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Your Eyes and Ears on the Organized Electric Markets CAISO = ERCOT = ISO-NE = MISO = NYISO = PJM = SPP

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March 9, 2021

ERCOT Board Cuts Ties with Magness

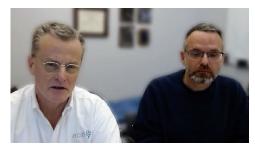
Botkin Resigns from PUC

By Tom Kleckner

Following the ERCOT Board of Directors' decision to fire CEO Bill Magness during an *emergency teleconference* Wednesday night, names of his potential successor have already begun to circulate.

During a hearing before the state House's State Affairs Committee on Thursday, Rep. Phil King (R) proposed former FERC Chair Pat Wood as a potential short-term caretaker to oversee ERCOT reforms. Wood, now Hunt Energy Network's CEO, also chaired the state's Public Utility Commission.

One media report said the board "reportedly already [has] a frontrunner" in former NYISO CEO Brad Jones. However, others suggest Texas' political leaders will favor someone without personal connections at ERCOT should they need to clean house; Jones spent



The ERCOT board fired CEO Bill Magness (left), shown here during a media briefing following the February winter storm alongside Dan Woodfin, senior director of system operations. | *ERCOT*

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House Oversight Committee Pokes into ERCOT (p.21)

SPP Launches Review of Storm Response (p.35)

Utility Group Wants to Cover Southeast's Highways with DC Fast Chargers

Electric Highway Coalition Aims to Create 'Seamless' EV Charging Network Across Multiple States — and Regulatory Commissions

By K Kaufmann

Six utilities are banding together to make electric vehicle "range anxiety" a thing of the past with a plan to create "a seamless network" of fast-charging stations along highways stretching from the Atlantic and Gulf coasts to the Midwest.

"Throughout the ages, travelers have had to figure out how to get from Point A to B. From feeding and watering horses, to filling gas tanks and now recharging batteries, ensuring there are convenient places to accomplish these tasks is critical," said Nicholas Akins, CEO of American Electric Power, one of

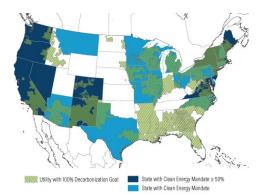
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Report: Congress Should Pass a National Transmission Policy

With an Uncertain Energy Future, National Academies Calls for Federal Leadership, Better Tools and De-risking Innovation

By K Kaufmann

A new report from the National Academies of Sciences, Engineering and Medicine (NASEM) recommends an expanded role for federal



The fractured landscape of the U.S. energy transmission, with states and utilities setting various decarbonization goals. | *World Resources Institute*

leadership in transmission planning.

Efforts to predict what the grid of the future will look like have a poor track record, according to a *new report* from NASEM. So rather than even try, the report on grid evolution takes a hard look at the current state of the U.S. energy transition and offers recommendations "to support whatever ways the power system evolves" so that it remains "simultaneously safe and secure, clean and sustainable, affordable and equitable, and reliable and resilient."

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Now Live!

NetZero Insider

Your Eyes and Ears on Climate Policy and Adaptation
Building & Transportation Electrification Federal & State Policy

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Editorial

Editor-in-Chief / Co-Publisher Rich Heidorn Jr. 202-577-9221

Deputy Editor / Daily Michael Brooks

Deputy Editor / Enterprise Robert Mullin

503-715-6901

301-922-7687 Art Director

Mitchell Parizer 718-613-9388

New York/New England Bureau Chief Jennifer Delony 603-320-7043

MidAtlantic Bureau Chief K Kaufmann 202-494-4386

Midwest Bureau Chief John Funk 216-316-5413

Associate Editor

Shawn McFarland 570-856-6738

Copy Editor/Production Editor Rebecca Santana 770-862-6004

CAISO/West Correspondent Hudson Sangree 916-747-3595

ISO-NE Correspondent Jason York 860-977-7830

MISO Correspondent

Amanda Durish Cook 810-288-1847

NYISO Correspondent Michael Kuser 802-681-5581

PJM Correspondent

Michael Yoder 717-344-4989

SPP/ERCOT Correspondent Tom Kleckner 501-590-4077

NERC/ERO Correspondent Holden Mann 205-370-7844

Subscriptions

Chief Operating Officer / Co-Publisher Merry Eisner 240-401-7399

Account Executive

Kathy Henderson 301-928-1639

Account Manager

Phaedra Welker 773-456-4353

Marketing Director

Margo Thomas 480-694-9341

RTO Insider LLC

10837 Deborah Drive Potomac, MD 20854 (301) 299-0375

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NetZero Insider: Your Eyes & Ears on Climate Policy and Adaption

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:



- A Clean Grid Means More Infrastructure, Regulator Says
- Report: State Climate Policy Outcomes Hazy
- New London, OSW Devs Agree to Deal on Staging Area
- Hawaii Report Poses 'Living' Shoreline to Counter Sea Level Rise

- Schools' 'Budget Neutral' Bus Deal Could Accelerate BEB Growth
- Md. Carbon Pricing Bill Rejected for 4th Time
- EV Market Gaining Momentum in North Carolina
- NH Bill Seeks All-ZEV State Fleet by 2042
- Nev. Program Seeks Calif. Standards for Vehicle Emissions
- NY Panel Says Circular Economy Will Cut Waste Emissions
- Rural Va. School Districts Skeptical of Electric Buses
- Carbon Tax Bill Gains Supporters in Wash.
- Strong Bipartisan Support for Wash. FCEV Bill



Report: Congress Should Pass a National Transmission Policy

With an Uncertain Energy Future, National Academies Calls for Federal Leadership, Better Tools and De-risking Innovation

Continued from page 1

Following the election of President Biden, the U.S. energy sector has been rife with reports and recommendations on how to accelerate the U.S. electric grid's progress toward all those adjectives — including another study from NASEM released earlier in February. (See Report: 'Social Contract' Needed for Decarbonization'.)

What distinguishes the current report from the pack is its embrace of uncertainty and focus on the likely drivers of change, ranging from the development of grid-edge, distributed technologies, to impacts on jobs and social equity, to "shifts in the locus of electricityrelevant innovation" outside the U.S. The study was originally requested by Congress in 2018, and the committee of experts that wrote its more than 40 recommendations also included specific action items assigned to Congress and other federal and state agencies and policymakers.

Speaking during a Feb. 25 webinar to launch the report, committee member Karen Palmer, a researcher at Resources for the Future, said, "We have to recognize that which pathway we end up taking is going to depend on what customers want, what climate policies are adopted, what happens with economics, including market design, and also what happens with technology development."

"The system is on the cusp of a fundamental transformation," added Carnegie Mellon University professor Granger Morgan, who chaired the study committee. "Many of these transformations are not under industry control. How these transformations manifest will be different in different parts of the country. An environment that promotes technical, economic and regulatory innovation is essential."

For example, referring to the recent power outages in Texas, Morgan pointed to a recommendation that the departments of Energy and Homeland Security "jointly establish ... a visioning process [for] systematically imagining and assessing plausible large-area, longduration grid outages."

National Transmission Policy

Granger and other committee members kept

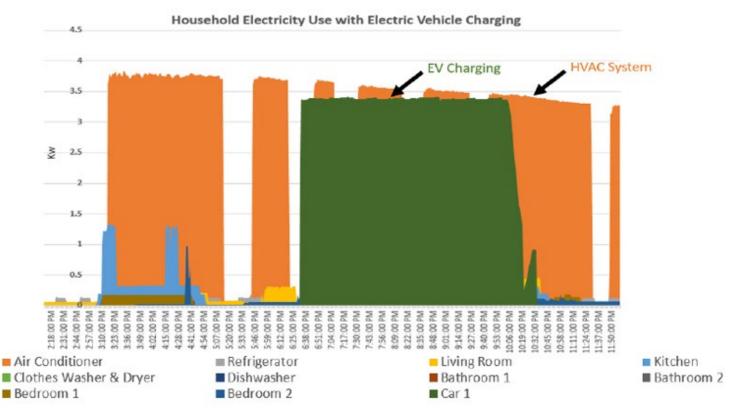
the webinar focused on some of the report's key recommendations, such as an expanded role for federal leadership in grid planning.

"First, we would encourage Congress to enact a national transmission policy that would rely on a high-voltage transmission system to support energy diversity, energy security and the nation's equitable transition to a low-carbon economy," said Susan Tierney, a senior consultant with the Analysis Group.

FERC should be authorized to direct transmission companies and operators to plan for a system that is not only efficient, reliable and resilient, but extends to areas of the country with high-quality renewable resources, Tierney said. The commission should also take over DOE's role in designating new "national interest electric transmission corridors" and approving new lines in those corridors, she said.

Charting the US Innovation System

"It's fashionable to say that we have the technologies now that we need" to decarbonize the grid, said David Victor, a professor of interna-



Charging an electric vehicle with a Level 2 charger uses almost as much power as an air conditioner. | Pecan Street



tional relations at the University of California, San Diego. "That's simply incorrect."

Victor's first recommendation is "to improve awareness and capacity; to take the pulse of how the U.S. innovation system actually works because there is such a big role for innovations coming from outside" both the electric power industry and the U.S. "Lots of different policy instruments have an impact."

He also calls for tighter collaboration between DOE and DHS "around managing the tension between the benefits of globalization and natural security." At the same time, NASEM echoes other recent reports in its call for an increase in funding for research and development in the face of a loss of U.S. leadership in

innovation and global competition.

A broad range of government, industry and research stakeholders should work together to identify the "breakaway" technologies of the future and "develop and fund a research agenda that creates fast-moving programs that help to de-risk such solutions from technology, market and regulatory perspectives," the report says.

The Need for Better Tools

Not knowing exactly how the grid will evolve "will require a major change in the way we approach the whole idea of tools," Washington State University professor Anjan Bose said. "We are looking at a major change in the architecture happening to the grid, and not

happening uniformly across the country. The only way we'll be able handle all of this is if we do enough fundamental study of how these things all operate together."

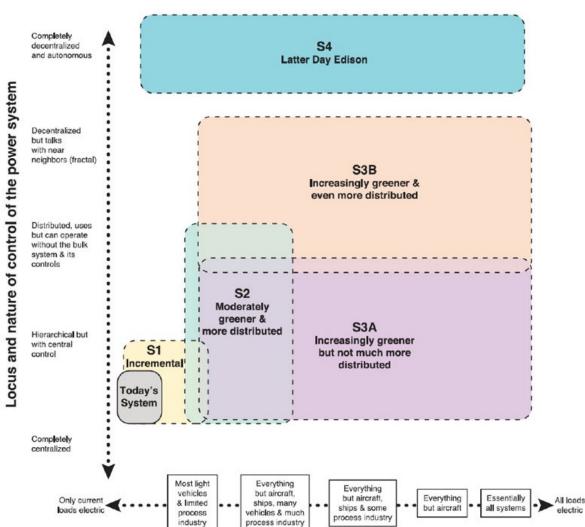
With the system changing rapidly, "it will be very important that the skill sets of our regulators are very high, that they have a lot of tools available to enable their modeling, simulation [and] analytics," said Reiko Kerr, senior assistant general manager of power systems at the Los Angeles Department of Water and Power. "The dynamic availability of information [is needed] to understand the decisions and be able to build in flexibility so that you can also course correct and not make decisions that would require years to unwind or fix."

Terry Boston, former CEO of PJM, underlined

the importance of advanced planning tools as more sectors of the U.S. economy are powered by electricity. "We're talking about the electrification of fertilizer in the chemistry industry; we're talking about the electrification of cement and even steel," Boston said. "My greatest fear is we're going to under-forecast the loads. How do we get to resource adequacy in a world where decarbonization means electrification of almost everything?"

Dartmouth College professor Elizabeth Wilson said that beyond better tools, a paradigm shift in how we think about energy will be needed. "This combination of critical infrastructure and fundamental changes to our system require that we engage in new ways," Wilson said.

"What this report does really well is highlight the importance of energy for society, energy for vulnerable communities, and really mapping a path forward for how energy in the future needs to be integrated into our core societal decisions," she said.■



Degree to which society electrifies in order to decarbonize

The NASEM report lays out several possible scenarios, ranging from an incrementally changed current system (S1) to a highly decentralized system (S4) with no macro transmission grid. | NASEM



Senate Panel Advances Haaland

By Rich Heidorn Jr.

The Senate Energy and Natural Resources Committee on Thursday approved Rep. Deb Haaland's (D-N.M.) nomination as secretary of the interior, sending her on to a floor vote.

Haaland, who had attracted fire from GOP members from oil and gas producing states, won the support of only one Republican, Sen. Lisa Murkowski (Alaska), in the 11-9 vote.





Sen. Lisa Murkowski (R-Alaska) | Senate Energy and Natural Resources Committee

cabinet secretary and Haaland's opposition to resource development on public lands, noting that Alaska has "more federal lands [and] more mineral resources ... than any other state."

"So I have really struggled through this one," she said. "I am going to place my trust in Rep. Haaland and her team despite some very real misgivings."

Directing her comments to Haaland, Murkowski added: "I am also going to hold you to your commitments to ensure that Alaska is allowed to prosper."



Senate ENR Committee Chair Joe Manchin (D-W.Va.) | Senate Energy and Natural Resources Committee

Committee Chair Joe Manchin (D-W.Va.) also expressed misgivings before signaling his support.

"While I may not personally agree with some of her past statements and policy positions, as secretary she will be carrying out President Biden's agenda," Manchin said.

"At her [confirmation] hearing she confirmed that she and the administration recognize that our country will remain dependent on fossil fuels for years to come." (See Haaland Commits to Balanced Approach to Energy.)

Manchin also said he "deeply impressed" by Rep. Don Young's (R-Alaska) endorsement of Haaland as someone with a "strong commitment to bipartisanship."

Young "has been in Congress long enough to



The Senate Energy and Natural Resources Committee approved the nomination of Rep. Deb Haaland as interior secretary. | Senate Energy and Natural Resources Committee

be able to read people and know their heart and soul," he said.

But ranking member John Barrasso (R-Wyo.) said he opposed Haaland because of her "radical views." citing her statements opposing fracking and drilling on federal lands and her support of the Green New Deal. Her positions are "squarely at odds with the mission of the Department



Sen. John Barrasso (R-Wyo.) | Senate Energy and Natural Resources Committee

of the Interior and outside of the mainstream." he said.

He also criticized her confirmation hearing performance, saying she "struggled or refused to answer basic questions," including ones on the impact of Biden administration policies on energy workers. Biden has ordered a temporary freeze on new drilling leases on all public lands and waters and a review of the leasing program. He also froze drilling activity in the Arctic National Wildlife Refuge.

"In Wyoming alone, a long-term leasing ban would result in 33,000 workers losing their jobs," Barrasso said.

Sen. Martin Heinrich (D-N.M.) came to Haaland's aid, thanking Murkowski for her

"pragmatism" and saying Barrasso's characterization of the nominee was neither "accurate nor appropriate."

"I am disappointed by the tenor of the debate in this committee. I voted for two Interior nominees whose views may have been consider quite radical by many of my constituents. I never used those terms because we have to get a lot of work done on this committee, and the tenor of this committee over the past several years has been very productive."

Thursday's vote came after Sen. Susan Collins (R-Maine) on Wednesday announced she would support Haaland, a move that observers said likely assured she will survive a floor vote.

In other action, the committee held a confirmation hearing for David Turk, Biden's nominee as deputy energy secretary, and approved the chairs and ranking members, respectively, of four subcommittees:

- Energy: Mazie Hirono (D-Hawaii) and John Hoeven (R-N.D.);
- National Parks: Angus King (I-Maine) and Steve Daines (R-Mont.);
- Public Lands, Forests and Mining: Catherine Cortez Masto (D-Nev.) and Mike Lee (R-Utah): and
- Water and Power: Ron Wyden (D-Ore.) and Cindy Hyde-Smith (R-Miss.). ■



DC Circuit Upholds FERC on PJM Stability Method

By Michael Yoder

The D.C. Circuit Court of Appeals on March 2 upheld FERC's 2019 ruling that directed PJM to implement a new cost allocation method for transmission projects addressing stability issues (PSEG v. FERC, 19-1091).

Public Service Electric and Gas and PPL Electric Utilities petitioned the court for review of several FERC orders concerning cost sharing for upgrades to the PJM grid after the commission directed the RTO in December 2019 to refile tariff revisions on the allocation method. FERC in 2018 had reversed its 2016 decision that approved cost allocations for the Artificial Island reliability project in New Jersey, shifting costs initially allocated to stakeholders in Maryland and Delaware to utilities in New Jersey. (See FERC Lets Original PJM Stability Method Stand.)

PJM transmission owners and New Jersey agencies argued that the commission's reversal of the 2016 order was "inadequately explained, lacked substantial evidence and improperly focused on assigning costs to violators rather than beneficiaries." The petitioners also asserted that the 2018 order was inconsistent with Order 1000 and that FERC "failed to respond meaningfully" to the arguments against rehearing.

FERC, which was supported by stakeholders in Maryland and Delaware, maintained that it "engaged in reasoned decision-making."

"We conclude the commission reasonably decided to adopt a different cost-allocation method for the type of project at issue here and adequately explained its departure from the cost allocations it had approved in 2016," the court found in denying the petitions for review.

Because the dispute centers on the commission's exercise of its rate-setting authority, the court said it was "particularly deferential" to FERC's determinations.

The petitioners and New Jersey agencies challenged FERC's decision to grant rehearing of the 2016 order on three grounds, particularly contending that the commission "failed to adequately justify" its finding that the solutionbased distribution factor (DFAX) method was unjust and unreasonable when applied to the Artificial Island project. (See FERC: Stability Deviation Method Best for Artificial Island.)

PJM assigns 50% of the costs of regional facilities (500-kV lines or higher and double 345-kV lines) and "necessary" lower-voltage facilities required to support regional lines on a load-ratio share basis for reliability projects, while the remaining 50% of costs is allocated

using DFAX.

FERC originally determined using the methodology that 93% of the \$280 million Artificial Island project cost would have gone to Delmarva Power & Light. But the commission later agreed with Maryland and Delaware utility regulators, determining that while Delmarva customers would use new transmission lines from the Artificial Island project, the utility neither caused the need for the lines nor benefited from the flows.

"As the commission explained in the 2019 order, although the Delmarva zone 'will use the Artificial Island project as measured by the solution-based DFAX method, it would not actually derive any benefit from those flows ... because its transmission system already was adequate to serve its load," the D.C. Circuit said. "Petitioners' contentions therefore provide no basis to set aside the commission's decision to grant rehearing of the 2016 order."

The petitioners also contended that FERC's reversal was contrary to Order 1000 and that it "failed to meaningfully respond to their arguments in support of the solution-based DFAX method and in opposition to reopening

"None of these challenges has merit," the court said.



The Hope Creek and Salem nuclear units on Artificial Island in southern New Jersey | BHI Energy

FERC Sets 'Listening Sessions' on New Office

Congress Ordered Public Participation Office 42 Years Ago

By Rich Heidorn Jr.

FERC will take public input on the commission's nascent Office of Public Participation (OPP) during "listening sessions" on March 17 to 25. The sessions will be led by commission staff, although commissioners may also attend.

In December, Congress ordered FERC to act on a directive it had ignored for four decades to establish the office to "coordinate assistance to the public with respect to authorities exercised by the commission," including help for those seeking to intervene in commission proceedings.

The office had been ordered by Congress in the 1978 Public Utility Regulatory Policies Act, but the commission failed to act even after more than two dozen environmental and public interest groups filed a rulemaking request in 2016 (RM16-9). (See Citizens Groups Seek Public Funding for FERC Interventions.)

In the appropriations bill approved in Decem-



FERC Commissioner Allison Clements will oversee the creation of the new Office of Public Participation. | © RTO Insider

issue a report on the office's status by June 25, including an organizational structure and "budget for the office sufficient to carry out its statutory obligations." FERC Chairman Richard Glick said he would obey the directive and appointed new Commissioner Allison

ber, Congress ordered

the commission to

Clements to oversee its creation.

Each listening session will allow members of the public to speak for three to five minutes. Links to preregister are below:

- Landowners and Communities Affected by Infrastructure Development: March 17, 1-2:30
- Environmental Justice Communities and Tribal Interests: March 22, 1-2:30 p.m.

- Tribal Governments: March 24, Session 1: 10-11:30 a.m.; Session 2: 1-2:30 p.m.
- Energy Consumers and Consumer Advocates: March 25, 1-2:30 p.m.

There will also be all-day commissioner-led workshop on April 16, at which FERC will seek input on:

- the office's function and scope as authorized by Section 319 of the Federal Power Act;
- the office's organizational structure and approach, including the use of equity assessment tools;
- participation by tribes, environmental justice communities, and other affected individuals and communities, including those who have not historically participated before the commission: and
- intervenor compensation.

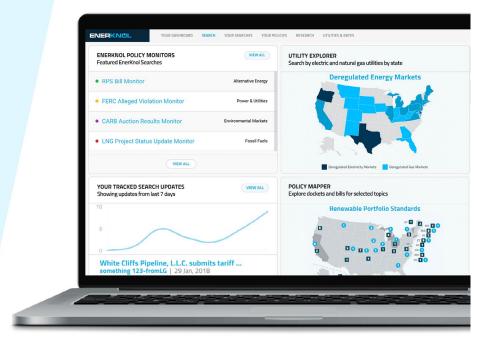
Those requesting to speak should submit nominations by this Wednesday.

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Green Transition Sparks Comeback for Utility Securitizations

By Ted Jackson

Utility securitizations, once used to reimburse power companies for assets that became stranded under electricity market deregulation, are making a comeback. Utilities and state governments are using the ratepayer-backed bonds to deal with the huge costs associated with green energy transition, climate change and even the COVID-19 pandemic.

"Utility securitizations are set for a resurgence as electric utilities deal with costs surrounding the transition out of hydrocarbons into green energy," said Joseph Fichera, CEO of utility securitization advisory expert Saber Partners. "There are also attempts being made to apply the ratepayer securitization model to costs from the COVID epidemic, as well as the increasing costs associated with climate change."

Saber Partners' forward calendar for ratepayer bond issuance lists five states — California, North Carolina, Wisconsin, New Mexico and Michigan — that have legislation in place for utility securitizations. Utilities in these states are expected to issue as much as \$24 billion of ratepayer bonds in the near future.

Colorado and Montana have also recently passed utility securitization enabling legislation. In addition, six states — Kansas, Missouri, Minnesota, Iowa, South Carolina and Arizona

— are considering new utility securitization authorizations.

To give an idea of the extent of the resurgence, only \$51.1 billion of ratepayer bonds were issued 1997 through 2019, with just \$4.1 billion in principal currently outstanding, according to Saber Partners.

"If securitization were used for early retirement of all coal plants in the nation, as well as to pay for COVID costs, perhaps hundreds of billions of dollars in ratepayer bonds would need to be issued," Fichera said. "Not all coal plants and COVID costs will be dealt with using securitization. Ratepayer issuance going forward, however, very well could surpass the \$50.8 billion issued from 1997 through 2019."

California: \$12B+

California's three investor-owned utilities are seeking to issue more than \$12 billion in bonds.

After a long absence from the ratepayer bond market, Southern California Edison in mid-February issued \$338 million of ratepayer bonds designed to mitigate future damage from wildfires. Over the last three years, California has seen an unprecedented series of wildfires — fires that some, including California Gov. Gavin Newsom, have attributed to climate change.

Legislators in Sacramento have approved unprecedented levels of utility securitizations, Saber Partners says. SoCal Edison's February ratepayer issue is likely to be the first in a series of ratepayer bonds as the utility has been authorized to issue up to \$1.6 billion worth.

Troubled Pacific Gas and Electric has authorization to issue \$3.2 billion for wildfire mitigation costs and is seeking another \$7.5 billion of ratepayer bonds to pay wildfire victims, Saber Partners said.

California consumer advocates are vigorously litigating the 7.5 billion securitization authorization, claiming the interests of ratepayers aren't being adequately considered, though PG&E has promised that securitization deals will be neutral with respect to overall electricity rates for consumers.

"If utility securitizations are to be done on a best practices basis, the interests of consumers must be of paramount importance," Fichera said. "Ideally that means consumers must be represented in the negotiations where the structure of securitizations are laid out."

Last June, Saber Partners was retained by the Public Staff of the North Carolina Utility Commission to advise on Duke Energy's \$1 billion proposed securitization to pay for storm damage. In total, Saber Partners has advised



**New York reflects taxable debt component only of securitization bond which was permitted solely for Long Island Public Power Authority, a municipal utility. Hawaii is government beneficiary though charge on utility customers.

Corporate Utility Securitizations by State (1997-2021) | Saber Partners



on more than \$9 billion of utility securitizations, mostly retained by utility regulators who wanted guidance on protecting consumers.

Funding Deregulation

Utility securitizations saw their genesis during the electric utility deregulation movement of the late 1990s. Vertically integrated utilities in many states were required to separate transmission, which remained regulated, from power generation, which was opened to competition.

The idea was to promote efficiency by allowing unregulated generating companies to compete with each other to offer electricity at lower prices to win market share.

Importantly, electric industry reformers also wanted market price signals to start determining when and in what form new generation assets would be built or disposed of — unlike the centralized, command and control under the utility industry model that prevailed for more than 100 years.

But splitting transmission and generation created some headaches, not the least of which was the fact that many generation assets had yet to be fully paid for in the utility customer rate base. As a result of deregulation, generation assets were held in unregulated entities that had zero ability to amortize costs through a normally captive customer base.

These generation assets became known as "stranded assets," a term that is now in ubiguitous usage in the electric power industry. Among the stranded assets were generators such as Philadelphia Electric Co.'s Limerick nuclear plant, which produced power at a cost that was no longer competitive in the deregulated environment.

Enter utility securitization. Ratepayer-backed bonds were used to refinance utility holding company balance sheet debt, as well as to pay back equity associated with the investments in the newly stranded assets.

By going to state utility boards and through special legislation, electric utility holding companies were given permission to float these new ratepayer bonds to get reimbursed and spread the costs to ratepayers over time at a lower cost of funds. This idea then spread to massive storm damage costs, starting with Hurricane Katrina and Rita in 2005, and for rising environmental costs. PG&E and other California utilities are planning to use ratepayer bonds to reimburse COVID related costs, according to Saber Partners.

In a ratepayer bond deal, a special purpose vehicle (SPV) — a trust, basically — is set up that holds an irrevocable claim to a new charge on customer bills, a charge specifically levied to reimburse for any utility costs approved by state legislators. Regulators monitor the SPV trust and every six months adjust the special charge to ensure that there is enough money in the SPV to pay off the ratepayer bond on

Enthusiastic Reception

Credit rating agencies have given ratepayer bonds AAA ratings based mostly on the irrevocability of the claim to the cash flow from the special charge. Another credit positive is the fact that regulators periodically adjust the level of the special charge to ensure adequate funding of the trust.

Judging by the enthusiastic reception investors gave So Cal Edison's \$338 million transaction in February, there should be no problem selling upcoming utility securitizations. The

offering was eight to 10 times oversubscribed, sources say.

Utility securitizations have brought together interest groups that have traditionally been adversarial.

"Environmental groups and renewable energy advocates have joined utilities in pushing for securitizations," said J. Paul Forrester, partner at Chicago-based law firm Mayer Brown. "It's not often that you see utilities and environmentalists working hand-in-hand, but it makes sense because utility securitizations will smooth and accelerate the path for power company green energy transition."

In 2019, the Sierra Club threw its weight behind utility securitizations. "Securitization is a key financing tool that can help electric utilities accelerate the retirement of uneconomic, polluting coal plants and move more quickly toward a grid powered by clean, safe renewable energy," the group said in announcing a report on the subject.

While utility securitizations will lower overall costs for dealing with stranded coal assets and climate change costs, the extremely complex nature of the deals means that the costs of structuring securitized utility transactions are very high.

Saber Partners said that some deals have had structuring costs north of \$20 million, costs that Forrester is working to mitigate.

While he would not name his client because of confidentiality concerns, Forrester says he has been retained by a nonprofit to build a utility securitization deal template — a kind of "plug and play" solution — that utilities and state governments can use to allow for more securitizations while also reducing costs considerably.









Overheard at CERAWeek by IHS Markit

Industry Experts Rehash ERCOT Market's Struggles

By Tom Kleckner

The energy industry's largest international gathering, CERAWeek by IHS Markit, was conducted virtually last week with "unprecedented" participation by more than 20,000 delegates from 95 countries, according to event organizers.

Some 500 speakers in over 200 sessions discussed decarbonization, affordability and energy security, while also offering their visions of post-pandemic economic recovery and growth.

CERAWeek is expected to return to Houston next year, where it typically draws more than 6,000 attendees from around the world.

This year, organizers added a pair of sessions on the February winter storm that sidelined power plants and caused widespread outages in Texas. Rebecca Klein, a principal in her own consulting firm and a former Texas Public Utility Commissioner, led her panel through a discussion of the system wide failure.

When asked how it happened, IHS Markit Vice President Lawrence Makovich pointed to the ERCOT energy-only market's "inherent flaw" of depressed pricing levels not incenting new generation.

"There's an underinvestment in the amount of capital and an underinvestment in the capacity that is there and available," he said. "The market causes supply and demand to clear in

real-time at price levels too low to cover all the cost of power investment you want for customers to have efficient and reliable energy. They still had price signals that were not going to get the job done. The reliability crisis had come to pass, and you can look back on this and see all the signposts that this was going to happen."

Michael Webber, Engie's chief science and technology officer, disagreed. He said ERCOT's normal prices of \$25/MWh haven't slowed the addition of capital, noting Texas has built more capacity over the last 15 years than any other

"Hopefully, we'll keep building, but we'll anticipate storms like these and weatherize," Webber said. "All these power plants could winterize, but it increases your costs a few percentage points. You increase your winter efficiency, but you decrease your summer efficiency."

"We design a system that's great for the summer, but are we focusing on these one-in-10-year events? We're absolutely going to plan for that now," said Hunt Energy Network CEO Pat Wood. He said 158 Texas plants failed to perform during the win-



Hunt Energy Network CEO Pat Wood | CERAWeek by IHS Markit

ter storm, while generators in the northeastern RTOs don't seem to share that problem.

"We're a state that doesn't like mandates, so we set minimum standards and let the market determine how to meet those standards," Webber said. "If you want to be in this market, you must meet these standards. Raising the standards according to weather extremes we think will happen more frequently, and that means extreme heat and extreme cold — that's the way to go."

Participating in a separate panel of IHS Markit power and natural gas experts, Doug Giuffre corroborated Webber's point by describing a colleague's recent research into 70 years of Texas weather data. It turns out the February storm was among the most extreme weather events in the state, "at least through 70 years of data," Giuffre said, and probably the thirdmost extreme when looking at duration and multiple days of below-freezing temperatures.

Giuffre said ERCOT's winter seasonal assessment included the 2011 event that led to two days of rotating blackouts as an extreme scenario. "It was probably the 34th most extreme event," he said. "It wouldn't even fall within the

That 2011 event led to voluntary weatherization standards, with no enforcement.

"In 2011, the conversation was actually from the bottom up. You had the market participants and industry officials talking about potential market reform," said IHS Markit's Bob Ineson. "This time, the legislature has stepped in. That's going to play an important role going forward."

"I've learned as a regulator that you either pass a rule or you shut up," said Wood, who has chaired both FERC and the Texas PUC. "Voluntary or best [weatherization] practices are great ... but that's the minimum standard. You've got to [weatherize]. You've got to ensure people don't die."

Gates Explains the 'Green Premium'

Philanthropist and Microsoft founder Bill Gates helped set the framework for CERAWeek by focusing on the "green premium" — the "extra cost you pay" for products and investments that are more environmentally friendly.

"For electric cars, it's very small. There are some upfront costs, and you give up some range. ... It's a modest green premium," Gates said. "We can see that with volume and various









Rebecca Klein (top left) moderates a panel with (clockwise) Lawrence Makovich, Michael Webber and Pat Wood. | CERAWeek by IHS Markit



"Voluntary or best [weatherization] practices are great ... but that's the minimum standard. You've got to [weatherize]. You've got to ensure people don't die."

> Pat Wood, CEO of Hunt **Energy Network**

initiatives, that green premium will get to zero, and that's mind-blowing.

"I think of the green premium as what it would cost to change everything and pay the green premium," he said. "Imagine a phone call I might make in 2050. I'm talking to India, where there are more lights at night and they're building buildings. If the green premium at the time is over \$1 trillion, India will say no. They'll just do it the normal way. The United States and other rich countries owe more to the world than lowering our emissions by brute force."

Gates is taking that a step further with Breakthrough Energy, a network of entities and initiatives he established in 2015 with a coalition of private investors supporting innovations to help the world reach net-zero emissions by 2050. Those involved follow the same public-private partnership model Gates has used to improve health, education and public welfare around the globe. The focus has been on net-zero technologies, such as energy storage.

"A cold front in the Midwest can shut down wind and solar. Electricity is only valuable when it's totally reliable," Gates said. "Factories and hospitals are built to run 24 hours a day. We put in all generation and transmission in our model and say, 'What if? What type of storage would work?'





IHS Markit Vice Chair Daniel Yergin (left) chats with Bill Gates. | CERAWeek by IHS Markit

"Growing that electric network and maintaining that reliability is vastly underestimated. We need to draw in lots of people using the same model so you can't exaggerate the benefits of different things. Utilities, we all need to be using that same model."

Biden Administration Meets, Greets

A trio of newly minted Biden administration representatives — Special Presidential Envoy for Climate John Kerry, Secretary of Energy Jennifer Granholm and White House National Climate Adviser and former EPA Administrator Gina McCarthy - took advantage of CERAWeek to engage with the energy industry in what host Daniel Yergin referred to as a "meet and greet."

The administration is counting on the environmental heavyweights to bring the U.S. back into a leadership position in the global drive to achieve net-zero carbon emissions. Kerry noted that President Biden rejoined the Paris Agreement within hours of his inauguration. The U.S. has pledged to cut greenhouse gas emissions by up to 28% from 2005 levels and is expected to make a more ambitious commitment during an April international climate summit.

"We've set out a most ambitious climate agenda, not as a matter of ideology and politics, but as a matter of exclusively listening to the scientists," Kerry said in a question-and-answer session with former **Energy Secretary** Ernie Moniz. "This is very, very high on our



Special Presidential Envoy for Climate John Kerry | CERAWeek by IHS Markit

agenda. This is a crisis. It's a national security threat; it's a health threat; it's an economic threat. We've spent billions and billions cleaning up after hurricanes and storms and fires. Science is completely unified around what is happening to the planet and what will continue to happen."

An ebullient Granholm welcomed participation in the administration's clean energy plans, saying, "It's a heck of an economic opportunity."

"The processes that reduce carbon emissions will create a \$23 trillion global market over the next decade,"



Secretary of Energy Jennifer Granholm | CERAWeek by IHS Markit

she said. "Where will those investments be? In China? Other economic competitors to us? You better believe other countries are going to be involved. Are we going to be in the battle, or are we going to bring a knife to a gunfight?

"President Biden has demanded we be in the battle, not on the sidelines anymore. The Department of Energy is going to be one of our government's more fierce fighting forces as we surpass our goal of a carbon-free econo-

my," Granholm said in continuing the warfare analogy. "We've got to add hundreds and hundreds of gigawatts of clean energy to the grid over time, and that will add millions of good paying jobs."

McCarthy has been tasked with developing



White House National Climate Adviser Gina McCarthy | CERAWeek by IHS Markit



the nation's national determined contributions (NDCs) to reduce emissions as required under the Paris Agreement.

"President Biden went out strong, because he knows there's no time to waste. One of the things he said is science matters, and we'll pay attention to it," she said. "My job is to work across the whole of government to determine an NDC for the U.S., to put some punch behind our commitment. We're going to work really hard ... to deliver on our 2030 goal and be on track to be net zero by 2050. That's my job, and I'm sticking to it."

Kerry has been charged with organizing the global summit on April 2, which he said means pulling together the world's major GHG emitters. That would include China, the only country that emits more GHGs than the U.S., and an old foe from Kerry's time in the Obama administration.

"Yes, there are tensions today that did not exist back then. They're out in the open," he said. "It's no secret there is strong competition with China in any number of fields ... but the climate crisis is not something that can fall victim to other concerns and processes. We're not solving this with any one country alone, but you have to have China at the table. I think China can be a critical partner in this as they were before."

Glick: FERC-NERC Recs Will Have Teeth

FERC Commissioner Richard Glick said he is committed to enforcing recommendations from an upcoming joint report between the commission and NERC into the grid's operational issues in the Midwest and South



FERC Commissioner Richard Glick I CERAWeek by IHS Markit

following the February storm. (See "FERC, NERC Announce Joint Inquiry," Slow Storm Restoration Sparks Anger in Texas, South.)

A similar FERC-NERC report after the 2011 event in Texas went unheeded. The "pretty lengthy report," as Glick

recalled, recommended generation facilities be weatherized. Yet, nearly three dozen plants that failed 10 years ago also failed last month.

"Somehow, throughout the process, those recommendations turned out to be guidance," Glick said. "In a competitive market like Texas, one competitor is not going to voluntarily make changes to weatherize their equipment if another competitor doesn't."

"I'm really glad FERC and NERC are doing this study," Wood said during a separate discussion. "I hope they don't just change the date and give us the same report. This can't be swept under the rug."

"The 2011 report and circumstances should be a warning to all of us," Glick said. "I'm making a commitment that we're not going to let this report be a report that sits on the shelf. It's just disturbing that the 2011 recommendations didn't lead to action. We need to make sure that doesn't happen this time."

Glick also said long-haul transmission will remain a priority for the commission. While FERC has no control over siting, it can pull other levers to encourage bringing renewable energy from rural areas to metropolitan load centers.

"If we don't act, I don't think we're going to reach those clean energy goals," he said. "With our targets, we're going to need all the renewable resources we have. We need a lot of transmission, whether offshore or in the middle of the country. We do have authority over [transmission] planning and cost allocation. ... We have a responsibility to ensure that we only allocate costs to those who benefit."

Will Carbon Price Drive Change?

Rostin Behnam, acting chairman of the U.S. Commodity Futures Trading Commission (CFTC), said financial markets will only be able to channel resources to reduce GHG emissions if an economy-wide price on carbon reflects the true social cost of those emissions.

Behnam led a 34-member CFTC committee that produced a report last year on the policies needed to address climate-related risks to the U.S. financial sector.

"The conversation has changed since the Obama administration," he said, noting the committee's diverse group of stakeholders, from agriculture to the financial sector. "It was a very strong statement for all of them to coalesce around the importance of having a price on carbon ... creating a cost such that market participants will then adjust their actions around that cost. We'll see what happens, but I'm encouraged by the current administration's efforts to address the climate crisis. A carbon price is going to be a high-level subject of conversation in the coming weeks and months."

Research & Development

Validation & Early Deployment

Large Scale Deployment

Basic Science R&D

Translational Science R&D

Breakthrough **Energy Fellows**

Breakthrough **Energy Ventures** (BEV)

BEV II

Breakthrough Energy Catalyst

Market-Shaping Deployment Policy

Green Premium

Breakthrough Energy Action

Bill Gates' Breakthrough Energy initiative foresees a lowered green premium as R&D becomes policy. | CERAWeek by IHS Markit



Utility Group Wants to Cover Southeast's Highways with DC Fast Chargers

Electric Highway Coalition Aims to Create 'Seamless' EV Charging Network Across Multiple States — and Regulatory Commissions

Continued from page 1

the six utilities now working together as the Electric Highway Coalition, which announced the plan on March 2.

Other members of the coalition include Dominion Energy, Duke Energy, Entergy, Southern Co. and the Tennessee Valley Authority. According to a press release, the goal is to make fast-charging sites as convenient as gas stations, located "along major highway routes with easy highway access and amenities for travelers." DC fast chargers can top up an EV

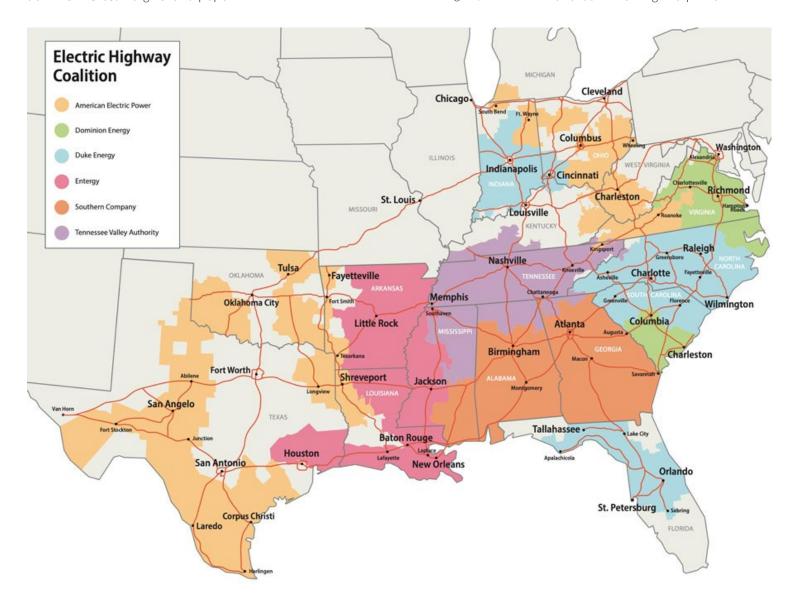
battery in 20 to 30 minutes, the release says.

The initiative reflects utilities' growing support for transportation electrification, which they see as a major driver of new electricity demand and infrastructure growth at a time when increasing amounts of renewable and distributed energy on the grid are disrupting traditional industry business and regulatory models. A 2018 report from the Edison Electric Institute predicted the U.S. would see 18 million EVs on the road by 2030.

"We have electric customers in Virginia, North

Carolina and South Carolina, and in a lot of cases, those customers are side by side with AEP or Duke or Southern Co. customers," Dominion spokesperson Rayhan Daudani said. "So, it only makes sense for us to make sure we're looking for places where we can address the gaps in EV charging infrastructure."

TVA is looking to put charging stations every 50 miles on Tennessee's major highways, spokesperson Malinda Hunter said. "What happens when you are on that highway and you exit our service area?" Hunter said. "We don't want to be building on top of each



The six utilities of the Electric Highway Coalition envision a seamless network of DC fast chargers along the major highways of their service territories. | Electric Highway Coalition



other. We want to make sure that we have a good standard for what's expected out of the charging station and how the connection works."

Scott Blake, spokesperson for AEP, said the utilities have been laying the groundwork for the coalition over the past few months. But, he said, the project is still in its early stages, and any plans will need to take into account the expense and regulatory and operational hurdles an interregional fast-charging network will face.

For example, a \$76 million electric transportation plan that Duke proposed in 2019 finally earned partial approval from the North Carolina Utilities Commission in November 2020. Duke got the go-ahead for \$25 million to be used for charging stations and an electric school bus program but was sent back to the drawing board to ensure more community involvement — and net benefits for customers — in its EV planning.

Daudani also pointed to the range of EV adoption rates, incentives and other mandates that currently exist state to state. "It's not one size fits all, either by state or by utility," he said. "We really do have to be responsive to the customer's needs, to regulatory needs, to the policy needs that are all in play. There are times where there may be a lack of alignment; that's

when more dialogue needs to be had, and hopefully this collaboration can foster that."

Open Questions: Time and Cost

Coalition efforts and utility programs promoting transportation electrification have been growing across the country. In July 2020, governors of 15 states and D.C. Mayor Muriel Bowser signed a memorandum of understanding to cut emissions from medium- and heavy-duty trucking. Meanwhile, individual press releases from each of the Electric Highway Coalition members highlighted their various programs to expand EV sales and charging infrastructure.

- AEP noted its own commitment to replacing its fleet of 2,300 cars and light-duty trucks with EVs by 2030, with an expanded charging network to ensure its employees can drive the electric fleet across the utility's 11-state service territory. Rebates on chargers and low rates for EV charging during off-peak hours are being offered by various of the company's subsidiary utilities.
- Dominion is also offering special EV charging rates and has a pilot program providing rebates for certain kinds of chargers. It is also helping two public transit systems in its service territory one in South Carolina and one in Virginia to start converting to

electric buses.

 TVA announced an initiative aimed at removing barriers to EV adoption across its seven-state service territory, with the goal of having 200,000 EVs on the road by 2028. The agency is also partnering with the Tennessee Department of Environment and Transportation to build a fast-charging network along the state's highways.

While none of the utilities have set time frames for rolling out highway fast chargers, Blake and Daudani said AEP and Dominion, respectively, would like to begin installations this year. TVA is aiming for 2022, according to Hunter.

"We're trying to make sure that each of the member companies can take the resources that they have available and put them to the most efficient use," Blake said. "We're really trying to identify the locations for the DC fast-charging infrastructure, where the transmission system and the local distribution system support these types of charging stations without a lot of additional make-ready work."

How the fast chargers will be paid for, and whether the utilities will try to include them in their rate base remain open questions. Hunter said TVA will not own any of the chargers, while Daudani said Dominion will be looking at the issue on a state-by-state basis. ■

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CAISO/West News



Calif. Tries to Rein in PSPS for Fire Season

Southern California Edison the Focus of This Year's Efforts

By Hudson Sangree

California regulators and lawmakers are trying to avoid a repeat of last year's unprecedented use of public safety power shutoffs (PSPS) to prevent utility equipment from igniting wildfires — and the anger it provoked among ratepayers.

The California Public Utilities Commission and the state Assembly's Utilities and Energy Committee each held hearings last week to determine what can be done in the coming months to limit PSPS use by the state's three large investor-owned utilities.

PSPS were used 30 times between 2013 and 2019, and 33 times last year alone, energy committee Chair Chris Holden said. "What happened?" Holden asked at the hearing, which was held at the state capitol in Sacramento.

"It's safe to say that we're all frustrated by the use of public safety power shutoffs by our state's electric utilities," he said. With climate change and aging infrastructure, "we do understand the need to use this tool, but it absolutely must be used as a last resort — judiciously, during extreme weather events, when there is no other way to ensure that utility equipment will not come into contact with vegetation and start a fire."

Southern California Edison and, to a lesser extent, Pacific Gas and Electric bore the brunt of criticism at the hearings, while San Diego Gas

& Electric received relatively little blowback.

SCE Responds

PG&E appeared to have made progress in limiting PSPS events in 2020 and communicating with its customers, Holden said. SCE, however, doubled its PSPS events from 2019 and had "repeated failures to follow protocols at the expense of customers and public safety," he said.

"They repeatedly assured the CPUC president that, 'We are going to [change]. We plan to. We want to," Holden said. "But in the moment, they did not. This raises the question of whether the [CPUC and other] agencies have sufficient enforcement tools."

State authorities need tools "that can be used in real-time if a utility is calling events unnecessarily or failing to follow proper notification protocols for customers, public safety partners and other state agencies," he said.

In late January, the CPUC held a hearing to examine what it called SCE's mishandling of PSPS events. It demanded the utility produce a corrective action plan with specific goals and timelines for improvement. (See CPUC Slams SCE Over Power Shutoffs.)

On March 1, SCE presented its plan to the CPUC in a follow-up workshop.

Erik Takayesu, the SCE vice president who oversees PSPS readiness, noted that 2020 was a record year for wildfires in California with



Assemblymember Chris Holden chaired a March 3 hearing on PSPS. | California State Assembly

more than 4 million acres burned and an unusually long fire season in Southern California. Many of SCE's PSPS events occurred later in the year, he said.

"Two-thirds of our deactivations occurred from November through the end of the year ... [with] particular hardships experienced by customers over the holiday season," Takayesu said.

SCE turned off power on Thanksgiving Day and Christmas Eve, sending out late or confusing notices of the PSPS events and angering residents.

"I and the members of our team have heard the concerns and frustrations of our customers and communities who have been affected by PSPS events," Takayesu said.

The utility made significant progress in 2020 but needs to do more, he said.

"Our main emphasis in 2020 was focused on the distribution system, creating segmentation plans for every one of our 11,600 circuits in our high fire risk areas," Takayesu said.

The utility removed 25,000 customers from the scope of PSPS events last year, but 230,000 customers were subjected to repeat de-energizations, another cause of customer frustration.

"We now need to further direct our efforts to focus on the most frequently impacted circuits," Takayesu said.



CPUC President Marybel Batjer and Executive Director Rachel Peterson discussed PSPS performance by the state's investor-owned utilities. | California State Assembly

CAISO/West News



SCE intends to turn its attention this year to circuits that have experienced four or more de-energizations since 2019. Continued grid hardening will reduce the frequency of PSPS and improve reliability across the utility's grid, he said.

As of Feb. 19, SCE had identified 72 circuits for potential expedited upgrades such as covered conductor. It intends to complete the work by Oct. 1, when Southern California's peak fire season typically starts, the utility told the

In Thursday's legislative hearing, Phil Herrington, SCE senior vice president for transmission and distribution, said that "despite the challenges posed by COVID-19, we met or exceeded nearly all the goals in our 2020 wildfire mitigation plan."

That included installing more than 960 circuit miles of insulated wire, over 6,000 fireresistant bolts and nearly 600 weather stations, Herrington said. SCE also removed more than 12,000 hazard trees that could have fallen into power lines.

Enhanced Oversight of SCE

Such assurances did not mollify some officials at the hearings.

CPUC President Marybel Batjer presided over the SCE workshop and testified before lawmakers last week.

The commission, she said, has been trying to get the state's investor-owned utilities to



Phil Herrington, Southern California Edison senior vice president of transmission and distribution, responded to criticism of the utility. | California State Assembly

improve their PSPS execution and limit use of the practice since October 2019, when PG&E blacked out 2.4 million residents over large swaths of the state, generating public backlash. (See California Officials Hammer PG&E over Power Shutoffs.)

Batjer agreed with Holden that in 2020, "for PG&E, we appear to see improvements ... on a few fronts [including] overall reduction in scope and scale [of PSPS events] compared to 2019." The state's largest utility has improved its planning for community resource centers to serve residents during blackouts and has improved its PSPS event forecasting as well, she said.

The utility still needs to work on sharing information with local agencies and tribal governments, and it needs to expand its battery-backup program to help medically vulnerable customers during PSPS events, she added. (See PG&E Working to Improve Safety Blackouts.)

"Its notification protocols [for customers] also require improvements," she said.

SDG&E also needs to improve communication with local authorities and beef up its battery backup program for medical baseline customers, Batjer said.

SCE has been more problematic. The state's second largest utility "has required special attention and has been the subject of two public meetings at the commission" this year, Batjer said.

"There are many areas where I believe Edison did not measure up to the standards ... its customers deserve," she added.

The utility initiated 16 PSPS events between May and December last year, most of which were in November and December, including the two major holidays, Batjer noted.

"Among the various problems we observed were issues with the level of transparency around Edison's PSPS decision-making process, inadequate notification to impacted customers, poor coordination and communication with state and local governments, shortcomings in identifying and notifying medical baseline and functional needs customers and efficient PSPS post-event reporting to the commission." she said.

"In addition, we continue to have serious concerns with the pace at which Edison has been deploying backup power to help vulnerable customers cope with PSPS events."

One of SCE's major shortcomings was its under- or over-notification of customers potentially affected by PSPS, Batjer said.

"Only 20% of the customers it gave advanced notice to this past fire season were affected by a PSPS event," she said. "While it is desirable to have as few customers de-energized as possible, there is something wrong with this planning approach if you're consistently putting large numbers of customers on notice and then nothing happens."

There were also too many instances in which customers were not notified before losing power, including on Thanksgiving, she said.

"Forecasting and communications must improve," Batjer said of SCE.

The CPUC had to enhance its oversight of PG&E's PSPS practices going into the 2020 fire season, she noted. "We're doing this now with Edison ... to ensure they live up to their commitments under their corrective action plan."

Upcoming Actions

The CPUC is planning to host a public workshop later this month to hear from utilities and impacted communities on lessons learned from 2020 PSPS.

"These lessons will inform another round of updating of our PSPS guidelines, which we commenced on Feb. 19," Batjer said. "We will continue to hold public meetings as we enter the critical months of the wildfire season to assess the utilities preparedness. If required, we will utilize our expansive enforcement authority over the utilities to deliver the type of behavior customers deserve and expect from providers of an essential service."

The results of an investigation into IOU power shutoffs, initiated in 2019, will be released soon, she said.

PSPS may continue for years as utilities upgrade their systems, but the goal is to stop needing it, Batjer said.

"I want to reiterate the CPUC's commitment to driving the utilities towards zero need," she said. "The use of PSPS and the loss of power causes major disruptions to households, businesses, medical facilities, communication carriers and other critical infrastructure. It strains state and local emergency and public safety personnel.

"The public deserves better, and we are working to ensure they are better served by the utilities," she said.



ERCOT Board Cuts Ties with Magness

Pat Wood, Brad Jones Surface as Potential Successors

Continued from page 1



ERCOT CEO Bill Magness | © RTO Insider

two years with the grid operator and was its COO before taking over at New York's grid in 2015.

Jones abruptly left NYISO in 2018 in what was termed a "personal decision." His LinkedIn profile lists him as

"retired." (See Brad Jones out at NYISO.)

One thing's for sure, according to one industry insider: The next CEO will be a "tried and true, 10-gallon hat-wearing" Texan.

Magness drew political heat following the system's near collapse last month that led to long-term power outages and misery for millions of Texans. Testifying for almost 11 hours before four state Senate and House committees on Feb. 25, Magness said he would not have done anything differently in the leadup to the massive load shed, but he admitted that ERCOT's communications efforts could have been much better. (See Texas Lawmakers Dig into Power Outages.)

Lt. Gov. Dan Patrick, who on March 1 had called for the resignations of Magness and PUC Chair DeAnn Walker (who resigned that same day) welcomed the board's vote. (See PUCT's Walker Steps Down from Commission.) Late Monday, Shelly Botkin also resigned from the PUC, leaving the commission with just Chair Arthur D'Andrea.

"Good news ... they are both gone," he tweeted. "Next — one of my top 31 priorities — reforming ERCOT and fixing what went wrong."

The board voted 6-1 to invoke the termination notice in Magness' contract without cause; however, he turned down the option to receive another year of his current base salary he was entitled to under his contract. Magness will continue in his role for 60 days, working with state leaders and regulators on potential reforms to ERCOT, the grid operator said in a statement.

The board also directed ERCOT to engage with a search firm "as soon as reasonably possible" to find a new CEO. A transition plan will be discussed during future board meetings.

Nick Fehrenbach, manager of regulatory

affairs and utility franchising for the city of Dallas and representing the commercial consumer segment, voted against the motion. Magness, who was not present for an executive session before the vote, and Lori Cobos. CEO of the Office of Public Utility Counsel, both abstained.

"I would have preferred to have more time to evaluate this important matter ... to evaluate my concerns," Cobos said.

ERCOT General Counsel Chad Seely conducted the board meeting in the absence of a chair and vice chair, who were among the four independent directors who resigned Feb. 23. (See ERCOT Chair, 4 Directors to Resign.)

Magness joined ERCOT in 2010 after 14 previous years in the electric industry and served as its general counsel. He was appointed CEO in January 2016 and made \$837,931 in base salary last year.

ERCOT's board, ideally composed of 16 members, is now down to 10, including Magness. Two of the seven members who have resigned are currently being replaced by acting directors; the independent retail electric market segment's director and alternate director are both vacant. The nominee for the fifth independent director's seat has withdrawn his nomination.

Arthur D'Andrea, whom Gov. Greg Abbot appointed as chairman of the Public Utility Commission on Wednesday, took Walker's seat as a non-voting member after she stepped down.

Monitor: \$16B ERCOT Overcharge

ERCOT's Independent Market Monitor on Wednesday said the grid operator incorrectly priced electricity for 32 hours following the winter storm, resulting in \$16 billion in additional costs to the market.

In a letter filed with the PUC, the Monitor said it agreed with the commission's Feb. 15 order that set wholesale prices at the \$9,000/MWh systemwide price cap, designed to incent electric generation to come online. However, it noted ERCOT exceeded the PUC's mandate by continuing to maintain the cap "after it ceased the firm load shed."

The Monitor recommended the commission direct ERCOT to correct 33 hours of real-time prices during Feb. 18-19 "to remove the inappropriate pricing intervention" that occurred

during that time. It suggested removing "most, if not all," of the real-time online reliability deployment price adder during the price intervals, which would nearly eliminate the real-time ancillary service imbalance charge.

"We recognize that revising the prices retroactively is not ideal," IMM Director Carrie Bivens said. "In this case however, given that the prices are inconsistent with ERCOT's protocols and [a] commission order and that allowing them to remain will result in substantial and unjustified economic harm, we respectfully recommend that the commission take the action described above to correct ERCOT's real-time prices."

The PUC ultimately did not follow the Monitor's recommendation. (See related story, Texas PUC Won't Reprice \$16B Error.)

ERCOT on Wednesday revoked retail provider Entrust Energy's right to participate in the market because of a payment breach and transferred its 11.780 customers to other retailers known as providers of last resort (POLRs). Entrust is the second retailer to have its rights revoked, joining Griddy Energy.

A recent PUC emergency order set up TXU Energy or Reliant Energy, ERCOT's two largest electric retailers, as the primary POLRs. (See Texas PUC Turns Focus to Customer Bills.)

ERCOT Shares List of Generator Outages

ERCOT on Thursday sent a list of all the generator issues that "had issues" during the Feb. 15-19 grid emergency to the Texas Legislature's members. The information includes the generators' names, the amount and length of their outages or derates, and their fuel types.

The information was requested by the four committees investigating the near collapse of the grid and its ensuing long-term outages.

The generator information is normally confidential for 60 days after each applicable operating day. Staff messaged market participants on Feb. 22, requesting they be allowed to publicly release the information in anticipation of legislative and regulatory requests.

Not all generators authorized the release. Their information is blank, with the exception of their outage or derate's start and end times. ■



Texas PUC Won't Reprice \$16B Error

ERCOT, Stakeholders Work to Untangle the Market

By Tom Kleckner

Texas regulators on Friday declined to take action on the ERCOT Independent Market Monitor's recommendation to reprice \$16 billion in market transactions that may have been incorrectly priced following the February winter storm.

The Monitor said on Wednesday that ERCOT erred in maintaining wholesale prices at the \$9,000/MWh systemwide price cap for 33 hours after it stopped shedding firm load following the storm's widespread outages. Prices soared by more than \$47 billion during the storm's five-day period, the Monitor said. (See related story, "Monitor: \$16B ERCOT Overcharge," ERCOT Board Cuts Ties with Magness.)

However, the Public Utility Commission, faced with making a decision to meet a deadline for the commodity clearinghouse Intercontinental Exchange, chose not to take a chance with repricing's unintended consequences (51812).

The PUC directed ERCOT to set wholesale power prices at the \$9,000/MWh cap during the storm in an effort to add more generation and resolve the nonrotating blackouts. Prices stayed at the cap until they were relaxed in the early-morning hours of Feb. 19.

Kenan Ögelman, ERCOT's vice president of commercial operations, told the Texas Senate's Business and Commerce Committee on Friday that the grid was already in a Level 3 energy emergency alert, but staff were not "seeing the pricing that was expected, given the value of lost load consistent with the protocols we have."

He said prices would reach the \$9,000/MWh cap as supplies tightened. However, when ERCOT would shed more load, additional reserves would be created that would drop the price back down, incenting resources to add more generation and leading to oscillation fears.

"Across the board, from the transmission side to the ERCOT to the generation side, people were worried if prices dropped and load came back in one very big wave, you could essentially tumble down into an unstable circumstance," Ögelman said.

PUC Chair Arthur D'Andrea used a series of analogies to explain why he wasn't ready to move on repricing what the Monitor referred



ERCOT's Kenan Ögelman testifies before the Texas Senate's Business and Commerce Committee. I Texas

to as ERCOT's "inappropriate pricing interven-

"We just see the tip of the iceberg," D'Andrea said, referring to hedges and other transactions that may lie below the surface. "You think you're protecting the consumer, and it turns out you're bankrupting a cooperative or a city."

He said "it's nearly impossible to unscramble this sort of egg" when "decisions were made about these prices in real time, based on information available to everybody, to all market participants."

"They did all sorts of things they wouldn't have ever done if the prices were different," D'Andrea said. "I know that on the surface, it's like, 'Oh, no, it's just the money the generators got. If you reverse it, it will go to the consumers.'

"That's very simplistic, and it's not how it works. There are people representing consumers on both sides of this question. People are looking out for the consumers who don't want us to reprice, and there are a lot of consumers who could be hurt by repricing. The reason for that is very complicated, but it's mostly got to do with a lot of private arrangements and transactions that happen outside the market," he said.

D'Andrea received complete agreement from Shelly Botkin, the only other commissioner after previous Chair DeAnn Walker's resignation on March 1. (See PUCT's Walker Steps Down from Commission.) Late Monday, Botkin also resigned.

In reaching consensus, the commissioners said

they took into consideration Sen. Drew Springer's (R) suggestion that they "immediately" follow the Monitor's recommendations. Springer referenced the Texas Energy Association for Marketers' filing, supported by 37 large customers at the time, to reprice the 33 hours following the end of the load shed.

"Revising this pricing would mean significant savings for a number of commercial/industrial customers, municipals and cooperatives who are facing extremely high costs from the PUC's actions," he said.

D'Andrea said he was grateful for Springer's feedback. He said the PUC and the Legislature need to be "standing shoulder to shoulder" as they work to resettle the ERCOT market and make any reforms.

"I don't intend to make any huge decisions without talking to all of them first," D'Andrea said. "I hope what I have said today addresses why I'm reluctant to reprice. I totally get how it looks like you're protecting consumers, but I promise you, you're not."

The commission did rescind an order stopping late fees on customers with late electric bills and directed transmission and distribution service providers to stop charging customers for cold-load pickup spikes following lengthy outages. Many commercial customers' bills are determined by their largest moment of usage.

Retail electric providers must still offer deferred payments to customers on requests, the commissioners said.



The PUC put off discussion on raising the low systemwide offer cap (LCAP) from \$2,000/ MWh to \$9,000/MWh for this summer in order to allow stakeholder comments by March 26. D'Andrea indicated a preference to keep the LCAP at \$2,000/MWh this summer, saying, "I've heard advocacy for it, but I have not heard from the other side."

ERCOT Market Under 'Financial Duress'

Ögelman told the Senate committee during its Thursday hearing that ERCOT's market is still recovering from the tens of billions of dollars it has been moving through the settlement system. Noting that the market typically sees about \$11 million of daily transactions during the winter and shoulder months, he said invoices amounted to about \$22.5 billion for the week of the winter storm, according to his calculations — more than four times 2020's total of about \$5 billion.

ERCOT is currently short about \$1.7 billion in payments to market participants, Ögelman said. Much of that came on Feb. 26, when the grid operator came up \$2.1 billion short on \$12.5 billion of invoices. It borrowed \$800,000 from the congestion revenue rights fund to narrow the gap.

"ERCOT as a market is under a lot of financial duress," he said. "The numbers we've been talking about in the billions, the folks trying to make those payments, and being dependent on those payments to pay downstream costs ... the market is under extreme duress."

Ögelman said ERCOT's short pays are much smaller now, reaching just over \$164,751 that day as temperatures and prices have returned to normal.

"It's kind of dollar in, dollars out. I would expect additional short pays to come in, but in the single millions of dollars, not anything as you saw on Feb. 26," he said.

Asked what ERCOT can do about short-paying market participants, Ögelman responded that they can be kicked out of the market. The grid operator has already revoked the licenses of two electric retailers, while nearly 20 others are thought to be on the brink of default. Brazos Electric Power Cooperative has already declared bankruptcy.

ERCOT staff told the Technical Advisory Committee on Friday that they expect additional defaults. Five retailers have been acquired or terminated market activity, said Mark Ruane, senior director of settlements, retail and credit.

The Coalition of Competitive Retail Electric

Providers trade group and multiple retailers have filed emergency action requests with the PUC to "avoid irreparable [market] harm" by suspending immediate collections on the massive bills. The PUC is expected to file an order during its Thursday open meeting that would extend ERCOT's 10-day settlement dispute timelines, which Ögelman teased by telling the TAC to expect a market notice on extensions to the dispute timeline.

The PUC has also opened a docket to review ERCOT's scarcity pricing mechanism (51871).

Sen. Kelly Hancock (R), the Business and Commerce Committee's chair, referred to the \$9,000/MWh cap in saying changes need to be made.

"I don't think anybody envisioned this, but it's certainly shown we do have to redesign our system if we want to attract dispatchable energy into the state," he said.

TAC Takes up Ideas for Solutions

The TAC held a special meeting Friday to identify and catalogue potential solutions to the events preceding and following last month's severe winter storm, beginning with a list of issues submitted by ERCOT CEO Bill Magness.

"ERCOT believes it is important to immediately analyze the issues and make changes to improve the performance of the electric system if we experience another extreme event," Magness said in a letter to the committee.

He outlined eight issues, including improved coordination with transmission and distribution providers on rotating-outage practices; working with applicable government and private entities to improve ERCOT emergency public safety communications; and expanding extreme peak load and generation outage scenario analyses in ERCOT's seasonal assessments of resource adequacy.

The TAC's Retail Market, Wholesale Market and Reliability and Operations subcommittees also submitted suggested issues for evaluation. The committee leadership will work with ERCOT staff to prioritize the ideas and parcel them back out to the subcommittees during the TAC's regular March 24 meeting.

Congressional Inquiries Grow

Congressional hearings and investigations continue to pile up for ERCOT.

The House of Representatives' Energy and Commerce Committee wrote to Magness on Thursday to request a briefing and information on the February events. The five committee



PUC Chair Arthur D'Andrea has declined to order ERCOT to reprice a \$16 billion market error. | Texas

members, who include Reps. Marc Veasey and Lizzie Fletcher, both Democrats of Texas, cited the "significant shortcomings" in ERCOT's preparation and response to the incident.

"The ongoing crisis raises significant questions regarding Texas' grid resilience and regulatory regime and ERCOT's stewardship of the grid prior to and during this crisis," committee members wrote.

The lawmakers stressed more must be done to "protect communities disproportionately impacted by winter power outages." They pointed to a 2011 report from FERC and NERC that made a number of recommendations for the electric and natural gas industries.

The Senate Energy and Natural Resources Committee has a hearing scheduled for Thursday on the reliability, resilience and affordability of electric service, while Rep. Eddie Bernice Johnson (D-Texas), chair of the Science, Space and Technology Committee, has scheduled a March 18 hearing on "Lessons Learned from the Texas Blackouts: Research Needs for a Secure and Resilient Grid."

The House Oversight and Government Reform Subcommittee on the Environment has also requested documents and information on ERCOT's preparations for the storm. (See related story, House Oversight Committee Pokes into ERCOT.)

The outages and ERCOT's response is also being investigated by the Texas Legislature, the PUC and the attorney general's office. FERC and NERC has also opened a joint inquiry into the severe winter storm.



House Oversight Committee Pokes into ERCOT

PUC to Claw Back Undelivered Ancillary Services Payments

By Tom Kleckner

The U.S. House of Representatives' principal oversight committee on Wednesday joined the roster of agencies investigating ERCOT following last month's severe winter storm that plunged more than 4 million Texans into darkness for several days and left 14 million without water.

The Committee on Oversight and Reform's Subcommittee on Environment sent a letter to ERCOT CEO Bill Magness requesting information and documents regarding the grid operator's "lack of preparation" for and response to the storm and its "preparedness for future storms."

The subcommittee said it is concerned "that the loss of electric reliability and the resulting human suffering, deaths and economic costs, will happen again unless ERCOT and the state of Texas confront the predicted increase in extreme weather events with adequate preparation and appropriate infrastructure."

The storm and the ensuing blackouts could wind up causing as much as \$90 billion in damage.

"Extreme winter weather events in Texas have occurred repeatedly over decades and ERCOT has been unprepared for them," subcommittee Chair Ro Khanna (D) wrote in the letter.

ERCOT is already under investigation by its regulator, the Public Utility Commission of Texas, and the state attorney general's office. FERC and NERC have also opened a joint inquiry into the grid's operational issues during the event, as they did after cold weather in 2011 that resulted in a similar round of rolling blackouts.

Khanna promised an investigation last month, telling CNN, "We will get to the bottom of this."

"This was an anticipatable problem," he said. "Ten years ago they had the same issue. Why did they not weatherize their equipment? Why did they not take appropriate regulatory action?"

As Magness told state legislators during more than 10 hours of testimony last month, ERCOT collects weatherization plans and emergency operations plans from generators but does not have enforcement authority over their weatherization practices. Sub-freezing temperatures and ice knocked out more than 52 GW of the grid operator's generation at one point, or



PUC Commissioners Shelly Botkin (left) and Arthur D'Andrea discuss clawing back ancillary service costs. | Public Utility Commission of Texas

nearly half of its installed capacity. (See Texas Lawmakers Dig into Power Outages.)

On March 1, the grid operator said it had received multiple inquiries from resource entities on how they should submit their updated plans, as required by the grid operator's protocols.

The subcommittee asked for all documents relating to preparations for an extreme winter weather event dating back to 2010, including:

- details on every generator that failed;
- all communications between ERCOT and the PUC, Texas Gov. Greg Abbott and any other state or federal staff referring to causes for outages and/or preparations for future extreme weather events:
- all documents relating to decisions on the rolling blackouts; and
- all documents on the 1989 and 2011 out-

The materials are due March 17.

In a statement, ERCOT said, "We received the letter and will be providing responses."

The Oversight committee has broad authority to investigate "any matter" at "any time" under House rules. The environmental subcommittee's jurisdiction includes global climate change, public health and regulatory affairs.

PUC Proceeds Without its Chair

In its first open meeting since Chair DeAnn Walker's resignation last week, the PUC on Wednesday voted to direct ERCOT to claw back ancillary services (AS) payments from generators for service that went undelivered during the outages.

Carrie Bivens, executive director of ERCOT's Independent Market Monitor, filed a letter with the commission March 1 noting a number of instances where AS, contracted in advance, was not provided in real time because of the forced outages or reduced available capacity.

Bivens recommended that ERCOT invoke a "failure to provide" settlement treatment for AS not provided in real-time during the Feb. 14-19 operating days, thus producing "market outcomes and settlements consistent with underlying market principles." She also recommended repricing the Feb. 15-20 operating days' day-ahead AS clearing prices and capping them at the systemwide offer cap of \$9,000/ MWh.

Commissioners Arthur D'Andrea and Shelly Botkin saved the latter discussion for their next open meeting on Friday. (See related story, Texas PUC Won't Reprice \$16B Error.)

The PUC also terminated the use of the low systemwide offer cap, which was replaced by the systemwide offer cap on Feb. 16 because it was preventing generators from reaching



the \$9,000/MWh scarcity price. It additionally directed Oncor Electric Delivery, CenterPoint Energy, Houston Electric, AEP Texas and Texas-New Mexico Power to waive the 5% late fee for invoices due from retail electric providers from Feb. 22 through March 3 (51812).

D'Andrea, who has seniority over Botkin, led the 15-minute meeting in Walker's absence and opened the proceeding by acknowledging the former chair's "dedicated and tireless service to this agency."

"She was the hardest-working and the most detail-oriented person I've ever met," D'Andrea said. "I'll miss having her around."

D'Andrea and Walker both worked on Abbott's staff before he appointed them to the commission. Botkin was with ERCOT before being appointed to the PUC.

Texas Legislators Seek More Changes

State legislators continue to file bills to reform the Texas grid and prevent widespread outages in the future.

Rep. Will Metcalf (R) filed a measure (HB2522) to require that the independent organization certified to manage the grid have a 15-person board comprised of only Texas residents. The governor, lieutenant governor and Texas

House speaker would each pick five of the members.

Other bills would remove the PUC chair from the board (HB2529); require members to represent different geographic regions of the state (HB2544); certify the Railroad Commission, which regulates the state's oil and gas industry, as the grid manager (HB2562); and require the PUC to annually perform a financial and compliance audit of ERCOT and then publicly share the results with lawmakers (HB2586).

The filing deadline for legislation is this Friday. ■



The powerful U.S. House Oversight committee has begun its investigation into ERCOT's response to the severe February winter storm. | Raul654, CC-BY-SA-3.0-migrated, via Wikimedia Commons









Former ERCOT CEO Rejoins Board

Former ERCOT CEO Bob Kahn has rejoined the Texas grid operator's Board of Directors as it begins to reconstitute itself after a wave of resignations following the massive February power outage.



Bob Kahn | ERCOT

Kahn, currently the Texas Municipal Power Agency's general manager, was elected Friday by the municipal segment members as their representative on the board. He served as ERCOT's CEO from 2007 to 2009 and previously served on the board from 2002 to 2006.

Kahn replaces Austin Energy General Manager Jackie Sargent, who resigned after testifying before the Texas Legislature on Feb. 26. He told the Austin American-Statesman he plans to ask questions about the February power outage that cost ERCOT half its generating capacity and led to widespread blackouts.

Also last week, the independent retail electric provider segment elected Demand Control 2's Shannon McClendon as its representative. She replaces Just Energy's Vanessa Anesetti-Parra, who was among the out-of-state board members that resigned Feb. 23. (See ERCOT Chair, 4 Directors to Resign.)

The additions bring the board's membership up to 10 directors. The five unaffiliated seats and the cooperative segment's representative



Former ERCOT CEO Bob Kahn has rejoined the grid operator's board representing the municipal segment. © RTO Insider

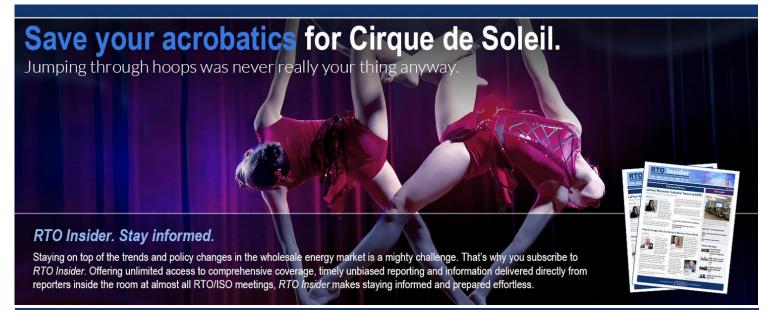
remain open. Directors representing industry segments serve one-year terms and are unpaid.

Kahn jointed TMPA in 2012. The public power organization ran the coal-fired Gibbons Creek Generating Station for the member cities of Bryan, Denton, Garland and Greenville. The plant hasn't run since 2018 and was sold in February to Gibbons Creek Environmental Redevelopment Group, which will take three

years to demolish it and complete environmental remediation.

Prior to being named ERCOT's CEO, Kahn spent 10 years at Austin Energy as general counsel and then deputy general manager. He also served in the Texas Public Utility Commission general counsel's office and represented public power in the state's deregulation legislation.

- Tom Kleckner



ISO-NE News



NEPOOL Participants Committee Briefs

ISO-NE Evaluating Deficiency Notice

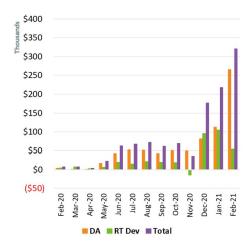
FERC last week sent ISO-NE a deficiency notice regarding the RTO's proposed rule revisions on cost of new entry (CONE), net CONE and the performance payment rate (PPR) for the Forward Capacity Auction, NEPOOL Participants Committee members heard last week.

In a *memo* to the committee, the RTO said it understood the notice "may cause uncertainty for participants about how the FCA 16 qualification process will proceed in the meantime."

The notice gives ISO-NE 30 days to furnish an example of a potential site for the CONE reference unit in or near New London County, Conn., 2 miles from both a central natural gas line and the point of interconnection to the electric grid. The RTO must also provide an estimate of emissions limits and whether those limits affect the reference unit's revenue and offer additional support for the assumption in the dispatch model that the reference unit always runs on natural gas rather than oil. Submission of that information will reset the deadline for FERC action on the filing.

The RTO said the current schedule of qualification activities for FCA 16 would continue as planned, and it will apply CONE, net CONE and PPR values for FCA 16 filed with FERC in December.

Dynamic delist bid threshold (DDBT) calculations were due last Friday, and the deadline for retirement and permanent delist bids is this Friday. ISO-NE said participants should adhere



The ISO-NE energy market value in February was \$716 million, which was a significant rise from January and nearly \$500 million higher than February 2020. | ISO-NE

to the currently filed FCA 16 CONE values and published DDBT value for their bids.

FERC recently approved tariff revisions developed by the RTO and stakeholders on recalculating DDBT for the FCA. DDBT, which was previously updated every three years, will now be calculated annually using a tariff-based "recalibration method." Values for each auction will be updated based on recently available supply conditions and up-to-date projected demand conditions using the estimated systemwide demand curve for the FCA. (See related story, FERC Approves ISO-NE's New Method for Calculating DDBT.)

ISO-NE plans to respond to the deficiency notice by Thursday. The RTO added that with the limited nature of the deficiency requests, it will request expedited review to receive an order on the FCA 16 CONE filing by mid-April. FERC's order would be issued in mid-May if it chooses to use the full 60 days available to it.

Action on ORTP Deferred

The PC had been scheduled to discuss and vote on amendments for offer review trigger prices (ORTPs) used for Forward Capacity Market (FCM) parameters for the 2025/26 capacity commitment period, which accommodate recent changes and extensions to the federal investment tax credit for solar and wind developers.

ISO-NE requested the PC postpone action on the issue until a later date in March. The RTO's ORTP proposal, created in concert with consultants Concentric Energy Advisors and Mott MacDonald, did not receive any support from stakeholders at a recent Markets Committee meeting. It would create two new ORTP categories: solar and solar plus lithium-ion batteries.

Tariff revisions include ORTP values of \$0/kW-month for solar and \$6.964/kW for solar-plus-batteries, down from its initially proposed \$9.371/kW. Another tariff revision clarifies that the weighted-average calculation is used only when an ORTP for the combination of technology types is not specified. New tariff language details the values for solar-plus-batteries in future Forward Capacity Auctions.

Boreas Renewables presented three amendments, which all passed with at least 73% support from stakeholders, regarding ORTP values for FCA 16, annual ORTP updates for FCA 17-18 and maintaining existing ORTP determi-

nations for resources with a shared point of interconnection for FCA 16. Like the RTO's proposal, the first would change the ORTP for solar to \$0. The second amendment would allow for an ITC assumption of 26% for FCA 17 and 22% for FCA 18 if the tax law remains unchanged for solar developers. Should the law change again in the next two years, it would be reflected in the final assumption used for the FCA 17-18 updates. (See Revised Stakeholder Amendments on ORTPs Gain Support.)

The original timeline called for a filing at FERC by the end of March. ISO-NE's Internal Market Monitor said in a *memo* to the MC that the RTO will file a proposal for ORTP values under Section 205 of the Federal Power Act, "which will include a 'jump ball' alternate proposal of ORTP values from NEPOOL." The Monitor added that ISO-NE would request FERC's decision by May.

Energy Market Valuation Rises Dramatically

ISO-NE's energy market value for February was \$716 million (through Feb. 24), up \$228 million from the updated January valuation and \$483 million higher than the same month in 2020, according to the *monthly report* from COO Vamsi Chadalavada.

Natural gas prices were up 92% from January, which spiked average real-time hub LMPs by 77% to \$77.42/MWh. Average natural gas prices and real-time hub LMPs were up 320% and 281%, respectively, from the same period last year.

Average day-ahead cleared physical energy during peak hours as a percentage of the forecasted load was 99.2% during February, up from 98.4% during January, with the minimum value for the month of 94.4% posted Feb. 1.

Daily uplift or net commitment period compensation (NCPC) payments totaled \$2.3 million over the period, down \$1.2 million from the adjusted January value and up \$1.3 million from February 2020. NCPC payments were 0.3% of the energy market value.

Chadalavada added that seven new PV projects totaling 493 MW applied for an interconnection study, with in-service dates ranging from 2022 to 2024. There are 265 generation projects currently being tracked by the RTO, totaling about 24,600 MW. ■

- Jason York

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FERC Approves ISO-NE's New Method for Calculating DDBT

By Jason York

FERC on March 1 approved revisions to the ISO-NE tariff on recalculating the dynamic delist bid threshold (DDBT) for the Forward Capacity Auction (ER21-782).

DDBT, which was previously updated every three years, will now be calculated annually using a tariff-based "recalibration method." Values for each auction will be updated based on recently available supply conditions and up-to-date projected demand conditions using the estimated systemwide demand curve for the FCA.

The revisions were a compromise proposal between stakeholders and the RTO, which the NEPOOL Participants Committee overwhelmingly approved in November. (See "Amended DDBT Passes," NEPOOL Participants Committee

Briefs: Nov. 5, 2020.)

The New England States Committee on Electricity (NESCOE), Calpine and Vistra's Dynegy had offered an amendment to ISO-NE's proposal to lower the DDBT upper bound to 75% of the net cost of new entry (CONE) and set the DDBT at the RTO's estimated clearing price plus a margin adder calculated using 75% of net CONE.

NESCOE had concerns that the RTO's proposal did not balance design objectives, resulting in the DDBT being too high if capacity prices increase. NESCOE said the risk of the DDBT being higher, especially as it approaches net CONE, had potential cost implications for consumers. Calpine and Dynegy said ISO-NE's design interfered with competitive price formation, added significant administrative burden and risks to existing suppliers, and created an unnecessary barrier to market exit.

The amendment allowed for a modest margin adder to low prices when supply curves are typically flat. The adder diminishes as expected prices increase, which they argued preserves some of the benefits of the DDBT.

FERC said the three components of the recalibration method "produce a value that reasonably balances the objectives of protecting against the exercise of market power and minimizing interference with competitive bidding in the FCA" when taken together. Additionally, suppliers' incentive to exercise market power at times of capacity surplus is reduced because the demand curve flattens with decreasing prices. The commission said it was "persuaded that the minimum constraint will not undermine" the ability of the RTO's Internal Market Monitor to "mitigate the exercise of market power."

While the Monitor supported the filing, it did express reservations about the margin adder, asserting that it may allow resources to submit bids above their going-forward costs because offers from resources between the initial DDBT and the adder will not be subject to its review

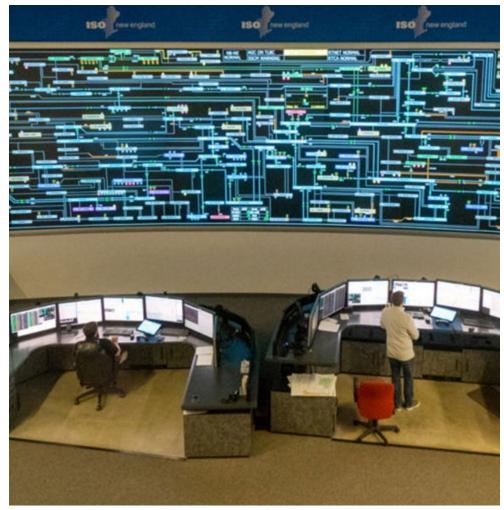
But because the margin adder has a slidingscale design, the commission said the proposal "will adequately protect against the exercise of market power as it eases some administrative burden on capacity suppliers."

"Market power is a greater concern at higher prices where the demand curve is steeper, which is where the proposed adder would be smallest, a design feature that tempers the IMM's concerns." FERC said.

The commission acknowledged the Monitor's argument that the margin adder shifts the administrative burden "from resources with costs just above the DDBT to resources with costs above the DDBT plus a margin adder."

"We note that any reasonably set DDBT creates an incentive for a set of resources to offer just below the DDBT to avoid the administrative burden of the static delist bid review process," the commission wrote.

In the final analysis, FERC said that the proposed DDBT does not hinge on "which group of capacity suppliers this incentive applies to, but rather whether the proposal adequately mitigates the potential exercise of market power such that the resulting market prices represent just and reasonable rates for capacity. ... We find that it does."



ISO-NE control room | ISO-NE

ISO-NE News



'Big Moment' for Climate Change as Policies Align

By Jason York

This is not only "a big moment" for climate change but an "interesting" one as well, clean energy policy expert and podcaster Katherine Hamilton said last week.

"Some of our muscles have atrophied a little bit, especially the ones around climate." Hamilton said during the Connecticut Green Bank's first webinar in a series focusing on "Promoting the Renewable Energy of Community."

Hamilton, chair of lobbying firm 38 North Solutions and co-host of the popular "The Energy Gang" podcast, spoke about "Energy Trends and Transformations." She explored the business and policy landscape for clean energy and technology and climate through the lens of RTOs, state and federal regulators and legislators, and the Biden administration.

Hamilton said that while there has been some federal engagement in renewable energy thanks to investment tax credits, the U.S. House of Representatives was "churning out a lot of legislation" that went nowhere during the Trump administration. Democrats now control the executive and legislative branches. which provides a sizeable and unexpected opportunity to enact comprehensive climate policy.

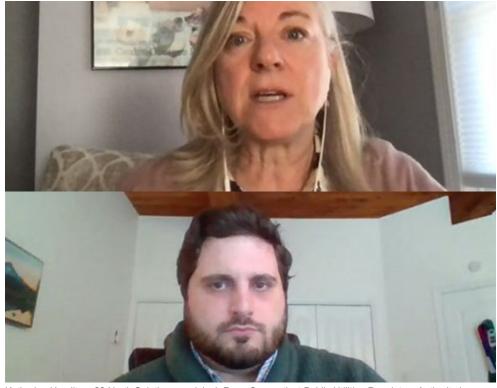
"We just didn't think this moment would happen where you would have a president and a Senate and a House all aligned on the need to act quickly on climate," she said.

Hamilton said the falling cost of clean energy coupled with strong grassroots support for significant climate change legislation tells her the country is in a "really different place."

"There just wasn't this groundswell of support from constituents" on climate change issues in 2009 when the Waxman-Markey bill to create a cap-and-trade system for greenhouse gas emissions passed the House and but never made it to the Senate floor.

"That has completely changed, and climate, because it's in our faces, has become a voting issue, and I think that it really does change the dynamics on the hill and elsewhere," Hamilton said.

While there have not been immediate moves on Capitol Hill, Biden acted swiftly to rejoin the Paris Agreement. He also appointed former Secretary of State John Kerry as a special presidential envoy on global climate action



Katherine Hamilton, 38 North Solutions, and Josh Ryor, Connecticut Public Utilities Regulatory Authority | Connecticut Green Bank

and Gina McCarthy, former EPA administrator during the Obama administration, as director of domestic climate policy. Former Michigan Gov. Jennifer Granholm was recently confirmed as secretary of energy. (See Granholm Confirmed by Bipartisan Vote.)

"This whole host of incredible people working throughout the administration, who understand the need to act quickly and who can all go in the same direction ... organizing the entire federal government around solving for COVID, solving for jobs in the economy, solving for climate and solving for equity and racial injustice. Every single agency is going in that direction, and you can see that in everything that they do."

On the legislative front, Hamilton said federal lawmakers are making progress on creating a national green bank. States like Connecticut, which founded the nation's first green bank through legislation in 2011, are still leading the way working with private sector investors to create low-cost, long-term financing to maximize the use of public funds, she said. Projects in the state through fiscal year 2019 show that every \$1 of public funds committed by the Green Bank yielded an additional \$6 in private

investment in the economy.

"Connecticut was the first mover on this, and it's been able to prove this whole thing out," Hamilton said.

Moderator Josh Ryor, director of utility programs and initiatives for the Connecticut Public Utilities Regulatory Authority, asked Hamilton what could be expected from FERC under Chair Richard Glick. She said his goal to prioritize transmission is "super important" so clean energy can move "from where it's produced to where it's needed."

Hamilton said she thinks Glick will continue lowering barriers to new energy storage technologies. She noted former Chair Neil Chatteriee was instrumental in issuing orders 841 and 2222, which ensure that storage and distributed energy resources, respectively, have greater access to wholesale markets.

Hamilton also thinks Glick will work to ensure that wholesale markets better align with state policies. She was also acutely aware that New England states have held a series of online public technical forums in January and February on potential reforms at ISO-NE, ranging from wholesale market design to transmission planning to governance.

ISO-NE News



Some Sacrifice Needed on Road to Net Zero, Nexamp Says

Utilities Struggle to Balance Rapid Clean Energy Development with Municipal Land Conservation and Equity Objectives

By Emily Hayes

Some communities will need to consider where they can "sacrifice trees for clean energy generation that mitigates catastrophic climate change," Kelly Friend, vice president of policy and regulatory affairs at solar energy company Nexamp, said Thursday.

Likewise, Friend said, energy companies must compromise with the communities where they want to site projects.

"It's a false choice between do we develop [distributed] solar at scale, or do we protect open lands and forests," Friend said at the Northeast Energy and Commerce Association's Renewable Energy Conference. "I don't think it has to be either-or."

Some states, like Massachusetts, have a highload, high-density population and aging infrastructure, so it is not feasible to site all clean energy in built-environment areas. And when it comes to siting renewable energy projects, community opposition is not just a case of "not in my backyard"; it is critical that communities have a say in what is happening in their neighborhoods, Friend said.

People who speak English as a second language and frontline workers are not always able to participate in public meetings organized by state boards, but their communities tend to have disproportionately more energy infrastructure and greenhouse gas emissions. Black and Hispanic families in Boston experience 38% higher air pollution concentrations compared to white families, according to

research from the Boston University School of Public Health.

"Unfortunately, because of where we are in our fight against climate and the unequal cost that [minority and low-income communities] have had to bear, we're now trying to solve a lot more problems," Friend said.

Environmental justice communities are reluctant to allow more infrastructure into their neighborhoods, preferring to preserve the open space they have, while environmentalists push to conserve vital ecosystems. Friend said collaboration between utilities and communities is vital to meet Massachusetts' ambitious climate goal of net-zero emissions by 2050.

Last month, Gov. Charlie Baker returned a comprehensive climate bill to the Massachusetts legislature with amendments that would strengthen the definition of environmental justice communities and identify climate change as a burden on the communities. There are no mechanisms in place to ensure an equity lens when building new energy generation or distribution infrastructure, "short of a developer choosing to calculate that within their own perspective on a project," Courtney Feeley Karp, senior counsel at Klavens Law Group, said at the conference.

The challenge energy companies and regulators need to address is how to avoid "making mistakes of the past with respect to the siting" of clean energy infrastructure to achieve net-zero emissions and energy justice, Feeley Karp said.



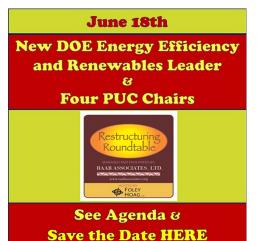
Creative project siting, like this solar farm in a cranberry bog, along with compromise between developers and communities will be critical to building out the clean generation states need to meet climate objectives. | Nexamp

The Massachusetts climate bill would direct the Department of Public Utilities to incorporate a holistic equity approach to analyzing the cumulative impact of an energy facility project. But Friend said additional complex regulations and regulatory imperatives for utilities at the state level leave less room for them to be creative in finding a solution that benefits the community and the utility in transitioning to clean energy.

"There's all of this room in between that probably leaves space for innovation, but utilities can't move because they're being regulated to the letter by this," Friend said. "And we don't have a lot of time to waste in bickering over the details." ■

March 26, 2021 **FERC Commissioner Allison Clements** Keynote Address & Pivoting from **Decarbonization Pathways to Innovative Policies in New England** estructuring **Interactive Online Webinar** REGISTER HERE





MISO News



MISO Wraps 1 Renewable Study, Promises More Research

By Amanda Durish Cook

MISO wrapped its years long Renewable Integration Impact Assessment (RIIA) last week, with staff pledging more targeted studies on the shift to a majority renewable resource mix.

During a special teleconference March 3 to recap study findings, staff said members' actual renewable adoption has already outstripped expectations.

MISO Manager of Policy Studies Jordan Bakke said the pace of wind and solar integration has increased beyond the grid operator's projections since it began the analysis in 2017. He said renewable forecasts morphed as adoption ticked up in the following years.

When staff began RIIAs in 2017, the ISO had an 8% system-wide renewable generation share. By the study's end in late 2020, renewable generation had grown to 13%.

Bakke said MISO is "rapidly approaching 20%" just relying on members' planned resource additions in the next few years. He said the 30% milestone has ISO planners concerned.

Staff said the study's big takeaway is that system challenges and complexity increase sharply when renewables reach the 30% share of the resource mix. Bakke said the analysis focused on when MISO's ability to serve load

might be threatened in a majority renewable future.

In past RIIA presentations, staff has emphasized that its current transmission infrastructure is hampered in delivering all energy to load at 30% renewable penetration and beyond. However, they said with billions in transmission buildout, it could reliably operate a system containing a 50% renewable share. (See MISO Recaps 4 Years of Renewable Study.)

"Growing renewables are driving localized reliability risks now," Bakke said. "RIIA finds these challenges will become footprint-wide beyond a 30% system-wide renewable penetration."

James Okullo, a policy studies engineer with MISO, said RIIA's findings are still relevant despite renewables' acceleration. If anything, he said, the study emphasizes the need to act quickly and prepare the system.

Okullo said future renewable studies will contain more data on weather patterns necessary to produce more accurate conclusions on the relationship between renewables and less predictable resource adequacy.

MISO also said it will need "additional targeted research into multiple transmission technologies, operating tools and market tools to incentivize availability of grid services." It said it could explore new grid technology pilots to

address weak grid issues.

Bakke said going forward the grid operator requires generation flexibility to cover warm evenings and winter days. He said staff found that added wind generation tends to shift traditional summertime reliability risk to the winter, while solar additions nudge risk to evening hours.

"The risk of not having enough generation to meet demand shifts from the historic times of peak demand to hot summer evenings and cold winter mornings, when low availability of wind and solar resources is coincident with high power demand," he said.

Bakke said expanding renewable generation means more hourly variability, which will require generation to be nimbler in terms of ramp capability and curtailments.

Staff concluded MISO will need extra-high-voltage transfer capabilities as renewable energy clusters place extra demand on transporting energy from region to region. They have also said energy storage only aids delivery to a certain degree and new transmission projects will be paramount in securing the RTO's ability to deliver energy to load at all times of the year. But the grid operator has said it could do more research into how battery storage can help stabilize a system peppered with inverter-based generation.



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Solar, Wind Projects Highlighted in PJM 2020 RTEP Report

By Michael Yoder

PJM saw a dramatic shift toward renewable energy projects in the 2020 interconnection queue, with more than two-thirds of interconnection requests in the Regional Transmission Expansion Plan (RTEP) process coming from solar and wind projects.

The RTO released its annual 2020 RTEP report on Thursday, highlighting last year's transmission system enhancements and the future needs for its members. PJM said 43 new baseline projects were planned during 2020 at an estimated cost of \$413 million, with 64% (\$264 million) composed of transmission owner criteria violations, 22% driven by generator deactivations, and 14% by other NERC and PJM reliability criteria.

The \$413 million of baseline transmission investment approved reflects the "shifting dynamics driving transmission expansion," PJM said, as new large-scale transmission projects of 345 kV and above become more uncommon with the RTO's annual load growth falling below 1%. A large proportion of the new investment occurring at 500 kV is to address aging transmission lines, many of which were constructed in the 1960s or before.

PJM reported that 55 new network transmis-



GE's 12-MW Haliade-X offshore wind turbine prototype | GE

sion projects at an estimated cost of \$101 million are required to ensure the reliable delivery of the generation currently seeking interconnection to the grid.

"Aging infrastructure, grid resilience, shifting generation mix and more localized reliability

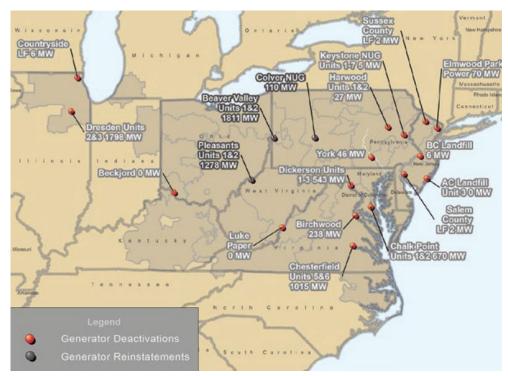
needs are now more frequently driving new system enhancements," the report said.

The approved baseline projects included PJM's first interregional market efficiency transmission project, the replacement of the 138-kV Michigan City-Trail Creek-Bosserman line with MISO. PJM's Board of Managers approved the project at its December 2019 meeting, while MISO's Board of Directors approved the project during its Sept. 17 meeting. (See MISO Board Primed for 1st Major Interregional Project.)

The nearly \$22 million reconstruction of the line in Indiana's northwestern corner was identified in the 2018/2019 MISO-PJM coordinated system plan, with PJM covering 90% of the costs. The 11-mile rebuild is located in MISO's Northern Indiana Public Service Co. transmission zone and is expected to be in service by January 2023.

Changing Capacity Mix

PJM said its RTEP process continues to manage an "unprecedented capacity shift" resulting from federal and state policies encouraging more renewable resources and the addition of other fuel sources for economic reasons. The RTO said the shift is marked by new generating plants powered by shale natural gas in the region, new wind and solar projects made possible through federal and state renewable incentives, plant deactivations, and market impacts from demand response and energy efficiency programs.



Map of generator deactivation notifications received by PJM from Jan. 1 through Dec. 31, 2020 | PJM



The interconnection process is showing trends of a significant increase of renewable generation proposed in PJM. Of the approximately 105 GW of interconnection reguests in 2020. PJM said nearly 59 GW, or 56%, of all requested interconnection rights resulted from solar generation projects, overtaking natural gas as the largest percentage of units.

RTO Insider: Your Eyes & Ears on the Organized Electric Markets

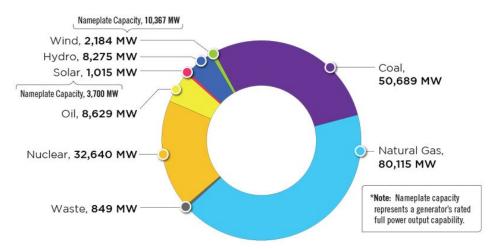
The report noted that solar interconnection requests more than doubled by megawatt over 2019 with more than 1,300 active or under construction projects in the queue. Storage and wind generation types have also grown in the queue, constituting 10.4% and 6.3%, respectively.

Existing Reliability Pricing Model-eligible natural gas-fired generation plants totaling nearly 28 GW constitute 27% of the generation currently seeking capacity interconnection rights in the queue. Gas-fired capacity greatly exceeds the 76 MW of coal-fired resources in the queue.

More than 30.6 GW of coal-fired generation have been deactivated in PJM between 2011 and 2020, with approximately 2.5 GW of coal unit deactivations announced in 2020. PJM oversaw 29 generation units deactivated in 2020, totaling nearly 3.3 GW.

"The economic impacts of environmental public policy, coupled with the age of these plants — many more than 40 years old — make ongoing operation prohibitively expensive," the report said.

PJM's installed reserve margin (IRM) for the 2021/2022 delivery year declined from 15.1% to 14.7%, the report said, driven by "strong generation performance" and a reduction in generation forced outage rates, especially for natural gas-powered combined cycle units.



Existing reliability pricing model-eligible installed capacity mix in PJM as of Dec. 31 | PJM

Grid of the Future

As the needs of the grid change, PJM said it is looking at a strategic plan over the next five years to focus on several key trends.

The RTO said the integration of the growing number of renewable energy resources, including offshore wind, requires new thinking for the achievement of decarbonization and other clean air mandates. Several PJM coastal states have set specific offshore wind generation goals, totaling more than 14 GW by 2035. (See Md., NC, Va. to Team up on Offshore Wind.)

The first offshore wind facility in PJM became operational in September: Virginia's 12-MW pilot project, consisting of two 6-MW turbines. The drive for offshore wind is a significant part of the Virginia Clean Economy Act signed into law last April. (See Va. 1st Southern State with 100% Clean Energy Target.)

PJM said the growing number of distributed energy resources, including rooftop solar, is

driven by customer preferences for green energy solutions, lower energy bills, and resilience from extreme weather and other external events. The RTO said state and federal policies, technological advancements and customer demand could result in the addition of millions of DERs on the grid.

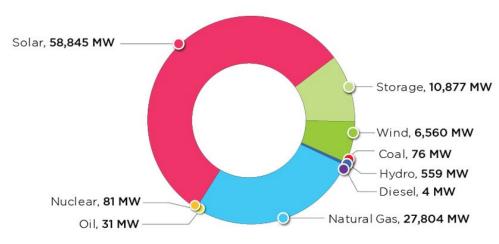
"The lines between generation, transmission and distribution are thus becoming less distinct," the report said. "The scope and means by which PJM affects operational control of generation and load will change."

The aging infrastructure of the PJM grid, with 30% of it more than 50 years old, requires replacement with new assets that adopt new technologies to create more efficiencies and provide benefits such as withstanding extreme weather events and lowering the frequency and duration of power outages.

To facilitate working toward the grid of the future. PJM and New Jersev last year announced the implementation of the RTEP Process State Agreement Approach, developing public policy-driven transmission to fulfill offshore wind power objectives. The approach allows individual or groups of states to submit a transmission project for study by PJM, even if it does not qualify as a reliability or market efficiency initiative under the RTO's tariff. (See PJM Dusts off 'State Agreement' Tx Approach.)

PJM said it has also started to integrate RTEP changes in generation, transmission and load forecasting processes with "innovative thinking and technologies."

"PJM's RTEP process continues to evolve, bringing into clearer focus the grid of the future, one driven by decarbonization, renewables, public policy, resource mix and new infrastructure technologies," the report said. ■



The queued generation fuel mix of requested capacity interconnection rights in PJM as of Dec. 31 | PJM

Nuclear Power Wants Some Net-zero Love

Maryland Coalition Seeks to Counter Opposition

By Rich Heidorn Jr.

Nuclear accidents made Three Mile Island, Chernobyl and Fukushima household words. But how many people know about Calvert Cliffs, which has been operating quietly on the Chesapeake Bay since the mid-1970s?

Calvert Cliffs generates 1,756 MW of power, equal to 38% of Maryland's needs and representing more than three-quarters of the state's carbon-free generation. Yet nuclear power is often ignored in discussions about getting to net-zero carbon emissions, according to a new coalition, Nuclear Powers Maryland.

Led by the Nuclear Energy Institute, the American Nuclear Society and Exelon Generation, the coalition's goal "is really to educate and advocate for nuclear in the state," said spokeswoman Anne Larimer Hart, when asked what the group seeks to achieve. There is "no specific [legislation] at present."

The coalition introduced itself March 2 with a webinar and the launch of a petition drive supporting nuclear power's role in addressing climate change while warning that "opponents continue to undermine nuclear power, which could put this valuable carbon-free energy resource at risk and drag us backward in the transition to clean energy."

It also released the results of a survey of 600 "media-attentive and engaged voters" statewide and found that while 91% say it's important for state officials to reduce carbon emissions, including 74% of Republicans, little more than half said they are familiar with Calvert Cliffs, which is jointly owned by Exelon and Électricité de France (EDF).

Joining NEI CEO Maria Korsnick on the kickoff



X-energy's nuclear plant will use tri-structural isotropic (TRISO) particle fuel, which the company says "cannot melt." | X-energy



The 1,756-MW Calvert Cliffs nuclear plant generates more than three-quarters of Maryland's carbon-free generation. | Nuclear Powers Maryland

Zoom meeting were Marilyn Kray, Exelon's vice president of nuclear strategy and development, and officials of two Maryland-based companies: James Howe, vice president of government relations at uranium enrichment company Centrus Energy, and Clay Sell, CEO of X-energy, a nuclear reactor and fuel design engineering company.

"In order for Maryland to achieve its own stated clean energy aspirations, it cannot get there without continued operation of the Calvert Cliffs plant and without building additional new nuclear plants here in Maryland," Sell said. Calvert Cliffs is licensed until 2034 (Unit 1) and 2036 (Unit 2).

In October, the Department of Energy selected X-energy and TerraPower, of Bellevue, Wash., to build two advanced nuclear reactors in public-private partnerships under its Advanced Reactor Demonstration Program (ARDP). TerraPower, the creation of Microsoft co-founder Bill Gates, will demonstrate the sodium-cooled Natrium fast reactor, on which it has partnered with GE Hitachi Nuclear Energy.

X-energy will build a four-unit plant based on its Xe-100 reactor design, a high-temperature gas-cooled reactor that can produce 320 MW of electricity for baseload or load-following and 800 MW of thermal output that could be used for industrial heat applications, such as desalination and hydrogen production.

X-energy on March 1 announced that it had signed the ARDP Cooperative Agreement, under which DOE will invest about \$1.23 billion in the company's project. It will be built in Washington state with Energy Northwest, a consortium of 27 public utility districts and

municipalities that operates the Washington Columbia nuclear plant in Richland. Completion is planned for 2027.

Sell said his company's four-unit design requires only a 22-acre footprint, making it suitable for repurposing retired oil- and coal-fired generators. It will use tri-structural isotropic (TRISO) particle fuel, which it says can withstand very high temperatures without melting. The company says its "meltdown-proof 'walk-away' safety" allows a 400-yard safety perimeter as opposed to the 10-mile emergency planning zone for traditional reactors.

"That gives us a number of unique opportunities that we could seize in Maryland," he said. The U.S. Nuclear Regulatory Commission says it is involved in "preapplication activities" on X-energy's reactor. NRC in September approved the final safety evaluation report for NuScale Power's small modular reactor (SMR), making it the first SMR manufacturer to successfully complete the commission's design certification application review. (See NRC OKs NuScale's Small Modular Reactor Design.)

Kray said locating small nuclear reactors at former fossil fuel plants would take advantage of existing transmission lines and substations as well as water sources and plant staff. "You could fit one, or maybe two [small nuclear reactors] in what used to be the host site for a coal plant," she said.

"The challenge we have is to create incentives and to create a political openness to make that happen," Korsnick said. An NEI spokeswoman said the trade group is also supporting similar coalitions in Pennsylvania and Illinois.



Virginia Takes \$43.6M in its 1st RGGI Auction

RGGI Auction Clearing Price of \$7.60 is 19 Cents Higher than December Auction Price

By Jennifer Delony

Virginia sold \$43.6 million in carbon dioxide allowances in its first Regional Greenhouse Gas Initiative (RGGI) auction since joining the cap-and-invest program in January.

"Virginia's participation in RGGI signals our commitment to addressing climate change while creating economic and health benefits for communities across the commonwealth," David Paylor, director of the Virginia Department of Environmental Quality, said in a press statement Friday. "Through the work of our agency partners at the Virginia Department of Conservation and Recreation and the Virginia Department of Housing and Community Development, auction proceeds will protect those most vulnerable to the risks of sea-level rise and flooding and apply badly needed upgrades to new and existing residential buildings."

RGGI's 51st auction on Wednesday generated \$178.4 million for the 11 participating states from the sale of 23,467,261 allowances at a clearing price of \$7.60, 19 cents higher than that for the 50th auction in December and 78 cents higher than the 49th auction's in September.

Allowances in the 11.98 million costcontainment reserve remained unsold, and no allowances in the 11.31 million emissionscontainment reserve were withheld. The fixed cost-containment reserve supply was available if allowance prices exceeded \$13, while the emissions containment reserve supply was available for withholding if the clearing price fell below \$6.

The minimum bid price was \$2.38, and the maximum bid price was \$12.86, according to the "Market Monitor Report for Auction 51" prepared by Potomac Economics.

There were 44 winning bidders in the auction, with five bidders purchasing 1 million tons or more and 21 bidders purchasing 200,000 tons or more, the report said. Each allowance represents the authorization to emit 1 ton of CO₂. The highest three bidders purchased 4.75 million, 4.075 million and 4.07 million allowances, respectively, according to the report.

Bidders in the auction, the report said, represent organizations in the following categories:

• organizations that acquire and hold allowances primarily for their compliance



Environmental organizations in North Carolina are hoping the state will enter RGGI to help combat the effects of climate change along the state's coastline, like the flooding seen here in 2018 from Hurricane Florence. | The Office of Connecticut Gov. Dannel Malloy

obligations;

- investors that have compliance obligations but hold allowances in excess of their compliance obligations, potentially for transfer to unaffiliated firms; and
- investors without compliance obligations.

Organizations with compliance obligations and investors with compliance obligations together purchased 44% of the allowances sold in the auction, while organizations with compliance obligations alone purchased 42% of the allowances, the report said. In addition, 31 organizations with compliance obligations and 17 investors submitted bids, and 63 entities were qualified as potential bidders.

RGGI Hopefuls

North Carolina or Pennsylvania could be the next state to join RGGI.

Pennsylvania is in the middle of a rulemaking process to authorize RGGI participation. The Department of Environmental Protection started that process under a 2019 executive order from Gov. Tom Wolf. The department is considering public comments on its proposed rulemaking before issuing a final rule.

The plan to enter RGGI has met significant opposition from the state legislature, which passed a bill last year that said the state could not join the program without legislative action. Wolf vetoed the bill, but Rep. Jim Struzzi (R) reintroduced the legislation (HB 637) at the end of February. The bill now is in the House Environmental Resources and Energy Committee.

In North Carolina, the Southern Environmental Law Center (SELC) filed a petition for rulemaking with the Environmental Management Commission (EMC) for the state to join

The petition, which SELC filed on behalf of Clean Air Carolina and the North Carolina Coastal Federation, piggybacks on the state's effort to identify prudent state carbon policy, Nick Jimenez, staff attorney at SELC, said Thursday during a public outreach webinar. The state released a clean energy plan in 2019, but it did not select any specific policy action. Instead, Jimenez said, the plan called for an academic review of carbon policy options.

The North Carolina Clean Energy Plan "didn't turn into action," he said. "It sat on a shelf, and we just don't have time for that to happen this time."

The petition to join RGGI sets a timeline to act, he added, but it does not exclude other actions that might come from the academic policy review.

Jimenez said that SELC filed the petition on Jan. 11, and the EMC has 120 days to act on it.

"We don't expect action sooner than May, but the clock is ticking, and action will come soon," he said.

The EMC's Air Quality Committee will hold a public meeting on March 10, during which it will hear a summary of a report on carbon-reduction policies for the North Carolina power sector, as recommended by the energy plan. The report was conducted by Duke University's Nicholas Institute for Environmental Policy Solutions and the University of North Carolina's Center for Climate, Energy, Environment and Economics.



Ohio Lawmakers Struggle to Undo Nuclear Subsidy

Repeal of Notorious HB 6 Seems Politically Impossible

By John Funk

The monthslong struggle of Ohio lawmakers to repeal the customer-paid \$1 billion nuclear power plant bailout they created for a FirstEnergy Corp. subsidiary in 2019 is coming to an end, possibly this week, though not with a simple repeal of the original legislation.

Ohio Senate President Matt Huffman (R) and House Speaker Bob Cupp (R) say they anticipate approval of final legislation soon.

More than half a dozen divergent and competing bills have been offered since the first of the year in the House of Representatives and the Senate. At least three bills that would outright repeal everything in the original legislation — House Bill 6 — have languished in committees. Bills eliminating both the nuclear and solar subsidies, or just the nuclear subsidy, have been approved by one chamber or the other

But there has been no bill approved, or offered, that would eliminate subsidies to two aging coal-fired power plants that somehow got into the Ohio Clean Air Program that H.B. 6 was to have created. Because H.B. 6 was crafted to win support from disparate groups, leadership's concern has been that a simple repeal might not be able to gain support from a majority in each chamber.

Federal investigators have alleged that FirstEnergy spent \$61 million in bribes to elect officials that would pass H.B. 6. (See Feds: FE Paid \$61M in Bribes to Win Nuke Subsidy.)

Change in Tune

Because the nuclear subsidy was at the heart of H.B. 6 — and Energy Harbor, the company that emerged from the two-year bankruptcy case of FirstEnergy's power plant subsidiary FirstEnergy Solutions, would potentially make less money in the PJM wholesale market if a state subsidy remains in state law — law-

makers are trying to eliminate it first.

S.B 44, introduced Feb. 9 by Sens. Jerry Cirino (R) and Michael Rulli (R), would eliminate customer charges to finance the \$1 billion subsidy for Energy Harbor. The bill won



Perry Nuclear Power Plant, located about 40 miles northwest of Cleveland | FirstEnergy

unanimous approval of the Senate on March 3. Both Cirino and Rulli are from Northeast Ohio, where the Perry nuclear plant is located.

As a county commissioner, Cirino said he fought for federal and state subsidies to keep the Perry plant open and its jobs intact. He said he accompanied company executives as they appealed to the Trump White House, as well as the Department of Energy and FERC.

Now Cirino says he does not believe Energy Harbor needs the subsidy. He added that he thinks the "federal situation" for nuclear operators is changing, referencing FERC's expansion of PJM's minimum offer price rule.

"After the election the federal situation had been changing, and Energy Harbor was of the view that they cannot accept state subsidies and get consideration for clean energy from PJM when they are doing the [capacity] auction," he said in an interview. "They basically said 'We don't want it."

Neither the House Public Utilities Committee nor the Senate Energy and Public Utilities Committee have listened to public testimony directly from Energy Harbor about its need for the subsidy or desire not to receive it.

Ohio Consumers' Counsel Bruce Weston has suggested they do so.

"It is said that Energy Harbor apparently wants its billion-dollar power plant subsidy repealed," lobbyist Jeff Jacobson said on Weston's behalf in testimony to the House committee on March 2. "The Ohio public, and this committee, should hear directly from Energy Harbor on this subject, under oath, in the light of day. ...

"The public should have the benefit of a legislative investigation ... [that] should include answers about whether the legislature and the public were misled by FirstEnergy, Energy Harbor and others," he said.

Energy Harbor is spending money on the plant. The company is preparing now to refuel the reactor, slowly coasting to a lower output in preparation for a refueling shutdown, according to Nuclear Regulatory Commission records. The company has informed the commission that it intends to seek an extension of the Perry plant's nuclear operating license, which expires March 18, 2026, NRC records show.

Energy Harbor's spokesman has not returned phone calls and text messages seeking comment about its position on the state subsidy.

Solar Uncertainty

Meanwhile, Reps. Dick Stein (R) and James Hoops (R) introduced H.B. 128 on Feb. 17 to outright eliminate the nuclear subsidy — as well as the solar subsidies that were included H.B. 6 to sweeten the deal.

The two lawmakers represent counties in Northwest Ohio, home to the Davis-Besse nuclear plant, which is an important source of high-paying jobs for the region. But residents



Sen. Jerry Cirino | Ohio Senate

in those counties are also upset about a surge of applications from developers who want to build utility-scale solar installations.

H.B. 128 would eliminate both the seven-year \$150 million annual nuclear subsidy for Energy Harbor and the \$20 million annual solar subsidy authorized in H.B. 6 for a half dozen previously approved utility-scale solar farms, some of which are now being built. The bill is scheduled for a third hearing and possible vote today before the House Public Utilities

"I anticipate House Bill 128 will be voted out of the House Public Utilities committee this coming week and to be scheduled for vote of the full House vote shortly thereafter," Speaker Cupp said through his spokeswoman in response to a question from RTO Insider.



Senate President Matt Huffman | Ohio Senate

Both the House and Senate are meeting Wednesday. Whether S.B. 44 and H.B. 128 could be quickly combined is another question. Senate President Huffman partially addressed how to meld the bills in brief remarks before

a reporters' gaggle after a Senate session last week.

"We have not actually sat down with the House and said, 'Let's do it this way or that way.' There are a few other efforts we are working on with the House in a little bit more formal way," he said.

"I was part of the discussions in the last month

or so in the last [General Assembly]. And there were general discussions with Speaker Cupp at that time about things that collectively the House and the Senate could get enough votes to pass, and those are the first two things that we have done, in



House Speaker Bob Cupp | Ohio House of Representatives

Senate Bill 44 and Senate Bill 10," he said.

Huffman was referring to a second unanimously approved Senate bill introduced by Sen. Mark Romanchuk (R). S.B. 10 would eliminate the "decoupling" mechanism H.B. 6 created for FirstEnergy, guaranteeing that the company's ongoing annual revenues would not be lower than its rosy 2018 revenues rather than reflect any future downturns. The concept of decoupling had been introduced when the state ordered utilities to initiate energy efficiency programs designed to cut customer demand — and potentially profits.

FirstEnergy's then-CEO Charles Jones noted at the start of the COVID-19 pandemic that the decoupling provision had made the company "recession proof."

Approved by the Senate on Feb. 17, S.B. 10 was crafted to prevent any utility from putting such a mechanism in place in the future.

Romanchuk appeared before the House Public Utilities Committee on Feb. 23 to introduce the legislation. He noted in his testimony that under H.B. 6, FirstEnergy would receive at least \$978 million in distribution revenues annually, regardless of consumer demand. The committee has not yet held a second hearing

as it has concentrated on taking testimony on H.B. 128.

Huffman said he sees significant support for both S.B. 44 and S.B. 10.

"I think those are supported by a significant majority. They were passed unanimously out of the Senate. So, we can deal with those two significant problems," Huffman told reporters. "It was my thought that we needed to do things that we could get done. I think people are satisfied with those. That certainly does not mean it is the end of the discussion."

He cited possible legislation to recreate energy efficiency programs as an example. "We had a bill regarding the energy efficiency program introduced by Sen. [Matt] Dolan [R]. He is obviously a supporter of that. We are going to keep having conversations."

Huffman could not be specific as to when or how the bills would be combined, approved by both chambers and sent to Gov. Mike DeWine (R).



Sen. Rob McColley | Ohio Senate

Another Northwest Ohioan, Sen. Rob Mc-Colley (R), recently tried to address the negative impact that H.B. 6 has had on the public's perception of Ohio and its state government.

"We have had to deal with an awful lot

regarding these provisions," he said of H.B. 6, in remarks before the Senate unanimously approved S.B. 44. "It's been something that has ... placed a black eye ... on our institution. We need this as a learning opportunity ... as a teachable moment for ourselves and even for those who will come after us.

"To realize that when we are passing legislation, we need to look at it in the context of what is best for the citizens of Ohio. [S.B. 44] is something that will undo an awful lot of damage that has been done, not just to our institution, but to the state of Ohio. We all need to support this bill."

FirstEnergy Names New CEO

On Monday, FirstEnergy appointed Steven Strah as CEO and a member of its board of directors, effective immediately.

Strah has served as acting CEO since October 2020, when the company fired Jones over the bribery investigation. Strah will continue as president of the company, a position he has held since May 2020. His base annual salary was set at \$1.1 million. ■



The Davis-Besse nuclear plant in northern Ohio | FirstEnergy

SPP News



SPP Launches Review of Storm Response

RFI Process for Competitive Kansas Project Put on Hold

By Tom Kleckner

SPP has launched a comprehensive review of its response to the recent severe winter storm that swept through its footprint, leading to the first rolling blackouts in the grid operator's 80-year history.

"You will hear me use the term 'unprecedented' a lot today," COO Lanny Nickell told the RTO's Board of Directors and Members Committee on March 2 as he reviewed the mid-February events leading up to the controlled outages.

True to his word, Nickell referred to the "unprecedented" energy imports from neighbors, the "very cold, unprecedented" temperatures in its footprint and the "unprecedented" event as a whole.

With nearly 35 GW of generation capacity unavailable, SPP twice reached Level 3 energy emergency alerts and called for load sheds totaling nearly 3.3 GW Feb. 15-16 over a four-hour time period. The RTO reduced its

EEA levels and returned to normal operations on Feb. 20. (See ERCOT, MISO, SPP Slough Load in Wintry Blast.)

While SPP's experience paled in comparison to ERCOT's, it recommended to the board that staff and stakeholders work together to review the grid operator's performance during the event. The Members Committee was unanimous in endorsing the recommendation, which the board also approved.

"Staff will learn from this. There's no doubt in our minds that our best can be better next time," CEO Barbara Sugg said, "not only because we identified opportunities for SPP to improve, but we can improve those improvements."

Sugg complimented SPP member collaboration with the RTO, especially when issuing conservation calls. She also said the grid operator wouldn't have succeeded in minimizing the controlled outages without energy imports from MISO and PJM.

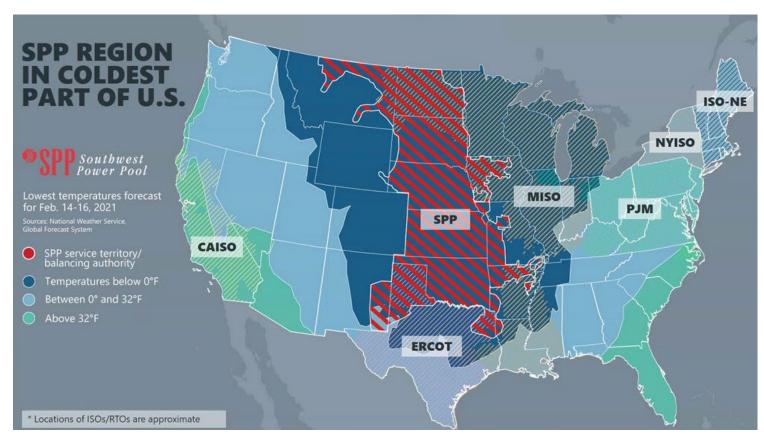
"Being a part of the Eastern Interconnection

absolutely paid off for us," Sugg said. "[The imports] were absolutely critical to us."

The review is intended to assess SPP's performance, transparently engage with stakeholders, find operational and market issues, develop recommendations for future improvements and raise "our joint capabilities."

Nickell will chair the newly formed Comprehensive Review Steering Committee overseeing and coordinating a process broken into five focus areas: operational, financial, regulatory, communications and a review of market pricing by the Market Monitoring Unit. The group will provide a final assessment and recommendations to the board in July.

The financial review will likely be of most interest to those concerned about SPP's market performance, as numerous offers exceeded the RTO's \$1,000/MWh cap and prices peaked at \$4,274/MWh during the event. Legal staff received FERC approval for two expedited tariff filings: an up to three-day delay to post settlement statements for the Feb. 13-16



The middle of the United States saw the coldest weather in mid-February. | SPP

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operating days (*ER21-1185*) and a limited twoweek waiver for load-serving entities' collateral calls, normally required within two days (*ER21-1193*).

The commission noted SPP's extreme weather conditions, operating challenges, EEA alerts and the potential for repricing in approving the requests.

"We're very well aware of the settlement issues," Sugg said.

CFO Tom Dunn will lead the team that reviews the settlement and credit issues and looks at make-whole payments.

The Monitor held a pair of calls last week to discuss the energy offers above the \$1,000/MWh cap, which fall under FERC orders 831 and 831-A. The orders require that energy suppliers receive a reasonable opportunity to recover their actual costs of providing energy. The MMU will verify and calculate actual cost reimbursement for energy offer curves above \$1,000/MWh.

Market participants have up to 35 days after the operating day to submit documentation for verification and the Monitor has up to 45 days after the operating day to evaluate the information, resolve questions, and approve or reject the offers.

SPP is also the subject of a joint inquiry by FERC and NERC into the grid's operational issues in the Midwest and South and a Midwest Reliability Organization review. (See "FERC, NERC Announce Joint Inquiry," Slow Storm Restoration Sparks Anger in Texas. South.)

Missouri's Public Service Commission is among the state regulators that have *opened an investigation* into the event and the resulting rolling blackouts and "extreme" natural gas price spikes. Staff will look into utilities' preparation for the event, using analysis from RTOs, FERC, NERC, market monitors and other bodies.

Butler-Tioga Order 1000 Project Paused

The board and Members Committee also approved pausing the selection process for a competitive upgrade in southeastern Kansas while SPP staff completes a re-evaluation of the project.

The board in February authorized the 138-kV project over protests from Evergy, the incumbent transmission owner. The Kansas City utility has said the project will collide with regional planning efforts and requested a restudy Feb. 5, shortly after SPP issued a request for

proposals. (See SPP Board to Consider Controversial Kansas Project.)

After reviewing Evergy's request, staff determined a pair of transmission upgrades "germane" to the area were not included in the assessment that initially identified the upgrade.

"In consideration of those projects, do we know the [competitive project] is still an appropriate economic project to move forward?" Antoine Lucas, SPP's engineering vice president, asked. "Based on the magnitude of the two upgrades, we have determined those are material modifications to the system and specific to the system that would be served by the transmission upgrade. We think there's more assessment to do."

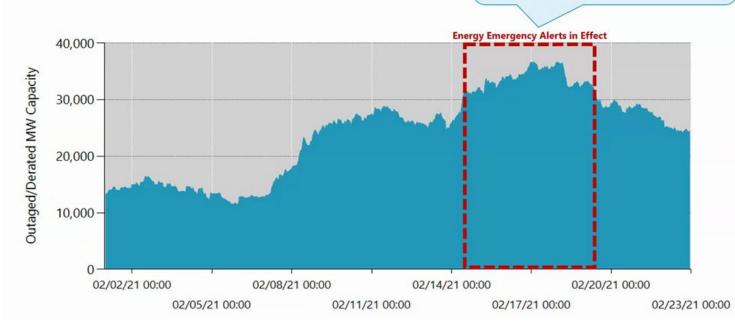
Staff will re-evaluate the need for the Butler-Tioga project in fewer than 30 days, applying the same economic models used to identify the upgrade after adding the two omitted upgrades and new costs.

Lucas said staff would bring a final recommendation before the board during its April 27 meeting.

The RFP submission deadline will remain Aug. 2



Up to 35,000 MW of generating capacity unavailable to meet demand, nearly 2.5x more outages than first week of Feb.



Generation outages forced SPP to call for rolling blackouts. | SPP

Company Briefs

Chevron to Build Carbon Capture Plant with Microsoft, Schlumberger



Chevron last week said it is partnering with Microsoft, Schlumberger NV and Clean Energy Systems to build a carbon capture plant in California as the oil major

expands investments in renewable technology.

Chevron said the plant will convert agricultural biomass to electricity, and almost all the carbon captured in the conversion would be stored underground. Once completed, the plant is expected to use about 200,000 tons of agricultural waste and remove around 300,000 tons of carbon dioxide each year.

More: Reuters

Chris Christensen Elected NRECA **Board of Directors President**

NorVal Electric Cooperative Director Chris Christensen last week began his two-year term as president of the National Rural Electric Cooperative Association Board of Directors. He replaced Curtis Wynn.

Christensen, who was previously the vice president, was elected president by the association's board of directors. He is the first Montanan to be elected as an officer to the NRECA Board of Directors.

More: NRECA

Citicorp CEO Vows Net-zero Emissions

On her first day as CEO, Jane Fraser last week vowed that Citigroup would achieve net-zero greenhouse gas emissions in its financing activities by 2050.

The bank will produce an initial plan for reaching the goal within the next year and will include specific targets for carbon-intensive sectors to reduce their emissions by 2030.

Citigroup was the third-largest financier of fossil-fuel companies last year, according to data from Bloomberg. With its commitment, the bank is joining Bank of America and Morgan Stanley in promising to achieve net-zero emissions in their lending and underwriting activities.

More: Bloomberg Green

FedEx Commits to Carbon-neutral Operations by 2040

FedEx last week announced it plans to achieve carbon-neutral operations globally by 2040.

To reach the goal, FedEx is investing more than \$2 billion in three key areas: vehicle electrification, sustainable energy and carbon sequestration. Perhaps the biggest is vehicle electrification, as the company hopes to convert its entire parcel pickup and delivery fleet to zero-emission electric vehicles by 2040.

More: FedEx

GM Looking to Build Second Battery Factory in US



A General Motors spokesman last week confirmed that the company, along with joint-venture partner LG Chem, are exploring the idea of building a second battery-

cell plant in the U.S. and said a decision could come in the first half of this year.

The companies are said to be close to deciding to build the plant in Tennessee. The two are already building a \$2.3 billion battery plant in northeast Ohio.

GM is investing \$27 billion in electric and driverless cars through 2025 and is using inhouse battery technology, branded Ultium, which executives say will lower costs by nearly 40% on new plug-in vehicles.

More: The Wall Street Journal

Volvo to Make Only EVs by 2030



Volvo last week announced it will make only electric vehicles by 2030 and will phase out the production of all cars with internal com-

bustion engines — including hybrids.

"There is no long-term future for cars with an internal combustion engine," said Volvo Chief Technology Officer Henrik Green.

The company also said that while its EVs will be sold exclusively online, dealerships will remain a part of the customer experience.

More: The Associated Press

Xcel Energy Proposes Tx Line to Expand Renewables Access



Xcel Energy-Colorado last week

proposed a \$1.7 billion upgrade to Colorado's high-voltage transmission system with the intention of bringing more renewable energy onto the grid and improving system reliability.

The proposed 560-mile, 345-kV transmission line will include five new segments to connect the Front Range to areas of north central, eastern and southern Colorado. It also supports the company's Clean Energy Plan, which will add 5,500 MW of new generation to the system.

More: Morningstar

Federal Briefs

Biden Admin Backs Trump on Solar **Tariff Suit**

The Biden administration last week asked the U.S. Court of International Trade to dismiss a complaint from members of the solar industry who argued that an October, Trump-era proclamation that placed tariffs

on bifacial solar was unlawful.

The filing from the Department of Justice states that the solar industry's complaint "fails to set forth a plausible showing that the president's determination involves a clear misconstruction of the governing statute, a significant procedural violation or action outside delegated authority."

The department also argued that former President Donald Trump "acted lawfully and fully within his authority" to reinstate tariffs on bifacial solar "by closing a loophole that the president determined had been undermining the effectiveness of the safeguard measure on solar products."

More: Greentech Media

DOE Announces New Senior Leaders



The Department of Energy last week announced new senior leadership appointees Jigar Shah and Karen Skelton.

Shah will serve as director of the Loan Programs Office, which oversees the department's more than \$40 billion in loan authority. Skelton will serve as a senior adviser to Secretary of Energy Jennifer Granholm.

More: Department of Energy

Regulators Say Entergy Should Pay \$1B in Refunds over Faulty Plant

The Louisiana Public Service Commission, the New Orleans City Council and the Arkansas Public Service Commission jointly filed a complaint with FERC against Entergy, claiming the utility wrongfully charged customers for the Grand Gulf Nuclear Station in Mississippi that often malfunctioned and was repeatedly deemed unsafe.

The three plaintiffs argued that the \$800

million Entergy spent to upgrade the plant has not improved its safety record and subpar performance compared to other nuclear plants. They also said the utility charged customers more than \$361 million for power it had to purchase when the station was offline and should refund customers the costs, as well as the cost of the 2012 upgrade, which was passed on to ratepayers.

If FERC agrees with the regulators, refunds could show up on customers' bills as credits.

More: The New Orleans Advocate

TVA Adds More Solar Power for Facebook



The Tennessee Valley Authority last week announced that, through its Green Invest program, Facebook has agreed to buy the

energy from its 150-MW solar farm and 50-MW battery storage facility currently being developed by Origis Energy in Mississippi. The energy will support two Facebook data centers.

Origis will own and operate the plant, which is expected to be completed in late 2023.

To date, TVA has obtained agreements for 2.14 GW of solar generation through the Green Invest program.

More: Chattanooga Times Free Press

Vipal Patel Takes over HB6 Investigation

Vipal Patel, who became the acting U.S. attorney for the Southern District of Ohio last week, will take over the lead on the House Bill 6 bribery investigation.

Patel replaced David DeVillers, who was appointed by former President Donald Trump. President Biden will name a successor in the coming months, based on Sen. Sherrod Brown's recommendation.

Patel, who has been a federal prosecutor since 2000, had served as the office's first assistant, a job that required him to oversee its daily operations in Cincinnati, Columbus and Dayton.

More: Cleveland.com

State Briefs

CALIFORNIA

PUC Eliminates High Usage Charge



The Public Utilities Commission last week voted to eliminate a high usage charge on tiered pricing

plans following repeated calls from San Diego Gas & Electric officials. SDG&E lobbied to get rid of the charge after a hot 2018 summer resulted in skyrocketing bills for customers who cranked up air conditioners.

The charge had been dreaded by customers on a tiered-rate billing system in which users pay a flat price for electricity. Once usage exceeded 130% of a household's predetermined monthly allotment, prices went up. An even steeper charge kicked in when customers used four times their baseline. The PUC initially introduced the charge as a signal to residential customers to conserve electricity.

SDG&E officials previously requested an end to the charge, which the PUC rejected in 2019. In May 2020, the commission reduced the charge but did not eliminate it. However, last week, the commission concluded the charge "does not have a

substantial impact on the conservation of electricity."

More: The San Diego Union-Tribune

MASSACHUSETTS

Bills Would Require Rooftop Solar on **Buildings**



Legislators last week filed two bills that would require solar panels be installed on the roofs of newly built homes, apartments and office buildings.

A 2018 report from the Environment America Research & Policy Center found that requiring rooftop solar panels on new homes would add more than 2,300 MW of solar capacity by 2045 and nearly double the capacity that has been installed in the state to date. A 2016 study from the National Renewable Energy Laboratory also said the state could generate up to 47% of its electricity from rooftop panels.

More: ecoRI News

MICHIGAN

AG Moves to Intervene in Palisades Nuclear Plant Transfer

Attorney General Dana Nessel last week filed a petition with the NRC to intervene in the transfer of the Palisades nuclear plant and the Big Rock Point fuel storage site. The commission is reviewing plans to transfer both site licenses to Holtec International.

In objecting to the transfer, Nessel argues that Holtec lacks adequate financial resources and has underestimated decommissioning costs. She said she is concerned the company's plan "endangers our environment and health, and potentially leaves our residents to bear the costs of proper cleanup."

The sites are owned by Entergy Corp. of Louisiana, which is attempting to unload them after shutting down the plant in 2022.

Nessel is requesting the NRC hold a hearing on the matter.

More: MLive

MINNESOTA

Bills Would Tax Electricity as Fuel, Increase EV fees

Sen. Jeff Howe (R), concerned about prospective loss of gas tax money used to pay for roads and bridges, has introduced two bills that would impact electric vehicle owners. One would tax electricity as fuel at charging stations and the other would increase fees on EVs.

Minnesota is adopting new emissions standards that would bring more EVs to the state. One proposed rule would regulate the amount of greenhouse gases and other air pollution new vehicles can emit. The other would require car manufacturers to increase their offerings of battery-powered EVs and plug-in hybrid models.

Howe has opposed the clean car rules. He said a tax at charging stations would capture revenue from out-of-state vehicles and would also require that utilities tax people who draw electricity to charge their vehicle at home.

More: St. Cloud Times

NEBRASKA

PSC to Intervene on Gas Prices After **Extreme Cold**



The Public Service Commission last week said it will intervene in the price hikes expect-

ed by customers served by privately operated natural gas companies. The February cold snap prompted the increases.

The PSC has authority over Black Hill Energy and NorthWestern Energy but not municipal utilities such as the Metropolitan Utilities District. The MUD estimated the average residential customer could see an additional \$17.21 on their February bill.

As for NorthWestern and Black Hills, the PSC is requiring an additional 30-day grace period for paying off delinquent bills and extended the moratorium on shutting off delinquent low-income households. The PSC said it will open an investigation into the price spikes and has directed the utilities to withhold them from bills until further findings have been made.

The PSC will meet with Black Hills and NorthWestern in April to learn more about the cold snap's impact on gas prices.

More: Omaha World-Herald

NEVADA

Lawmakers File Bill to Require **Consent for Nuclear Waste**

Legislators filed a bill in the U.S. House last week that would require the federal government to receive consent from state, local and tribal entities before constructing a permanent nuclear waste repository in the state.

U.S. Rep. **Dina Titus** (D) has filed the bill in each session of Congress to prevent a restart of the process to review a Department of Energy application to receive a license to build a repository at Yucca Mountain.



The legislation has never been approved, despite the failure of the federal government to accept the waste and store it as required by law. Sen. Catherine Cortez Masto (D) has also received assurances from Energy Secretary Jennifer Granholm that the Biden administration would oppose a repository at Yucca Mountain.

The federal government is reviewing plans to store some waste at interim sites in New Mexico and Texas, although those proposals have also been met by local opposition.

More: Las Vegas Review-Journal

NEW MEXICO

Community Solar Bill Heads to the House

A bill that would direct the Public Regulation Commission to evaluate existing community solar programs and develop and adopt rules for a state program by April 2022 passed the Senate last week by a vote of 27-14.

Each project would be limited to producing 5 MW each year while facilities would be limited to 100 MW per year. Each project would require an anchor tenant that would subscribe to no more than 40% of the project's capacity and would need at least 10 subscribers before construction could begin.

A study by the University of New Mexico Bureau of Business and Economic Research estimated that community solar could deliver \$517 million in economic benefits and generate \$2.9 million in tax revenue for the state.

The bill will head to the House.

More: New Mexico Political Report

OKLAHOMA

Corporation Commission OKs Deferring Some Natural Gas Costs

The Corporation Commission last week voted unanimously to allow Oklahoma Natural Gas to establish a "regulatory asset" to defer expenses related to the mid-February cold snap and waive requirements that the cost increases and expenses be passed immediately to customers. The costs that go into that regulatory asset have yet to be determined. It also established a moratorium on gas shutoffs for failure to pay until April 15.

Oklahoma Natural Gas had to make gas purchases on the daily index and spot markets during the extreme weather, driving costs for February to an estimated \$1.5 billion. For comparison, the company spent \$306 million in all of 2019 on natural gas purchases. To get the required funds to pay for the purchases, ONE Gas, Oklahoma Natural Gas' parent company, procured a \$2.5 billion unsecured term loan from Bank of America.

In its filing with the Corporation Commission, Oklahoma Natural Gas estimates that, if the regulatory asset was not approved, gas prices beginning in April could require payments of \$95 to \$100 per dekatherm. Usually, gas costs between \$2 and \$3 per dekatherm.

More: The Frontier

PENNSVYLAVIA

Talen Energy Agrees to Protect Montour Preserve



Talen Energy last week pledged to stop burning coal at its

Montour Power Plant by the end of 2025 and repower it with natural gas. The company also promised to protect the nearby Montour Preserve, a 640-acre nature preserve and recreation area that features Lake Chillisquague. The lake was built in 1972 to hold water pumped from the Susquehanna River to be used in the power plant's cooling towers.

Under its agreement with the Middle Susquehanna Riverkeeper, Talen promises to close, drain and seal off a coal ash waste pit by 2028 and continue groundwater sampling for the next 30 years to make sure contaminants are not escaping. The company will also give the association \$200,000 for clean water programs and additional water sampling.

More: StateImpact Pennsylvania

CPS Energy Exec. Cris Eugster to Leave Utility



CPS Energy Chief Operating Officer Cris Eugster recently

stepped down from his position to become the president and CEO of North American Energy Services.

Eugster, who had been with CPS since 2009,

will now lead NAES, a company that builds and operates power plants and offers energyrelated business consulting.

More: San Antonio Express-News

WYOMING

Lawmakers Vote Down Bills Increasing Taxes on Renewable Energy

The House Revenue Committee last week voted to not advance two renewable energy tax bills.

The first bill would have imposed a \$1 tax on each megawatt-hour of electricity produced from larger solar energy facilities. The tax sought to mirror a tax already exacted on wind energy facilities. The second bill would have increased the state's existing wind generation tax by 100% and eliminated an existing three-year tax exemption for new projects. As it stands, the state charges a \$1/ MWh electricity tax on wind facilities after three years of operation. The current tax generates a little over \$4 million a year.

More: Casper Star Tribune

