RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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

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ERCOT: Market Now Short $3.02B

PUC Orders Release of Generator Outages During Winter Storm

By Tom Kleckner

The ERCOT market faces a more than $3 billion shortfall after widespread generator outages stemming from a February winter storm drove short-term electricity prices to the $9,000/MWh cap, staff told their Board of Directors on Friday during a teleconference.

Kenan Ögelman, the grid operator's vice president of commercial operations, told the board that invoices were settling at $3.09 billion as of March 11. That figure was reduced to $3.02 billion after staff received additional payments and cashed in some market participants' collateral, he said.

Brazos Electric Power Cooperative, which declared bankruptcy on March 1, accounts for more than half of the shortfall, owing $1.86 billion. Rayburn Country Electric Cooperative, another troubled publicly owned utility, is short $570.4 million. (See *Is the ERCOT 'Casino' Going Bust?*)

During testimony before the Texas Senate the day before, Independent Market Monitor Carrie Bivens warned that the market's shortfall could have "significant" consequences.

Continued on page 24

GAO Urges FERC, DOE to Act on Climate Change

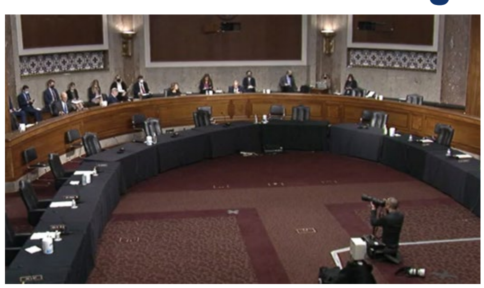
By Rich Heidorn Jr.

The Government Accountability Office on Wednesday urged FERC and the Department of Energy to develop strategies for responding to increasing stresses on the electric grid from climate change.

GAO's *report* cites threats to transmission and distribution lines from increased wildfire activity and predictions of more frequent droughts and changing rainfall patterns that could hurt hydropower generation in Alaska and the West.

"Extreme weather events have been the principal contributors to an increase in the frequency and duration of power outages in the United States," GAO said, citing last year's California heat wave and the February deep freeze in Texas.

GAO recommended that DOE, the lead agency for federal grid resilience efforts, develop a department-wide strategy. It said FERC, which regulates electric transmission and approves



The Senate Committee on Environment and Public Works held a hearing Wednesday on "addressing climate change in the electricity sector and fostering economic growth." | *Senate Committee on Environment and Public Works*

Continued on page 9

Opposition Emerges to Southeast Energy Exchange Market

Broader Membership, Transparency Sought

By Rich Heidorn Jr.

Stakeholders told FERC Monday that the proposed Southeast Energy Exchange Market (SEEM) doesn't go far enough to increase competition, asking the commission to require more transparency, broader governance and increased consumer protections.

Several stakeholders also requested FERC and states conduct a technical conference on the proposal, filed last month by utilities and cooperatives in 11 Southeastern states (ER21-1111, *et al.*).

SEEM members said their plan would reduce the "friction" in bilateral trading by using an algorithm to match buyers and sellers, eliminating transmission rate pancaking and allowing 15-minute energy transactions. (See *Southeast Seeks FERC OK for Expanded Bilateral Market*.)

Led by the Tennessee Valley Authority,

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In this week's issue

NetZero Insider

Your Eyes and Ears on Climate Policy and Adaptation

Building & Transportation Electrification ■ Federal & State Policy

NetZero Insider is live!

The only publication covering climate policy from inside the room in D.C. and the state capitals.

The Biden administration and half of the states in the U.S. have pledged to reduce their carbon emissions to net zero by the middle of this century, an ambitious goal that scientists say is needed to address climate change.

Meeting states' goals will require decarbonization and electrification on an unprecedented scale, trillions in spending and major changes to nearly every sector of the state economies, particularly transportation and buildings.

Despite the high stakes, news coverage of these initiatives, particularly at the state level, is spotty. *NetZero Insider* will fill the void for businesses, attorneys, environmental organizations and other stakeholders. Our reporters in D.C. and the state capitals will provide exclusive coverage of policymaking to adapt to climate change and reduce greenhouse gas emissions.

We go into the rooms to answer the questions: What approaches are working? Which are not? What's next?

The NetZero *website* is now live. Here are our most recent stories:

Report: Decarbonizing Steel Production is Global Job

Report: Storage Program a Boon for Affordable Housing

Mass. Utilities Plan May RFP for 1.6 GW of Offshore Wind

Vote on Mass. Climate Bill Delayed in Senate

Mass. Competition Fast-tracks Net-zero Building Innovation

Mass. Climate Bill Rewrites Roles of Key Agencies

Divided Legislature Clouds Minn. 'Healthy Farming' Bill

Advocates Fear Cut in Minn. Solar Rate Could Slow Growth

NC Looks at Holistic Approach to Planning

Report: Offshore Wind Poised to Boom in North Carolina

Nev. Lawmakers Debate '30-by-30' Resolution

NH Bill Envisions 600-800 MW in OSW Bids

NJ Regulators Give Microgrid Projects a Thumbs Up

NJ Targets Ports for EV Incentives

Natural Gas Use Expected to Rise in NY

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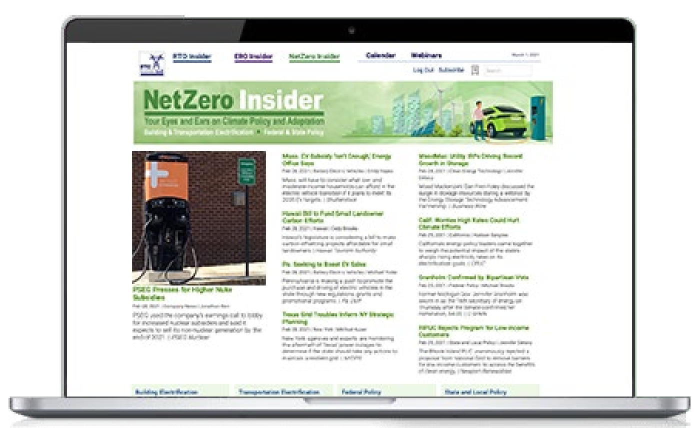
Wash. Bill Would Chart Course for EV Buildout

Electric Heating Bill Passes Wash. House

Amazon Backs Washington's Low-carbon Fuel Bill



ACORE Policy Forum

ACORE Panelists Discuss Regulatory Role in Biden Agenda

Bay Says PJM MOPR 'Cannot Stand'

By K Kaufmann

One of the first priorities for new EPA chief Michael Regan will be rebuilding staff and morale at the agency, which was essentially gutted by four years of the Trump administration, said Christy Goldfuss, senior vice president at the Center for American Progress. Talking with people at the agency, she said, "it was pretty devastating to hear the loss of talent, the very clear brain drain."

Goldfuss, who was managing director of the Council on Environmental Quality in the Obama White House, was speaking to the ACORE Policy Forum on Thursday about the opportunities for regulatory agencies — specifically, EPA and FERC — to take an active role in advancing President Biden's clean energy policies. As a first step, she anticipates a "back to basics" approach at EPA.

"If you look at the last administration, there were 125 different regulatory environmental actions that were rolled back or thrown out. Enforcement efforts were down by 45% or so," she said. "So, there is a real opportunity to come back and look at [reinstating] some of the very specific rules around sulfur dioxide, nitrous oxide, particulate matter, regional haze and the effluent guidelines for water quality."

The role of regulation and regulatory authority have "not been getting as much airtime" in discussions of climate policy, said Todd Glass, who leads the energy and infrastructure practice at Wilson Sonsini Goodrich & Rosati. Kicking off a wide-ranging discussion with Goldfuss and former FERC Chair Norman Bay, Glass said regulation provides a tool that can be used "right now. We don't have to wait for legislation to make this go."

Former FERC Chair Norman Bay | © *RTO Insider*

Bay and Goldfuss see multiple possibilities for EPA and FERC to experiment and push boundaries.

Bay, who is now head of the energy regulatory group at Willkie Farr & Gallagher, was optimistic about FERC taking a more progressive turn under Chair Richard Glick, reeling off a list of technical conferences on electricity market design, electrification and extreme weather events already scheduled for the coming months.

"One thing that I think cannot stand is the minimum offer price" (MOPR), Bay said, referring to FERC's controversial 2019 ruling requiring PJM to set minimum prices for state-subsidized renewable energy resources bidding into its market. "You can't have FERC policy in constant tension with state policies. These are policies that we should actually be supporting and not trying to impede."

On Transmission and Infrastructure

Interconnection policy is another issue that needs a regulatory fix, Bay said. Grid operators' queues currently "have many gigawatts of interconnection requests, and renewables developers can be stuck with these huge network upgrade costs," he said. "To me, that is symptomatic of a failure of transmission policy, because if you had the transmission in place to take into account public policy needs, those costs would not be borne by the developer to begin with."

Passed a decade ago, FERC Order 1000 was supposed to accelerate transmission planning and deployment, but, Bay said, "I think almost everyone would say that it has turned out to be a disappointment, particularly with respect to interregional planning and cost allocation. FERC promoted it but did not require it.

"Stakeholders actually seem to be in two camps: those who think that FERC should start over again, and those who think that FERC should fix Order 1000," he said. Another option would be for the Department of Energy to transfer its ability to designate national transmission corridors to FERC, he said.

Bay also pointed to *Section 1222 of the Energy Policy Act of 2005*, which he said could "allow us

Christy Goldfuss, senior vice president at the Center for American Progress | *The White House*

to enter into these public-private partnerships with developers, where the transmission can be built if certain needs tests are met and where the transmission line goes through states served by [Southwest Power Administration] or [Western Area Power Administration], which actually covers a big chunk of the United States."

With anticipation building around exactly what will be included in Biden's infrastructure package, Goldfuss sees challenges ahead. "Even if we get all the money through Congress and everything is going well, we have not built big things in this country in a very long time," she said. "The National Environmental Policy Act can be an impediment; it can be a facilitator. I'm hopeful we'll see new, strong leadership that will drive a governing approach to our permitting process, that delivers on these large infrastructure projects."

On Environmental Justice

At FERC, "Chairman Glick has already announced that he's creating a special position on environmental justice," Bay said. "That will be cross-cutting, working with all the program offices, to make sure that environmental justice considerations are fully considered in the commission's decision-making process. I think the commission is going to give a lot of weight to those particular issues, because at the end of the day, for FERC to certificate gas projects, for example, it has to find that the project is in the public interest."

FERC/Federal News

Goldfuss said environmental justice proposals put out at the end of the Obama administration were rolled back by Trump. Moving forward now, she said, “we have to develop an approach the entire federal government can embrace, so that industry has some sort of continuity of expectations across agencies. I think that can be done working with industry to figure out what’s possible and what tools are available to do it quickly. Speed is going to matter here.”

As will enforcement, Goldfuss said. “There’s an opportunity here to staff up and make sure that we’re driving the regulations that are on the books now. This delivers on the promises that have been made to communities, where we say we're reducing the pollution that you’re concerned about [and] the cumulative impacts in your communities by enforcing the laws that are on the books.”

‘Rifle Shot’ Reforms

Glass closed the session by asking Goldfuss and Bay for quick “rifle shot” reforms: small changes to existing or future law that could have a big regulatory impact.

Goldfuss wants “some words reaffirming the EPA has authority to regulate greenhouse gases. I think language like that, which just makes it clear, could have a huge impact and go a long way in providing the cover for a really ambitious regulatory agenda around climate.”

Bay proposed a law “to require all transmission owners to join an RTO or ISO. It would be very politically controversial,” he said. “But, certainly, it would promote competition, which would go a long way toward mitigating concerns about the accumulation of power in the electric industry.”

A national transmission authority that frames transmission expansion as integral to the nation’s economy — an interstate highway moving electrons — was another of Bay’s big-impact ideas. “We should all have a sense of urgency here, because as we all know, building out a big transmission line, a high-voltage line, is easily an eight- to 10-year process. And so, we really need to have this sense of urgency.” ■

ACORE Policy Forum

Wyden Talks ‘Bold’ Policy to Spur Green Economy

By Rebecca Santana

Sen. Ron Wyden (D-Ore.) discussed his proposals for moving the U.S. toward a net-zero economy at ACORE's Virtual Policy Forum. | © *RTO Insider*

Last year, Sen. Ron Wyden (D-Ore.) kicked off the American Council on Renewable Energy Policy Forum hoping to inspire bipartisan collaboration on clean energy initiatives. (See *ACORE Forum Discusses Coalition Building, Winning GOP Support*.)

This year, with new leadership in D.C., he looks forward to taking actionable steps toward U.S. emissions reduction goals.

“One of the issues that looks totally different today than a year ago is the prospect of passing bold clean energy legislation that finally addresses what we know to be the existential threat of climate change,” he said during his keynote remarks at this year’s forum on Wednesday.

Wyden is hopeful that there are bipartisan solutions to address the climate crisis, and he plans this spring to reintroduce his *Clean Energy for America Act*, a bill that died in the last legislative session. The bill addresses what Wyden referred to as “our country’s broken energy tax code.” The current code includes 44 tax breaks and “too many” subsidies for oil and gas producers, he said. Wyden’s proposal would replace them entirely with three new “tech-neutral provisions” for clean energy, clean transportation and energy efficiency.

“My proposal, which puts all zero-emission technologies on a level playing field and then lets the free market go to work, also does the best job of achieving the present goal of a zero-emission power sector by 2035,” Wyden said.

He criticized the current tax code, saying it’s “rigged to cut big, automatic checks to fossil fuel companies.” He called these the policies of “yesteryear” and said his proposal was created to give equal opportunity to all zero-emission technologies to promote adoption.

“The opportunities like the ones we have in this Congress don’t come along very often,” he said. “And my view is that lawmakers have the chance to reset our energy tax system in a way that firmly focuses on the key goal: reducing and eventually eliminating carbon emissions.”

Wyden is optimistic that his bill will draw bipartisan support and described it as a “win all around.”

Senate “members know that clean energy, clean transportation and energy efficiency are big magnets for good-paying jobs. And it would be self-sabotage for the United States to forgo [the] opportunity to create red-white-and-blue jobs and continue propping up dirty policies and dirty industries from the last century.” ■

ACORE Policy Forum

Manchin: Environmental Push in Congress Potentially 'Divisive'

By Jason York

U.S. Sen. Joe Manchin (D-W. Va.) and Greg Wetstone, ACORE | *ACORE*

With Democrats holding slim majorities in both chambers of Congress, Sen. Joe Manchin (D-W.Va.) has outsize influence on energy and environmental legislation.

"I'm an all-in energy person," Manchin said Wednesday during his keynote speech for the American Council on Renewable Energy's Policy Forum.

For Manchin, "all-in" means support for cultivating U.S. energy independence through the use of domestic fossil fuel supplies in addition to the strategic use of tax credits and development and deployment of technology to spur the transition to clean energy.

As a lawmaker from a coal state, Manchin is bullish on using carbon-capture technology as a tool to reach the country's 2035 and 2050 decarbonization goals.

"Carbon capture sequestration is the one of the most important things that you can do because the rest of the world still has an appetite for fossil [fuel]," Manchin said. He added that China and India are still building coal-fired power plants and questioned whether they are using any technology to reduce emissions — a claim *contradicted* by a 2017 *report* from the Center for American Progress.

Even in the U.S., Manchin said, carbon capture technology has one big hurdle: the expense.

"We have not been able to do commercialization on carbon capture sequestration without being cost prohibitive," Manchin said. "We have a lot to do there."

The senator added that he wants to ensure the power grid works for "everyone" and that no one is left behind as fossil fuels and renewables jockey for economic position.

"You can't leave any of these communities from traditional fuel sources behind," Manchin said. "You can't just say we're moving to something without basically giving them an opportunity to participate in this transitioning economy."

Manchin said communities built around the fossil fuel industry — such as West Virginia, Wyoming, Pennsylvania, Ohio and Kentucky — have done a lot of "heavy lifting" for the economy.

"Now they feel like they're not good enough, clean enough, green enough or smart enough, and that's just so wrong," Manchin said.

He said there is a "political divide" on clean energy. If U.S. lawmakers "can't get our act together … this environmental push that's going on … it'll be as divisive as health care was in 2009."

Tax credits can be a divisive issue as well, Manchin said. Despite supporting an energy bill passed in December to extend investment tax credits for renewable energy sources such as solar and wind, the senator is "not a big tax credit guy." He said the solar and wind industries have "matured" and that he needs to be sold on continuing those incentives "to the point of maybe beyond what's needed."

During a panel discussion that followed Manchin's keynote, Bobby Andres, senior policy adviser to Democrats on the Senate Finance Committee, said the practice of voting on "stop-and-start extenders" on investment tax credits is an exercise that "nobody likes."

"It's a pain; it's bad policy; it doesn't end up working very well; and it blinds the effects of whatever incentive you're trying to provide," Andres said.

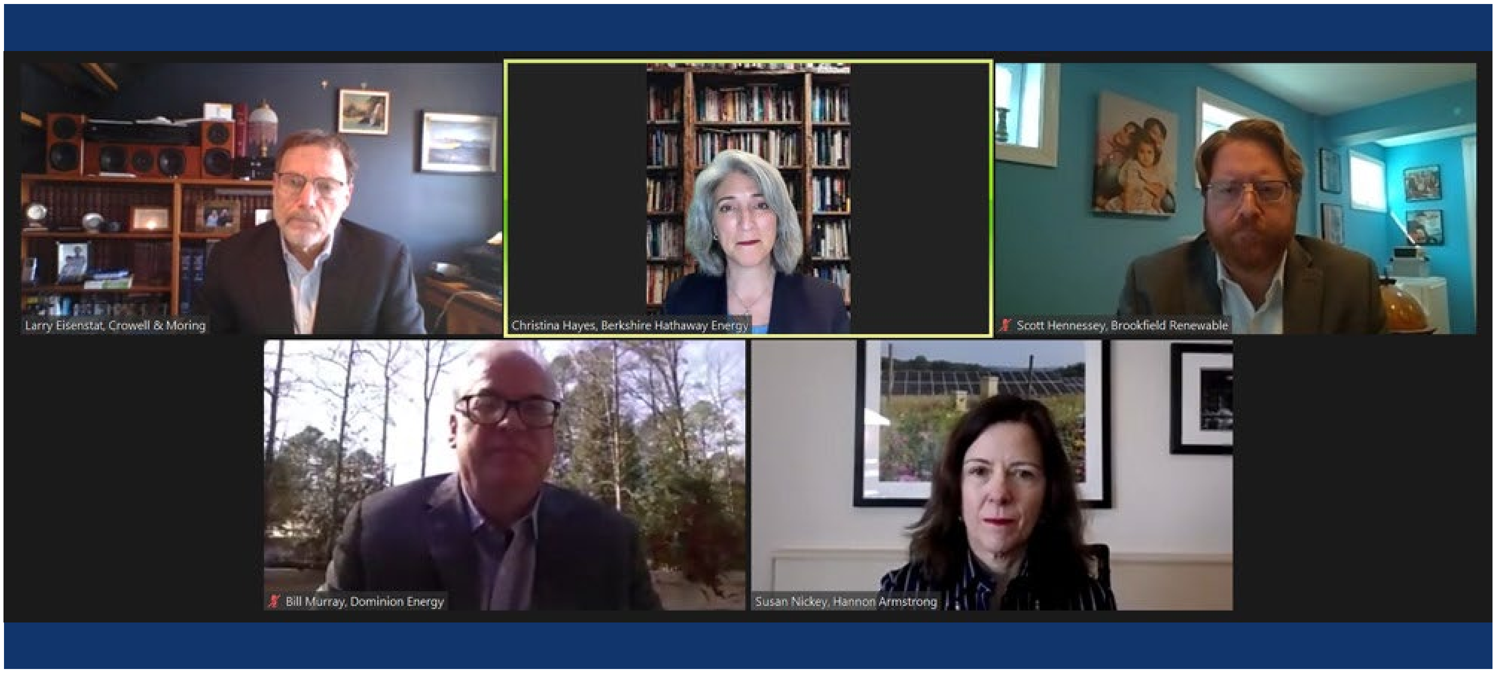
One necessary element for any meaningful progress, according to Manchin, is acceptance of a "set of facts" that "humans have had a tremendous impact on climate change."

"When you have people that won't even accept climate change as being real, then you got a problem," Manchin said. "I think most people, even in hard energy-producing states such as West Virginia, they understand the transition's coming. They don't want to drink dirty water. They don't want to breathe dirty air. I am not supporting the elimination of anything. I'm supporting innovating everything. That's where we put our money where our mouth is. We'll invest the dollars that it takes because it's global climate. It's not West Virginia's climate. It's not the United States climate. It's not the North American climate. It's global." ■

Clockwise from top left: Craig Sundstrom, RWE Renewables; Renee Eastman, Salt River Project; Ed Zaelke, McDermott Will & Emery; David Bridges, Tax Counsel, U.S. House of Representatives; and Bobby Andres, U.S. Senate Finance Committee | *ACORE*

ACORE Policy Forum

ACORE: Storage and Tax Incentives Key to Infrastructure



Clockwise from top left: Larry Eisenstat, Crowell & Moring; Christina Hayes, Berkshire Hathaway Energy; Scott Hennessey, Brookfield Renewable Partners; Susan Nickey, Hannon Armstrong; and William Murray, Dominion Energy | *ACORE*

By Rebecca Santana

A panel of industry stakeholders concluded the American Council on Renewable Energy's 2021 Policy Forum with a discussion on infrastructure and the policies that might shape the future grid.

ACORE COO Bill Parsons introduced the panel, noting that the discussion couldn't have come at a better time with the recent passage of the America Rescue Plan.

"America's infrastructure is critically in need of updating," Parsons said.

Moderator Larry Eisenstat, partner at Crowell & Moring, said that the purpose of any federal infrastructure plan should be to repower the economy and achieve clean energy targets.

Vice President of Berkshire Hathaway Energy Christina Hayes started off the conversation by saying the biggest inhibitor of infrastructure projects and the adoption of new technologies is often the associated costs. Mitigating "sticker shock" with tax incentives will be key, she said.

Scott Hennessey, vice president of federal policy at Brookfield Renewable, agreed that tax credits will be vital to building out new generation, but he also emphasized the importance of preserving and investing in existing non-emitting resources, specifically hydropower. With a focus on wind and solar generation to meet future energy needs, Hennessey feels that hydropower isn't being valued as a renewable resource like its counterparts.

"If we are always focused on new generation ... we take two steps forward only to take a step back," he said.

Eisenstat noted that critics of federal clean energy tax credits have said that the renewables industry has matured to a point where incentives are no longer necessary and that new generation buildout would continue with or without them. Henessey disagreed.

"If what we want is more generation capacity [and] to preserve the good generation capacity we have, that takes investment, and right now, to say, 'Go off and hit these lofty goals by the administration without the policy support' seems very difficult," he said.

Susan Nickey, executive vice president at Hannon Armstrong, responded that her company would like to see policy that attracts private capital. Reaching a net-zero economy is going to take "trillions" of dollars, she said, and a balance between federal tax incentives and private sector investment is going to be necessary to build out the needed infrastructure.

Dominion Energy's William Murray agreed that the federal government should play a part in modernizing and expanding the grid.

"Federal government has played a transformative role for more than a century in moving new technology forward, and there's an opportunity ... across infrastructure, certainly, and energy to do that," Murray said.

Building Storage

Eisenstat asked the panel what could be done at the federal level to start seeing the widespread adoption of storage resources necessary to keep a potentially all-renewables grid reliable.

Murray said that current storage technology is not going to be sufficient to get to net zero. He said he would like to see the federal government invest in research and development to maximize storage resources.

Nickey said that investors feel differently. She said that while they're comfortable with storage technology and interested in new developments, they're still skeptical that they'll see a return on their investment.

Incentivizing storage as a transmission asset may be the key to widespread adoption, Hayes said. "Leveling the playing field through the tax credit play with storage would really be helpful." ■

FERC/Federal News

GAO Urges FERC, DOE to Act on Climate Change

Continued from page 1

NERC's mandatory grid reliability standards, should "identify and assess" climate change risks to the grid. The report said the agencies neither agreed nor disagreed with its findings.

"FERC must act to address the urgent threat that climate change poses to electric reliability," FERC spokesperson Craig Cano said in response to the GAO report. He noted that FERC Chairman Richard Glick *announced* March 9 that the commission will host a technical conference on June 2 "to gather information, examine threats and identify solutions. The grid must remain reliable in response to the challenges from climate change and extreme weather."

DOE did not immediately respond to a request for comment on the report.

Frank Rusco, GAO's director of natural resources and environment, outlined the agency's recommendations Wednesday during a *hearing* of the Senate Environment and Public Works Committee.

GAO said DOE and FERC have taken some actions to improve grid resilience since the office identified the federal government's management of climate change as a high-risk issue in 2013. It noted DOE's 2015 partnership with 18 utilities to plan for climate change and its support of research through its Grid Modernization Initiative.

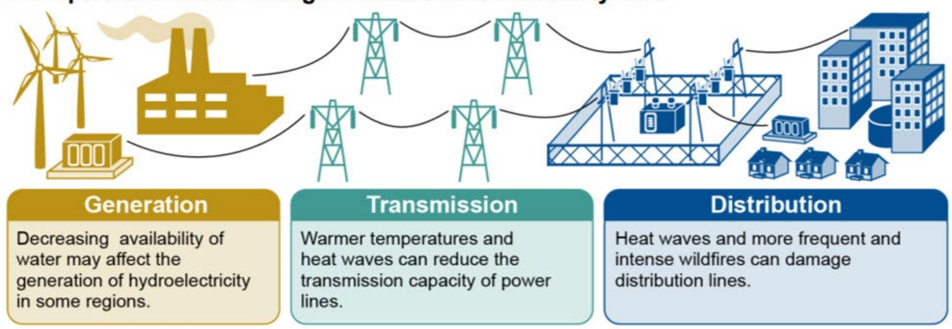
But it said DOE "does not have an overall strategy to guide its efforts," recommending it follow its Disaster Resilience Framework, which calls for reducing risks by creating resilience goals and linking the goals to an overarching strategy.

"Developing and implementing a department-wide strategy that defines goals and measures progress could help prioritize DOE's climate resilience efforts to ensure that resources are targeted effectively," it said.

GAO credited FERC's 2018 effort to collect information from grid operators on resilience and the commission's announcement last month that it would open a new proceeding to examine the threats from climate change and extreme weather. (See *Glick Eyes New Standards Following Texas Outages*.)

But it said the commission should develop climate resilience standards and guidance and identify whether it needs congressional action to address climate risks. It also said FERC should evaluate whether to consider climate risks in approving projects such as hydropower facilities.

Examples of Climate Change Effects on the Electricity Grid



The Government Accountability Office said FERC and the Department of Energy need to do more to address threats to the grid from climate change. | *Government Accountability Office*

FERC "has not taken steps to identify or assess climate change risks to the grid and, therefore, is not well positioned to determine the actions needed to enhance resilience," GAO said. "Risk management involves identifying and assessing risks to understand the likelihood of impacts and their associated consequences. By doing so, FERC could then plan and implement appropriate actions to respond to the risks and achieve its objective of promoting resilience."

Severe Consequences

The agency said the consequences of inaction could be severe. "Warmer temperatures and more heat waves could affect all regions in the United States and could decrease the efficiency of electricity generation, transmission and distribution systems," it said.

It cited a report that estimated the annual cost of outages to utility customers could increase from about $55 billion over the 2006-2019 period to more than $480 billion during the 2080-2099 period (2019 $) without "aggressive grid resilience mitigation measures."

Another report, GAO said, predicted climate change could increase annual expenditures for transmission and distribution infrastructure in the contiguous U.S. by as much as 25% (about $25 billion) by 2090 versus 2015.

The agency acknowledged that investments to improve resilience are expensive. "And it can be difficult for utilities to calculate the return on such investments because the benefit typically is realized only when a major event threatens the reliability of service. As a result, these investments can be difficult to justify."

Other Testimony

The Senate committee heard testimony from several other witnesses in addition to Rusco, including Los Angeles Mayor Eric Garcetti, who recounted last summer's heat wave. Temperatures in the San Fernando Valley hit 117 degrees Fahrenheit, with temperatures in Downtown LA hitting 108.

"Cables melted, neighborhood distributing stations overloaded, and some neighborhoods lacked power for upwards of three days. The takeaway here is that the significant amount of work [the Los Angeles Department of Water and Power] had been doing to maintain and upgrade infrastructure in the high heat zones of the San Fernando Valley paid off. It was those areas that hadn't been upgraded to withstand extreme heat — areas that we just didn't expect to get that hot — that were most affected," he said.

He urged Congress to increase the electric vehicle tax credit to $10,000 for vehicles of $60,000 or less and eliminate phase out of credits when individual manufacturers hit a cap on sales. He also called for streamlining the permitting process for new transmission.

In her opening statement, ranking member Shelley Moore Capito (R-W.Va.) criticized President Biden for revoking the previous administration's One Federal Decision policy, which called for early coordination and predictable timelines on environmental reviews of projects.

"It will be hard to deliver on clean energy if permitting complexity represents an insurmountable challenge," she said. "Without the ability to timely permit new transmission, the ambitious goal set by President Biden of zero emissions by 2035 is just a costly pipedream." ■

Opposition Emerges to Southeast Energy Exchange Market

Broader Membership, Transparency Sought

Continued from page 1

Southern Co. and Duke Energy, 14 utilities and cooperatives have signed the SEEM agreement and five others are considering doing so. The companies insisted that FERC could only determine whether their Federal Power Act Section 205 filings were just and reasonable, contending the commission lacked authority to require substantive changes.

As proposed, membership in SEEM would be limited to those with a load-serving responsibility or serving an entity with that responsibility. Each of the members would have a seat on a Membership Board that would determine "all significant decisions," while a revolving subset of four members would run the Operating Committee, responsible for overseeing the day-to-day operations.

But several organizations said FERC should force SEEM to open its membership and governance and require market monitoring.

The Southern Renewable Energy Association warned that SEEM could prevent "true market reform." It said the lack of wholesale competition in the region caused "billions of dollars in failed projects and lost opportunities," including the canceled VC Summer nuclear reactor in South Carolina, TVA's rejection of the Plains and Eastern HVDC transmission project and the Kemper IGCC facility in Mississippi.

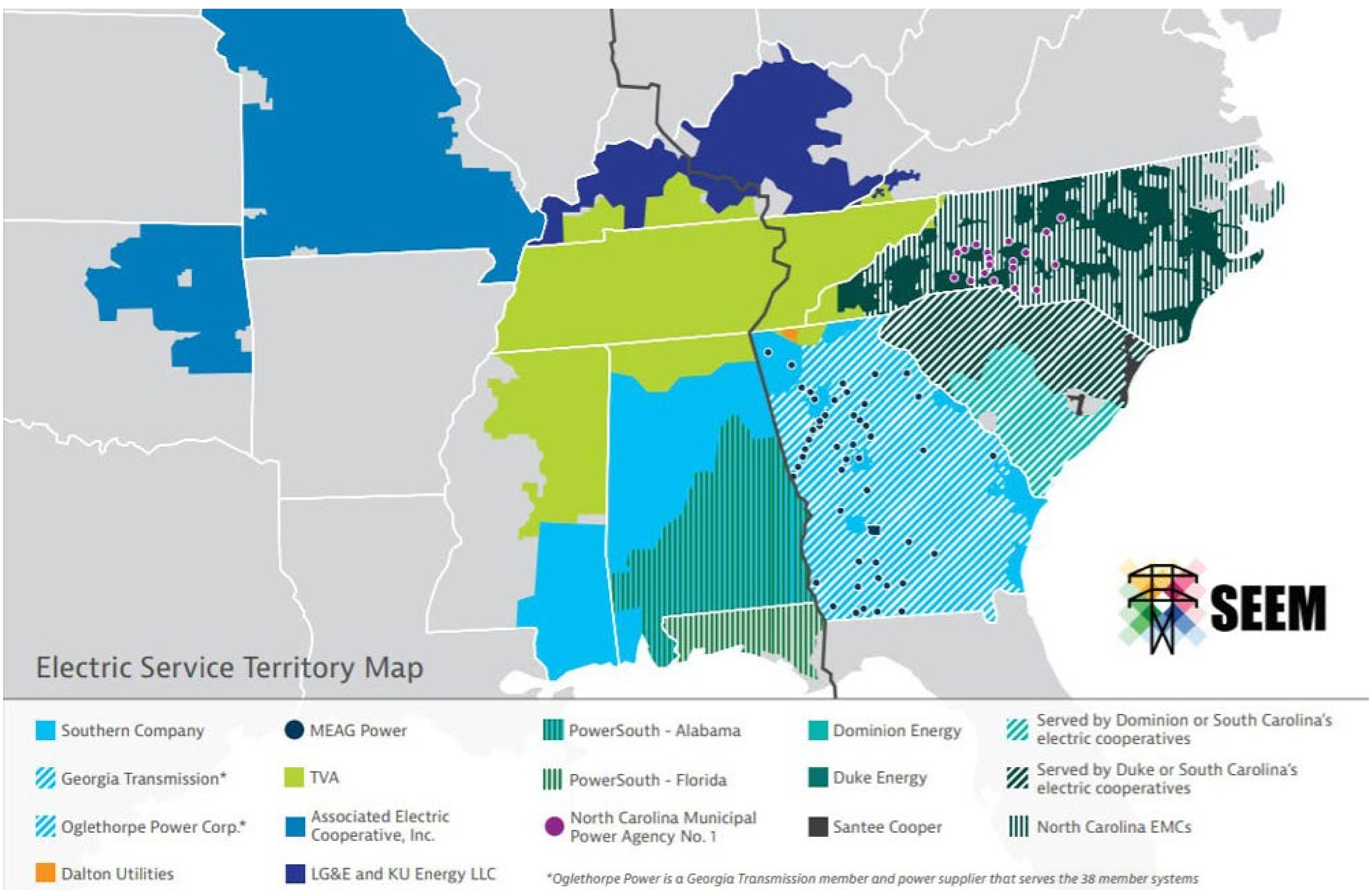
The group said FERC should provide regulators an oversight role through a Regional State Committee and open membership to independent power producers and large commercial and industrial customers. Public interest organizations should be given a role in governance, it added.

It also called for use of LMPs for settling trades and more transparency in market results.

Public Citizen also opposed SEEM's proposed governance and said FERC should consolidate the multiple dockets opened by individual members into a single proceeding.

"Concentrating all management authority for the new market only among utilities is unjust and unreasonable, as the lack of balanced decision making will lead to uncompetitive outcomes," Public Citizen said.

South Carolina state Sen. Tom Davis (R) was among those asking FERC and the Southeastern states to convene a joint technical conference. Davis said South Carolina has the fourth-highest electric rates in the U.S., largely because of the Summer plant. Federal-state cooperation "might reduce consumer bills, reduce the risk of imprudent investment and promote a cost-effective transition to newer,



Map of proposed Southeast Energy Exchange Market | *SEEM*

FERC/Federal News

cleaner energy technologies," he said.

Davis said the conference should consider the potential benefits of an "independently operated" RTO or imbalance market, noting that the South Carolina legislature last September approved a *bill* to study potential market reforms.

SEEM, he said, will not maximize the region's opportunities "in part because it limits competition by non-utility parties and has an extremely limited reach."

Qualified Support — and Some Protest

The Environmental Defense Fund said although SEEM's potential benefits "are limited compared to a more fully integrated transmission and wholesale market system" such as an RTO, it "represents a step in the direction of a more coordinated and efficient electric system."

But EDF said FERC should require SEEM to provide monthly reporting of transaction details, open its Membership Board and Operating Committee meetings to the public and conduct further analysis on potential participation by demand response and distributed energy resources. The SEEM proposal said that DR and DER "cannot be a registered source or sink today, but could at some point be able to participate in the market under revised state laws."

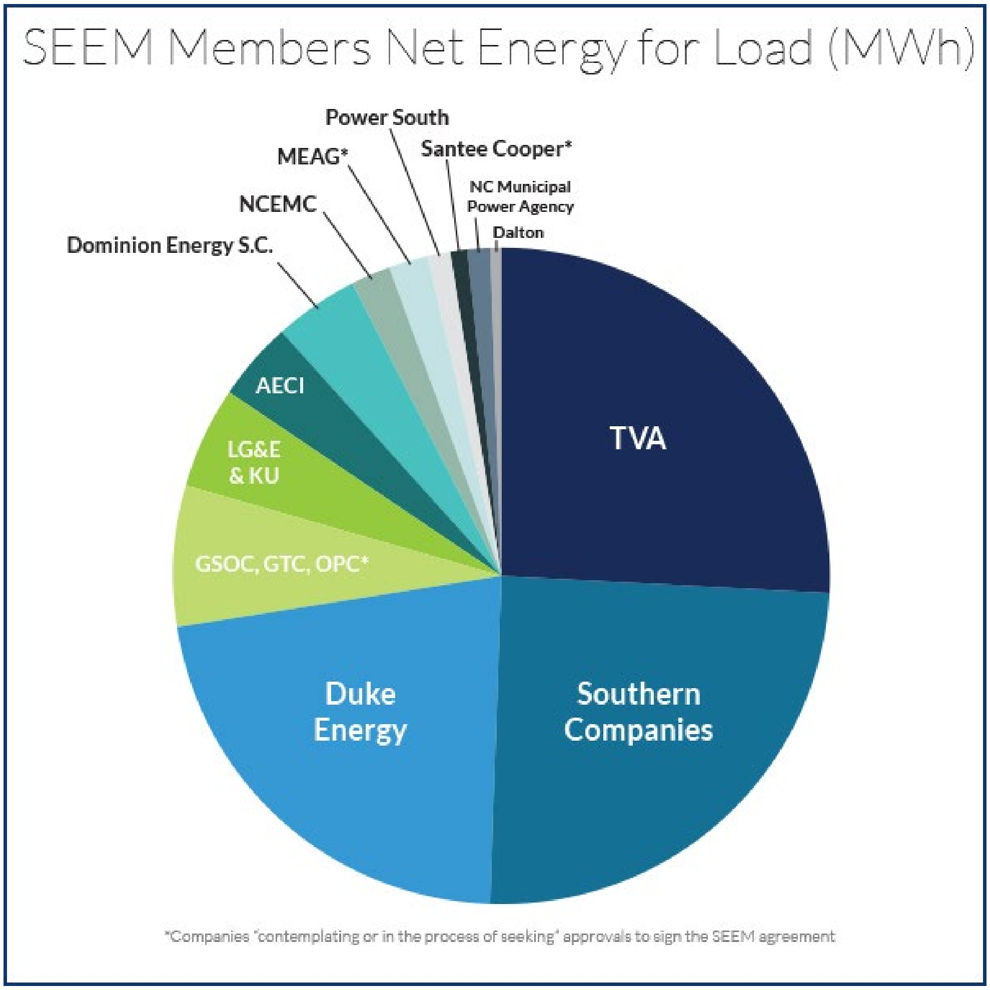
"Limiting full membership to load serving entities and limiting a voting role in the governance process to members may be reasonable at this time," EDF said. "However, to the extent that there is any increase in the role or scope of the Southeast EEM, the governance structure should be modified to provide a greater role for participants and other stakeholders."

In a joint filing, Advanced Energy Economy, the Renewable Energy Buyers Alliance and the Solar Energy Industry Association said FERC should require that SEEM members adopt a pool-wide open access transmission tariff.

The groups added that membership should be open to any bulk power market participants and that FERC should consider other market options that "likely provide much greater cost savings."

R Street Institute said SEEM should include a market monitor "to ensure the SEEM market is operating fairly and providing benefits to members and customers."

"While the Southeast has historically eschewed RTOs, the SEEM proposal is a modest attempt for its member utilities to leverage market opportunities. Unfortunately, the proposal fails to realize those opportunities and would be insulated amongst its membership from outside competitive pressures which would effectively expand its monopolistic practices across the region," R Street said.



TVA, Duke Energy and Southern Co. represent nearly three-quarters of SEEM's net energy for load (NEL). | *Southeast Energy Exchange Market*

MISO said FERC should require SEEM members and participating transmission providers to work with the RTO to develop "appropriate coordination arrangements" if SEEM increases "the level and frequency of transactions among Southeast EEM members or changes in form of such transactions.

"This would allow MISO and other affected parties to present their concerns to the commission before the change can affect MISO's markets and operations," the RTO said.

Entergy said FERC should require that transactions under the SEEM agreement are treated comparably to market flows between the MISO South and Central areas.

"When market flows entirely within MISO, but between MISO Central and MISO South, exceed the physical capability of the transmission facilities linking those MISO areas, the flows cannot occur unless there is available capacity on the systems of certain of those Southeast EEM members or Southwest Power Pool, Inc. and unless MISO compensates those parties."

Several public interest groups, including the Sierra Club, the Southern Alliance for Clean Energy and the Sustainable FERC Project also filed a joint protest.

"Instead of embracing meaningful reform, the SEEM proposal represents an incremental improvement to coordination that comes at much too great a cost and risk: increasing the market power of monopoly utilities, disadvantaging clean independent power producers seeking transmission access and reducing transparency and oversight," they said. "If approved, this proposal could lock the region into a flawed market structure and stymie the meaningful reform at work in the states." ■

FERC/Federal News

Granholm Calls on US to Lead $23T Clean Tech Market

Energy Secretary Announces New Grid Storage Launchpad and Office of Energy Jobs

By K Kaufmann

Newly confirmed Energy Secretary Jennifer Granholm came to the Policy Forum of the American Council on Renewable Energy on Wednesday with the clear intent of firing up the troops — with announcements, insights on the challenges ahead and a mantra focused on action.

"No more waiting," Granholm told the forum's virtual audience. "Deploy, deploy, deploy."

Her main message, echoing President Biden, was that beyond its very real existential threat, the climate crisis is a job and innovation generator, and the U.S. must be on the front lines, technologically and economically.

"The products that reduce carbon emissions are going to create a $23 trillion global market over the next decade," Granholm said. "Where are those investments going to be [made]? Are they going to be in China? Are they going to be in our economic competitors? You better believe that they are strategizing now to corner this market. So, the question for us is: Are we going to get in a battle, or are we going to bring a knife to a gunfight?"

The Department of Energy is first deploying research and development dollars, with $300 million in funding opportunities announced in the past month, to small businesses and clean tech entrepreneurs, workforce development and "one-of-a-kind ventures," Granholm said. One example, DOE's Frontier Observatory for Research on Geothermal Energy initiative, will fund "cutting-edge geothermal projects with the potential to power millions of American homes," she said.

On the research front, Granholm pointed to DOE's 17 "super powerful" national laboratories and their 70,000 scientists, engineers, researchers and analysts as key components for developing and testing the technologies needed to accelerate the U.S. energy transition.

"I am really thrilled to announce that our Pacific Northwest National Laboratory in Washington is kicking off the design and construction phase of the Grid Storage Launchpad," she said. "It's a $75 million research facility where we will be figuring out how to speed up the innovation and deployment of grid-scale technologies for energy storage, so we can get all of this new renewable power onto the system and make our national power grid more reliable, more resilient [and] more secure."

Ramping up and reviving existing programs — for example, recruiting clean tech investor Jigar Shah to head DOE's $40 billion energy loan program — is only a first step, Granholm said. "We look to work closely with the White House on its upcoming jobs and infrastructure package, which we hope is going to have a huge emphasis on opportunities in the renewable energy sector," she said.

A new Office of Energy Jobs "is going to help us seize these jobs opportunities in all corners of the country, especially in places that have felt unseen, that have really been hurting, and get them first the benefits of these opportunities," Granholm said.

Lowest-hanging Fruit

On the inevitable subject of Texas' recent power outages, Granholm looked beyond the immediate need for grid hardening. Speaking with ACORE CEO Greg Wetstone, she said, "We have to figure out what's the lowest-hanging fruit. Where are the clog [points] right now and the interconnects, and while we do the quick, low-hanging fruit, we need to plan for the future because we are going to see, especially with electrification of vehicles, a massive amount of need for new capacity on the grid."

Biden's Justice40 initiative to ensure that 40% of federal government investments benefit disadvantaged communities will take a "place-based" approach to address the different needs of environmental justice and fossil fuel communities, she said. What might work for coal communities in West Virginia and Appalachia "might not be good for Flint," Granholm said. "You have to listen very carefully and have bottom-up strategies for these communities."

Granholm's closing remarks were similarly strategic. She called on clean energy groups like ACORE to double down on their lobbying and support activities for energy allies in Congress "to make it safe for them to be able to vote to make the investments that are necessary." ■

Energy Secretary Jennifer Granholm | *CERAWeek by IHS-Markit*

FERC/Federal News

DOE Urges Stakeholders to Rethink Value of Storage

By Jennifer Delony

The U.S. Department of Energy is encouraging long-duration energy storage (LDES) owners, those who purchase their services and state governments to rethink how those assets are valued.

LDES, defined as any resource that continuously operates for more than six hours, is all about mitigating risk, Max Tuttman, technology-to-market adviser at the department's Advanced Research Projects Agency-Energy, said during a virtual "workshop" on energy storage hosted by DOE and several National Laboratories on March 9. "It's the ultimate risk mitigation asset."

Tuttman believes that LDES developers have to learn to adjust their thinking away from how their technologies provide value to the grid, to understanding how they can provide value to customers. LDES, for example, can bring value through "portfolio balancing" by acting like insurance, Tuttman said.

"Insurance is a product that you pay for that you hope to not use very much, and that you actually don't expect to have a positive long-term return on," he said. "Similarly, long-duration storage — if you have a portfolio of other assets, be those generators or load — can play an important role in managing the risk profile of that portfolio."

Delivering that level of risk management creates value for different customer types, such as data center owners, renewable energy developers or load-serving entities.

"It's important for technology developers to understand what the source of revenue is for those customers and then understand how long-duration storage can provide value to those customers in the context of their existing business models," Tuttman said.

LDES also can provide value through asset substitution, he said.

The owner of a utility-scale solar project in California, for example, is using storage to flatten load and lessen transmission congestion, rather than pay for costly network upgrades. In this case, Tuttman said, the developer is replacing a transmission asset with a storage asset.

"You're using [LDES] to offset the cost of a different asset," he said. "So instead of keeping a power plant around for reliability, you now have energy storage for reliability."

Policy Concerns

The way that policymakers and regulators currently value LDES creates barriers to market entry for the technology, Erin Childs, senior manager at Strategen Consulting, said during the workshop. In California, for example, rules for resource adequacy do not provide capacity credits for storage beyond four hours.

"Storage resources that are able to provide longer durations of dispatch really receive no benefits or no compensation for that," she said. "There is a need to harmonize our capacity and our planning requirements with what we see the grid needing in the longer term."

LDES companies that Strategen has worked with say they are cost-competitive at six- to eight-hour durations, Childs said. "The market just isn't buying six to eight hours."

There is a lot of opportunity for resource adequacy reform, according to Childs, but the process is long and complicated.

"If it takes us five years to do resource adequacy reform, are we willing to wait that long to do any long-duration storage? And if not, then what do we do as we're getting our market incentives lined up?" she asked.

Childs said that policymakers also need to consider how electric systems will value and compensate much longer storage durations for reserves and reliability.

There is a misperception, she said, that 100-hour storage is just for those days of the year when the sun isn't shining, the wind isn't blowing or there are peak demands. Modeling of those longer durations, she argued, show that 100-hour resources charge throughout the year and dispatch 10 months out of the year.

"These are not resources that are put on the shelf ... until something really terrible happens," she said. "They are on the grid; they are dispatching; and there are revenue streams that they can be accessing." ■

Policy and regulations can create barriers to market entry for long-duration energy storage, like pumped hydropower facilities. | *Shutterstock*

FERC/Federal News

Senators Grill Robb, Asthana over Texas Outages

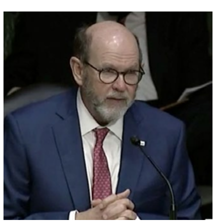
By Holden Mann

The February winter storm and resulting dayslong outages in Texas loomed large over Thursday's meeting of the Senate Energy and Natural Resources Committee, with members pressing representatives of the electricity sector for an explanation of the events and assurances that they are working to prevent future mass failures.

Sen. Joe Manchin (D-W.Va.) | *U.S. Senate*

However, committee members emphasized that they were not interested in scapegoating a single state. Senators described last month's disaster — when at one point nearly 49% of total installed generating capacity within ERCOT was unavailable and the operator came "seconds and minutes away" from complete breakdown — as a wake-up call about the vulnerability of the entire national grid. (See *ERCOT was 'Seconds and Minutes' from Total Collapse*.)

"[Let] me be clear: Today's hearing is not a referendum on Texas," Chair Joe Manchin (D-W.Va.) said in his *opening remarks*. "We've seen the impact of extreme weather events to our electric grid across the country … [and] we need to incorporate all of the lessons learned from those events into our future planning, particularly as we can expect both our energy mix and weather patterns to be different in the next decade than they were in the last decade."



NERC CEO Jim Robb | *U.S. Senate*

NERC CEO Jim Robb expanded on this theme in his *written testimony*, citing several weather-related incidents in recent years — including the August 2020 heat wave that led to rolling blackouts in California and grid emergencies in other Western states — to argue that no region is immune to disruption. (See *WECC Findings Show Complexity of Heat Wave Event*.) As severe weather events become more frequent, grid planners will have to be proactive about preparing their systems for stronger impacts, he said.

No Universal Solution

What form that preparation might take was a major topic of questioning, with senators bringing up a variety of measures to ask what impact they might have had on the resilience of the grid during the weather events that Robb mentioned. Hypothetical improvements raised by senators included building out natural gas and other traditional assets to offset the purported unreliability of wind and solar facilities; implementing capacity markets to incentivize generators to make more resources available for potential surges; and expanding or improving transmission facilities to remove bottlenecks between supply and demand.

Attendees generally agreed on the need for more transmission, but they were more reluctant to endorse other recommendations in light of different regional needs. PJM CEO Manu Asthana acknowledged that his RTO's capacity market was designed to prevent the kind of instability that gripped Texas in February, but he warned that the solution was not likely to be so simple.

"It's easy to think, 'Oh, if only Texas had a capacity market, this wouldn't have happened,'" Asthana said. "I think Texas would have had a higher reserve margin [in that event], but it's important to note that … Texas had reported a reserve margin for this winter of 43%" in NERC's *Winter Reliability Assessment*. "And so it was not a shortage of capacity; it was this incredibly cold weather for which the capacity was not prepared." (See *NERC Warns of Fuel Bottlenecks in Coming Cold Months*.)

Texas Faces Heat on Winter Prep

Several members seized on that lack of preparedness, using Robb's observation that FERC and NERC had issued a cold weather preparedness guideline following the *2011 cold weather event* in Texas and Arizona to suggest, in the words of Sen. Mazie Hirono (D-Hawaii), that "they probably didn't follow your recommendations very well."

Robb was guarded in his response to Hirono. While he acknowledged that the cold weather preparedness standard currently under development at NERC "no doubt … would have helped" in last month's crisis, he reminded members that the situation was extremely complex. For this reason NERC and FERC are conducting a joint inquiry to establish the exact causes of the outages.

"I think one of the things that … we will uncover through this inquiry is … if the power plants were weatherized adequately for the conditions that were in place, whether the … natural gas system in Texas would have been able to deliver fuel to those plants," Robb said.

Several committee members used the February outages as a way to argue that the transition to renewable generation resources must not be pursued too hastily. Ranking member John Barrasso (R-Wyo.) said in his opening statement that utilities "must work with the grids we have today, not with the grids we wish [for] in 15 or 25 years," and that traditional generation must be a part of the national energy strategy for the foreseeable future.

"Increasingly the national discussion on electricity has centered around a single metric: how much greenhouse gas does the source of electricity provide," Barrasso said. "The discussion has failed to pay sufficient attention to the questions of reliability, resiliency and affordability. … We must ensure that our grids can provide electricity at all times, and at prices that American families and businesses can afford. The American public deserves to know what policies and measures are necessary to ensure that that happens." ■

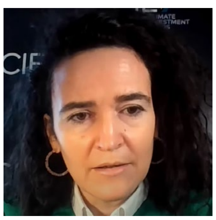
Global Energy Transition Needs Speed, Worker Safeguards

By Amanda Durish Cook

The global energy transition must move more swiftly and provide generous employment opportunities so that workers in vulnerable communities aren't left reeling from the accompanying economic disruption, a panel of experts said March 9.

The Center for Strategic and International Studies and Climate Investment Funds gathered panelists for a webinar entitled "Road to COP26: Just Transitions and the Climate Agenda," in preparation for the 2021 United Nations Climate Change Conference in November.

Panelists agreed that a just transition to climate-friendly energy policies should sustain or improve vulnerable communities — and fast.



Climate Investment Funds CEO Mafalda Duarte | *CSIS*

Climate Investment Funds CEO Mafalda Duarte said the transformation of the planet's energy systems must combine the rapid with the respectful.

"If we are to meet our climate goals, we will go through some very significant social and economic transformations," she said. "In fact, potentially, and most likely, at a scale and speed that we have not experienced in human history."

Duarte said such disruptive and rapid changes will hit especially hard for communities and workers who are dependent on fossil fuels for their livelihoods. She said climate action will fall short of goals without a transition that embraces all sections of the population.

"We already live in a world that has quite deep-rooted inequalities," Duarte said. "We all know this very well."

She said it's important to avoid exacerbating social inequalities while making necessary changes for the climate; "In fact, we should take advantage of this opportunity to really try to address some of those social inequalities and make sure we are not leaving anyone behind."

4 Times Faster

Kate Hughes, director of international climate and energy for the U.K. Department for Business, Energy and Industrial Strategy, said the global energy transition must move four times faster than the current pace to meet the goals in the Paris Climate Accord.

Kate Hughes, UK BEIS | *CSIS*

Countries around the world, especially those in the G20, need to re-evaluate their 2030 goals.

"Coal must be rapidly phased out," she said.

Organization for Economic Cooperation and Development nations should plan to end coal use by 2030, she said, while other major emitting countries should strive for a 2040 target. The rest of the world should quit coal by 2050, she said.

"We've got to speed up and really sort of deepen that shift of global investment patterns away from brown and towards green," Hughes said.

Jobs in the green sector are growing faster than in the traditional economy, she added. She pointed out that the International Labor Organization estimates that 24 million new jobs could be created in the green sector by 2030.

But Hughes said the changeover won't be simple because green jobs don't typically take root in the same areas where fossil fuel jobs become extinct. Climate actions need to consider the impacts on workers and communities, she said.

"We must bring society together in an inclusive manner."

The US

DOE's Andrew Light | *CSIS*

Andrew Light, head of the U.S. Department of Energy's Office of International Affairs, described the Biden administration's four "pillars" of current focus: pandemic recovery, the economic downturn, the climate crisis and racial justice issues.

Light said the administration and the DOE firmly believe that "attending to climate change is a job creator."

"It always has been," Light said. "It is just now that we're beginning to see this much more clearly than we did back in 2009. … It is, I believe, the greatest job creation opportunity that … we have in our lifetimes, that we'll ever have in our lifetimes, to shepherd through what will be a just transition to a global clean energy economy."

Light pointed to President Biden's Jan. 27 executive order creating an interagency working group to examine economic revitalization for coal and power plant communities. The working group will focus on U.S. communities that have already experienced employment losses from the energy transition.

"The United States has been largely sitting on the sidelines [on climate issues] … in the past four years, and now we are back," Light said.

Developing Nations

The energy transition is a "particularly difficult task" for developing nations, said Ajay Mathur, director general-designate of the International Solar Alliance.

ISA's Ajay Mathur | *CSIS*

Developing nations already suffer from energy adequacy problems or have populations that cannot pay for energy services, he said.

"Solar electricity is the cheapest electricity available in India, but only when the sun is shining," Mathur said of his native country, adding that coal becomes the cheapest energy form at dusk. He noted that any country with a "decent standard of living" consumes energy at four times the level of India on a per capita basis.

Mathur said it's vital that in the next few years energy storage becomes inexpensive enough to pair with renewable generation. Renewable resources must also be offered cheaply to developing nations, especially considering that developed nations built entire empires on the backs of fossil fuels, he said. Coal use will vanish once it becomes economically infeasible, he added.

Light said it's up to the economic powerhouses to offer favorable lending rates to other countries trying to fund energy transitions and coal phaseouts.

Mathur said while it's clear that renewable energy creates more jobs than coal mining, the

Continued on page 17

FERC/Federal News

Report: Half of Coal Fleet Could Safely Retire by 2025

By Rich Heidorn Jr.

More than half the U.S. coal fleet could be retired by 2025 to reduce emissions and generating costs, with no harm to reliability, according to a new report by the Rocky Mountain Institute.

Based on an analysis of NERC data, RMI says 27% of the coal fleet — mostly in the Northeast and Southeast where reserve margins are high — could be retired without replacement. Another 29% could be cost-effectively replaced with wind and solar.

Renewables, storage and demand-side management would be required to maintain reserve margin targets and replace the remaining coal plants in the U.S., it said.

"In considering economic retirement opportunities, utilities and regulators often raise concerns about reliability if coal capacity retires," says the report, "*Cutting Carbon While Keeping the Lights On*."

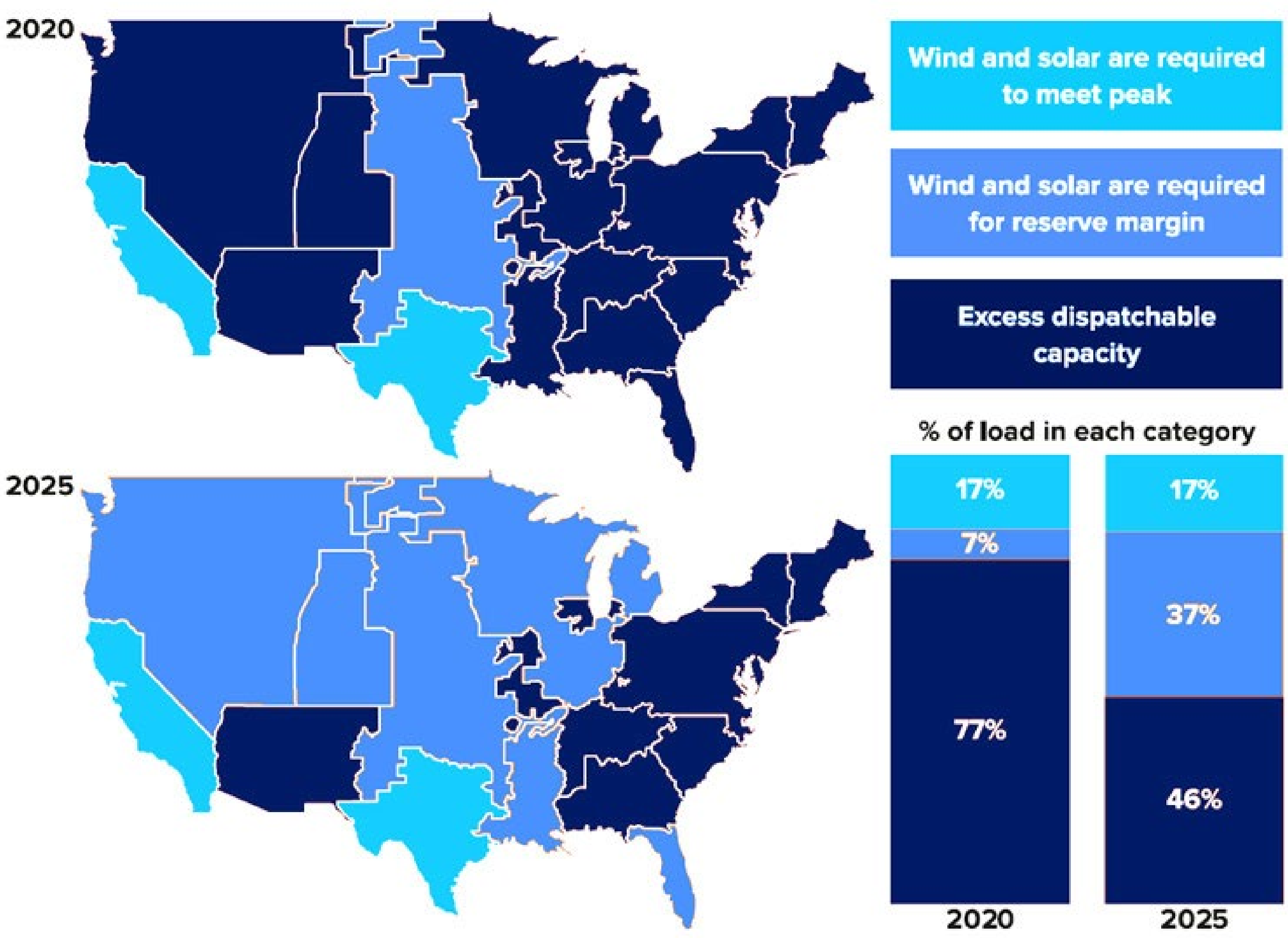
"We find that these concerns are generally misplaced, and that the United States is on track to have 60 GW of excess generation capacity in 2025, above and beyond reserve margin targets."

The report notes that most of the country has more dispatchable generation than necessary to meet reserve margin targets. PJM has more than 30 GW of excess generating capacity above its 15% reserve margin and its dispatchable thermal capacity exceeds the reserve margin without including wind or solar.

"No region in this category has experienced a major outage related to inadequate generation capacity in recent years," it said. The report does not mention the 2014 polar vortex, when as much as 22% of PJM's generating capacity was idled and the RTO came close to having to shed load.

It notes that ERCOT and CAMX (covering California) already rely on effective load carrying capacity-weighted wind and solar capacity to meet peak demand. SPP depends on wind to meet reserve margin targets.

RMI's analysts based their economic comparison of coal and renewables on "direct, going-forward costs" of coal plants and did not consider the impact of any price or cap on carbon emissions or other environmental externalities. It noted, however, that a 2020 *study* by Energy and Environmental Economics found that a $10/ton price on carbon emissions — well below what most economists



Renewable transition category by NERC regions in 2020 and projections for 2025 | *Rocky Mountain Institute*

FERC/Federal News

say is necessary — would cause the economic retirement of all PJM coal capacity by 2030.

RMI said its analysis targeted 2020-2025 "under an assumption that present-day reserve margin targets will continue to govern system planning and operations in the next few years."

"We recognize the importance of reassessing reserve margin targets given the increasing severity of extreme weather that has contributed to the recent outages in California and Texas, but we do not undertake that analysis here," it added.

NERC did not respond to a request for comment on the report.

In its *2020 Long-Term Reliability Assessment* in December, however, NERC said that the growth of renewables and retirement of conventional generation over the next decade means "resource planners must consider greater uncertainty across the resource fleet as well as uncertainty in electricity demand that is increasingly being affected by demand-side resources. As a result, reserve margins and capacity-based estimates can give a false sense of comfort." (See *NERC: Grid Operations 'Fundamentally Changing'*)

Michelle Bloodworth, CEO of coal advocacy group America's Power, said last month's extreme cold showed the importance of maintaining "fuel-secure coal units necessary for supporting grid resilience in much of the country."

"While Texas was experiencing rolling blackouts, we saw that coal was able to *increase* its output and provide close to half the electricity in all or parts of the 21 states that comprise the MISO and SPP regions," she said. "This recent experience underscores the importance of maintaining fuel diversity and the need to maintain coal-fired generation, even while the nation's electricity mix is changing."

Bloodworth also cited the group's recent *article* outlining challenges to decarbonizing by 2035.

Ben Fowke, CEO of Xcel Energy, also has expressed skepticism about an all-renewable generating fleet. In testimony before the Senate Environment and Public Works Committee on Wednesday, Fowke noted that his company expects renewables to make up two-thirds of its energy mix by 2030. "However, renewable energy can only take us so far," he said. "At higher levels of intermittent renewables, the cost of the energy system begins to skyrocket, and its reliability degrades. That means that the whole industry — even Xcel Energy with our remarkable renewable resources — will need some form of new, carbon-free, 24/7 dispatchable generation to remove the last increment of emissions on our system and get to zero."

'All-source' Procurement

RMI also issued a second *report* recommending states adopt "all-source" resource procurements and projecting a need for 700 GW of new generation investment over the next decade, including 420 GW in the territory of vertically integrated utilities.

All-source portfolios would include utility-scale and distributed energy resources. RMI said procurements should be aligned with states' objectives, including resilience, decarbonization and economic development. It also urged a "least regrets" approach to capture the benefits of competition and declining costs of new technologies.

The report cited numerous case studies, including Xcel's all-source solicitation in Colorado in 2017, saying it was proof "that a solution-agnostic needs description can elicit many bids and record low bid prices for renewable energy and hybrid resources."

Vertically integrated utilities are expected to spend up to $750 billion through 2030 on new resources, RMI said. "With an improved approach to resource procurement, the industry has a once-in-a-generation opportunity to ensure that this money is spent in ways that leverage the market, support diverse stakeholder priorities and minimize risks going forward. The alternative — continuation of legacy processes and approaches to resource investment — risks squandering capital and locking in customer costs and carbon for decades to come." ■

Global Energy Transition Needs Speed, Worker Safeguards

Continued from page 15

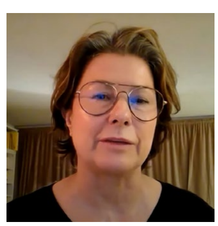
jobs require separate skill sets. He said areas that most stand to benefit from renewable expansion are not those where the coal industry thrives.

A just transition would ensure that "the day the last coal power plant closes is the day the last coal mine closes is the day the last coal miner retires," he said.

"Only that would help us move in a just transition towards a renewable future," he said

Mathur noted that when people lose jobs, they lose not only their financial lifeline but also a big piece of their social lives. He said communities entrenched in the coal industry sustain families and friends across generations. Replacing those jobs in the same region is important and could lead to creative new options, he said, pointing out that coal mining has been supplanted with more lucrative beekeeping jobs in some communities.

'Good' Jobs



Samantha Smith, International Trade Union Confederation | *CSIS*

Samantha Smith, director of the Just Transition Centre at the International Trade Union Confederation, said she's "a mixture of beaten down by a year of bad news" and optimistic about political climate developments in several countries, particularly the U.S. and the European Union.

But she also warned of a "jobs apocalypse."

"We're going to be talking about the need to create good climate jobs," Smith predicted. She said good green jobs must come equipped with workers' rights, pensions, social protections and health care.

"If we can't have a recovery that is rich in good jobs, and that respects peoples' rights — also rights to form trade unions — then it's pretty hard to see how you're going to have the kind of political stability we need to roll out climate policy," she said. "And if climate policy isn't really a jobs program, it's hard to see how people are going to support it more broadly." ■

FERC/Federal News

Congress Looks to Former EPA Admins for Guidance

Senate Confirms Regan as Biden's EPA Chief

By John Funk

EPA Administrator Michael Regan| *JohnRaeNYC via NRDC*

The House Energy and Commerce Subcommittee on Oversight and Investigations spent nearly three hours Wednesday questioning former EPA administrators and others about what Congress can do to revitalize the agency, just before the Senate confirmed its newest leader, Michael Regan.

Although the hearing was framed as a kind of fact-finding mission, Rep. Frank Pallone (D-N.J.), E&C Committee chairman, made it clear that Democrats don't intend to forget the impact the Trump administration had on the agency.

"We know that rebuilding EPA will not be an easy task after four years of the Trump administration," he said at the outset of the virtual hearing. "They let polluters off the hook by weakening EPA's enforcement program. They eroded the EPA's essential scientific infrastructure. And they sidelined and silenced the agency's talented and dedicated career staff, as scandals and investigations captured headlines on an almost daily basis.

"Thankfully, it is a new day at EPA."

Christine Todd Whitman, EPA administrator from 2001 to 2003 under President George W. Bush, said she believes climate change is the most pressing problem facing the nation, and she had a lot to say about the national debate over it. But she said the agency has to be fixed first.

"The first order of business for the new leadership at the EPA is to re-establish a commitment to sound science as an integral and indispensable part of policymaking," she said. "Coupled with a return to science is the restoration of the morale of the people at EPA. Over the years, the agency has been fortunate to be able to attract some of the finest scientific and policy talent available. Yet, a recent study showed that between 2016 and 2020, EPA lost 672 scientific experts. That is troubling."

Whitman said the agency must retain the expertise it still has while "also attracting the best of the rising generation; those who will commit their careers to its mission. That's the only way the agency can meet the many environmental challenges it faces."

Carol Browner, EPA administrator from 1993 to 2001, during the Clinton administration, sounded a similar note about the agency under President Donald Trump.

"After four years of unprecedented, unrelenting attacks on the health and safety of communities across the country, policies that speed the destruction caused by climate change and efforts to hobble the agency, the EPA will need to be restored and recommit to its mission of protecting human health and the environment," she said.

Regan Confirmed

Whitman said she was excited about President Biden's choice of Regan to lead the agency. "He is a fantastic pick, and I hope that your colleagues on the other side of the Capitol will confirm him," she said.

They indeed did later that day, swiftly voting 66-34 after confirming Biden's picks for attorney general and secretary of housing and urban development, Merrick Garland and Marcia Fudge, respectively. Sixteen Republicans joined all 50 Democrats in the vote.

Senate Minority Leader Mitch McConnell (R-Ky.) and Sen. Shelley Moore Capito (R-W. Va.) both spoke briefly in opposition before the vote, though they clarified that their criticism was for the Biden administration's policies and not Regan, whom they both praised personally.

Regan, who served four years as secretary of the North Carolina Department of Environmental Quality, received bipartisan praise and was even introduced by his two home state Republican senators at his confirmation hearing in early February. (See *EPA Nominee Regan Receives Bipartisan Support*.)

"I too am excited about Michael Regan," Browner said Wednesday. "Now is the time for EPA to act swiftly, as our country faces the accelerating and intertwined crises of climate change and environmental injustice, on top of the ongoing, compounding COVID-19 pandemic and the economic recession it caused."

Whitman also spoke about environmental justice in her remarks.

"EPA should act with concrete and bold steps to pursue environmental justice and address the climate crisis, while also reaffirming the importance of following and advancing science for its decision-making process and strengthening the agency's capacity," she said. "EPA's actions should be taken in consultation with environmental justice communities — Black, Brown, indigenous and other communities of color living on the front lines of pollution — using new opportunities for engagement and reflecting the diversity of the country."

The agency "will need to be stronger and better resourced than ever before to deal with these crises and the fallout of Trump administration actions, and do it in a transparent and broadly inclusive approach," she said. ■

FERC/Federal News

Haaland Confirmed as Interior Secretary

The Senate confirmed Rep. Deb Haaland (D-N.M.) as secretary of the Interior Monday night, making her the first Native American to become a cabinet member.

Haaland was confirmed on a near-party line vote of 51-40. Among Republicans, only Sens. Lindsey Graham (S.C.), Susan Collins (Maine), Lisa Murkowski (Alaska) and Dan Stevens (Alaska) voted in support.

The vote followed an introduction by Sen. Ben Ray Luján (D-N.M.).

"As a Pueblo woman and 35th generation New Mexican, Deb Haaland has a long overdue perspective to contribute to the Department of the Interior's mission of protecting our natural resources and public lands and honoring America's trust responsibilities to tribal nations," he said.

Rep. Deb Haaland in Congress | *Rep. Deb Halaand*

Sen. Tom Carper (D-Del.) also gave a brief endorsement before the vote, praising Haaland's humility, "good heart and good mind.

"She will provide the leadership that is needed at the Department of the Interior after the years that we've been through," he added.

Haaland had attracted criticism from Republican senators from oil and gas producing states because of her statements opposing fracking and drilling on federal lands and her support of the Green New Deal. But no Republicans spoke in opposition before the floor vote Monday. (See *Senate Panel Advances Haaland*.)

Senate Majority Leader Chuck Schumer (D-N.Y.) called Haaland's confirmation "a huge step forward," saying it "creates a government that more embodies the full richness and diversity of this country." ■

— Rich Heidorn Jr.

CAISO/West News

CAISO MSC Weighs Summer Market Changes

Pricing Adjustment Only a Temporary Fix, Committee Says

By Hudson Sangree

CAISO's Market Surveillance Committee on March 8 endorsed of a set of rule changes that the ISO proposed to avoid shortfalls this summer, including allowing higher prices to attract capacity in strained conditions.

But the MSC encouraged the ISO to adopt a complete scarcity pricing design going forward and to better explain how it passed its own resource sufficiency tests even during energy emergencies.

The ISO introduced its summer readiness measures in a stakeholder *initiative* earlier this year, putting the initiative on a fast-track for approval by the Board of Governors on March 24-25. The changes are intended to avoid capacity shortfalls such as those the ISO experienced in August, when it was forced to order rolling blackouts, and again in September, when it avoided blackouts only through conservation measures. (See *CAISO Speeds Rule Changes to Avoid Shortfalls*.)

A root-cause *analysis* of the Aug. 14-15 blackouts identified problems that contributed to the shortfalls. Among them were low prices that were inconsistent with severely strained system conditions. The initiative's pricing changes are a quick fix to be implemented June 1.

"Under this proposal," the MSC wrote, "the energy offer price of any generation scheduled to provide reserves but released for dispatch when the reserves were replaced by armed load would be automatically set at the prevailing bid cap level, which is either $1,000 under normal conditions, or $2,000/MWh if [FERC] Order 831 conditions were triggered. Market energy prices would be set by these bid cap level offer prices if the released reserves were needed to meet load."

FERC Order 831 requires 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 current proposal is not a scarcity pricing design "in the sense that such designs are implemented in eastern ISOs," the MSC said. Instead, the plan will set prices that are more consistent with system conditions when the ISO is "on the verge of controlled load shedding, and CAISO load is at risk of being shed within minutes were a major CAISO generator

CAISO's control room in Folsom, Calif. | *CAISO*

to trip off-line."

"With the proposed pricing changes, it is anticipated that the CAISO market software will send a price signal that will attract additional imports during periods that load has been armed for shedding," the MSC said. "If available, this additional supply will reduce the amount of load that would need to be shed following a significant generation or transmission contingency and also reduce the likelihood that reserves will fall to a level that requires load shedding."

MSC Member James Bushnell | *UC Davis*

MSC Chair Benjamin Hobbs | *Johns Hopkins University*

The three MSC members — James Bushnell, Scott Harvey and Benjamin Hobbs — previously urged the ISO to pursue a full-scale scarcity pricing design. Last week they said they still favor that approach because it would cause prices to rise gradually as the ISO approached the need to shed load, but they acknowledged there is not enough time to develop and implement such a design for summer 2021. (See *CAISO MSC Urges Scarcity Pricing for Emergencies*.)

"We support the scarcity pricing design the CAISO proposes to implement for summer … to reduce the likelihood of load shedding if the CAISO encounters very high load conditions this coming summer," Harvey said in last week's MSC meeting. "On the other hand, we agree with the many stakeholder comments that the proposed changes for summer 2021 are far from constituting a complete scarcity pricing design."

MSC Member Scott Harvey | © *RTO Insider*

The fixes will use mostly existing software to provide price signals that match system conditions, Harvey said. Spot prices remained too low, around $100 to $200/MWh, as CAISO "slid closer and closer" to rolling blackouts on Aug. 14, preventing it from attracting sufficient imported capacity, he said.

"This pricing seems to have ensured the outcome in which load shedding became necessary," Harvey said. "The proposed changes are intended to ensure that this cycle does not repeat."

The MSC also supported CAISO's plan to make sure resource sufficiency tests are implemented properly in summer 2021, "which we understand was not the case during summer 2020," the committee said in its opinion. Implementation failures allowed the ISO to pass its bid range sufficiency test when it was in Stage 2 and 3 emergencies. The committee said CAISO needs to better explain how such an outcome was possible. ■

EIM Governing Body OKs Summer Readiness Measures

By Hudson Sangree

The Western Energy Imbalance Market's Governing Body approved two CAISO measures and endorsed a third Wednesday to improve reliability and lessen the chances that the West will be hit with capacity shortfalls again this summer.

The Governing Body has primary approval authority over two of the measures, which affect the EIM. One would enhance testing to make sure balancing authority areas in the EIM have sufficient resources. Another would improve coordination among the BAAs.

The third measure deals with scarcity pricing under strained system conditions; the EIM's role was advisory. (See related story, *CAISO MSC Weighs Summer Market Changes*.)

The CAISO Board of Governors must still approve all three measures at its meetings on March 24 and 25. They are part of the *summer readiness* initiatives that the ISO fast-tracked in response to the rolling blackouts in mid-August and issues identified in a root-cause analysis of the events.

A separate resource adequacy initiative is also moving forward, which CAISO hopes will be approved later this month. (See *CAISO Readies RA Enhancements for Summer*.)

With only three months to weigh the measures, not everything stakeholders — or even CAISO — wanted is included, but the process will continue in future phases, Anna McKenna, the ISO's interim vice president for market policy and performance, told EIM Governing Body members.

"We found it was necessary to move forward at this time with the changes we knew we could implement for this summer," McKenna said. "The changes we present to you today we know are feasible both for ourselves and, we believe, for market participants."

EIM Governing Body members Valerie Fong, John Prescott and Carl Linvill participate in a pre-pandemic meeting in December 2019. | *© RTO Insider*

In her *memo* to the Governing Body, McKenna said the resource sufficiency enhancement will help ensure that each BAA participating in the EIM can meet its own load and will prevent participants from "leaning" on the EIM, an interstate real-time energy market.

The current resource sufficiency evaluation includes two tests: a capacity test and a flexible ramping sufficiency test. The tests need upgrades to deal with the situation that gave rise to the August blackouts, when solar ramped down in the evening, she said. The tests showed CAISO had sufficient resources prior to the blackouts even though it was running short.

In response, "management proposes to enhance the EIM's resource sufficiency evaluation's capacity test so that it accounts for net load uncertainty in addition to each balancing authority area's net load forecast," the memo said. Net load is demand minus renewable resources, primarily solar. The August blackouts occurred at roughly 6:30 p.m., as solar generation steeply declined.

"Actual net load can be significantly different than forecast, particularly with significant amounts of renewable resources," it said. "For example, an unexpected sudden decrease in solar output increases the net load that must be met by dispatchable resources."

CAISO management wants to improve the capacity test "to require each balancing authority area to submit sufficient energy schedules and bids to account for net load forecast uncertainty, in addition to sufficient schedules and bids to cover its forecast load," McKenna wrote. "This will better ensure each balancing authority provides sufficient schedules and bids and the associated resource capacity to meet its actual net load, including net load that may be different than forecast."

The flexible ramping test accounts for some net load uncertainty, "but it only looks at ramp rate capability between market intervals and consequently does not ensure each balancing authority area has sufficient overall capacity based on its resource schedules and energy bids to meet its forecast net load and account for net load uncertainty," the staff memo noted.

"The net load uncertainty amount used in the resource sufficiency evaluation is determined by similar principles that the ISO market systems use for the real-time market's flexible ramping product procurement," it said. "The requirement accounts for the net load forecast error between the fiftee15-minute and 5-minute real-time market dispatch. This amount is adjusted [in the proposed changes] to reflect the diversity benefit of meeting net load uncertainty across the EIM with one set of resources."

'Step in the Right Direction'

CAISO management also proposed "an enhancement related to how the real-time market models energy interchanges into the ISO balancing authority areas at intertie scheduling points that are sourced from adjacent balancing authority areas in the EIM." The measure came from CAISO's review of operations during last summer's heat waves in which the ISO's market systems and EIM BAA used incorrect information, it said.

"Management proposes to make it mandatory for EIM balancing authority areas to use an automated market feature that updates the EIM balancing authority area's 'mirror resource' when the ISO market awards an import at an ISO intertie scheduling point that was sourced from the EIM balancing area," McKenna's memo said. "These are separate from EIM transfers resulting from the EIM's resource-specific dispatch."

Mirror resources model the energy interchange from EIM balancing authority area, the ISO said. "An oversight in updating a mirror resource's schedule during tight conditions last summer resulted in system anomalies and operational issues," it said.

The Governing Body unanimously approved the resource sufficiency and BAA coordination measures and recommended that the ISO Board of Governors adopt the scarcity pricing component.

During Wednesday's discussion, CAISO CEO Elliot Mainzer said the summer readiness enhancements are key to the future success of CAISO and the EIM.

"The sufficiency elements of the EIM are just absolutely foundational, and there should be no question whatsoever that we are unequivocally committed to addressing the issues that we found last year," Mainzer said. "These initial sets of changes are a step in the right direction, but we recognize it's not the end of the conversation, both for 2021 and beyond." ■

ERCOT News

Is the ERCOT 'Casino' Going Bust?

Bankruptcies, Shorts Pile up for Texas Grid Operator

By Tom Kleckner

Back before COVID-19 and the Great Texas Blackout, Clifton Karnei, general manager of the Brazos Electric Power Cooperative, participated in a 2019 panel discussion on ERCOT's deregulated market during the Gulf Coast Power Association's annual Fall Conference.

Asked about the energy-only structure, Karnei, with two decades of experience as a board member for the grid operator, called it a "casino market." He likened the market to playing a slot machine, saying some years are great for energy providers, others aren't. (See "Reliability Challenges Ahead," *GCPA Speakers Weigh Texas Market's Pros, Cons*.)

Karnei said the market's long-term sustainability remained in question, saying, "I think the jury is still out on that."

The verdict is now in for some market participants.

Brazos filed for bankruptcy on March 1, citing a $1.8 billion debt due to ERCOT as part of the market's $47 billion in transactions, fueled by $9,000/MWh energy prices incurred during the Feb. 14-19 winter storm. (See *ERCOT's Brazos Electric Declares Bankruptcy*.)

Rayburn Country Electric Cooperative is in equally perilous territory, as it has come up short for nearly $340 million in energy costs. The cooperative's normal weekly bill during February is about $800,000, it said in a *filing* with the Texas Public Utility Commission.

The city of Denton has *filed a lawsuit* against ERCOT on behalf of Denton Municipal Electric (DME) when the utility received an energy bill for $207 million following the February winter storm. The city, which has an annual budget of $231.4 million for DME, issued $100 million in new debt to help the utility with its immediate needs.

The city has also secured a temporary restraining order through April 30 against uplift charges. ERCOT had no response to the order.

On March 9, Just Energy became the first electric retailer to *declare bankruptcy*, filing for

Brazos Electric GM Clifton Karnei during the 2019 GCPA Fall Conference | © *RTO Insider*

protection in the U.S. and Canada over more than $250 million owed to the ERCOT market (21-30823).

Counter-Party	Total ($)
Brazos Electric Power Co Op Inc.	1,808,324,743.44
Entrust Energy Inc.	259,068,826.79
Rayburn Country Electric Cooperative Inc.	64,192,933.75
Hanwha Energy USA Holdings Corp. dba 174 Power Global	44,921,208.09
Griddy Energy LLC	24,457,040.56
ILUMINAR ENERGY LLC	20,804,454.94
GBPower LLC	17,692,030.59
MQE LLC	9,869,232.30
Energy Monger LLC	6,854,578.93
Bulb US LLC	5,192,554.65
Eagle's View Partners Ltd.	1,152,199.09
Others attributable to timing differences, net	218,748,884.44
Total	2,481,278,687.57

ERCOT's list of market participants that have short paid the market through March 8 | *ERCOT*

Three other market participants — Griddy Energy; Entrust Energy; and load-serving entity Power of Texas Holdings — have been bounced from the market for failure to make payments or designate a replacement for their services. Entrust was short nearly $260 million to ERCOT through March 8, and Griddy was almost $25 million short.

Some 20 other retailers are thought to be in danger of going under because of the high prices.

ERCOT itself was short $1.7 billion when Kenan Ögelman, the grid operator's vice president of commercial operations, testified before the state Senate on March 4. (See "ERCOT Market Under 'Financial Duress,'" *Texas PUC Won't Reprice $16B Error*.)

Staff have been using $800 million of undistributed congestion revenue right auction funds and netted some settlement invoices to help protect market liquidity.

The PUC's docket on issues related to the storm's "state of disaster" (*51812*) is filled with market participants seeking relief from market invoices and asking the commission to reprice $16 billion of transactions the Independent Market Monitor identified as being in error. (See "Monitor: $16B ERCOT Overcharge," *ERCOT Board Cuts Ties with Magness*.)

According to *Reuters*, several private equity

ERCOT News

firms have contacted ERCOT with offers of financial support to cover near-term cash needs.

ERCOT declined to comment on the report.

Legislature to Take up Repricing $16B

Add repricing the $16B worth of market transactions to the list of bills filed before the 87th State Legislature's Friday deadline.

Texas Gov. Greg Abbott has asked lawmakers to consider the repricing as an emergency item. PUC Chair Arthur D'Andrea has declined to reprice the $16 billion in transactions.

Texas House Speaker Dade Phelan has released a *list of seven* "priority bills" responding to last month's power outages. They would:

- *HB 10*: restructure the ERCOT board, replacing the unaffiliated members with members appointed by the governor, lieutenant governor and speaker of the House. It would also require all board members to reside in Texas and create an additional seat to represent consumer interests.
- *HB 11*: require the state's electric transmission and generation facilities to be weatherized against extreme weather. Utilities would be required to reconnect service as soon as possible and prevent slower reconnections for low-income areas, rural Texas and small communities.
- *HB 12*: create a statewide disaster alert system administered by the Texas Division of Emergency Management (TDEM) to alert Texans across the state about impending disasters and extreme weather events. The alerts would also provide targeted information on extended power outages to the state's regions most affected.
- *HB 13*: establish a council composed of ERCOT, PUC, Railroad Commission and TDEM leaders to coordinate during a disaster.
- HB 14: require the Railroad Commission to adopt rules requiring gas pipeline operators to implement measures that ensure service quality and reliability during an extreme weather emergency, covering both winter and heat wave conditions. (This bill has not been filed as of press time.)
- *HB 16*: ban variable rate products for residential customers to provide consumer protection to residential customers while still allowing the competitive market to flourish.
- *HB 17*: prevent any political subdivision or planning authority from adopting or enforcing an ordinance, regulation, code or policy that would prohibit the connection of residential or commercial buildings to specific infrastructure based on the type or source of energy that will be delivered to the end user.

Spring/Summer SARA Delayed 2 Weeks

ERCOT has pushed back by two weeks the release date for its final spring and preliminary summer resource adequacy report, from March 11 to March 25.

The grid operator *said* the release date has been changed to "accommodate new system stress scenarios and related report design changes being implemented" and because of staff's ongoing support for various winter storm response and preparedness investigations.

ERCOT's seasonal assessment of resource adequacy (SARA) for the winter has been criticized for under-estimating the severity of winter weather. The winter SARA was based on normal weather conditions during peak periods, from 2004 through 2018, which didn't account for what IHS Market called one of the most extreme winter events in the state in 70 years. ■

Frozen instrumentation on a power plant | *Entergy*

ERCOT News

ERCOT: Market Now Short $3.02B

PUC Orders Release of Generator Outages During Winter Storm

Continued from page 1

"I remain concerned about the possibility of cascading bankruptcies," Bivens said.

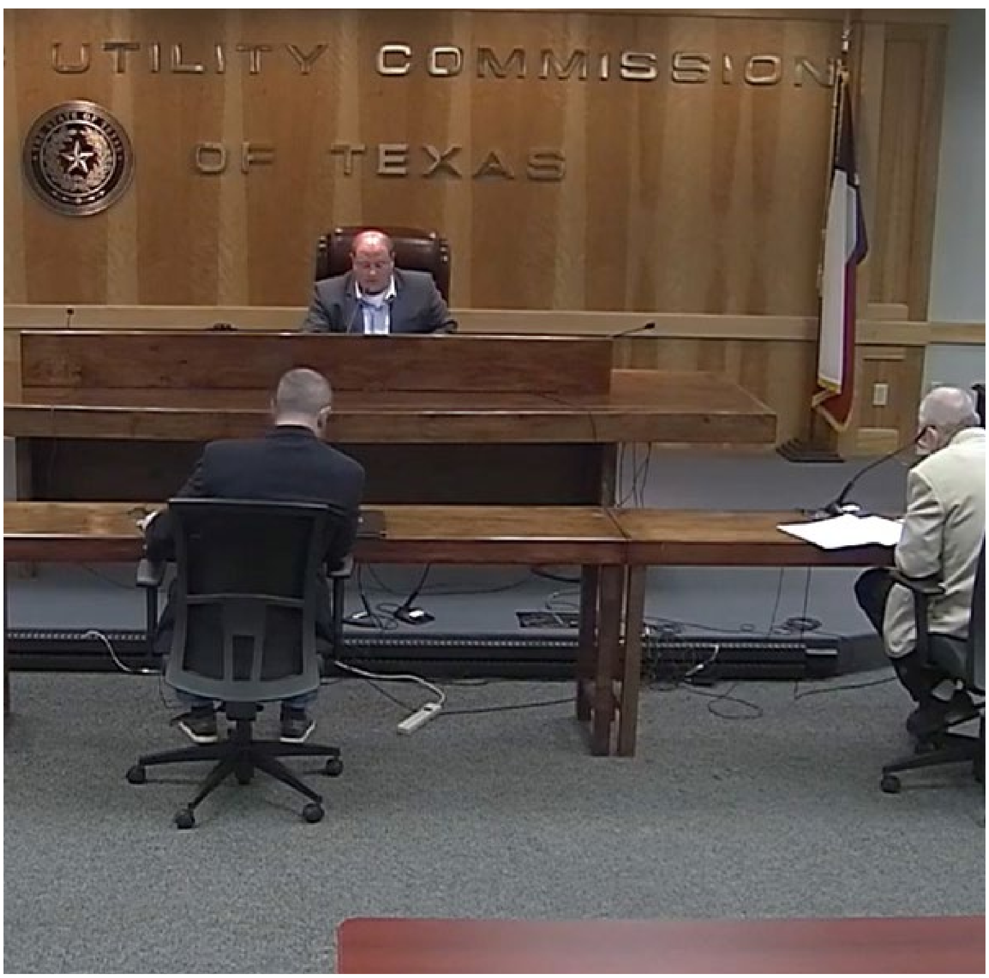
The directors did not ask any questions during the public session on "market financial matters." An executive session that followed was not expected to result in voting items, said ERCOT General Counsel Chad Seely, who led the meeting in the absence of a chair and vice chair.

Staff did not address a recent *Wall Street Journal* report that ERCOT has held talks with financial institutions, including Goldman Sachs, about potential financing options that might address the market shortfall.

A special meeting of corporate members listed on the ERCOT website as being scheduled for Friday was canceled before the board meeting began.

The board welcomed three new members: former ERCOT CEO Bob Kahn, representing the municipal segment; Demand Control 2's Shannon McClendon, representing the retail electric provider segment; and Pedernales Electric Cooperative CEO and former Texas Public Utility Commissioner Julie Parsley, representing the cooperative segment. Kahn and McClendon joined the board earlier in the week. (See *Former ERCOT CEO Rejoins Board*.)

The board is now up to 11 directors, missing only five unaffiliated positions. State law requires the board's leadership positions be filled by unaffiliated directors. Those directors all resigned or pulled their nominations the week after the outages. (See *ERCOT Chair, 4 Directors to Resign*.)



Arthur D'Andrea chairs the Texas Public Utility Commission meeting March 12 as the lone commissioner. | *Texas PUC*

ERCOT Releases Unredacted Generator Outage Data

The Texas PUC on Friday *ordered* ERCOT to post an unredacted version of generator and energy storage outage data during the February winter storm. The *new list* includes data from about 40 generators that were not initially published on March 4 (*51812*). (See "ERCOT Shares List of Generator Outages," *ERCOT Board Cuts Ties with Magness*.)

ERCOT wasted no time in complying with the order, publishing the data before the close of business. The outage/derate information now goes back to Feb. 10. Normally, ERCOT keeps the information confidential for 60 days following the operating day.

"Academics at [the University of Texas] are looking at this stuff closely," PUC Chair Arthur D'Andrea said. "We need as many eyes on this as possible to parse this data."

D'Andrea, holding his first solo open meeting since the resignation of the rest of the commission, also issued orders directing ERCOT to *claw back money* from generators that didn't provide contracted ancillary services during the storm and ensuing outages, and to *extend deadlines* for storm-related settlement disputes from 10 days to six months.

The commission unveiled what it called "the roadmap to move forward," a *document* in which staff identified eight categories requiring PUC attention in its response to the winter storm. The roadmap will be updated for future open meetings.

D'Andrea said the areas of focus have emerged as "the most likely contributors to the disaster."

"I'm confident our team will collaborate closely with Texans and the entities that serve them to get answers and devise solutions to protect our state," he said.

The areas of focus are:

- an examination into generation weatherization and emergency operations;
- establishment of standards to protect load essential to maintaining the grid;
- an examination of standards related to essential customer load and emergency load shed;
- a review of ERCOT's planning and forecasting processes;

Former FERC Chair Pat Wood testifies before the U.S. Senate Energy and Natural Resources Committee. | *U.S. Senate*

Counter-Party	$ Total
BRAZOS ELECTRIC POWER CO OP INC (CP)	1,862,896,844.79
BULB US LLC (CP)	8,622,013.10
EAGLES VIEW PARTNERS LTD (CP)	1,152,199.09
ENERGY MONGER LLC (CP)	8,510,409.60
ENTRUST ENERGY INC (CP)	290,353,388.82
GBPOWER LLC (CP)	19,894,349.13
GRIDDY ENERGY LLC (CP)	29,094,867.48
GRIDPLUS TEXAS INC (CP)	1,225,692.50
HANWHA ENERGY USA HOLDINGS CORP DBA 174 POWER GLOBAL (CP)	60,684,928.71
ILUMINAR ENERGY LLC (CP)	39,858,137.31
MQE LLC (CP)	13,082,623.20
RAYBURN COUNTRY ELECTRIC COOPERATIVE INC (CP)	570,428,968.18
VOLT ELECTRICITY PROVIDER LP (CP)	5,346,087.25
Others due to timing differences, net	181,558,442.51
Total	3,092,708,951.67

The ERCOT market, short nearly $3.1 billion on March 11, is now short $3.02 billion. | *ERCOT*

- a review of communications expectations among ERCOT, utilities, the PUC and the general public;
- an examination of ERCOT's settlement and market uplift practices;
- potential improvements to ERCOT's wholesale market design; and
- review of customer protections in the retail market.

The PUC has invited interested parties to submit their suggestions for the project using the agency's *filing system*. Staff also plan to file a separate forensic audit report on the ERCOT market with the state legislature before its session ends May 31.

D'Andrea thanked Adrianne Brandt, the commission's newly appointed director of ERCOT accountability, and the grid operator's former COO Brad Jones for volunteering to ensure it and the PUC "are on the same direction when trying to figure out what went wrong and that it never happens again." (See *Texas PUC Strengthens Oversight of ERCOT*.)

"I'm so grateful to both of them. They don't need this job," the chairman said. "I begged [Brandt], pleaded with her, to come out of retirement. She's a public servant like no other, and Brad is the same. I'm going to keep them as long as I can."

ERCOT Absent from US Senate Hearing

ERCOT was conspicuously absent from the list of witnesses testifying before the U.S. Senate Energy and Natural Resources Committee last week at a hearing on electric service reliability, resilience and affordability. Sen. Martin Heinrich (D-N.M.) asked committee Chair Joe Manchin (D-W.Va.) why there was no one representing the Texas grid operator. (See related story, *Senators Grill Robb, Asthana over Texas Outages*.)

"It certainly wasn't for the lack of inviting them," Manchin said. "We invited everyone from ERCOT and spoke to everyone that is still left, which I'm not sure anyone is left."

"So ERCOT chose not to be here?" Heinrich asked.

"They needed to remain available to their direct regulators," Manchin responded, referring to the Texas legislature. "They are in total confab with them."

Former ERCOT CEO Bill Magness did supply a *statement* that was entered into the record.

"We at ERCOT are working day and night to provide policymakers with the information they need to ensure that Texas electric suppliers maintain the necessary capacity and resiliency to meet the demand created by unprecedented winter weather events," Magness wrote.

Former FERC and Texas PUC Chair Pat Wood stood up for ERCOT under questioning from the panel. "I am not aware of any evidence that ERCOT had alternatives to significant load shedding in real time. Their responsibility is to protect the entire grid in real time," he said.

Wood also defended Texas' reliance on renewable resources, which drew criticism from Ranking Member John Barrasso (R-Wyo.) and other GOP members.

"At the end of the day, after sitting in the dark for a few days last month, I can vouch for the fact I want every megawatt, regardless of how it's generated, on the grid," Wood said. "Wind was slow to come back, but so was gas and coal. I'm not willing to give up that we don't have a good energy portfolio. It just didn't show up when we needed it."

Wood noted the winter storm struck all 254 Texas counties and was the third most intense storm in 130 years of recorded weather in the state.

"It was historic in duration, geographic expanse and low temperature," he said.

CPS Takes Action Against ERCOT

San Antonio municipal utility CPS Energy on Friday *filed* a lawsuit against ERCOT, its officers and directors over what it said is "one of the largest illegal wealth transfers in the history of Texas."

CPS pointed to the $3 billion in market transactions when scarcity pricing remained in effect Feb. 18-19 after ERCOT had stabilized the grid. The utility said it wanted to protect its customers against "massive errors in ERCOT's excessive prices, which will cause price spikes in monthly bills and a blatantly unlawful result."

Calling the power prices and natural gas costs "illegitimate," CPS said it spent about $1 billion buying gas and power during the winter storm, more than its annual fuel costs in a typical year. The utility said in its lawsuit that it is owed at least $18 million by ERCOT.

Moody's Investors Service *said* CPS and ERCOT recently reached an agreement on purchased power costs that will result in the utility paying net obligations of $87 million to the grid operator. That number could increase with any uplift to the market to cover short payments. ■

PUCT's Botkin Resigns, 1 Commissioner Left

By Tom Kleckner

Texas Public Utility Commissioner Shelly Botkin resigned March 8, leaving the three-person body with just one member.

The PUC announced Botkin's departure in a one-sentence *statement* saying she had "resigned her role … effective immediately."

Botkin's resignation leaves only Chair Arthur D'Andrea on the PUC. Former Chair DeAnn Walker resigned the previous week after taking heat from lawmakers over the PUC's response to the February blackouts that left millions of Texans without power during a cold snap. (See *PUCT's Walker Steps Down from Commission*.)

Botkin was appointed to the commission by Gov. Greg Abbott in 2018 and reappointed in 2019 to a term that would have expired in 2025. Previously, she handled government relations and communications for ERCOT following 10 years at the Texas Capitol as a senior policy analyst. (See *Texas PUC's Botkin Applies Life Lessons to Work*.)

At her last PUC open meeting on March 5, Botkin said she would be taking Walker's position on SPP's Regional State Committee. However, something apparently changed over the weekend and, on March 8, she surprised staff with her resignation.

Transmission and reliability consultant Alison Silverstein told *RTO Insider* that Botkin's time with ERCOT has invited conflict-of-interest perceptions as state officials sort through the cause of the outages, which claimed the job of CEO Bill Magness and prompted multiple resignations from the grid operator's board. (See *ERCOT Cuts Ties with Magness*.)

"Real or not, the appearance of bias cannot be overcome by [Botkin's] deep industry expertise and personal integrity, and this issue is too important to be compromised by potentially tainted decisions from Texas' lead regulatory agency," Silverstein said.

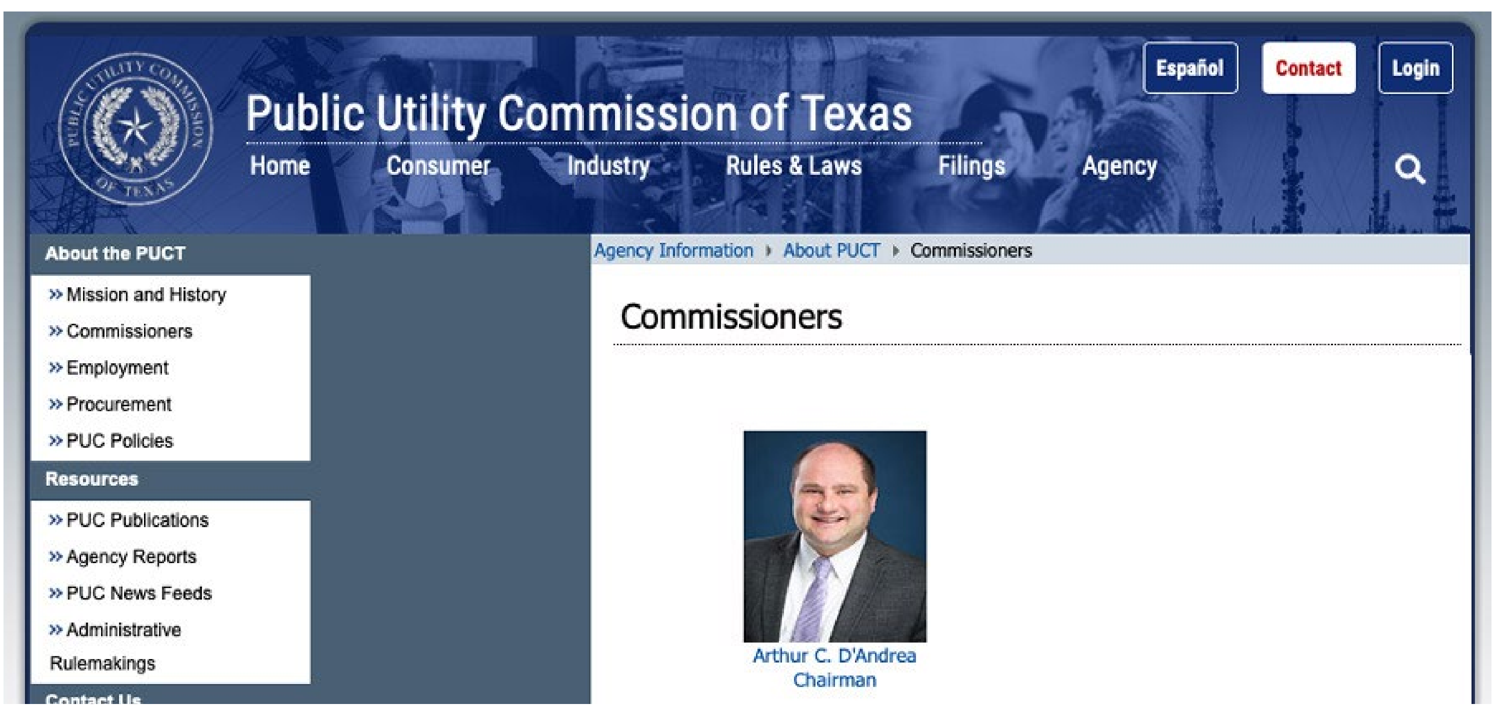
Under the PUC's governing statute, the commission is able to convene meetings with just one commissioner. That happened in 2001, when Brett Perlman was left by himself after Judy Walsh cycled off the PUC and Pat Wood was nominated for the FERC chairmanship. Perlman conducted at least one meeting by himself.

During its last meeting, the PUC declined to act on the ERCOT Independent Market Monitor's recommendation to reprice $16 billion worth of emergency market transactions, saying the unintended consequences could be disastrous to a different set of market participants. (See *Texas PUC Won't Reprice $16B Error*.)

Shelly Botkin, shown during a 2018 meeting, has resigned from the Texas PUC. | © *RTO Insider*

Lt. Gov. Dan Patrick responded March 8 by *calling* for the PUC and ERCOT to follow the Monitor's recommendations. He said the PUC had "declined" to exercise its authority and follow the Monitor's recommendation.

"Correcting this $16 billion error will require an adjustment, but it is the right thing to do," he said. "It will ultimately benefit consumers and is one important step we can take now to begin to fix what went wrong in the storm." ■



The Texas PUC is down to one commissioner. | *PUCT*

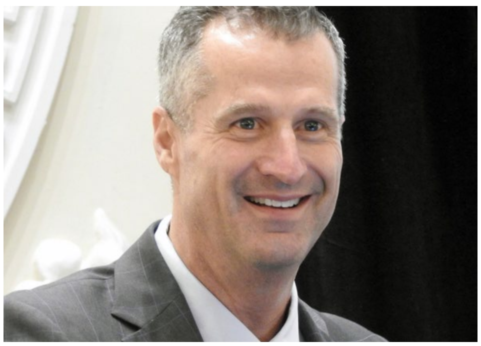
ERCOT News

Texas PUC Strengthens Oversight of ERCOT

Brandt, Jones to Lead Commission's Accountability Effort

The Texas Public Utility Commission moved Thursday to strengthen its oversight of ERCOT by naming former staffer Adrianne Brandt to guide a financial analysis of last month's near system collapse that resulted in $47 billion worth of market costs. (See related story, *Is the ERCOT 'Casino' Going Bust?*)

As director of ERCOT accountability, Brandt will be assisted by former ERCOT COO and



Former NYISO CEO Brad Jones has been tapped to help improve Texas regulators' oversight of ERCOT. | © *RTO Insider*

NYISO CEO Brad Jones in a consulting role.

PUC Executive Director Thomas Gleeson said Brandt and Jones will "ratchet up ERCOT's accountability to the PUC and the people of Texas."

Brandt most recently served as an adviser to former PUC Chair DeAnn Walker before retiring from the commission last year. PUC Chair Arthur D'Andrea said Thursday that she came out of retirement during the widespread rolling blackouts that followed the near collapse of the ERCOT grid.

Previously, Brandt directed market energy policy for CPS Energy and handled regulatory and government affairs for Austin Energy. She was also with the PUC for six years as a utility specialist.

"Adrianne is the exact mixture of knowledge, experience and toughness this role requires," D'Andrea said in a press release. "She knows the intricacies of power markets and will bring her forthright nature and expertise to bear in a way that will help our agency more ably fulfill

Adrianne Brandt | *PUCT*

our oversight role."

Jones was ERCOT's COO for two years before taking over at NYISO grid in 2015. He abruptly left NYISO in 2018 in what was termed a "personal decision." (See *Brad Jones out at NYISO*.)

Jones has 30 years of industry experience, including serving as chairman of the Edison Electric Institute's Executive Advisory Committee and as a board member for the Gulf Coast Power Association. ■

— Tom Kleckner

Abbott Rejects Call to Fire D'Andrea

Patrick, Monitor Press PUC to Reprice $5.1B in Market Transactions

By Tom Kleckner

Texas Gov. Greg Abbot (R) on Friday rejected Lt. Gov. Dan Patrick's (R) call to fire Public Utility Commission Chair Arthur D'Andrea, who has steadfastly refused to reprice billions of ERCOT market transactions that occurred during the February storm that almost collapsed the grid.

On Friday evening, Patrick *called* on Abbott to replace D'Andrea, the lone electric regulator left standing, when he fills the PUC's other two vacancies, saying D'Andrea "demonstrated little competence and questionable integrity" during several hours of testimony before the State Legislature on Thursday.

Abbott responded by *saying* he agrees with D'Andrea's refusal to reprice the market. "The governor does not have independent authority to accomplish the goals you seek," Abbott told Patrick. "The only entity that can authorize the solution you want is the legislature itself. That is why I made this issue an emergency item for the legislature to consider this session."

ERCOT's Independent Market Monitor has said those transactions are an error, a position its director reiterated before the Senate's Jurisprudence Committee on Thursday.

"I believe ERCOT has the authority to correct the price, if ordered to do so," monitor Carrie Bivens said.

The Monitor *revised* the initial $16 billion down to $5.1 billion on Thursday after receiving meter information and other additional data. Saying it had considered day-ahead market positions, hedging activity, and offsetting supply and demand positions by multiple entities under the same corporate umbrella, the IMM said real-time market transactions net out to $4.2 billion. Ancillary service charges — which the Monitor said ERCOT improperly priced above the $9,000/MWh cap — should be reduced by an additional $900 million, it said.

The IMM noted that its calculations included only contracts settled by ERCOT, not futures contracts.

The market transactions in question were incurred when ERCOT extended emergency conditions for 32 hours after it stabilized the grid on Feb. 17 and stopped shedding load. The decision kept the grid operator's $9,000/MWh scarcity pricing — enabled by a Feb. 15 PUC *emergency order* — in place through the morning peak of Feb. 19.

ERCOT CEO Bill Magness argued the decision wasn't an error during his testimony before the Senate committee, saying it was "an intentional and carefully considered decision to protect human health and safety while stabilizing the electric grid."

"It is clear to me there is a difference of opinion of whether there was a billing error or there was a deliberate decision to take action to save the lives of Texans in their homes. That issue will ultimately be decided by courts," Abbott told Patrick.

Abbott, who last week *added* legislation to correct "any [ERCOT] billing errors" to the

Texas Lt. Gov. Dan Patrick (left), in a rare appearance on the Senate floor, questions PUC Chair Arthur D'Andrea before the Jurisprudence Committee on March 11. | *Texas Senate*

ERCOT CEO Bill Magness explains the decision to keep scarcity pricing once the load sheds ended. | *Texas Senate*

legislators' priority list, appointed D'Andrea to the commission in 2017. He named him as the chair when DeAnn Walker resigned earlier this month. (See *PUCT's Walker Steps Down from Commission*.)

The lieutenant governor's ire was raised by D'Andrea's continued insistence that repricing 32 hours of market transactions at the $9,000/MWh systemwide cap would lead to additional bankruptcies and other unforeseen circumstances. The chairman said he lacked the authority to retroactively change the prices and questioned the Monitor's contention of a billing error. (See *Texas PUC Won't Reprice $16B Error*.)

That was enough to bring Patrick to the Senate floor during D'Andrea's testimony for what he said was only the second time he questioned a witness during his six years in office.

"It's a highly unusual circumstance, isn't it?" Patrick asked D'Andrea.

"Very," D'Andrea responded.

Armed with a transcript of D'Andrea's testimony earlier that day to the House of Representatives' State Affairs Committee, Patrick said, "I have to be candid with you: I just don't know what to believe. Much of what you said this morning was not true. It was speculation. It was exaggeration."

Patrick noted that the Lower Colorado River Authority (LCRA) had issued a statement after D'Andrea recounted a conversation to the House in which he said the public utility's CEO, former Secretary of State Phil Wilson, had said repricing the market transactions "would

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bankrupt them."

"At no time did LCRA ever make such a comment to Chairman D'Andrea," LCRA said in a *Twitter thread*. The utility, which generates and sells power, said repricing the entire market "would actually benefit LCRA" but admitted repricing ancillary services charges, estimated by the IMM to amount to $900 million, "could substantially harm LCRA."

"That testimony you gave in the House was incorrect," Patrick told D'Andrea.

"I would love to verify that with him, because what I heard him say was their preference was we just reprice the energy," D'Andrea said. "He said, 'If you do both ... if you reprice ancillary services, we will owe a massive amount of money."

Patrick continued to hammer D'Andrea, referring to a March 9 phone call between the two and Patrick's chief of staff and a senior adviser — "I have earwitnesses," the lieutenant governor said — during which they discussed the chairman's reaction to ERCOT's decision to extend scarcity pricing.

In testimony to the House and Senate, D'Andrea said he woke up the morning of Feb. 18 and saw a *market notice* from ERCOT alerting participants that, although load was no longer being shed, scarcity pricing was being extended through the morning peak of Feb. 19. He said his chief of staff was "panicked," but D'Andrea said he called Magness "and he talked me down."

"Remember what you were telling me in real time?" Patrick asked.

"That it was a mistake and wrong impression," D'Andrea said. "That was my first impression. I woke up that morning thinking that it didn't make [economic] sense.

"I've told this story a million times the last few weeks," he continued. "I told [the chief of staff], 'Let me check this. This is possibly a mistake. This decision was made at 1:30 [a.m.].' I called Bill and said, 'Please explain this to me.' He said, 'We had a lot of industrial load still out. If we let the prices drop, the load's going to come back on.'"

D'Andrea said he thanked Magness for making the decision under pressure. "I think it was heroic," he said.

Magness testified that he made the decision after consulting with Walker. He said that while the grid had been stabilized, dropping prices could have led more industrial load and demand-response customers to come back on, plunging the ERCOT grid back into controlled outages.

"We were so concerned about not going back into rotating outages that, based on what we knew, it was the best decision," Magness said. "Given the emergency context, I just can't tell you that I regret the decision."

"You have to put lives first, as painful as it is to deal with now," D'Andrea said. "We'd just been through three nights of load shed. We didn't want a fourth. I just thought we would deal with the economic fallout later."

D'Andrea's responses did little to satisfy Patrick, who kept insisting the chairman had the authority to direct ERCOT to reprice the 32 hours of scarcity prices. He pointed to a section of the *ERCOT Protocols* (9.5.12 Suspension of Issuing Settlement Statements for the Real-Time Market) as proof.

The language says the grid operator's Board of Directors "may direct" ERCOT to suspend real-time settlement statements' issuance "to address unusual circumstances." However, Patrick omitted the next sentence, which reads, "Any proposal to suspend settlements must be presented to the Technical Advisory Committee for review and comment, in a reasonable manner under the circumstances, before such suspension."

In his Friday statement, Patrick said the state's Public Utility Regulatory Act gives the PUC authority to direct ERCOT to lower the prices, an apparent reference to *section 39.151*'s language that says the grid operator "is directly responsible and accountable to the commission."

Twenty-eight of the state's 31 senators joined Patrick last week in signing a *letter* urging D'Andrea to "immediately correct" the prices, saying that is "squarely within [D'Andrea's] authority, whether by your own action or an order to ERCOT."

"I don't think I have that authority to order them to reprice," D'Andrea said. "I have to follow the protocols because that's what people who play in the market expect. We're the ones that delegate to ERCOT the protocols. Those are law in my world. I have to act lawfully."

"It's pretty clear the rules give you that authority," Patrick said. "Even if the governor of the state of Texas told you to correct this error ... are you saying that you would not obey that?"

"I've worked for him for a decade, and he's never asked me to do something that I thought was illegal," D'Andrea responded.

"We have to have someone we think is credible," Patrick said. "You say things in the morning, and you say things in the afternoon that are totally different. It's hard to really accept you as a credible witness."

Patrick said he found IMM Bivens to be the day's only credible witness. For her part, Bivens agreed that D'Andrea and Magness were faced with a difficult decision over whether to allow the scarcity prices to continue Feb. 18-19.

"This was a very difficult decision for us, as well," she said. "We weighed the pros and cons. At the end of that analysis, we really believe this was an error, and the error should be corrected."

Bivens said she discussed the situation with both Magness and Walker on Feb. 18. As the IMM monitored the market, it saw "significant" reserves coming online, with "room for more,"

PUC Chair Arthur D'Andrea answers questions before the House State Affairs Committee on March 11.| *Texas Senate*

ERCOT News

she said.

She said the $5.1 billion is real money. "That's money that has left the system and is not coming back. That is the money that would change hands if our recommendation was put in place."

Committee Chair Joan Huffman (R) asked Bivens whether it would be possible for the market players to negotiate an "equitable solution."

"I believe there's a way," she said, without offering further details. "I believe it's complicated, and the longer we wait, the more complicated it gets."

The problem is the Intercontinental Exchange (ICE), which offers more than 50 futures contracts in ERCOT and four options contracts. The exchange has been proactively making it clear to state regulators and lawmakers that repricing the transactions would "undermine the stability of the futures markets."

D'Andrea said he discussed the situation last week with ICE, New York banks and the Dallas Federal Reserve and said, "They're all afraid of [repricing]." When a House representative said he had a communication from ICE that the exchange was delaying final settlement on some ancillary services transactions, D'Andrea said he had heard from ICE President Trabue Bland that "'that ship has sailed.'"

In a *letter* to D'Andrea, Bland pointed out that ICE is regulated by the Commodity Futures Trading Commission. "CFTC and international regulations could not be clearer: When a contract is settled, it must be treated as final. Repricing the ERCOT contracts days or weeks after the settlement will cause chaos in the futures markets."

IMM Director Carrie Bivens testifies before the Texas Senate. | *Texas Senate*

"Removing one domino by repricing ERCOT for the outage week will have cascading effects in other markets and may cause bigger problems than the repricing solves," ICE *told* a state Senate committee. "Changing these observed prices now destroys the value of any hedge. This is the slippery slope ICE Futures US is encouraging the state of Texas to avoid at all costs."

"There is no clawing that money back. There is no unwinding the ICE transactions," D'Andrea said.

"In the universe of best practices, it would have been best if the error had not occurred," Bivens said. "Second-best would have been the repricing of the market to occur quickly. Now that the ERCOT derivatives market has been settled, we recognize that creates complications for certain entities that use those markets."

ERCOT has a 30-day window to settle transactions with its market participants. Because the PUC's emergency order went into effect Feb. 15, that would place the deadline for any possible resettlements as early as Wednesday.

The state's largest public power utility, Brazos Electric Power Cooperative, has declared bankruptcy, and dozens of retailers are thought to be nearing insolvency as well. Asked if he anticipated the bankruptcies, D'Andrea said, "I knew we were making some decisions that were inflicting real pain on people in the market."

For now, D'Andrea said he needs to repair his relationship with Bivens.

"I really regret that this hearing has pitted us against each other in a strange way," he said. "I can't solve this problem for Texans without the IMM standing next to me. This hearing has us against each other, and I can't have that." ■

ERCOT News

Texas Senate Passes Bill to Reprice ERCOT Feb. Sales

By Tom Kleckner

The Texas Senate on Monday passed a bill that would require repricing of $4.2 billion in wholesale market transactions that ERCOT's Independent Market Monitor identified as "billing errors" associated with the winter storm that gripped the state last month.

If passed by the House of Representatives and signed by Gov. Greg Abbott, *Senate Bill 2142* would direct the state's Public Utility Commission to reprice market transactions for Feb. 18-19, when ERCOT kept $9,000/MWh scarcity pricing in place after the grid had been stabilized following the storm.

Authored by Sen. Bryan Hughes (R), the bill says the PUC has "all necessary authority" to order ERCOT to correct wholesale power and ancillary services sold between 11:55 p.m. Feb. 17 and 9 a.m. Feb. 19. It places a March 20 deadline on the commission to do so and does not offer details on how to correct the prices.

During testimony before the Senate's Jurisprudence Committee March 11, PUC Chair Arthur D'Andrea said that he lacked the authority to retroactively change the prices, and he questioned the Monitor's contention of a billing error. He said repricing the market would lead to additional bankruptcies and other unforeseen circumstances. (See *Abbott Rejects Call to Fire D'Andrea*.)

D'Andrea, the only commissioner left after the other two resigned, declined to comment on the bill.

"When it comes to any pending legislation, out of deference to the Legislature and its ongoing process, the chairman's commentary will be limited to his statements in legislative hearings, our open meetings and associated memoranda," spokesperson Andrew Barlow said in a statement Monday.

The bill will likely be opposed by power producers, who benefited from the $47 billion in market transactions during the storm and its aftermath. ERCOT's normal annual market transactions amount to about $10 billion.

The full Senate wasn't scheduled to be in session Monday, and the bill had not been filed when the morning began. However, SB 2142 was read on the Senate floor and then heard by the Jurisprudence Committee, which conducted nearly six hours of hearings last week on the issue. The bill passed out of committee by a 3-1 vote, with only Sen. Brandon Creighton (R) opposing.

The legislation cleared the Senate by a 27-3 margin.

Lt. Gov. Dan Patrick, who dressed down D'Andrea in front of the Jurisprudence Committee last week, thanked senators for "this extraordinary day."

"The Senate has acted. We now ask the governor to join us," Patrick said. "Hopefully, the House will take up [this bill] and pass the legislation necessary."

Abbott last week added the repricing issue as emergency legislation for consideration. He told Patrick on Friday that the legislature is the only body that can "authorize the solution you want." ■

Texas Lt. Gov. Dan Patrick guides debate over legislation that would reprice the ERCOT market. | *Texas Senate*

ISO-NE News

Conn. Officials Push Back on 'Gas Tax' Label of TCI-P

By Jason York

Connecticut officials and gasoline trade associations squared off March 8 over the Transportation and Climate Initiative Program (TCI-P) during a 12-hour virtual public hearing held by the General Assembly's Environment Committee.

The hearing sought input on three bills, including one regarding *climate change adaptation* and another on *environmental air quality*. But *S.B. 884*, which would direct the Department of Energy and Environmental Protection (DEEP) to create rules implementing TCI-P, was the main event.

Passage of the legislation is a priority for Connecticut Gov. Ned Lamont. He joined Massachusetts, Rhode Island and D.C. in committing to the cap-and-trade program, aiming to cut greenhouse gas emissions from vehicles by 26% from 2022 to 2032 and invest $300 million per year in cleaner transportation choices and public health improvements. (See *NE States, DC Sign MOU to Cut Transportation Pollution*.)

DEEP Commissioner Katie Dykes said opponents of the bill want to "mischaracterize" it as a gasoline tax.

"You may hear from folks who will tell you that this bill is essentially a 17-cent gas tax, and that characterization is completely false and is based on misinformation," Dykes said. "This is not a gas tax. It is an environmental program that will cap greenhouse gas emissions and require the [fossil fuel] industry to pay for the damage it is causing to public health and the climate."

Dykes said there have been "several years" of modeling TCI-P to assess its impact on reducing emissions and potentially increasing retail gas prices in participating jurisdictions by 5 cents/gallon beginning in 2023, assuming fuel suppliers choose to pass down 100% of allowance costs to consumers. Multiple consumer protection safeguards, including a cost-containment reserve, are designed to limit the program's impact on prices at the pump and would kick in at 9 cents/gallon.

Dykes said the reserve "acts like a guardrail" to prevent prices from exceeding 9 cents/gallon increase and "operates like the airbags in your car."

"If we hit the [cost-containment reserve], we don't just keep driving," Dykes said. "Instead, we go into a review to adjust the parameters of the program, so that we can ensure that the consumer impacts are not staying at that CCR level."

According to Dykes, the cost-containment reserve for TCI-P is based on a similar mechanism from the Regional Greenhouse Gas Initiative (RGGI). The "17-cent talking point" is based on studies that "exaggerate assumptions" about electric vehicle battery costs and fuel economy and "assume no cost-containment reserve."

"So essentially, it's like modeling that this program is going to be wildly more costly than what our assumptions have determined, and that there are no consumer protection mechanisms to prevent the program from exceeding those 9-cent costs," Dykes said.

Deputy Transportation Commissioner Garrett Eucalitto said he wanted to clear up the misconception that TCI-P is "designed to price people out of driving or force them into electric vehicles. ... That could not be further from the truth."

Rep. Stephen Harding (R) asked Dykes if there is another way to reduce emissions without increasing gas prices, which he called "regressive."

Dykes said that because TCI-P is a market-based program, fuel suppliers participating in a regional market will have competitive options to reduce compliance costs, such as blending in biodiesel that will lessen the number of allowances "for each gallon that they're selling into the state."

Gasoline Associations Respond

Michael Fox, executive director of the Gasoline and Automotive Service Dealers of America, said his group represents "mom and pop gasoline retailers" who sell more than half of all the fuel in Connecticut and collectively oppose the bill.

"TCI is a gas tax called by a different name," Fox said. "The cost of the carbon credits will be passed on as higher fuel costs to Connecticut consumers. TCI perfectly fits the definition of what a tax is or is not."

Sen. Christine Cohen (D), co-chair of the committee, asked Fox how wholesalers would pass

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down gas price increases to consumers. Fox answered by comparing the program to a gross receipts tax, levied on goods at the wholesale level — instead of at retail, like a sales tax — which is then passed on to consumers through higher prices.

"So, if you force these distributors to purchase these carbon tax credits, they're just going to pass those additional costs on to us," Fox said. "I think this is something no one has addressed and needs to think about."

Fox said carbon credits sold at auction "are not designed for the lowest price."

"They are designed to bring in the highest price," Fox said. "That would allow the big [fuel] distributors to keep bidding up the price of these carbon credits, and then the smaller distributors wouldn't be able to afford them, thereby putting them out of business and eliminating competition. That is a huge problem under TCI."

Christian Herb, president of the Connecticut Energy Marketers Association, said his group's members "own, operate and distribute fuel" to more than 1,000 gas stations in the state.

"The families I represent are in their third and fourth generation where they have installed [and] invested hundreds of millions of dollars in their properties," Herb said . "Let the EV industry pay for their infrastructure just like my members have."

Herb said TCI-P "is a part of a bigger effort to electrify the entire economy in Connecticut."

"You're pursuing policies that further rely on monopolies like Eversource [Energy] and Avangrid, who deliver the highest rates in America, and they've just asked for another increase," Herb said.

He added that TCI-P trades "tailpipe emissions for electric generation emissions."

"The vast majority of electricity in Connecticut is generated with natural gas, which is, according to EPA, 87 times more potent at trapping greenhouse gases than carbon," Herb said. "So, methane from natural gas is doing that damage more than what are we achieving by adopting this. The bill doesn't move the environmental needle. DEEP testified earlier today that sea-level rise was a huge concern. This bill doesn't fix that; it doesn't change it, especially when most states aren't even participating." ■

Connecticut state capitol building in Hartford | *jglazer75, CC BY-SA 2.0, via Wikimedia Commons*

MISO News

MISO Underscores Need for RA Action in Winter Storm Review

By Amanda Durish Cook

MISO last week reiterated the extraordinary nature of mid-February's winter storm, promising more data later this month and resource adequacy solutions by year-end.

During a teleconference of the Market Subcommittee on Thursday, MISO Director of Operations Planning J.T. Smith thanked control room staff and members a month after extreme winter weather forced load shedding in MISO South and Central Illinois.

"There was a lot going on … the week of Feb. 15, not just in MISO, but in the Eastern Interconnect," he told stakeholders.

Smith said all players did "commendable work" in the "heat of the moment." But he said the RTO's extensive preplanning and communication was no match for the sustained cold and ice.

"From my seven years in Minnesota, 20 degrees is one thing; but also living in the South, having extended cold days, having 20 inches of snow, having ice cover a good portion of the South … it's not surprising that we got to load levels that are all-time peaks," he said.

MISO said demand Feb. 16 peaked at 31.6 GW in its South region, nearly matching the all-time winter peak of 32 GW set in early 2018. The demand was also close to MISO South's all-time summer peak of 32.7 GW, set in 2015.

Smith said the shortages were largely driven by fuel supply issues: frozen coal piles, natural gas pipelines and power plant equipment.

"I'm sorry if I keep saying this word, and I've heard this work so much, but: 'unprecedented.' The weather was so broad; it was so complicated," he said.

The RTO was forced to order load shedding on the evening of Feb. 16 as the cold settled in and generation began tripping offline. Staff said that by 3 p.m., 2.5 GW of generation had gone dark in MISO South.

The grid operator said that when it ordered load balancing authorities in the South region to collectively shed 700 MW of load around 8 p.m., grid stability was in "danger." MISO had run out of imports and it was trying to "avoid widespread cascading outages."

The "procedures worked as drilled and designed, limiting load curtailment in the MISO footprint to a regional event lasting approximately two hours and a handful of local events," the RTO *said*.

It also ordered localized rolling blackouts because of transmission emergencies. It sent 1,000 MW of load offline for about four hours in Louisiana and another 130 MW offline in Central Illinois for seven hours. It also shed load twice in southeast Texas across two days because of local transmission emergencies, taking 800 MW offline for 16 hours on Feb. 15 and dropping 300 MW for almost six hours on Feb. 16. Smith said that in a few instances, MISO was also forced to dispatch down generation to manage transmission constraints.

By Feb. 17, approximately 40% of the grid operator's installed resources were unavailable.

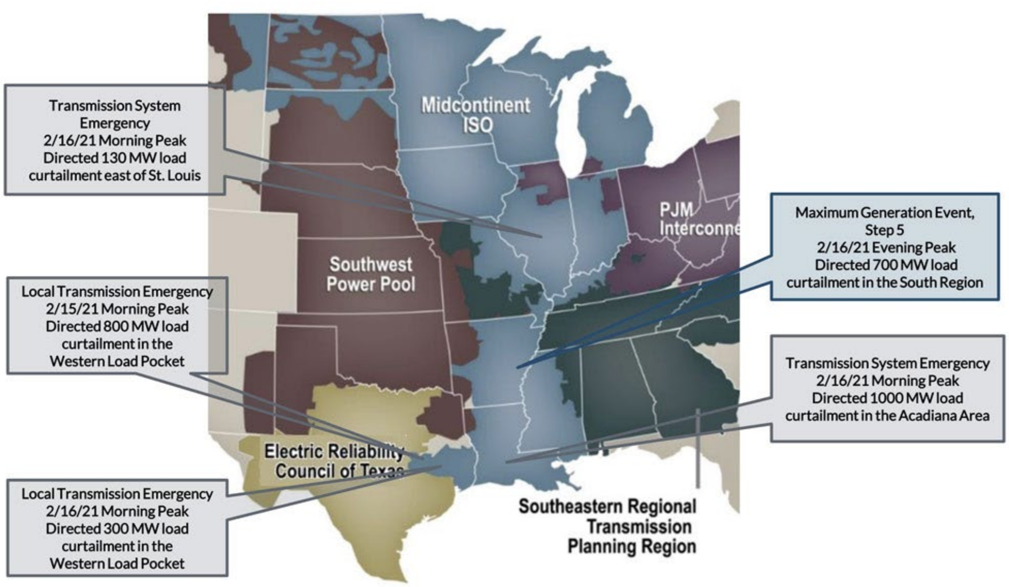
Smith credited in part the "beauty of the Eastern Interconnect" for making imports from PJM possible during wintry conditions and preventing a more dire situation. Early on, he said MISO and PJM were also able to flow power to support SPP's operations.

Smith also said MISO was "bumping up against" its 3,000-MW limit on Midwest-to-South transmission flows over SPP's system for much of the event.

Gabel Associates' Travis Stewart asked staff to prepare a breakdown of unavailable resources by resource type to see which were most affected by the storm. Others asked MISO to prepare a chart of unplanned generation outages by region and to share its load forecasts for the week so they can be compared to actual load.

Smith said the load forecast request was "doable" but that during the storm, third-party weather models were not capturing the worsening conditions fast enough. However, he said MISO had more cold-weather cutoff data for generation than in previous polar vortexes.

Texas Public Utility Commission market economist Werner Roth said that even though he appreciated MISO's proactive approach, the event marked the second time in six months that Southeast Texas was forced into load



Breakdown of local and regional load shed in MISO on Feb. 15-16 | *MISO*

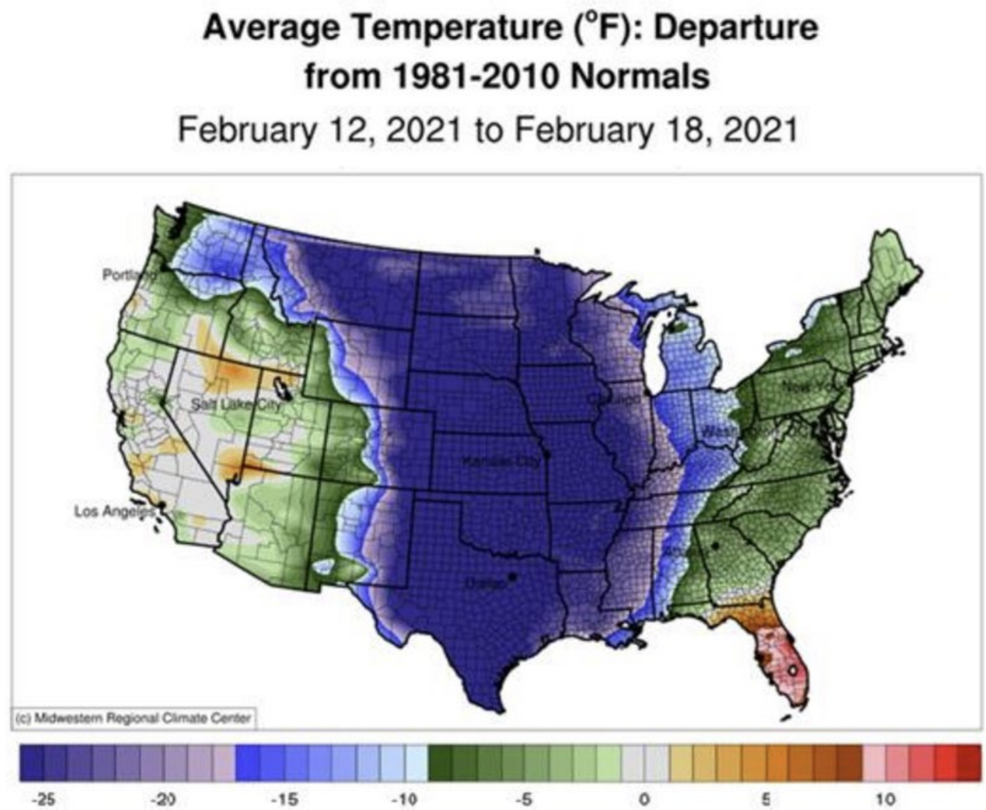
MISO News

shed. He passed on the commission's thanks but warned that in the future, the PUC would be very involved in evaluating resource adequacy in transmission-constrained areas.

Shawn McFarlane, MISO's executive director of market operations, said staff will host more discussion on pricing fallouts and how the weather highlights the need for new resource adequacy mechanisms to ensure reliability.

"'This is not it' is probably the headline around this discussion," he told stakeholders, adding that the emergency would likely command attention during MISO's quarterly Board Week March 22-25.

It's unclear how the load shed brought on by the cold snap will be priced. MISO has proposed to stop assigning its $3,500/MWh value of lost load pricing during *force majeure* events that cause transmission or generation losses. However, Director of Market Design Kevin Vannoy said capacity shortages in MISO South during the cold might not qualify as a force majeure event.



Temperature departures from the norm | *Midwestern Regional Climate Center*

Mississippi PSC Unhappy

At its March *meeting*, the Mississippi Public Service Commission discussed using a routine audit of Entergy Mississippi's MISO membership to examine the fairness of load shed orders in the state. Commissioners said they would consider the item at April's meeting.

Commissioner Brandon Presley said Mississippi's utilities on Feb. 16 produced 800 MW above the state's demands, yet MISO placed Mississippi balancing authorities in the regional load shed orders. He also said the RTO's notification to utilities before the rolling blackouts was inadequate.

"That notice came, and our utilities had exactly six minutes — six minutes — to make preparations and begin … cutting off circuits throughout their territory," Presley said. "That, in my opinion, is inexcusable."

Presley said the commission's review is not an attempt to exit the RTO but to try and "correct the problems that exist."

"Our state was forced to take the same share of forced outages spread across the region as other states, although Mississippi utilities performed well," he said, adding that MISO offers "no incentive" for utility preparedness.

"To many of the MISO folks who I hear moaning about this move: You know you're in the business to answer questions," Presley said. "That's what you get paid the big bucks to do, and [this] is legitimate. It is a legitimate question for a commission to ask."

"MISO looks forward to working with the Mississippi Public Service Commission as well as providing information regarding the arctic storm," RTO spokesman Brandon Morris said in response to Presley's criticism.

Meanwhile, Entergy Texas announced it is conducting a post-event review of the storm and examining what grid resilience investments it might need to make. The company warned that customer bills might be higher but that, as a MISO member, its ratepayers wouldn't fall victim to the price spikes affecting ERCOT.

"We are committed to working with any customer facing financial difficulties as a result of the winter storm," Entergy Texas CEO Sallie Rainer *said*.

MISO: RA Changes Should Help

MISO last week also resumed a conversation on a seasonal capacity auction design that puts more emphasis on wintertime risk.

Staff said the RTO hopes to make a FERC filing this summer to introduce four sub-annual capacity auctions equipped with separate seasonal reserve requirement values and seasonal availability-based resource accreditations. (See *MISO Sets Sights on 4-season Capacity Market*.)

"There's a need for change," Executive Director of Market Strategy and Design Scott Wright said during a Resource Adequacy Subcommittee call Wednesday. "There's substantial risk outside of summer. … This is not a future what-if, but it's on our doorstep in many ways."

Wright said there's much in the proposal that "speaks to issues" MISO experienced Feb. 14-19. (See *MISO Begins Cold Snap Examination*.)

As part of the process, MISO will most likely rely on past emergency events and retrospective tight supply times to select "resource adequacy hours," or times when reliability is under threat. It will use resource adequacy hours to define reliability risks and reserve requirements, supplanting a single summertime peak. Staff said they're examining how new MISO reliability requirements will interact with state reliability targets.

The grid operator said it is still working through protocols for capacity resources that take protracted outages that span more than one season.

MISO is also considering enacting a minimum capacity rule that would require load-serving entities to demonstrate that they've secured 50% of their planning reserve margin requirements before the planning year begins. ■

MISO Wants Single Pricing Point for DER Aggregations

By Amanda Durish Cook

Distributed energy resources will function most smoothly in MISO's markets if aggregations are limited to a single pricing node, RTO officials said March 8.

That detail was the first design element MISO revealed about its effort to comply with FERC Order 2222, which requires RTOs to establish rules that allow DERs to participate in organized wholesale markets on an aggregated basis.

The grid operator also reveals that it will probably borrow from existing market definitions to bring DER aggregations into the market fold.

MISO is designing compliance elements as if the July 19 compliance filing date is a hard deadline, although it has *requested* a nine-month extension of the filing deadline, until April 18, 2022. (See *MISO to Seek Extension on Order 2222 Plan*.)

Speaking at a meeting of the Distributed Energy Resources Task Force, Market Design Adviser Bill Peters said MISO is recommending that an aggregation be priced at a single elemental pricing node regardless of its geographic scope.

MISO's market design groups one or more elemental pricing nodes (representing individual resources) to form commercial pricing nodes. Locational marginal prices are calculated at each commercial pricing node and used in settlements.

Peters said confining a DER aggregation to one pricing node will ease the complexity and costs of implementing Order 2222 and is the best option for maintaining grid reliability. It could also possibly meet FERC's directive that RTOs allow DER aggregations to extend across as large a geographic area as technically feasible, he said.


| Madison Gas and Electric

MISO also said it will probably rely on a combination of its existing dispatchable intermittent resource and electric storage resource participation models to accommodate DERs.

Peters said MISO's energy storage definition is useful for DER aggregations because it allows market participants to withdraw and inject energy and gives them the power to decide when to charge and discharge. The dispatchable intermittent resource definition is helpful because it allows market participants to submit forecasts to reflect their resources' changing capabilities, he said.

The grid operator said it will investigate modifying its dispatchable intermittent resource participation model to accommodate the 0.1-MW minimum size outlined in Order 2222.

MISO is still working through how it will "obtain settlement-quality data" from aggregations to avoid double compensation for the same services across wholesale and retail markets, Managing Assistants General Counsel Michael Kessler said.

RTO principal adviser Bob Merring said market simulations showed that if too many DERs respond to market prices, it could cause large price and power flow swings on the transmission and distribution seams.

"There's a price chasing aspect that could cause flow oscillations," Merring said. "It can be quite challenging to manage market flows in an efficient manner when we have these oscillations."

Merring said MISO prefers broad aggregations, but only if they're well mapped and cost-effective. He said the RTO must get a better idea of the locational transmission impacts of large aggregations so it can manage transmission constraints. Without accurate knowledge of those impacts, limiting aggregation to a single elemental pricing node is probably necessary.

"The trick is making sure we know where they are when they respond," he said. "That's the tricky part."

MISO asked stakeholders to submit their opinions on the Order 2222 compliance effort by March 22. ■

MISO News

MISO Stuns Stakeholders with 2nd Order 841 Delay

By Amanda Durish Cook

MISO's Shawn McFarlane | © *RTO Insider*

MISO stakeholders were shocked to learn that the RTO needs another few years to allow energy storage to participate in its markets.

In a March 4 filing with FERC, the grid operator asked for a March 1, 2025, deadline to comply with Order 841, three years more than it first said it would need (*ER19-465*).

If FERC approves the request, it will be MISO's second delay. The RTO last year secured a first deferral that held its compliance deadline until June 6, 2022, longer than any other RTO. (See *Storage Plans Clear FERC with Conditions*.) Order 841 originally stipulated a Dec. 3, 2019, compliance deadline.

Shawn McFarlane, MISO's executive director of market operations, said the demands of incorporating a functioning model for storage participation aren't best handled on the grid operator's vintage market platform.

Speaking during a March 11 Market Subcommittee meeting, McFarlane said should MISO win a second deferment, staff could put more attention into quickly completing the ongoing market platform replacement, termed the Market System Enhancement (MSE). He said the storage participation would go more smoothly if the aging platform was altogether removed from the equation.

"The requested deferment of Order No. 841 implementation will enable MISO to accelerate the completion of the MSE in 2024," MISO said in its request. "By completing the MSE earlier, MISO can more quickly and cost effectively prepare for and meet its emergent and future reliability needs, particularly those arising from the reliability impacts of greater and rapid penetration of wind and solar resources, which may reach or exceed a critical threshold of 30% of MISO's load as early as 2026."

MISO's day-ahead market is set to go live on the new platform sometime in 2023, while real-time market operations will wait until early 2025. The old market platform will be completely retired sometime in 2026, though the bulk of the replacement will be complete by late 2024.

MISO has put on hold other market products, including new 30-minute reserves and better modeling for combined-cycle units because its current monolithic platform isn't sophisticated enough to accommodate them.

Multiple stakeholders seemed gobsmacked that MISO wants to wait so long before fully opening its markets to energy storage resources.

"I think a four-year delay in trying to implement Order 841 is really too long," Southern Renewable Energy Association Director Simon Mahan said, urging MISO to pursue a "stopgap" measure before the 2025 timeframe.

"I just find it really hard to believe that we've known about Order 841 for so long, and now we're anticipating an even longer delay to get things up and running," Mahan said.

Customized Energy Solutions' David Sapper called the deferral request a "head scratcher," noting that MISO executives have repeatedly said time is of the essence in responding to fast-growing renewable generation on the system.

McFarlane said MISO prefers not to "juggle between the two systems" when it rolls out its electric storage participation model.

"If we continue to do this both in the legacy system and the [new platform], it's going to slow things down," he said. "Yeah, we could get this done, but we're going to delay other things even more."

McFarlane added that he understood stakeholders' disappointment, saying the decision "certainly wasn't taken lightly."

WEC Energy Group's Chris Plante said stakeholders "were taken off guard" by the delay and he asked for a comprehensive justification. He said as the chair of the Resource Adequacy Subcommittee, he was fielding stakeholders' questions about the delay that he couldn't answer.

McFarlane said the criticism was fair and that MISO could have been more "stakeholder-friendly" by delivering a heads-up in February.

"Probably thinking through in retrospect, we should have done more before and also in this meeting," he said.

Clean Grid Alliance's Natalie McIntire expressed doubts that MISO would even be operating on a new platform within four years.

"Frankly, I don't have any confidence that we're going to have the MSE by 2025," she said, adding that the multiyear project has already taken considerable time.

Stakeholders asked whether MISO would also request deferment of FERC's Order 2222, which opens RTO markets to distributed energy aggregations.

"Not sure we're to the point of asking for that just yet," McFarlane answered. "We'll try to be better about signaling other changes or plans, whether that [affects] Order 2222 or something else."

McFarlane said he would return to the Market Subcommittee in April with fuller reasoning behind MISO's decision to request a second delay. ■

MISO News

MISO Preps for Capacity Auction, Spring Peak

While it warns of more system risk in the coming years, MISO is preparing for an unremarkable spring and a routine capacity auction.

MISO expects a 120-GW systemwide coincident peak and a 134-GW planning reserve margin requirement in next month's 2021-22 Planning Resource Auction. Those figures are considered preliminary.

The grid operator estimates it has 178 GW of installed capacity and almost 147 GW of unforced capacity, easily meeting the reserve margin requirement.

MISO forecasted a 121.6-GW systemwide coincident peak and a nearly 136-GW planning reserve margin requirement for the 2020-21 planning year. (See *Little Change in MISO 2020/21 PRA Assumptions*.) It ultimately declared three emergencies and called for two load sheds during that time frame because of a major hurricane and a deep freeze.

The 2021-22 zonal coincident peak forecast is predicted to be nearly 123 GW, lower than the previous year's estimate of 125 GW.

As it prepares for the coming planning year, MISO said a relatively uneventful spring should round out the current one.

MISO's Carmel headquarters | © *RTO Insider*

Eric Rodriguez, a resource adequacy coordination engineer, said MISO is anticipating a 101-GW spring peak, "considerably less than" May 2018's all-time peak of 111 GW.

Staff project they will have 136 GW of available capacity to manage the peak.

"Under typical weather and outage conditions, adequate resources are projected to be available to meet expected load this spring," the grid operator said.

However, Rodriguez said MISO may have to tap into operating reserves if increasing forced outage rates meet above-normal spring temperatures, particularly in late May.

MISO South contains the highest probability for warmer-than-normal temperatures this spring, according to the National Oceanic and Atmospheric Administration. ■

— Amanda Durish Cook

Enviros, Generators Oppose Canadian Hydro Line to NYC

By Michael Kuser

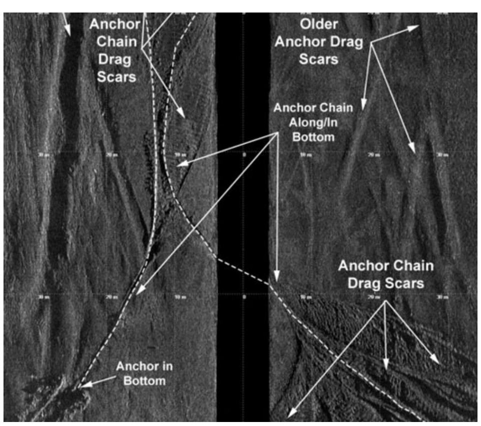
Blackstone Group's Champlain Hudson Power Express (CHPE) transmission project has made allies of power producers and environmentalists, both of whom continue to oppose the underwater line as the deadline for comment on a permit change with state regulators passed on March 8 (Case No. 10-T-0139).

The $3 billion, 330-mile HVDC line, first proposed by Blackstone's Transmission Developers Inc. (TDI) in 2010, would bring up to 1,250 MW of Canadian hydropower from Quebec under Lake Champlain down to New York City.

In the past year, the developers have requested permission from the New York Public Service Commission to amend its certificate of environmental compatibility and public need three times. The PSC on Jan. 26 *approved* moving the line 1,200 feet in New York City to avoid the Harlem River Yard, routing it under Randall Island Park instead. It also allowed five splice vaults to be located on private land immediately adjacent to the revised right of way in Rockland County.

The developer's latest *request*, on Jan. 29, was to boost the line's capacity from 1,000 MW to 1,250 MW.

"There is a growing resistance among the climate justice and indigenous-led groups," Meg Sheehan, campaign coordinator for the North American Megadam Resistance Alliance (*NAMRA*), told *RTO Insider*. She pointed to an *op-ed* published last month in the *Bangor Daily News* by Lucien Wabanonik, a councillor for the Nation Anishnabe of Lac Simon, titled "Hydro-Québec has left Québec's First Nations behind." The province-owned Hydro-Québec would develop the Canadian portion of the line.



Renewable projects in NYISO interconnection queue by capacity and output, assuming a 100% buildout | *NYISO*

Sheehan also noted that New York in January issued a *solicitation* for transmission projects to bring Tier IV renewable hydropower from upstate and Canada to New York City as part of a $2 billion green "superhighway" project. (See "Other Projects," *NY Awards 2.5-GW Offshore Deal to Equinor*.)

"The Hydro-Québec power could not meet the baseline greenhouse gas reporting requirements that's required by that request for proposals," Sheehan said. "They would have to provide emissions data from their 63 dams, which they have not been able to do."

The Independent Power Producers of New York (IPPNY) released a *study* last year, commissioned from Energyzt, that it said debunked TDI's claims that the project would result in reduced global emissions of carbon dioxide, concluding that it "may even increase overall carbon emissions."

"The Champlain Hudson Power Express didn't make sense a decade ago, and it makes less sense now," IPPNY CEO Gavin Donohue told *RTO Insider*. "In-state resource development must be the priority if we truly want to revitalize our economy and build back better. Expanding New York's renewable energy industry will lead to critical jobs and taxes for communities, along with guaranteed emissions reductions. That's a preferable outcome to subsidizing Canadian government-owned hydropower with no environmental benefit."

Eric Johansson, executive director of the Towboat and Harbor Carriers Association of New York and New Jersey, had quoted experts who calculated "anchor penetration significantly deeper than the deepest burial depth (15 feet) proposed for the CHPE."

The anchor is often the only tool available in an emergency, and "safe navigation will be compromised in the Hudson River by this or any cable seeking to run parallel in navigable waters," Johansson said.

In response, the PSC advised that "final facility design, including burial depth details, will be proposed in the environmental management and construction plan to be filed, and available for the association's review and comment."

Drinking Water Concerns

FERC last May authorized TDI to charge negotiated transmission rates and also granted its request for waiver of certain reporting requirements (ER20-1214). (See *FERC OKs Negotiated Rates for Champlain Hudson Project*.)

The PSC last June *ruled* that no evidentiary hearing was required on the developer's petition for a second amendment to the certificate because no party had identified any disputed issues of material and relevant fact.

"Neither NAMRA, nor the Sierra Club Atlantic Chapter, explained why the public comment period, which will extend for the pendency of this proceeding, was insufficient. Nor did they state how the proposed rerouting ... would have any bearing on their comments," the commission said.

Sierra Club had *commented* that "none of these [route] changes alleviate the negative impact that the entire project will have on wild Canadian rivers, disadvantaged communities in both Canada and New York City, the Hudson River Estuary, the growth of New York renewable energy jobs and the state's climate goals under the Climate Leadership and Community Protection Act."

NAMRA in December *decried* the "slipshod planning" of the project, which "has the hallmarks of an arbitrage scheme that greenwashes Canadian hydropower, threatens to make the climate crisis worse, undermines New York's renewable energy economy and perpetuates environmental racism."

Paul Malmrose — an engineer and technical consultant for the Hudson River Drinking Water Intermunicipal Council, a coalition of seven municipalities that draw drinking water from the river in Dutchess and Ulster Counties — had raised concerns about the construction-related risk of the project, as "jet plowing will turn up contaminated sediments with heavy metals, [polychlorinated biphenyls], pesticides and petroleum product from the river bottom close to our intakes. Also organic sediment, which hasn't been considered at all, will be suspended and will be drawn into our intakes and will create cancer-causing compounds."

TDI did not respond specifically to most of these criticisms, citing the existing administrative record and the PSC itself as support for the project. In response to NAMRA, it said, "For the most part, NAMRA's comments consist of questions asking for resource impact analyses that are already part of the project record and unsupported assertions reflecting a misreading" of the statutory requirements. ■

NYISO News

Cut Peakers, Boost Storage, NY Climate Council Hears

By Michael Kuser

Residents speaking to New York's Climate Action Council on Wednesday urged haste in stopping construction of new gas-fired power plants, closing old peaker plants and increasing the use of energy storage and other new technologies to reduce emissions and move the state toward a net-zero grid.

Laura Burkhart, an engineer from Rockland County, spoke of the importance of shutting down peaker plants in the state and replacing them with solar plus storage where feasible.

"As you know, peaker plants have several shortcomings," Burkhart told the CAC's Power Generation Advisory Panel. Many of them are old and contribute significantly to local air pollution, and they're usually located in disadvantaged communities, and they greatly increase the cost of electricity to ratepayers due to the capacity payments they receive just for existing."

New *regulations* under the state's Climate Leadership and Community Protection Act (CLCPA) require a 40% decrease of methane and other greenhouse gases by 2030 and an 85% cut by midcentury.

Anne Rhodes, energy educator with Cornell Cooperative Extension in Tompkins County, said, "If we are going to switch to wind and solar, we need way, way more storage. ... I'd like to emphasize that we should not wait on storage solutions and that we move forward quickly."

Rhodes added that community support is needed and "one thing that will mute resistance is if we take care of workers."

Stop Using Gas

Environmentalist Gale Pisha from Rockland County urged the state to stop permitting new gas power plants, including those being proposed for "so called" repowering.

"Either these new plants will operate for another 30 years or more, which will keep New York state from reaching the goals of CLCPA, or they'll become useless," Pisha said. "And why should resources be put into building new gas plants when those same resources need to be used to build renewable generation, upgrade our transmission and develop distributed generation to increase the grid's reliability and resiliency?"

Sixty-eight percent of the state's electricity is currently generated by fossil fuels, so adding

New York GHG Emissions: New York's industrial GHG emissions to date versus CLCPA targets for 2030/2050 | *NYDPS*

more is going in the opposite direction from what we need, Pisha said.

"I would far prefer that we have rolling blackouts than build an additional gas-fired power plant," said Tara Vamos of NY Renews, speaking for herself as a citizen. "Enough is enough."

New York's climate goals are a good starting point, but with ocean currents slowing down and the earth's climate becoming increasingly unpredictable and causing thousands of deaths and billions of dollars' worth of damage per year, "we should be shooting for shorter timeframes," Vamos said.

It would be unconscionable to allow new gas plants just because they say they'll switch to green hydrogen in the future, she said.

Environmental scientist Suzanne Hunt said she wanted "to reframe how we're talking about the green hydrogen issue, which is just a tool, it's not good or bad, and depends on how it's used. The most helpful thing you can do is craft recommendations dictating how to use the tool correctly for the climate."

Fuel cells do not combust hydrogen, but work more like a battery, and are a useful tool in the climate toolkit, she said.

Kathleen McCarthy, a restoration ecologist in New York City, said she has been alarmed by climate change since first seeing "a climate model with all of the positive feedbacks. Now that those models and projections have not only been verified by present conditions but show us veering towards the worst-case scenario, I'm closer to being terrified."

The animals and plants that sustain humanity cannot survive the changes projected without a drastic reduction in greenhouse gases, McCarthy said. "Now that we're at the ninth hour, it's important that our solutions be real solutions, not fake ones, so that we have a net reduction of greenhouse gases."

Simon Strauss of the Ulster County Environmental Management Council and the Mid-Hudson Sustainability Coalition addressed the panel's draft recommendation for "proactive and timely investment in local transmission and distribution infrastructure, and associated cost-sharing with utilities."

"I'd like to ask how the panel, on behalf of the Climate Action Council, is going to, first, ensure that the utilities do make those proactive and timely investments, and second, how are those investments to be paid for? By the state, by the utility or by the ratepayers?" Strauss said.

He noted that in the pending Central Hudson Gas and Electric rate case, he has asked how the utility plans to address its CLCPA goals for renewable energy by 2030 and 2040.

"The impression I have is that other than local and transmission upgrades to permit large-scale renewables to be brought in on a wholesale basis, there is no plan to beef up the local distribution grid to accommodate local community-distributed generation," Strauss said.

"And on these calls with this rate case we hear no dissent from the DPS staff, so I'd like to ask that you on the power generation panel give strong guidance to the Climate Action Council, and thus to the Department of Public Service, that you are looking for very significant distributed generation [DG] in the renewable energy generation mix, and an upgraded distribution system capable of accommodating that DG," Strauss said.

Chairing the meeting, Sarah Osgood, director of policy implementation at the state's Department of Public Service, confirmed one more public comment session on March 24 before the panel makes its final scoping plan recommendations to the CAC. ■

NYISO News

NYISO Prepares Hybrid Storage Aggregation Model

By Michael Kuser

NYISO on Thursday kicked off an effort to create a market participation model that would allow an energy storage resource (ESR) and one or more generators to be located at a single point of interconnection, share the same point identifier (PTID) and act as a single resource.

The project is slated for completion by year-end.

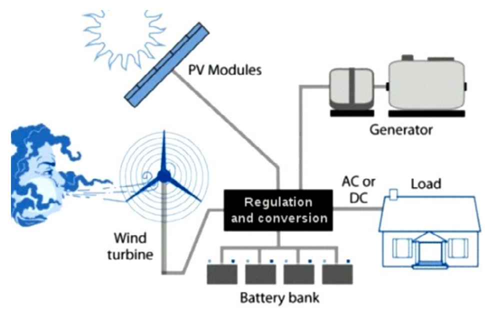
Market rules that the ISO filed with *FERC* in February provide for co-located storage resource (CSR) configurations in which a single front-of-the-meter wind or solar generator and single ESR share a point of interconnection. The newer hybrid storage aggregation resource (HSR) participation model would allow for an additional number and type of resources. (See *NYISO OKs Changes on Hybrid, Fast Start Resources, TCCs*.)

"The HSR participation model will only apply to aggregations located at a single physical location and may not allow for swapping aggregations," said Christina Duong, market design specialist for distributed resource integration, who *presented* the initiative at the Installed Capacity/Market Issues Working Group. "The DER model only allows resources up to 20-MW injection capability, but the HSR model will accommodate resources of all sizes."

The distributed energy resources participation model provides market rules for DERs to participate in NYISO's energy, ancillary services and ICAP markets. The ISO's market design is complete, with the FERC Order 2222 filing due in July. The DER model permits aggregation of resources across multiple locations, and an individual resource may leave or join aggregations at the start of a calendar month.

State initiatives such as renewable energy credit procurements incent developers to couple storage with intermittent renewable assets, which benefits the grid by reducing the output volatility and improving the availability of intermittent resources.

NYISO believes a new HSR market participation model will improve grid flexibility and resilience by enabling new resource types to provide their full capabilities, Duong said.



Because the peak operating times for wind and solar systems occur at different times of the day and year, hybrid storage systems are more likely to produce power when needed. | *DOE*

Evolving Grid Services

One stakeholder asked if the ISO is trying to build off the three existing participation models, or do something new.

"We do want to make this a different model rather than just expanding and making ESR 2.0 or CSR 2.0, so this is going to be a separate and distinct model," Duong said.

Another stakeholder asked about combining two distinct resources into one PTID, and whether the ISO will be able to discern performance of the individual resources, for example a solar farm and a battery.

"That brings up some concerns we have been having internally during preliminary discussions of how much do we need to know and how much telemetry do we need in order to see for each of the components within this aggregated model, so those are steps and concerns that we're trying to walk through," Duong said.

Speaking about a related *study* on grid services from renewable generators, Michael DeSocio, NYISO senior manager of market design, said that in the immediate future, "maybe we can offer up ways that these resources can provide existing services [operating reserves, regulation, voltage support service and black start service], and as we develop new services, this will inform how these resources could provide those services."

The ISO focuses on the attributes necessary to provide the service, and any resource capable of meeting those attributes is eligible to provide the service, DeSocio said.

"We're focused here on discussing what are the capabilities that renewables can provide with regard to their ability to curtail their output or maybe be willing to spill energy so they can provide services and determine whether that capability can be used to meet the attributes we require for the market," DeSocio said. "And all of this is built around reliability, keeping the lights on for New Yorkers." ■

PJM News

PJM Monitor Sounds Market Power Alarms

By Rich Heidorn Jr.

PJM's Independent Market Monitor sounded alarms about market power in the energy and capacity markets Thursday and said it may intervene in the RTO's next Base Residual Auction in May.

Joe Bowring, president of IMM Monitoring Analytics, made his comments in releasing the 2020 State of the Market *report*.

Bowring cited what he called lax enforcement of PJM's must-offer requirement, overpayments to black start operators and units that fail to follow dispatch. He warned that abuses are likely to increase when the RTO initiates fast-start pricing. PJM spokesman Jeff Shields declined immediate comment on the report, saying the RTO will address the findings in its formal response in the second quarter.

Prices, Load down

The Monitor's report also summarized the impact of the COVID-19 pandemic. "If there was only one story to tell about the market in 2020, it's that prices were down and down significantly," Bowring said.

A reduction in average hourly load (-3.1%) and load-weighted average LMPs (-20.4%) resulted in a 14% drop in PJM billings to $33.6 billion. Real-time, load-weighted LMPs averaged $21.77/MWh last year, the lowest since the PJM markets began in 1998. Load was the lowest since 2011.

For the first time, transmission costs exceeded capacity costs as a share of the total price of wholesale power. Transmission rose from $10.39/MWh in 2019 to $11.98/MWh in 2020 while capacity's share fell from $11.27/MWh to $9.45/MWh.

Bowring said the shift resulted from several factors. "There are a lot of transmission projects going on. There is no competition for transmission. … And it's also the case that capacity prices for this period were relatively modest."

Capacity Resources

Among the Monitor's recommendation was tougher enforcement of rules requiring generators with capacity contracts to offer their full installed capacity (ICAP) into the day-ahead market.

Bowring said units whose capacity is reduced because of ambient derates during hot weather should be required to take forced outages for the difference.

During 2020, an average of 1,167 MW of capacity failed to meet the ICAP must-offer requirement, and in 10% of the hours, the shortfall was 2,026 MW. "These megawatt levels are larger than the reserve shortages that triggered scarcity pricing in 2020 and larger than most supply contingencies that led to synchronized reserve events in 2020," the report said.

It also said storage and intermittent resources should be subject to an enforceable ICAP must-offer rule reflecting their limitations and that storage should never be considered as transmission.

Bowring also reiterated his opinion that the capacity market seller offer cap is "way too high," the subject of a February 2019 complaint on which FERC has not acted. (See *Monitor Defends Offer Cap Complaint*.)

"It's going to be interesting to see whether they address it prior to the next auction [in May] because it's conceivable that market power will be exercised using that high market seller offer cap," Bowring said. "And if it is, then there's a significant possibility that we will actually file a complaint in the middle of the auction."

He also repeated his call for limiting capacity to "physical and substitutable" assets, saying demand response and energy efficiency should be excluded from the market and considered in demand calculations.

Energy Market, Virtual Bidding

Bowring also said weakened fuel-cost policies are undermining the ability to ensure that cost-based offers are verifiable and enforceable.

He additionally called for closing "loopholes" that allow resources to avoid offer capping even after failing the three-pivotal-supplier test. "When you fail the three-pivotal-supplier test, you should be offer capped, and there should be no way to evade it," he said. "And there are ways to evade it at the moment."

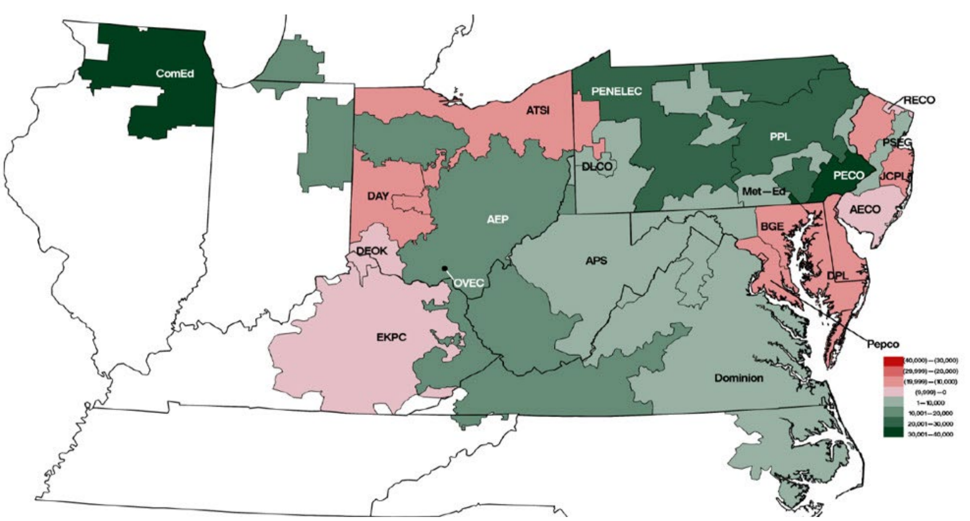
Markup, which Bowring said is one measure of market power, represented 10% of prices in 2020, or $2.19/MWh.

"In the fourth quarter of 2020, there were about 80 days in which there were three pivotal suppliers, and if you add them up for the four quarters of the year, it's several hundred days in which there were three jointly pivotal units. At the moment there are no rules in PJM to address that."

Bowring said the problem is FERC rulings allowing generators to use market-based rates even if they have market power, based on an assumption that RTO mitigation rules will prevent abuses.

"We took the commission up on that and started filing market-based rate filings, saying we do not believe that the implementation of market power mitigation in PJM is adequate," Bowring said. (See *PJM Monitor Challenges MBRAs over Market Power*.)

Failing the TPS test "should result in a cost-based offer with zero markup," he added.



Real-time generation minus real-time load (green = surplus; red = deficit) | *Monitoring Analytics*

PJM News

The report recommended PJM prevent uplift payments to units not following dispatch or using inflexible operating parameters.

"If you put in really inflexible parameters because you haven't invested in your unit or choose not to, that's your choice. But the market should not be paying you uplift as a result of that," Bowring said. "We think PJM has allowed coal units to have unduly inflexible parameters."

Bowring said PJM overpaid such units $3.8 million in the last several years. "When we see it, we talk to both the generation owner and PJM. In some cases that money has been returned; in some cases it's not. But we're continuing to pursue those cases."

He said uplift payments are likely to significantly increase with the implementation of fast-start pricing, when uplift will be calculated every five minutes.

"There's a significant difference being introduced between what the dispatch signal tells you and what the price tells you, so we expect there are going to be more units not following dispatch. And the fact that PJM doesn't have good rules for tracking that will result in uplift," he said. "We expect that result to be very significant."

The IMM praised FERC for recently eliminating virtual bidding at all but aggregates and zones. But it said the commission should go further and eliminate trading at nodes that aggregate only small portions of the transmission system.

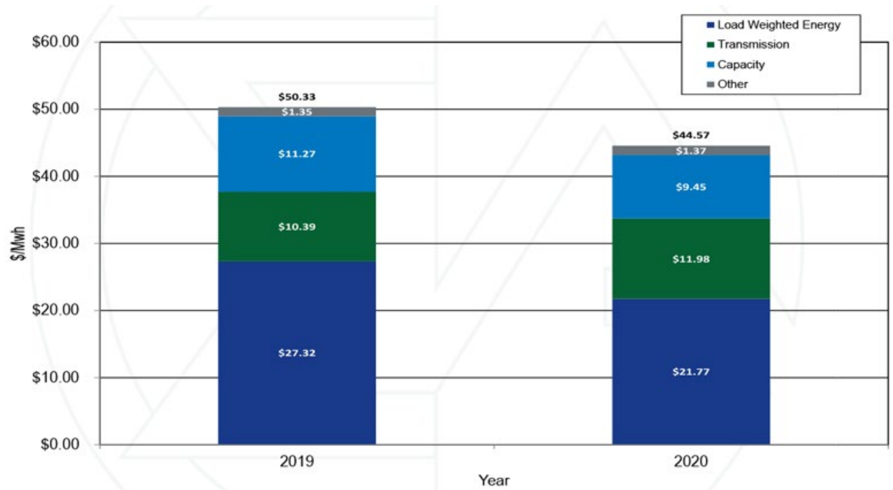
The current rules allow virtual traders to take advantage of differences between day-ahead and real-time modeling, "which is what we term 'false arbitrage,'" Bowring said. "It's not helping the market."

Ancillary Services, Gas

The report also repeats the Monitor's call for new capital recovery factors (CRF) for black start units that incorporate current tax rates. Black start units also should be required to commit to providing black start service for the life of the unit, the IMM said.

It calculated that PJM is overpaying black start units $15 million annually under current rules, with lifetime overpayments totaling $96 million. Bowring acknowledged that black start owners dispute the Monitor's calculations. "My guess is that [the dispute is] ultimately going to end up in front of the commission," he said.

Bowring also had criticism for the natural gas market, citing the high prices experienced in ERCOT last month.



For the first time in 2020, transmission costs exceeded capacity costs in their shares of the total price of wholesale power. | *Monitoring Analytics*

"I think that it's very clear that market power is being exercised in the commodity market for gas during extreme conditions," he said. "We think there should be an ISO for gas pipelines … which I think would be good for the business models of pipelines as well as its integration with the power markets."

Coal Market Share Continues Decline

Last year saw a continuation in the shift away from coal and toward natural gas.

Coal-fired generation dropped by almost 21%, making up 19% of the total fuel mix for the year. Natural gas production rose almost 7% to claim a 40% market share, while nuclear was nearly unchanged at 34%. Wind production rose almost 10% to a 3.3% share, while solar with net energy metering rose 38% but amounted to only 0.5% of the total. Although battery production almost doubled to 36 GWh, its share was less than that for solar.

Coal-fired generators, which were the marginal real-time units three-quarters of the time as recently as 2008, were on the margin less than 20% of the time in 2020, with natural gas marginal almost 80% of the time.

For the second year in a row, average short run marginal costs for coal plants were higher than that for gas-fired combustion turbines.

Only 5% of coal units recovered their avoidable costs in 2020, down from 26% in 2019 and 68% in 2018. "The economics of coal remain very challenging," Bowring said.

Seven coal units with a combined capacity of 2,361 MW are at risk of retirement out of a fleet of 49,744 MW, the IMM said. Also at risk are 50 combustion turbines totaling 1,829 MW and seven other units totaling 574 MW. All the at-risk units had an average age of at least 43 years.

The Monitor said its analysis of PJM's nuclear fleet found that all but the single-unit Davis Besse and Perry plants in Ohio were profitable last year, even when subsidies for those in Ohio, Illinois and New Jersey were excluded.

"What it demonstrates is that the units receiving [zero-emission credits] in Illinois and New Jersey … do not need them, and we've said that to the regulators in Illinois and New Jersey," Bowring said.

Less than Meets the Eye

Bowring noted that although the nameplate capacity for wind and solar projects in PJM's interconnection queue exceed that for combined cycle plants, the higher attrition rates of renewable projects and derates for their capacity contributions means they will not overtake gas any time soon.

There are currently 23 GW of combined cycle projects in the queue, about 15.8 GW of which will go into service based on historical completion rates.

While solar projects have a combined nameplate capacity of 79 GW, only 9.6 GW are likely to be completed, and that would be derated to 4.5 GW based on effective capacity. Similarly, wind projects totaling 31.7 GW are likely to result in only 953 MW of effective capacity.

"It does not mean that we're going to see more solar than combined cycled added any time soon," Bowring said. "It could eventually mean that, but based on the existing data, it does not mean that." ■

FERC Affirms Findings on PJM E&AS Offset

By Jason York and Robert Mullin

FERC on March 9 explained why it declined to act on requests by power generators and public interest groups to rehear a January compliance order on the treatment of energy market revenue calculations in PJM's capacity auctions (*EL19-58-005*).

The rehearing requests — one filed jointly by Exelon and Public Service Enterprise Group — were automatically denied in January when FERC failed to act on them within the requisite 30 days.

At issue is the implementation of PJM's net energy and ancillary services (E&AS) offset calculation used to help estimate the net cost of new entry (CONE) for resources in the RTO's Base Residual Auction. The offset "is designed to model net revenue that a 'representative resource' would earn during its first year of commercial operation," according to PJM.

FERC last November approved the details of PJM's offset calculation, which draws on energy market results from the three calendar years before the BRA to inform modeled offers for resources. (See *FERC Approves PJM Key Capacity Market Variable*.) As noted by Chair Richard Glick in a concurring statement to last week's order, approval of the offset allows PJM to conduct "its long-delayed, much-needed capacity auction," the subject of enduring disputes over the treatment state-sponsored resources.

But the commission had also directed PJM to allow combustion turbine resources to reflect in their E&AS offsets a 10% adder to account for "the additional costs and risks that may be incurred by operating the CT reference resource in a manner that fully recognizes flexibility, which is not limited only to peak hours or times of system stress." No other resources would be eligible to include the adder.

PJM was also ordered to use historical prices to forecast operating reserve and regulation dispatch and revenues for capacity resources, variables also used in the calculation of the E&AS offset for all resources.

Exelon, PSEG and a group of public interest and customer organizations (PICOs) in PJM, however, petitioned FERC to reconsider those directives. (FERC staff on Jan. 4 accepted PJM's compliance filing implementing them in a delegated order.)

The PICOs argued that the 10% adder would unjustifiably increase net CONE for CT resources and drive up costs for ratepayers. They also contended that the use of historical operating reserve prices would underestimate the future revenues capacity resources would earn based on recent market changes.

FERC responded by noting "that PICOs' rehearing arguments opposing the adder are repetitive of arguments that the commission previously considered and found unpersuasive" in a quadrennial review of PJM's variable resource requirement curve. "We continue to find adequate evidence in the record to demonstrate that including the 10% adder results in a just and reasonable approximation of the costs for a CT unit."

In rejecting the PICOs' opposition to the use of historical prices, the commission said it "selected PJM's proposed approach as a just and reasonable replacement rate given the lack of a futures markets for reserves and uncertainty regarding the actual reserve price impacts of PJM's reserve market reforms."

Exelon and PSEG attacked the plan from the other direction, objecting to the fact that the 10% adder wouldn't be available to other resources. The companies also contested the use of historical prices, arguing that past performance in the small regulation market was not a good indicator of future revenues.

FERC gave these arguments similar treatment: "As the commission explained in the compliance order, PJM reasonably excluded the 10% adder from the modeled offers of combined cycle units and other resources, such as coal units, because, unlike CTs, those resources 'do not significantly alter their operating schedules based on evolving conditions between the day-ahead and real-time markets.'"

The commission also rejected the generators' concerns about the use of historical prices. "Contrary to the rehearing arguments of Exelon/PSEG, the use of scaled historical prices to estimate future regulation prices is consistent with the directive in the May 2020 order to use a forward-looking E&AS offset," FERC said.

Clements Dissents

Despite the commission's approval, a majority of the commissioners seemed to agree that the petitioners' arguments had merit.

But Chairman Glick and Commissioner Mark Christie essentially overruled a dissent by Commissioner Allison Clements, arguing that it was imperative that PJM run the BRA for the 2022/23 delivery year.

Clements wrote that there is a "paucity of record evidence" to support the 10% adder. She disagreed with the commission's assumption that PJM's application of the adder and use of historical reserve prices "will yield just and reasonable capacity rates;" rather, they could have "material real-world consequences" because they feed into the net CONE value.

Clements pointed to the PICOs' assertion that PJM's 10% adder translates to a daily increase in net CONE of roughly $30/MW, which is nearly 12% of the recently posted RTO-wide per-day figure of $260.50/MW for the 2022/2023 BRA. These estimates "translate to significant additional capacity costs to customers," she said.

Glick acknowledged that Clements "makes a number of good points" but said that "the real problem lies with PJM's misguided choice of the reference resource to calculate net CONE, rather than in how it implemented the forward-looking E&AS offset in this proceeding."

FERC has "meddled with one aspect of PJM's capacity market after another," said Glick, who has "dissented at nearly every turn" in the capacity market proceedings, arguing that "truly bad public policy" produces rates that are "patently unjust and unreasonable."

"With that in mind, now is not the time to once again pull the rug out from underneath the auction," Glick said. He added that there is no "superior alternative to PJM's proposal to use historical reserve prices as the basis for projecting future reserve revenues."

"Were such an alternative available, I agree that it would merit a hard look," Glick said. "But as it is not, we must provide PJM with the certainty it needs to finally run the upcoming auction and then, with that behind us, turn to remedying the more fundamental problems that the commission has created over the course of the last three years."

Christie said he shared Clements' concerns about the adder but is "convinced any such changes at this stage would threaten — or indeed obstruct — the ability of PJM to conduct the Base Residual Auction as scheduled this May, which is essential for reliability purposes."

He added that "the PJM capacity market is not a true market, but is, instead, an administrative construct whose very complexity is inconsistent with transparency." He said he has been "vocal" about considering the issue in a "general proceeding" such as a technical conference. ■

PJM Operating Committee Briefs

Cost Recovery for 'IROL-critical' Generators?

PJM proposed allowing generators deemed to be critical for determining interconnection reliability operating limits to recover their required upgrade costs.

PJM has proposed developing a cost recovery mechanism for generators forced to upgrade their facilities to comply with certain NERC Critical Infrastructure Protection (CIP) standards regarding interconnection reliability operating limits (IROLs).

Darrell Frogg, senior engineer for generation at PJM, *provided* a first read of the *problem statement* and *issue charge* of the proposal at last week's Operating Committee meeting.

An IROL is any system operating limit that, if exceeded, could jeopardize the entire grid. PJM is required to develop a list of "IROL-critical" facilities, Frogg said, which means the limits mostly derive from those facilities. Generators on the list may then be required to upgrade. Generation owners have no control over the IROL-critical designation, with PJM in its role as the reliability coordinator solely responsible for the list.

Frogg said PJM was making the proposal on behalf of generator owners because the classification of a generator as IROL-critical is considered critical energy/electric infrastructure information.

If approved, stakeholders would study the relevant CIP standards, review how a generator's status is determined by PJM and consider the types of costs that generators incur from being designated. Stakeholders would also look at how other RTOs and ISOs have addressed the issue, such as ISO-NE's mechanism that was approved by FERC last May. (See *FERC OKs Payment Rules for IROL Facilities*.) Stakeholders would also discuss which costs should be recovered and how, and ensure the entire process is transparent.

The OC will be asked to approve the issue charge at its next meeting. Frogg said PJM hopes stakeholders will be able to make a recommendation to the Markets and Reliability Committee in three to six months. He said work updates would also be provided to the Market Implementation Committee.

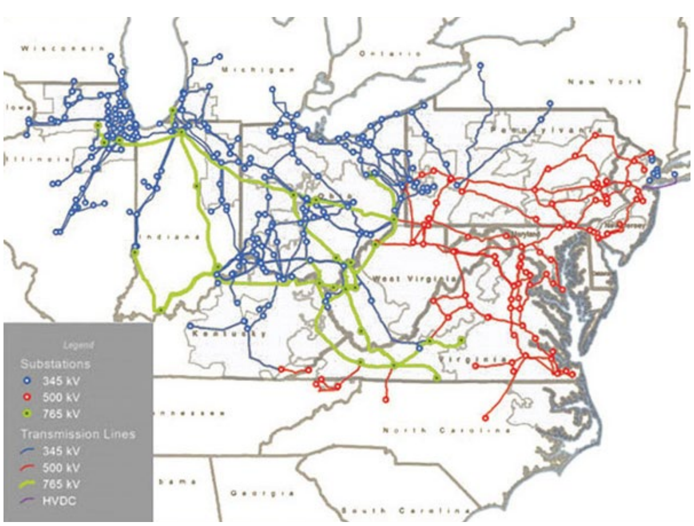
David Mabry of the PJM Industrial Customer Coalition said there are "potentially significant" incremental compliance costs in the issue charge. He wondered if the OC is the proper venue to discuss the issue given the possible links to multiple committees in the issue charge.

"I'm wondering whether we ought to bring the problem statement to the MRC for approval and let the MRC decide where this is best addressed," Mabry said.

Frogg said PJM had internal discussions to determine the best committee to deal with the issue and found that the manuals allow the OC to work out proper market incentives. PJM, however, will continue internal discussions before the next OC meeting, he said.

Resource Tracker Ownership Endorsed

Stakeholders unanimously endorsed a "quick fix" to address information entered into the Resource Tracker application used by PJM.



| PJM

Chris Franks of PJM *reviewed* the *problem statement* and *issue charge* to update language in Manual 14D regarding the application's ownership confirmation requirement. Franks first brought the issue to the OC last month. (See "Resource Tracker Quick Fix," *PJM Operating Committee Briefs: Feb. 11, 2021*.)

The proposal includes changing "market participants are requested" to the "generation owner, or designated agent, is required" to confirm resource ownership by Nov. 1. Last year PJM requested owners of 1,503 resources confirm their information. Of those resources, 60 did not confirm by Nov. 1. As of Feb. 1, four have yet to confirm information.

The issue charge will now go to the MRC for a final vote in April.

TLR Buy-through Quick Fix

Stakeholders also unanimously endorsed a quick fix regarding the transmission loading relief (TLR) buy-through congestion process.

Chris Advena, senior lead engineer for PJM, *reviewed* a *problem statement* and *issue charge* to remove the process from Schedule 1, section 1.10.6A of the OA. Advena first brought the issue to the OC in February. (See "TLR Buy-through 1st Read," *PJM MRC/MC Briefs: Feb. 24, 2021*.)

TLR buy-through is the tool PJM uses to curtail interchange transactions that cause loop flow to the RTO around the time emergency procedures are being conducted to reduce the impact on a flowgate or a transmission facility. The process was created when PJM was fully within the Mid-Atlantic region and was issued more frequently than it is today, according to the RTO.

PJM is seeking final approval at the Members Committee meeting April 21.

Manual Changes Endorsed

Stakeholders unanimously endorsed two different manual changes resulting from the periodic review by acclamation.

Matthew Wharton, PJM reliability engineer, *reviewed* changes to *Manual 37*: Reliability Coordination. The changes included correction of grammatical errors, updated links and added language for an alternative method for simulating transfers.

Jeff McLaughlin, PJM senior lead engineer, *reviewed* changes to *Manual 02*: Transmission Service Request. The minor changes included fixing broken hyperlinks, updating reference document names and the consolidation and relocation of two sub-sections to a "more appropriate section" of the manual.

Both manual sections will now go for final endorsement at the March 29 MRC meeting. ■

— Michael Yoder

PJM PC/TEAC Briefs

Planning Committee

PJM Proposes Effort to Respond to Interconnection Volume

PJM is proposing work for the rest of 2021 to address challenges caused by increasing interconnection queue volume.

Jason Connell, director of infrastructure planning for PJM, *provided* a first read of a *problem statement* and *issue charge* at last week's Planning Committee meeting. Members have been working on the interconnection issue since October, Connell said, identifying 69 concerns and 135 suggestions covering 12 categories, including transparency, cost responsibility and dispute resolution.

Connell said the interconnection queue volume has more than tripled over the past three years, with PJM going from accepting around 400 projects per year to more than 1,000 in 2020 and even more slated for 2021.

On-time rates of feasibility and system impact studies have continually improved, Connell said, but the backlog of requests has increased, causing concern for PJM and its stakeholders as the RTO has had to divert resources to get the studies done on time.

PJM proposed several key work activities, including opportunities that can "positively impact the interconnection queue backlog," Connell said. He added that about 1,600 projects are currently active in the queue and close to 2,000 could be in the queue by the end of March.

He said PJM is deciding whether to use a task force for reporting to the PC or scheduling special sessions of the PC to deal with the interconnection issue. The committee will be asked to approve the issue charge at its April meeting. Work on the initiative is expected to take place throughout 2021.

New Service Requests

Stakeholders questioned PJM's proposal to extend its deadline for responding to new service requests, which the RTO said is necessary because of the large number of requests filed at the end of the queue window.

Connell *provided* a first read of the *problem statement* and *issue charge* and draft tariff *language* outlining the RTO's proposed "quick fix."

PJM processes new service requests under several parts of the tariff, Connell said, with the RTO administering two new queue windows each year — one from April 1 to Sept. 30 and another from Oct. 1 to March 31.

Martins Creek Power Plant in Northampton County, Pa. | *Talen Energy*

Connell said the current tariff provisions establish "tight time frames" requiring PJM to review a new service request and issue a notice of any deficiencies within five business days.

PJM typically receives 50% or more of the total number of new service requests during the last month of a queue window, Connell said, with most of the requests submitted during the last week or on the last day of the window. He said the short window impacts the ability of PJM employees to perform reviews on time, leading the RTO to seek waivers from FERC to extend the deadline.

As an example, in the last queue window ending in September, 340 of the 563 new service requests were filed in the last week, including 247 on the last day.

"It's just not physically possible for our staff to process that [number] of requests," Connell said.

PJM's proposed solution is to change the five-day deadline to 15 business days, or to "use reasonable efforts to do so as soon thereafter as practicable."

The proposed solution would also provide PJM 15 business days to review the interconnection customer's response to the deficiency notice.

Some stakeholders questioned whether PJM's proposal would fix the problem.

Paul Sotkiewicz of E-Cubed Policy Associates acknowledged the manpower challenges caused by the "tremendous" number of requests the RTO is receiving. But he said if the notification timeline is extended, it could impact the period in which studies can successfully be completed. He said that "squeezes" both PJM and the transmission owners and leaves developers in limbo regarding the start of construction on a project.

Sotkiewicz said he would like PJM to rethink the proposal and find ways to incentivize stakeholders to get projects into the queue earlier.

"I fear that what's being proposed here will do nothing to solve the problems," he said.

Alex Stern, director of RTO strategy for PSEG Services, said he shared Sotkiewicz's concerns and that PJM's solution might do more harm than good. Stern said the solution seems to be "trading a today problem for a tomorrow one."

"I'm concerned this quick fix could set us all up for failure and would not be sustainable," Stern said.

PJM said it will evaluate stakeholder feedback and revise its problem statement and issue charge for the April PC meeting.

Interconnection Construction Service Agreement

Mark Sims, manager of infrastructure coordination for PJM, *provided* a first read of a *problem statement* and *issue charge* addressing pro forma interconnection construction service agreements (ICSAs).

Sims said two sections in Attachment P of the tariff dealing with ICSAs have caused PJM "increased administrative burden" as the number of interconnection queue requests

PJM News

has increased.

Section 1 of Attachment P does not contain pro forma language that considers when an ICSA supersedes an already effective ICSA, Sims said.

He added that the tariff provides for automatic termination of ICSA upon the occurrence of certain conditions, which can occur without PJM's knowledge. The conditions include completion of construction of all interconnection facilities, a transfer of title, final payment of all costs or delivery of final as-built drawings to the transmission owner.

Sims said PJM wants to revise the tariff language to make any termination contingent upon PJM receiving notice of the conditions from the TO. From there the RTO would take steps to cancel the ICSA with FERC, making the termination more of an "active process."

Stern asked PJM to consider a "friendly amendment" imposing on the RTO a reciprocal obligation to provide notice to the TO that the ICSA has been canceled with FERC. PJM said it would consider incorporating the amendment.

PJM will seek endorsement of the issue charge at the April PC meeting.

Transmission Expansion Advisory Committee

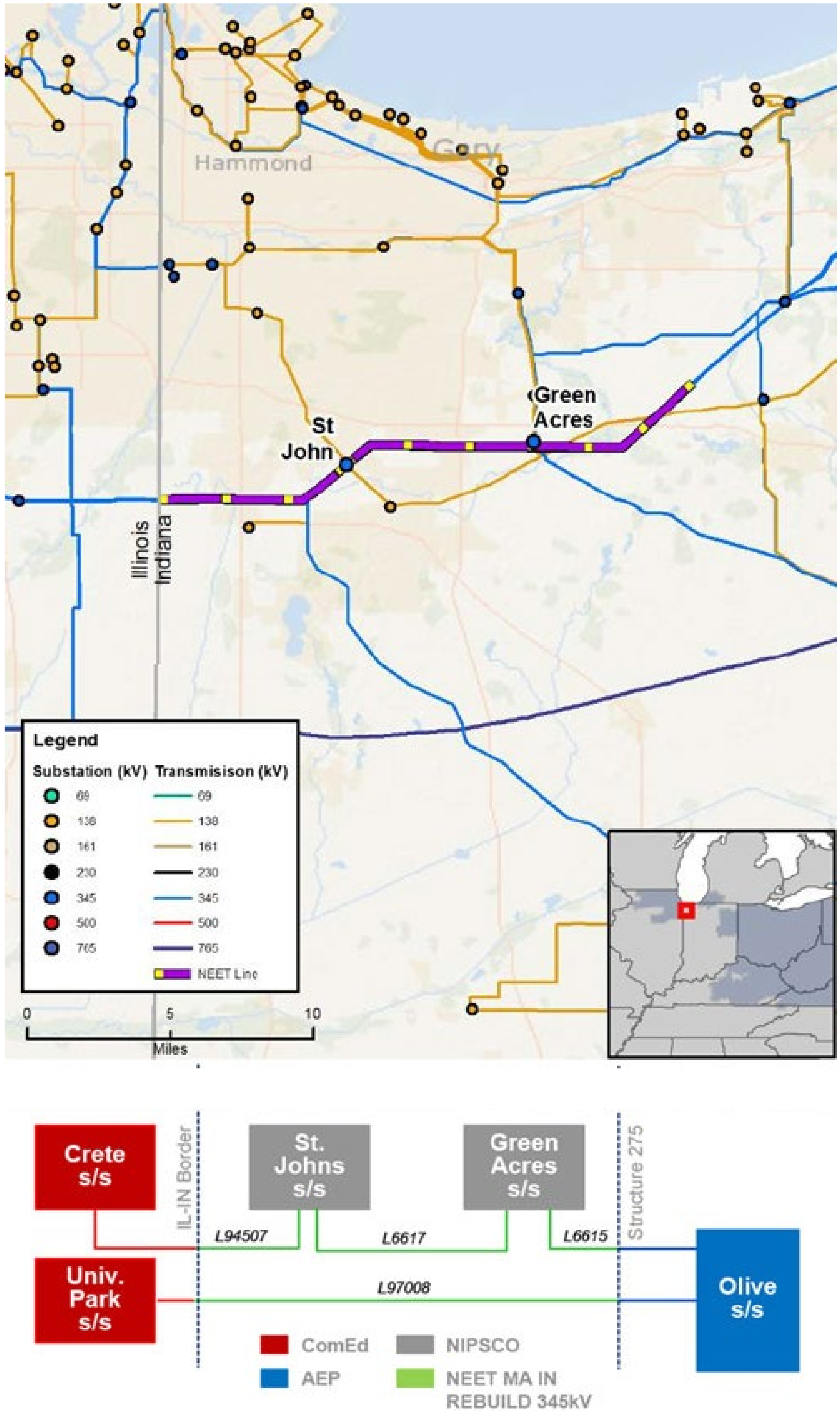
Generation Deactivation Notification

Phil Yum of PJM *provided* an update on recent generation deactivation notifications, including Talen Energy's request to deactivate the Martins Creek Power Plant Unit 4, a 17.3-MW oil and gas generation unit on the Delaware River in Northampton County. The deactivation is scheduled to take place by May 31, 2022. PJM is still conducting a reliability analysis of the potential deactivation, Yum said. The analysis will be updated at the committee's April meeting.

NEET Supplemental Project

A proposed supplemental project by NextEra Energy Transmission (NEET) in Indiana prompted questions from stakeholders regarding its impact on adjoining transmission lines.

Kshitij Shah, NEET director of development, *presented* the needs for the NEET MidAtlantic IN, a 20-mile, 345-kV double-circuit transmission line in northwest Indiana consisting of 115 galvanized steel lattice structures. NEET purchased the transmission line from Commonwealth Edison in October, becoming a



NextEra Energy Transmission is proposing to replace a 345-kV transmission line in Indiana. | *NEET*

PJM News

transmission owner in PJM.

Shah said the transmission lines were built in 1958 and increased failures are expected because of the age of the components. He said the structures are showing "significant deterioration," including corrosion, foundation wear and missing structural components.

The potential solution calls for rebuilding the line with monopoles and new conductor on the existing right-of-way. Shah said the estimated project cost is $63.4 million, and the projected in-service date is January 2023.

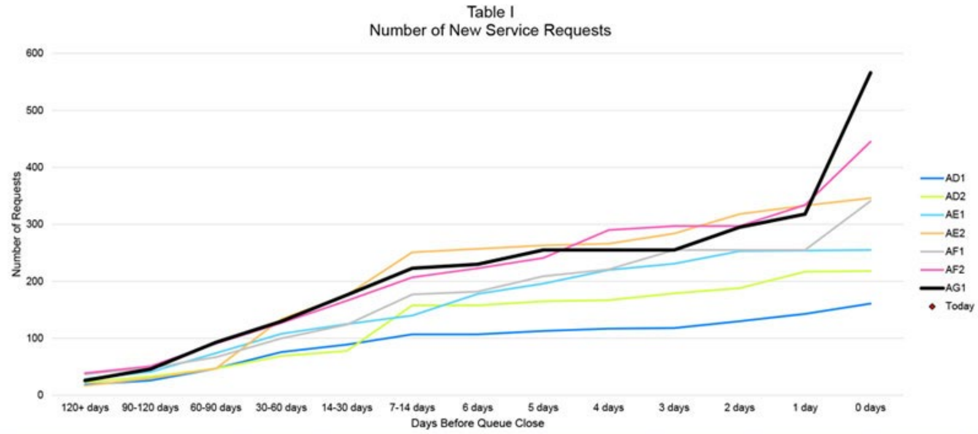
"Our goal is to keep it simple from a construction standpoint, and we're going to try our best to do a structure-for-structure replacement," Shah said.

Greg Poulos, executive director of the Consumer Advocates of the PJM States, said the project has received attention because of the new transmission acquisition and its location between other TOs, including ComEd and American Electric Power (AEP). Poulos said the $63.4 million price tag has also "raised eyebrows" among advocates.

He asked if PJM or NEET has had conversations with AEP and ComEd on how the project will impact their existing transmission lines.

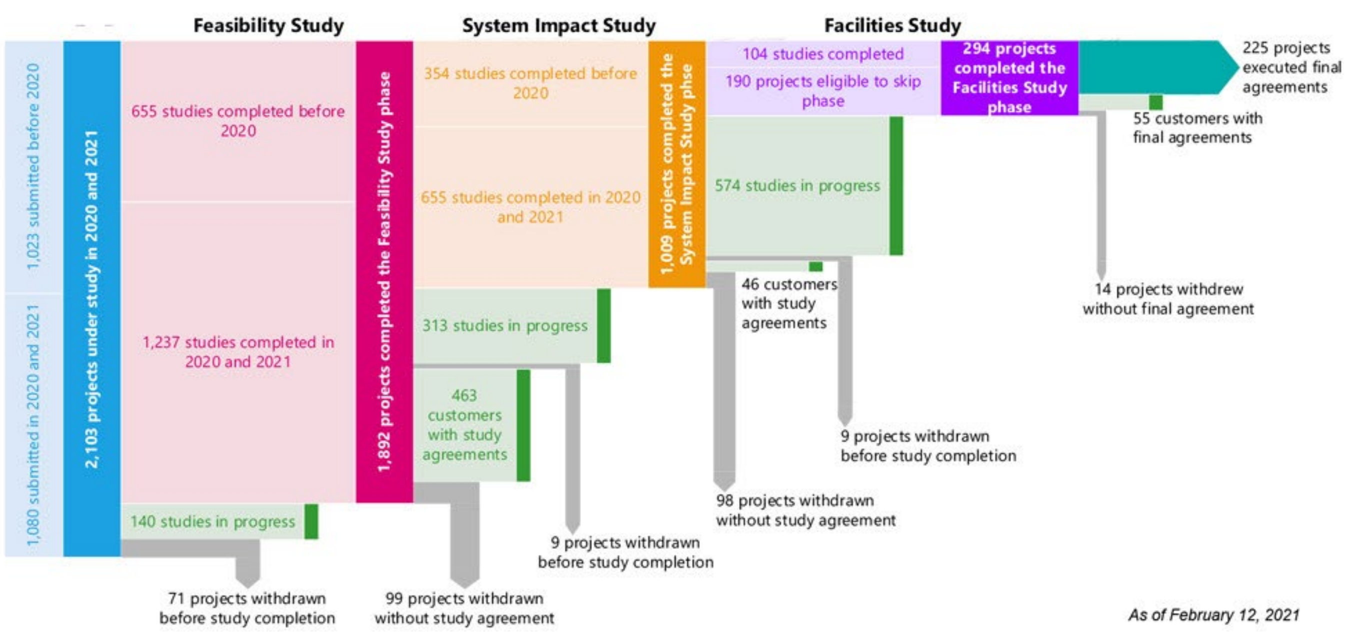
Shah said those conversations have not taken place yet. He said NEET has convened with Northern Indiana Public Service Co. because the lines connect to two NIPSCO substations. ■

— Michael Yoder



Days Before Close	AD1	AD2	AE1	AE2	AF1	AF2	AG1
120+ days	19	23	29	17	37	39	26
90-120 days	7	10	12	13	11	12	20
60-90 days	21	14	33	17	19	40	47
30-60 days	29	22	34	87	33	36	37
14-30 days	13	9	17	42	24	39	46
7-14 days	18	80	15	75	53	41	47
6 days	0	0	38	6	5	16	7
5 days	6	7	18	6	27	18	25
4 days	4	2	24	3	12	49	0
3 days	1	12	11	18	34	7	0
2 days	12	9	22	34	0	0	38
1 day	13	29	1	15	0	37	23
0 days	18	1	1	13	86	111	247
Total	**161**	**218**	**255**	**346**	**341**	**445**	**563**

Graph and table of new service requests in the interconnection queue | *PJM*



Transmission projects moving through the PJM interconnection queue process from 2020-21 | *PJM*

PJM MIC Briefs

RPM Issue Charge Endorsed

PJM stakeholders endorsed an issue charge regarding the allocation of capacity transfer rights (CTRs) after delaying the vote last month when stakeholders raised questions about the initiative's scope and potential impact.

The vote on the issue charge, originally advanced by Buckeye Power, was endorsed with 79% support at last week's Market Implementation Committee meeting.

Kevin Zemanek, director of system operations for Buckeye Power, *reviewed* the *problem statement* and *issue charge*, saying current rules are exposing his cooperative to price separation. Zemanek said the issue charge was changed after stakeholder feedback received last month at the MIC. (See "RPM Capacity Transfer Rights," *PJM MIC Briefs: Feb. 10, 2021*.)

"We think we've modified our issue charge to account for all the comments we've received," Zemanek said.

Under the Reliability Pricing Model (RPM), Zemanek said, CTRs return to load-serving entities capacity market congestion revenues occurring when there's a difference between the prices paid by load and market revenue received by cleared resources. CTRs permit LSEs with load inside a constrained locational delivery area (LDA) to receive a credit for the import of capacity from a lower-priced region.

Zemanek said PJM does not have a way to allocate CTRs to an LSE that will correspond to the network load identified in the RTO's network integration transmission service agreement. Instead, Zemanek said, PJM allocates CTRs *pro rata* to each LSE serving load in the LDA or zone based on the LSE's share of the zonal unforced capacity obligation.

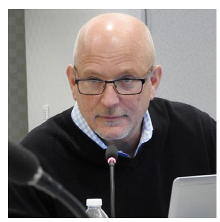
Although an LSE may have resources that are deliverable to load inside the constrained LDA, current rules do not allocate an equivalent number of megawatts, Zemanek said.

The key work activities presented by Buckeye included education on the current capacity market rules regarding how CTRs are allocated to LSEs in a constrained LDA. It also sought to explore potential enhancements to the allocation of CTRs to recognize designated historic network resources and network load identified in a network integration transmission service agreement (NITSA), without changing the total amount of available CTRs or the incremental capacity transfer right (ICTR) allocation.

Zemanek said Buckeye is looking for two months of education followed by discussion and exploration of enhancements to CTR allocation rules, with an objective for PJM to make a Section 205 FERC filing by the end of the year.

Independent Market Monitor Joe Bowring said the revised issue charge seemed to be "moving in exactly the wrong direction" from the one presented in February. Bowring said he objected to the added language "without changing the total amount of available CTRs or the ICTR allocation" in the second key work activity.

"It's clearly only considering only one option and recognizing that it's a zero-sum game," Bowring said. "If the allocation changes, some people will be helped and some people will be hurt."



Gary Greiner, PSEG | © RTO Insider

Gary Greiner, director of market policy for Public Service Enterprise Group, said he agreed with Bowring's objection to the issue charge language. Greiner said he thinks the second key work activity "presupposes" that stakeholders want to recognize the designated historic network resources and load identified in the NITSA.

Greiner suggested adding a work activity to determine whether the historic resources should be accounted for in the determination of CTR allocations.

"I think it needs to retreat back some in its words and context," Greiner said.

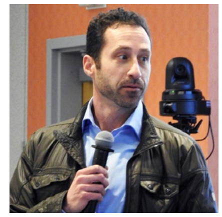
Stakeholders also suggested adding ICTR allocation to an out-of-scope section in the issue charge.

The changes were made in a *revised* issue charge and endorsed by members.

PJM said education on the issue should begin at the April MIC meeting.

5-Minute Dispatch Plan Endorsed

Stakeholders unanimously endorsed a proposal by PJM and the Monitor on the long-term five-minute dispatch evaluation under consideration for several months.



Aaron Baizman, PJM | © RTO Insider

Aaron Baizman, senior engineer for PJM, *reviewed* the solution proposal *matrix* for the long-term *five-minute dispatch and pricing* issue worked on in MIC special session meetings. The endorsement vote on the PJM/IMM proposal was delayed last month. (See "Long-term Five-minute Dispatch," *PJM MIC Briefs: Feb. 10, 2021*.)

Stakeholders approved the short-term proposal to resolve five-minute dispatch and pricing at the Markets and Reliability Committee meeting in July. PJM said it expects to continue evaluating long-term solutions late into this year, with a quantitative analysis of the pros and cons of different approaches. (See *PJM Stakeholders OK 5-Minute Dispatch Proposal*.)

Baizman said highlights of the long-term package include creating new real-time security-constrained economic dispatch (RT SCED) instructions utilizing previous ones. PJM dispatchers will also be provided flexibility for exceptions for case-by-case approval caused by unanticipated conditions or application issues.

PJM is also discontinuing use of degree of generator performance (DGP), a software logic used to determine how well a unit is following the dispatch signal. Baizman said DGP is being replaced with a less complex and more efficient software program.

Baizman said the current long-term timeline calls for software development until April, testing from May to June, parallel operations and evaluation from July to September, and a pilot evaluation and implementation by Nov. 1.

A first read of the proposed tariff language is scheduled for the March 24 MRC meeting.

Capital Recovery Factor Endorsed

An issue charge aimed at updating the value of capital recovery factors (CRFs) was unanimously endorsed by members.

Jeff Bastian, PJM senior consultant of market operations, *provided* an overview of the *problem statement* and *issue charge* designed to regularly update the value of CRFs based on current federal tax rates. CRFs are a component of the net avoidable cost rate (ACR) of a resource, which determines its market seller offer cap or

PJM News

minimum offer price rule (MOPR) floor price, depending on which is applicable.

The issue has been under review since the IMM notified PJM in a Dec. 4 *letter* that the CRF values, which were originally set in 2007, do not reflect the current 2017 reduction in federal corporate tax rates. (See "Capital Recovery Factors Discussion," *PJM MIC Briefs: Feb. 10, 2021*.)

The Monitor said the tables should have been updated in 2018 and must be changed before the next capacity market auction, for the 2022/23 delivery year, takes place in May. PJM said it was concerned that seeking an earlier effective date would further delay the auction, which was originally scheduled for 2019. (See *PJM Sets BRA for May 2021*.)

PJM proposed that after the upcoming auction, the table of CRF values be posted on the PJM website no later than 150 days before the beginning of the offer period of each auction. Bastian said the values would reflect federal income tax laws in effect for the relevant delivery year at the time of the determination.

Erik Heinle of the D.C. Office of the People's Counsel thanked PJM for its work to correct the CRF table and ensure it be updated along with tax laws in the future.

"Hopefully we can move forward on this," Heinle said.

Reactive Supply Compensation


Jim Davis, Dominion Energy | © *RTO Insider*

Jim Davis, regulatory and market policy strategic adviser for Dominion Energy, *provided* a first read of a *problem statement* and *issue charge* to address compensation for reactive supply and voltage control service.

Davis said Dominion has looked at the growing number of projects in the interconnection queue and determined that the proliferation of renewable resources on the system are going to create issues.

"We think that the timing is right for this, and we need to address this going forward," Davis said.

Davis said reactive power is a "critical component" for operating the alternating current electricity system and controlling system voltage for reliable operation of transmission. He said reactive power allows for transmission of real power across transmission lines.

The transmission lines dissipate reactive power more quickly than real power, Davis said, resulting in a condition where reactive power cannot be efficiently transferred over long distances. Because of this, PJM needs localized resources to provide reactive power.

Transmission customers pay for reactive power as an ancillary service under Schedule 2 of the tariff, Davis said, and the charges collected from customers are paid to resources in the zone where the customers and resources are located. Under the tariff, generation owners must submit a Section 205 filing to FERC to seek compensation.

Davis said the existing rate mechanism is "time-consuming and onerous" for generation owners, developers and transmission customers. He said it exposes generators, developers and customers to significant litigation costs in either defending or contesting the requested rates.

To solve the problem, Dominion has proposed several key work activities, including providing education on topics such as the existing reactive rate filing process, a review of the inputs for the determination of reactive revenues and an examination of the reactive rate recovery mechanism in other RTOs/ISOs, including ISO-NE.

Davis said the issue charge also requests the discussion of improvements to the reactive power cost recovery process and examination of alternative reactive power cost recovery mechanisms.

Carl Johnson of the PJM Public Power Coalition said now is an important time for stakeholders to examine issues related to reactive power, calling the issue a "black box" and difficult for people to understand.

Johnson questioned Davis about an out-of-scope issue denoted in the issue charge that bars discussion of any existing FERC-approved reactive service revenue requirements. Johnson said he wanted to hear PJM's opinion at the next MIC meeting whether the reactive service rates on file in the RTO are considered contractual.

Questions about whether black start unit arrangements constitute contracts nearly derailed stakeholder discussions on the issue last year. (See *Vote on PJM Black Start Compensation Deferred*.)

Davis said the problem statement and issue charge seek to create rules "prospectively" and not affect existing FERC-approved decisions.

The committee will be asked to approve the issue charge at the April MIC meeting.

New Load Behind-the-meter

Bastian *provided* a first read of the *problem statement* and *issue charge* addressing new load locating behind the meter of an existing generation resource. Bastian said PJM has received inquiries from several generation owners seeking direction on the RTO's rules related to locating new load behind the meter of an existing generator's point of interconnection.

The proposed arrangements envision the new load, including facilities such as data centers, being directly served by an existing generation resource that has capability exceeding the new load amount.

Bastian said the tariff contains several provisions that address generation added behind the meter with the existing load of a network service customer, but there is no existing tariff or PJM manual provisions addressing a scenario where new load is added behind the meter of an existing generation resource.

PJM is proposing key work activities in the issue charge, including education on the existing tariff and manual provisions around locating new BTM generation with the existing load of a network service customer.

Bastian said PJM also wants to assess whether the existing provisions can be equally applied to a case where new load is proposed to be added behind the meter of an existing generation resource for two different proposed arrangements: new load to be served from the system when the generation is not operating, and new load solely served by the generation but never from the system.

Several stakeholders questioned what would constitute a "new load." Bastian said PJM would work to "better articulate" what the issue charge is seeking to address at next month's MIC meeting.

Manual 11 Revisions

Stakeholders unanimously endorsed minor manual updates as part of the biennial cover-to-cover review.

Nikki Militello, PJM senior engineer of real-time market operations, *reviewed* updates to *Manual 11*: Energy & Ancillary Service Market Operations. Militello said the updates included providing additional clarification of existing processes, removing outdated rules and terminology and correcting spelling and grammar mistakes. The updates will be voted on at the March 29 MRC meeting. ■

— Michael Yoder

PJM News

PJM OC Endorses Synchronized Reserve Discussion

By Michael Yoder


PJM control room | *PJM*

PJM stakeholders unanimously endorsed an issue charge that seeks to improve the deployment of synchronized reserves during a spin event.

The acclamation vote at last week's Operating Committee meeting came a month after some members questioned whether the timing of the issue was appropriate given major changes coming in the reserve market next year. (See "Synchronized Reserve Event," *PJM Operating Committee Briefs: Feb. 11, 2021*.)


Chris Pilong, PJM | *© RTO Insider*

Chris Pilong, director of operations planning for PJM, *provided* a second read of a *problem statement* and *issue charge*. Pilong said discussions with stakeholders after last month's OC meeting allowed PJM to "further refine" the issue charge.

"I think we're in a better space with some of those changes," Pilong said.

Issue Charge

Synchronized reserve events are emergency procedures triggered by PJM to maintain grid reliability in accordance with NERC's Resource and Demand Balancing (BAL) standards, Pilong said. The RTO invokes those procedures under conditions such as the loss of multiple generating units at the same time or a sudden influx of load.

Pilong said real-time security-constrained economic dispatch (RT SCED) cases are generally not used by PJM during an emergency event, which can lead to problems like unpredictable response levels by units and a combination of over- and under-response.

Under current procedure, PJM sends an all-call message to units with an instruction to ramp to full output in the case of an emergency event. But PJM dispatchers have been seeing a pattern of a slow initial recovery followed by extended over-response after an emergency event has concluded.

Because tools such as RT SCED are not used during an emergency event, pricing and dispatch signals linger from a pre-event RT SCED case and often conflict with all-call instructions because the signals don't immediately go away.

PJM is looking to secure controlled deployment of synchronized reserves throughout emergency events by using tools like RT SCED to have consistent pricing and dispatch signals, Pilong said. The goal is to ensure BAL compliance during the recovery and maintain a reliable transition in and out of emergency events.

PJM is also looking to define clear rules and expectations that address how PJM operators approve RT SCED cases around a synchronized reserve event.

Stakeholder Feedback

Pilong said PJM expanded the key work activities in the issue charge based on feedback from stakeholders and the Independent Market Monitor at last month's OC meeting. Changes include education around existing actions and expectations for synchronized reserve events and review of practices by other RTOs/ISOs on synchronized reserve deployment.

PJM will also provide education on the impacts of upcoming market changes, including price formation. Stakeholders had raised the issue that the timing of the work by the task force may be complicated by PJM's revised operating reserve demand curve (ORDC), set to go into effect in May 2022. (See *FERC Approves PJM Reserve Market Overhaul*.)

Pilong said the group will also take a "harder look" at the analysis of metrics and data from previous emergency events.

PJM received additional stakeholder feedback regarding what should be in and out of scope for the issue charged. In-scope issues include reserve deployment method, the expectations of resources during an event, the evaluation of unit performance and pricing in the aftermath of an emergency event. Out-of-scope issues include the penalty rate for non-performance, operating reserve demand curve (ORDC) and price formation changes, and reserve procurement changes.

"We're staying very focused on the deployment of reserves that we have cleared," Pilong said.

Moving Ahead

PJM's proposed approach to the issue calls for convening a task force within the OC to recommend potential changes to resource expectations during events, Pilong said, with an estimated work schedule of six to 12 months.


Siva Josyula, Monitoring Analytics | *© RTO Insider*

Siva Josyula of the IMM thanked PJM for working to clarify the issue charge after last month's OC meeting. Josyula said the IMM still disagrees with PJM's decision to leave changes to pricing of reserves as in-scope activities while keeping ORDC and price formation changes out of scope.

"Once we get into the discussion, there could potentially be some gray areas opening up as to what's in scope and out of scope," Josyula said.

Pilong said it was "a little tricky" to deal with the pricing issue, but PJM didn't want to limit discussions because it wants to be "more consistent" and have better clarity on what pricing should look like during and after an emergency event and to have dispatch instructions and pricing signals aligned. ■

SPP M2M Hits Staggering $168.1M

By Tom Kleckner

SPP raked in another $27.87 million in market-to-market (M2M) settlements from MISO during December and January, pushing its total to $168.11 million since the two grid operators began the process in 2015.

MISO owes SPP $16.35 million in M2M settlements for December and $11.53 million for January. They were the third and fourth straight months the process has settled in SPP's favor above the $10 million mark, though neither month approached November's record of $22.87 million. (See *SPP, MISO See $22.8M in M2M Settlements*.)

Temporary and permanent flowgates were binding for more than 2,750 hours during the two months.

The grid operators exchange M2M settlements for redispatch based on the non-monitoring RTO's market flow in relation to firm flow entitlements held by each RTO.

M2M settlements have been in SPP's favor 15 of the last 16 months and 54 times in 71 months since the process began.

SPP staff shared the results during a March 11 conference call with the Seams Advisory Group. The group met for the first time since its name change from the Seams Steering Committee. Its February meeting was canceled because of a winter storm that put much of the Midwest into a deep freeze.

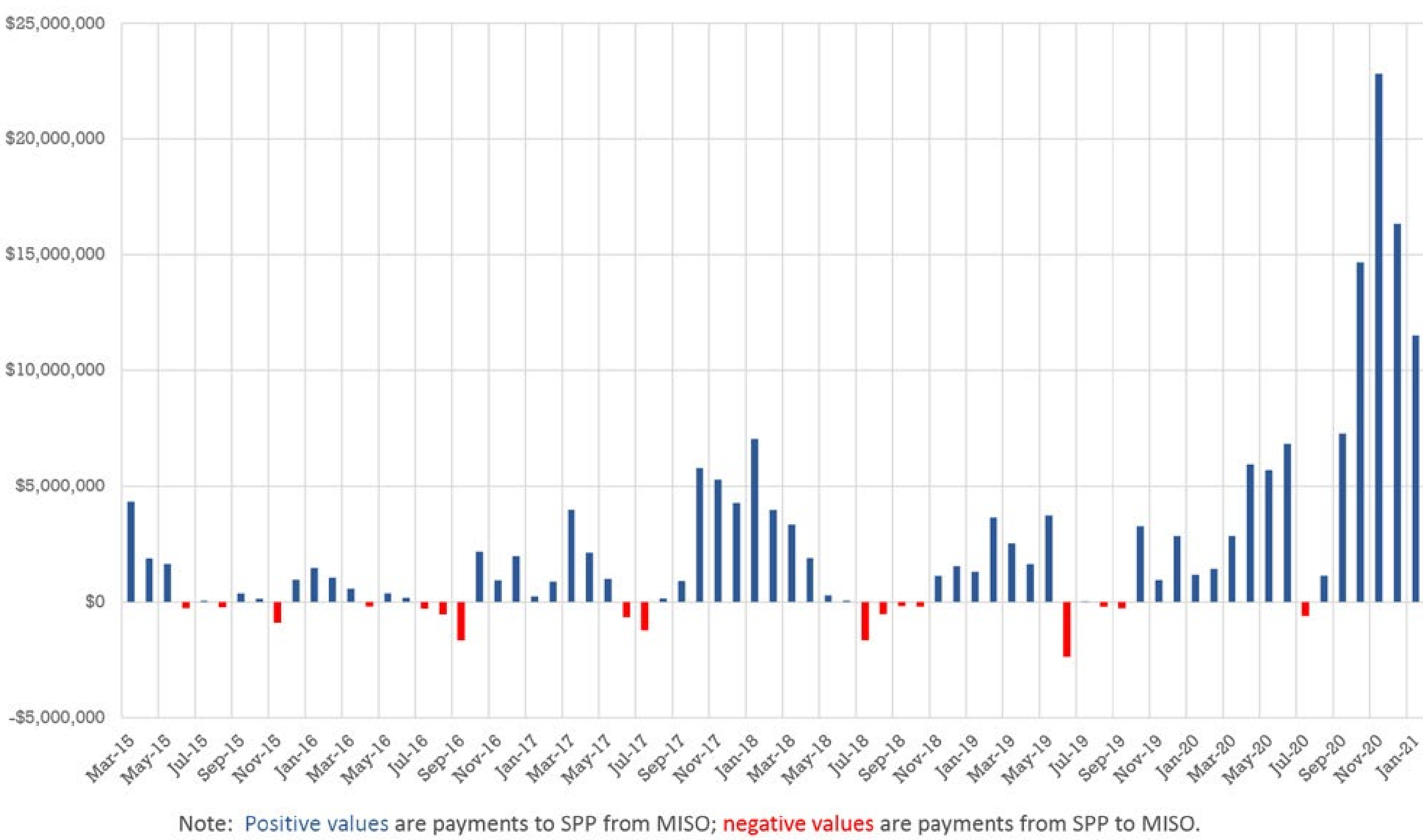
SPP, MMU Request Waivers from FERC

SPP and its Market Monitoring Unit filed a joint request March 11 with FERC asking for a limited waiver of three tariff provisions as the Monitor works to verify and calculate actual cost reimbursement for energy offer curves above $1,000/MWh during the February winter storm (*ER21-1331*).

SPP and its Monitor have proposed extending the 35-day deadline for market participants to submit information for offers above $1,000/MWh to be recovered through make-whole payments. The entities are asking for a 75-day deadline from the Feb. 11-20 operating days.

The RTO and Monitor are also proposing a 105-day deadline — instead of the normal 45 days from an operating day — to review the cost submissions. They additionally propose to waive the limitation on a market participant's ability to dispute consecutive settlement statements.

Numerous offers exceeded SPP's $1,000/MWh cap, and prices peaked at $4,274/MWh during the event. The Monitor is reviewing the offers under FERC orders 831 and 831-A, which require that energy suppliers receive a reasonable opportunity to recover their actual costs of providing energy. ■



SPP's market-to-market settlements with MISO have exploded in its favor. | *SPP*

Company Briefs

Short Seller Trains Sights on EV Startup Lordstown

A new report by short seller Hindenburg Research took aim last week at electric-truck startup Lordstown Motors, saying the company misled investors about the strength of its preorders and the progress it is making toward putting its first model into production.

Hindenburg's report described Lordstown's order book as a "mirage" and said it paid an outside consulting group to generate pre-orders in advance of its deal to go public in 2020. The report cited documents and conversations with former employees and business partners. Lordstown CEO Steve Burns confirmed the company paid consultants to generate preorders that were understood to be nonbinding as a way to assess market demand, but denied it misrepresented its preorder book.

Shares of the company closed down 16.5% following the report's release. Hindenburg, which targeted electric-truck startup Nikola last year, disclosed that it holds a short position in Lordstown, meaning it stands to profit from declines in the company's share price.

More: *The Wall Street Journal*; *Axios*

Musk, Tesla Board Sued over Tweeting in Violation of SEC Deal

A Tesla investor last week sued CEO Elon Musk and its board, claiming Musk exposed the company to billions in potential liability and market losses by continuing to send "erratic" tweets, despite a settlement with regulators requiring pre-approval of his social media activity.

The lawsuit accuses the electric vehicle maker's board of failing to rein in Musk's behavior online, even as he has repeatedly violated a 2018 settlement with the Securities and Exchange Commission. The agreement, which included payments of $20 million each from Musk and Tesla, called for the company to adopt strict new oversight procedures related to Musk's social media posts.

The suit was originally filed under seal on March 8.

More: *Bloomberg Law*

US Honda Plans to Sell Fully Electric SUVs in 2024

Honda last week announced plans to sell two all-electric SUVs in the U.S. for the 2024 model year and will soon offer hybrid gas-electric versions of its top-selling models.

Honda of America Sales Chief Dave Gardner said one of the SUVs will be from the Honda brand, while the other will be an Acura.

Gardner said the company will reduce emissions from its combustion vehicles as part of its efforts to meet stricter standards. He also said Honda is focused on being carbon-neutral by 2050 and is aware that President Joe Biden is focused on zero emissions, not just reducing them.

More: *The Associated Press*

Federal Briefs

12 Republican AGs Sue Biden over Climate Change Order

Twelve Republican attorneys general sued President Biden last week over his executive order aimed at climate change, alleging he lacked the constitutional authority to implement new rules about greenhouse gases.

The lawsuit, led by Missouri Attorney General **Eric Schmitt**, claims Biden violated the separation of powers clause in the Constitution because Congress, not the president, has the power to regulate.

On his first day as president, Biden signed an executive order directing federal agencies to calculate the social cost of greenhouse gas pollution by estimating "monetized damages" to inform future regulations. However, the states say assigning such values is a "quintessentially legislative action that falls within Congress' exclusive authority" and that the economic ramifications will be "disastrous."

More: *USA Today*

EIA Predicts US Power Use Will Rise over Next 2 Years

The Energy Information Administration last week said it expects U.S. power consumption to rise 2.1% this year as state and local governments ease coronavirus lockdowns.

The EIA projected power demand will rise to 3,883 billion kWh in 2021 and 3,936 billion kWh in 2022 from a coronavirus-depressed 11-year low of 3,804 billion kWh in 2020.

The agency said the share of natural gas-fueled generation will slide from 39% in 2020 to 35% in 2022 as prices increase, while coal's share will rise from 20% in 2020 to 23% in 2021 and 2022. Furthermore, it said nuclear's share will slide from 21% in 2020 to 19% in 2022, while renewables will rise from 20% in 2020 to 23% in 2022.

More: *Reuters*

Lawmakers Propose Giving USPS $6B for EVs

Seventeen House of Representatives Democrats introduced legislation last week to provide the U.S. Postal Service with $6 billion to buy tens of thousands of electric delivery vehicles.

The bill would require at least 75% of the new fleet be electric or zero-emission vehicles. Last month, the USPS said it was committed to having EVs make up 10% of its next-generation fleet as part of its plan to retire its 30-year-old delivery vehicles. It said it could boost that percentage, if it received government assistance.

More: *Reuters*

Oregon Sens. Reintroduce Bill to Upgrade Power Line System

Democratic Sens. Ron Wyden and Jeff Merkley last week reintroduced a bill that would increase the amount of money dedicated to upgrading the state's transmission system from $1 billion to $10 billion. (see related story, *Wyden Talks 'Bold' Policy to Spur Green Economy*.)

The senators said the bill would offer incentives to utilities to do more to protect against power outages and wildfires through system upgrades, fire and disaster safety equipment installation and proper vegetation management.

More: *Salem Statesman Journal*

Report: US Must Cut Emissions by 57% to Meet Paris Climate Target

The U.S. must slash its greenhouse gas emissions between 57% and 63% below 2005 levels by 2030 to achieve the Biden administration's longer-term goal of net-zero emissions by 2050, according to an analysis released last week by Climate Action Tracker.

The report said the administration's plan to decarbonize the country's power sector by 2035 is consistent with a Paris Agreement pathway, but it needs to strengthen plans to slash emissions in buildings and vehicles.

The analysis comes before the U.S. is due to announce its new Paris Agreement pledge for 2030 ahead of a climate leaders' summit the country will host on April 22.

More: *Reuters*

State Briefs

ARKANSAS

Judge Approves Entergy, Sierra Club Pact to Retire Coal, Gas Plants

U.S. District Judge **Kristine Baker** last week approved a settlement between Entergy Arkansas and environmental groups Sierra Club and National Parks Conservation Association. The utility will retire two coal-fired plants and a natural gas plant by the end of 2030.

After the agreement was reached in November 2018, Attorney General Leslie Rutledge asked regulators to delay or halt the agreement and petitioned the federal court to intervene in the case to protect the interest of ratepayers.

The plants slated to be closed include the 1,800-MW White Bluff Steam Electric Station (2028), the 1,800-MW Independence Steam Electric Station (2030), and the 528-MW Lake Catherine Steam Electric Station (2027).

More: *Talk Business & Politics*

Stuttgart Rice Mill Cleared for Solar Project

The Public Service Commission last week approved Producers Rice Mill and Scenic Hill Solar of North Little Rock's request to build a 26-MW solar plant with 40 MW of capacity. The system, which will be built at the mill's site in Stuttgart, will be the largest in the state.

The companies said the system will provide two-thirds of the cooperative rice mill's power load. The mill will eventually own the project.

More: *Arkansas Business*

CALIFORNIA

Tuolumne County Outages Caused by PG&E Structure Fire

Pacific Gas & Electric last week said a March 6 power outage that resulted in a loss of power for more than 29,000 customers in Tuolumne County was caused by a fire at a transmission structure.

The fire, which is still under investigation, resulted in a transmission line going out of service around 11:15 a.m. Company spokeswoman Megan McFarland said she did not know the exact type of structure or its location, but that the fire was contained quickly.

There was concern that some customers might go through the night without power, but all were reportedly restored by 6:40 p.m.

More: *The Union Democrat*

COLORADO

Colorado Springs City Council Approves Rate Increase

The Colorado Springs City Council last week unanimously approved a Colorado Springs Utilities (CSU) rate increase request to pay for costs incurred during a winter storm in late February.

Effective Thursday, rates increased by $21.99 for the next 14 months. The average cost per resident will be about $308 over the time frame. During a normal period, natural gas is purchased at about $2.50/dekatherm but spiked to nearly $200/dekatherm during the event, according to CSU.

The council and CSU will meet again this week to decide on an increase in electric rates tied to the cold spell.

More: *KRDO*

KANSAS

KCC to Review Evergy, Others over Feb. Blackouts

The Corporation Commission last week said it will open seven investigations of issues, including power outages and ratepayer costs, associated with the stretch of cold weather in February.

The KCC said its review would include Evergy proposals to smooth out the financial costs to customers. The review will also investigate the cause of reduced natural gas supplies, natural gas prices and supply and demand imbalances from SPP.

More: *KHSB*

MARYLAND

Senate Advances Climate Bill

The Senate last week advanced a sweeping climate action bill that aims to curtail greenhouse gases by 60% below 2006 levels within the next decade. Current law requires the state decrease pollution by 40% from 2006 levels.

The bill also proposes planting 5 million trees, electrifying the government's vehicle fleet and constructing energy efficient schools.

Republicans contended that a 60% reduction was too ambitious and proposed an amendment for 50% by 2030. The amendment failed on party lines by a 31-15 vote.

More: *Maryland Matters*

NEVADA

Lawmakers Prepping Wide-ranging Clean Energy Bill

Democratic lawmakers are preparing a substantial energy policy bill that would mark one of the state's largest investments in electric vehicle infrastructure and require that utility NV Energy spend $100 million over the next three years to construct charging stations.

Sen. Chris Brooks is planning to introduce legislation that, in addition to the charging infrastructure, will call for expanded transmission build-out, expanded tax credits for utility-scale battery storage systems, and the creation of a multi state task force focused on the feasibility of Nevada entering a wholesale electric market over the next decade.

More: *The Nevada Independent*

NEW MEXICO

Harvest Midstream to Pay Civil Penalty

Harvest Midstream, an oil and gas company, last week agreed to pay a $92,500 civil penalty for failing to report a release of natural gas into water, according to the Energy, Minerals and Natural Resources Department (EMNRD).

On top of the penalty, the company also "took specific steps to improve its environmental protection and reporting practices," the EMNRD said.

More: *Albuquerque Journal*

NORTH CAROLINA

Appeals Court Reverses Rejection of Mountain Valley Permit

The 4th U.S. Circuit Court of Appeals last week threw out a decision by the Department of Environmental Quality, ruling that it did not properly explain why it denied a water quality certification for the Southgate portion of the Mountain Valley natural gas pipeline.

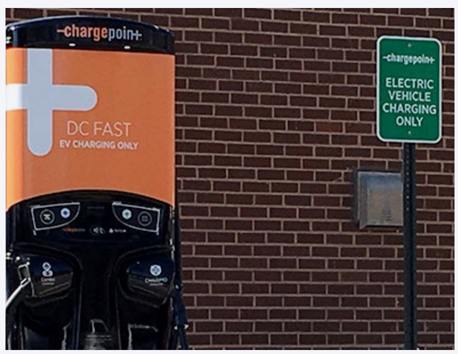
In sending the case back to regulators, the court ordered them to address inconsistent statements from a hearing officer who at one point found that the project had lessened its impact on water bodies "to the greatest extent possible," and explain why the department chose to deny certification outright rather than give conditional approval.

The denial was based on the uncertainty over whether the main portion of the pipeline would be completed. At the time, Mountain Valley lacked three federal permits. The company has since regained two of the three permits and is attempting to bypass legal problems with the third.

More: *The Roanoke Times*

OHIO

State to Install 500+ EV Charging Stations



The state EPA last week awarded more than $3.2 million in grants to support the installation of more than 500 electric vehicle charging stations.

Funded by the state's allocations in the Volkswagen Mitigation Trust Fund, the grants will provide full or partial funding for publicly accessible Level 2 EV charging ports at more than 170 locations.

More: *Dayton Business Journal*

OREGON

Bill Would Allow Utilities to Pass EV Charging Station Costs to Consumers

The senate last week passed a bill that would allow utilities to charge consumers for the cost of building and supplying new electric vehicle charging stations.

The bill says that charging stations benefit consumers over time by reducing greenhouse gases and provide consumers with a service by managing the distribution of electricity to those stations. Additionally, consumers would pay for the cost of building the utility-owned charging stations. The companies could also pass along the costs of maintenance.

More: *The Banks Post*

Lawsuits Seek $1B+ from Pacific Power over Fires

Two lawsuits filed last week representing more than 100 people ask for more than $1 billion in damages from Pacific Power, claiming negligence for the fires in the Santiam Canyon, according to court records filed in Marion County.

The suit claims Pacific Power, doing businesses as PacifiCorp, "failed to safely design, operate and maintain its infrastructure leading to the fire." They also allege PacifiCorp failed to heed warnings from the National Weather Service about the impending "historic" high winds and extreme drought conditions.

It is at least the third lawsuit filed against the utility in the wake of the fires.

More: *Salem Statesman Journal*

WISCONSIN

PSC to Chart 'Roadmap' to Carbon-free Electricity

The Public Service Commission last week voted 2-1 to open an investigation to explore the economic and environmental considerations related to the deployment of more clean energy technologies.

The commission will study topics including changes in utility-scale generation that reduce overall carbon emissions; deployment of customer-level resources and programs that help customers control their energy use and lower their costs; deployment of new technologies, such as battery storage and microgrids; and the design and operation of the regional wholesale market and transmission grid.

The investigation will also consider plans by each of the state's five largest utilities to eliminate carbon emissions by 2050, recommendations of the governor's climate change task force and Office of Sustainability and Clean Energy, and strategies for creating jobs and lowering costs.

The PSC said it will solicit public comments but did not provide a timeline.

More: *Wisconsin State Journal*