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Biden Signs Sweeping Climate Orders

Promises to Protect Fossil Workers, Power Plant Communities

By Rich Heidorn Jr.

President Joe Biden signs executive orders on climate change. | *C-SPAN*

President Biden on Wednesday promised to provide new economic opportunities to coal miners and power plant communities as he announced a "whole-of-government" approach to addressing climate change.

Joined by his two top climate advisers, former Secretary of State John Kerry and former EPA Administrator Gina McCarthy, the president signed a memorandum and two executive orders, calling for evidence-based policymaking, funding for disadvantaged communities and making climate change a central consideration in all federal government decisions.

"It's not time for small measures. We need to be bold," Biden said in remarks before the signing.

"So, let me be clear: [We are going] to revitalize the economies of coal, oil and gas and power plant communities. We're never going to forget the men and women who dug the coal and built the nation," Biden promised. "We're going to do right by them [and] make sure they have opportunities to keep building the nation in their own communities and getting paid well for it."

Biden signed a *memorandum* re-establishing scientific advisory committees, vowing that his

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Glick Names Top Aides as Democrat Takes over FERC

By Rich Heidorn Jr.

FERC Chair Richard Glick announced his top aides Monday, promoting technical adviser Pamela Quinlan to acting chief of staff and naming legal adviser Matt Christiansen as general counsel.

Quinlan joined Glick's office in 2017 after a stint in the Office of Energy Market Regulation. Before joining commission staff, she worked in energy policy and regulatory affairs at Consolidated Edison, often representing Con Ed's Rockland Electric at PJM stakeholder meetings. (See *Load, Supply Deadlock on MOPR Changes*.)

She also worked at Standard & Poor's and CPower Energy Management after earning an M.S. in sustainability management from

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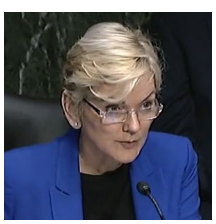
Granholm Attempts to Placate Coal State Senators

Energy Secretary Nominee Pledges Focus on Jobs in Energy Transition

By Michael Brooks



Jennifer Granholm | *Senate ENR Committee*

The Biden administration will not forget about fossil fuel industry workers as it transitions the U.S. to net-zero emissions by 2050, the president's nominee to lead the Department of Energy, Jennifer Granholm, told the Senate Energy and Natural Resources Committee on Wednesday.

Republicans on the committee — and incoming committee Chair Joe Manchin (D-W.Va.) — sought assurance that Granholm would not seek to displace coal, oil and natural gas in the country's energy mix. She did not shy away, pledging that the U.S. would continue to rely on fossil fuels even as it tries to reduce their greenhouse gas emissions.

Sen. Joe Manchin (D-W.Va.) | *Senate ENR Committee*

Instead of speaking about the urgency of the climate crisis, as some Democrats on the committee did, she focused her remarks on the department's role in funding research and development of technologies, such as carbon capture and sequestration, and often emphasized the "net" in "net zero."

Granholm, who served as governor of Michigan from 2003 to 2011, also asserted that the transition would result in higher overall employment. She cited her experience of leading the state during the Great Recession, when General Motors and Chrysler filed for

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Promises to Protect Fossil Workers, Plant Communities

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administration will protect scientists from political interference and ensure their agencies make evidence-based decisions. Biden also signed an executive *order* re-establishing the President's Council of Advisors on Science and Technology, and charged the Office of Science and Technology Policy (OSTP) with responsibility for ensuring scientific integrity across federal agencies.

At the Center of Foreign Policy and National Security

Another executive *order* says climate considerations will be "an essential element" of U.S. foreign policy and national security, with Kerry, named Biden's special presidential envoy for climate, becoming a member of the National Security Council.

Biden will hold a Leaders' Climate Summit on Earth Day, April 22, that will seek "to promote a significant increase in global ambition" to reduce emissions. Officials said the U.S. will determine its "nationally determined contribution" — or emission reduction target under the Paris Agreement — before the summit.

"The convening of this summit is essential to ensuring that 2021 is going to be the year that really makes up for the lost time of the last four years," Kerry said in a press conference.

Kerry acknowledged the U.S.' disputes with China over access to markets and intellectual property theft, vowing "those issues will never be traded for anything that has to do with climate. That's not going to happen."

The order also directs the director of national intelligence to prepare a National Intelligence Estimate on the security implications of climate change. "This is the first time a president has ever done that," Kerry said.

Kerry acknowledged the cost of the $2 trillion climate plan Biden proposed during the campaign. "Yes, it's a lot of money," he said. "But you know what? It costs a lot more if you don't do the things we need to do. There are countless economic analyses that show that it is now cheaper to deal with the crisis of climate than it is to ignore it. We spent $265 billion two years ago on three storms: Irma, Harvey and Maria. … So, we're spending the money folks. We're just not doing it smart. We're not doing it in the way that would actually sustain us for the long term."

'Whole-of-government' Approach

Biden also ordered the creation of an Office of Domestic Climate Policy in the White House, to be led by McCarthy, the first-ever national climate adviser. The office will serve as a clearing house for coordinating and implementing Biden's domestic climate agenda.

The president also announced creation of the National Climate Task Force, a group of officials from 21 federal agencies and departments to take a "whole-of-government" approach to addressing climate change. Each federal agency will be required to develop a plan for increasing the resilience of their facilities and operations against climate change.

Special Presidential Envoy for Climate John Kerry speaks at a press conference. | *C-SPAN*

Biden also ordered federal agencies to purchase carbon-free electricity and zero-emission vehicles, saying it would "create good-paying, union jobs and stimulate clean energy industries." Biden said the government's support for EVs could generate 1 million new jobs.

The directive, which builds on Biden's "Buy American" executive *order* Jan. 25, requires agencies to strictly enforce the prevailing wage and benefit guidelines of the Davis Bacon Act and other laws.

The secretary of the interior is required to "pause" new oil and natural gas leases on federal lands and waters "to the extent possible" and conduct a review of existing leasing and permitting practices related to fossil fuel development. The president said he would eliminate fossil fuel subsidies where possible under existing law and seek congressional approval for other cuts.

But he made clear he would not take a step some environmentalists have urged. "I know this always comes up," Biden said in remarks before the signing. "We're not going to ban fracking. We'll protect jobs and grow jobs, including through stronger standards like controls [of] methane leaks and union workers willing to install the changes."

Biden said his directives will create jobs in construction, manufacturing, engineering and skilled trades "by directing steps to ensure that every federal infrastructure investment reduces climate pollution and that steps are taken to accelerate clean energy and transmission projects under federal siting and permitting processes in an environmentally sustainable manner."

He called for creation of a Civilian Climate Corps to employ people conserving and restoring public lands and waters, increasing reforestation and carbon sequestration in agriculture and protecting biodiversity. The Secretary of Agriculture was directed to collect input from farmers, ranchers, and other stakeholders on how to use federal programs to encourage adoption of climate-smart agricultural practices that produce carbon reductions and sequestrations.

Revitalize Energy Communities

Biden also established an Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization, to be co-chaired

FERC/Federal News

by McCarthy and Brian Deese, director of the National Economic Council, to direct federal agencies to coordinate investments and other efforts to assist coal, oil and natural gas, and power plant communities.

The order also includes a "Justice40 Initiative," requiring the chair of the Council on Environmental Quality, the director of the Office of Management and Budget and the national climate adviser to publish within 120 days "recommendations on how certain federal investments might be made toward a goal that 40% of the overall benefits flow to disadvantaged communities."

The recommendations will focus on clean energy and energy efficiency; clean transit; affordable and sustainable housing; training and workforce development; the remediation of legacy pollution; and the development of clean water infrastructure.

"We have to make sure that in this transition, every agency in government is using every tool at their disposal to drive resources to those communities," McCarthy said.

Kerry said displaced fossil fuel workers can find good jobs in the clean energy economy, such as installing solar panels and wind turbines.

"Seventy to seventy-five percent of all the electricity that's come online in the U.S. in the last few years came from renewables. Coal plants have been closing over the last 20 years. What President Biden wants to do is make sure those folks have better choices; that they can be the people that make the solar panels. That we're making them here at home.

"Unfortunately, workers have been fed a false narrative," he continued. "They've been fed the notion that somehow dealing with climate is coming at their expense. No, it's not. What's happening to them is happening because of other market forces already taking place. What the financiers — the big banks, the asset managers, private investors, venture capitalists — are all discovering is there's a lot of money to be made in the creation of these new jobs."

National Climate Adviser Gina McCarthy answers questions at a press conference. | *C-SPAN*

Kerry's comments echoed those that Biden's nominee for secretary of energy, Jennifer Granholm, made during her confirmation hearing the same day. (See related story, *Granholm Attempts to Placate Coal State Senators*.)

Manchin Vows to Collect on Biden's Promises

Sen. Joe Manchin (D-W.Va.), incoming chairman of the Senate Energy and Natural Resources Committee, issued a statement supporting the pause on new drilling leases on federal lands and waters. "Currently, 53% of onshore acres leased and 77% of offshore acres leased have no active production," he said. "It is prudent to evaluate if taxpayers are receiving a fair return for the use of their resources. This executive order will not impact energy activity like drilling or permitting on existing leases."

Manchin also reiterated his insistence that the nation seek innovation that allows it to address climate change without blacklisting fossil fuels.

"Instead of elimination, we must instead focus on utilizing all of our resources in the cleanest way possible. Today's executive orders also commit the Biden administration to focus on reinvesting in communities that have seen the loss of traditional energy jobs, like many in West Virginia," Manchin said.

"I intend to hold the administration to this while ensuring that the burden of any acceleration in already changing markets is not unduly placed on these communities that powered our nation to greatness. I stand ready to work with this administration to ensure West Virginia communities see these much needed investments." ■

FERC/Federal News

Granholm Attempts to Placate Coal State Senators

Energy Secretary Nominee Pledges Focus on Jobs in Energy Transition

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bankruptcy.

"Having been the governor of Michigan when the automotive industry was on its knees, I understand what it's like to look in the eyes of men and women who have lost jobs through no fault of their own," she said.

That industry, like energy, she noted, has historically been dependent on fossil fuels. She admitted that she and other Michigan officials had fought against tougher Corporate Average Fuel Economy standards "because we wanted to protect our industry."

But the auto industry has begun transitioning to manufacturing electric vehicles, Granholm said. She frequently expressed her love for her Chevrolet Bolt.

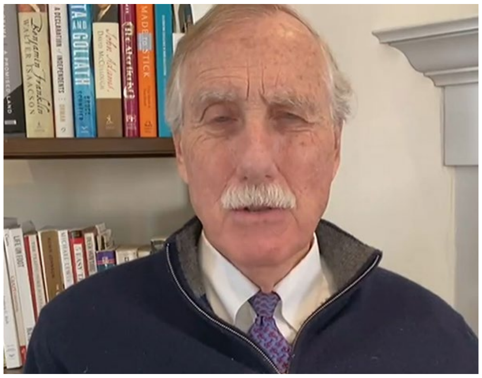
The energy transition also offers an opportunity for the U.S. to import less, she said. In fossil fuel states, "there is an opportunity for us to specialize in the technologies that reduce carbon emissions; to make those technologies here; to put people to work here," she told Manchin.

"We better believe that China is in this, and they are aggressively competing," she said later. "States individually are bringing a knife to a gunfight, and without a federal partner to make sure we can get these jobs in America, then we will be losing globally."

Granholm's comments on protecting U.S. jobs echoed those of Biden when he issued several executive orders the same day. (See related story, *Biden Signs Sweeping Climate Orders*.)

'A Hell of a Lot More Jobs'

Republicans on the committee, led by incoming ranking member John Barrasso (Wyo.), asked Granholm about Biden's executive orders, such as a moratorium on new oil and gas drilling leases on federal lands and blocking the Keystone XL oil pipeline. (See *Biden Begins Undoing Trump's Legacy*.) Republicans said these orders would cost thousands of jobs.



Sen. Angus King (I-Maine) | *Senate ENR Committee*

"We don't want to see any jobs sacrificed," Granholm told Barrasso. "This is why reducing GHG emissions is so important in the fossil fuel arena. The moratorium on public lands, I know, for those states that have those jobs in abundance, is something we're going to have to work on together to ensure people remain employed."

She noted that current leases to drill would not be affected by the moratorium. "So it gives us some time to be able to work on creating jobs. ... [Biden] has put together a sort of SWAT team inside the federal government to focus on communities that have powered America."

Sen. Bill Cassidy (R-La.) was skeptical.

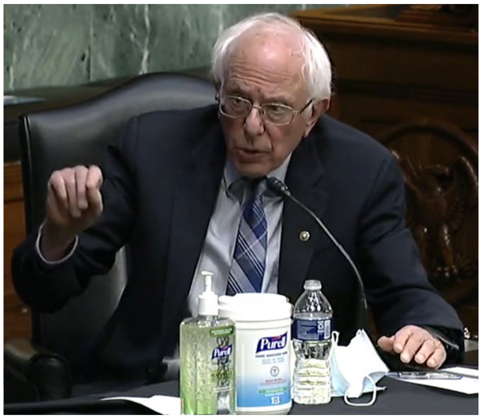
"I think there is a question before the American people: Does the Biden administration actually care about their jobs?" he asked. "You had mentioned that the Biden team will have ... a SWAT team to make sure that folks are employed. I'm thinking they have a SWAT team to take out their jobs."

Cassidy noted that during his confirmation hearing, Pete Buttigieg, Biden's nominee for transportation secretary, admitted that it would take years for clean energy jobs to become widely available. (Later that day, the Senate Commerce Committee advanced Buttigieg's nomination to the floor, 21-3.)

"I totally get the concerns about jobs losses. Totally," Granholm responded. She began to say that Biden had committed to create millions of jobs as part of his climate policies, but Cassidy cut her off.

"How quickly though? ... If you've lost a job that is putting food on your table now, it's cold comfort to know that years from now, perhaps in a different state, with a different training [that] you have, there will be another job available," Cassidy said.

"I completely understand what you are saying," she replied. "What I can tell you is ... when we focused on incentives for job providers to locate in Michigan in clean energy, they came." She noted that the department has unused



Sen. Bernie Sanders (I-Vt.) | *Senate ENR Committee*

funds for tax credits under Section 48c of the American Recovery and Reinvestment Act for clean energy manufacturing.

Sens. Bernie Sanders (Vt.) and Angus King (Maine), independent senators who caucus with Democrats, backed up Granholm on her focus on jobs.

"While there will be clearly, as we make the transformation, loss of some jobs, no question about it ... 10 million jobs is a hell of a lot more jobs being created than being lost," said Sanders, referring to one of Biden's *goals*.

"The changes in employment patterns occasioned by the movement to a carbon-free economy are obvious, and they're occurring," King said. "What's hard to calculate is the drastic changes to our economy if we don't make this transition and the impacts all over the country in agriculture, in industry, in fisheries, in all of our coastal resources. ... There's an enormous cost on the other side that has to be part of this equation." ■

Sen. John Barrasso (R-Wyo.) | *ENR Committee*

FERC/Federal News

Glick Names Top Aides as Democrat Takes over FERC

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Columbia University. She and her husband, *Eric Vandenberg*, deputy director of FERC's Office of Energy Policy and Innovation, live with their son in D.C.

Christiansen joined Glick's office in 2017 from the Office of the General Counsel. Before joining FERC, he served as a law clerk to the D.C. Circuit Court of Appeals Judge Stephen F. Williams and Judge Jesse M. Furman of the Southern District of New York. He was an energy law and policy fellow at NYU Law School's Guarini Center on Environmental, Energy and Land Use Law. He and his wife, Celia, live with their daughter in D.C.

A graduate of Yale Law School and Columbia University, Christiansen has been published — or will be — in the *Harvard Law Review*, the *Texas Law Review* and the *Energy Law Journal* of the Energy Bar Association (EBA).

Matt Christiansen, third from the left, spoke on a panel discussion on FERC's role in regulating carbon at the Energy Bar Association's Mid-Year Forum in October 2019. Also taking part were (left to right) Jay Costan, Dentons; Jamie Simler, Ameren; and Ari Peskoe, Harvard Law School. | © *RTO Insider*

Glick and Christiansen co-authored an *article* published in the April 2019 EBA journal that predicted FERC "is likely to become an increasingly important venue in the debate over how this nation will address climate change.

FERC Commissioner Richard Glick (center) holds a press conference, with legal adviser Matthew Christiansen and technical adviser Pamela Quinlan after the commission's ruling on PJM's minimum offer price rule in December 2019. | © *RTO Insider*

"The urgent threat of climate change does not necessitate a wholesale reinterpretation of the commission's jurisdiction or a novel regulatory paradigm," they wrote. "Instead, climate change increases the stakes of many commission actions, making it all the more important that the commission carry out its existing obligations." (See *EBA Panelists Debate Role of FERC in Regulating Carbon*.)

ClearView Energy Partners issued a note on Glick's appointments, reminding its clients of "the important role of the general counsel in supporting a chairman's policy direction."

ClearView described Glick and Christiansen as "'technicians' and … progressive-leaning pragmatists."

Glick announced Quinlan's and Christiansen's promotions in a *statement*, saying "both Pamela and Matt have served in my office … with great distinction. They both will play critical roles in advancing FERC's essential mission as the nation transitions to the clean energy future."

Glick said he was happy that David Morenoff, who had been serving as acting general counsel for the past year, will return to his position as deputy general counsel. "I've come to rely heavily on David since I arrived at FERC and greatly value his intellect and his dedication to the commission and public service," Glick said. ■

Knowledge Gaps Seen as Barrier to Vehicle Electrification

By Jennifer Delony

In the race to decarbonize the transportation sector, focusing on fleet vehicles, which account for only 3% of registered vehicles in the country, might seem insignificant. But a *report* released last month by the Rocky Mountain Institute (RMI) says that a successful transition of fleets will influence the rest of the transportation sector.

"Large fleets drive scale, which results in reduced costs of vehicle technology and infrastructure," RMI said. "And fleets have the market influence to help drive costly inefficiencies out of the system, resulting, for example, in streamlined permitting processes and prioritized utility interconnect processes."

The think tank says more than 20% of all U.S. vehicles need to be electric by 2030 to limit climate change to 1.5 degrees Celsius, the threshold set in the Paris Agreement on climate change.

Progress in greening U.S. fleet cars is currently hindered by two significant knowledge gaps, according to the report, "Steep Climb Ahead: How fleet managers can prepare for the coming wave of electrified vehicles."

While fleet managers know how to procure and maintain vehicles, they have little experience in building and maintaining the charging infrastructure for electric vehicles, RMI said. In addition, the organizations running fleets are not versed in utility rate structures.

Driving Without a Map

The report, which is based on a survey of managers responsible for large fleets, found that 81% of organizations have begun electrifying vehicles but that only about half of those have set explicit goals for transitioning their fleets. The report also said many organizations have not been planning for the charging infrastructure required to support their growing green fleets. In fact, investment by organizations has been upside down, going first to vehicles and then to charging infrastructure, where investment in infrastructure should be the priority. A lack of charging stations could act as a cap on EV adoption, the report said.

"Although many fleets have already implemented pilot programs — usually consisting of a few EVs and low-powered chargers, acquired at modest expense — electrifying a fleet at scale involves much more than just adding more EVs and chargers incrementally," RMI said. "For many organizations, it will mean restructuring their internal business processes, including procurement, accounting, long-term capital project planning, fiscal budgeting, operations and more" to understand their return on investment and total cost of ownership.

The report says the charging infrastructure necessary to serve truck stops and fleet yards with medium- and heavy-duty trucks can take years to plan and build. It says some fleet managers may be surprised to learn that use of public chargers or Level 2 chargers (7.2 kW) will not suffice and that they will have to install more expensive direct current fast charge (DCFC) units (150 kW).

Of the total number of charge stations in the U.S., DCFC *accounts* for about 15%, according to the consulting firm EVAdoption. The RMI report said fleet managers planning to expand EV procurement need to begin talks with their utility "at least three years before they expect to actually need the power."

"We strongly suspect that many fleet managers are in for some unpleasant shocks when they receive the first utility bills for their first set of DCFC," the report added.

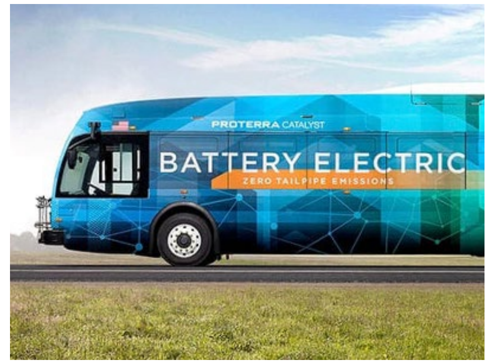
As a result, fleet operators will need "a much more extensive relationship with their local utilities," RMI said. "And it will mean much more proactive involvement with city and county officials, including local building and planning authorities."

The report recommends fleets consider "charging as a service" to navigate the complexity of managing vehicle charging around their duty cycles.

Wall Street Takes Notice

The growing infrastructure needs of EVs are attracting attention on Wall Street. Among those offering charging as a service is ChargePoint, which plans to go public this month. EVgo, which has more than 800 fast charging locations in 34 states, also is planning a public offering. And Royal Dutch Shell on Jan. 25 *announced* that it is acquiring Ubitricity, the U.K.'s largest EV charging network, in a bid to diversify from fossil fuels.

Jonathan Levy, chief commercial officer for fast EV charger provider EVgo, told *RTO Insider* that the company is working with fleet managers "to inform their best path to convert their vehicles to EVs."



The Proterra Catalyst battery electric bus is an example of the zero-emission fleet technologies being adopted by fleet managers in the U.S. | *Proterra*

Charging solutions will vary "depending on the particular use case," Levy said.

A Solution Set

RMI's findings of a knowledge gap among fleet managers are also echoed in a *report* prepared by the Center for Transportation and the Environment (CTE), released last month by the Federal Transit Administration (FTA).

The report summarizes the discussions of FTA's Transit Vehicle Innovation Deployment Centers (TVIDC) Advisory Panel on the challenges of electrifying municipal bus fleets. Prior to the adoption of battery-electric buses (BEB), few transit authorities had experience working with utilities as suppliers of bus fuel, the report says. Similarly, utilities are still early in the learning curve of BEB technology and its infrastructure and power requirements.

"Both industries still lack answers for how best to affordably and effectively deploy large-scale electric charging infrastructure at existing transit facilities," the report said. The learning curve issues were also the subject of discussions at CTE's Zero Emission Bus Conference last fall. (See *Takeaways from the Zero Emission Bus Conference*.)

To alleviate costly surprises for fleet managers, the TVIDC panel suggested that an FTA-sponsored, cross-industry working group develop frameworks that help fleet owners and utilities with common issues, such as infrastructure scaling and installation; liability and equipment testing; and certification.

The panel also suggested that making a planning guidebook available to fleet managers could ensure they understand utility operations, power planning and rate-setting issues. ■

FERC/Federal News

New FERC Rules Sought on Tx Planning

Former FERC Chairs Discuss Need for Region-spanning Buildout

By Jennifer Delony

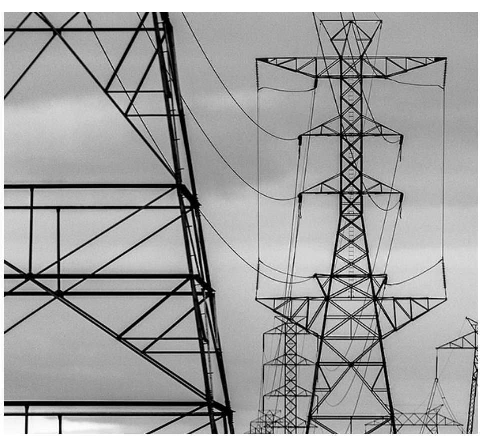
A group of former FERC chairs during a virtual panel discussion on Wednesday said the commission should issue new transmission planning rules to help decarbonize the U.S. and provide resilience and energy security.

Pointing to the success of previous landmark FERC orders, the former chairs said that while the specifics of what new rules might look like are not clear, the reasons for them are.

Former Chair Elizabeth Moler told the panel that she is proud of helping launch open transmission access with Order 888, but the transmission system has "changed dramatically in the intervening 25 years."

FERC, she said, "should take the steps necessary to facilitate more access for new actors, new players, new types of resources, and interregional transmission, and encourage further development of an even more robust interdependent and new generation of power supply."

The panel was hosted by Americans for a Clean Energy Grid (ACEG) for the release of its new report, "Planning for the Future: FERC's Opportunity to Spur More Cost-Effective Transmission Infrastructure." The report calls for FERC to issue a new rulemaking to reform planning, cost allocation and review of transmission in a manner that will support more regional and interregional power exchange for national energy security, reliability, resilience, cost-effectiveness and economic competitiveness.



A new report from American's for a Clean Energy Grid makes sweeping recommendations for a new FERC rulemaking to advance regional and interregional power exchange.

"A decade after Order No. 1000's issuance, the nation faces new challenges, and it is clear that neither the current infrastructure nor the rules governing its development match this need," the report said.

The report supplements ACEG's Jan. 12 report that alleged RTO policies assigning most costs of large network upgrades to interconnection customers violate FERC's "beneficiary pays" principle and are no longer just and reasonable. (See *'Participant Funding' Violates FPA, Grid Groups Say*.)

As part of the report, ACEG makes sweeping recommendations for how FERC could move forward with the rulemaking, but panel members did not specifically endorse the policy details of the report.

They were, however, generally supportive of the idea that proactive planning of regional and interregional transmission infrastructure is necessary in the near term.

"I believe [the grid] will need to double in size to accommodate electrification, transportation, heat and other industrial processes," said former Chair James Hoecker, who formerly headed the transmission trade organization WIRES. "Even taking into account [distributed generation] and energy efficiency, the doubling of electricity from wind and solar between now and 2035 augurs very strongly for major expansion of the grid."

Building on Success

Greg Wetstone, CEO of the American Council on Renewable Energy, also joined the panel discussion, saying that there has been no interregional transmission development in the decade since Order 1000 was issued.

"I'm hopeful [FERC] will be able to address these issues with a new rule that will help modernize and expand our outdated and congested power grid," Wetstone said.

The failure to bring new interregional transmission to development isn't for a lack of trying. MISO and SPP, for example, have gone through four coordinated system plan studies. In their most recent study last year, the RTOs ran into discrepancies over cost estimates, and ultimately were unable to identify any beneficial cross-border projects. (See *4th Time No Charm for MISO-SPP Interregional Study*.)

Former FERC Commissioner Nora Brownell said inconsistency between and among regions makes it difficult to make decisions in the planning process. She said that the industry has better data now than it had when she was at FERC in the early 2000s, and it could be better applied to planning.

"I'd love to see FERC not only broaden the data set by encouraging new transmission technologies but also working with [the U.S. Department of Energy] to analyze data to make sure that we are being consistent in how we apply things," she said.

The ACEG report offers suggestions for how to build on the success of FERC Orders 888, 2000, 890 and 1000, allowing for the lessons learned from their implementation to expand development of "region-spanning and interregional transmission capacity," with an eye toward cost effectiveness.

In the report, the vision for a new planning process takes shape under four suggestions.

- Best Available Data: Planning processes would use the best available data and forecasting methodologies to ensure projects address future needs and scenarios. Planning entities would have to evaluate needs based on a range of factors that could influence long-term power demands and the resource mix.
- Consider Benefits Together: Planning authorities would need to consider all the benefits of transmission together to avoid a siloed approach. The report says classifications of projects by reliability, public policy or economic status can overlook their multiple benefits.
- Evaluate All Solutions: Transmission planning entities would be directed to evaluate all available solutions — including new physical infrastructure options and grid-enhancing technologies — within regional transmission plans. This approach, the report said, ensures that lower cost or better performing options are included in planning.
- Plan with Portfolios: Transmission planning entities would select a portfolio of solutions for each regional and interregional transmission plan that is likely to maximize aggregate net benefits. The report said that FERC should encourage innovations to ensure accurate quantifications of transmission-related benefits to support portfolio planning. ■

FERC/Federal News

Report: Southeastern US Straggling in Energy Efficiency

By Amanda Durish Cook

Utility disregard and an absence of state policy is holding back energy efficiency in the Southeastern U.S., the Southern Alliance for Clean Energy (SACE) said last week.

The advocacy group released its third annual "*Energy Efficiency in the Southeast*" report and hosted a webinar with its policy analysts Wednesday to discuss how Southeastern states can improve.

SACE reported that in 2019, the Southeastern states — Alabama, Tennessee, Florida, Mississippi, Georgia and the Carolinas — were once again "solidly at the bottom" of the U.S. in energy efficiency efforts. The states achieved just 0.26% annual savings during 2019, less than half the national average and well below Northeastern states' average of 2.15%, according to the report. SACE gauges energy savings as a percentage of prior-year retail sales.

The group said just three utilities account for nearly 75% of all efficiency savings in the Southeast, "while some of the biggest utilities do almost nothing."

"We have a handful of states delivering the vast majority of savings," SACE Energy Efficiency Director Forest Bradley-Wright said during the webinar.

SACE Energy Policy Manager Heather Pohnan said Southeastern states typically trail other parts of the country in efficiency performance.

"In fact, [the region] usually comes dead last in rankings," Pohnan said. She said that in 2019, North Carolina was the only Southeastern state to near the national average of 0.67% energy savings.

SACE also found that South Carolina and Georgia also did better than their Southeastern peers, but they are still below the national average.

"Florida and Mississippi continue to drag the regional average down, while Tennessee and Alabama now deliver virtually no utility efficiency savings for residents," Pohnan said.

SACE Executive Director Steve Smith said energy savings have become even more "critically important" during the climate crisis and the economic downturn from the COVID-19 pandemic. "This is clearly more important than ever. … The greenest electron is one that you never use."

The report singled out the Tennessee Valley Authority and Florida Power & Light for excising their efficiency programs to "almost nothing."

"Because these are such large utilities, their lack of efficiency savings effectively drag the entire Southeast average sharply downward," SACE said.

Bradley-Wright said that in 2019, TVA engaged in a "near total abandonment" of energy efficiency measures. The federally owned utility, however, could execute an about-face.

"There could be big changes on the horizon for TVA," he said, referencing new President and CEO *Jeff Lyash* and the possible installation of new board members who place more urgency on addressing climate change. "You could see Tennessee Valley Authority become a climate leader. … It's something to keep an eye on."

Bradley-Wright said TVA faces pressure to become leaner and cleaner from Memphis Light, Gas and Water, which is pursuing alternative, cheaper energy sources. (See *Memphis Moves Closer to Breaking from TVA*.) MLGW is TVA's largest customer, accounting for about 10% of load and paying about $1 billion annually for power.

Pohnan said Duke utilities in the Carolinas account for more than half of energy savings in the Southeast alone. The report also said Georgia Power, Tampa Electric and Dominion Energy performed better than the Southeast's regional average.

Bradley-Wright said the gap between Duke companies' efficiency portfolio and Florida utilities can be chalked up to state policies.

"Policy is a huge factor in utility efficiency programs," he said. "Florida Power & Light does nothing more than meet the minimum requirements."

However, he said Florida is in the process of revamping its *Energy Efficiency and Conservation Act*, first rolled out in 1980. "If we see a change, it's going to come from Florida embracing more modern and standard [goals]."

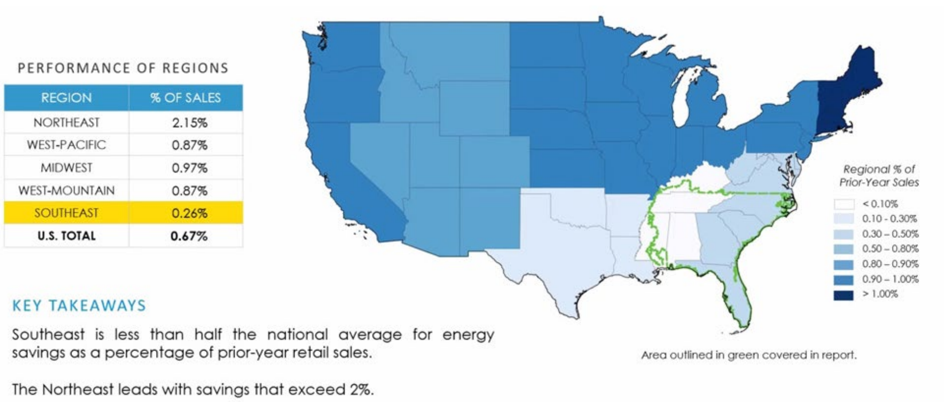
Bradley-Wright also noted that South Carolina regulators recently rejected Dominion's *integrated resource plan*, directing them to include at least 1% energy savings, among other directives.

"It's not very often that you see IRPs rejected by public service commissions," he said, adding that it could become more common.

"This is a time of transition in the Southeast. … The region is finally beginning to reckon with its aging fossil fuel fleet," Bradley-Wright said. "The Southeast has historically lagged behind other regions, but examples of clean energy leadership are emerging in the region."

Because the report draws on 2019 numbers — the latest available — it doesn't include the pandemic's impacts on energy efficiency programs. Bradley-Wright said 2020 efficiency numbers will likely be an anomaly because the pandemic "ground programs to a halt" in early March.

"The pandemic has had a devastating impact on families who were already struggling. … Energy efficiency has an important role to play," Bradley-Wright said, adding that efficiency programs can lower bills and could even "play a role in debt forgiveness" for families who have racked up unpaid bills. He said that temporary moratoriums on shutoffs don't do enough to address customer debts. ■



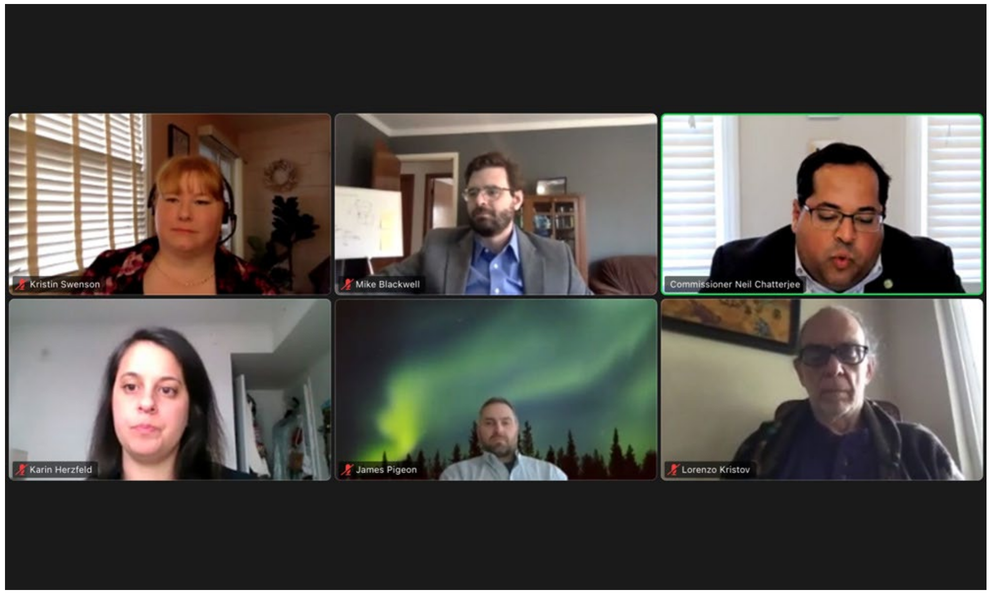
Efficiency performance of Southeastern states | *SACE*

FERC/Federal News

FERC Awaiting RTO Responses on Order 2222

By Jason York

The upcoming RTO stakeholder processes on Order 2222 are "where the rubber meets the road" for distributed energy resources' participation in the markets, FERC Commissioner Neil Chatterjee told an Energy Bar Association webinar Wednesday.



Clockwise from top left: Kristin Swenson, MISO; Mike Blackwell, MISO; FERC Commissioner Neil Chatterjee; Lorenzo Kristov, independent consultant; James Pigeon, NYISO; and Karin Herzfeld, FERC. | *Energy Bar Association*

Chatterjee was the FERC chair in September when the commission issued *Order 2222*, which directed RTOs to open their capacity, energy and ancillary service markets to aggregated DERs. (See *FERC Opens RTO Markets to DER Aggregation*.)

The order requires RTOs to allow DER aggregators to register as market participants under models that accommodate their physical and operational characteristics. FERC defines DERs as any resource located on the distribution system, a distribution subsystem or behind a customer meter, including energy and thermal storage, intermittent and distributed generation, energy efficiency and electric vehicles.

Chatterjee said the RTO compliance processes would be "interesting to watch" because, like Order 841, "we baked into the order a fair amount of flexibility on certain issues." Compliance filings are due July 19. (See related stoy, *MISO to Seek Extension on Order 2222 Plan*.)

"For example, we provided some flexibility for each region to determine the locational requirements for DERs to participate in an aggregation," said Chatterjee, the webinar's keynote speaker. "As another example, we require each RTO to establish rules that address the requirements related to metering and the hardware and software necessary for DER aggregations to participate, recognizing that there's always a push and pull between technical needs and the potential burdens on new market participants that they create."

Chatterjee noted a projection that there will be almost 19 million EVs on U.S. roads by the end of the decade. "But the truth is those EVs will be off the road more than they are on the road," he said. As charging infrastructure develops, he said, EVs will be "virtually able to work in concert to provide grid-level services."

"That's an easy way to think about the potential of Order 2222, but the true beauty of the rule is that it's technology-neutral," Chatterjee added. "So as new technologies emerge, our market rules will be able to accommodate them."

Chatterjee said that when he visited the National Renewable Energy Lab in Colorado in October, he learned the scientists had been tracking Order 2222. "They viewed it as a catalyst for the work they're doing on new technologies for the clean energy transition," Chatterjee said. "It was deeply gratifying to know that our work at the commission was driving such significant change."

Panel Discussion

Following Chatterjee's keynote, a panel discussed approaches among RTOs for Order 2222 compliance, market impacts of DER proliferation, jurisdictional issues relating to DER adoption, and the impact of DERs on grid reliability and resilience.

"It's striking to me the brilliance of how this [order] is written," said Tricia DeBleeckere, planning director in the Minnesota Public Utilities Commission's regulatory analysis division. "Whatever outcome or however this order plays out, it's going to get what FERC's intention is, which is a path for DERs to a market, whatever that market might be."

Lorenzo Kristov, an independent consultant and former principal at CAISO, emphasized that the coordination between DER aggregators, utilities and RTOs is "really going to be crucial to both having efficient competition and also increasing participation in the wholesale market by DERs."

FERC attorney Karin Herzfeld said the commission needed to recognize the interests state and local regulatory authorities have in Order 2222, which "actually requires the RTOs and ISOs to coordinate with all of these entities."

"I think that the role provided to distribution utilities and their view of the aggregations is going to be huge," Herzfeld said. "That'll be a big thing that the stakeholder processes will be wrestling with in the near future."

Chatterjee, whose term ends in June, said it would be an "understatement" to say he was proud of Order 2222.

"To me, the beauty of Order 2222 is its simplicity," Chatterjee said. "Don't get me wrong. I fully understand that the details underpinning the rule, and the compliance work that stakeholders are engaged in right now with the RTOs, is hugely complex."

Chatterjee said at the core of the order is a "rather simple and elegant premise."

"We should eliminate any hurdles facing DER aggregations in our markets, so they can line up and compete with traditional resources to provide all the energy and ancillary services and capacity that they have to offer." ■

CAISO/West News

CAISO Advances Summer Readiness Plan

Stakeholder Initiative Moving Rapidly to Avoid Summer Shortfalls

By Hudson Sangree

CAISO introduced a straw proposal Wednesday that aims to attract supply this summer and head off shortfalls like those that led to rolling blackouts in August and energy emergencies in September.

Propelled by those concerns, the ISO is moving ahead on its "market enhancements for summer 2021 readiness" stakeholder *initiative* at an unusually fast pace. It began advancing the measure in earnest in early January and scheduled it to be adopted by the Board of Governors in late March, with implementation scheduled for June 1.

The proposal took the form of a slide *presentation* only, not a written proposal as would normally be the case, because of time constraints. It is part of a series of fast-tracked measures being pursued by the ISO and the California Public Utilities Commission in anticipation of summer heat waves and capacity deficiencies as the state transitions from fossil fuels to renewables.

It and other measures are intended to address issues identified in a root-cause analysis of the summer shortages submitted to Gov. Gavin Newsom by CAISO, the CPUC and the state Energy Commission at Newsom's request. It identified a variety of problems including transmission constraints, questionable exports from the ISO during tight supply conditions and market practices that undermined supply. (See *CAISO Says Constrained Tx Contributed to Blackouts* and *Summer Readiness Sought by CAISO, CPUC*.)

"This initiative's goal is to prepare the CAISO's operations and market ahead of this summer," James Friedrich, market design policy specialist, said in his presentation. The "initiative is part of several measures to better access available supply, protect grid reliability and avoid rotating power outages during extreme heat waves. In addition to reliability, the CAISO has the responsibility to ensure its markets are operated efficiently, including mitigating market power and ensuring rational price formation."

The proposal deals with import incentives during tight load conditions, scarcity pricing enhancements and coordination with the interstate Western Energy Imbalance Market (EIM), among other changes. (See *Western EIM Questions Performance in Shortfalls*.)

For example, it proposes reviewing the performance of the ISO's resource sufficiency evaluation (RSE) as part of its EIM participation. The re-evaluation would address defects identified in prior workshops such as accounting for resources that are derated as part of the capacity test and eliminating the double counting of mirror resources.

Two proposed enhancements seek to improve market incentives during times of tight supply. One would improve day-ahead market scheduling incentives, and a second would improve real-time incentives.

Another part of the straw proposal involves increasing the real-time market's prices under certain conditions, including when the ISO issues a day-ahead market alert, or a warning or emergency in real time. The proposal would scale prices to the $2,000/MWh threshold established by FERC in Order 831. The order required ISOs and RTOs to raise the hard caps on supply bids from $1,000 to $2,000; offers over $1,000 require suppliers to justify their costs.

CAISO's Market Surveillance Committee said in September that the ISO needs to consider implementing scarcity pricing to obtain energy during heat waves and supply shortages. (See *CAISO MSC Urges Scarcity Pricing for Emergencies*.) CAISO plans to pursue a separate stakeholder initiative on scarcity pricing starting soon. (See *CAISO Adds Scarcity Pricing to Policy 'Roadmap'*.)

Making sure storage resources are charged in strained conditions is another component of the straw proposal. Hundreds of megawatts of additional storage are scheduled to come online by this summer. A lack of storage for renewable resources last summer led to shortages when solar ramped down in the evening but demand from air conditioning remained high.

Comments on the straw proposal are due this Wednesday, with a final proposal expected by the end of the month. ■

| *Shutterstock*

CAISO/West News

CPUC Slams SCE over Power Shutoffs

Officials Say PSPS Shouldn't be Used as 'First Resort'

By Hudson Sangree

The California Public Utilities Commission and state emergency officials told Southern California Edison last week that it had mishandled its public safety power shutoffs (PSPS) in 2020 and needs to work quickly to improve its communications with customers and government agencies.

CPUC President Marybel Batjer | *CPUC*

"I called this meeting and required the presence of Southern California Edison's leadership because of my deep concern over Edison's overall execution of its public safety power shutoff events this past year," CPUC President Marybel Batjer said in the online meeting Jan. 26. "Reliable electricity service is essential to the safety and well-being of all Californians. It is important service in normal times, and it is even more critical now with the majority of Californians learning and working from home due to the COVID-19 pandemic."

The meeting continued the CPUC's efforts to enforce PSPS rules for the state's large investor-owned utilities. Pacific Gas and Electric came under fire last year for its extensive use of PSPS in 2019. (See *PG&E Working to Improve Safety Blackouts*.)

Batjer was joined on the virtual dais by her three fellow commissioners and Thom Porter, director of the California Department of Forestry and Fire Protection (Cal Fire), and Mark Ghilarducci, director of the Governor's Office of Emergency Services (Cal OES). SCE CEO Kevin Payne and five of the company's vice presidents responsible for PSPS events responded to their grilling.

Batjer noted that SCE called 16 power shutoffs from May to December, including one on Thanksgiving and another on Christmas Eve. The utility continued to use PSPS into mid-January, with rain scarce in Southern California and Santa Ana winds creating hazardous fire conditions.

The day before the Thanksgiving shutoff, the utility told customers they could lose power around 3 p.m., but the utility began to cut power at 9 a.m., before families could prepare their holiday meals. The timing was terrible, and notices to customers were confusing and contradictory, as with many of SCE's PSPS events, Batjer said.

During power shutoffs, staff members at the CPUC, OES and Cal Fire had "observed numerous instances in which Edison's PSPS execution appeared tactless and in many regards seemed deficient," she said. It is not evident the company knows how to communicate with customers or state and local governments when executing shutoffs, she continued.

She added that the company's reporting to the CPUC after the events was often late and incomplete.

"These missteps cannot be repeated," Batjer said.

The utility has fallen far behind its targets for identifying customers who rely on medical devices and ensuring they have backup power, she said.

In a letter calling the meeting, Batjer ordered the utility to file a corrective action plan by Feb. 12.

Porter said SCE needs to harden its grid so it does not need to shut off power as frequently.

"PSPS was always meant to be a last resort," the Cal Fire chief said. "Last resort means we've done everything possible to not flip that switch."

Ghilarducci told the SCE executives that he was concerned the utility was using PSPS as a tool of "first resort." The state allows utilities to shut off power to prevent fires in a worst-case scenario with winds of 80-90 mph, not 16-20 mph, as SCE has done, he said.

The purpose is "not to be able to provide a liability coverage across the board for any event," he said.

The OES director said the company had failed to notify the state before some PSPS events and lacked standardized criteria for its decision making. The utility seemed to use different criteria for every event, he said. "There are baseline consistencies that can be driven into the protocols."

SCE Responds

Payne acknowledged SCE needs to better communicate with its customers.

"If there are areas where we have failed in that regard, we will continue our improvement until we succeed," he said.

Rapidly changing winds and weather had "created some confusion with notifications," he said, but the utility is trying to improve its weather forecasting to reduce the number of customers potentially affected by PSPS and to avoid last-minute shutoffs.

The utility is accelerating its grid hardening program after installing nearly 1,000 miles of covered conductor last year, he said.

Jill Anderson, senior vice president for customer service, said SCE was seeking to reduce the number of notifications customers receive leading up to a PSPS event. Typically, they receive about six notices, which can sometimes give conflicting information, she said.

For instance, hundreds of thousands of customers might be notified that they could fall within the scope of a PSPS event only to learn later that they will not lose power. The company has sectionalized its grid so it can target shutoffs more narrowly and reduce the number of residents ultimately affected, executives said.

Phil Herrington, senior vice president for transmission and distribution, said that prior to a Dec. 4 shutoff, SCE notified 230,000 customers that they could lose power but ended up blacking out about 78,000 customers.

Responding to concerns about backup batteries, Anderson said the utility had had trouble identifying and contacting medical baseline customers but was trying to increase its outreach. The utility has provided 830 backup batteries so far and intends to distribute 3,000 to 4,000 additional batteries this year to vulnerable customers in high-risk fire areas, she said.

Ghilarducci said he was "frustrated and perplexed" by the company's poor performance, with so few people getting batteries in its massive service territory. The state has long made it clear that helping at-risk customers is a top priority, he said.

"This should have been done two years ago quite frankly," he said. "Where we're at today in this discussion is not good."

Payne assured Batjer that all the concerns raised would be addressed in SCE's February action plan. ■

CAISO/West News

Texas Utility Plans to Join CAISO EIM

Addition of El Paso Electric Would Expand Market to 12 States

By Hudson Sangree

El Paso Electric, a utility that serves more than 400,000 customers in the Rio Grande Valley of Texas and New Mexico, said Monday it plans to join CAISO's Western Energy Imbalance Market in 2023.

The move would expand the EIM's footprint to Texas for the first time. It also ups the competition between CAISO and SPP's Western Energy Imbalance Service (WEIS), which launched operations Monday. (See related story, *SPP Successfully Launches Western Market*.)

"The EIM will allow EPE to leverage our interconnection to the electrical grid with neighboring markets to reduce cost and balance our energy generation with the real-time power needs of our customers, as well as integrate greater amounts of renewable energy," EPE CEO Kelly Tomblin said in a joint statement with CAISO.

SPP has been trying to attract utilities in more politically conservative states that do not want to get too cozy with liberal California and its 100% clean-energy agenda.

But the EIM's oversight — its Governing Body members come from other states — and its economic benefits have been attractive to entities across the West, including in more conservative interior states. (See *Why 4 Colo. Utilities Joined CAISO EIM, not SPP WEIS*.)

In the fourth quarter of 2020, the EIM provided participants with $69 million in benefits, bringing its total savings for members to $1.18 billion since it began in 2014.

The initial eight members of SPP's WEIS are Basin Electric Power Cooperative, Deseret Power Electric Cooperative, the Municipal Energy Agency of Nebraska, Tri-State Generation and Transmission Association, the Wyoming Municipal Power Agency, and the Western Area Power Administration's Upper Great Plains West, Rocky Mountain region and Colorado River Storage Projects.

The EIM's current members include Arizona Public Service and Arizona's Salt River Project; Idaho Power Company; NV Energy; and PacifiCorp's vast service territory in Oregon, Washington, Utah, Wyoming, Idaho and Northern California.

Five entities plan to go live in the EIM in the first half of 2021: PSC, the Los Angeles Department of Water and Power, NorthWestern Energy, Turlock Irrigation District and the Balancing Authority of Northern California Phase 2. Six more utilities are scheduled to join the EIM in 2022, including Avista and the Bonneville Power Administration, covering most of the Pacific Northwest, and Xcel Energy, which serves much of Colorado.

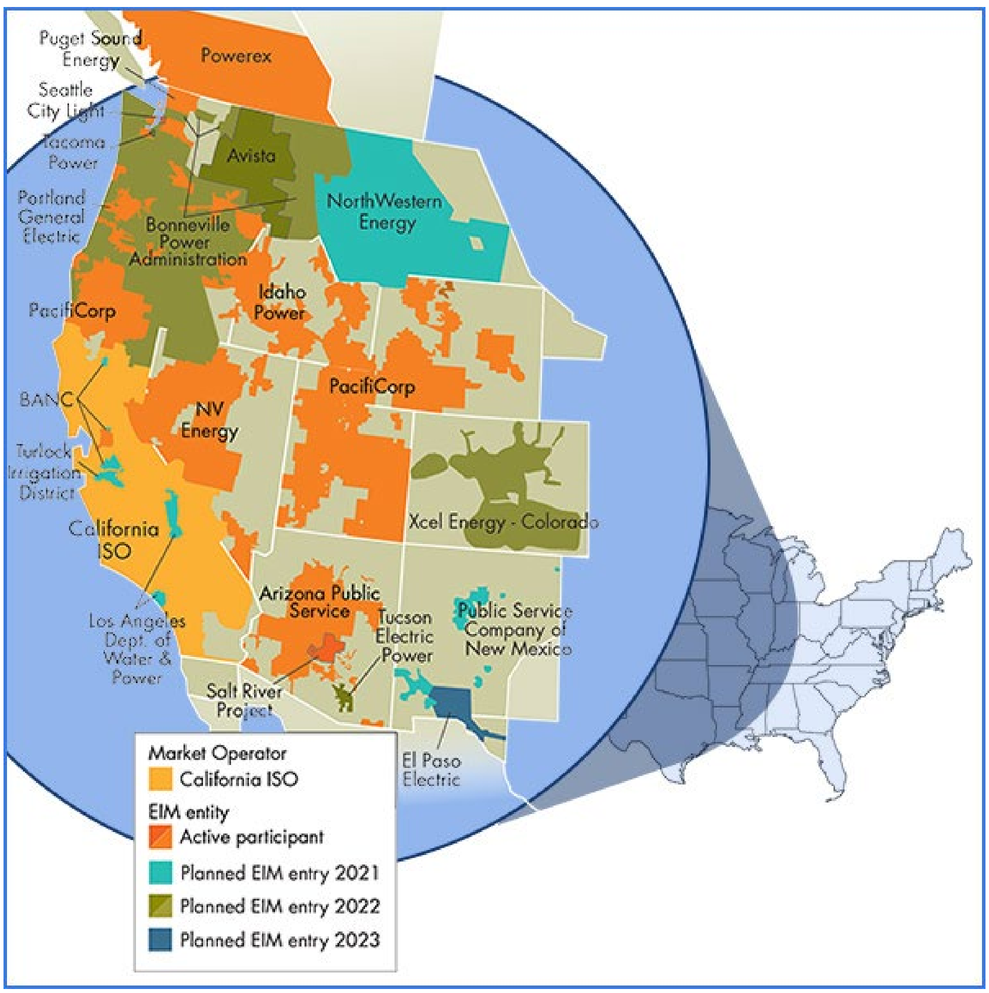
EPE was the first entity to announce plans to join the EIM in 2023.

A privately held group, Infrastructure Investments Fund (IIF), bought EPE last year for $4.3 billion, after winning approval for the deal from the Nuclear Regulatory Commission. EPE owns a nearly 16% stake in the Palo Verde power plant in Arizona, the nation's largest nuclear generating station. (See *IIF Closes El Paso Electric Purchase* and *FERC OKs El Paso Electric Mitigation*.)

Its decision to join the EIM was based on the projected economic benefits and a desire to pursue "a clean, green energy future," Tomblin said in the statement.

CAISO CEO Elliot Mainzer said he was pleased EPE chose to join the EIM.

"El Paso's entry ... will improve efficiencies for their customers while strengthening and expanding the geographical scope of our market," Mainzer said. "We look forward to providing them with outstanding customer service as they join the family of Western EIM entities." ■



With the addition of El Paso Electric and a slice of Texas, 12 western states will participate in CAISO's Western EIM by 2023. | *CAISO*

ERCOT News

ERCOT Technical Advisory Committee Briefs

Passport Program Picking up RTC, Energy Storage Work

Its work complete, the ERCOT task force working on the real-time co-optimization of energy and ancillary services is living on borrowed time.

Staff told the Technical Advisory Committee on Wednesday that when the group next meets in February, it will be asked to sunset the Real-time Co-optimization Task Force (RTCTF) and instead focus on the *Passport Program* and its "three-and-a-half-year trek."

"This is our first time out of the gate," said ERCOT's Matt Mereness, who chaired the RTCTF, in referencing the work that lies ahead. "We could probably have a one-day meeting on some of these topics."

In the task force's stead, Mereness said staff are proposing that the TAC develop a Passport Program implementation working group or task force in the coming months. He suggested that policy and analysis items from the RTCTF's work be parceled out to some of the committee's subcommittees this year, when business requirements and designs will be developed.

ERCOT's Board of Directors in December approved nearly three dozen revision requests by the task force and a separate group developing policies and principles for energy storage resources (ESRs). (See "Passport Program to Take off in 2021," *ERCOT Board of Directors Briefs: Dec. 8, 2020*.)

That work is now being taken up by the Passport Program, which faces a 2024 deadline to combine real-time co-optimization's and ESRs' implementation with that of ERCOT's energy management system (EMS) upgrade. Storage and distribution generation functionality will be added before 2024, with Passport "tying up any loose ends."

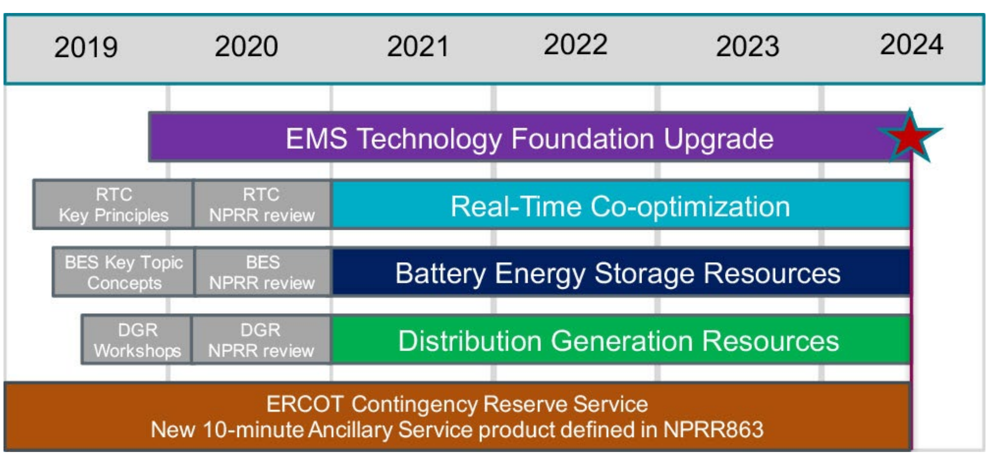
The program will expand ERCOT's real-time market to clear energy and ancillary services every five minutes, bringing the grid operators in line with most others. The day-ahead market, which is already co-optimized, will allow virtual ancillary service offers, while the operating reserve demand curve's price adders will be replaced by converting it into demand curves for each service, reflected in real-time energy and ancillary service prices.

ESRs will be modeled and dispatched as a single device that charges as load and discharges as a generator. Devices within the distribution system will still be dispatched with improved mapping techniques.

Passport has a total budget of $85.5 million. The bulk of that is attributed to real-time co-optimization ($51.6 million) and the EMS upgrade ($27.1 million).

"We have limited resources and funding beyond the [Passport] projects," Mereness said, noting staff have already been reviewing protocol changes to ensure their impact analyses don't affect the program. "The ones that did had a small impact, small enough and discrete enough that we didn't want to stop what's in flight."

He said additional budget details will be shared with ERCOT's Board of Directors during its Feb. 9 meeting.



The Passport Program's timeline | *ERCOT*


Matt Mereness, ERCOT | © *RTO Insider*

Staff Loosens Tx Outage Restrictions

Healthier reserve margins have allowed staff to loosen some restrictions around *planned transmission outages* during ERCOT's summer months (May 15 to Sept. 15).

Outages will still be prohibited from noon through 9 p.m. on 345-kV lines, with 138-kV and 69-kV lines barred from planned outages during that same time should they affect generation dispatch. However, planned 345-kV bus outages and transformer outages will be allowed, and 138-kV outages will be limited to seven continuous days and restoration times of less than six hours.

No outages will be allowed that alter system topology either before or after a contingency. Transmission owners will still have the same list of potential exceptions as the previous two years.

The grid operator goes into this summer with a reserve margin of 15.5%, almost double the 8.6% margin it took into summer 2019. Last year's reserve margin was 12.6%. (See *Solar Power Boosts ERCOT's Reserve Margins*.)

"Even with higher reserve margins, we think it makes sense to leave some restrictions in place for planned outages," said Dan Woodfin, ERCOT's senior director of system operations. "This will allow the TOs to do some work during the summer that was maybe not allowed during the last two."

Lange, Blakey to Lead TAC

The TAC approved nominations to leadership positions for 2021, choosing South Texas Electric Cooperative's Clif Lange as its chair and Just Energy's Eric Blakey as its vice chair.

ERCOT News

Because Lange was not able to participate in last week's meeting, Blakey wound up chairing.

"It's such an honor to even be a member of this group. We very much appreciate your support," Blakey said upon assuming his virtual position. "Last year was very challenging, but I hope there are fewer challenges this year so we can get together."

The committee also confirmed the leadership for its subcommittees: incumbents Martha Henson (Oncor Electric Delivery) and Melissa Trevino (Occidental Chemical) for the Protocol Revision Subcommittee; Jim Lee (American Electric Power) and John Schatz (Luminant) for the Retail Market Subcommittee; Chase Smith (Southern Power) and Katie Rich (Golden Spread Electric Cooperative) for the Reliability and Operations Subcommittee; and Resmi Surendran (Shell Energy) and Ivan Velasquez (Oncor) for the Wholesale Market Subcommittee.

Members OK Another SCT Directive

The TAC endorsed another in a series of directives tied to *Southern Cross Transmission*, a proposed HVDC line in East Texas that would ship more than 2 GW of energy between the Texas grid and Southeastern markets. (See "Members Debate Southern Cross' Bid to be Merchant DC Tie Operator," *ERCOT Technical Advisory Committee Briefs: Feb. 22, 2018*.)

Staff recommended that any DC tie facility with an initial energization date or that is replaced after Jan. 1 have at least a 0.95 power factor leading/lagging reactive power capability for voltage support. A Nodal Protocol revision request (NPRR) will need to be drafted to codify the endorsement.

The Southern Cross DC tie's imports and exports will cause reactive losses on the ERCOT system because its facilities are not currently planned to have any reactive capability to support system voltage. According to a *staff report*, thermal limits will be reached before voltage limits during summer peak imports. The same report indicated the system has enough margin to support up to 1,289 MW of export before voltage limits are reached.

"We're still trying to work through all the angles of this concept," said Cratylus Advisors principal Mark Bruce, speaking for the Southern Cross developers. "Southern Cross is not necessarily opposed. There are ways to get there. … We'll be interested in the specific NPRR language."

Virtual Meetings Likely to Last into May

ERCOT's Kristi Hobbs told stakeholders that they should expect to continue holding virtual meetings through at least May, continuing a practice that has been in place since last March when the COVID-19 pandemic exploded. Staff have been encouraged to work from home and discouraged from traveling, while outside visitors have been restricted from the grid operator's facilities.

"We continue to monitor the case trends [and] all the government guidelines, as well as how things are progressing with vaccine opportunities," she said. "We want to see how the vaccine rollout goes and the success of that vaccine."

Hobbs promised to return to the TAC in April for another update, following another checkpoint with staff in late March.

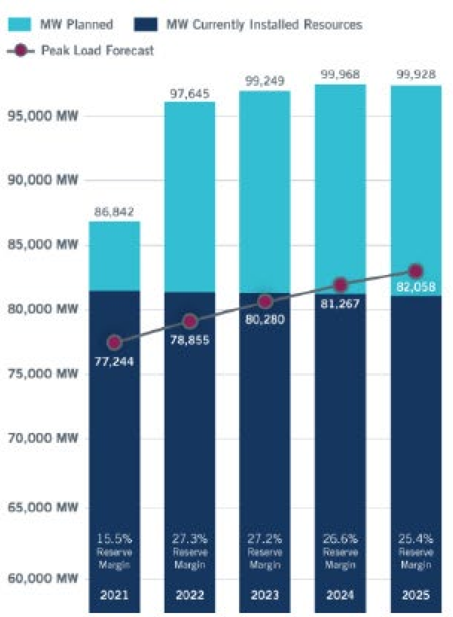
RUC Hours Consistent with 2019

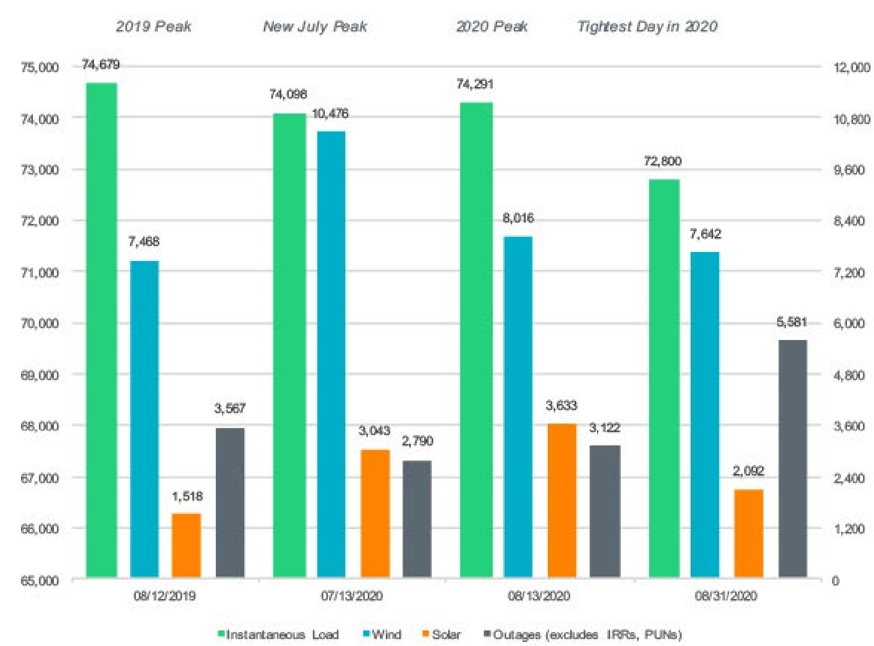
ERCOT's reliability unit commitment (RUC) usage for 2020 remained comparable to 2019, staff told the committee, with 224 instructed resource-hours resulting in 220.1 effective RUC resource-hours. The prior year's numbers were 228 and 201.7, respectively.

All the resource-hours were for local thermal congestion or voltage concerns, with 83% of the total stemming from damage caused by Hurricane Hanna and associated congestion in the Rio Grande Valley.

Staff also told the committee the Board of Directors will be told in February that the system administration fee is forecast to be adequate for 2022. The fee has remained at 55.5 cents/MWh since 2019.

Market participants had asked for more advance notice of any future administration fee increases during the 2016-2017 budget process. Staff deliver that forecast during the Finance and Audit Committee's first meeting of the calendar year.





Rising reserve margins have lessened the need to restrict planned transmission outages. | *ERCOT*

ERCOT News

'Significant' Price Corrections Defined

The committee unanimously approved its combination ballot by a 30-0 margin. The ballot included the Southern Cross directive, 11 NPRRs, three revisions to the Planning Guide (PGRRs), and single changes to the Resource Registration Glossary (RRGRR) and the Settlement Metering Operating Guide (SMOGRR).

Among the endorsed changes was *NPRR1024*, drafted in response to the recent spate of price corrections in the day-ahead and real-time markets. (See "Board Approves 2 Sets of Price Corrections," *ERCOT Board of Directors Briefs: Oct. 13, 2020*.)

Staff promised the board in October that they would work with stakeholders to reduce price-correction requests by better defining "significance," the only threshold for determining which market errors require board-approved corrections. NPRR1024 defines "significance" as:

- the absolute value change to any single day-ahead market (DAM) settlement point price at a resource node or day-ahead market-clearing price for capacity (MCPC) is greater than 5 cents/MWh;
- requiring ERCOT to change more than 10 DAM settlement point prices and day-ahead MCPCs; or
- the absolute value change to any DAM settlement point price at a load zone or hub is greater than 2 cents/MWh.

Members voted separately on another Protocol change when Morgan Stanley's Clayton Greer indicated he would vote against *NPRR994*. The measure, which passed 29-1, clarifies which transmission improvement projects associated with the interconnecting new generation resources should be classified as "neutral" projects, including new substations, and delineates which interconnection facilities are considered before ERCOT performs an economic analysis.

"I don't think it's in compliance with the spirit of the original order that established the gen interconnect process at ERCOT," explained Greer, who also opposed the measure at the subcommittee level. "The process as it has been up until five years ago was run in compliance, but it has moved away from that. … It would restrict a generator's ability to get their energy out to market."

The rest of the combo ballot included:

- *NPRR1034*: creates a new protocol section (Frequency-Based Limits on DC Tie Imports or Exports) that enables ERCOT to establish import or export limits on DC ties and avoid the risk of unacceptable frequency deviation during an unexpected loss of one or more DC ties during the import/export. Staff will be able to curtail DC tie schedules on a last-in-first-out basis to address this risk.
- *NPRR1040*: establishes compliance metrics for ancillary service supply responsibility.
- *NPRR1044*: requires generation resources and ESRs to develop and implement sub-synchronous resonance mitigation plans to address vulnerabilities in the event of six or fewer concurrent transmission outages, an increase from the current threshold of four or fewer.
- *NPRR1048*: changes certain required system-adequacy reports to being aggregated "by forecast zone" instead of being aggregated "by load zone." Forecast zones have the same boundaries as the 2003 congestion management zones: North, South, West and Houston.
- *NPRR1049*: removes the requirement to obtain board approval to add, delete or change a DC tie load zone and also removes the 48-month waiting period before such actions can go into effect.
- *NPRR1050*: changes the summer projected commercial operations date deadline from the start of the summer peak load season to July 1.
- *NPRR1051*: removes the administrative price floor of -$251/MWh from all day-ahead settlement point prices.
- *NPRR1052*: ensures that energy storage systems registered as settlement-only generators will continue to have their injections and withdrawals settled at load zone pricing until nodal pricing for injections and withdrawals is approved and implemented.
- *NPRR1053*: establishes an exemption from ancillary service supply compliance requirements for any qualified scheduling entity (QSE) representing an ESR whose ability to charge is restricted during a Level 3 energy emergency alert event. The change also clarifies that the compliance exemption does not impact the QSE's financial responsibility because of the AS insufficiency.
- *NPRR1054*: removes all references to Oklaunion Exemption from the protocols and adjusts the affected sections' remaining language accordingly. The coal-fired Oklaunion plant was retired in October.
- *PGRR085*: adds a requirement for resource entities, interconnecting entities (IEs) and TOs to provide reports benchmarking the power system computer-aided design (PSCAD) model against actual hardware testing and to provide parameter verification documentation confirming model settings match those implemented in the field.
- *PGRR086*: clarifies that resource entities and IEs must provide dynamic model data and model-quality tests to complete a full interconnection study application.
- *PGRR087*: clarifies that remedial action schemes should not be relied upon to resolve planning criteria violations.
- *RRGRR027*: clarifies that resource entities and IEs must provide dynamic model data and model-quality tests to complete a full interconnection study application. PSCAD models should be required before the applicable quarterly stability assessment deadline.
- *SMOGRR024:* makes modifications to accommodate telemetered auxiliary load and allows a site to comply with *NPRR1020*. ■

— Tom Kleckner

2024 Passport Program	Budget
Real-Time Co-optimization (RTC)	$ 51.6
Energy Management System (EMS Upgrade) 2024	27.1
Battery Energy Storage (BES)	5.1
NPRR863 ERCOT Contingency Reserve Service (ECRS)	1.2
Distributed Generation Resources (DGR)	0.5
Total Passport Program	$ 85.5

The Passport budget | *ERCOT*

ERCOT News

NRG Extends Petra Nova's Mothballing Indefinitely

NRG Energy notified ERCOT on Wednesday that it intends to indefinitely mothball its gas-fired Petra Nova Power generating unit, a change from its earlier determination to seasonally sideline the plant.

The move becomes effective June 26. NRG previously told ERCOT in September that Petra Nova would be operated annually on a seasonal basis, June 1 through Sept. 30. (See *NRG to Mothball Petra Nova CCS Plant*.)

The facility is part of the Petra Nova Project, the *world's largest carbon-capture facility*. NRG *suspended* carbon-capture operations at the site in May, citing the "current status" of oil markets.

The project captured CO_2 from the plant's flue gas and funneled it through an 80-mile pipeline to a nearby oil field. There, the captured CO_2 was injected into a depleted oil reservoir, softening up the residual oil and improving its flow.

Petra Nova became uneconomical when oil prices plunged last year as the global economy shut down in the face of the COVID-19 pandemic. West Texas Intermediate crude for March delivery settled at $52.85/barrel Wednesday on the New York Mercantile Exchange; $50/barrel is considered the breakeven marker.

The plant has a summer capacity of 71 MW.

ERCOT market participants have until Feb. 17 to file comments on whether the resource is necessary for reliability reasons.

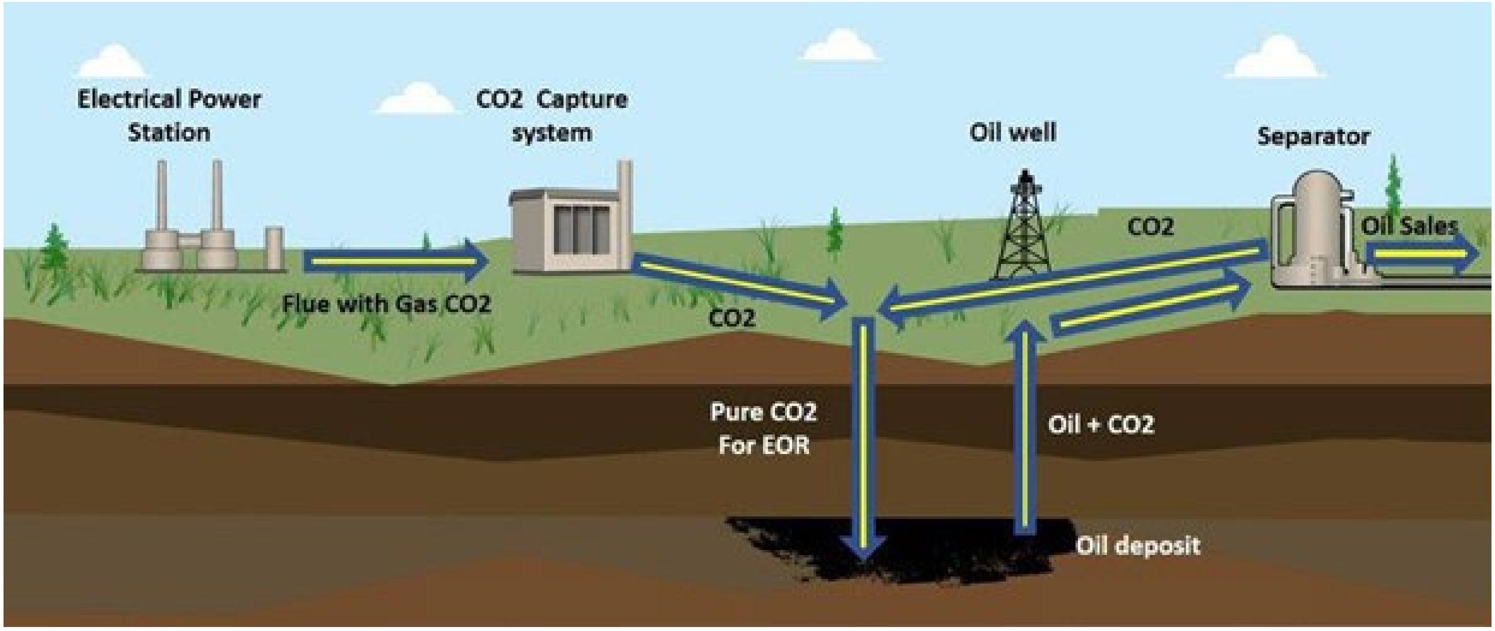
Petra Nova | *NRG Energy*

Wind Farm to be Shut Down

ERCOT has also received a notification of suspension of operations for the 120-MW Sherbino 1 Wind Farm in West Texas. The facility ceased operations because of a forced outage and was decommissioned and retired permanently Monday.

Constructed in 2008, Sherbino 1 was a joint venture between NRG and BP Wind Energy North America. Castleton Commodities International acquired the wind farm in 2019. ■

— Tom Kleckner



The Petra Nova Power carbon-removal project went into operation in 2017. | *NRG Energy*

ERCOT News

Comanche Peak Decommissioning Fund Tops $1.3B

Texas PUC Approves Nuclear Plant's $20.1M Annual Funding Amount

By Tom Kleckner

The Texas Public Utility Commission last week approved a change to the decommissioning funds for Vistra Energy's Comanche Peak Nuclear Power Plant.

During its Jan. 29 open meeting, the PUC signed off on an order that allows Vistra's Luminant subsidiary to continue its annual decommissioning funding amount of $20.1 million for the plant's two units. However, the order adjusts the funds' allocation to 72.3% from 57.1% for Unit 1 and to 27.7% from 42.9% for Unit 2 (*50945*).

The net after-tax value of the units' trusts total more than $1.3 billion, with nearly $624 million allocated for Unit 1 and $692.5 million for Unit 2. The plant said external and internal analyses indicates it will cost $1.729 billion to decommission and completely dismantle the facility in 2019 dollars, assuming a 10% contingency.

The commission said Comanche Peak "demonstrated that the funds in its nuclear decommissioning trusts are being invested prudently" and are following its investment guidelines.

Unit 1, which began operating in 1990, is licensed until February 2030. The license for Unit 2, which opened three years later, expires in 2023.

While numerous nuclear plants have received extensions of their original 40-year licenses, others have been shut down as uneconomic, and five reactors totaling 5.1 GW of capacity — Indian Point 3 in New York, and Byron (two units) and Dresden (two units) in Illinois — are scheduled to close this year.

"Given Comanche Peak is one of the youngest plants in the country, significant decisions on license renewal are a few years away, but the plant is currently well positioned, and we have no plans to close it prematurely," a Vistra spokesman *told* the *Houston Chronicle* in 2019.

Other Action

In other actions, the PUC approved a financing order that allows Entergy Texas to issue $539.9 million in transition bonds to recover hurricane-related costs (*37247*).

It also denied the city of Seymour's request to overturn an administrative law judge's December ruling allowing four people to intervene in its request for a declaratory order confirming that Tri-County Electric Cooperative has no grandfathered corridor rights for retail service within its city limits (*49726*).

Also last week, the commission announced it had promoted agency veteran Connie Corona to the new position of deputy executive director. She was previously the PUC's chief program officer, guiding the market analysis, customer protection, infrastructure, rate regulation and legal divisions.

"Connie is a walking encyclopedia of industry knowledge who makes everyone around her more focused, productive and effective," Executive Director Thomas Gleeson said. "We are truly fortunate to have her in such a critical role on our team." ■

Comanche Peak Nuclear Power Plant | *The Nuclear Decommissioning Collaborative*

Mass. Lawmakers Pass Climate Bill, Again

Timing Allows for Compromise with Baker Administration

By Jennifer Delony

Massachusetts lawmakers on Thursday passed a climate bill identical to one Gov. Charlie Baker vetoed earlier this month.

Lawmakers in Massachusetts on Thursday passed a climate bill identical to one vetoed by Gov. Charlie Baker (R) in mid-January.

The vetoed bill was passed by the House of Representatives and Senate at the tail end of the last legislative session. In his letter vetoing the bill, the governor said he did not have enough time to review the bill and make suggestions for changes. (See *Baker Vetoes Mass. Climate Bill*.)

"Although the refiled bill is the same as what was filed last session, there are opportunities for compromise with the Baker administration because the timing is different," David Cash, dean and associate professor at the University of Massachusetts Boston's McCormack Graduate School, said in a statement to *RTO Insider*. "Not constrained by the imminent end of the session, the administration can offer amendments and negotiate. But the legislature can also override a future veto, something it did not have time to do in the last session."

The bill now goes to Baker, who has 10 days to sign or veto it. If he signs it, the law will put Massachusetts on a path to reducing emissions 85% below 1990 levels by 2050, with interim targets of 50% by 2030 and 75% by 2040. It also will set emissions limits across state power sectors and allow for an additional 2,400 MW of offshore wind power solicitations.

"The commonwealth has an opportunity to advance its leadership with bold legislation, and if it does so now, it will have the added benefit of getting significant tailwind from the Biden-Harris administration," Cash said.

Speaking in the Massachusetts Senate on Thursday, Sen. Michael Barrett (D) pointed to the aggressive stance on climate that the Biden administration has taken in its first days as a reason to move quickly on the goals of the bill. He said that the numbers in the bill would stand up to new federal emission-reductions targets that could come later this year. ■

ISO-NE News

Report: Mass. Utilities Exert Outsize Influence over Climate Policy

By Jennifer Delony

Opponents of legislation to address climate change in Massachusetts are no longer denying the problem but are blocking measures through "discourses of delay," according to a new study by researchers at Brown University, which recommends the state "rein in" utilities' lobbying.

The *study*, released Jan. 21 by the Institute at Brown for Environment and Society, looked at 245 pieces of climate and clean energy legislation in Massachusetts from 2013 to 2018, only 43 of which made it out of committee and only nine of which passed. Based on the lobbying records for the bills, the researchers identified four "interest group coalitions" that regularly oppose climate policy: utilities; fossil and chemical companies; real estate companies; and fossil fuel power generation companies.

Massachusetts was among the first in the U.S. to act on climate change with the 2008 Global Warming Solutions Act, which called for an 80% cut in carbon emissions by 2050. But other states have enacted more ambitious targets since then, the report's authors say. On Thursday, lawmakers again approved a bill vetoed Jan. 14 by Gov. Charlie Baker (R) that would require an 85% emissions cut from 1990 levels by 2050. (See related story, *Mass. Lawmakers Pass Climate Bill, Again*.)

"Public opinion is not the barrier to climate policies in Massachusetts," the authors said. "Rather, leadership's tight control over the House, the process of handling bills, the openness to lobbying in which corporations far outspend environmental and social advocates, and the lack of transparency together create a hostile environment for ambitious climate legislation. When the Massachusetts legislature has advanced climate and energy policy, it has been in spite of, not because of, these factors."

Those who testified publicly against climate policies said they supported climate action while opposing the specific policy proposal, according to the report, which named four tactics:

- "Policy perfectionism," in which opponents call for well-crafted solutions that are supported by all affected parties;
- Appeals to social justice that focus on the burdensome costs of climate action on low-income and minority residents;
- "Fossil-fuel solutionism," suggesting the fossil fuel industry should be recognized for already leading the way on reducing emissions via energy efficiency and lower-carbon fuels;
- "Premature success-ism," where existing climate targets are held up as ambitious enough to resolve climate change issues.

The study said the pervasive usage of those four tactics among opponents of new climate legislation was "striking" and "subtle," and proponents of climate policy must understand them.

Lobbying Spending

Utilities, the report said, were the highest spenders on lobbying activities, with Eversource and National Grid together spending about $3.5 million on lobbying during the study years. They were frequently allied with the Associated Industries of Massachusetts, which spent more than $2 million over the period. By comparison, two of the most active climate and energy lobbyists for the same period, the Environmental League of Massachusetts and Clean Water Action, together spent about $500,000.

The two utilities were most often in favor of legislation that promoted large-scale hydropower and wind energy, but they took an aggressive stance against solar, which they said in public testimony is too expensive.

Hydro and wind projects "would result in substantial contracts for the state's largest utili-

The Massachusetts State House in Boston

ISO-NE News

ties," while solar is "decentralized on residential and commercial rooftops and therefore ... cuts into electric utilities' revenues," the report said.

The report said that, in terms of the climate legislation they support, utilities appear to be the most successful lobbyists of the active groups in the state during the study period.

"The bills [National Grid and Eversource] opposed were most likely to fail, while they also saw the most success in getting bills passed that they supported," the report said.

An Eversource spokesperson said in a statement that the report oversimplifies the challenges of creating a clean energy future.

"We are actively involved in collaborating with legislators and stakeholders to share views on how we can create an affordable, clean energy future," the spokesperson said. "That legislative process, designed to generate ideas and debate, often means a large number of bills are introduced at the start, with a few that end up being adopted."

The study researchers noted that solar, hydro and wind energy companies were active on legislation specific to their industries but rarely lobbied for broader bills to tighten greenhouse gas reduction targets and institute a carbon tax. "Only two solar companies, and no hydro or wind companies, recorded any lobbying on these bills."

Utilities' control over the electric grid, "can act as a deterrent against public opposition from renewable energy companies," the report said. "Utilities were cited by renewables developers as threatening delays in hook-ups if green energy firms took positions contrary to theirs."

A National Grid spokesperson told *RTO Insider* in a statement that, as a regulated utility, the company abides "by the multistep interconnection guidelines overseen by the Massachusetts Department of Public Utilities."

Recommendations

The report recommends increasing the legislature's transparency by making committee hearings and written testimony accessible via the Internet, requiring more detailed reporting of lobbying activities and requiring floor votes be conducted by roll call.

Clean energy organizations should increase their own lobbying efforts while utilities should be restricted, the authors said. "These are state-regulated monopolies, who should not be able to use ratepayer funds to lobby at the Statehouse."

The spokespersons for Eversource and National Grid said the companies' lobbying expenses are not paid for by customers.

Scrutiny of utilities' lobbying is not new. Some utilities that sought to recover Edison Electric Institute (EEI) membership dues have been challenged in their rate cases because of EEI's lobbying activities.

A 2017 Energy and Policy Institute (EPI) report recommended that regulators demand that utilities demonstrate how ratepayer funds used for lobbying or political influence benefit ratepayers. The Paying for Utility Politics report points to the National Association of Regulatory Utility Commissioners as the appropriate place for oversight of lobbying costs allocation among utilities. (See *Public Affairs Activism: Astroturf, Secret Donors and 'Swampetition'*.)

Matt Kasper, research director at EPI, and a co-author of the report, told *RTO Insider* that there has not been a unified effort from regulators on the recommendations made in the report. "It's been a piecemeal approach," he said.

"Leadership's tight control over the House, the process of handling bills, the openness to lobbying in which corporations far outspend environmental and social advocates, and the lack of transparency together create a hostile environment for ambitious climate legislation. "

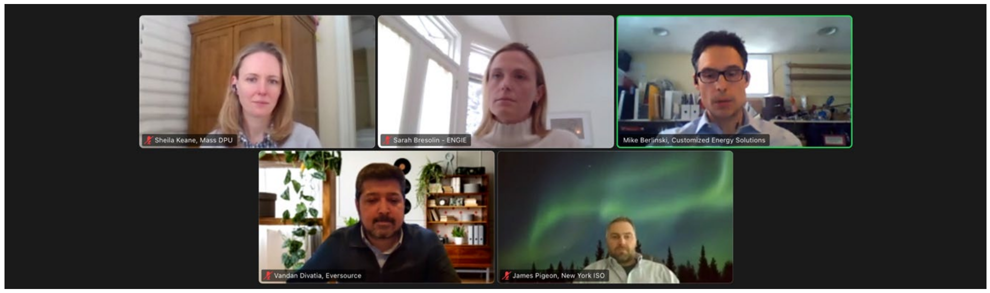
—Institute at Brown for Environment and Society

In 2019, the California Public Utilities Commission refused to allow Southern California Edison to shift nearly $2 million in EEI dues to ratepayers. Regulators said the company did not provide enough evidence to determine how much EEI's services should cost ratepayers. ■

ISO-NE News

NECA Panel Discusses DERs, Impact of Order 2222

By Jason York



Clockwise from top left: Sheila Keane, Massachusetts Department of Public Utilities; Sarah Bresolin, ENGIE North America; Mike Berlinski, Customized Energy Solutions; James Pigeon, NYISO; and Vandan Divatia, Eversource. | *NECA*

Last September, FERC ordered RTOs and ISOs to open their markets to distributed energy resource aggregations. The commission said that the grid operators' existing rules create participation barriers for aggregations in their capacity, energy and ancillary service markets.

While proponents have lauded Order 2222 for its intention, there are concerns regarding the lack of visibility and affordability of some DERs. There is also the question of whether the order intrudes on state jurisdiction, according to FERC Commissioner James Danly, who dissented on the ruling. (See *FERC Opens RTO Markets to DER Aggregation*.)

Attendees of a Northeast Energy and Commerce Association webinar Wednesday discussed these concerns and the impact of the order, as well as other potential roadblocks to DERs' extensive deployment.

Order 2222 defines DERs as resources located on the distribution system or subsystem, or behind a customer meter. They include energy storage, thermal storage, intermittent generation, distributed generation, energy efficiency, and electric vehicles and their charging equipment. It requires RTOs and ISOs to allow DER aggregators to register as market participants under models that accommodate their physical and operational characteristics. Grid operators must set minimum size requirements for DER aggregations of no more than 100 kW.

Sarah Bresolin, director of government and regulatory affairs with ENGIE North America, said DERs are "a learning curve for everybody, and we're all working fairly well to overcome the obstacles that we need to deploy these resources."

Sheila Keane, assistant director of electric power at the Massachusetts Department of Public Utilities, said it is important to update the ISO-NE interconnection tariff and process.

"We've got a lot of these resources on our system, and the impacts are starting to roll up to the ISO level, so there's been a lot more coordination and communication, and just figuring out those touchpoints," Keane said. "We're working through how to accommodate energy storage into our interconnection process in a meaningful way."

Keane added that with new resources, even if they are small, comes the need for "significant upgrades to the distribution system."

"[Upgrades] are expensive, and we don't want that to be a barrier to continued deployment, so we're looking at ways where we might enable some proactive investments in the distribution system rather than waiting for projects to trigger the need and sharing those costs among broader groups of customers."

Vandan Divatia, vice president of transmission, policy and compliance at Eversource Energy, said the amount of DERs at some substations is greater than the transformer capacity.

"The number of resources behind the transformer is greater than the load that it was serving to a point where it can't even send power back into the grid without upgrading the system," Divatia said.

He added that it is "actually a fun challenge" where investment in the distribution system is necessary because it creates an "impact on our decarbonization goals, and it is going to create an impact on how the future grid evolves."

"We just have to be as thorough as possible to make sure we don't impact reliability through the whole transition, and we give enough of a heads up and expectation to these developers on what it's going to take to interconnect," Divatia said.

James Pigeon, manager of distributed resources integration for NYISO, said a principal benefit of DERs is "definitely" the addition of new types of resources adding to resilience while there is a challenge with size.

"In our model, we said anything down to 1 kW is acceptable as a participant in an aggregation, and there is a 100-kW aggregation minimum [with Order 2222]," Pigeon said. "Early on, one of our concerns was, what happens if we have thousands of these 100-kW aggregations that potentially slow down our dispatching system? That's something we've been keeping an eye on as we expect the number of different resources that will be participating and having to solve for on a real-time basis grow."

Impact of Order 2222

Mike Berlinski, director of emerging technologies for Customized Energy Solutions and webinar moderator, said that Order 2222 is "not overly prescriptive."

"It doesn't get into interconnection … and it doesn't require that these ISO markets are going to provide enough money to make the project work, so you still have that challenge," Berlinski said.

Bresolin was hoping that the order would address interconnection and models that would make participation in the capacity markets "a little bit easier for very small resources."

Keane added that she is interested in voluntary coordination between state regulators and the RTOs, which she said is "appropriate and understandable."

"We're very much interested in establishing some sort of coordination," Keane said. "I think that the trick that we have to think through in New England is we're six different states [with] six different appetites or opinions on the order."

Divatia said coordination is "going to be so important to make sure everyone gets involved" in implementing Order 2222, with the first compliance filing due in July.

Pigeon concluded that he is "just very excited to see where this plays out."

"We're seeing some of the biggest changes in 130 years in the electrical system, and I foresee it changing even more rapidly as we continue to progress," Pigeon said. "I can only imagine what the next idea is going to be that looks crazy but turns out to be a reality." ■

ISO-NE News

Overheard at Conn. LCV Environmental Summit

The Connecticut League of Conservation Voters held its annual environmental summit last week with hundreds tuning into discussions on the Transportation and Climate Initiative and the controversial plan to build a natural gas power plant in southeastern Connecticut.

Here is some of what we heard from elected officials, state regulators and environmental activists.

Lamont, Dykes Target Planned Power Plant

Gov. Ned Lamont (D) did not pull his punches in expressing his opposition to NTE Energy's proposed 650-MW gas-fired *Killingly Energy Center*.

"I don't want to build Killingly; I'm not interested in building Killingly, and I'm not sure the market will say that we need Killingly," Lamont said. "The question is, what can I do about this?"

The plant received siting approval and is going through the permitting process. The project is "a lot of the way down the road" according to Lamont. He said playing "some games" with permits could slow things down, but the market itself could dictate the plant's future.

"Look, electric usage is flat to down. … I'm not quite sure where the market is going to come out on this," he said.

Lamont did concede that there is a "slight benefit" that Killingly could provide "relatively cleaner" energy as opposed to a coal-fired power plant, but "I'm not positive you're going to see Killingly built at all."

When asked if the lawmakers can do anything to stop Killingly, House Speaker Matthew Ritter (D) said, "probably not."

"The reason I say that is because I haven't even been approached about that yet, which leads me to believe that there are people who would be concerned about the legality of [legislation]," Ritter said. "People can certainly research it, but my instinct is that this one is now at the administrative level. We need to make sure we're very clear about what we're committed to doing, how we're going to meet our [clean energy and decarbonization] goals."

Katie Dykes, commissioner for state's Department of Energy and Environmental Protection, said she hears from people "every day about their concerns about this gas plant." Dykes added that outside of the established permitting process, "we have to change the system … if we want to achieve our broader transformation and decarbonization goals, and we're doing that by working" to change ISO-NE.

From top left: Katie Dykes, Connecticut DEEP; Connecticut Gov. Ned Lamont; and Lori Brown, Connecticut League of Conservation Voters | *Connecticut League of Conservation Voters*

Dykes referenced Lamont and the four other New England governors, who released a *joint statement* in October calling for reforms to the RTO, saying it is frustrating their efforts to reduce economy-wide greenhouse gas emissions. A subsequent *vision statement* listed changes the states seek to ISO-NE market designs, transmission planning process and governance. (See *States Demand 'Central Role' in ISO-NE Market Design*.)

Online public technical forums are underway in all three areas. (See *ISO-NE, NEPOOL to Kick off State Technical Forums*.)

"It's really important. This is a generational opportunity," Dykes said. "We have to transform our grid and make sure that we can get the clean energy resources that we need to achieve our goals."

Dykes added, "with every concern that I've heard from folks about this power plant, it's redoubling our efforts to make this system-wide change if we want to prevent future projects like this from coming forward or much older, much dirtier plants from operating longer than is necessary."

Focus on TCI-P

Charles Rothenberger, climate and energy attorney for *Save the Sound*, sought to counter misinformation he said is being spread about the *memorandum of understanding* Connecticut, Massachusetts, Rhode Island and D.C. signed in December to launch the Transportation and Climate Initiative Program (TCI-P), which aims to cut GHG emissions from vehicles by 26% from 2022 to 2032. (See *NE States, DC Sign MOU to Cut Transportation Pollution*.)

TCI-P is a cap-and-invest program that will require large gasoline and diesel fuel suppliers to purchase allowances for the pollution and later to auction them, which officials said will generate $300 million for yearly investments in less polluting transportation. Each year, the total number of emission allowances would decline.

Rothenberger said the challenge of needing to rapidly decrease emissions "at a much quicker and steeper pace to meet medium- and long-term mitigation targets" will not be successful without a focus on transportation.

ISO-NE News

In Connecticut and throughout the region, transportation is the largest source of GHG emissions, accounting for approximately 38% of the total.

Rothenberger said there is "a lot of work to be done" to develop the rules that will govern the regulatory structure.

He said the hope is that Connecticut lawmakers will pass legislation this year and that the regulatory rulemaking and early reporting period can both be in place by January 2022 as a trial run for the tracking and accounting of emissions from the regulated fuel sources. The first formal compliance period begins in January 2023.

Rothenberger added that there is already "inaccurate and false information" about TCI-P making the rounds.

"It's important that legislators know the actual facts and have the relevant information about how the program works, and its benefits," he said.

One of the "absolutely not true" elements circulating is that TCI-P a Trojan horse for raising the gas tax.

"There is no tax, gas or otherwise, in sight," Rothenberger said. "It's a cap on emissions, and individuals, wholesalers, primary fuel suppliers that are bringing fuel into the state and participating jurisdictions will need to purchase auctioned emissions allowances. It's shifting the cost of pollution on to the suppliers of the pollution producing fuels."

Rothenberger said it is possible that fuel suppliers "may pass some portion of those costs on to consumers, which is "clearly their decision."

> **"It's important that legislators know the actual facts and have the relevant information about how the program works, and its benefits."**
>
> —Charles Rothenberger, climate and energy attorney for Save the Sound

"But there's no state tax component to this whatsoever, and the program has modeled the most conservative scenario in which 100% of the compliance costs would be passed on to consumers by the fuel suppliers that indicates there may be at most a 5-cent increase in gas prices at the pump," Rothenberger said.

Ritter said that although he has discussed TCI-P with Gov. Lamont, "rank-and-file legislators" might only have "an inkling" about the program. "So, there's a real education gap, including for me," he said. He added that lawmakers need to understand better "what Connecticut's commitments are" and not construe it as a gas tax.

"It's a silly notion, but you have to explain this to people and get the education out because I don't think the average legislator is familiar," Ritter said. "The good news is … we have a lot of time to get there and explain it, and I'm confident that when we explain what it does, how we're working with our neighboring states … we will be able to make a compelling case."

Ritter Speaks

Ritter, a six-term legislator serving his first term as speaker, said that although the COVID-19 pandemic will prevent a regular legislative session in 2021, advocates need to continue to reach out to legislators to signal their support or opposition to potential bills. He said virtual lawmaking is a slower process, and as committees prioritize bills, some items could be pushed off to the 2022 session.

"Every week since January we've had a member in our caucus positive with COVID," Ritter said. "If we are in session and somebody tests positive, or staff tests positive, at any given time, we could be on a 14-day hiatus from the state capitol building. So, keep that in mind, no voting at all. If that happens in late April or early May, it takes up a lot of session days. You've got to think about the worst-case scenarios." ■

— Jason York

ISO-NE News

NE States Considering Different Market Models

By Jason York

New England state officials last week heard suggestions for how ISO-NE's electricity markets could be altered to aid in the implementation of clean energy laws and decarbonization mandates.

The discussion Jan. 25 was part of the *second* of two public online technical forums to discuss reforms to the RTO's *wholesale market design* held in response to a call from governors. (See *New England Governors Call for RTO Reform*.)

Former FERC Commissioner Tony Clark | *New England Energy Vision*

"There aren't that many ways that states do it. There are different flavors," said former FERC Commissioner *Tony Clark*, currently a senior adviser for energy and telecommunications clients at the law firm Wilkinson Barker Knauer. "But it's not Baskin-Robbins. There aren't 31 flavors of how states do this. ...

"There are going to be some challenges that you might have depending on the path you take," Clark said.

Clark said restructured states in ISO-NE and PJM are experiencing a "crisis" because of the perception that "the markets aren't procuring the resources we prefer." The response has been exploring ways to get "around" the markets, he said.

One of the advantages of traditional markets is that they are very responsive to state public policy choices, he said. Hybrid markets like MISO, SPP and CAISO also maintain vertically integrated utilities. Is there another type of market that can work?

"Are there ways to put the toothpaste at least partially back in the tube? I don't know that we have a hard-and-fast answer to it, but I think this is the core of what [the New England states are] attempting to address," Clark said.

What should be avoided, he said, is what he called "the California trap." He said the blackouts that occurred in California this past summer were "as much as anything [a result of] this somewhat incoherent mix of public policies and regulatory structures, which weren't designed to support resource adequacy and reliability."

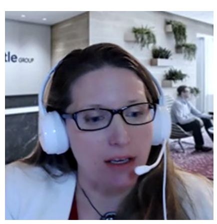
Alternative Designs

Steve Corneli, independent consultant | *New England Energy Vision*

Independent energy consultant Steve Corneli *said* any successful energy market designed for rapid decarbonization would need to find efficient portfolios of complementary clean energy resources.

"The trick is coming up not just with the cheapest set of resources, but the resources that add up and work together to provide the lowest-cost electric system," Corneli said.

Corneli said there are "hybrid" concepts emerging for electricity markets that use planning tools to identify reliable combinations of clean resources followed by competitive procurement to source the least-cost mix of resources. The combination could be termed as a "competitive IRP" or "configuration market." Bids are elicited first and used as inputs to the planning tools to find the least-cost mix of projects based on available resources' real costs. Winning projects are then awarded long-term, power purchase agreements. Such hybrid markets could solve resource adequacy, decarbonization and the least-cost resource mix without using "capacity" as the market product.



Kathleen Spees, The Brattle Group | *New England Energy Vision*

Kathleen Spees, principal at The Brattle Group, *discussed* both energy-only and integrated clean capacity markets. Spees said an energy-only market is popular because "it is probably the purest approach implementing an energy market and reflecting reliability needs through a market-based mechanism. It is an alternative to the capacity market used in New England.

"The energy-only market is a solution to achieve reliability. It doesn't do anything to solve the carbon problem," Spees said. "It doesn't hurt. It doesn't advantage fossil fuels over clean energy resources, but at the same time, it doesn't help to achieve carbon abatement or reduction."

An integrated clean capacity market would consist of one combined co-optimized auction. States would set their own policy goals and determine the amount of clean energy they want to do through the market.

States would also " continue to have the role of ensuring that they have sufficient capacity for meeting reliability needs," Spees said. Fossil fuel generators could still participate and sell capacity.

Casey Roberts, senior attorney at the Sierra Club, *suggested* voluntary residual capacity markets as a way to serve state decarbonization goals.

"Voluntary residual capacity markets are not intended to be a comprehensive solution to all of what ails the markets, but instead to focus on what I see as the most urgent problem, which is a New England resource adequacy construct that does not allow state policies on generation to be as effective as they should be in shifting the generation mix," Roberts said.

The basic idea behind the voluntary residual capacity market is that a load-serving entity can meet all or part of its capacity obligation through contracts outside of the Forward Capacity Market, Roberts said. She added that if load-serving entities and their state regulators are satisfied with the FCM, they do not have to change anything about purchasing capacity.

Next Step

Connecticut Department of Energy and Environmental Protection Commissioner Katie Dykes said the next step is *soliciting* written comments on the topics covered during the two technical forums. Any comments submitted will be posted publicly on the New England Energy Vision website, and additionally, the states will issue a joint summary of the issues identified and explain the potential solutions. Comments will be accepted through Feb. 24.

"If you have some observations or want to express a concern or support for any of the comments that you've heard in the technical meetings, or bring any other perspective to our attention, we will value your investment of time," Dykes said.

If comments support a particular market design or approach, even if those approaches were not discussed at the technical forums, they should include a high-level overview of the steps (including sequencing) necessary for implementation as well.

Additional scheduled technical forums include *transmission planning* (today) and *governance reform* (Feb. 25). ■

MISO Annual Tx Spending Tracks Downward in 2021

Long-term Transmission Project Costs in 2021 TBD

By Amanda Durish Cook

The cost of MISO's 2021 Transmission Expansion Plan is set to ring in substantially below last year's spending level, the RTO revealed during its South subregional planning meeting Jan. 26.

Proposed investment for MTEP 21 stands at $2.85 billion for 350 projects, substantially below MTEP 20's final $4.05 billion spend for 493 projects. The relatively modest numbers do not include any possible projects under the grid operator's long-range transmission plan, which will rely on MTEP 21 futures. (See *MISO Begins Longterm Tx Modeling*.)

Broken down, the draft MTEP 21 contains $723 million worth of baseline reliability projects, $331 million in generator interconnection projects and nearly $1.8 billion spend in the "other" project category, which includes other reliability projects, load growth projects, age and condition-based projects and projects driven by other local needs.

"All of this is preliminary. More information and details will be coming up," Senior Manager of Expansion Planning Edin Habibovic said.

MISO will finish power flow modeling for MTEP 21 in late spring. After collecting transmission owners' planning criteria last year, the RTO is now conducting assessments of proposed reliability projects to ensure they're the most cost-effective solutions. It will also study member-submitted alternatives to project proposals, an effort expected to continue until May.

Making a Case for Long-term Tx

RTO executives appeared before state regulators to bolster justification for its long-range transmission plan. The first such projects could be approved under MTEP 21.

"Roughly 85% of the footprint has some kind of clean energy goal," Executive Director of System Planning Aubrey Johnson told state regulators during an Organization of MISO States teleconference Jan. 25. "This is not going to be achievable without some kind of transmission."

Clean energy pledges from MISO states and utilities are accumulating quickly. Minnesota last week accelerated its 100% carbon-free electricity pledge by a decade, to 2040. However, the state's two largest utilities, Xcel Energy and Minnesota Power, are still targeting 100% carbon-free goals by 2050.

MISO expects renewables to account for 25% of its capacity by 2039.

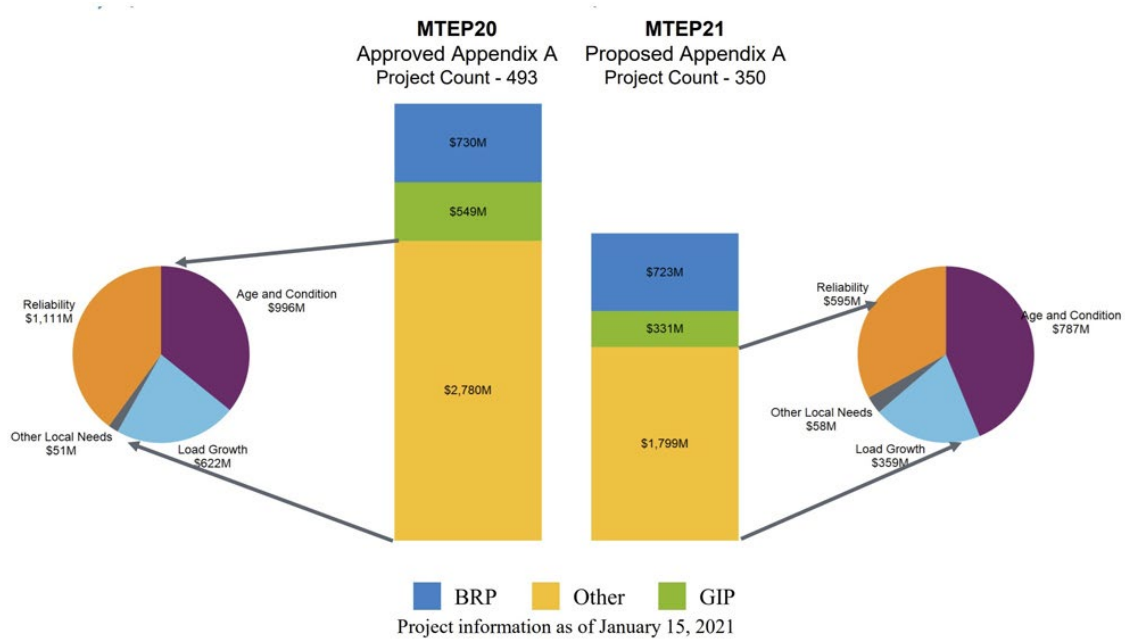
"The question becomes do you have sufficient arteries to deliver this power," Johnson said.

Americans for a Clean Energy Grid last week compiled studies concluding that grid capacity should double or triple in the near future to reliably accommodate an evolving resource mix. (See related story, *New FERC Rules Sought on Tx Planning*.)

Johnson said MISO will consider lessons learned from its last long-term planning effort, the 2011 Multi-Value Project (MVP) portfolio, in which projects were analyzed for benefits as a bundle, not individually. MISO has said projects resulting from its newest long-term plan will be assessed on an individual basis, though there is a chance that some complementary projects could be paired up and considered as one.

"It's not lost on us the regulatory challenges of a portfolio of projects — some that didn't get regulatory approval until 2019," Johnson said, referring to the $492 million Cardinal-Hickory Creek line from southwest Wisconsin to Iowa, the *last* of the 17 MVPs in line for a groundbreaking ceremony.

During a subregional planning teleconference Wednesday, Clean Grid Alliance's Natalie McIntire said she's interested in how MISO will avoid "corridor fatigue" with the long-term package, where the general public tires of dealing with new routes and construction. ■



MTEP 20 spending compared to the proposed MTEP | *MISO*

MISO News

MISO to Seek Extension on Order 2222 Plan

By Amanda Durish Cook

Construction of the Merricourt Wind Energy Center in 2020 | *Otter Tail Power*

MISO will ask FERC for more time to plan the complicated process of opening its markets to distributed energy resource aggregators, RTO officials said at a virtual workshop Jan. 26.

Staff said MISO must seek a six- to 12-month extension of the July 19 compliance filing date to in order create a sophisticated enough blueprint to comply with FERC's Order 2222, which requires RTOs to establish rules allowing DERs to participate in organized wholesale markets on an aggregated basis.

MISO DER Program Director Kristin Swenson said an extension probably won't affect MISO's implementation date for compliance.

"But there's a lot to work through before July, and we're a little worried about that. … We're not the only ISO looking to extend. Our brethren in the other ISOs … also think this is a lot," Swenson said.

MISO Managing Assistant General Counsel Michael Kessler said some of the other RTOs would likely ask for similar extensions.

"The extension will allow for more time to have discussions like these," he told stakeholders.

Swenson said adherence to the July filing date would likely provide staff and stakeholders with just one public forum in which to discuss the different aspects of the order.

She said getting transmission and distribution utilities and operators in the same discussions is crucial.

"We have mutual concerns about operating reliably," Swenson said.

MISO may have to wait as long as two months for FERC's response and will continue to operate as if the July deadline is a foregone conclusion, Swenson said. She said the RTO will begin revealing "segments" of a conceptual design in March.

"There's a tremendous amount of operating variability" among MISO distribution utilities, Swenson said. She predicted all parties involved — MISO, utilities, aggregators and regulators — will face challenges in delegating the roles and responsibilities that will enable DERs to operate reliably in the organized wholesale market.

"That's why we think this will take more than the next five months to answer," she said.

Kessler said codifying Order 2222 in MISO's nearly 7,000-page tariff is no small order.

"Of those 7,000 pages, we'll be going through the relevant provisions that will be affected by Order 2222 and adding provisions to allow for the participation of these resources," he explained.

The Grid Post-Order 2222: A 'Cool' Time

Enerdynamics' Bob Shively, tapped by MISO for a DER lecture Jan. 26, said he envisions a "hybrid grid" where large, centralized power plants deliver alongside scattered and aggregated resources.

"Most of these DERs have the technical capability of providing most, if not all, of the technical capability that MISO requires of them," Shively said. "Now with the Biden administration, there's more interest. FERC is clearly now more interested in creating a level playing field for DERs to compete with centralized power plants."

Critics have claimed Order 2222 is the first example of the commission leading policy before the technology is adopted, Shively said. He said by FERC definition, several technologies can be combined into a single DER aggregation.

"That's something new, possibly getting storage, generation and demand response into one aggregation," Shively said, adding that nearly all organized markets started on Order 2222 "to some extent" when they adapted their markets to accommodate demand response participation.

Shively said while DER aggregations will likely bring more price volatility into wholesale markets, they'll also lower costs overall because most DERs are marginal or zero-cost resources.

A more flexible customer base will be key to managing a more decentralized resource base, and time-of-use customer programs can provide financial incentives to manage demand, he said. He also predicted most vehicle owners would be driving electric vehicles in about a decade.

"There's a lot of potential interest in having EV charging happen at the office in the middle of the day," Shively said.

Information exchanges to achieve visibility between distribution and transmission operators remain an impediment, he said.

"Right now, we don't have a standardized way of collecting DER amounts and locations," he said. "There's just a level of cooperation that wasn't required before that's going to be a requirement." He added that MISO, aggregators, DER owners and distribution utilities will have to figure out who needs contracts.

The RTO also must work out how to price DERs in the same aggregation when they span multiple pricing nodes, he said.

Shively said MISO, other RTOs and distribution utilities will transition from "grids to deliver electricity to networks that provide energy services." He said RTOs, utilities, regulators and energy companies are at a juncture where they can determine the future of the electricity generation, delivery and use.

While it can be frustrating to get DER market mechanisms in place, Shively said, it's also an exciting time to be in the industry.

"I know people who say, 'I can't retire now, there's too much to do.' It's such a cool time," he said. ■

MISO News

MISO Closes Loophole for Late-stage Queue Projects

By Amanda Durish Cook

MISO interconnection customers with signed agreements will no longer be able to abandon generation projects without assuming additional financial risk, thanks to FERC's approval of a new rule.

The commission on Thursday approved a tariff revision that gives MISO the ability to use payments submitted by interconnection customers under generator interconnection agreements (GIAs) to lessen the burden on other interconnection projects, should the latter customers cancel projects after signing the agreements (*ER21-525*).

MISO said the change has a "narrow and specific goal:" closing a "loophole" that had allowed developers to pull the plug on all-but-certain generation projects without risking additional capital.

Now, instead of transmission owners returning a GIA's unused payments to interconnection customers terminating generation projects, the funds will go to MISO. The grid operator will determine whether the funds are needed to cover any negative impacts on other projects that entered the interconnection queue at the same time.

The new rule goes into effect Feb. 1, in time for the next round of GIA execution.

MISO said that it previously had no way to compensate the remaining projects for unexpected network upgrade costs incurred when another project canceled its executed agreement.

"These customers have the option to terminate their interconnection after a GIA, and MISO has no milestone fees at that point to mitigate the harm," MISO counsel Jackson Evans explained to stakeholders last fall during a Planning Advisory Committee meeting.

Under the RTO's existing milestone-forfeiture process, developers make milestone payments when they enter the interconnection queue. It can then use those funds at earlier points in the process to mitigate the financial harm imposed on the queue's remaining projects when others are withdrawn. Those rules no longer apply when a project reaches GIA execution, and the milestones become the initial payment to transmission owners.

The grid operator said it wanted to remove any "financial incentive" an interconnection customer might have by waiting until after an executed GIA to withdraw a project.

"The harm caused from one interconnection customer's utilization of the post-GIA termination loophole also has the potential to impact the larger queue through additional withdrawals," MISO explained in its filing. "The unmitigated reallocation of costs from one GIA termination could turn a financially viable project into a non-viable project, which may cause a second GIA termination, which may cause further terminations, resulting in cascading terminations and restudies."

MISO said its plan had the support of "almost all stakeholders."

The grid operator said it had found recent examples of harm caused by post-GIA project terminations. Using its 2016 and 2017 cycles of project entrants, it said one of three post-GIA withdrawals in the 2016 cycle had a nearly $5.5 million net financial impact on remaining interconnection customers, and one of six withdrawals in the 2017 cycle had an almost $10.5 million impact on other developers. The other withdrawals had no financial impacts.

MISO said FERC has "previously recognized that when an interconnection customer utilizes the post-GIA termination loophole, it has the potential to cause harm to MISO's administration of the queue." ■

| *MISO*

NYISO News

Study: No Silver Bullet for Fossil-Climate Legal Tension

By Jennifer Delony

Customers were at the center of a panel discussion last week that highlighted what can happen when new state climate laws conflict with those currently governing fossil fuels.

While people are *working* to address those policy conflicts, Dale Bryk, senior fellow for energy and the environment at Regional Plan Association, said "we're not doing as well as we could" because the issues states face in implementing their climate ambitions are "very complicated."

A *case study* published in *Energy Law Journal* casts light on policies under New York's Climate Leadership and Community Protection Act (CLCPA) that are inconsistent with other state polices that support residential customer access to natural gas.

"If you make mistakes in this area, and you get it wrong, someone's heat will go off," Bryke said. "People are conservative in thinking about it and really want to get it right."

Bryk is former New York deputy secretary for energy and environment. She joined the discussion about the case study, "Harmonizing States' Energy Utility Regulation Frameworks and Climate Laws," during a webinar Friday hosted by the Institute for Policy Integrity and Environmental Defense Fund.

The study by Justin Gundlach and Elizabeth B. Stein explained New York's current gas market dilemma as stemming from two separate laws: CLCPA, which makes little room for fossil gas in the future energy system, and New York Public Service Law, which establishes reliable natural gas service as being in the public interest. The study said there are similar policy equations in California, Colorado and New Jersey.

By putting the example of the natural gas sector in New York under the microscope, the study demonstrated how a just transition to net-zero emissions is not a certainty under the state's laws as written. The study said that a just transition should be among the principles that guide reform.

The movement of gas customers to electrification to meet CLCPA goals could leave remaining customers with higher bills to pay, as the gas utilities' pool of customers diminishes, the study said. Furthermore, those customers who cannot transition likely are the most vulnerable community members.

Rory Christian, principal at Concentric Consulting Group, said that as markets advance electrification, low-income families need to be protected.

"You have many low-income homeowners, affordable housing developers and rental tenants which lack the financial means, the resources or capability to make this conversion, so we need to align those incentives in a just and equitable manner to ensure that those with the greatest need can take advantage of this opportunity and be a part of the transition," he said.

Christian said that a key factor in an equitable transition is addressing how utility rates are set under current regulations.

"Understanding that the current rate regime is based to develop and maintain the system as it is, we need to reconsider how rates are deployed and how they're developed to ensure that customers who have to transition and will transition do not experience unexpected spikes in costs as a result," he said.

The pathway to long-term success, he added, means looking at all existing laws and regulations to "minimize the potential for creating a wider economic divide between the haves and have-nots as the pace of electrification quickens."

Gas utilities, however, are regulated in a way that ensures they are structured to sell gas.

Utilities are driven to expand their customer base and build large infrastructure, Bryk said, adding that they make money based on the rules that government sets for them.

"If we want utilities to be in a different business, if we want them to be in the business of providing heat at least costs over the long term, and we want them to be in the business of designing a just and equitable transition ... then we need to set the rules ... that will drive them to do that," she said.

State laws that uphold fossil fuel services, such as natural gas for heating and cooking, are at odds with new climate ambitions. | *Shutterstock*

Government, she added, is giving utilities conflicting signals.

"Let's stop doing that," she said.

Fuel Neutrality

The case study suggested that fuel neutrality should be another principle that guides legal and regulatory reform related to climate ambitions.

"Codifying into statute or regulation clear preferences or biased parameters that favor a given technology or fuel ... can burden future policymakers ... with obligations that they may eventually find to be incompatible with the best means of achieving long-term policy objectives," the study said.

In addition, neutrality ensures incumbent fuels and technologies remain open to competition.

The gas system example in New York shows the challenges electric heat pumps or building management systems are having competing with gas service. The study said that newer services and technologies, such as heat pumps, are not a part of utilities' networked systems and they would force new policy to be inclusive of non-utility providers.

This change, the study said, "could strain traditional notions of the commission's jurisdiction and role."

Safe Transition

A third principle for reform raised in the study made clear the nature of states' challenges in cleaning up human activity.

The study said that a safe transition must be achieved that balances protecting people from the consequences of human-made climate change and protecting people in the process of social transformation.

"In the long term, this means recognizing that until the transition is substantially complete, we will have to continue maintaining, repairing and/or replacing infrastructure components that pose an imminent risk to physical safety, even though we are also likely to be shutting down other components simultaneously," the study said.

Consequently, policymakers will have to support values that are contradictory and adopt rules that depart from how infrastructure is governed currently. ■

NYISO News

NY Proposes Food Scrap Regs to Cut Waste, Emissions

By Michael Kuser

The New York State Department of Environmental Conservation (DEC) on Wednesday *announced* proposed regulations that would require large food scrap generators to donate excess edible food and send scraps to an organics recycler if one is available within 25 miles.

The proposed *rulemaking* would implement requirements outlined in the state Food Donation and Food Scraps Recycling law with an effective date of Jan. 1, 2022.

The department will hold two virtual public hearings on the draft *regulations* on April 7 and is taking public comments on the proposal until April 27.

"Reducing food waste has significant environmental benefits, including creating useful compost and decreasing the amount of materials that would otherwise be sent to a landfill, eventually creating methane gas that contributes to climate change," DEC Commissioner Basil Seggos said in a statement.

The proposal would define a large food scrap generator as an entity that generates an annual average of 2 tons of scraps per week. Exemptions would include, among others, New York City, hospitals, and elementary and secondary schools.

The DEC in December *finalized* the regulations to reduce greenhouse gas emissions, the first regulatory requirement of the Climate Leadership and Community Protection Act (CLCPA). (See *New York Holds Final CLCPA Emissions Hearings*.)

The nonprofit Onondaga County Resource Recovery Agency runs this compost facility in Amboy, New York. | *OCRRA*

In a meeting Wednesday, the New York State Climate Action Council's (CAC) Waste Advisory Panel discussed the many complicated pathways to food scrap handling and regulation.

The council is working to complete by this fall a scoping plan for achieving the state's energy and climate goals under the CLCPA, with the various advisory panels due to submit their initial recommendations to the CAC in April.

Sewers for Food Waste

Dereth Glance, executive director of the nonprofit Onondaga County Resource Recovery Agency, recommended using sewers to convey food waste, at least when practical.

"I want to be aware of unintended consequences, because with everything in waste management, there are trade-offs," Glance said. "You have to keep that material moving; otherwise you risk public health crises — cholera and dysentery — which is what we're responsible for avoiding. Waste is more complicated than 'you put this type fuel in a vehicle and you get this kind of emissions.'"

Jane Gajwani, director of energy and resource recovery programs for the New York City Department of Environmental Protection, said she wouldn't want to rule out using sewers, but that her department has concerns with collection and processing.

"When food waste reaches the wastewater treatment plant, it doesn't go directly into the digester; it ends up going through our entire process train, which is really energy-intensive," Gajwani said. "Instead of converting it to energy, you're actually using a lot of energy to aerate it and to burn up the organic material. ... Even if we can get over the collection system issues, we still would substantially increase the energy usage of the plant."

Organics and Biogas

DEC Deputy Commissioner Martin Brand, who chairs the Waste Advisory Panel, said "there's a lot of cross-panel discussion going on regarding organics and biogas."

"If we're serious about reducing greenhouse gas emissions and air pollution from trucks, we need to figure out how to optimize local ability to process organics," said Michelle Oyewole of the New York City Environmental Justice Alliance.

Steve Changaris, the National Waste and Recycling Association's vice president for the Northeast Region, said that DEC staff will determine the GHG impact of various policy recommendations. For example, if the state recommends further source separation of organics, the waste panel suggests that the state chart the path for an eventual ban on disposal of organics where there is adequate infrastructure to manage it, he said.

But a recommendation for a renewable biogas project to fuel a local municipal or trucking fleet might be rejected by DEC staff as not fitting their model.

"We're trying to give that information to the experts so they can run those numbers and the CAC will be in a much better position to sort them out," Changaris said.

"What we're looking at now is a big job," said Michael Cahill, partner at law firm Germano & Cahill. "If we're talking about organics that are going to landfills and going to waste-to-energy now, we've got to get a lot of infrastructure built, and we've got to have a mindset that is friendly to that."

It is necessary to factor in what the future infrastructure will be, Brand said.

"Obviously we're moving away from fossil fuels, moving away from natural gas, moving away from essentially perpetuating that natural gas and fossil fuel infrastructure, so that's a factor," Brand said. "We know that infrastructure is enormously complicated and expensive, and the question is, what's your threshold for maintaining that?"

Resa Dimino of Resource Recycling Systems was concerned that the organics and landfill subgroup might recommend incentivizing energy production from waste.

"That is inconsistent with state policy on renewable energy," Dimino said. "I think that if we're going to meet really bold climate goals, we can't meet them by incentivizing the thing that's less bad. We need to meet them by going for the thing that's going to really move us forward, and that is reducing waste and recovering more materials."

Lauren Toretta, president of Greenwich, Conn.-based CH4 Biogas and leader of the organics diversion and landfill subpanel, disagreed.

"First and foremost, we believe in a reduction of waste, and food should always go to its highest and best use first, whether to feed people or animals," Toretta said. "But there is always going to be some residual waste." ■

Dominion Buys Solar Farm Powering Facebook Data Center

By Michael Yoder

Dominion Energy has acquired a 150-MW solar facility in Central Ohio that will provide energy to a nearby Facebook data center.

Invenergy completed the Hardin Solar Energy Center, which recently went online in Hardin County, Ohio, in December. The acquisition, marks Dominion's first solar energy investment in Ohio, where the company already operates a natural gas local distribution subsidiary, Dominion Energy Ohio.

Facebook will use the electricity generated at Hardin, as well as its renewable energy credits, under a long-term agreement signed prior to Invenergy beginning construction in 2018.

"We continue to acquire and/or develop clean energy projects for companies like Facebook that are looking to reduce their carbon footprints and to contribute to combating climate change," Dominion COO Diane Leopold said in a statement. "And we are proud to build on our Invenergy partnership that has already produced nearly 100 MW of solar generating capacity elsewhere."

The Hardin Solar Energy Center in Hardin County, Ohio | *Dominion*

Dominion owns solar arrays in 10 states, including in North Carolina, South Carolina, Virginia and California. The Richmond, Va.-based company currently has more than 2,200 MW of solar generating capacity in operation and nearly 3,500 MW of capacity in development, making it currently the third-largest owner of solar capacity among utility companies in the country. (See *Dominion Names Blue as CEO in Earnings Call*.)

"Invenergy is proud to further our partnerships with both Dominion Energy and Facebook, which reflect our commitment to sustainability that carries across our work with utilities and corporate renewable energy purchasers alike," said Ted Romaine, senior vice president at Invenergy.

The renewable energy will be used to run Facebook's New Albany Data Center, which came online in February 2020. Plans are in place to add more buildings to the campus outside of Columbus, bringing its total area to nearly 2.5 million square feet. Once completed, the center will represent an investment by Facebook of more than $1 billion.

"We are thrilled to partner with Dominion and Invenergy to bring an additional 150 MW of new solar energy to the grid," said Urvi Parekh, head of renewable energy at Facebook. "We are committed to not only supporting our operations with 100% renewable energy, but to helping accelerate the transition to renewable energy." ■

Artist rendering of Facebook's New Albany Data Center in Ohio | *Facebook*

PJM News

PJM MRC/MC Briefs

Markets and Reliability Committee

Black Start Packages Rejected

PJM is back to the drawing board as two different solution packages aimed at addressing the disputed black start unit issue were rejected by stakeholders at last week's Markets and Reliability Committee meeting.

The RTO's option 1 package, which emerged as the main motion with 83% support at the Dec. 3 Operating Committee meeting, failed with a sector-weighted vote of 2.48 (49.6%) at the MRC. Dominion Energy's package, which served as the alternate at the OC meeting with 82% support, failed with a sector-weighted vote of 2.47 (49.4%) at the MRC.

Stakeholders were asked to endorse the proposals addressing black start unit testing, involuntary termination, substitution rules, capital recovery factor (CRF) and minimum tank suction level (MTSL), and corresponding revisions to the tariff, Manual 12: Balancing Operations, Manual 14D: Generator Operational Requirements and Manual 15: Cost Development Guidelines.

The black start issue has been lingering for months since the problem statement was endorsed at the May OC meeting, leading to heated discussions among PJM members and generation owners fighting back against calls for retroactively applying CRF to existing black start units. (See Gen Owners Balk at Change to PJM Black Start Rates.)

The CRF issue emerged as the most contentious portion of the black start unit discussions, with stakeholders voting to amend the issue charge at the OC in December to align with language in the problem statement. (See Vote on PJM Black Start Compensation Deferred.)

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

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

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

The Independent Market Monitor's package, which ultimately received only 7% support at the December OC meeting, called for updated CRF rates to apply to new and existing black start units. Updated commitment periods would have also applied to new and existing black start units.

PJM Monitor Joe Bowring | © *RTO Insider*

Monitor Joe Bowring said the CRF table was originally created in 2007 as part of the Reliability Pricing Model capacity market design and includes assumptions that are no longer correct. Bowring said the CRF values are significantly higher than they should be under the lower corporate tax rate from changes in the 2017 tax law, leading to overcompensation for units.

The addition of the updated black start issue charge language at the December OC led to last-minute modifications to the Monitor's package and PJM's primary package, both of which failed to be endorsed.

Adrien Ford, ODEC | © *RTO Insider*

The next steps for the black start issue are yet to be determined and will be discussed at the Feb. 11 OC meeting.

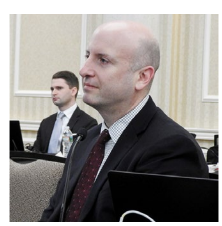
Adrien Ford of Old Dominion Electric Cooperative said the packages failed to correct the error of the CRF table not being updated in the tariff with the 2017 tax law.

Susan Bruce, PJM ICC | © *RTO Insider*

Susan Bruce of the PJM Industrial Customer Coalition said she appreciated that black start is a "pretty muddy issue" and that there are aspects of the issue that "cut both ways." Bruce said her biggest concerns with the black start packages are the changes to the capital recovery and commitment periods.

"It's a complex issue for many of the reasons highlighted, but what's before us doesn't solve the issue," she said.

Alternative Black Start Package



Greg Poulos, CAPS | © *RTO Insider*

Greg Poulos, executive director of the Consumer Advocates of the PJM States (CAPS), reviewed a proposal as a first read on behalf of the Delaware Division of the Public Advocate as a compromise alternative to the PJM and Dominion packages that failed.

Poulos said the changes to the black start issue charge at the December OC meeting stifled the voices of minority interests related to the

PJM News

CRF issue.

"It completely materially changed the black start discussion and eliminated certain aspects of that discussion," Poulos said.

The advocate package uses much of the same language from the failed proposals, keeping intact aspects of testing, unit substitution and termination and the MTSL. The changes include the addition of the Monitor's language regarding CRF, applying rates to both new and existing black start units.

It also uses the language from the primary PJM package, with a five-, 10-, 15- and 20-year capital recovery period based on unit age at the time of it entering black start service.

"The advocates at this point could not support the two current proposals that are up, and that's why I've tried to find an alternative proposal," Poulos said.

Bowring said he continues to believe that exempting existing resources with the change in the black start issue charge was "inappropriate" and that the CRF issue should ultimately be decided at FERC.

"We don't think there are any rights to windfalls built in to the CRF process," Bowring said. "That's exactly what's been occurring for existing units back to the time of the tax law change."

Marji Philips, LS Power | © RTO Insider

Marji Philips, LS Power vice president of wholesale market policy, said she objected to the term "windfall" being used regarding CRF. Philips said PJM conducted a competitive procurement process with the black start service for units currently in operation, and prevailing interest rates were considered and accepted by all interested parties.

Philips said she does not have a problem with updated CRF rates applying to new black start units, but she said applying rates to existing units is "retroactive ratemaking." She said the advocate proposal is not fair and doesn't recognize long-term contract law.

"These projects were built based on an assumption, and it was competitively chosen," Philips said.

Alex Stern, director of RTO strategy for PSEG Services, made a motion for the advocate package to be sent back to the OC for further discussion, saying it was "ripe for a motion to remand." Stern said he appreciated Poulos bringing forward a new proposal that doesn't fall within the issue charge, but he believed that the OC "needs to go back to the drawing board" to discuss the issue.

Alex Stern, PSEG | © RTO Insider

"I think everybody now has to go back and roll up their sleeves and try to work together to figure out what's in the best interest of all," Stern said.

Ford said she didn't see why the MRC would direct the advocate proposal back to the OC for discussion, as stakeholders on the committee "very clearly rejected" the idea of applying CRF to existing black start units.

"I think it's appropriately before the MRC, and that's where it should stay," Ford said.

Stern's motion to remand failed with a sector-weighted vote of 2.2 (44%).

Mike Bryson of PJM said that if there was a procedure to get the advocate package back to the OC to discuss, it would be the best outcome to flesh out ideas or possible compromises. Bryson said PJM is still concerned about addressing CRF on existing black start units and that the RTO has a "significant commitment to these units," and changing existing structures would be "problematic."

Mike Bryson, PJM | © RTO Insider

"We're going to have to fix this CRF issue one way or another," Bryson said.

MOPR Revisions Endorsed

Stakeholders unanimously *endorsed* revisions to *Manual 18: PJM Capacity Market* that conform to the FERC-ordered rule changes in the minimum offer price rule (MOPR) and forward-looking net energy and ancillary services (E&AS) offset calculation. The revisions were also unanimously endorsed earlier this month at the Market Implementation Committee meeting Jan. 12. (See "MOPR Changes Endorsed," *PJM MIC Briefs: Jan. 12, 2021*.)

Jeff Bastian, PJM senior consultant in market operations, reviewed the updates to Manual 18, including recent changes to the redline language resulting from stakeholder discussions.

Jeff Bastian, PJM | © RTO Insider

The first change is a previously unmapped region of the Ohio Valley Electric Corp. (OVEC) zone, which is now mapped to the Columbia-Appalachia TCO fuel pricing point for the purpose of establishing the net E&AS offset for the zone. The OVEC zone was also mapped to the AEP-Dayton Hub for determining the forward hourly LMP.

The second change includes new language in section 5.4.5.5(A) that clarifies that a seller's financial accounting statements should serve as the primary form of evidence for use of an asset life more than 20 years.

Bastian highlighted two additional conforming changes made after the MIC endorsement. Language changes include the use of an average equivalent availability factor for PJM nuclear resources to account for refueling outages in the calculation of the forward net E&AS offset for existing nuclear units.

An additional change eliminated a requirement that a resource submit a sell offer at the resource-specific value under certain circumstances. Bastian said the update was related to the recent FERC filing regarding tariff revisions that account for when the default offer price floor exceeds the market seller offer cap (MSOC) under PJM's MOPR (*EL16-49-004*, *et al.*). (See *FERC Partially Accepts PJM MOPR Offer Floor Filing*.)

Chen Lu, PJM senior counsel, provided a summary of the FERC order that largely accepted the RTO's *compliance filing*, submitted Nov. 13, with the exception of one provision regarding the MSOC.

Chen Lu, PJM | © RTO Insider

PJM included the Attachment DD language directed by the commission but also proposed an additional sentence to the tariff, which stated, "In the event the resource-specific MOPR floor offer price is greater than the applicable market seller offer cap, the capacity market seller of such capacity resource may only submit an offer for such resource equal to the resource-specific MOPR floor offer price into the relevant RPM auction."

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The commission rejected the additional sentence on the grounds that it exceeded its October compliance order, directing PJM to submit a new compliance filing within 15 days removing the sentence from the tariff. Lu said PJM will file an additional compliance filing by Feb. 3 to remove the rejected sentence from Attachment DD in accordance with FERC order.

PJM maintains that the additional compliance filing allows them to run the long-delayed capacity auctions for the 2022/2023 delivery year, Lu said, with the auctions set to commence on May 19.

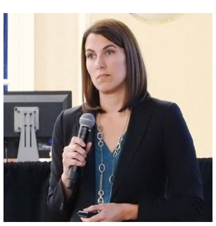
"We believe we have the greenlight to run the next auction," Lu said. "And we are prepared, ready and intend to commence the next auction."

Stability Limits Endorsed

Members *endorsed* a proposed capacity constraint solution package and corresponding Operating Agreement and tariff *revisions* regarding stability limits capacity constraints. The package was endorsed with a sector-weighted vote of 4.05 (81%).

The proposal addresses the allocation of limits to multiple units by stating that the limit will apply to the sum of the output of the affected units plus ancillary service megawatts. (See "Stability Limits Review," *PJM MIC Briefs: Dec. 2, 2020*.)

The problem statement and issue charge were initially brought forward for endorsement at the August 2019 MIC meeting. (See "Modeling Units with Stability Limitations," *PJM MIC Briefs: Aug. 7, 2019*.)



Lisa Morelli, PJM | *© RTO Insider*

Lisa Morelli, director of market design for PJM, said the packages were developed to create consistent treatment of generator stability limitations.

Current rules require the RTO to implement a thermal surrogate to reflect the stability constraint in the day-ahead and real-time markets and to bind the constraint, affecting the unit's dispatch.

The capacity constraint proposal was put forward by PJM and the Monitor and endorsed by the MIC with 64% support. It addresses the allocation of limits to multiple units by stating that the limit will apply to the sum of the output of the affected units plus ancillary service megawatts.

Joe Ciabattoni, PJM | *© RTO Insider*

Joe Ciabattoni, PJM manager of interregional market operations, said the units would be dispatched in economic merit order up to the stated stability limitation. If a unit chooses not to remedy a stability limitation identified during the planning process, Ciabattoni said, its operating restrictions — as documented in its interconnection service agreement — would be invoked prior to those for other units.

The package also included a measure for transparency, with PJM posting data on the frequency, location and number of affected units while maintaining confidentiality rules.

Lost opportunity cost (LOC) credits would not be paid for any reduction required to honor the stability limit. Similarly, LOC is not paid for economic megawatts of a resource that cannot produce because of a ramp limitation.

Paul Sotkiewicz of E-Cubed Policy Associates reviewed the alternate opportunity cost solution package that was ultimately not voted on. The proposal, presented by J-POWER, was fundamentally the same as the PJM-IMM package except for providing compensation for LOCs.

Sotkiewicz said if a generator is requested to take an outage when it can still run, the unit is in essence being asked to "not reveal our true capabilities" to the market of what could actually be generated. He said it creates a "slippery slope" going forward to misrepresent a unit's true capabilities.

"I think the mechanical changes to the market are excellent, and I applaud PJM and the Market Monitor for that," Sotkiewicz said. "But we do believe we should be paid lost opportunity costs."

Catherine Tyler, Monitoring Analytics | © RTO *Insider*

Catherine Tyler of Monitoring Analytics said LOC was not included in the PJM-IMM proposal because generators could endanger a unit's stability and risk damage by pursuing opportunities for LOCs. Tyler said the costs to repair potential damages to a unit would outweigh the LOC.

"There's not a benefit of receiving the higher LMP if you're going to break your unit to do it," Tyler said.

A final vote on the package will be held at the Feb. 24 Members Committee meeting. Ciabattoni said conforming *manual* revisions will be brought through the OC and MIC for endorsement following FERC approval of the proposal.

Manual 14C Revisions Endorsed

Stakeholders *endorsed* revisions to *Manual 14C: Generation and Transmission Interconnection Facility Construction* as part of the biennial cover-to-cover review after voting to delay the revisions last month over concerns regarding some of the proposed language. (See "Manual 14C Delayed," *PJM MRC/MC Briefs: Dec. 17, 2020*.) The revisions were endorsed by acclamation vote with one objection and one abstention.

Mark Sims, PJM's manager of infrastructure coordination, said the committee proposed minor changes to Manual 14C, including an update of the latest Tariff provisions clarifying the filing process for title transfers and associated title documentation in Section 5. New sections on cost-tracking for baseline projects and another for supplemental cost-tracking were also proposed.

Poulos made the request to delay the endorsement by one month to work with PJM on some language suggestions after expressing concerns about some of the language. Poulos specifically referenced sections 6.1.2 and 6.2.1 dealing with tracking of supplemental projects.

Sims said PJM coordinated with Poulos to address the language concerns, and Poulos *presented* the friendly amendments to make the language consistent with Manual 14B.

In Manual 14B, the transmission owners must update PJM on the status of state regulatory approval in the quarterly updates. But in Manual 14C, Poulos said the burden is on PJM to "request" the status of state regulatory approvals.

Poulos said PJM currently does not wait for state approval of supplemental projects, and with the manual change, it was less likely that the RTO will even be aware of the state procedural process.

The friendly amendment said the Manual 14C sections will be consistent with language in Manual 14B and will include "any relevant regulatory siting authority approval necessary for the project and the status of such approval."

"My goal is to make the language consistent between the two manuals and ensure that PJM is updated on what the approval process is for

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each of these projects," Poulos said.

Robert Taylor of Exelon asked if PJM was comfortable with the friendly amendment.

Sims said the language was consistent and added value in clarification. Sims said PJM was also intent on not making the procedures for requesting documentation overly burdensome for stakeholders or PJM staff and that the "relevant" documents would be enough for PJM engineers to adequately do their work.

Real-time Values Market Rules

Members *endorsed* a solution package addressing real-time values (RTV) market rules and corresponding revisions to *Manual 11: Energy & Ancillary Services Market Operations* and the *tariff and Operating Agreement*. The package was endorsed with a sector-weighted vote of 4.9 (98%).

Laura Walter, PJM | © *RTO Insider*

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

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

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

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

Siva Josyula of Monitoring Analytics reiterated the Monitor's concern that the changes proposed in the PJM package undermine the parameter-limited scheduling (PLS) rules used in RTVs. The PLS rules are part of the capacity performance rules requiring units to operate to defined parameters, he said.

The package will be voted on at the February MC meeting.

PRD Credits Disposition

Stakeholders unanimously *endorsed* through an acclamation vote the proposed solution package addressing the disposition of price-responsive demand (PRD) credits.

PJM's Pete Langbein went over the corresponding revisions to *Manual 11: Energy & Ancillary Services Market Operations*, *Manual 18: PJM Capacity Market*, *OA tariff* and *Reliability Assurance Agreement*. Langbein said no changes were made to the package after it was presented for a first read at the December MRC meeting. (See "PRD Credits Disposition," *PJM MRC/MC Briefs: Dec. 17, 2020*.)

PJM's settlement rules call for revenues associated with PRD to be credited to the load-serving entity (LSE) for an area and do not address the roles of electric distribution companies (EDCs) or curtailment service providers (CSPs), meaning some LSEs are paid for PRD service supplied by EDCs and CSPs.

Langbein said the LSE was removed from emergency/pre-emergency demand response process several years ago.

The solution package calls for the PRD provider to receive the PRD bill credit and that any member that is a PRD provider is treated the same with no need to differentiate between a PRD provider and an LSE.

The package now heads to the MC for a vote in February.

Members Committee

Manual 34 Changes

Proposed *revisions* to Manual 34: PJM Stakeholder Process were unanimously endorsed at last week's Members Committee meeting.

Gary Greiner, PSEG | © *RTO Insider*

The change provides clarifying language to affirm that the preference over the status quo 50% requirement is binding. (See "Manual 34 Revisions," *PJM MRC/MC Briefs: Nov. 19, 2020*.) Gary Greiner, director of market policy for PSEG, sponsored the revisions that came out of discussions at the Stakeholder Process Forum.

Members proposed incorporating an additional threshold for moving a proposal to a senior standing committee. The language change says a proposal must pass a simple majority voting threshold and be preferred over the status quo by more than a simple majority. Current rules that do not require a majority prefer the alternative over the status quo.

"In the way of enhancements, we determined that we were going to ask the preference question for all proposals before we knew the level of support that they garner," Greiner said. ■

— Michael Yoder

PJM News

NJ BPU OKs $205M EV Spending by PSE&G

Utility Had Sought $364M

By Rich Heidorn Jr.

The New Jersey Board of Public Utilities last week approved a settlement trimming Public Service Electric and Gas' proposed electric vehicle infrastructure program to $205 million over six years (Docket # *EO18101111*).

PSE&G had proposed spending $364 million on EVs and an additional $179 million on energy storage. Under the settlement, the BPU deferred the storage spending and $45 million in spending to electrify school buses while reducing spending on residential smart charging, Level 2 mixed-use charging and public DC fast charging by 18%. "Cross program investments," such as information technology, were slashed by almost three-quarters.

More than 20 parties, including the state Ratepayer Advocate, commission staff and EV maker Tesla, signed the stipulation of settlement. Two charging companies and several environmental groups declined to endorse the agreement.

The BPU approved the settlement as "a fair and reasonable resolution" of the matter.

In accordance with the BPU's September 2020 minimum filing requirements (MFR) order, the board deferred action on PSE&G's proposed $45 million "vehicle innovation fund" for medium- and heavy-duty vehicles (MHDVs) such as school buses. Provisions relating to utilities' "last resort" ownership of EV charging stations also will be deferred under the MFR order. (See *NJ BPU Outlines 'Shared Responsibility' EV Plan*.)

Energy Storage

The settlement also excludes PSE&G's proposed energy storage initiatives, which will be the subject of a separate proceeding authorized by the board in June 2019.

PSE&G proposed spending $13.1 million on "solar smoothing" storage systems to prevent rapid power fluctuations resulting from changes in cloud cover; $38.6 million in "distribution deferral" projects to supplement the operating capacity of substation transformers; $20 million in "outage management" spending to reduce the peak load on substations to reduce the number of mobile transformers; $25.7 million on microgrids for critical facilities; and $11.9 million to reduce peak use at public sector facilities, improve resilience, and reduce transmission and distribution investments.

Two EVgo 480-V fast chargers at the Molly Pitcher Service Area on the New Jersey Turnpike. The chargers can provide 150 miles of range per hour. | *PSE&G*

Storage "as part of the charging ecosystem is best addressed in conjunction with MHDV charging uses," the board said. "As agreed upon in the stipulation, the proposals advanced by PSE&G concerning an [energy storage] program will appropriately be held in abeyance in this proceeding pending future policy guidance from the board."

Charging Providers, Environmental Groups Dissatisfied

Charging providers Greenlots and Electrify America declined to support the settlement, with the former complaining that it did not include MHDV initiatives or provisions allowing the utility to own charging stations as a "last resort."

Royal Dutch Shell's Greenlots *said* the PSE&G program is overly reliant on private market investment: "The private market has proven inadequate to electrify New Jersey's transportation sector at the scale and speed required to adequately support existing rates of EV adoption, let alone meet the state's statutory commitments in the [Plug-In Electric Vehicle Law] and the more rapid timetables called for in the *80 x 50 Report*," in which the state outlined its plans to reduce greenhouse gas emissions to 80% below 2006 levels by 2050.

Volkswagon's Electrify America *said* that demand charges for DC fast chargers are too high. "The proposed rate structure, while addressing many concerns, has not reduced the demand charges to the degree necessary to allow Electrify America to price its product at a reasonable price (for example, gasoline equivalency) without covering ongoing energy expenses for the foreseeable future nearly every time someone charges their vehicle, with no ability to recover investments even with support from a make-ready program," it said.

Filing jointly, Environment New Jersey, the Environmental Defense Fund, Natural Resources Defense Council and Sierra Club said the settlement fails to ensure the state will meet its goals on vehicle electrification, storage and MHDV charging. They said the board should order a rapid timeline for the proceeding on the utility's MHDV and storage proposals. They also expressed concern that the stipulation does not include utility investment.

In approving the settlement, the board reiterated its commitment to Gov. Phil Murphy's goal of having 330,000 EVs in the state by 2025.

"The board finds that the funding levels included in the stipulation are adequate and that the 'shared responsibility' model adopted in the MFR order and in the stipulation appropriately prioritizes private investment over utility ownership," it said. "Ownership and operation of EV charging stations should be driven by the market, and, therefore, EVSE [electric vehicle service equipment] infrastructure companies, site owners and property management companies are the preferred owners and operators of EVSE."

It noted that the MFR order allows utilities to file a petition to own charging for the "occasional and narrow instances" where it is appropriate.

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Rebates

Under the settlement, PSE&G will provide the following rebates to offset installations of charging infrastructure:

Residential

- up to $1,500 of the make-ready cost (utility meter to charger stub) for up to 40,000 charger stubs (maximum $60 million).
- up to $5,000 of the make-ready cost (service upgrade) for up to 4,000 locations ($20 million).

Mixed Use Commercial Level 2 (240-volt) chargers

- up to $7,500 of the make-ready cost (utility meter to charger stub) for up to 3,500 charger stubs ($26.25 million).
- up to $10,000 of the make-ready costs (service upgrade) for up to 875 locations ($8.75 million).

DCFC Public Charging

- up to $25,000 of the make-ready cost (utility meter to charger stub) for up to 1,200 charger stubs ($30 million).
- up to $50,000 of the make-ready cost (service upgrade) per location for up to 300 locations ($15 million).

Sector	# Sites	# Chargers	Inv. ($M)
Multi-Family Unit (MUD)	325	1,300	$13
Government Entity	275	1,100	$11
Public Entity	275	1,100	$11
Total	**875**	**3,500**	**$35**

The BPU approved $35 million in spending on Level 2 chargers at mixed-use commercial sites. | *NJBPU*

Incentives are contingent on the charging station being capable of sending and receiving communications via Wi-Fi or cellular network and participants agreeing to share session-level charging data with PSE&G.

PSE&G will collect reimbursement for the spending through the technological investment charge (TIC). The utility's 2018 proposal would have raised annual bills for a typical residential customer by $1.24. The order did not estimate the cost of the reimbursements under the settlement.

Other Action

In other action, the board approved:

- the appointment of Commissioner Bob Gordon as hearing officer for Rockland Electric Co.'s proposed $6.7 million EV program (Docket No. EO20110730).
- a waiver allowing drivers to provide alternative documentation for participation in the Charge Up New Jersey EV incentive program in response to delays in the Motor Vehicle Commission's processing of drivers' license renewals as a result of the coronavirus pandemic (Docket No. QO20030262).
- a memorandum of understanding with Northeast Energy Efficiency Partnerships and the Rutgers Center for Green Building, to "convene and engage" stakeholders in a collaborative to develop a New Jersey Zero Energy Building Roadmap (Docket No. QO21010002). ■

SPP News

RSC Keeps MISO Liaison Committee Alive

Members Working to Resolve Issues over Final Seams Recommendations

By Tom Kleckner

During the meeting, the RSC also took time to thank Nebraska Power Review Board Member Dennis Grennan and NPRB consultant John Krajewski for their leadership in 2020. | *SPP*

SPP state regulators last week agreed to keep up their collaboration with MISO regulators for the foreseeable future, saying the effort is pressuring the RTOs to resolve their seams issues.

"I'd hate to see us pull back at this point," said the Missouri Public Service Commission's Scott Rupp during the Regional State Committee's (RSC) quarterly get-together Jan. 25. "It would be like Christopher Columbus seeing land and saying, 'Cool. Land,' and then turning around and going home."

Rupp spoke for most on the RSC, which supplies four of its members to the Seams Liaison Committee (SLC), where they work alongside counterparts from the Organization of MISO States (OMS).

The SLC recently drafted a list of recommendations to improve operations along the SPP-MISO seam. However, RSC members are not yet ready to sign off on the *proposals*, which prioritize resolving rate pancaking and adding a category for smaller interregional projects. (See *MISO, SPP Regulators Call for Pancaking Fix, Smaller Projects*.)

"I am feeling like this [recommendation] document could be improved," said Texas Public Utility Commission Chair DeAnn Walker, who leads the SLC's RSC representation. "Maybe I could work … to come up with a document that's a little bit clearer and presents things where we could move on."

"If it wasn't for the Seams Liaison Committee, many of these issues would not be moving forward," said fellow SLC member Geri Huber, who chairs the Iowa Utilities Board. "I think its's important to work with the OMS and put together a proposal. … I think we as commissioners should take the lead in pushing MISO and SPP in addressing all these issues we see as a priority."

Confusion set in over a document drafted by OMS Executive Director Marcus Hawkins. The document attempts to lay out the SLC's seven recommendations to improve seams operations, but also re-ordered a previous document drafted by Arkansas' Ted Thomas.

The RSC agreed that the majority of the proposals are being handled by the RTOs' market monitors or will be addressed by the SPP-MISO joint transmission study, which is only now taking shape. Members agreed that leaves them with little to do besides monitoring progress and encouraging collaboration.

"The two live wires become rate pancaking and [smaller interregional projects]," Thomas said. "When you reduce the pancaking, that leaves a hole in the [transmission] revenue requirement that needs to be filled. There isn't a solution we can adopt."

Thomas said he would like to see the RTOs sit down with each other and stakeholders and negotiate, but added, "We can't compel people to negotiate."

He said the SLC's role in developing smaller interregional projects should be "facilitation." The proposal is based on the Targeted Market Efficiency Projects used by MISO and PJM.

"MISO folks that see the value have to come up with the mechanism that shares benefits," Thomas said.

The committee agreed to set aside time to further discuss the recommendations during the public portion of a conference call on Feb. 12.

RSC Approves CAWG Recommendations

The RSC unanimously approved a pair of recommendations brought forward by its Cost Allocation Working Group:

- a proposed tariff change (*RTWG RR436*) that removes all facilities associated with an interconnection study performed by the Integrated System prior to it joining SPP in 2015. SPP had subsequently completed a study that resulted in different network upgrades.

- endorsement of a Supply Adequacy Working Group *white paper* proposing a methodology for prioritizing and allocating the available effective load-carrying capability (ELCC) from capacity-qualifying energy storage resources in SPP. The group contracted an outside consultant to analyze an ESR's capacity credit on the SPP system using ELCC and capacity value and two dispatch strategies: preserving reliability and economic arbitrage. The study also evaluated the capacity credit of batteries using two-, four-, six- and eight-hour equipment. (See "Center Stage for Electric Storage Proposals," *SPP MOPC Briefs: Oct. 13-14, 2020*.)

The committee also once again engaged accounting firm Landmark to audit the RSC's 2020 finances. ■

SPP News

SPP Board of Directors/Members Committee Briefs

Board Approves Tx Project Soon to be Re-evaluated

SPP last week approved a new 138-kV transmission line to replace an aging line in Kansas, acknowledging that the action would immediately result in a restudy request by its owner, Evergy.


Denise Buffington, Evergy | *SPP*

The Kansas City-based utility said the project would collide with regional needs and the company's use of the existing right of way to begin replacing a 35-mile section of the old line, which was built in 1922 and has no shield wire. That work has already begun and is aligned with Evergy's internal capital budget planning process, said Denise Buffington, the company's director of federal regulatory affairs.

Evergy said that instead, staff should be directed to re-evaluate the need for the new line, given the company's planned transmission system change to rebuilding part of the old line. Alternatively, Buffington said, the company would request a re-evaluation, as is its prerogative under SPP's tariff, and request the Board of Directors suspend the request for proposals while the project is restudied.

"We don't dispute there's need for an upgrade in the area," Buffington said during a meeting of SPP's Board of Directors and Members Committee on Wednesday. "SPP staff is focused on economic needs. Evergy is focused on the age of the line, its condition, planning needs and regional needs."

Members sided with Evergy and voted against approving staff's recommendation, 9-4, with two members abstaining. The board ignored the committee's advisory vote but did agree to meet as soon as possible after Evergy submits its restudy request, expected as soon as this week.

"It's certainly my expectation that if there is a request for restudy, the board at that point would issue a suspension of the RFP until the restudy is completed," board Chair Larry Altenbaumer said. "It's important under any of these scenarios to get the ball rolling."

The project was originally recommended as an economic project, at a cost of $135.7 million, within the 2020 Integrated Transmission Planning (ITP) assessment and required "wrecking out" the 99-year-old Butler-Altoona line. However, SPP removed the project from the assessment for "further refinement" after the Markets and Operations Planning Committee approved the proposed ITP portfolio in October. (See "Stakeholders Endorse $532M 10-year ITP Assessment," *SPP MOPC Briefs: Oct. 13-14, 2020*.)

SPP's refinement was limited to the project's scope, not its need or value, and how to leverage the existing right of way. Staff determined it couldn't build a new line directly between substations in Butler and Tioga and retire a portion of the aging Butler-Altoona line because it lacked regulatory authority to recommend the retirement. Instead, staff recommended an entirely new greenfield project that bypassed the original line.

"A multipronged project was new for us, and we needed time to refine the appropriate needs," said Antoine Lucas, SPP's vice president of engineering.

Buffington said staff's new recommendation is more costly, less efficient and lacks accurate Evergy cost estimates. She also said the recommendation was not evaluated through the 2020 ITP assessment and has not been vetted through the stakeholder process.

"We are financially committed and ready to work on this project," Buffington said, noting Evergy's project is zonally funded and expected to be completed next year. "All of our cost estimates contemplated rebuilding the line. It would be the best use of everyone's time and our resources to go through the [evaluation] process and determine if [Butler-Tioga] is still needed and incorporate what is already happening in that area."

"Denise makes a point predicated on the outcome that SPP staff's re-evaluation effort might find a need to rescind the [Butler-Tioga] project and make significant changes to it," LS Power's Pat Hayes said. "Staff might also find Evergy's existing reliability project might be tied into the Butler-Tioga project. We used our stakeholder process to create these rules, and I think we should follow them."

Lucas acknowledged staff's restudy would determine whether the Butler-Tioga project retains its value and agreed it could be dropped. He said he doesn't expect a full restudy of the entire ITP portfolio.

"The issue we have today is we have two alternatives to address [Butler-Tioga]," he said. "We will be evaluating whether or not there is still value in the regional project."

During the lengthy discussion, several members expressed concern about the RFP "being on the street" and the delay costing developers time and money.

"These developers are smart people. They make those kinds of risk-based decisions all the time," Altenbaumer said.

Sugg Proud of Wind Records

CEO Barbara Sugg said she was proud — "as we predicted through 2020" — that SPP became the first RTO using wind energy as its No. 1 fuel source last year. With 27.4 GW of capacity available to call on by year-end, wind served 31.3% of SPP's load in 2020, outpacing coal (30.9%), natural gas (26.6%), nuclear (6.4%) and hydroelectric (4.5%).

"What's more remarkable is our ability to maintain reliability," Sugg said during her president's report. "This couldn't have happened without our robust transmission system, our diverse fuel mix and the whole energy market."

SPP set a new wind peak record of 19.8 GW on Jan. 14. It also established a new wind-penetration mark in April when wind served 73.2% of load during one interval.

Membership Approves Directors' Compensation Changes

During a special meeting before the board's, SPP members approved the Corporate Governance Committee's recommended changes to the board's compensation structure to account for an increase in meetings and phone calls driven by the COVID-19 pandemic and the RTO's corporate initiatives.

"The number of meetings SPP has is not for the faint of heart, and they increase every year," Sugg said.

Board compensation has historically been activity-based on top of a base retainer. However, SPP said industry best practices for larger, more complex organizations are increasingly shifting to retainer-based compensation for specific board-level responsibilities.

Directors will be paid $95,000 retainers, with $40,000 and $20,000 premiums for the chair and vice chair, respectively. Board committee chairs will also earn $20,000 premiums, with members receiving $12,500. Each director

SPP News

serves on two committees.

Directors will also earn between $1,000 and $6,000 for various other meeting assignments, sometimes on a per-meeting basis. Compensation for special board assignments, such as the Holistic Integrated Tariff Team and other special projects, can reach as much as $10,000/quarter, depending on the number of meetings, complexity of issues and the director's required engagement.

Sugg said board members would average about $137,000 in compensation this year, less than the $147,000 they earned in 2020.

SPP members also voted for Enel Green Power North America's Betsy Beck for a seat on the Members Committee, more than a year after she lost a previous bid for the seat. (See *Renewable, Utility Members Tangle over SPP Seat*.) Beck will represent the independent power producer/marketer sector, the same seat she was nominated for in 2019. She replaces Holly Carias, who left NextEra Energy Resources late last year for another company.

Staff Calculating SPP's Aggregate Value

The board and members granted staff's recommendation to affirm their proposed methodology to annually calculate SPP's aggregate value to members.

In a *draft report*, staff said they used both quantitative and qualitative estimated values of SPP's various services to calculate the value provided to members through enhanced reliability; increased efficiencies and economics; consolidated functions that reduced resources; and improved environmental, public policy and local economic impacts.

"This methodology captures benefits both to SPP's members and the region of the RTO's bulk electric system produced by regional planning and operation," the report said.

It did not provide any numbers, but members' annual net benefits will be shared in average realized savings per 1,000 kWh. A 2016 transmission-value study indicated that for every $1 of transmission investment made in 2012-2014, members could expect at least a $3.50 benefit to ratepayers. (See *SPP Begins Promotional Campaign to Tout Transmission Value*.)

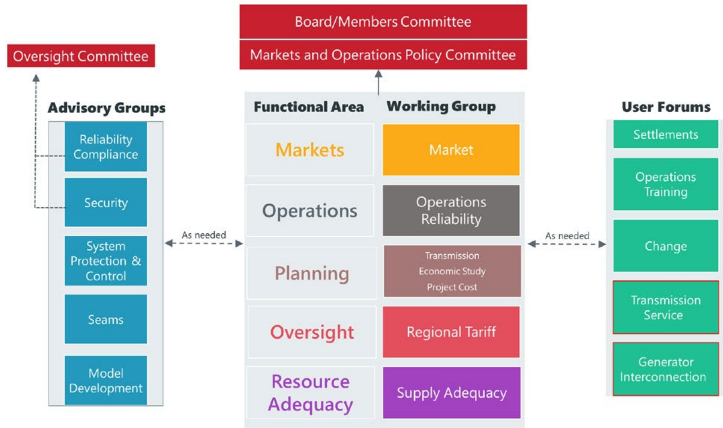
"It's become apparent to many members that any value statement has to be credible; it has to be creative; it has to be useable in many different ways," COO Lanny Nickell said.

The RTO creates value in key functions, he said: operations and reliability, markets, transmission and professional services. "We're not comparing us to other options, except for the members' option to perform what we do on a standalone basis."

A final report is to be produced for the April board meeting.

"This can be helpful to regulators when we see the numbers," Oklahoma Corporation Commissioner Dana Murphy said.

The board and members also approved the MOPC's unanimous endorsement of the 2021 SPP Transmission Expansion Plan (STEP) *report* that lists the grid operator's endorsed and approved transmission projects over a 20-year planning horizon. The $3.2 billion plan includes all ongoing network upgrades, as well as those that have been completed but whose closeout requirements have not been fulfilled.



The MOPC's new, streamlined organizational structure | *SPP*

MOPC Reorganization Approved

The board's passage of its consent agenda resulted in a formal recognition of the MOPC's revamped structure by approving the revised scopes for the committee's various working groups, advisory groups and user forums.

The approval finishes an effort that began in 2019 to reduce the 16 working groups that once reported to the MOPC. Some of those groups have been converted into advisory groups and user forums, while others were retired. The seven working groups that remain will focus on SPP's primary functional areas.

"Big changes are afoot," Sugg said.

The consent agenda also included:

- staff's recommendation to transfer the notification to construct for SPP's competitive project in Oklahoma from Transource Missouri to Transource Oklahoma. The board in October approved an industry expert panel's *recommendation* to award the 75-mile, 345-kV Sooner-Wekiwa project to Transource Missouri. (See *Transource Tapped for SPP's 2nd Competitive Tx Project*.)
- the Corporate Governance Committee's nominations of Al Tamimi (Sunflower Electric Power) and Matt Pawlowski (NextEra Energy Resources) to new seats on the Finance Committee; Scott Briggs (Oklahoma Gas & Electric) and Maria Smedley (Arkansas Electric Cooperative Corp.) to new seats on the Human Resources Committee; and Caleb Head (Northeast Texas Electric Cooperative) as chair of the Credit Practices Working Group.
- the Market Monitoring Unit's report that the Western Energy Imbalance Service market will launch without frequently constrained areas. (See "MMU: No Frequent Constraints," *Stakeholders Approve WEIS Market Launch*.)
- white papers stemming from the Holistic Integrated Tariff Team's work on *offer requirements for variable energy resources* in the day-ahead market; continued support for *dynamic line ratings' implementation and use*, as they remain voluntary at the transmission owner's discretion; and a recommendation to *raise the offer floor* from -$500/MWh to -$100/MWh for injecting resources.
- a revision request (*RR424*) that removes duplicate language currently located in the system operating limit methodology.
- the Project Cost Working Group's recommendation for a $25.6 million cost reduction to Southwest Public Service's 345/230-kV Multi-Hobbs-Yoakum project in West Texas and a $5.1 million cost increase to an 230/115-kV SPS network upgrade north of Amarillo, Texas. ■

— Tom Kleckner

SPP News

SPP Successfully Launches Western Market

By Tom Kleckner

SPP successfully launched its Western real-time balancing market at midnight Sunday, making it the first RTO with power markets in both the Western and Eastern Interconnections.

The RTO has said its Western Energy Imbalance Services (WEIS) market will lower wholesale electricity costs, increase price transparency and mitigate congestion for its participants. The market joins the reliability coordinator services SPP has been offering 12 entities in seven states since 2019; the grid operator will expand its RC function in April. (See *SPP Expands its Western RC Footprint*.)

"This will be a historic moment for SPP to launch this market ... on time, and under budget," CEO Barbara Sugg told stakeholders last week.

The WEIS market centrally dispatches energy from the region's participating resources every five minutes. It is contract-based and does not require its participants to be SPP members. However, most of its participants have since indicated they are committed to evaluating becoming RTO members. (See *Western Utilities Eye RTO Membership in SPP*.)

WEIS market participants include:

- Basin Electric Power Cooperative
- Deseret Power Electric Cooperative
- Municipal Energy Agency of Nebraska
- Tri-State Generation and Transmission Association
- Western Area Power Administration (WAPA)
- Wyoming Municipal Power Agency

WAPA's agreement includes the firm loads and resources of Pick-Sloan Missouri Basin Program–Eastern Division in the Upper Great Plains Western Area balancing authority footprint, the Loveland Area Projects and Salt Lake City Area Integrated Projects in the Western Area Colorado Missouri balancing authority footprint.

"Our electricity markets have played a big role in lowering costs, integrating renewables and enhancing reliability in the East, and we're excited to see a new part of the country begin to see similar benefits," Sugg said in a *statement*. "I'm hopeful this is just the beginning of valuable partnerships between SPP and western utilities that will help them and the customers they serve meet their financial, reliability and renewable-energy goals."

SPP has long eyed expansion into the Western Interconnection. It explored a relationship with the Mountain West Transmission Group several years ago, but the effort was scuttled by Xcel Energy's decision to join CAISO's Energy Imbalance Market.

The RTO became the Western Interconnection Unscheduled Flow Mitigation Plan's administrator in 2018 and it has been hired by the Northwest Power Pool to develop its regional resource adequacy program. (See *NWPP Program Taking Shape for Q3 Launch*.) ■

SPP celebrated its WEIS market launch Monday. | *SPP*

Company News

Xcel Excels with 'Stellar' 2020 Earnings

By Tom Kleckner

In what its CEO said was "truly a stellar year," Xcel Energy on Thursday *reported* year-end earnings of $2.79/share, a 15-cent increase from its 2019 performance.

"Last year was certainly a challenging year," Xcel CEO Ben Fowke told financial analysts during an earnings conference call. "But our employees came through delivering on our financial and operational objectives while mitigating the impacts of COVID and helping our communities."

Fowke highlighted the Minneapolis-based company's environmental, social and governance (ESG) performance, telling analysts Xcel estimated it has reduced carbon emissions by about 50% from 2005 levels. Xcel has 3.8 GW of wind capacity; it is converting a Texas coal plant to natural gas; and it has proposed closing Colorado coal plants by 2024.

"We think we can do zero carbon, not net zero, but zero carbon by 2050, with an important interim goal of 80% by 2030," he said.

Eliminating the last 20% of carbon emissions will take technologies becoming commercially viable, Fowke said, because "this transition is based on economics."

"You get a lot of bipartisan support when economics can drive the decisions," he said. "Could we go faster than our goal of 2050? It's possible. But I think that would mean that those technologies that we refer to — whether it is the next-generation nuclear; whether it is the development of hydrogen; whether it is carbon capture working economically; whether it is long-term storage — they have to come into the money much sooner than I think they will."

Fowke said completely moving away from fossil fuels will require "an incredible emergence and acceleration of technologies," reminding listeners that "2035 is like tomorrow in utility land as far as technologies go."

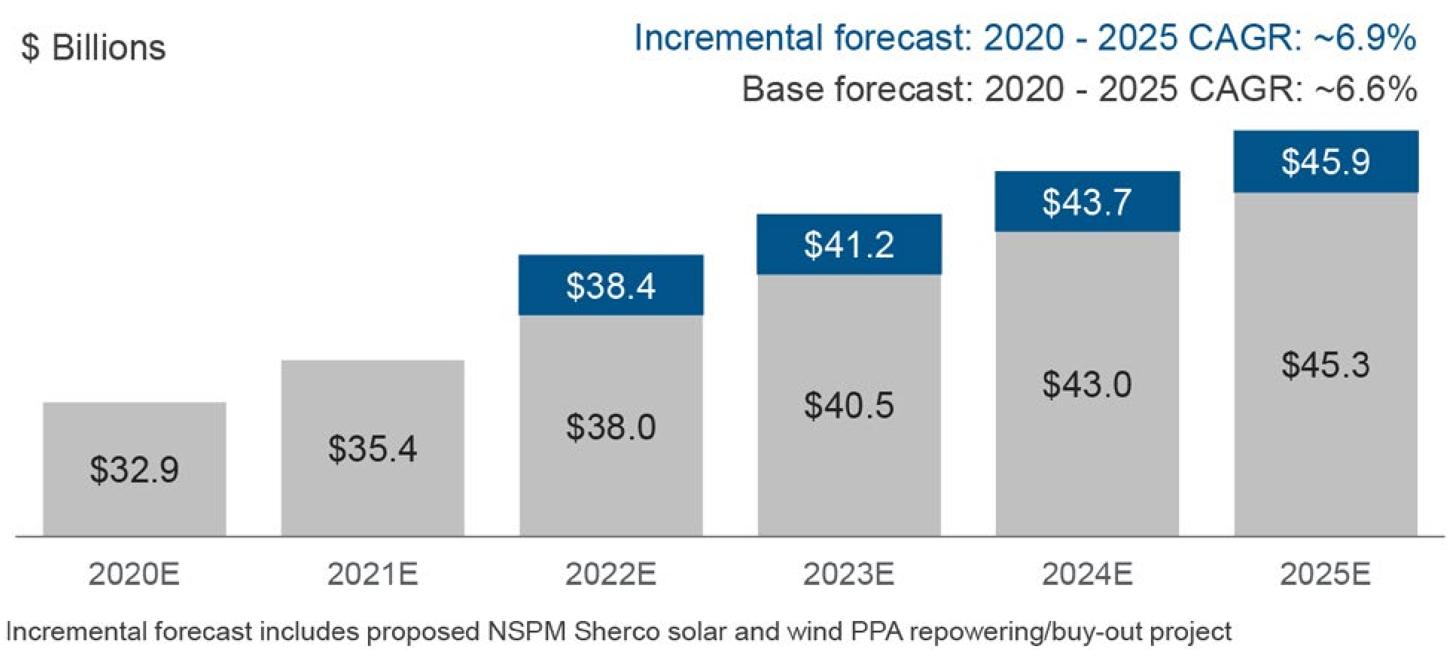
"I have always said we will move as fast as the speed of technology, and that is what we will do," he said. "We support 100% carbon free. We are aligned with that. I think under the Biden administration, you will see an acceleration of [electric vehicles] and an acceleration of transmission build. I think you will see an acceleration of R&D and the technologies that we need to achieve those goals, whether it is 2035, 2040 or 2050.

"Nobody would have thought that we would be where we are today as an industry, and certainly not at Xcel Energy, just five years ago, so I'm excited about what the future possibilities hold," Fowke said.

Xcel CEO Ben Fowke | © *RTO Insider*

Xcel's quarterly earnings came in at $288 million ($0.54/share), in line with Zacks Investment Research's consensus estimate. Xcel reported earnings of $292 million ($0.56/share) for 2019's fourth quarter.

Wall Street reacted to the earnings announcement by driving Xcel's share price to $65.15 in mid-afternoon trading, following Wednesday's close of $63.82. Xcel was trading at $63.64 in after hours. ■



| *Xcel Energy*

Company News

NextEra Takes $1.2B Write-down in 4th Quarter

Impairment Caused by Company's Stake in Mountain Valley Pipeline

By Tom Kleckner

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

NextEra Energy last week said it has taken a $1.2 billion write-down for its 31% ownership stake in the Mountain Valley natural gas pipeline, which has been plagued with cost overruns and delays from legal opposition and regulatory roadblocks.

The 300-mile pipeline, stretching from West Virginia to Virginia, was originally projected to cost about $3.5 billion and be completed by the end of 2018. Project costs are now approaching $6 billion and the completion date has been pushed back to 2022.

"Obviously, the project has taken longer and cost more than what we anticipated," NextEra CFO Rebecca Kujawa told financial analysts during the company's fourth-quarter earnings call.

Mountain Valley's lead developer, Equitrans Midstream, *said* it will seek individual stream-crossing permits from the U.S. Army Corps of Engineers after a federal appeals court in November issued a stay on comprehensive water permits in a case brought by environmental groups.

Kujawa said the court order, the change in presidential administrations and Democratic control of the Senate all played a role in NextEra's action.

"The impairment does reflect our view of what we still need to accomplish and the associated fair values related to the chances of being able to successfully execute on that," she said.

The impairment resulted in a fourth-quarter loss of $5 million for NextEra, almost $1 billion less than $975 million profit ($0.50/share) a year earlier.


NextEra Energy's investment in the troubled Mountain Valley natural gas pipeline has resulted in a $1.2 billion write-down. | *Shutterstock*

The Juno Beach, Fla., company *reported* 2020 year-end earnings of $4.6 billion ($2.31/share), an improvement from the year before when earnings were $4.1 billion ($2.09/share) and representing year-over-year growth in adjusted earnings per share of about 10.5%.

"NextEra Energy's performance in 2020 was strong both financially and operationally, and we successfully executed on our initiatives," CEO Jim Robo said in a statement. "We remain as enthusiastic as ever about NextEra Energy's long-term growth prospects. … I will be disappointed if we are not able to deliver financial results at or near the top end of our adjusted [EPS] expectations ranges in 2021, 2022 and 2023, while at the same time maintaining our strong credit ratings."

Robo highlighted NextEra's continued development of renewable energy, saying the company "is already proof that you can be clean, low-cost and financially successful all at the same time."

By 2024, NextEra expects to build as much as 30 GW of renewables, which represents about 15% of the nation's wind and solar power late last year.

Robo also said an offer "remains on the table" for South Carolina state-owned utility Santee Cooper. He said NextEra is "ready to negotiate whenever the state is ready to get going," and, apparently, *interest in the Palmetto State has never been stronger* to offload the utility.

NextEra shares sank to $85.02 in after-hours trading, a drop of $2.02 from the previous close. ■

Company Briefs

BP Building Solar Projects near Dallas

Lightsource BP, a global solar company in which BP has a 50% stake, said last week it is building two solar projects in North Texas.

The company said it secured $380 million in financing to build the 163-MW Elm Branch and 153-MW Briar Creek solar projects, located about 40 miles south of Dallas. Both are currently under construction and are expected to be operational later this year.

Earlier this month, Lightsource began operating its $250 million, 260-MW Impact Solar project northwest of Dallas.

More: *Houston Chronicle*

Corporate Clean Energy Buying Increased in 2020

Global corporations bought a record 23.7 GW of clean energy in 2020, which was good for a 22% increase from 2019's 19.5 GW, BloombergNEF said last week.

The U.S. (11.9 GW) executed most of the deals, although that number was down from 14.1 GW in 2019. The decrease marked the first year-over-year drop since 2016. However, projected demand for renewable power by the corporate sector in the country is expected to account for 44 GW to 72 GW of new wind and solar capacity from 2021 to 2030.

The leading corporate buyer of clean energy was Amazon (5.1 GW).

More: *Houston Chronicle*

Enel Breaks Renewables Installation Record in 2020

Renewables developer Enel Green Power last week said it built 3.1 GW of new renewable capacity around the world in 2020, breaking its own record of 3.03 GW in 2019.

The capacity was spread among 46 plants, with wind farms making up 2.28 GW and solar totaling 803 MW. North America saw most of the work (1.39 GW).

More: *Renewables Now*

Former PG&E Employee Gets Prison Sentence for Kickback Scheme

Former Pacific Gas and Electric employee Ronald Schoenfeld was sentenced to 22 months in prison for his admitted role in a scheme that steered tens of millions of dollars in business to his cousin's company.

U.S. Attorney McGregor Scott said Schoenfeld conspired to secure PG&E contracts for his cousin's Stockton transportation company in exchange for about 2.5% of the contracts' value. PG&E paid at least $82.1 million to the business between March 2007 and February 2015 while Schoenfeld received more than $1.4 million.

Schoenfeld was also ordered to pay PG&E restitution equivalent to the amount he received in kickbacks.

More: *San Francisco Chronicle*

GM Seeks to be Carbon Neutral by 2040

General Motors last week pledged to eliminate tailpipe emissions from new light-duty vehicles by 2035 and to make its global products and operations carbon neutral by 2040.

Where it is not possible to remove emissions in the next 20 years, the automaker said it will compensate by using carbon credits or a permit that allows it to emit a certain amount of emissions.

In addition to its commitment of zero emissions by 2035, the company said it would use 100% renewable energy to power its American and global facilities by 2030 and 2035, respectively (five years ahead of its previous goal).

More: *The Detroit News*

SoCal Edison Reaches $2.2B Settlement for Woolsey Fire

Southern California Edison last week agreed to pay $2.2 billion to settle insurance claims for the Woolsey Fire in Malibu, Calif., in 2018.

SCE also reached settlements involving the 2017 Thomas and Koenigstein fires and the 2018 Montecito mudslides. The utility, which did not admit wrongdoing or liability, reached a $360 million settlement last year with local government agencies harmed by the fires.

The company estimates that total expected losses for the 2017 and 2018 events are $4.6 billion.

More: *Bloomberg Green*

Tesla Hits Storage Deployment Record in 2020

Tesla last week announced it had a 200% year-on-year jump in storage capacity deployment for the fourth quarter of 2020, surpassing 1.58 GWh. It was the first year the company reached more than 3 GWh.

Solar installations were also up by 18% to 205 MW, while the year-on-year growth in the fourth quarter was 59% to 86 MW.

More: *Renewables Now*

Federal Briefs

Interior Revokes Oil Drilling Permits for Additional Review

The Interior Department last week revoked about 70 invalid drilling permits issued by agency workers without the approval of political appointees, despite a temporary order for such reviews.

The permits were invalid under the department's Jan. 20 secretarial order requiring agency heads to authorize drilling permits, easements, hiring and other decisions.

Companies were assured they would not face penalties for drilling or other activities they started under the invalidated permits, though they are being ordered to cease operations while seeking new approvals.

More: *Bloomberg Green*

House Energy Committees Question Building Energy Code Changes

The International Code Council, the organization responsible for developing building energy codes, is facing pressure to reconsider proposed changes that would limit the role of state and local governments in approving future updates.

The changes would strip voting rights from public sector members and leave final say over future codes to a committee made up of building code officials, industry groups and other stakeholders. The overhaul was set in motion last fall after industry groups representing homebuilders and developers raised concerns over the recently completed code development cycle, which saw record online voting turnout by state and local government officials, resulting in the code's biggest efficiency gains in at least a decade.

More than 200 stakeholders submitted comments ahead of the council's board meeting, with about 75% of them opposing the plan to overhaul the process for approving its triennial updates. The council also received a letter from the House Energy and Commerce Committee requesting answers to questions related to the proposed changes and the influence of industry groups.

More: *Energy News Network*

Trump's Environmental Legacy Suffers Major Court Losses

A D.C. Circuit Court of Appeals panel last week rejected rules that loosened EPA's implementation of ozone standards under the Clean Air Act, saying the Trump-era policy was unlawful, "contravene[s] the statute's unambiguous language" and "rests on an unreasonable interpretation of the statute."

The rules allowed polluters and officials flexibility in meeting ozone regulations. One key change gave polluters leeway in the production of compounds that serve as precursors to ozone and allowed polluters to swap the emission of a given precursor with another. Two other rules allowed states flexibility in meeting ozone requirements, and a fourth gave areas that failed to meet mitigation thresholds cover from consequences if they showed that they had had a plan to meet those targets.

In another move, a federal judge blocked a rule passed in the final days of the administration that would have limited the use of "secret science," a term used to refer to data kept confidential because of patient privacy concerns, in the regulation of pollutants by EPA.

More: *Vox*

State Briefs

ARIZONA

Bill Would Negate ACC's Clean Energy Rules

Republican lawmakers are trying to block the state's clean energy rules by prohibiting the Corporation Commission from forcing companies to shift to 100% carbon-free energy.

If the proposals pass the Legislature and are signed into law, they would not only block the requirement that the ACC recently passed for companies to produce 100% carbon-free energy by 2050, but also a host of other requirements such as how they plan for and build new power plants. The bills would leave the authority to the Legislature.

The measures, one of which passed the House Natural Resources, Energy and Water Committee last week, would prohibit any new rules passed since June 2020 from taking effect. Lawmakers spent considerable time debating whether the bills are even legal under the state Constitution.

More: *The Arizona Republic*

CALIFORNIA

Lawmaker Wants Big Businesses to Disclose Greenhouse Emissions

Sen. Scott Wiener (D) last week unveiled an emissions disclosure bill aimed at companies that do business in the state and have more than $1 billion in annual revenue. It would require those companies to reveal the emissions associated with their businesses annually and set "science-based targets" for curbing their carbon footprints.

The Air Resources Board would have one year to develop a reporting structure, and then companies would have another year to comply. The emission-reduction targets would not be required until 2025. The disclosures would apply to emissions from direct sources, including fossil fuel combustion, as well as indirect areas such as electricity use and supply chains.

More: *San Francisco Chronicle*

COLORADO

Denver Aims to Limit Natural Gas in New Homes, Buildings

Denver's Office of Climate Action, Sustainability and Resiliency released a plan last week that calls for newly built homes and buildings to be mostly electrified with renewable power sources either on- or off-site by 2027. The potential rule changes are meant to help Denver get to net-zero emissions in new homes and buildings by 2030.

Reaching the goal will require limiting natural gas as an option for new structures and likely means severely reduced natural gas infrastructure for new homes and commercial buildings.

More: *Denverite*

MAINE

Mills Proposes Moratorium on Offshore Wind Projects

Gov. **Janet Mills** last week announced she will ask the Legislature to approve a 10-year moratorium on new offshore wind projects in waters managed by the state, which extend 3 miles from shore. With the moratorium, Mills aims to advance the New England Aqua Ventus floating wind research project while protecting near-shore waters for lobstering and coastal tourism.

The ban would not include the already permitted Aqua Ventus demonstration site off Monhegan island. The venture, which would feature a single turbine atop a floating platform, is being developed by Diamond Offshore Wind and RWE Renewables. No other wind applications are pending in state waters.

A statement from a fisheries industry group said its members are committed to clean, renewable energy and protecting the environment but do not share Mills' vision of achieving these goals "through rushed offshore wind development in the Gulf of Maine."

More: *Portland Press Herald*

Pipestone County Approves Solar Garden

Pipestone County Commissioners last week approved a conditional-use permit for the 1-MW Green Arrow DG Solar Energy Center.

The planning commission had recommended the commission approve the permit for the project, which will be planned and developed by DG Minnesota CS II. It will be a part of Xcel Energy's community solar garden program.

Construction is likely to begin in six to 12 months and is dependent upon interconnection details with Xcel.

More: *Pipestone County Star*

NEW MEXICO

House Bill Calls for Requirements for Emission Reductions

Lawmakers last week introduced the Climate Solutions Act, which is designed to put actions in place to reduce greenhouse gas emissions by 2050. The bill would also establish emission-reduction requirements and mandate agencies adopt rules to meet those standards.

The bill would create an advisory climate council made up of cabinet secretaries and community and tribal leaders that would explore ways to develop a workforce on climate change solutions, oversee funding for new clean energy grants and develop standards for climate change preparation. The group would submit a progress report each September.

The bill also calls for a 60% reduction from 2005 levels in methane, carbon dioxide and organic compound emissions from the oil and gas industry by 2030.

More: *Santa Fe New Mexican*

NEW YORK

NYC to Ban New Gas Hookups by 2030

New York City Mayor **Bill de Blasio** last week said the city must "renounce fossil fuels fully," including banning fossil fuel connections in new construction by 2030, decarbonizing pension fund investments and transitioning away from internal combustion engines.

The pledge follows a commitment by the city's largest pension funds, which hold an estimated $4 billion in securities, to pull their money out of fossil fuel investments within five years. The city will also establish intermediate goals for a fossil fuel ban between now and 2030 and ensure the ban does not negatively impact renters and low-income residents.

More: *Natural Gas Intelligence*

NORTH CAROLINA

Duke Energy, UC Announce Coal Ash Expense Deal

Duke Energy, the Utilities Commission and the Sierra Club last week announced a settlement on how Duke will pay to get rid of coal ash stored in the state. The settlement would shift about $1.1 billion in expenses away from customers and to the utility and its shareholders over the next decade.

Under the settlement, which must be approved by the commission, the amounts covered by customers would be reduced from roughly $4 billion through 2030 to $3 billion.

The agreement comes a month after the state Supreme Court ruled that the commission should revisit an order that would have placed nearly all the expenses on Duke's 3.4 million state customers. The company is working on closing all 31 of its pits or ponds in part by excavating over 120 million tons of coal ash.

More: *The Associated Press*

TEXAS

Denton Adopts Ordinance Approving Sale of Gibbons Creek Coal Plant

Upon the recommended approval from the Public Utilities Board, the Denton City Council last week adopted an ordinance approving the sale of the Gibbons Creek Steam Electric Station.

The PUB recommended approval of the ordinance of the asset purchase agreement between the Texas Municipal Power Agency and the Gibbons Creek Environmental Redevelopment Group. According to a staff report, several options are being considered for redeveloping the 6,200-acre site that includes a mothballed coal-fired plant partly owned by the city. The board's decision came three weeks after a meeting in which some council members insisted on knowing how the redevelopment group planned to use the property after the plant is decommissioned.

More: *Denton Record-Chronicle*

Abbott Vows to Fight Curbs on Oil, Gas Activity

Gov. **Greg Abbott** last week pledged to fight President Biden's executive orders that the governor claims would undercut the state's energy production and authorized agencies to bring legal challenges against the policies.

Abbott, who sued the federal government 31 times as attorney general, said agencies should identify opportunities to sue the government should they find overreach. Cities would also be prohibited from banning natural gas appliances under a bill he plans to file.

More: *Reuters*

VIRGINIA

Appalachian Power Seeks Approval for Tx Project

Appalachian Power will file an application later this month with the State Corporation Commission to seek approval for its Central Virginia Transmission Reliability Project, which would upgrade its transmission network throughout five counties.

The project would involve replacing 46-kV equipment from the 1920s and 69-kV equipment from the 1940s with a more modern system. It would also provide a new 138-kV source for the region.

More: *Times Virginian*

Pulaski County Approves Solar Project

The Pulaski County Board of Supervisors last week voted 3-1 to approve a special-use permit for Hecate Energy and AgriSun-Power to build the largest solar farm in the southwest part of the state.

The $400 million project will sit on 2,700 acres of private farmland near the New River Valley Airport. The planning commission had voted 4-2 earlier this month to recommend that supervisors approve the permit.

More: *The Roanoke Times*

Senate Panel Rejects Recalculating Overearnings Credits

The Senate Energy Subcommittee last week voted 4-0 with one abstention to turn down Senate Bill 1292, which would have required Dominion Energy and Appalachian Power to credit customers if the companies earned more than 0.7% above their allowed profit margin. Under current law, the utilities only have to return 70% of excess earnings and are allowed to keep the remainder.

Sen. **David Marsden** (D) balked at changing the formula for returning excess earnings to customers, saying, "This is just a very challenging period of time, and I would like to take this up, I think, next year during the rate review to make these necessary adjustments and just see where the world is at that time." Marsden said then he would be willing to look at a new 80/20% or 85/15% split in allocating overearnings.

The legislation is not considered dead, as rules subcommittees cannot take final votes and only provide recommendations to committees.

More: *Virginia Mercury*

WEST VIRGINIA

PSC Names Roberts as PJM Adviser

The Public Service Commission last week announced that it had appointed Consumer Advocate Jackie Roberts to a new role as PJM adviser.

Roberts, who has served as the PSC's consumer advocate since 2013, will report directly to the commission and keep it up to date on market rules, energy policies and political developments involving PJM.

The PSC created the position "to respond to developments in the federal wholesale energy markets that impact state utilities, energy producers and customers."

More: *Public Service Commission of West Virginia*

WYOMING

Bill to Overhaul Net Metering Approved by Senate

Senate File 16, a bill aimed at overhauling the state's net metering system, received approval from the Senate during its third reading last week by a 16-13 vote. The bill would require the Public Service Commission to conduct public hearings and establish a new net metering system that ensures utility rates stay fair for all residents.

The new system would also need to eliminate any subsidies for net metering customers, according to a last-minute amendment by Sen. Charles Scott (R). The bill would also grandfather customers who install wind or solar systems before July 1, 2022.

The House Corporations Committee will take up the bill this week.

More: *Casper Star-Tribune*

Land Commissioners OK Wind Lease for Turbines near Laramie

The Board of Land Commissioners last week voted 4-1 to lease 4,804 acres south of Laramie for the 504-MW Rail Tie Wind Project that will consist of 151 turbines as high as 675 feet.

The 40-year deal with ConnectGen would be part of a larger 26,000-acre development, 80% of which would be on private land.

The board heard conflicting information from supporters and critics regarding their duty as managers of school trust land. Mitchell Edwards, an attorney who said he represented more than 60 landowners fighting the project, claimed the board did not have a duty to lease the land. However, State Superintendent Jillian Balow said it is her duty to lease the land for the student beneficiaries and the project represents "the greatest benefit for this land at this time."

More: *WyoFile*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