 nautical miles wide. The proposed transit corridor proposed for



| *Vinyard Wind*

ISO-NE News

the Vineyard project would provide a path for vessels traveling from New Bedford, Mass., and other southern New England ports to fishing grounds on Georges Bank.

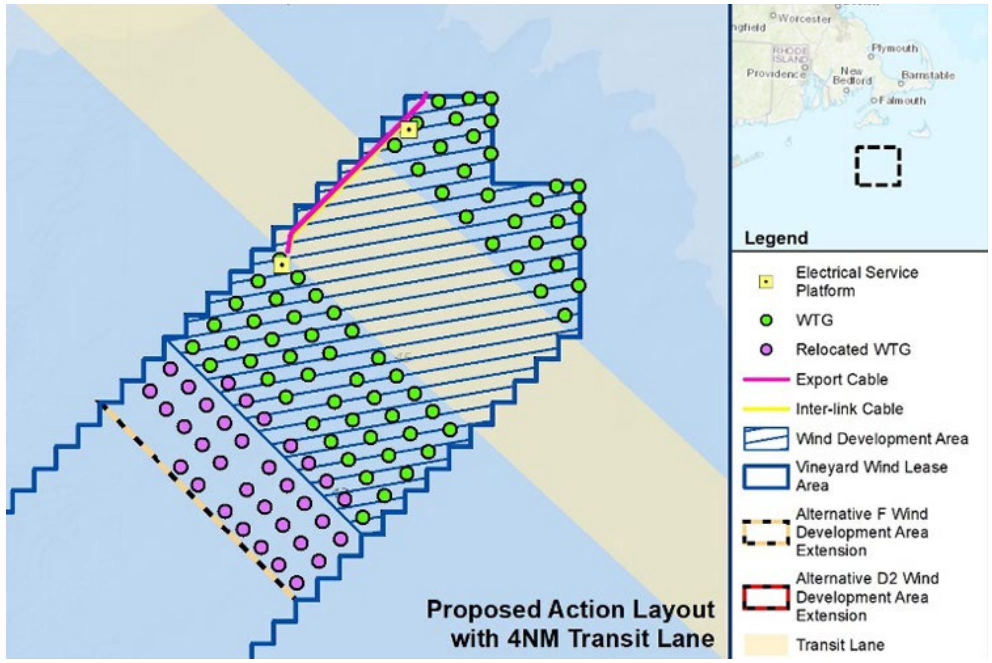
A Vineyard spokesman said the developers were still reviewing the 420-page report. "We're pleased that BOEM has published the draft SEIS and look forward to engaging with the agency and the many different stakeholders as we continue to make our way through this important public process," he said.

"BOEM has taken the first in a series of important steps in finally unlocking the enormous potential for offshore wind," said Tom Kiernan, CEO of the American Wind Energy Association. "The offshore wind industry is committed to working closely with other ocean users and remains confident that the deployment of offshore wind is compatible with commercial fishing and safe navigation, as has been demonstrated for years in other countries."

Liz Burdock, CEO of the Business Network for Offshore Wind, praised BOEM for "staying on time and on target" in issuing its report.

"The final approval of [the] supplemental EIS this fall will have a domino effect leading to the construction of 9,000 MW by the end of 2030. It will also kickstart a decade that will see the creation of a multitrillion U.S. blue economy employing thousands," she said.

ClearView Energy Partners was bullish on the project's chances of approval. "While President Donald Trump has occasionally criticized offshore wind, we think approving the project would align with the president's 'energy dominance' agenda," the firm wrote in a note



Alternative F: Vessel Transit Lane Alternative | *BOEM*

to clients. Trump issued an executive order in 2017 promoting the development of domestic energy resources, including renewable energy.

ClearView also said the report "could reduce judicial review risk for other offshore wind projects, particularly if those projects are able to incorporate vessel transit corridors and share a regional transmission system or cable corridor."

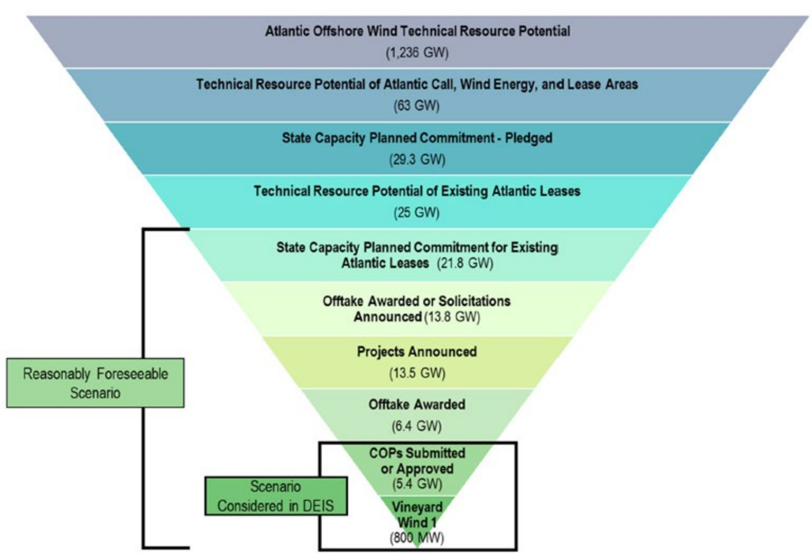
BOEM noted that it has received comments requesting that it mandate the use of a regional transmission cable system for the project but said it was "unfeasible primarily because such a system does not yet exist, and BOEM has issued no right of way for such a system."

Anbaric Development Partners has submitted proposals to BOEM to develop two open-access offshore transmission systems, one for New York and New Jersey, and one for Southern New England that could connect to Vineyard.

BOEM said there is no proposed timeline for the projects nor a plan for who would pay for transmission capacity exceeding Vineyard's needs. "The proposed project timeline would be substantially delayed by the time needed to properly plan a regional transmission network that would not reduce system resiliency or pose capacity issues for onshore substations," BOEM said.

"The routes for these proposed regional cables have not been determined at this time and are not considered reasonably foreseeable, but BOEM assumes that if future offshore wind projects utilize one of these open-access transmission systems, the impacts associated with new cable emplacement and maintenance activities would be less than if each individual project installed its own cable," it said.

The agency will accept comments for 45 days after the SEIS is published in the *Federal Register*, keeping BOEM on schedule for publishing a final EIS in November and issuing a final decision by December. That would allow Vineyard Wind to begin construction in 2021 and begin service in 2022. ■



Scope for future possible development of offshore wind | *BOEM*

ISO-NE News

Exelon Challenges ISO-NE RFP in Bid to Extend Mystic

Alleges RTO Violating Tariff on Evaluating Proposals, Tx Security

Continued from page 1

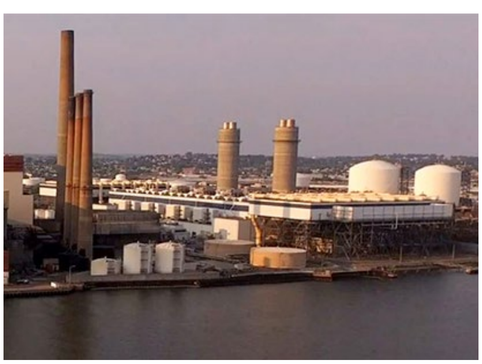
other bids and modifying its planning procedures to qualify the National Grid-Eversource project in time for Forward Capacity Auction 15 in February 2021, which will procure resources for capacity commitment period 2024/25.

"Twice in the last eight months, ISO-NE has sought permission from the commission to alter its Tariff to prevent the retention for reliability of … Mystic 8 and 9, and twice the commission has said that those efforts were premature," Exelon said, referring to FERC rulings on Feb. 14 (*ER20-645*) and March 6 (*ER20-89*). (See *FERC Rejects ISO-NE Fuel Security Sunset Rollback* and *FERC Rejects ISO-NE Fuel Security Tariff Revisions*.) "Now ISO-NE has revised its planning procedures to do the same thing, but this time, without asking the commission."

Exelon cited ISO-NE's changes to Planning Procedure 10 (*PP10*) to modify the rules for determining whether planned transmission can be included in the network model for the studied capacity commitment period.

The new language said projects proposed in response to an RFP that "are reasonably likely to be in service prior to the relevant capacity commitment period … may be determined to be timely and sufficient to meet the reliability need." It was approved by the New England Power Pool Participants Committee over Exelon's opposition on June 4. (See "Order 1000 Questions on Tx Planning," *NEPOOL Participants Committee Briefs: June 4, 2020*.)

Exelon said the change, which was not filed with FERC, violates the Tariff's "strict rules" for determining whether planned transmission can be included in the network model. "Unless a transmission project has been certificated or executed a binding construction contract, and met important milestones, and been vetted and selected through an extensive process, the project cannot be included in the modeling," Exelon said. It said the changes to PP10 will shorten the amount of time for project construction by as much as two years.



Mystic Generating Station | *Anbaric Development Partners*

"We strongly disagree with Exelon's complaint, and we look forward to addressing a number of inaccuracies contained therein," ISO-NE spokesman Matt Kakley said Thursday. "Exelon requested to retire its Mystic plant, and we have worked diligently to accommodate their request while maintaining system reliability in the region. We are moving forward in solving the reliability issues caused by Mystic's retirement in a timely and cost-effective manner."

Expedited Ruling Sought

Exelon asked FERC to limit answers to its complaint to 14 days and issue an order by Aug. 4. "Expedition is crucial because ISO-NE will perform its transmission security review from June 11, 2020, through Aug. 18, 2020," Exelon said. "Action by Aug. 4 will allow a reasonable amount of time (two weeks) for ISO-NE to correct its transmission security analysis by the Aug. 18 deadline.

"Whether ISO-NE follows the merchant approach or the incumbent approach, it is unlikely that the analysis will be completed, and a project selected and committed, before the FCA 15 auction is run in February of 2021," it continued. "Put differently, because the transmission security analysis will be completed in August of 2020, ISO-NE will not have a vetted, approved and committed project in place in time to conduct that review. The revision to Planning Procedure No. 10, and likely the truncating of the RFP, are intended to circumvent this problem, but in taking these actions, ISO-NE runs afoul of the Federal Power Act, the ISO-NE Tariff and commission 'rule of reason' precedent."

Exelon also claimed that ISO-NE "has unduly rushed" its RFP analysis, saying "its elimination of some projects based on project installed cost alone bypasses the detailed weighing of factors required for viable projects in Phase Two … and exceeds ISO-NE's authority to cull the list of proposals in Phase One."

The RTO *said* it cut the candidates down to one project on the basis of installed cost and the speed of completion.

"That is unwarranted," Exelon said. "To be sure, the Phase One information that project sponsors are to submit includes cost information but only 'estimated life-cycle and installed costs of the proposed solution, including a high-level itemization of the components of the cost estimate, a description of the financing being used and any cost-containment or cost-cap measures.'"

By contrast, Phase Two requires "detailed cost component itemization and life-cycle cost" and permits "clarifications to cost-containment or cost-cap measures that were not included as part of the Phase One proposal," the complaint said in quoting the Tariff.

Long and Litigious

Exelon announced in 2018 that it would retire the 2,001-MW Mystic plant's Units 8 and 9, which began a long and litigious process of the RTO working to keep the plant running for "fuel security" reasons rather than for reliability, the only rationale then allowed under the Tariff.

Wednesday's complaint is the latest move by Exelon to extend Mystic's life after announcing in 2018 that it would retire the plant as uneconomical, citing its dependence on LNG, which is more expensive than natural gas from pipelines.

The "fuel security" cost-of-service agreement for Units 8 and 9 and the Exelon-owned LNG terminal that supplies them pays the company an annual fixed revenue requirement of almost $219 million for capacity commitment period 2022/23 and nearly $187 million for 2023/24, subject to true-ups for fuel costs.

In April, Exelon filed interconnection requests to keep the two combined cycle units running beyond 2024, asking the RTO to treat the units — with a combined capacity of 1,600 MW in summer and 1,700 MW in winter — as "new" resources. (See *Exelon Bid to Keep Mystic Units Running Provokes Outrage*.)

Kakley emphasized that the RTO has "not selected" the National Grid-Eversource project but is only proposing to advance it to further review under Phase 2. RTO staff will discuss their review of the proposals with stakeholders at the Planning Advisory Committee on June 17. ■

ISO-NE News

Debate Continues as New England Awaits ESI Ruling

By Rich Heidorn Jr.

It's been almost two months since ISO-NE presented FERC with its Energy Security Improvements proposal, a generator-backed plan nearly two years in the making that split stakeholders so much that the RTO agreed to also submit an alternative supported by load interests.

The time since the filing has done nothing to bring the two sides closer, it appears, based on a *panel discussion* webcast by the Northeast Energy and Commerce Association on Wednesday.


Tom Kaslow, FirstLight Power | © *RTO Insider*

Tom Kaslow, vice president of market policy for generator FirstLight Power Resources, and Andrew Weinstein, Vistra Energy's director of ISO-NE market policy, joined Andrew Gillespie, ISO-NE's senior market designer of market development, in defending the RTO's proposal.


Jeffrey Bentz, NESCOE | © *RTO Insider*

Jeffrey Bentz, director of analysis for the New England States Committee on Electricity (NESCOE), and David Cavanaugh, vice president of regulatory and market affairs for *Energy New England*, which serves 35 municipal utilities, made the case for NESCOE's three amendments to reduce the plan's cost to consumers.


Karen Iampen, Repsol | © *RTO Insider*

Karen Iampen, vice president of trading and origination for Repsol, complained that neither of the plans work for the company's *Canaport LNG* terminal in New Brunswick because they are focused on the day-ahead market.

ESI would allow the RTO to procure energy call options for three new day-ahead ancillary service products. ISO-NE detailed the plan in a 2,123-page *filing* April 15 in response to FERC's July 2018 ruling that the RTO's Tariff is not just and reasonable because it lacks a way to address fuel security concerns. The Tariff currently allows cost-of-service agreements only to respond to local transmission security issues (*EL18-182, ER18-1509*). (See *FERC Denies ISO-NE Mystic Waiver, Orders Tariff Changes*.)


Canaport LNG terminal's three storage tanks | *Canaport LNG*

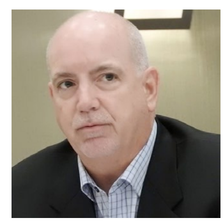
New England's fuel security is a particular concern in winter, when prioritized heating demand can leave natural gas-fired generators without supplies. FERC's order noted that reliability violations could occur as soon as 2022.

ESI is intended to incent generators to provide fast-start and fast-ramping operating reserves, replacement reserves for long-duration supply losses, and energy to fill the gap between the RTO's day-ahead energy awards and real-time load forecasts. Option awards will be co-optimized with all energy supply offers and demand bids in the day-ahead market.

ISO-NE's proposal received only 40% of a sector-weighted vote of the New England Power Pool Participants Committee in April, with support from Generation, Suppliers and Alternative Resources and unanimous opposition from the other sectors.

The PC approved amendments by NESCOE to limit replacement energy reserve (RER) purchases to the winter months, remove the RTO's ability to adjust reserve levels to account for load forecast errors, and create a $10/MWh adder to the strike price. The amendments were endorsed by almost 62% of the PC, with unanimous support from the Transmission, Publicly Owned Entity and End User sectors and unanimous opposition from the Generation sector. ISO-NE submitted them to FERC along with the RTO's proposal. (See *ISO-NE Sending 2 Energy Security Plans to FERC*.)

'Using a Tank to Block a Mousehole'


David Cavanaugh, Energy New England | © *RTO Insider*

Cavanaugh said the NESCOE amendments allow the region to comply with the FERC order while minimizing costs.

Bentz repeated a line from the *protest* NESCOE filed in response to ISO-NE's filing. "We think the ISO is using a tank to block a mousehole," he said.

"ESI is a novel approach for day-ahead reserves without any precedent elsewhere," he said. "The potential impacts on energy security and cost to consumers are and remain uncertain, notwithstanding the impact analysis efforts of the *Analysis Group* and the ISO," he said. "We're just not sure this solves the fuel security problem."

Bentz said the states would have preferred exploring a seasonal forward market with "a more conventional approach" to day-ahead ancillary services based on the best practices of other RTOs. "We think it could be potentially easier: more efficient at addressing fuel security and less risky than ESI," he said.

State regulators are concerned that consumers will pay high prices if ESI fails to produce competitive outcomes, "which could happen potentially through physical withholding or in-

ISO-NE News

Still mostly working from home, NECA's panelists opined from via webcast. | *NECA*

adequate incentives to participate," Bentz said. The RTO has not yet "demonstrated [an] ability to mitigate market power effectively.

"We think it's going to overcharge [through] incentives that fail to account for any diminishing marginal reliability value and are grossly disproportionate to fuel holding costs, according to the ISO's own independent impact analysis study," he added.

Bentz noted Analysis Group's impact report showed 70 oil-burning combustion turbines would collect $7,385/MW in increased revenue for an investment of $134/MW. "We think that's excessive," he said.

Novelty Nothing New for New England

FirstLight's Kaslow insisted FERC will ensure that the RTO has effective market mitigation procedures to protect consumers. And he said ISO-NE should not hesitate to try new solutions.

"NEPOOL and ISO have prided themselves on … being the first to do something, not because they wanted to be first, but because there was nothing better out there," Kaslow said. "We've done that with our demand curve design. … We've done that with Pay-for-Performance," which, he noted, PJM used as the basis of its Capacity Performance rules.

Kaslow also noted the RTO was "the first to have a capacity auction to sponsor policy resources," a reference to the Competitive Auctions with Sponsored Policy Resources (CASPR). "So being first and being novel isn't a new thing in New England."

Bentz responded that ESI seeks to address the same problem "Pay-for-Performance was supposed to solve."

Of CASPR, he said, "the states are sitting here with thousands and thousands of megawatts wanting to get into the market. And so far — I know it's been only two auctions … we've only transacted a total of 54 MW. Next auction isn't looking so good either. So, I'd say from the states' perspectives, we're looking at these novel designs and going, 'OK, they sound good on paper. But do they actually work in reality?'"

Bentz said NESCOE and the Massachusetts attorney general had sought a three-year "lookback" to see if ESI is working as designed. Depending on their experience, Bentz said, the states could consider RER for summer months later. "Our pitch was, 'start out slow,'" he said.

Unfair to Generators

Kaslow said it is generators that would be at risk if the commission agrees with NESCOE's call to set RERs' value to zero in the non-winter months.

"We're troubled by the fact that NEPOOL proposes simply not to pay [for] replacement energy reserves in the non-winter months. Nothing in the NEPOOL filed amendments removes the ISO's ability to schedule those reserves. As an owner of a resource relying on merchant revenues … that just doesn't seem to be a fair outcome.

"When you have a market that's relying on the marginal price of the reserves to set the price, that determines whether or not — and to what extent — we get paid. If there's an element of that supply that the ISO ends up scheduling that isn't accounted for in the demand that's used to price it, the prices drop to zero.

"ISO will always maintain reliability. Unless they're handcuffed or prevented from scheduling that reserve, they're going to do it. And our concern is if they do that and it isn't reflected

ISO-NE News

in the market, it just suppresses the real-time prices — with the feedback loop [to] the day-ahead — and we just end up in a problem."

LNG complaint

Repsol, a global "multi-energy company" that owns 75% of Canaport, thinks the RTO is seeking the wrong solution, Iampen said.

"In our opinion, the ESI filing … inappropriately replaced the fuel security with an energy security construct. So instead of the focus being on securing firm fuel or having secure fuel, it became about energy, which … wasn't what the ISO was directed to submit Tariff revisions on."

Iampen said securing LNG supplies requires firm forward contracting. "Compensation that is contingent on the generator's option offer clearing on a day-ahead basis does not incent generators to procure the firm forward fuel supplies necessary to assure fuel security," she said.

"We don't contract forward for LNG speculatively. There is an awful lot of advance planning that is required. All LNG is not the same. You have to have a certain quality that shows up. You have to have a certain ship that can come alongside on your jetty. Not every ship can go into Everett, [Mass., where Exelon's LNG terminal is located]. The bridge is too low for a good portion of the fleet that's out there. Those logistics require more than a day-before cost certainty."

ISO-NE's Gillespie agreed with Iampen that the RTO's goal with ESI is — as the title suggests — "energy" not "fuel" security.

"Fundamentally, the ISO really only cares about electrical energy. We really don't want to be in the business of managing fuel for different power plants across the region," he said. "So, our focus in this process [has been on] the outputs of these plants. These are the services that the system needs — the standby capability."

Non-winter Incidents

Kaslow contended that NESCOE's focus on winter is "designing by looking through the rear-view mirror." Three losses of large baseload resources in the prior two weeks showed that energy security concerns are not limited to winter, he said.

On May 27, the region lost the Phase II transmission line with Quebec to a lightning strike while it was supplying almost 2,000 MW of power to New England.

Two days later, the region lost the Seabrook nuclear plant and Phase II again, then carrying more than 1,300 MW of imports.

On June 6, the RTO lost Seabrook *again*. In both cases, the plant shut down when control rods moved into the reactor when they weren't supposed to.

"We need to be clear that we can't predict the future, and ISO needs to keep the system operating every day. And the resources they need to rely on actually need to have compensation … to continue to provide that service," Kaslow said.

ENE's Cavanaugh countered that none of the recent events involved fuel issues. Nor did they result in reserve shortages, he said.

"Prices went to about $120[/MWh]," Bentz agreed. "The system handled it well."

Cavanaugh said the probability of needing RER in the summer is "very low," making the ISO-NE plan "a very huge insurance bill for covering something that we think is outside the scope of what the FERC asked."

Canaport LNG terminal in Saint John, New Brunswick | *Canaport LNG*

Andrew Gillespie, ISO-NE | *ISO-NE*

Gillespie said that although the RTO's energy security vulnerabilities are currently most acute in winter, that will likely change as renewables increase their penetration.

"Right now, it's mostly a concern in the wintertime, [but if] a lot of these resources that are providing these standby capabilities end up leaving that could spill out into months outside the winter," he said. "If a pipeline is down for maintenance. If it's a cloudy day. All these different things can occur. ... It will be, I think, a broader problem than just the winter" because of system changes.

Starting Over?

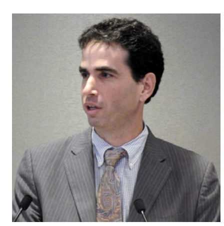
Repsol's *protest* of ISO-NE's proposal asked FERC to order the RTO to make a compliance filing to address the "fuel security" concerns the company says were ignored in the ESI filing.

Iampen said Repsol is not asking FERC to reject the two proposals and is encouraged by the RTO's commitment to develop a "longer-horizon seasonal fuel security framework."

Kaslow observed that it took almost two years to develop a plan in response to the FERC order, "and then we still have another four years to implement" it.

"A delay, or going back to what I would call a blank page, I think is just impractical at this point," he said.

"It's critical that we give ESI time to work ... rather than immediately looking for the next shiny object," said



Andrew Weinstein, Vistra | © *RTO Insider*

Weinstein, who joined Vistra a year ago after nine years at FERC, including a stint as former Commissioner Cheryl LaFleur's legal adviser, said, "I think there should be concern about how FERC proceeds going forward. FERC could decide it's obligated to find a solution on its own. It could be prescriptive."

"I don't know that we want to restart," Bentz said. "But our original approach two years ago was, 'Can't we do a conventional approach that's in place in other places?" ■

ISO-NE News

Maine Presents Microcosm of Massive Climate Challenge

Electrification Would Triple Power Use, Quintuple Peak Demand

By Michael Brooks

A webinar last week to discuss strategies for meeting Maine's renewable portfolio standards and emission-reduction targets presented a stark reminder of just how challenging decarbonizing the entire power sector and curtailing global climate change will be.

The Environmental & Energy Technology Council of Maine (E2Tech) on Wednesday invited four panelists to present their own strategy for meeting Maine's ambitious goals: a 45% greenhouse gas emissions reduction below 1990 levels by 2030, and at least 80% by 2050; and 80% renewable energy by 2030 and 100% by 2050.

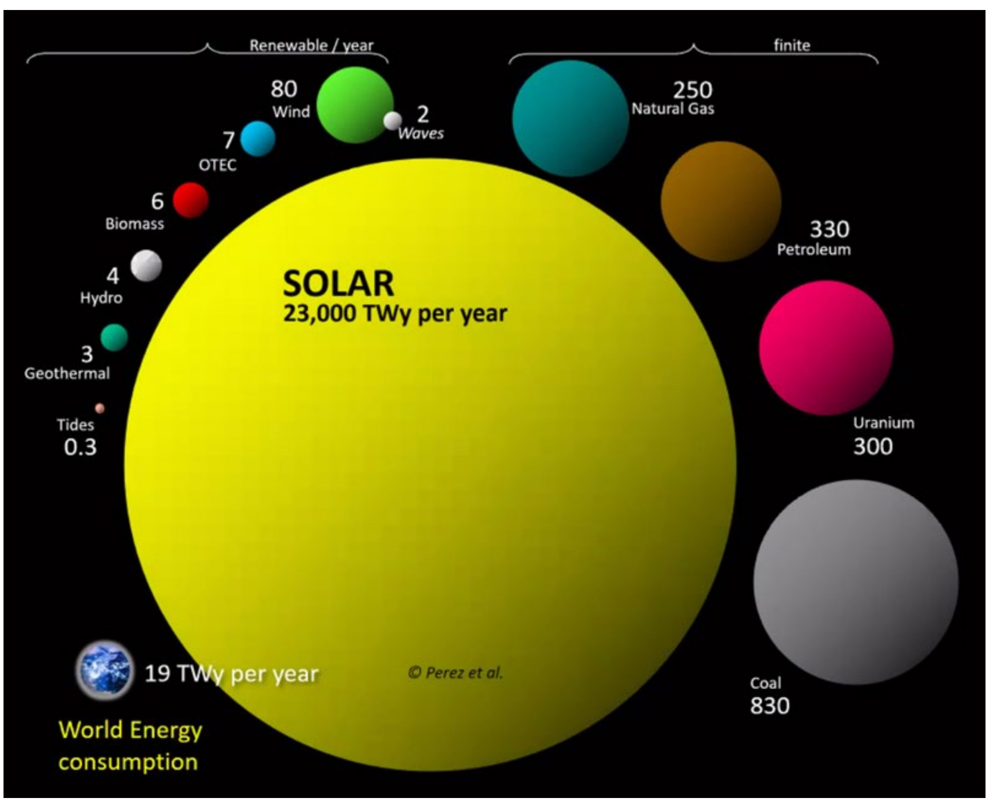
Though each speaker emphasized different methods, all would involve an unprecedented buildout in solar and wind energy and a paradigm shift in how electricity is valued on the wholesale and retail markets. It would also involve massive electrification of all sectors of the state's economy.

"One of the things that became clear as we prepared [for the webinar] is that we are overlapping quite a bit in our findings," said Jürgen Weiss, a principal with The Brattle Group. "I think that by itself is an interesting observation. We'll quibble about the last 5% or maybe the last 10% in the details here and there, but the overall conclusions that we come to are strikingly similar actually."

Richard Silkman, CEO of advising firm *Competitive Energy Services*, *said* that converting all end uses of energy to electricity in the state would more than triple the 12 TWh used annually to about 40 TWh, while peak demand would go from about 2 GW to about 10 GW.

Weiss *used* a previous Brattle study that analyzed New England's trajectory to obtaining 80% renewables by 2050 to present a comparison to Silkman's projections. The study showed that the region would need about 200 GW of total capacity, over six times more than it has currently.

"So if I want to scare anybody about how hard it will be to do it, I'll frame it this way: We took 100 years to build the current electric system of something like 30 GW. Now we have 30 years to build an entirely new system of 200 GW," Weiss said. "So that's pretty scary."



Solar has the highest potential capacity of all generating resources, the University of Albany's Richard Perez said. | *E2Tech*

One of the biggest challenges for Maine and the rest of New England is that solar does not have as large a capacity factor as it does in other, sunnier parts of the U.S. New England's demand also peaks in winter, when sunlight is less productive. That means the state will have to build an extraordinary amount of solar facilities to replace the large, retiring fossil fuel plants in the region, panelists said.

That presents its own challenges, *said* Richard Perez, senior research associate at the University of Albany's Atmospheric Sciences Research Center. He focused his presentation on "ultra-high penetration PV," as he said solar has the highest potential to meet global demand. "When we think of a 'mix' of solutions, for me the mix is solar," he said. "Most of the other energy sources are byproducts of solar."

The main challenge is converting solar from being a seasonal, intermittent resource to a firm, dispatchable one: "something that's available 24/7/365, without downtime," Perez said. A massive buildout of storage is one solution, he said, but "extremely expensive ... even assuming very low future costs for storage." Perez's idea is to build more solar than is actually needed and purposefully curtail it, a model he calls "implicit storage."

The problem is "nobody pays you to curtail," making his solution "not dependent on technology; it's more dependent on the policy and the rules of remuneration."

The state will also have to evolve from its customer-driven model of renewable procurement. Perez related his own experience with making his New York home a net zero energy consumer: rooftop solar panels, an in-home battery and an electric vehicle. "None of those millions of customers [in his home city of Albany] could do what I did; they don't have the space or maybe the financial position to do it. And the big industrial customers can not do that either.

"So if I [can] solve my problem and be proud about it, it's far from solving what we need to do for [the] climate," he said.

Another challenge is that Maine residents are also very protective of their state's heavily forested land and scenic mountain views. Under Silkman's analysis, onshore wind would also

ISO-NE News

have to significantly increase, though not as much as solar, from 1 GW currently to 2.5 GW. That's "problematic in Maine, I understand, given people's love for mountaintops," he said.

Perez noted grassroots, environmental opposition to PV development on the grounds of protecting land and trees. He said it would take 8,500 square miles to power the U.S. with 55% solar under his model of overbuilding. "So, it looks gigantic ... until you put it in perspective and look at the ground distribution in the U.S." That 8,500 square miles represents about 1% of farmland in the contiguous U.S., he said.

In Maine, assuming the same proportion of solar in the generation mix, facilities would only take up 37 square km — compared to the state's nearly 56,000 square km of forest. "There's so much space, in fact, you could even foresee doing away with wind" and using 100% solar, he said.

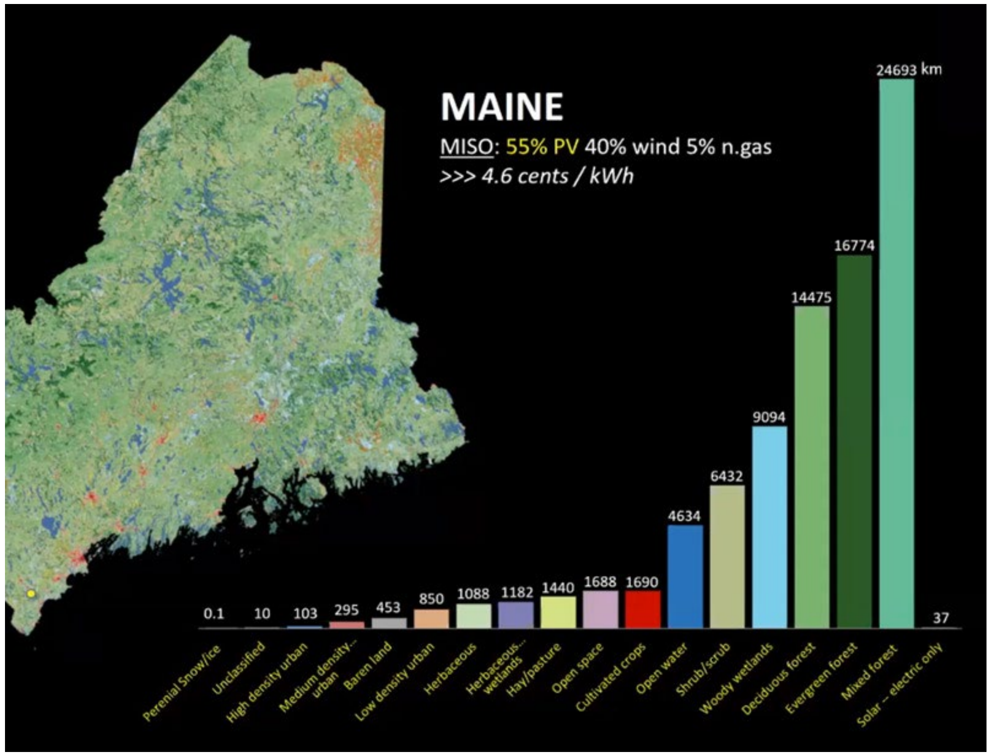
'Fall Far Short'

The panelists' projections and strategies made it clear that Maine and New England are behind on achieving their goals.

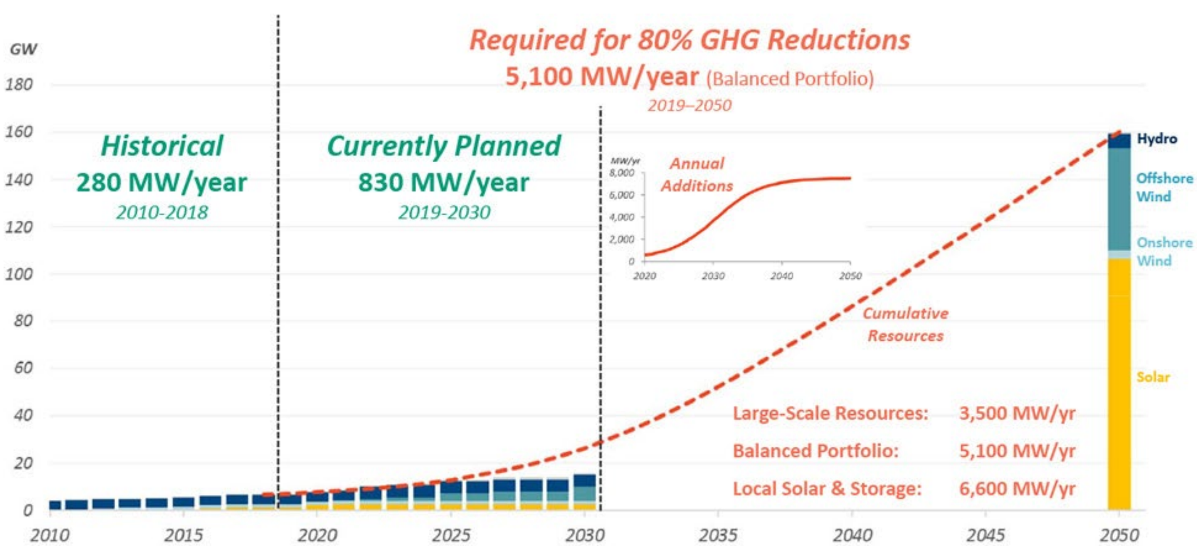
"At the current rates of deployment of renewables that are now on the horizon for the next decade, we're going to fall far short of building these large capacities of renewable resources by 2050," Weiss said. "We have to roughly increase the annual average deployment rate [by] four to eight times ... about [3,000] to 6,000 MW per year" between now and 2050. "So that's scary."

Regarding emissions reductions, Silkman said that the state's 2050 goal is still possible if it significantly ramps up its electrification and renewable buildout. "But it's not going to happen in the 2020s, no matter what we do," he said. "This decade's gone. But we can start to see some serious reductions in the 2030s and 2040s."

Kurt Adams, CEO of Summit Utilities, concluded his remarks by encouraging attendees. "Stay humble and work hard," he said. "We're changing the status quo. It's very, very difficult. And it's very difficult for a lot of reasons. So it just takes a lot of work and a lot of checking yourself and thinking about how you're moving things forward, rejecting your ideas if they're not being successful and picking the next one up and driving forward." ■



The yellow dot in the southwestern corner of the map represents the space necessary to generate 55% of Maine's electricity with solar power. | *E2Tech*



"The current pace of adding wind, solar, etc. falls far short of what is needed to build the needed renewable portfolio of 200 GW by 2050, but a steady growth rate of 10% or less per year would do it!" according to Brattle's Jürgen Weiss. | *ISO-NE*

ISO-NE News

NEPOOL Markets Committee Briefs: June 10, 2020

2019 Energy Costs down 19%

New England's total wholesale costs of electricity last year fell 19% to $9.8 billion, driven mostly by lower energy costs, according to the ISO-NE Internal Market Monitor's 2019 Annual Markets *Report*.

Energy and capacity costs collectively composed about 93% of the overall decrease, as shown by highlights from the report *presented* by IMM Director Jeffrey McDonald to the New England Power Pool Markets Committee last week.

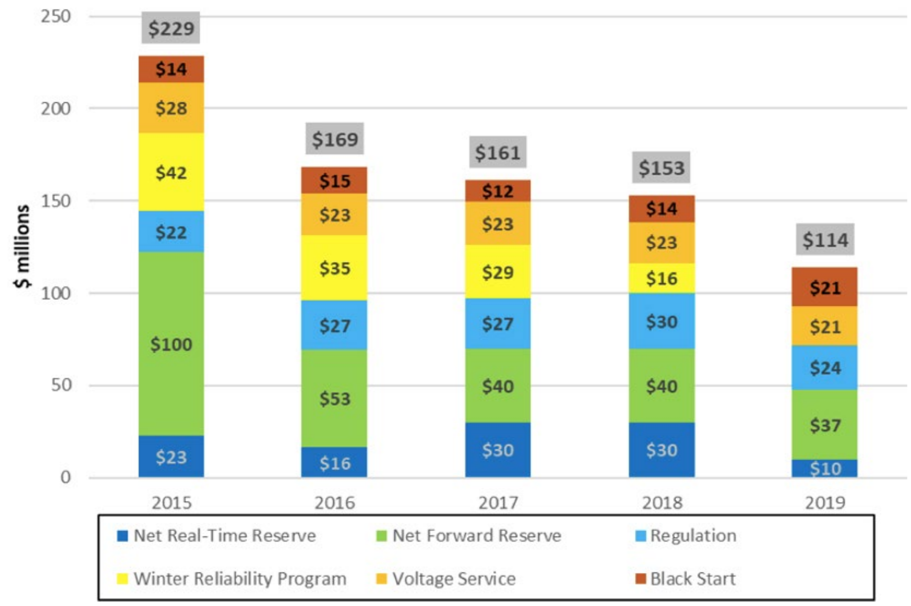
Energy costs fell primarily on lower natural gas prices and lower loads, totaling about $4.1 billion and down about 33% from 2018.

Last year contrasted with a 2018 that saw both an extended winter cold snap and a hot and humid summer, which elevated natural gas prices in winter and boosted electricity prices in both seasons. Natural gas prices declined 34% last year to an average of $3.26/MMBtu.

Electricity demand in the third quarter of the year decreased by 6%, or by 1,011 MW per hour, on average, and drove a 4% decrease in annual demand. On a weather-normalized basis, demand was down slightly, continuing a longer-term downward trend because of the increase in utility-backed energy efficiency programs and behind-the-meter photovoltaic generation, McDonald said.

ISO-NE also reported that the Forward Capacity Auction procured surplus capacity for the sixth consecutive year as clearing prices continued a downward trend. FCA 14 in February cleared at an all-time low price of $2/kW-month. (See *ISO-NE Capacity Prices Hit Record Low*.)

FCA 14's surplus was almost 1,500 MW, or 5%, above the installed capacity requirement, despite a significant amount of capacity (more than 2,500 MW) exiting the capacity market, mostly for a one-year period, in response to low prices, according to the report.



Ancillary service costs in New England were 25% lower in 2019 from the previous year. | *ISO-NE*

Exempting EE from Pay-for-Performance

Mark Spencer of LS Power led discussion of a Jericho Power *proposal* to exempt EE resources from Pay-for-Performance (PfP) in order to eliminate up to $19 million in credit support costs for all capacity resources.

ISO-NE rolled out PfP in June 2018 to ensure fuel security under severe winter conditions. Under the program, all resources with capacity supply obligations (CSOs) are assessed a charge — based on their gross FCA payments — when a "measurable" real-time operating reserve (RTOR) deficiency triggers a capacity scarcity condition (CSC). The RTO then redistributes the money collected from that charge as payments to CSO resources based on their performance during the RTOR event.

Critics contend that the current PfP arrangement has the potential to overcompensate the performance of EE resources during CSC events, which could be remedied by altogether removing those resources from PfP because their RTOR deficiencies are not technically measurable.

A Sept. 3, 2018, CSC event used as an example showed that "EE received a charge of $551,000" while "non-EE capacity supply obligation holders shared in the pool charge to the tune of $7.3 million," Spencer said.

Spencer posed a hypothetical circumstance of when EE can be overcompensated: "We're now on the cusp, with FCA 15, of moving from the $2,000 [CSC charge] rate that was in effect during the September 2018 event, to ... $5,455/MWh; EE's charge would have been $1.5 million, [and] non-EE CSO holders would have been charged $20 million" if the new rate was applied to the 2018 event, Spencer said.

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

"If applying on-peak rules to that hypothetical case, then EE's net payment would have been $10.3 million, so just toggling the same event between off-peak and on-peak, it goes from $1.5 million to a net payment of $10.3 million," he said.

This increase in net payments to EE as system load decreases is in "direct contradiction to the evidentiary record" of EE performance, LS Power contended. Under the proposal, net charges or net payments to EE in any hour of any CSC would be zero.

ISO-NE has estimated that for the 2019/20 capacity commitment period, the face value of credit support required because of EE's participation in PfP was $11 million to $19 million, and the cost of providing this support is higher for smaller, nonpublic companies that may have lower credit ratings.

"If EE did not participate in PfP, this requirement, and its associated cost, would be eliminated," Spencer said.

The proposal would retain EE's base capacity payments, remove EE from the PfP settlement including the "insurance pool" and eliminate EE's requirement to provide credit support for the FCM Delivery Financial Assurance.

Backers of the proposal will continue to devel-

ISO-NE News

op it before the MC this summer before seeking a vote on the Market Rule 1 and Financial Assurance Policy changes at the September PC meeting.

FRM Sunset by 2025

ISO-NE Market Development Analyst Jonathan Lowell led discussion of the RTO's *proposal* to sunset the Forward Reserve Market on June 1, 2025.

The FRM awards obligations to deliver 10-minute non-spinning reserves and 30-minute operating reserves in real time.

The FRM sunset proposal is not linked to FERC approval of the RTO's Energy Security Improvements filing or to development of seasonal forward market for ESI energy options, according to meeting materials.

However, the RTO is following the suggestion of the External Market Monitor, which in its annual *report* published June 3 reiterated what it has been recommending since 2014. The EMM said that the FRM is no longer necessary, and that the settlement rules by themselves don't create incentives for resources to be available in real time, forcing reliance on administrative penalty provisions.

Markets have evolved in other ways to reward resource flexibility and better performance, and transmission investment has addressed many locational constraints, the Monitor showed.

"The weaknesses are manifest, and FRM weaknesses outweigh any negligible remaining benefits," the RTO's materials said.

The RTO wants to establish a sunset date of June 1, 2025; otherwise, the assumptions used in FCA 16 for cost of new entry (CONE) and other parameters would not properly reflect expected ancillary service market revenues, according to the proposal.

The updated FRM sunset stakeholder schedule now anticipates an MC vote in October and a Participants Committee vote in November.

Rethinking Net CONE for FCA 16

In a matter related to the FRM sunset proposal, ISO-NE is proposing to update the CONE and net CONE calculations, and to recalculate existing — and establish new — offer review trigger prices (ORTPs) using updated data for FCA 16, to be held in 2022 to cover the 2025/26 capacity commitment period.

CONE estimates the cost to build a new resource in New England, while net CONE indicates the net revenue needed by the resource to be economically viable. ORTPs are low-end estimates of net CONE for specific — and less common — technologies.

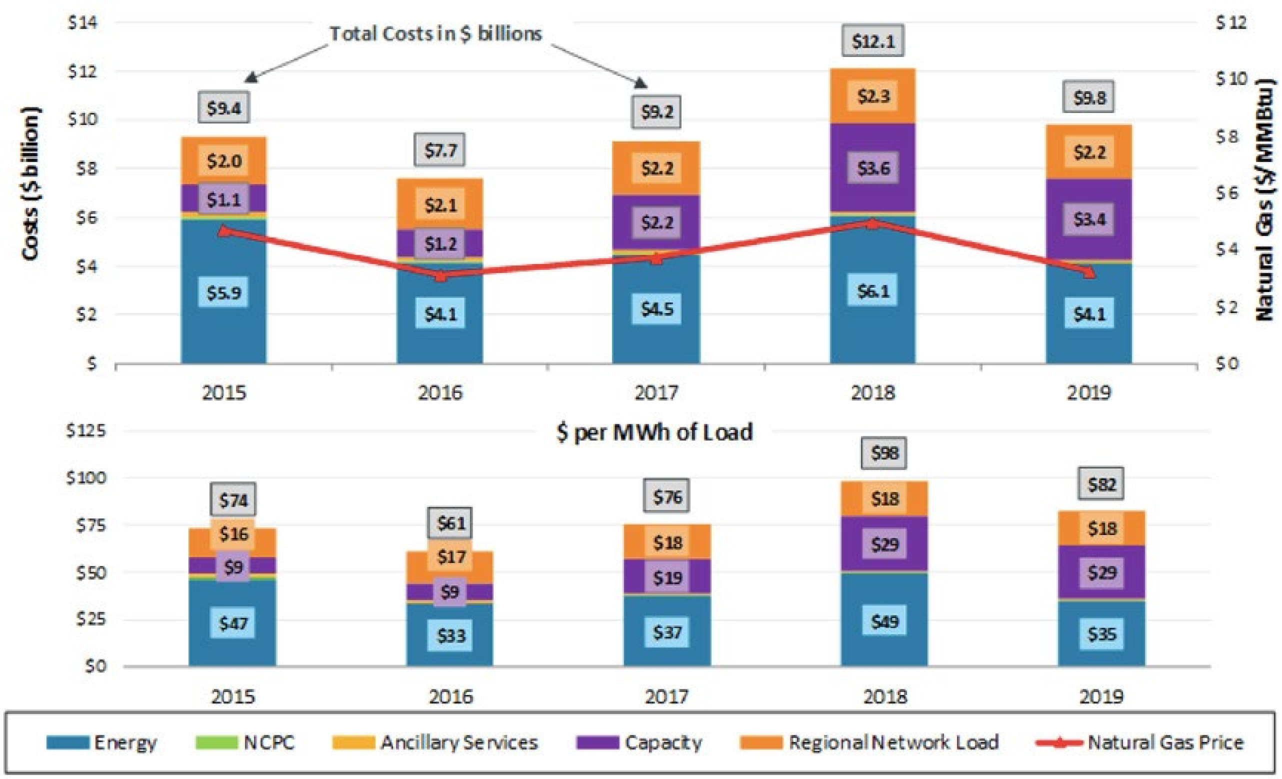
Engaged by the RTO to support the updates, Concentric Energy Advisors' Danielle Powers and her colleagues *presented* analysis with preliminary technology costs for the calculations, determination of ORTP technologies and indicative FRM revenue-offset component values.

ISO-NE aims to make its estimates consistent with FERC's 2017 order directing that net CONE should be high enough to attract new entry, but not so high as to introduce unnecessary costs (*ER17-795*). The RTO proposes to file any calculation changes with FERC by Dec. 1.

CEA will continue its evaluation and analysis of technologies for CONE and ORTP calculations and provide initial assumptions for the financial model.

At the July MC meeting, the consultants will provide energy and ancillary services offsets, including a detailed approach, inputs, dispatch models and preliminary results for CONE and ORTP. ■

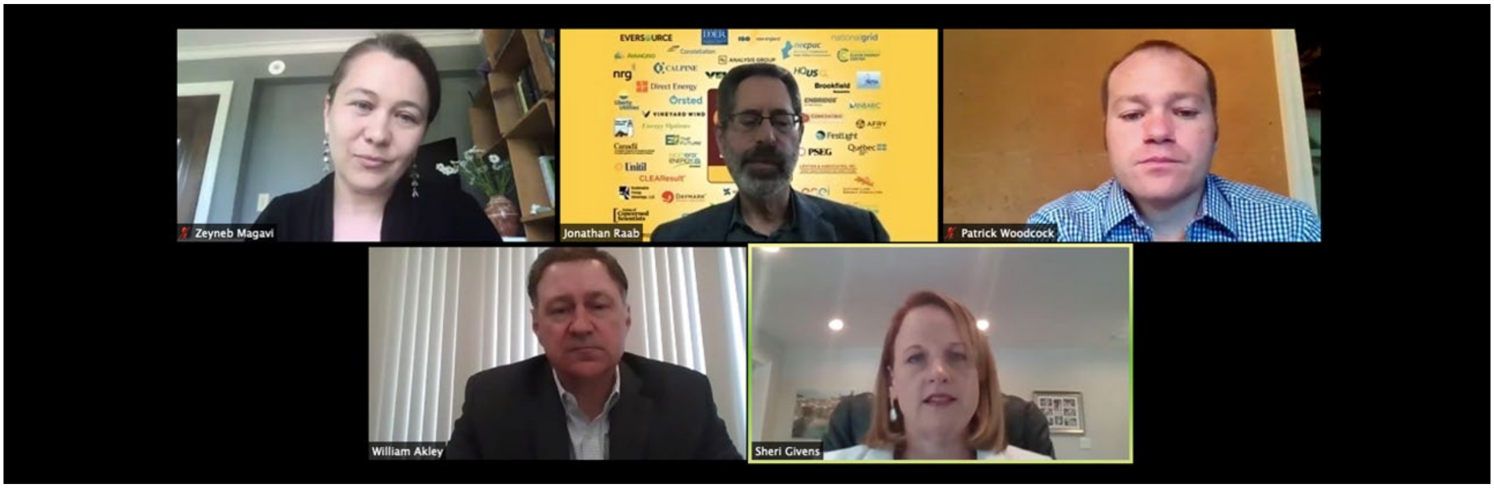
— Michael Kuser



The 2019 energy market cost decrease in New England was driven by lower energy prices resulting from lower natural gas prices. | *ISO-NE*

ISO-NE News

Overheard at 166th NE Electricity Restructuring Roundtable



(clockwise from top left) Zeyneb Magavi, HEET; Jonathan Raab, Raab Associates; Patrick Woodcock, Massachusetts DOER; Sheri Givens, National Grid; and William Akley, Eversource. | *Raab Associates*

Diminishing Role for Natural Gas in Electric Sector

Once considered the "bridge fuel" to a clean energy future, natural gas faces a rapidly diminishing role in New England's electricity outlook as the region pivots to massive offshore wind buildouts to meet emissions goals, industry participants heard last week.

Massachusetts officials project 25 GW of offshore wind generation in the region by 2050, translating into a volume that could be exported to other parts of the country, applied to manufacturing carbon-neutral hydrogen or used along with storage to provide electric heating for homes and offices.

Participants at the 166th New England Electricity Restructuring Roundtable heard that and more on Friday as more than 400 people tuned into the webinar hosted by Raab Associates and the normal physical venue sponsor in Boston, Foley Hoag.

Modeling the Future

The Bay State is exploring more than half a dozen long-term, deep decarbonization pathways by which the commonwealth can efficiently and equitably achieve Gov. Charlie Baker's commitment to net-zero greenhouse gas emissions in 2050, *said* Massachusetts Undersecretary for Climate Change David Ismay.

"Our models are literally still running, and we're looking for publication in the December time frame," Ismay said.

One scenario includes the region's pipeline system delivering a decarbonized gas, but as clean imports and offshore wind increase in the 2020s, the number of megawatt-hours delivered by gas plants decreases, he said.

"By 2030 the model is consistently selecting offshore wind as the least-cost, emissions-compliant resource for Massachusetts to access, and its share of megawatt-hours, as do those for solar, increases steadily through to 2050," Ismay said.

"By 2050, across all the scenarios we've tested thus far, and unless it's constrained artificially because of siting or construction delays, the model sees offshore wind becoming the dominant power provider for emissions-compliant electrons on the order of about 70% annually for Massachusetts," Ismay said.

Gas turbine output drops to a *de minimis* level, providing less than 5% of the annual megawatt-hours over the course of the year in 2050, he said.

"Despite that low capacity factor, high-efficiency gas turbines burning a blended fuel that includes hydrogen have the potential to provide value to the electric system in 2050."

Ismay showed an example of two hypothetical August days in the Massachusetts of 2050. On the first day, offshore wind begins to ramp up and provide 10 GWh of production, scaling from zero at about noon to no more than 5 GWh in the last hour.

Two days later, the model indicates as much as 25 GW of production in each hour of the day, so closer to 500 GWh of production that day.

"Here, if we were not looking across the economy, we might think we have to spill or curtail all that wind," Ismay said. "Looking across the entire economy shows there is no need to spill offshore wind, that the state can become a net exporter of clean power within and outside of New England."

Questioning the Era of Natural Gas

Massachusetts Attorney General Maura Healey on June 4 *petitioned* the state's Department of Public Utilities to open an investigation into the future of the natural gas industry as the state transitions away from fossil fuels and toward a clean renewable energy future by 2050.

Tom Kiley, CEO of the Northeast Gas Association, in March gave a *review* of the natural gas industry to the ISO-NE Planning Advisory Committee and cited Energy Information Administration data showing that U.S. natural gas consumption grew in the electric power sector by 2.0 Bcfd (7%) but remained relatively flat in the commercial, residential and industrial sectors. (See "Natural Gas Use Rises in NE," *ISO-NE Planning Advisory Committee: March 18, 2020*.)

But Susan Tierney, senior adviser at Analysis Group, said she's been thinking about how supply is changing in a world of flat demand and *described* how over the past two decades, coal and oil dropped from 34% to 0.5% of power production in the region.

Susan Tierney, Analysis Group | *Raab Associates*

"My research shows

ISO-NE News

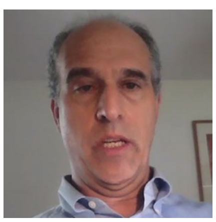
we're going to see a continuing role for natural gas, but it's going to be tough," Tierney said. "There have been steep declines in CO_2 emissions since 1991, but over the next 30 years, the pace is going to have to be much faster. Changes in the past 20 to 30 years pale in comparison to what's ahead in New England."

Melanie Kenderdine, EFI | *Raab Associates*

The economic and social shutdown resulting from the COVID-19 pandemic has reduced New England loads by 5 to 8% and has led to record unemployment claims, including job losses in the clean energy sector, which may slow progress to the 2050 goals, *said* Melanie Kenderdine, principal at the Energy Futures Initiative.

Each state in the region ranks in the top 10 nationwide in terms of one or another area of energy sector employment as a percentage of the total workforce, while three New England states rank in the top 10 in terms of unemployment claims as a percentage of the total workforce, Kenderdine said.

Reframing the Issue



Ken Kimmel, UCS | *Raab Associates*

Ken Kimmell, president of the Union of Concerned Scientists, *said* the industry needs to reframe the idea of natural gas as a bridge to future needs, perhaps as stepping stones, and showed an animation of someone jumping from one stone to another before splashing in the water where the stones ran out.

"Natural gas is not going to get us to the net-zero world that we need to be in, even though it will make some contribution in that regard," Kimmell said.

"We hear a lot of arguments about preserving the optionality that gas affords us, and we actually agree with that argument, but sometimes it is transformed into a different argument of, 'Let's keep going with our natural gas system being dominant until we figure out and put in place the entire replacement of it.'

"That is an argument that actually ensures the dominance of the natural gas system, which we can't do if we're serious about getting to net zero," Kimmell said.

"We for the last six or seven years have focused on putting a meaningful price on carbon emissions and trying to use that as the enabling, financing, and consumer-driving and investment-driving tool to make this shift within the region," *said* Dan Dolan, president of the New England Power Generators Association.

Dan Dolan, NEPGA | *Raab Associates*

"What we've engaged in the last few months is trying to take the next steps for us as an organization and as a group of generators in identifying what that needs, which we're looking forward to making public in the next few weeks," Dolan said.

Gas in the Region's Buildings

In the petition filed with the DPU, the Massachusetts attorney general's office recognized the state's findings that the heating sector must cut its use of fossil fuels to achieve the state's mandate of net-zero GHG emissions by 2050.

"In addition to its request to the DPU for detailed gas planning, the Mass. AGO has to rule in July whether to allow [the town of] Brookline's gas ban law to be enacted, with probably a lot of impact on what other towns and cities do in Massachusetts," said Jonathan Raab of Raab Associates.

Jonathan Raab, Raab Associates | *Raab Associates*

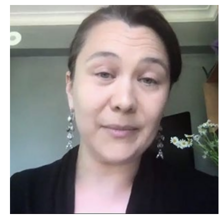
"Do we really need to get much more active in state planning and utility planning on the gas side as we have done with, say, grid modernization on the electricity side?" Raab said.

"I would say it's similar to some of the conversations we're having in the transportation sector, in the Transportation Climate Initiative, learning from what led to the success in the electric sector, [which] I think we need to deploy in the building sector," *said* Commissioner Patrick Woodcock of the Massachusetts Department of Energy Resources.

"That means from a construct of a renewable portfolio standard or a Regional Greenhouse Gas Initiative, or state caps that decline over time to give predictability," Woodcock said. "I think we need to have that dialogue this decade, and that's one of the reasons we initiated the 2050 pathways study."

For example, at some point, baseline efficiency improvements may preclude some of the state's electrification rebate and funding programs, Woodcock said.

The utilities are doing their part to reduce natural gas consumption, sometimes in surprising ways, as Eversource Energy's president of gas operations, William Akley, said when *describing* a program to shave the gas peak, especially in supply-constrained areas.



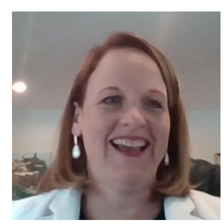
Zeyneb Magavi, HEET | *Raab Associates*

Akley said he did not want to steal the thunder from Zeyneb Magavi, co-executive director of Home Energy Efficiency Team (HEET), a Cambridge-based environmental group that designed the networked geothermal concept that Eversource has proposed to pilot in their current rate case.

"My hope is that this pandemic we're all in teaches us that failure to act is a lost opportunity to have the courage to reimagine, redesign and rebuild our energy system," Magavi said.

HEET is *proposing* a new way to heat buildings where old gas pipe is dug up, through the "Geo-Micro-District," an ambient temperature, shared-water loop connecting many customers for both heating and cooling.

"Some of the gas pipelines in Boston date to the Civil War. ... Is this the infrastructure we want for the coming century?" Magavi said.



Sheri Givens, National Grid | *Raab Associates*

Sheri Givens, vice president for U.S. regulatory affairs and customer strategy at National Grid, *shared* how her company is "really looking at decarbonizing our gas system."

"We announced our own internal net-zero goal for 2050 and are already at 70%," Givens said.

She also described how National Grid is trying to meet the gas demand needs of New Yorkers, as well as the demands from state regulators and Gov. Andrew Cuomo.

More than 130 New Yorkers gathered in an online forum at the end of May to protest the possibility of National Grid increasing the state's supply of natural gas with additional infrastructure or increased shipping. (See *Online Protesters Reject NY Gas Supply Plans*.) ■

— *Michael Kuser*

MISO News

MISO: New Outage Rules Boosted Mich. Capacity Prices

By Amanda Durish Cook

MISO confirmed last week that a new rule prohibiting resources on extended outages from offering capacity contributed to the historic spike in Lower Michigan prices in April's Planning Resource Auction (PRA).

Zone 7 cleared at the cost of new entry (CONE) price of $257.53/MW-day for the 2020/21 planning year that began June 1, while all other zones cleared under $7/MW-day. Zone 7 fell 123 MW short of its nearly 22-GW local clearing requirement and had to turn to other zones for capacity procurement, activating the CONE price. (See Michigan Prices Soar in 8th MISO Capacity Auction.)

MISO now restricts extended planned outages to a cumulative 90 days in the first 120 days of the planning year — June 1 to Sept. 30 — which it deems the most critical months for demand and loss-of-load risk. Resources that will be unavailable for more than 90 days are disqualified from PRA participation.

MISO Manager of Capacity Market Administration Eric Thoms told the Resource Adequacy Subcommittee on Wednesday that if the long-term outage policy had also been in effect for the 2019/20 PRA, Zone 7 would have fallen short of its local clearing requirement then as well.

Zone 7 also would have come up short by nearly 222 MW, Thoms said. Last year, Zone 7 had a 21.8-GW local clearing requirement and received slightly more than 22 GW from capacity offers and utilities' fixed resource adequacy plans. However, about 474 MW of capacity wouldn't have qualified for the auction based on planned outage schedules.

Under the new outage rule, MISO analysis showed a loss of load in Zone 7 occurring one day in six years in 2019. If the zone had not imported capacity this year to meet its local clearing requirement, the risk would have been one day in eight years. MISO adheres to a one-day-in-10-years standard.

MISO adopted the rule after the Independent Market Monitor last year criticized the RTO for allowing a large generator in Michigan to clear the PRA even though it was slated to be on outage the entire planning year. (See Emergencies Prompt MISO to Re-examine LMR Protocols.)

MISO's Zone 7 | *MISO*

Had MISO disqualified the generator from the auction, prices in Zone 7 might have hit $243.37/MW-day instead of the $24.30/MW-day clearing price in 2019, the Monitor said.

Coalition of Midwest Transmission Customers attorney Jim Dauphinais said MISO's analysis shows the importance of the new rule. ■

MISO News

MISO Solar Dispatch a Go, FERC Says

By Amanda Durish Cook

MISO can begin requiring new solar generation in its footprint to become dispatchable by early 2022, FERC ruled last week.

The commission's June 9 order approves a MISO Tariff change requiring all solar resources that achieve commercial operation on or after March 15 to register as dispatchable intermittent resources (DIRs) and become dispatchable by March 15, 2022 (*ER20-595*). The RTO is using a ruleset nearly identical to the one that brought wind resources under dispatch in 2011. (See "Solar Dispatch Imminent," *MISO Market Subcommittee Briefs: Dec. 3, 2019*.)

MISO has about 46 GW of solar generation pending in its interconnection queue.

"We expect solar to grow 10 to 20 times. It's small now; we'd like to get ahead of it," MISO Executive Director of Market Strategy and Design Scott Wright said during the RTO's December Board Week.

In its ruling, FERC said MISO satisfactorily cleared up the commission's earlier confusion about whether the generator interconnection agreement (GIA) or commercial operation date will determine the 2022 deadline to register. (See *FERC Seeks Info on MISO Dispatchable Solar Push*.)

MISO said it will exempt the DIR registration requirement for all solar resources in commercial operation prior to March 15. However, resources that have GIAs executed by March 15 but are not yet in commercial operation must plan to register and respond to MISO dispatch signals.

MISO said at least one solar developer with a project lined up to come online this summer will have to push back its commercial operation date in order to install the proper communication equipment needed to receive the RTO's dispatch instructions.

Entergy opposed MISO's grandfathering plan, saying solar projects that had a GIA executed by mid-March should also be exempted from the DIR registration requirement. The utility will soon either own or purchase output from six solar facilities currently under development. Entergy said the late-stage alterations needed for the solar facilities at their "advanced stage of development" would place an undue burden on the utility.

"MISO's proposal would unfairly change a Tariff rule that Entergy and other generation developers may have relied upon when planning and making arrangements pertaining to such facilities," Entergy said.

But FERC disagreed, concluding that facilities with GIAs are not the same as units already in service. The commission also said MISO's two-year transition period is a reasonable amount of time to purchase and install communication equipment for the solar facilities.

"MISO states that, even if there were no imminent reliability threat, MISO's proposal follows NERC's suggestions for how MISO as a transmission provider should dispatch inverter-based resources," FERC pointed out.

The commission also said MISO doesn't need to be in the thick of a solar generation boom before it proposes new dispatch rules.

"We also find that it is reasonable for MISO to propose these revisions without waiting until solar penetration has reached a point when its lack of dispatchability may significantly affect reliability," it said. ■

| *Entergy New Orleans*

MISO News

MISO Seeks Extension on Midwest-South Tx Limit

By Amanda Durish Cook

Without a viable alternative on the horizon, MISO will likely extend its settlement agreement for flows on the Midwest-South subregional transmission constraint through early 2023.

"Until there's a longer-term solution in place … the recommendation is to extend that settlement agreement until Jan. 31, 2023," MISO Director of Seams Coordination Jeremiah Doner told stakeholders during a Market Subcommittee teleconference Thursday.

Doner said discussions with SPP and the other parties to the agreements on its future are in the early stages.

Starting Jan. 31, 2021, the settlement may be terminated by any party with a year's notice. Without a replacement settlement, flows would be limited to MISO's original 1,000-MW contract path in either direction. The settlement limits MISO to 3,000 MW of flows in the north-to-south direction and 2,500 MW of flows in the other.

Earlier this year, the parties signed a memorandum of understanding that they wouldn't propose changes to the settlement until Feb. 1, 2022. Doner said an extension until 2023 will buy time for them to explore eventually changing the terms of the agreement.

Stakeholders asked if MISO would consider negotiating an increase in its transfer capability.

"I think it's fair to say everything is on the table at this point," Doner said, adding that MISO hasn't ruled out a transmission project to increase transfer capability between its South and Midwest regions. After completing a special study, MISO last month said it wouldn't recommend any upgrade to secure more transfer capability to its Board of Directors this year. (See "No Midwest-South Tx Solution this Year," *Price Tag Rising for MTEP 20*.)

Doner said that while some aspects of the settlement discussions are confidential, MISO will share what it can with stakeholders in upcoming public meetings.

A two-year extension would keep in place MISO's current cost allocation for transmission above 1,000-MW flows. MISO's payments to the other parties for such flows are recovered from market participants through a combination of load ratio calculations and flow-based beneficiary allocations.

The load-based share 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. Doner said MISO would keep the current allocation under the extension.

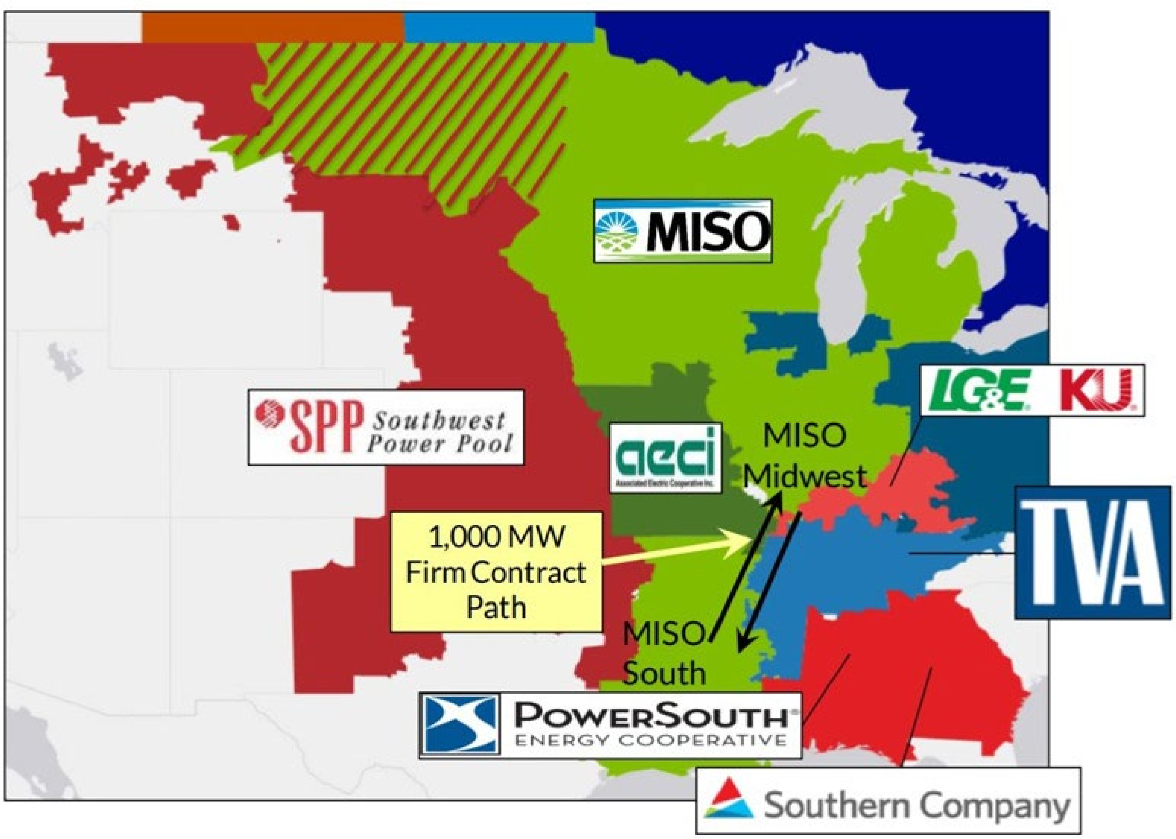
Because of the declining importance of the load-based allocation, some stakeholders said MISO's next logical step would be to use a 100% flow-based allocation through early 2023.

Doner took no position on the suggestion but noted MISO would have to win FERC approval for a Tariff revision to either change the cost allocation or pursue an extension of the current rate schedule.

"If all of the parties are good with the terms of the agreement, that settlement agreement can continue in perpetuity, essentially," Donner said. He said the settlement also contemplates an extension of the original terms, with 2% annual cost escalations written in for use of the regional directional transfer.

However, if any changes to the settlement agreement are made before the Jan. 31, 2023, extension is up, it would trigger a requirement to also review the existing rate schedule.

Doner asked for written stakeholder comments on the extension by July 2. ■



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

MISO News

MISO Drafts COVID-19 Waiver for LMRs

By Amanda Durish Cook

MISO last week said it will file a one-time waiver with FERC to make sure market participants can replace load-modifying resources (LMRs) impacted by the coronavirus pandemic.

Eric Thoms, MISO | © *RTO Insider*

Some LMRs that cleared in the Planning Resource Auction in April "may be unable to perform at their full accredited value as a result of COVID-19-related temporary — or, in some cases, permanent — closure of businesses that constitute their LMR assets," MISO Manager of Capacity Market Administration Eric Thoms said during a Resource Adequacy Subcommittee teleconference Wednesday.

Thoms said market participants that manage a cleared LMR that is directly impacted by the pandemic must attest via email that the asset can no longer fulfill capacity obligations.

If FERC accepts MISO's filing, those market participants will have the opportunity to use new LMRs with MISO to "bolster their portfolio," Thoms said.

The waiver won't allow members to change existing LMR registration records, Thoms said. Instead, market participants must make a replacement registration in MISO's capacity tracking tool. That way, the RTO will have an "audit trail of replaced LMR resources and modified underlying assets," Thoms said.

MISO plans to make the filing this month and will ask the commission for a July 1 effective date. From there, market participants will have 90 days through September to register replacement LMRs.

Usually, MISO market participants must register existing LMRs by Feb. 1, new LMRs for use in fixed resource adequacy plans by Feb. 15 and new LMRs not used in fixed resource adequacy plans by March 1 for the upcoming planning year.

"We'll have an ability to reassess the effects of the pandemic after 90 days," Thoms said, adding that MISO will have the "option to request a renewal of the waiver" if the pandemic is still affecting LMRs' ability to respond.

But stakeholders argue that MISO isn't considering the full gamut of difficulties wrought by the pandemic.

Xcel Energy's Kari Hassler asked how the waiver could help a large LMR that permanently closes, taking with it both load and some measure to control it.

Thoms said MISO isn't currently considering any reductions in planning reserve margins from load losses caused by the pandemic.

Multiple stakeholders argued that reserve margins should also be lowered because the load that needed to be curtailed no longer exists.

"I agree that there's a mismatch here," Customized Energy Solutions' Ted Kuhn said.

Thoms said MISO does not yet know what LMR closures might be temporary or permanent.

"We have a financially binding construct that is already settled," he explained. He also said impacted market participants are not obligated to use the waiver and can instead notify the RTO through the MISO Communications System that their LMRs are less available. LMRs are required to respond to at least five emergency events per year.

Alliant Energy's Mitch Myhre said his utility has had difficulties even performing the MISO-required LMR testing, as some large commercial and industrial customers haven't been operating as usual. Other stakeholders said they were experiencing similar testing difficulties.

This is MISO's second filing for a waiver of Tariff requirements in response to the pandemic. FERC granted the RTO's request for a 60-day extension of its June 25 site control demonstration deadline late last month as the pandemic slowed construction and shuttered government offices (*ER20-1794*). (See "Queue Waiver Request Before FERC," *Wary of Contagion, MISO Bars Visitors for 2020*.) ■

MISO News

OMS-MISO Survey Sees Uncertain Supply Future

By Amanda Durish Cook

MISO's margins are tighter and the footprint could face a generation shortfall as early as 2022, but interconnection projects could save the day, according to the annual capacity projection by the Organization of MISO States and the RTO.

The OMS-MISO resource adequacy survey released Friday forecasts 0.8 GW in excess firm capacity beyond the planning reserve margin for 2021. All other years in the five-year outlook contain the potential of a capacity shortfall.

However, the survey still shows greater potential for surpluses larger than any possible deficit through 2025. In addition to the nearly 1 GW near-certain excess in 2021, there's also potential for a surplus as high as 7.2 GW. And while 2022 could hold a 0.4-GW shortfall, it would see a 11.2-GW surplus if all proposed resources in the interconnection queue were realized.

The best of times, worst of times picture gets starker over the next three years:

- 2023 could bring a 3.5-GW deficit or 12.5-GW in excess capacity;
- 2024 could hold a 5.6-GW shortfall or an 11.1-GW surplus; and
- 2025 might contain a 6.8-GW deficit or a 10-GW surplus.

The survey paints a less rosy supply picture than last year's assessment. MISO attributed the greater possibility for near-term shortages to a steadily climbing planning reserve margin — upped from nearly 16% in 2017 to about 18% today — and "modest" load growth. Last year's survey predicted adequate reserves through 2022 and showed MISO's footprint could experience anything from a 6.8-GW surplus to a 2.3-GW shortfall by 2024. (See *Supply Future Brighter, OMS-MISO Survey Shows*.)

Speaking at a special conference call to review the results Friday, MISO Executive Director of Market Operations and Resource Adequacy Shawn McFarlane said that since the last survey, some generation completed MISO's interconnection queue, reducing possible risks, though some zones remain vulnerable. This year's assessment singled out Lower Michigan's Zone 7, Southern Illinois' Zone 4, Wisconsin and Upper Michigan's Zone 2, and Indiana and western Kentucky's Zone 6 for the greatest resource adequacy risks. The 2019 survey also called out Zone 7, Zone 4 and Zone 6 for supply risks.

McFarlane also said MISO's projected annual demand growth rate rose from 0.2% in 2019 to 0.3% this year. He added that the survey also does not contemplate the long-term effects of the coronavirus pandemic.

"Even with the supply risk, we do have a healthy queue, and it looks like zones will be able to firm up resources in the coming years," McFarlane said. "The range that we have here is a reflection that resource planning is an ongoing process. … In fact, one of the purposes of the survey is to have utilities and regulators react to the risk and plan accordingly."

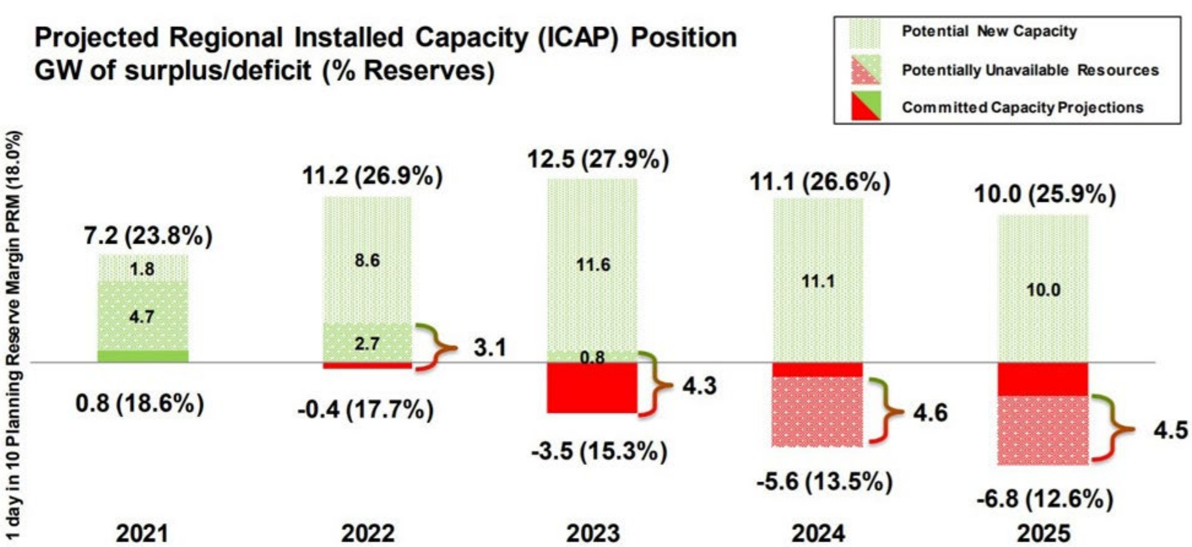
Clean Grid Alliance's Natalie McIntire asked if MISO is considering that it also needs a transmission buildout, especially in the Upper Midwest, to facilitate the generation in the interconnection queue that the RTO is betting will cover deficit risks. "Not only do we need generation in the queue, we need transmission to deliver it," she said.

Customized Energy Solutions' David Sapper also asked about the "mass exodus" in the queue last year, when several planned projects were canceled because of high network upgrade costs. MISO had about 100 GW in the queue last year; that has since dropped to about 80 GW.

"I'm not trying to imply that, 'Everything's great; we can relax.' I'm saying there's enough generation with a high degree of certainty in the queue that can help with risks in these coming years," McFarlane said. "Certainly, looking out to 2025, there's some ground to plow in terms of getting to a comfort level in resource adequacy. … The queue does have several projects in advanced stages that could turn potential capacity into committed."

OMS President Matt Schuerger said the survey is more important than ever as the generation mix changes. This year, MISO said more than 94% of load-serving entities responded to the survey.

MISO will again review survey results with stakeholders during the Resource Adequacy Subcommittee's July 8 conference call. ■



2020 OMS-MISO survey results | *MISO*

MISO News

MISO Exploring New RAN Changes

By Amanda Durish Cook

MISO said last week it continues to weigh multiple changes to its markets and resource adequacy construct as part of its multiyear resource availability and need (RAN) project.

On the market side, MISO is researching what it would take to implement a forward market process that can guide commitment decisions before the day-ahead market is able.

Speaking during a Market Subcommittee teleconference Thursday, MISO Director of Market Design Kevin Vannoy said the RTO will soon circulate a survey among generation owners that self-commit before the day-ahead market to better understand what drives their decisions. The survey will be sent to 28 market participants that own the 115 coal and natural gas units that comprise 90% of self-committed day-ahead energy.

"We're looking for those drivers and reasons behind self-commitments," Vannoy said. "The day-ahead market was obviously designed years ago ... where there were limited algorithms and optimization. I think we're still living in that world a bit."

Senior Market Engineer Chuck Hansen also said MISO could expand its multiday operating margin forecasts as part of a forward market.

MISO late last year began *publishing* a first edition of its multiday operating margins, which predicts supply conditions six days in advance. The multiday forecast is for informational purposes only and does not serve a multiday financial market.

"It's designed to be built upon. You don't have to scrap the whole thing to make a change," Hansen said of the forecast's design.

MISO estimates that the forecast — meant for resources that self-commit — is downloaded about 20 to 30 times a day.

A multiday — or forward — market mechanism along with better scarcity pricing are market-side improvements being considered in MISO's multifaceted RAN effort. Resource adequacy changes under discussion include establishing new reliability requirements, re-examining capacity resource accreditation and migrating the capacity auction from an annual basis to a seasonal or sub-annual basis. (See *MISO Stakeholders Split on Seasonal RA Measures*.)

A sub-annual RA format remains unpopular among MISO stakeholders, with some skeptical the RTO will be able to demonstrate a wintertime loss-of-load risk that could drive the seasonal changes. MISO staff have repeatedly said that its current, summer-focused loss-of-load expectation (LOLE) analysis ignores an emerging wintertime risk.

Using 2018 data, MISO *found* a moderate loss-of-load risk for several hours in January and September; however, MISO said the high risk remains confined to July only. The non-summer loss-of-load risk will only worsen with the continued fleet shift toward renewables, the RTO warned. It said inputting data from 20-year futures scenarios used in the annual transmission expansion plan yields loss-of-load risk in February and December in addition to January and September.

"The summer risk is just one element of risk to the system," Jessica Harrison, MISO director of research and development, said at a Resource Adequacy Subcommittee teleconference Wednesday.

The Brattle Group's Johannes Pfeifenberger suggested that MISO, in addition to an LOLE analysis, establish an expected unserved energy (EUE) standard, which measures system capability to continuously serve all loads to all delivery points while meeting planning criteria. Pfeifenberger said EUE standards aren't commonly used in U.S. RTOs.

MISO is currently drafting a white paper on the problem statement behind the next round of proposed RAN fixes. The RTO plans to hold a virtual workshop late this month to go over the white paper.

"There won't be new things that no one has ever seen or heard," RASC liaison Scott Wright said of the white paper.

Like last month, multiple stakeholders expressed apprehension about MISO presenting a finalized white paper that doesn't include stakeholders contributions. Several said MISO could reach conclusions in the white paper with which they don't agree.

"That would be a problematic foundation to start talking about solutions with," WPPI Energy's Steve Leovy said.

But Consumers Energy's Kevin Van Oirschot said the "new world order" in the footprint means MISO shouldn't wait any longer to make market and resource adequacy changes. "I think we're in a world where expediency is what we need," he said. ■

MISO's Market Subcommittee meets on March 4, days before the RTO barred visitors to its offices. | *© RTO Insider*

MISO News

MISO's 1st Competitive Tx Project Completed

By Amanda Durish Cook

Four years after approval, MISO's first competitive transmission project last week began transporting power in Southern Indiana and Western Kentucky.

LS Power's Republic Transmission and partner Big Rivers Electric constructed the nearly 31-mile, 345-kV Duff-Coleman transmission project after their bid was *selected* by MISO planners in 2016.

MISO spokesperson Allison Bermudez said the project is now estimated at a total $64.9 million, noting that it will be a few more months before there is a final tally.

Republic's original $49.8 million proposal — in 2016 dollars — was selected over 10 other developers' bids. (See *LS Power Unit Wins MISO's First Competitive Project*.) MISO originally placed a $59 million planning-level estimate on the work.

Republic's bid contained caps on project implementation, inflation rate, return on equity (9.8%) and capital structure (45% equity). It did not cap operations and maintenance costs or offer rate concessions.

Republic did not respond to a request for comment about the cost increase. The increase was less than the 25% that would have triggered a MISO variance analysis, which would have provided a public record of cost overruns.

"The culmination of this project and its transition into operations ahead of schedule and within our cost commitments demonstrates the benefits that can be realized by consumers through FERC Order 1000 competitive transmission processes," LS Power President Paul Thessen said in a MISO press *release*. "We appreciate the efforts of MISO, project participants Hoosier Energy and Big Rivers, and interconnecting transmission owner, Vectren, to make this project a success."

MISO estimates the project will provide $1 billion in benefits to its central region over the next two decades.

Originally scheduled for completion in January 2021, the line was energized six months ahead of schedule Thursday, as Republic officially became a MISO transmission owner.

"New transmission-owning members bring diversity to our footprint, and the competitive transmission process allows us to work with our members to identify projects that create value for the entire bulk electric system," MISO Executive Director of Systems Planning and Competitive Transmission Aubrey Johnson said. "Our existing member companies collaborated with Republic and MISO to bring this project to fruition." ■

Duff-Coleman line | *Republic Transmission*

NYISO News

Public Policy Challenges Top NYISO Grid Plans

2020 ‘State of the Grid’ Report Combines Historical and Emerging Trends

By Michael Kuser

NYISO on Wednesday released its annual Power Trends *report*, this year focusing on how the grid is being shaped by public policy amid a global pandemic in which New York was the epicenter for COVID-19 cases in the U.S.

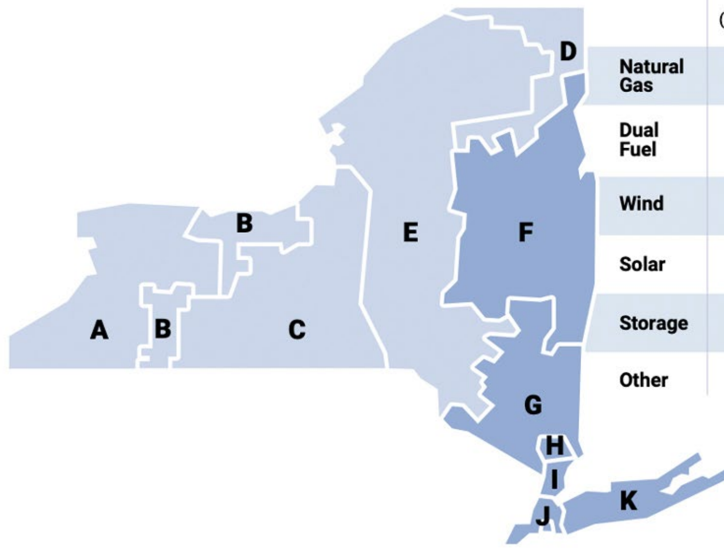
“Obviously, the COVID-19 pandemic has altered significantly the way that people work and live their lives, and as a result the challenges and changes to the electric sector,” CEO Rich Dewey said in a press conference.

The economic shutdown has reduced load levels statewide by an average of 8%, and a return to pre-pandemic demand will depend on how quickly the economy rebounds, he said.

The ISO will continue “to keep our eyes on some of those demand patterns and how they might influence the way markets work,” Dewey said.

Though the study found that increasing electrification will likely flip the peak from summer to winter by 2050, the ISO still plans for reliability based on the current summer peak, when air-conditioning use spikes demand, he said.

“The electrification of transportation and building heating systems will certainly change the demand patterns that we need to manage,” Executive Vice President Emilie Nelson said.

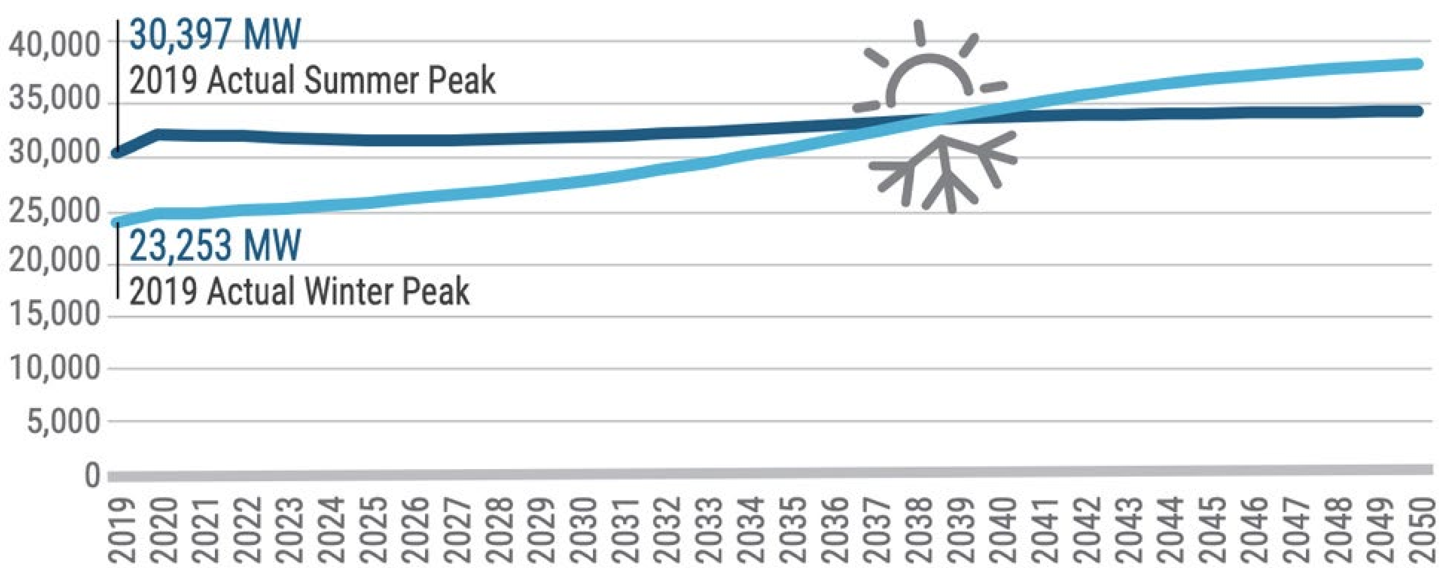


	UPSTATE (Zones A-E)	DOWNSTATE (Zones F-K)
Natural Gas	1,999	3,099
Dual Fuel	0	215
Wind	5,112	16,432
Solar	7,939	2,074
Storage	1,741	6,800
Other	900	93

New York state-proposed generation by fuel type (MW) as of March 1, 2020 | *NYISO*

Studying these trends “will allow us to develop the market design and further the planning processes necessary to support this transition,” Nelson said. “The ISO hopes to integrate renewable resources like wind and solar not only operationally but also in terms of planning.”

The ISO in December published a 122-page “Grid in Transition” *report* and in January decided to devote at least one day a month in 2020 to discussing how to meet the clean energy goals set by last year’s Climate Leadership and



2020 Gold Book baseline summer and winter peak forecasts | *NYISO*

NYISO News

Community Protection Act (*A8429*). The law mandates that the state get 70% of electricity from renewable energy resources by 2030 and reach 100% carbon-free electricity by 2040. (See *NYISO Focus Turns to Grid 'Transition'*.)

Transmission Buildout

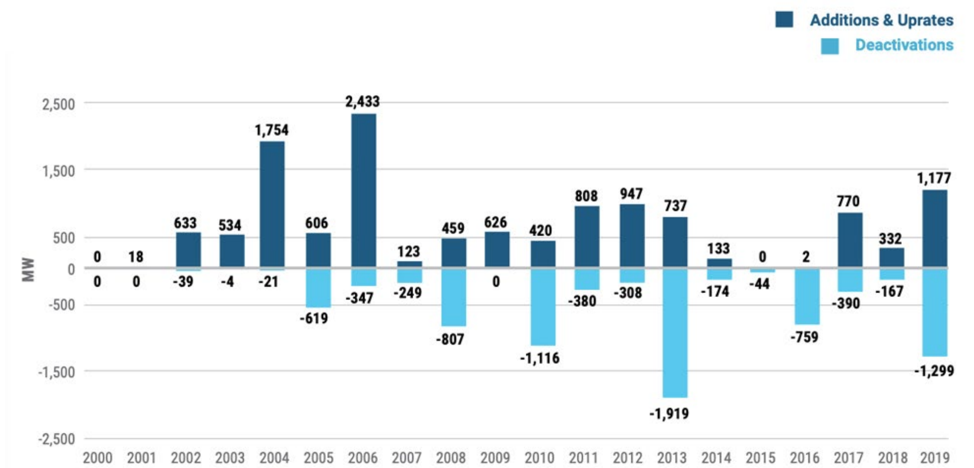
"New technologies are impacting the industry at large, so it's a very exciting time in the utility industry, whether it's new renewable projects; whether it's wind or solar, distributed energy resources; it's really changing the way energy is produced and how it's moved and used," Dewey said.

The state's Siting Board earlier in June approved a 340-MW wind project south of Buffalo, to date the largest wind farm to pass *Article 10* review in New York (*17-F-0282*). (See *NY Regulators Approve 340-MW Alle-Catt Wind Farm*.)

In addition to the increasing influence of public policy decisions on the ISO, infrastructure is becoming more important, he said.

"Specific to the infrastructure of transmission, we remain very, very bullish on the need to build out the infrastructure, and transmission is going to be a very important part," Dewey said. "We continue to study and promote the notion that we need additional infrastructure."

The state's recently enacted Accelerated Renewable Energy Growth and Community Protection Act addresses transmission constraints directly by providing for expedited transmission upgrades. (See *NY Renewable Supporters Push for New Siting Agency*.)



Additions, uprates and deactivations (nameplate capacity) | *NYISO*

The ISO is mindful of the economic impact from the pandemic and as always is "committed to looking at the most cost-effective way of being able to both hit the goals and to deliver power to consumers," Dewey said.

The study also considers the transmission implications of developing 9 GW of offshore wind in New York by 2035. The New York Public Service Commission in April granted a state agency permission to solicit up to 2,500 MW of offshore wind energy this year. (See *NYPSC Greenlights 2,500-MW Offshore Wind RFP*.)

Dewey was asked why the ISO includes the controversial 1,000-MW Champlain Hudson Power Express (CHPE) project in its trend forecasts. FERC in May authorized the owners of CHPE to charge negotiated transmission rates to carry Canadian hydropower to New York City (*ER20-1214*). (See *FERC OKs Negotiated Rates for Champlain Hudson Project*.)

Dewey said that the project is in the interconnection queue and that the ISO's use of it in planning does not signify endorsement of it.

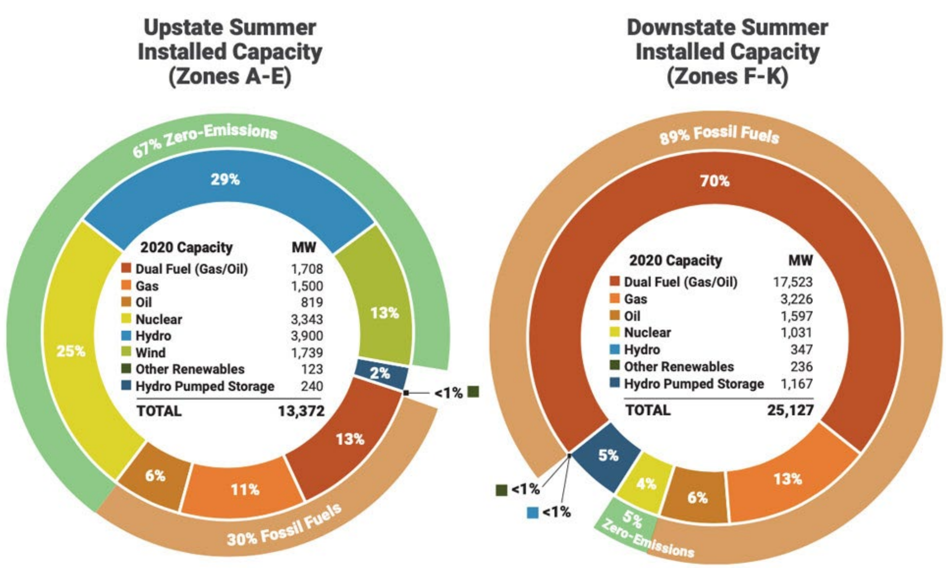
Nonetheless, he added, "the project that can deliver low-carbon power down to New York City, that's something that's probably got to be seriously considered from a policy standpoint."

Carbon Pricing Still Tops

"First and foremost of the ISO's initiatives is our proposal to implement carbon pricing," Dewey said. "We look at this as the most effective, viable means to attract the right kind of investment for renewables that is going to be so important for New York state to achieve its clean energy goals."

Speaking at an industry forum in March, NYISO Principal Economist Nicole Bouchez said the ISO determined its carbon price should be incorporated into the energy rather than capacity market because of transmission constraints that prevent upstate New York, which has 87% zero-emission generation, from delivering it to downstate, where only 27% of the mix is renewable. (See *Carbon Pricing Gains Popularity — and Doubts*.)

"We remain committed to promoting carbon pricing," Dewey said. "We think using a social cost of carbon embedded in the markets is going to be the most effective and cost-efficient means to be able to hit those goals." ■



New York Control Area summer 2020 installed capacity (MW) by fuel source, upstate and downstate | *NYISO*

NYISO News

NYPSC Approves Cooling Relief for New Yorkers

Commission Receives Reports on Electric Reliability and Safety

By Michael Kuser

The New York Public Service Commission on Thursday approved more than $70 million in electric bill relief over the summer for low-income Consolidated Edison customers in New York City and Westchester County (*20-M-0231*).

The commission also initiated a proceeding to identify and address the effects of the COVID-19 pandemic on utility and other regulated services and programs statewide (*20-M-0266*).

"Since the start of the pandemic and the economic downturn, the commission has acted to respond to the most pressing COVID-related impacts for customers on a timely basis as these issues have emerged," PSC Chair John B. Rhodes said. "With this action today, we continue to enable prompt responses on pressing needs for relief and adjustments, as well as dealing with the full range of the impacts in a comprehensive, thoughtful and thorough manner."

New York City had petitioned the PSC for bill relief for the more than 400,000 customers enrolled in Con Ed's low-income bill discount program for the months of June through September. The program is intended to remove financial impediments of using air conditioning this summer when officials expect limited availability of public facilities such as cooling centers and public pools as a result of the pandemic. The population density of the city makes these public facilities crucial during the hot summer months, Rhodes said.

The emergency summer cooling credit will add up to $40/month in relief, which, for most customers, is more than double the size of the current low-income program bill discount.

"It is my suspicion that the population of low-income customers eligible for this program or for any number of programs will grow substantially," Commissioner John Howard said. "There's a very real possibility that the dollars we have set aside for the program may not go far enough as we move into the summer."

2019 Reliability and Safety Scores

Con Ed and New York State Electric and Gas (NYSEG) were the only utilities that failed to meet their reliability targets in 2019, the PSC reported last week.

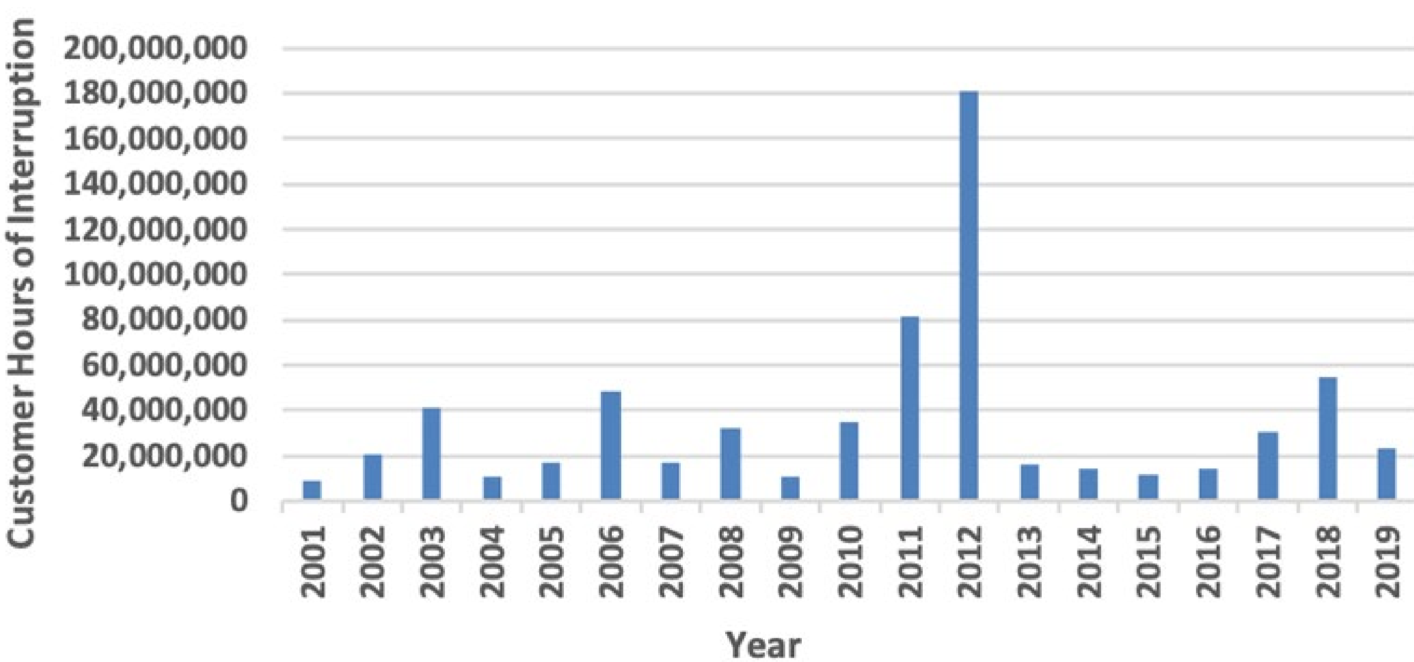
The report on 2019 Electric Reliability Performance in New York State relies on two primary metrics to measure electric performance: System Average Interruption Frequency Index (SAIFI or frequency) and the Customer Average Interruption Duration Index (CAIDI or duration) (*20-E-0045*).

The most significant events influencing reliability performance, outside of major storms, were two significant outages Con Ed incurred last summer. Some 72,000 customers on Manhattan lost power for three to five hours on July 13, 2019, as Con Ed lost six networks. On July 21, 2019, it de-energized customers in Brooklyn during a heat wave, impacting 30,000 customers for an average of 11.5 hours.

Excluding major storms, the statewide interruption duration for 2019 was 2.05 hours, an increase from 2018's 1.96 hours and five-year average of 1.94 hours. Excluding Con Ed, the 2019 average was 1.88 hours, the same as 2018 and close to the five-year average.

Department of Public Service staff are investigating the Manhattan and Brooklyn outages and developing recommendations for improvements. (See *Con Ed: Failed Relay Protections Caused NYC Blackout*.)

Excluding storms, the statewide interruption frequency for 2019 was the same as 2018 and



Statewide customer hours of interruption in New York, including major storms, in the 2019 Electric Reliability Performance Report | *New York DPS*

NYISO News

five-year average, with equipment failures, tree contacts, and accidents or events not under the utility's control responsible for 83% of interruptions.

Con Ed and NYSEG failed to meet their reliability targets for outage frequency, and Con Ed also failed to meet its target for outage duration. Tree contacts and equipment failures were responsible for more than two-thirds of NYSEG's interruptions.

Rochester Gas & Electric will be penalized $525,000 for failing to meet its targets for estimated meter reads and answering customer service calls in 30 seconds.

"While most utilities are doing a good job providing safe and reliable service, three utilities have fallen short of our expectations in certain areas, and we will continue to act aggressively to ensure utilities improve performance," Rhodes said. "This is a foundationally important topic, and I'm very eager to see us resume progress."

Commissioner Diane Burman said the *presentations* on customer service performance, electric reliability and electric safety standards were "very helpful to us, especially as we look to further planning and refinement as necessary. It's also helpful, as the focus is on the major causes of interruption that may occur from the past year that may have timely information on the status of any pending matters that we may be looking at."

Stray Voltage

DPS staff also delivered the 2019 Electric Safety Standards Performance report, whose special focus on testing stray voltage from streetlights highlighted the increasing ownership of such lighting by municipalities (*20-E-0098*).

In 2019, manual stray voltage testing was performed on approximately 1 million utility facilities statewide, resulting in the identification of only 302 stray voltage conditions, all of which were quickly remediated, the report said. In addition, the utilities also performed mobile scans in major cities, and all stray voltage findings from those surveys were remediated.

"This is a reassuring report," Commissioner James S. Alesi said. "All of the utilities are following testing standards for stray voltage, and these efforts are successful to the extent that no revenue adjustments have been required, so that's good news."

Howard said that he had "a little personal history with this issue."

"In the '90s when I was working in the legislature, there was a serious problem with stray voltage, ranging from people and pets being injured in New York City, largely related to streetlight issues, as well as to cows being shocked upstate," Howard said. "It's very gratifying that over this period that has been greatly improved for the safety of the public."

Howard added two cautionary notes.

"First, to echo Commissioner Burman's comments regarding as municipalities take over the responsibility for owning and operating their streetlighting systems, they understand that along with the savings goes the responsibility of maintaining the streetlighting system to a very high standard," he said.

"The second item is — and it goes hand in hand with my first comment — is as we build out the 5G network across the state, it largely will be connected to streetlights," Howard said. "That work will largely be done by third-party vendors; we should put particular emphasis on how the 5G buildout is done, and that no safety issues occur because of bad practices that may occur from one or more vendors." ■

PJM News

TOs Vote to File End-of-life Rules with FERC

By Michael Yoder

PJM transmission owners voted Wednesday to seek FERC approval for Tariff amendments governing end-of-life (EOL) projects.

Jeff Stuchell, manager of FERC and transmission technical support for FirstEnergy, and chairman of the PJM Transmission Owners Agreement-Administrative Committee (TOA-AC), said the committee approved a Federal Power Act Section 205 filing of the Attachment M-3 *amendments* following the consultation and voting procedures detailed in the Consolidated Transmission Owners Agreement (CTOA).

The amendments were filed with FERC on Friday (*ER20-2046*).

Wednesday's vote came a little more than a week after stakeholders challenged the TOs' amendments during a special session of the TOA-AC on June 1 and two weeks after a vote at the May 28 Markets and Reliability Committee meeting in which a "joint stakeholders" *proposal* from American Municipal Power (AMP), Old Dominion Electric Cooperative (ODEC) and others regarding EOL projects was narrowly defeated. (See *PJM TOs Outline End-of-life Tariff Amendments.)*

The joint stakeholders will try again to win approval of their plan at the June 18 Members Committee meeting.

Concern Addressed

One *revision* was made to the TOs' amendments after a stakeholder raised a concern that EOL projects could potentially remove FERC Form 715 planning criteria from PJM planning under Schedule 6 of the Operating Agreement and cause them to be planned by the TOs under Attachment M-3.

To address those concerns, TOs added to the definition of "Attachment M-3 Project," revising it with the following clause: "'Attachment M-3 Project' does not include a project to address Form No. 715 EOL Planning Criteria."

"This addition should put to rest the concern that the proposed Attachment M-3 amendments change the responsibility for planning Form No. 715 transmission projects," the TOs wrote.

Stakeholder Responses

Leading up to Wednesday's vote, the TOs solicited stakeholders' comments on the proposed amendments.

The Organization of PJM States Inc. (OPSI) proposed several *edits*, including requiring the TOs to provide annual EOL project lists to OPSI and PJM.

The Joint Consumer Advocates *wrote* that the proposed amendments are "unjust, unreasonable and otherwise not permissible on procedural and substantive grounds," saying a May 8 notice filed by the TOs did not comply with provisions of the CTOA. The advocates took exception to new definitions in the amendments and what they said was an improper "expansion and reliance on inapplicable FERC precedent regarding asset management."

"The PJM TOs, and PJM, have a responsibility to work constructively with all stakeholders to endeavor to develop proposals that are broadly supported and meet FERC standards for an open and transparent planning process," the advocates wrote.

In joint *comments,* ODEC, AMP, LS Power and the PJM Industrial Customer Coalition echoed the advocates' remarks, saying the proposed revisions are not supported by a majority of RTO members. The stakeholders encouraged the TOs to continue discussions with members to ensure that EOL planning is conducted by PJM.

Ed Tatum of AMP said he was discouraged by Wednesday's vote, saying it was a "subset" of the TOs in the TOA-AC who decided to draft the amendments. "I'm disappointed the TOs would take this action," he said. ■

| © RTO Insider

PJM MRC/MC Preview

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

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

Markets and Reliability Committee

Consent Agenda (9:05-9:10)

Members will be asked to endorse the following manual changes:

B. *Manual 14A: New Services Request Process*, *Manual 14E: Upgrade and Transmission Interconnection Requests* and *Manual 14G: Generation Interconnection Requests*. Periodic review, including clarifying and administrative changes.

Endorsements/Approvals (9:10-9:35)

1. Emerging Technologies Forum (9:10-9:20)

Members will be asked to endorse the *charter* of a new group to provide transparency for PJM's Advanced Technology Pilot Program, a testing ground to study the technologies to enhance system reliability, operational and market efficiency, and resilience. The group was changed to a forum after stakeholders expressed concerns about adding another subcommittee. It will provide reports to the MRC, as well as the Planning, Operating and Market Implementation committees. (See "Emerging Technologies Subcommittee Proposed," *PJM MRC Briefs: April 30, 2020*.)

2. Stakeholder Group Sunsets (9:20-9:35)

Members will be asked to endorse the sunsetting of eight stakeholder *groups*, which PJM determined were either dormant or had implemented their original tasks. (See "Task Force Sunset," *PJM MRC Briefs: May 28, 2020*.)

Members Committee

Consent Agenda (10:35-10:40)

B. Members will be asked to endorse Tariff *revisions* to allow *surety bonds* as a form of collateral. The proposal, originally endorsed in October 2018 at the MIC, allows the use of surety bonds for all market purposes except financial transmission rights, with a $10 million cap per issuer for each member and a $50 million aggregate cap per issuer. (See "Surety Bond Proposal Endorsed," *PJM MRC Briefs: May 28, 2020*.)

Endorsements/Approvals (10:40-11:35)

1. PMA Credit Requirements (10:40-10:50)

Members will be asked to endorse proposed Tariff *revisions* related to *peak market activity* credit requirements for federal, state and/or local law transfer of charges or credits. The revisions address a regulatory change in Ohio concerning the billing of network integration transmission service. (See "PMA Credit Requirements," *PJM MRC Briefs: May 28, 2020*.)

2. Transparency and End-of-life Planning (10:50-11:35)

Joint stakeholders, including American Municipal Power, Old Dominion Electric Cooperative, LS Power and members of the PJM Industrial Customer Coalition, will ask for a vote on their transparency and end-of-life (EOL) planning *proposal* for revisions to the Tariff. The *EOL* proposal narrowly failed last month at the MRC meeting. (See *PJM End-of-life Proposals Fail at MRC*.) ■

— Michael Yoder

SPP News

FERC Sets Tri-State Exit-fee Rules for Hearing

By Tom Kleckner

Tri-State is transitioning away from Escalante Station and other coal-fired generation, replacing it with renewables to meet demand from its member companies. | *Tri-State G&T*

In the face of opposition from Colorado regulators and others, FERC last week set hearing and settlement judge procedures on Tri-State Generation & Transmission's proposal for computing member exit fees (*ER20-1559*).

In doing so, FERC's order Friday rejected the Colorado Public Utilities Commission's argument that it did not have jurisdiction on contract termination payments, saying Tri-State's proposed exit-fee methodology "is consistent with our past practice."

The commission in March accepted Tri-State's request that it be recognized as jurisdictional to the commission (*EL20-16*). (See "Ruling Permits Tri-State to Become FERC Jurisdictional," *SPP FERC Briefs: Week of March 16, 2020*.)

Tri-State's 43 members in Colorado, Nebraska, New Mexico and Wyoming signed all-requirements wholesale service contracts obligating them to purchase at least 95% of their requirements at cost-based rates through 2050.

Tri-State's proposed contract termination payment (CTP) methodology is designed to calculate the payment an electric distribution cooperative or public power district must make to terminate its contract. The cooperative said its determination of exit fees on a case-by-case basis has led to disputes "with and among" members and that the proposed methodology was overwhelmingly approved by its members in April.

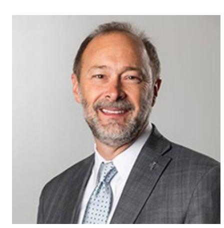
The CTP methodology uses a mark-to-market analysis incorporating demand and energy charges to ensure remaining members are financially unaffected by withdrawals and Tri-State can continue to fund its operations and debt service.

The Colorado PUC protested CTP, saying a similar methodology resulted in an initial exit charge for members Kit Carson Electric Cooperative and Delta-Montrose Electric Association that was 70% higher than the amount on which Tri-State settled. On June 9, the commission approved Delta-Montrose's withdrawal, allowing the cooperative to exit Tri-State as planned on June 30 (*EC20-51*). (See *Tri-State G&T, Delta-Montrose Reach Withdrawal Deal*.)

Northwest Rural Public Power District argued that the methodology was improperly based on projected revenues and calculates payment over an excessively long time period, benefiting non-withdrawing members.

Wheat Belt Public Power District contended the methodology violates the cost-causation principle by socializing among all utility members some costs to provide wholesale electric service to members in Colorado and New Mexico.

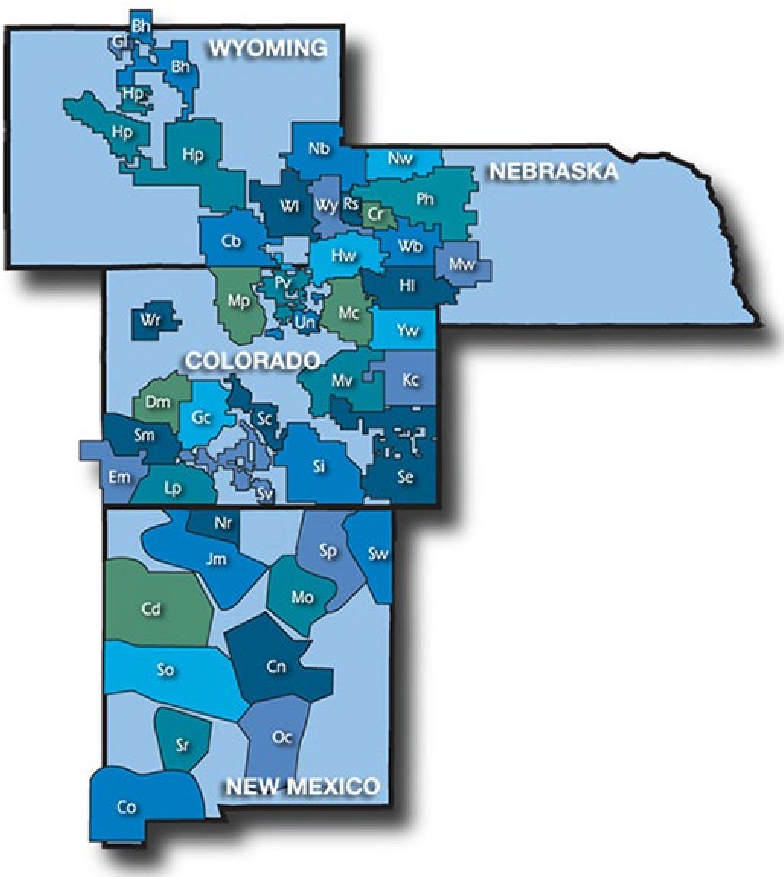
FERC accepted the CTP methodology for filing with a refund effective date of June 13, saying it raises issues of material fact that cannot be resolved based on the existing record.



Tri-State CEO Duane Highley | *SPP*

Tri-State CEO Duane Highley called the commission's acceptance of the filing "a decidedly positive outcome" and an "important step forward" for its members.

"Each [member] now has a voice and will be treated equally on wholesale contract and rate matters," Highley said. "We believe this issue is now properly before the appropriate regulatory commission." ■



Tri-State's service territory includes 46 companies, soon to be 45, in the Rocky Mountains. | *Tri-State G&T*

Company Briefs

PG&E to Relocate to Oakland

PG&E Corp. plans to sell its San Francisco headquarters and move to Oakland in the coming years, a cost-saving effort that will see California's largest utility leave the city where it has been based for more than a century.

The company announced last week that it will begin relocating from downtown San Francisco to 300 Lakeside Drive by Lake Merritt in 2022. PG&E said it would "launch a competitive market process" to sell its San Francisco office complex, which includes 77 Beale St. and 245 Market St., after it emerges from bankruptcy protection.

PG&E intends to ask the California Public Utilities Commission for permission to return its net gain from the San Francisco office sale back to customers, the company said. The move is designed to help the company save money on real estate costs, though PG&E did not immediately provide an estimate on those savings.

More: *San Francisco Chronicle*

Murray Energy Issues WARN Notices

More than 1,500 people working in the coal industry in the Northern Panhandle of West Virginia will be without jobs this week after multiple subsidiary companies for Murray Energy announced mass layoffs recently, according to federal notices filed by the mining company.

According to a federal Worker Adjustment and Retraining Notification filed in late May, 1,522 workers at four Murray locations in Ohio and Marshall counties will terminated as of June 17.

Murray cited billions in debt and a declining demand for its primary product of steam coal when the company filed for Chapter 11 reorganization in late October after failing to make payments to creditors.

More: *The Intelligencer and Wheeling News Register*

Former DTE Energy Smokestacks Topple in Harbor Beach

Some of the last remnants of a former DTE Energy coal-fired electric generation plant in Huron County, Mich., collapsed after a company used explosives to dismantle the building's structure.

Two smokestacks, a part of the Harbor Beach facility, located on Lake Huron, came tumbling down on June 9. Ron Wruble, city director for the city of Harbor Beach, said a company is in the process of the cleaning up the site and decommissioning the plant. The plant has been closed for about a decade, he said.

The event drew a crowd of onlookers as the structures toppled over and went up in smoke.

More: *MLive*

Hackers Targeted Environmentalists; Exxon Denies Involvement

Federal prosecutors in Manhattan are investigating hackers that targeted several environmental groups that have been advocating prosecuting Exxon Mobil for allegedly engaging in an effort to mislead the public about climate science.

Details of the hacking campaign were made public last week in a report by *Citizen Lab*, a cybersecurity watchdog group. The report said that thousands of people on six continents had been targeted by phishing emails for at least four years in the same operation. The investigation, along with Citizen Lab's findings, pointed to a growing hacker-for-hire industry used by individuals and companies to target the email accounts of their adversaries.

The report did not accuse Exxon of wrongdoing and said Citizen Lab had no strong evidence linking the hacking to a corporate sponsor. A spokesman for Exxon said in a statement that the company "has no knowledge of, or involvement in, the hacking activities outlined in Citizen Lab's report."

More: *The New York Times*

EEI Elects Xcel's Ben Fowke as Board Chair

The Edison Electric Institute last week elected **Ben Fowke**, chairman and CEO of Xcel Energy, as the new chair of its board.

EEI also elected as vice chairs Gerard Anderson, executive chairman of DTE Energy; Warner Baxter, chairman, president and CEO of Ameren; and Pedro Pizarro, president and CEO of Edison International.

Fowke succeeds Christopher Crane, president and CEO of Exelon.

More: *Daily Energy Insider*

AMP CEO Named APPA Chair

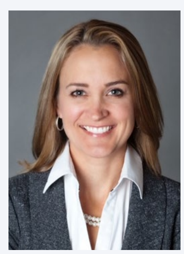
American Municipal Power CEO Jolene Thompson was installed as chair of the American Public Power Association board of directors at APPA's Public Power Connect Virtual Summit & Business Meeting on June 9.

"In challenging times like we are experiencing, the value of joint action takes on enhanced importance," Thompson said. "I am looking forward to working with the APPA board and leadership team to raise awareness of the benefits of the public power business model."

Thompson has been with AMP for nearly 30 years, including a prior role as executive vice president of member services and external affairs. She was executive director of the Ohio Municipal Electric Association from 1997 to 2020. APPA represents more than 2,000 community-owned electric utilities that serve more than 49 million people.

More: *AMP*

Kelly Hanson Joins NERC as SVP, CAO



NERC last week announced that it has hired **Kelly Hanson** as senior vice president and chief administrative officer, effective July 6.

As CAO, Hanson will be responsible for executing the ERO's long-term information technology, finance and human capital strategic plans. She joins from Southwire Co., a wire and cable developer, manufacturer and supplier.

"I'm excited to have Kelly join our leadership. She has a long track record of success in different roles inside and outside of the electricity industry," NERC CEO Jim Robb said.

More: *NERC*

Federal Briefs

SEIA, WoodMac: Rooftop Installers Take Serious Hit in Pandemic

The U.S. solar market is expected to achieve record installations in 2020 despite the impact of the coronavirus crisis, even as the distributed solar segment takes a big hit.

The U.S. solar market logged its largest first quarter of installations on record by a significant margin, according to new data released last week by Wood Mackenzie and the Solar Energy Industries Association. But the numbers confirm what the industry has feared: Distributed solar has been seriously affected by the coronavirus, and no part of the industry has been entirely insulated.

The market is believed to be working through the most difficult stretch of the year right now. The first quarter overlapped only slightly with the full impacts of the coronavirus; the industry is now in the throes of the second quarter during which many states were shut down for months.

More: *GreenTech Media*

US Agency Plans to Lift Nuclear Power Plant Financing Ban

International Development Finance Corp. (DFC), a U.S. federal agency, will end its ban on financing nuclear power plant projects, a spokeswoman said last week, a move that follows the Trump administration's support for U.S. reactor exports.

"This week, DFC plans to announce a 30-day public comment period on a proposed policy change to remove DFC's legacy prohibition on support of nuclear power projects in developing countries," spokeswoman Laura Allen told S&P Global Platts.

Allen declined to provide a timeline for when she expects DFC could begin financing exports of US nuclear technologies.

More: *S&P Global Platts*

IEA: COVID-19 Crushed Global Natural Gas Demand

Hit hard by the response to the COVID-19 pandemic, global gas demand in 2020 is set to tumble by twice the amount lost after the 2008 global financial crisis — its largest annual decline in history — the International Energy Agency says in its latest annual market report.

As of this month, the fall has been significant in all major gas markets around the world, and especially in mature markets across Europe, North America and Asia, which are forecast to see drops of up to 75% of the total decline in gas demand in 2020.

Power generation is the hardest hit, making up half the total demand decline, followed by the residential and commercial sector, and then the industrial sector.

More: *POWER*

State Briefs

COLORADO

Group Drops Plans for Anti-fracking Ballot Measure

An environmental group dropped plans to place an anti-fracking measure on the state's November ballot citing the COVID-19 pandemic.

The group, Colorado Rising, had been exploring several ballot initiatives to place more stringent regulations on oil and gas drilling in the state, the fifth-largest oil producer in the U.S.

"We have concerns about volunteers," said **Joe Salazar**, Colorado Rising's executive director, referring to the COVID-19 pandemic. He added, "we've run out of time" to employ electronic gathering methods, the rules for which are still being developed by the state.

More: *Reuters*

MAINE

Towns, Environmental Group Challenge Key NECEC Permit

Three parties, including towns abutting the proposed New England Clean Energy Connect transmission project, are challenging a conditional permit for the $1 billion project granted by the Department of Environmental Protection.

They are asking the department for a stay to postpone its activity on a May 11 permit approval for the project, which would bring hydropower from the Canadian border through the state. The petitioners claim that failure to grant a stay will cause irreparable harm to their livelihoods from the "irredeemable destruction of the natural environment." They also challenged the environmental department's decision-making.

In a separate action, the Natural Resources Council of Maine, an environmental advocacy group, asked for both a stay of the permit decision and appealed it with the state's Board of Environmental Protection.

More: *Bangor Daily News*

Hampden Waste Plant Puts Operations on Hold

The new waste plant in Hampden has had to temporarily close this month as it struggles to pay its expenses and faces a new lawsuit from a contractor that alleges it's owed at least $1.2 million for staffing and running the facility.

That closure has forced the 115 communities that normally send waste to the Coastal Resources of Maine plant to instead divert it to landfills, as they have had to do multiple times over the past two years as the facility opened late and then in fits and starts.

The latest closure has also prompted a warning from the organization representing those communities that the plant is violating its contractual obligations and has 30 days to fix the situation. That violation notice is a step toward the organization, the Municipal Review Committee, terminating its contract.

More: *Bangor Daily News*

MARYLAND

PSC Approves Dan's Mountain Wind Farm

The Public Service Commission last week approved a proposed project to place 17 wind turbines on Dan's Mountain in Allegany County.

The approval allows Dan's Mountain Wind Force to construct the turbines on the mountain's ridge line near the communities of Midland and the Harwood Subdivision, along with Vale Summit, Cresaptown and Bel Air.

The primary opposition to the wind farm came from the Allegany Neighbors and Citizens for Home Owners Rights. Its members have argued that the turbines create excessive noise pollution, light flicker and destruction of neighborhood views. They also fear the turbines, which are nearly 500 feet in height, will negatively impact property values.

More: *Cumberland Times-News*

MASSACHUSETTS

New Cape Cod Transmission Line Generates Little Interest

A virtual public hearing on a proposed 115-kV overhead transmission line by Eversource Energy traveling nearly 13 miles through Bourne, Sandwich and into West Barnstable drew comments from only 10 residents last week.

The nearly three-hour hearing, held on Zoom, was conducted by the Energy Facilities Siting Board. There was little or no debate on whether the region needs the additional transmission capacity, but concerns were raised over potential deforestation, health, property value and stray voltage issues. Worry also was expressed about whether recent transformer and distribution line fires in the West Barnstable area would increase with the additional equipment at the substation.

Robert Clarke, Eversource's director of siting and project outreach, said the project is necessary to address contingency issues for more than 200,000 customers on Cape Cod and nearby islands.

More: *Cape Cod Times*

MICHIGAN

State Sues Edenville Dam Owner Boyce Hydro over Midland Flooding

Saying the owner and operator of the failed Edenville Dam "repeatedly put its own profits over the safety of the public," Attorney General Dana Nessel last week announced a new state lawsuit against Boyce Hydro, seeking likely millions of dollars in damages and response and recovery expenses related to last month's flooding in Midland County.

The dam, in Midland and Gladwin counties on the Tittabawassee and Tobacco rivers, failed amid torrential rains May 19, resulting in the subsequent failure of the downriver Sanford Dam and leading to catastrophic flooding in Midland County. Some 2,500 homes and businesses were damaged or destroyed, and damages are estimated at more than $175 million.

"Boyce has a well-documented record of repeatedly and intentionally ignoring state and federal safety regulators," Nessel said. "When Boyce's actions resulted in the very harm that these regulators sought to prevent, Boyce then had the audacity to blame these individuals for its own misdeeds."

More: *Detroit Free Press*

Whitmer, Nessel Lose as Appeals Court Upholds Line 5 Tunnel Law

The state Court of Appeals upheld the constitutionality of a law to let Enbridge build a tunnel to house the 66-year-old Line 5 under the Straits of Mackinac — another setback for Attorney General Dana Nessel's quest to stop the operation of the oil pipeline.

A three-judge panel rejected the technical arguments of Nessel, who argued in a March 2019 opinion that the law violated the state constitution's title object clause "because its provisions go beyond the scope of what was disclosed in its title."

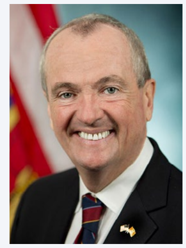
The judges ruled the title of the 2018 law "does not address objects so diverse that they have no necessary connection."

More: *The Detroit News*

NEW JERSEY

BPU Approves Aggressive New EE Targets

Utilities in the state will be required to reduce how much gas and electricity their customers use after the Board of Public Utilities approved a comprehensive energy efficiency program.



Within five years, electric utilities will be required to curb use by 2.15%, and gas utilities by 1.10%, each higher than the respective targets set under a two-year-old law signed by Gov. **Phil Murphy**. The law mandated at least 2% reductions for electric utilities and 0.75% for gas utilities.

BPU President Joseph Fiordaliso said staff worked hard to incorporate the concerns of stakeholders who participated in the process. "For the most part, people will be more than satisfied with" the program, he said.

More: *NJ Spotlight*

NORTH DAKOTA

PSC OKs Siting for New 200-MW Wind Farm in Burke County

The Public Service Commission has approved a siting permit for a 200-MW wind farm in Burke County after rejecting another proposed wind farm in that general area in 2019 because of concerns about its impact on wildlife.

NextEra Energy Resources redesigned the Burke Wind Farm — and renamed it the Northern Divide Wind Energy Center. The new design is about half the size of the earlier one, covering 11,000 acres of land, and consists of 74 turbines.

It also avoids many of the areas that would be wildlife habitat, a bone of contention with the state's Game and Fish Department and the U.S. Fish and Wildlife Service. All turbines would be located in cropland. The Game and Fish Department had said the company couldn't have picked a "worse place" for the original project.

More: *Prairie Public Broadcasting*

RHODE ISLAND

Senate Committees Advance Energy Nominees

A flood of objections from social and environmental justice groups failed to slow the nominations of **Ronald Gerwatowski** as chair of the Public Utilities Commission, Nicholas Ucci as director of the Office of Energy Resources and Linda George as head of the Division of Public Utilities and Carriers.

The George Wiley Center and Sunrise Providence argued that the nominees' past actions indicate support for expanding fossil fuel infrastructure and policies favored by National Grid, the state's primary natural gas and electric utility.

Sen. Samuel Bell (D) cast the lone vote against George's nomination during her June 4 hearing before the Senate Committee on Commerce based on her comments in article about the cause of the Aquidneck Island gas outage in January 2019. Bell told ecoRI News that George "echoed a factually incorrect talking point" that new, higher-capacity pipe was needed.

More: *ecoRI News*

VERMONT

State Gets Nearly $800K in Federal Funds to Buy Electric Buses

Gov. Phil Scott and the Agency of Transportation (AOT) last week announced the Federal Transit Administration had awarded federal funds to the state for the purchase of electric public transit vehicles through the Low or No Emission Program.

"As we continue our work on COVID-19 response and recovery, we remain committed to supporting the transportation needs of our rural communities, especially for essential workers and services," Scott said. "Growing the state's fleet of electric public transit vehicles is a vital strategy in meeting our energy goals and reducing vehicle emissions."

FTA will provide $793,420, which will cover 80% of the cost of four vehicles, bringing the state's total number of electric public transit vehicles to 12. Green Mountain Express in Bennington and Rural Community Transportation in Lyndonville will each receive two vehicles.

More: *Vermont Business Magazine*

VIRGINIA

First African-American Appointed to SCC

Gov. Ralph Northam last week appointed Jehmal Hudson to the State Corporation Commission, making him the first African-American to serve on the agency.

Hudson previously served as vice president of government affairs for the National Hydropower Association and was director of government affairs at FERC. He has also served as a law clerk for Hillary Clinton when she served as a U.S. senator.

The House of Delegates approved Hudson's nomination in March, but state Senate Republicans balked, saying Hudson didn't have the necessary experience in banking and insurance. The General Assembly must take action to either approve Hudson or leave the seat vacant within 30 days of the start of the next session in 2021.

More: *Virginia Business*

WISCONSIN

PSC Lifting Pandemic Moratorium on Utility Disconnections, Late Fees

The Public Service Commission announced last week that they will lift a temporary moratorium that prevented utilities from disconnecting water, electricity and heat for customers who couldn't afford to pay their utility bills during the COVID-19 crisis.

Utilities can once again issue disconnection notices starting July 15 and the moratorium ends on July 25. The PSC issued the moratorium on March 24.

Commissioner Tyler Huebner said Friday that the commission is trying to strike a balance with consumer protection and costs to utilities. "The utilities can offer deferred payment agreements, which would allow [customers] to set up a payment plan to repay those balances," he said.

More: *Wisconsin Public Radio*