

RTO Insider

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

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August 31, 2021

Entergy Won't Estimate Hurricane Ida Restoration Times

By Amanda Durish Cook

Entergy said Monday that it's too early to make restoration estimates for the nearly one million customers without power after Hurricane Ida's trek through Louisiana and Mississippi.

The eight transmission lines supplying the city of New Orleans remained knocked out



Downed transmission line in New Orleans | Entergy

of service Monday. In addition to the complete Orleans Parish blackout, the Jefferson, St. Bernard and Plaquemines parishes are all without power. Portions of the St. Charles and Terrebonne parishes are also dark.

On Sunday night the storm toppled an Entergy transmission tower on the banks of the Mississippi River near the Nine Mile Point power plant in Avondale, La., 15 miles west of New Orleans. (See *Hurricane Ida Thrashes Louisiana*; *Storm Darkens New Orleans*.)

Entergy said the same transmission tower was able to withstand Hurricane Katrina's abuse exactly 16 years earlier. Hurricane Ida was smaller in size but stronger when compared to Katrina.

The utility said Ida retained hurricane status almost to the Mississippi state line. It reported nearly 900,000 power outages in Louisiana and about 45,000 outages in Mississippi.

Continued on page 22

RA Program will Require Restructuring of NWPP

By Robert Mullin

The Northwest Power Pool will have to radically restructure its governance to obtain FERC approval for its proposed resource adequacy program, group representatives said Wednesday.

"It is important to emphasize that we're looking at a new role for the power pool that involves being the organization that hosts this program, and that involves a change to the power pool structure from what we have today," Robb Davis, staff attorney with NWPP member Chelan County (Wash.) Public Utility District, said Wednesday during a Bonneville Power Administration meeting to discuss the RA program.

And the most significant change for the member-driven NWPP? The appointment of an

Continued on page 15

BUSINESS NETWORK FOR OFFSHORE WIND'S INTERNATIONAL PARTNERING FORUM



About 1,000 offshore wind developers and would-be subcontractors attended the three-day International Partnering Forum, joined by officials of East Coast states hoping that OSW will be a boon to their economies. | © RTO Insider

Offshore Wind Advocates Celebrate Federal Support Under Biden (p.3)

From Tolerance to Synergy — OSW Developers Share Outreach Efforts (p.5)

Full coverage of the Business Network for Offshore Wind's International Partnering Forum on pages 3-9

NC Legislators Join Call for Southeast Technical Conference

Lawmakers Urge FERC Not to Rush SEEM Decision

By Holden Mann

A group of North Carolina lawmakers have asked FERC to convene a technical conference to "investigate wholesale market reform in the Southeast United States," joining the chorus of critics of the proposed *Southeast Energy Exchange Market (SEEM)* (ER21-1111, et al.).

The SEEM proposal is backed by more than a dozen utilities and cooperatives in the Southeast, including Southern Co., Duke Energy and the Tennessee Valley Authority. Sponsors claim the planned expansion of bilateral trading in 11 Southeastern states will reduce trading friction by introducing automation, eliminating transmission rate pancaking, and allowing 15-minute energy

Continued on page 12

Also in this issue:



American Clean Power, Energy Storage Association Merge

(p.10)



House Democrats Reach Deal, Pass \$3.5T Budget Plan

(p.11)



Energy Costs Could Impede Electrification in Calif., NY

(p.13)



MISO: Lessons Remain From February's Winter Crisis

(p.24)

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In this week's issue

Business Network for Offshore Wind's International Partnering Forum

Offshore Wind Advocates Celebrate Federal Support Under Biden3
 From Tolerance to Empathy: OSW Developers Share Outreach Efforts5
 Overheard at IPF: NJ Wind Port Construction Just Weeks Away7
 OSW Tapping Virtual Reality to Aid Workforce Training8
 Dominion Secures 10-year Va. Port Lease for OSW Staging9

FERC/Federal

American Clean Power, Energy Storage Association Merge 10
 House Democrats Reach Deal, Pass \$3.5T Budget Plan 11

Southeast

NC Legislators Join Call for Southeast Technical Conference1

CAISO/West

RA Program will Require Restructuring of NWPP1
 Energy Costs Could Impede Electrification in Calif., NY 13
 CPUC, Judge Pressure PG&E to Clear High-risk Lines 16

ERCOT

ERCOT Technical Advisory Committee Briefs 17
 PUC Workshop Takes First Stab at Market Changes 19

ISO-NE

Nantucket Residents File Lawsuit Against BOEM to Protect North Atlantic Right Whale 21

MISO

Entergy Won't Estimate Hurricane Ida Restoration Times1
 Entergy Expedites MISO Tx Project, Cancels 4 Others 23
 MISO: Lessons Remain From February's Winter Crisis 24
 FERC Allows Singaporean Stake in Duke Indiana 26
 MISO Zeros in on Seasonal Capacity Auction, Accreditation 27

NYISO

NYISO Management Committee Briefs 28
 NYISO Q2 Energy Prices Rise on Higher Gas Prices, Load 29
 CHPE Tx Line Opponents Tout Benefits of Excelsior Connect 30

PJM

PJM Considering New Options for In-person Meetings 31
 FERC Sanctions Exelon's Plan to Split Utility, Generation Businesses 32
 PJM Examining Chemical Shortage 33
 PJM MRC Briefs 34

SPP

DC Circuit Upholds FERC Ruling on SPP Z2 Saga 37

Briefs

Company Briefs 38
 Federal Briefs 38
 State Briefs 39

NetZero Insider is now live!
 See p.41 for this week's coverage.

Business Network for Offshore Wind's International Partnering Forum

Offshore Wind Advocates Celebrate Federal Support Under Biden

Warner Likens Nascent OSW Industry to Cell Phones in 1980s

By Rich Heidorn Jr.

RICHMOND, Va. — Before he was Virginia's governor or a member of Congress, Sen. Mark Warner (D-Va.) made a fortune as one of the founders of cellular service provider Nextel.

"I feel like offshore wind is about where the wireless industry was in the mid-80s," Warner told the Business Network for Offshore Wind's *International Partnering Forum* (IPF) on Thursday. "The smart folks in wireless — the old Bell operating companies and Wall Street — said it's going to take 30 years to build out a wireless network in this country, and at the end of that 30 years about 5% of Americans are going to have cell phones. I got rich because they were wrong. I'd like all you guys to get rich."

About 1,000 wind developers and would-be subcontractors hoping to do just that attended the three-day IPF at the Greater Richmond Convention Center, joined by officials of East Coast states hoping that OSW will be a boon to their economies.

Under President Biden, who set a goal of 30 GW of OSW by 2030, prospects for the industry have brightened considerably, speakers at the conference agreed, even as they acknowledged the need to move even faster to achieve state and federal climate goals.

"I don't think it's an exaggeration to say this administration is going to be the best partners you've ever had in the federal government," said Energy Secretary Jennifer Granholm, one of several administration officials who joined the conference virtually. "We want to see [this] business booming so we can reach 100% clean electricity by 2035."

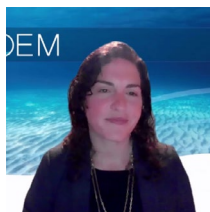
Former President Donald Trump famously fought an offshore wind development near his golf course in Scotland and alleged that wind turbines cause cancer. Renewable advocates accused Trump of trying to thwart the industry after the Interior Department's Bureau of Ocean Energy Management (BOEM) ordered additional environmental reviews of the Vineyard Wind project in 2019. (See [Renewable Backers Decry Vineyard Wind Delay](#).)

'Out of the Blocks'

But that's ancient history, said Deputy Interior Secretary Tommy Beaudreau, who was BOEM director in the Obama administration.



About 1,000 offshore wind developers and would-be subcontractors attended the three-day International Partnering Forum, joined by officials of East Coast states hoping that OSW will be a boon to their economies. | © RTO Insider LLC



Amanda Lefton, director of the Bureau of Ocean Energy Management | *The Business Network for Offshore Wind*

the industry's accomplishments in 2021. In May, BOEM gave final approval for 800-MW Vineyard Wind I, the first commercial-scale offshore wind project in U.S. federal waters. (See [BOEM Approves 800-MW Vineyard Wind I](#).)

It also has begun environmental reviews of six other OSW projects, and Lefton said more are expected to be announced later this year.

"These are exciting times. It's only been about eight months, but [BOEM Director] Amanda [Lefton] and her team have come out of the blocks very fast" in support of the industry, Beaudreau said.

Lefton also spoke via video, ticking off the bureau's efforts and

It plans lease sales for the New York Bight by the end of this year or early 2022 and for off North Carolina and California as soon as next year.

Earlier this month, BOEM published the final environmental impact statement for *South Fork Wind*, which would be the second commercial-scale OSW project approved in U.S. waters.

"There are important and exciting demands in areas like the ... Mid-Atlantic, where we know we need to explore the potential for new lease areas to help Virginia and North Carolina and other states in the area meet their renewable energy goals. We also want to make sure that we're taking a hard look at places like the Gulf of Maine, where we know there's tremendous interest by New Hampshire and Massachusetts and Maine to explore the potential ... for floating wind," she said.

"We know that we're starting with 42 MW of offshore wind currently installed in the

Business Network for Offshore Wind's International Partnering Forum

United States. ... We know that in order for us to get from where we are today to [30 GW by] 2030, there are a lot of challenges, but also with those challenges come incredible opportunities."

Economic Impacts Being Seen

The first economic impacts of the industry are beginning to be seen, Granholm said, noting Dominion Energy's plans for an OSW installation vessel being constructed in Texas using steel produced in West Virginia and Alabama. "And then [the vessel is] going to help construct at least two offshore wind projects in the Northeast," Granholm continued. "So these turbines [are] going to generate both clean energy and economic benefits that will reach America's heartland even if the wind turbines themselves are offshore on the coasts. Offshore wind is going to bring jobs to communities that have been left behind, like for example, Sunset Park in Brooklyn, where local workers there are going to be assembling wind turbines at a new marine terminal."

Lefton cited announcements of manufacturing facilities in New Jersey and at a Pennsylvania steel mill to supply monopiles, a foundation manufacturing facility in Rhode Island and a facility to manufacture wind towers and "transition" pieces in New York.

During the conference, the Port of Virginia announced it would lease 72 acres of its Portsmouth Marine Terminal to Dominion for

10 years to support development of the utility's 2.6-GW Coastal Virginia Offshore Wind (CVOW) project. Wind developer Ørsted agreed last year on an initial 1.7-acre lease at the terminal — with an option to expand to an additional 40 acres — that it will use in staging on CVOW and potentially other projects. (See related story, *Dominion Secures 10-Year Va. Port Lease for OSW Staging.*)

Ørsted and Eversource Energy, its partner in the South Fork project, also used the conference to *announce* a contract with Kiewit Offshore Services to construct an offshore substation near Corpus Christi, Texas, with support from teams in Houston and Kansas.

Lefton said BOEM is working to make environmental reviews more efficient, both by improving coordination within the federal government and changing how it conducts outreach.

"We recognize here at BOEM the critical nature of working regionally. And it's in fact why you've seen BOEM over time move away from a state-by-state approach to these regional *intergovernmental task forces.*"

The Biden administration is using White House interagency meetings to make sure the bureaucracy is unified in support of meeting the 30-GW goal.

"By bringing everyone around the table and identifying challenges and opportunities up front, we're able to ensure that we have a

strong process going forward, where we're all aligned on a path," Lefton said.

Sen. Warner praised Lefton for agreeing to tap the expertise of the Army Corps of Engineers to supplement BOEM staff on OSW reviews, calling her "very, very receptive." But he said regulators should increase their use of modeling and simulation software and artificial intelligence to make reviews faster.

'Dramatic Change' in Congress

Warner said he has seen "a pretty dramatic change" among many of his Republican colleagues on climate change in the last year, as episodes of extreme weather have become increasingly frequent.

"It may not have been represented yet in voting changes. But whether you look at the floods in Tennessee, the [tropical storm] in New England, the fires in the West or simply walking outside in [90-degree temperatures] in Richmond in August," the evidence of climate change is inescapable, Warner said. "We used to get one day or two days like this a year. This has been virtually our entire summer."

"Part of the [political] challenge is almost nomenclature," he added. "In Hampton Roads we don't call it climate change as much as we call it sea-level rise. If we can get 80% of the voters to agree on [the existence of] sea-level rise," policies will change.

Of the \$65 billion in the energy title of the bipartisan infrastructure bill approved by the Senate earlier in August, "most of that is climate-related," Warner said. He cited spending for capping abandoned oil and gas wells, spending on resilience and "seed money" for electric vehicle charging stations.

He also cited \$17 billion for port improvements. He said Virginia leaders are "working the Navy right now to both deepen and widen our port and hopefully actually be able to have the ability to bring a container ship in and a Navy carrier out at the same time."

Republicans also can find common ground with Democrats in ensuring U.S. businesses benefit from decarbonization efforts, Warner said. "The U.S. is going to buy 25,000 new school buses over the next five years. Right now, unless we grow a domestic electric ... bus industry, about 90% of those buses are going to be built in China. That makes no sense from a national security standpoint; no sense from a jobs standpoint. So we had broad-based support on that." ■



Sen. Mark Warner (D-Va.), right, speaks with Jason Cabral of Burns & McDonnell at the Business Network for Offshore Wind's International Partnering Conference. | *The Business Network for Offshore Wind*

Business Network for Offshore Wind's International Partnering Forum

From Tolerance to Empathy: OSW Developers Share Outreach Efforts

IPF Panel Asks 'What's Love Got to do with it?'

By Rich Heidorn Jr.



Rachel Pachter, chief development officer for Vineyard Wind, successfully led efforts to win the first federal approval for a commercial-scale offshore wind project in the U.S. | © RTO Insider LLC

RICHMOND, Va. — Rachel Pachter was treated like a rock star at the Business Network for Offshore Wind's International Partnering Forum here last week. In May, Pachter, chief development officer for *Vineyard Wind*, successfully led efforts to win the first federal approval for a commercial-scale offshore wind project.

For Pachter, the victory was two decades in coming: She also was

part of the Cape Wind team, whose plan for a wind farm in Nantucket Sound died in 2017 following a 16-year battle with residents concerned about the visual impact and complaints it would pose a threat to offshore navigation, marine life and birds.

The second time around, Pachter and Vineyard Wind — a joint venture between Copenhagen Infrastructure Partners and Avangrid Renewables — had an important ally. "The Vineyard Wind project ... actually went into a BOEM [Bureau of Ocean Energy Manage-

ment] auction with a community partnership with a nonprofit on Martha's Vineyard called Vineyard Power. That community partnership has been key to our success," Pachter said during a panel discussion moderated by attorney Ted Boling of Perkins Coie.

"We're very lucky that Martha's Vineyard is really interested in renewable energy. And we've been able to sort of harness that relationship," she said, adding that the company also developed "an early relationship" with the town of Barnstable, Mass., where the project's transmission cables will reach land.

"So we've built these partnerships, and we've tried to make them ... about how to move what we need forward with what other folks need to move forward. ... That was a huge part of our success: We saw huge support for our projects, as we went through multiple [National Environmental Policy Act] processes ... and [through the environmental impact statement]. And that is because we put a ton of effort into that. ... We're not going to get everybody. But we do need people to stand up for these projects, for sure."

'Getting Everyone into the Same Space'

"We know how to build offshore wind; there are very few questions left about the technology," said Kris Ohleth, executive director at the *Special Initiative on Offshore Wind*, a project of the University of Delaware's College of

Earth, Ocean and Environment. "But getting everyone into the same space, and to that same place of the shared societal benefit that offshore wind can bring, while maintaining existing ocean uses — that for me is paramount as we look at offshore wind through the next decade. Those are the real challenges."

Pachter stressed the importance of transparency and education in winning over stakeholders.

"People are always calmer when ... they have knowledge, right?" she said, comparing it to a patient dealing with a medical issue. "As soon as I explain it to you, you always feel a lot better. It's the same thing. If somebody explains to you how the grid works ... I feel like you are instantly less freaked out. ... [Developers must] refine your message [in response to] questions, and ... figure out the best way to explain it."

Patience is required, said Jennifer McCann, director of U.S. Coastal Programs at the University of Rhode Island's Graduate School of Oceanography. She is also director of extension programs for the Rhode Island Sea Grant College Program, one of 34 Sea Grant programs, which *work with* the National Oceanic and Atmospheric Administration.

"Our Northeast Sea Grant programs, in particular, have been urged by our stakeholders — by our communities and fishing entities — to play a leadership role in communicating information related to offshore wind, as well as ensuring that their knowledge and questions are [being incorporated] into the process, and also [ensuring] that their questions are being heard and responded to. Even if it might be the 200th time that it's being asked in a public forum, it's important to respond just like it's the first time."

The Northeast Sea Grant Consortium — Sea Grant programs in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut and New York — are funding applied research to ensure "that our stakeholders have the best available science and best management practices to engage in efforts related to offshore wind," McCann said.

Pachter said research being done for OSW environment impact statements and construction and operation plans can generate some goodwill, citing developers' spending on technology to track whales.



Left to right: Ted Boling, Perkins Coie; Rachel Pachter, Vineyard Wind; Scott Lundin, Equinor Wind U.S., and Lyndie Hice-Dunton, Responsible Offshore Science Alliance | © RTO Insider

Business Network for Offshore Wind's International Partnering Forum

"The North Atlantic right whale is being studied in areas that weren't studied before; it's being studied more than it was being studied before," she said. "One of the real issues with the North Atlantic right whales is knowing where they are. ... Knowing where they are would benefit our projects and benefits the species. It benefits the lobster folks who were also struggling a lot with their ability to fish when they don't know [when] the whales are there." (See related story, [Nantucket Residents File Lawsuit Against BOEM to Protect North Atlantic Right Whale.](#))

Tradeoffs in the New York Bight

Scott Lundin, head of U.S. permitting and environmental affairs at Equinor Wind US, described his company's efforts to work with the commercial shipping and fishing industries in the *Empire Wind* project south of Long Island. Input from the commercial fishing industry and other maritime interests resulted in the removal of more than 900,000 acres from consideration in the New York Bight as well as the development of proposed transit corridors for any future leases. (See [Stakeholders Differ on OSW Leases in New York Bight.](#))

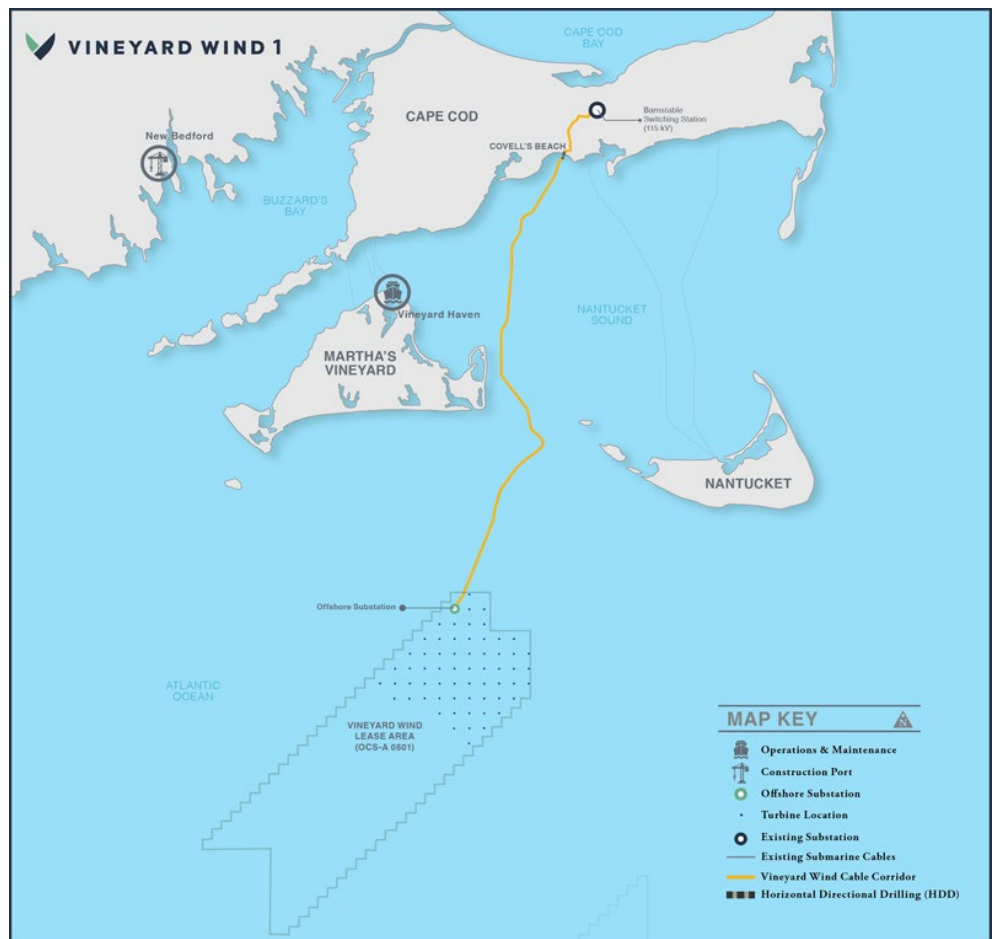
"The Port of New York and New Jersey is extremely important for the economic health of the region, and we need to make sure that Empire Wind is developed in a way that doesn't disturb [commercial shipping] at all," Lundin said.

The project's mitigation also must account for the presence of marine mammals in the New York Bight year-round.

Lundin said the company also is considering an open area at the northwestern end of the lease, where the squid industry operates. "The way that they operate is ... they follow the fish ... and it can get very chaotic from time to time, depending on how hot the fishing is."

The idea arose at a workshop with fishermen in Philadelphia a couple years ago. "We explained to them the different types of constraints and considerations that we have to think about when we're trying to establish [turbine] layouts. We put maps on the wall; we invited people to take markers and draw," Lundin said. "[We asked them], 'If you were going to design a layout with those kinds of considerations, how would you put turbines around this triangular shaped development area?' It was a very engaged workshop."

That kind of in-person interaction became impossible during the shutdown caused by the COVID-19 pandemic, he lamented.



| Vineyard Wind

The pandemic also complicated the work of Lyndie Hice-Dunton, shortly after she became executive director of the [Responsible Offshore Science Alliance](#) in February 2020. "I went to the Maine Fisheries Forum, and then we shut down."

It wasn't all negative. Having to turn to remote communications "broadens your audience," she said. "Our advisory council meetings are open to the public. We have people from the West Coast and all sorts of other places that are joining in and participating. But you miss that face-to-face interaction. You miss those conversations over a break where you can [say], 'Hey, you know, I heard your concerns.'"

'Multiuse' Plans

It was Ohleth who titled the panel discussion "What's Love Got to Do with it?" She said it was inspired by the "Virginia is for Lovers" tourism ads.

"Really, it was a little bit cheeky at first ... a cheap ploy to get people to come in the room," she joked.

But she said she also wanted the panel to discuss "how we're using empathy and a collaborative approach and an open sense of curiosity [in] the process. I know in my experiences the best outcomes have really come from when I was leading with that spirit. ... It just seems like those types of principles — ones that are more open and spacious — are ones that are going to bring us to have more success and to reach our 30-GW target by the end of the decade."

McCann noted that some European governments are requiring that multiple uses be integrated into the siting and operation of offshore wind — a higher bar than merely requiring that developers and other ocean users tolerate each other. "Multiuse is to look at the synergistic relationships between resource activities, whether it be offshore wind and aquaculture, or offshore wind and research or tourism," she explained. "I don't know if we're ready yet in the United States for multiuse, but I think our job as a university ... is to consider multiple views and see if we can start a conversation." ■

Business Network for Offshore Wind's International Partnering Forum

Overheard at IPF: NJ Wind Port Construction Just Weeks Away

Construction of the New Jersey Wind Port on the Delaware River in Lower Alloways Creek is about to get underway, according to Tim Sullivan, CEO of the New Jersey Economic Development Authority.

Gov. Phil Murphy “signed a budget this year with \$200 million cash for that project, so we will start construction on it within a matter of weeks,” Sullivan said Wednesday during the Business Network for Offshore Wind’s International Partnering Forum (IPF).

The new wind port, he said, represents an opportunity for the state to host multiple manufacturers and developers and “support the marshalling for projects outside New Jersey.”

Sullivan spoke during an IPF session moderated by RTO Insider Editor Rich Heidorn Jr. on how much offshore wind power might be needed to achieve state and federal clean energy goals.

Here are some highlights from the session.

More Wind

In Massachusetts, where a net-zero goal for 2050 is part of state law, with a 50% reduction of emissions required by 2030, 15 GW of offshore wind will be needed by 2050, said Judy Chang, undersecretary of energy for the Executive Office of Energy and Environmental Affairs.

To reach 15 GW, Massachusetts is focusing on developing port infrastructure, growing the supply chain and developing workforce opportunities, she said. The state is in an open bidding process now that will double the state’s procurements for a total of 3.2 GW.



From left, Rich Heidorn Jr., RTO Insider; NYSERDA CEO Doreen Harris and Virginia Economic Development Authority CEO Stephen Moret. | *The Business Network for Offshore Wind*

Looking at all New England states, Chang said, the region will need about 30 GW by 2050.

New York has a much bigger appetite than its current 9-GW goal for 2035, according to Doreen Harris, president and CEO of the New York State Energy Research and Development Authority (NYSERDA).

“When I think about [9 GW] of offshore wind for New York, I see that as a floor, not a ceiling,” she said.

The state is about halfway to reaching its goal with five projects under development. A comprehensive study of offshore wind potential in the Great Lakes is also underway by NYSERDA. The study will help the state determine whether it should move forward with offshore wind procurements in Lake Ontario and Lake Erie. (See *Smaller Turbines, Custom Vessels Define Future of Great Lakes OSW.*)

Procurements

A growing interest in renewable energy and environmentally friendly operations by companies could bring a change in how offshore wind energy is purchased.

While the U.S. offshore wind industry is growing on a foundation of state procurements, private power purchase agreements, like those that took off in the solar space, may come as well, according to Stephen Moret, president and CEO of the Virginia Economic Development Partnership.

“It’s only natural that we would see [PPAs] develop in offshore wind, particularly for diversification, but also because there’s a limited amount of renewables, even though it’s growing very quickly,” he said.

In some places, he added, there is more demand than supply for renewable power. That imbalance is going to drive companies to look for direct engagement with offshore wind, he said.

Chang agreed, saying that businesses, private entities or municipalities will begin to act on the availability of choice in clean energy and contract on their own with offshore wind.

All renewables, she added, would benefit from a “significant transformation” of the wholesale electricity market.

“The idea is to have a centralized, wholesale-level clean attributes market so that all clean resources can participate, and the states and



Overhead rendering of a planned 30-acre OSW marshalling port and 130 acres of adjacent manufacturing space in Lower Alloways Creek, N.J. | *New Jersey Economic Development Authority*

the utilities as well as independent entities, businesses and municipalities can be the buyers of those resources,” she said.

Massachusetts representatives, she added, are working with other states, ISO-NE and FERC to envision a clean capacity market and roll it out “in the not-too-distant-future.”

Transmission

The desire to move quickly to invest in and build out offshore wind in the U.S. creates a conundrum, Harris said.

Transmission investments need to move in parallel with generation investments, according to Harris.

“We cannot and will not wait years and years for an optimized transmission grid to be ready for those projects,” she said. “The projects should be built in a way that can accommodate a network of the future.”

That requires a “huge investment,” she added, noting that funding from the federal infrastructure bill could facilitate the investment scale needed for states to achieve their offshore wind goals.

Chang said states are at the beginning of a journey to understanding how to cost-effectively upgrade onshore transmission to interconnect offshore wind projects.

“We are still in a learning process,” she said. “I think we need to be better at coordinating the procurement process and our interconnection process with ISO-NE.” ■

— Jennifer Delony

Business Network for Offshore Wind's International Partnering Forum

OSW Tapping Virtual Reality to Aid Workforce Training

By Rich Heidom Jr.

RICHMOND, Va. — Europe has about 75,000 technicians trained to work on onshore and offshore wind turbines. The U.S. and Canada have almost as many wind turbines as Europe but only a fraction of the trained technicians at about 13,000, according to Dan Ortega, North American representative for the [Global Wind Organisation](#), a Copenhagen-based nonprofit created by wind turbine manufacturers and operators to standardize training requirements.

Ortega — who described himself as a “match-maker with those who want the training and those who can provide the training” — said his task is complicated by the cost of building full-scale replicas in which students can perform hands-on training.

Those requirements turned him into an “ambulance chaser,” he joked during a discussion at the Business Network for Offshore Wind's International Partnering Forum on Wednesday. “Every time somebody dropped a wind turbine component, we were getting on the phone saying, ‘Hey, how broken is it? Can we get it for training?’”

Cynthia Brown, director of turbine maker Siemens Gamesa Renewable Energy's Wind Academy in Orlando, Fla., understands the challenge. The company has a 2.3-MW and a 3-MW training nacelle — far smaller than the [15-MW turbines](#) it is now manufacturing for offshore use.

And “every two to three years, there's a new design coming out, right? So having a training on the actual platform [becomes] more difficult,” she said.



The Bureau of Labor Statistics projects employment of wind turbine service technicians will grow 61% from 2019 to 2029. | U.S. Department of Labor



Vinci VR CEO Eagle Wu demonstrates virtual reality training software. | © RTO Insider LLC

Enter virtual reality.

Last October, Siemens Gamesa and virtual reality company Vinci VR [won](#) a grant from the Massachusetts Clean Energy Center to develop VR training simulations for offshore wind.

At the IPF conference, [Vinci VR](#) demonstrated its software for turbine technicians. It allows students to simulate tightening loose bolts and measuring the air gap in a set of brakes inside a virtual nacelle. It also demonstrated a similar program for port workers, using a virtual crane to lift and move a turbine blade.

Vinci VR CEO Eagle Wu said the training technique is second nature for people like himself who grew up playing video games. “What we found is that a lot of younger trainees ... after a couple of minutes of playing around, are actually able to pick it up very quickly.”

The training requires a \$300 VR headset plus the software, which Vinci plans to sell for between \$10,000 and \$30,000, depending on the size of the training provider.

Vinci VR is running beta testing of the software with Siemens Gamesa and the International Brotherhood of Electrical Workers. It plans to expand its software to tasks on crew transfer vessels.

“We basically want to put a wind turbine into

every classroom in the U.S.,” Wu said.

Ortega said he's optimistic that digital solutions will help meet the increasing need for turbine workers. The Bureau of Labor Statistics [projects](#) employment of wind turbine service technicians will grow 61% from 2019 to 2029.

Aside from sea survival, the training of technicians for onshore turbines is the same as that for offshore, Ortega said.

Turbine workers' “skills have to be demonstrated. You cannot, through e-learning, validate somebody's skills on performing wind turbine rescue or climbing a ladder or, you know, inspecting their harness or something like that. There has to be some physical way of doing this, whether it be videos, virtual reality or [augmented reality],” he said.

“For a lot of training providers, getting access to the equipment that they need to do this training can be somewhat cost-prohibitive, especially if you're talking community colleges,” he continued. “If you can create a high-fidelity training environment where you can practice the skills, you increase access and training in areas where you may not have had the opportunity before. Additionally, you have the potential of lowering the safety risk, lowering the capital expenses, having a faster setup of a new training center.” ■

Business Network for Offshore Wind's International Partnering Forum

Dominion Secures 10-year Va. Port Lease for OSW Staging

Ørsted, Eversource Award Contract for 1st US-made Offshore Wind Substation

By Jennifer Delony

The Port of Virginia has agreed to lease 72 acres of its Portsmouth Marine Terminal to Dominion Energy for 10 years to support development of the 2.6-GW Coastal Virginia Offshore Wind (CVOW) project.

“Dominion will use the deep water, multiuse marine cargo terminal as a staging and pre-assembly area for the foundations and turbines to be constructed about 30 miles off the coast of Virginia Beach,” Gov. Ralph Northam said Wednesday in his welcome address at the Business Network for Offshore Wind’s International Partnering Forum (IPF).

Northam counted the agreement as the latest in a series of “concrete actions” the state is taking to grow its offshore wind industry.

A 2015 report from the Virginia Department of Mines, Minerals and Energy identified the state-owned port as capable of accommodating multiple OSW activities. Negotiations on Dominion’s lease accelerated in July, when the Virginia Port Authority Board of Commissioners directed the authority to finalize the agreement, according to the governor’s office.

The lease, which is valued at \$4.4 million annually, has an option for two five-year renewals, the governor’s office said. The agreement also includes significant upgrades to ensure the terminal can handle the weight of turbine components.

Ørsted reached an agreement last year with the Port of Virginia for an initial 1.7-acre lease at the Portsmouth Marine Terminal through 2026, with an option to expand to an additional 40 acres.

The facilities comprising the Port of Virginia, which include four other marine terminals, generate \$92 billion in total economic impact throughout Virginia on an annual basis, according to Northam. The state, he said, is “doing more with additional projects planned or underway to increase water and rail access, further enhancing the port’s competitiveness and value.”

Given the state’s proximity to the major East Coast OSW development areas, which are less than a day’s sail away, he said, Virginia is “the perfect hub for this booming industry.”

Since the signing of an offshore wind memorandum of understanding last October among



Dominion Energy will use the Portsmouth Marine Terminal in Virginia, seen here Aug. 24 during a port tour organized by the utility for the International Partnering Forum, as a staging and pre-assembly area for foundations and turbines. | © RTO Insider LLC

Virginia, North Carolina and Maryland, the states have heard from stakeholders on how the partnership can help expand OSW.

“We will look at ways to enhance our state permitting process and create cross-state workforce development initiatives,” Northam said, adding that the states also will collaborate on ways that companies can work with state permitting agencies.

The Bureau of Ocean Energy Management in July announced its intention to review the CVOW project and prepare an environmental impact statement, which isn’t due until 2023 under current permitting time frames. (See [BOEM Beginning Environmental Review on Va. OSW Project](#).)

Industry First

Development of the 132-MW South Fork offshore wind farm has delivered a first for the U.S. and the industry with a deal for construction of the project’s substation in Texas.

Together with project partner Eversource, Ørsted awarded the offshore substation contract to Kiewit Offshore Services.

“More than 350 workers across three states will support this project with engineering,

procurement and project management scopes for approximately 18 months,” CEO of Ørsted Offshore North America David Hardy said during the IPF opening plenary session.

The contract represents a crossover of skills from the oil and gas industry to offshore wind, Liz Burdock, CEO of the Business Network for Offshore Wind, said in a statement.

“The complexity and size of this major component essential to an offshore wind project will also require vendors from all over the country to supply products and services,” she said.

Kiewit will build the 1,500-ton, 60-foot-tall substation at its facility near Corpus Christi, Texas, with support from teams in Houston and Kansas, according to a statement from the companies.

“After it’s built, it will be sailed up to New York where union workers will help with the final installation and commissioning, as well as perform many other scopes for offshore and onshore parameters of the project,” Hardy said.

Kiewit expects to begin construction on the substation in November. ■

FERC/Federal News



American Clean Power, Energy Storage Association Merge

By Amanda Durish Cook

The American Clean Power Association will absorb fellow trade group Energy Storage Association at the beginning of next year, the groups announced Aug. 23.

ESA member companies will join the ACP under the American Clean Power brand, effective Jan. 1, 2022. ESA has more than 210 members, while ACP boasts more than 800.

ACP said it's creating a storage council so that energy storage becomes a top priority within the association. It said it will spend the rest of the year working with ESA to encourage Congress to enact a storage investment tax credit.

ACP spokesperson Jason Ryan said the trade groups are developing a "thoughtful process" that maps preparations to the merger date. In an emailed statement he said ACP will integrate the ESA team into its existing structure "and provide new opportunities for their growth."

The boards of directors of both groups and ESA members have approved the merger. The move requires no other approvals, and ACP is not disclosing the dollar amount involved in the acquisition.

"We are thrilled the member companies at the U.S. Energy Storage Association have endorsed the planned merger with ACP. This will enhance our ability to become a more forceful advocate for wind, solar, storage and transmission," ACP CEO Heather Zichal said in a press release.

"The merger will help deliver more value for



Invenergy's Grand Ridge Battery Storage Facility | BYD

our members and build a best-in-class trade association that is nimble, effective and able to represent all clean energy industries with a unified voice on some of our top priorities, including the investment tax credit for storage projects," Zichal said.

ESA Interim CEO Jason Burwen said the merger marks "a powerful new chapter for energy storage."

"The U.S. energy storage industry has passed an inflection point in its growth. Merging with ACP will ensure our members have the resources and support they need to attain ESA's vision of 100 GW of new energy storage by 2030," Burwen said. "Our clean energy future depends on deploying both energy storage and renewables at scale. We rise faster together."

Former CEO Kelly Speakes-Backman left ESA in January to work in the Department of Energy as principal deputy assistant secretary for energy efficiency and renewable energy.

Earlier this month, the ACP released its first Clean Power Annual report, which said wind, utility solar and battery storage capacity in the U.S. totaled more than 170 GW and served about 10.7% of the nation's electricity needs.

A record 26 GW worth of clean-energy projects came online in 2020, according to the report, and another 90 GW worth of projects is under development. ACP estimated that wind, solar and battery energy storage made up 78% of new generation nationally in 2020 and represented about \$39 billion in total investment. ■

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FERC/Federal News



House Democrats Reach Deal, Pass \$3.5T Budget Plan

Pelosi Pledges to Pass Bipartisan Infrastructure Bill by Sept. 27

By K Kaufmann

Following a night and morning of intensive negotiations between Speaker Nancy Pelosi (D-Calif.) and a group of moderate Democratic lawmakers, the U.S. House of Representatives on Aug. 24 passed a \$3.5 trillion budget plan, with billions of dollars for moving the nation toward a carbon-free grid by 2035.

The vote was largely a procedural affair, as lawmakers voted on a rules resolution that included a provision that simultaneously passed the budget. It was split strictly along partisan lines, with all 220 Democrats providing a narrow margin over all 212 Republicans.

The vote also opened the way for debate on the \$1.2 trillion bipartisan infrastructure bill, which was approved by the Senate along with the budget reconciliation bill Aug. 10-11. The reconciliation process means that Senate Democrats were able to circumvent a filibuster and pass the budget by a simple majority. (See [Senate Democrats OK \\$3.5 Spending Package After Bipartisan Accord on Infrastructure.](#))

The impasse between Pelosi and the moderates centered on whether a vote on the infrastructure bill would be conditioned on prior passage of the budget. In a [statement](#), Pelosi committed to passing the infrastructure package by Sept. 27, which was apparently enough for the moderates to join their colleagues in support of the budget.

Referring to the reconciliation process, Pelosi said, "We must keep the 51-vote privilege by passing the budget, and work with House

and Senate Democrats to reach agreement in order for the House to vote on a Build Back Better Act that will pass the Senate."

Aggressive Investments

Details on specific dollar amounts and programs in the budget remain to be hammered out in the House and Senate. However, the [budget framework](#) that Senate Majority Leader Chuck Schumer (D-N.Y.) released Aug. 9 included \$198 billion for the Senate Energy and Natural Resources Committee to allocate to a range of initiatives, such as a Clean Energy Payment Program, which would pay utilities to hit specific decarbonization targets. The funding would also be used for climate research, federal procurement of energy-efficient materials and building domestic clean energy supply chains. (See [Pitching Proposals for the Budget Reconciliation Bill.](#))

The Environment and Public Works Committee would have \$67 billion to allocate to a clean energy technology accelerator focused on low-income solar and other climate-friendly technologies, as well as federal investments in energy-efficient buildings. Environmental justice investments would also be made in clean water affordability and access, healthy ports and climate equity.

While lauding these energy provisions, Pelosi and other Democrats focused more on the education, health care and other "social infrastructure" spending in the bill, such as its provisions to provide two years of free preschool education for all children in the U.S.

Rep. Frank Pallone (D-N.J.), chair of the



Speaking before the vote, House Speaker Nancy Pelosi (D-Calif.) said the budget is among "the biggest and perhaps most controversial initiatives" Congress has undertaken. | C-SPAN

House Energy and Commerce Committee, said the bill would help to make health care and prescription drugs more affordable. But he also promoted the budget's clean energy provisions as a job creator. Passage of the budget would, he said, "allow us to create millions of new, homegrown jobs and combat the climate crisis by aggressively investing in clean energy and clean technology. And the moment is here to invest in a more advanced and resilient economy and toward a 100% clean economy."

'Better-than-even Odds'

In advance of last week's vote, industry analyst ClearView Energy Partners predicted "better-than-even odds for passage of both the [bipartisan infrastructure bill] and the party-line [budget] package, but we expect moderate Democrats in both chambers to win some of their challenges against party leaders and the largely progressive agenda the reconciliation package would pursue."

Specifically, ClearView sees the possibility of a smaller reconciliation package that keeps most of President Biden's requested clean energy incentives but might have to compromise on his efforts to cut fossil fuel subsidies.

Gregory Wetstone, president and CEO of the American Council on Renewable Energy, was more bullish.

"Today's House vote to pass the [fiscal year 2022] budget resolution sets the stage for Congress to finally take decisive action on the climate crisis," Wetstone said in a statement. "A stable, long-term, full-value clean energy tax platform is foundational for decarbonizing the grid and will create millions of good-paying American jobs. Congress must act with clarity and conviction now to seize this once-in-a-generation opportunity to enact a comprehensive climate policy able to meet the challenge before us." ■

| C-SPAN

Southeast

NC Legislators Join Call for Southeast Technical Conference

Lawmakers Urge FERC Not to Rush SEEM Decision

Continued from page 1

transactions. Proponents also claim the market will promote the integration of renewable resources such as wind and solar.

In a letter dated March 15 but filed on Wednesday, the 17 members of the state House of Representatives — all Democrats — said the SEEM sponsors “have provided no evidence that the proposed arrangement will lower energy prices, increase the adoption of renewable energy, or improve system reliability.”

“In fact, the proposal limits independent renewable energy producer participation, decreases already limited transparency in the utilities’ operation, and may increase the utilities’ ability to harm other market participants,” the letter said.

Lawmakers asked that, “regardless of [their] decision” on SEEM, commissioners call a joint federal-state technical conference aimed at:

- determining the SEEM proposal’s impact on customer bills and renewable energy;
- determining whether all market participants will be able to “compete on a level playing field” under SEEM;
- assessing the potential benefits of “a reformed wholesale market that goes beyond

the SEEM proposal” (examples include an independently operated RTO or energy imbalance market);

- comparing the costs and benefits of the SEEM proposal to an RTO or EIM;
- determining whether implementing SEEM would delay “broader wholesale reforms”; and
- identifying how “the benefits of broader wholesale reforms can be realized in the region while preserving or enhancing state jurisdiction and prerogatives.”

SEEM Criticism Continues

SEEM members have been pushing FERC for a speedy decision on their proposal. In their response to the commission’s second deficiency letter earlier this month, the utilities requested a shortened comment period and approval of the SEEM plan by next month. (See [SEEM Members Push for FERC’s Decision on Market Proposal](#).)

The proposal’s supporters took FERC’s “limited” second deficiency letter — comprising only three questions, compared with 12 in the commission’s first such response — as a sign that FERC is moving closer to approval. But critics of SEEM have continued to push back against the planned market expansion,



Logo of the proposed Southeast Energy Exchange Market | SEEM

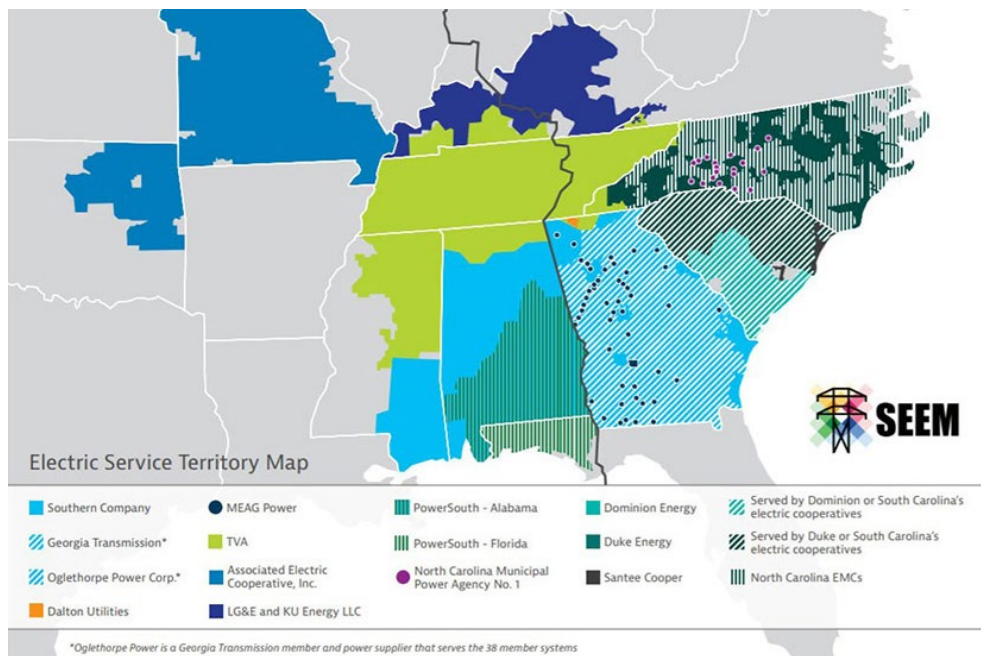
uniting around the request for a conference that SEEM members have urged the commission to dismiss. (See [Southeast Utilities Urge FERC Action on SEEM](#).)

One alliance of environmental groups calling themselves “Public Interest Organizations” (PIOs) has been particularly active, with multiple filings castigating the SEEM proposal for lacking transparency and creating opportunities for monopolistic behavior. (See [SEEM Critics Repeat Call for Technical Conference](#).)

A number of other groups also chimed in last week. The trade organizations Advanced Energy Economy and Renewable Energy Buyers Alliance, for example, submitted a joint filing echoing the PIOs’ concerns about transparency and supporting the idea of a technical conference.

D.C.-based think tank R Street Institute expressed concern about the proposal’s lack of an “independent market monitor that is not answerable to the SEEM board” and asked that FERC require that the proposal be modified to account for such a position. Failing such changes, R Street contends that SEEM “may actually stifle” the goal of “expanding market opportunities to the Southeast.” A technical conference could help the commission explore alternative options for the region, R Street contends.

Another trade group, the Solar Energy Industries Association, complained that its members — along with other stakeholders — had no input into the SEEM proposal, and that proponents’ responses to FERC’s deficiency letters had shown that “it is no longer the case that the SEEM agreement *may not* be just and reasonable; the SEEM agreement *is not* just and reasonable.” SEIA asked commissioners to reject the SEEM proposal and call a technical conference to solicit “consideration of all relevant facts and circumstances, including by stakeholders most impacted.” ■



Map of planned SEEM territory | SEEM

CAISO/West News

Energy Costs Could Impede Electrification in Calif., NY

UC Berkeley Study Finds Electricity 'Mispriced' vs. Natural Gas, Gasoline

By Hudson Sangree

A University of California, Berkeley study found that high electricity prices in California, New York and most of New England could undermine efforts to electrify transportation and homes, while the “social marginal costs” of pollution from natural gas and gasoline remain unaccounted for, making the fuels seem a less expensive option to consumers.

The *study* was authored by UC Berkeley professor Severin Borenstein, a member of the CAISO Board of Governors, and University of California, Davis professor James Bushnell, a member of the ISO's Market Surveillance Committee.

A “challenge to the process of electrification that is obvious to economists, but surprisingly less prominent in policy discussions, is overcoming relative retail price disparities between the three fuels,” Borenstein and Bushnell wrote. “For many U.S. residents, electricity can be the most expensive of the three energy sources.”

In a webinar to discuss their paper Aug. 24, Borenstein said the costs of fuel sources should include pollution and other societal impacts. Electricity is too expensive under such a formula in California, New York City and much of New England, and underpriced in the upper Midwest and other regions, the research found.



Gas can be a cheaper option than electricity without pollution costs added, researchers said. | Shutterstock

In California, where renewable energy sources account for about one-third of in-state generation and more than 30% of imports, electricity supplied by large investor-owned utilities “are about three times higher than social marginal cost,” Borenstein said. Electricity

is also priced well above social marginal costs (SMC) in parts of New York, Connecticut and other New England states, he said.

In contrast, states such as North Dakota, South Dakota and Minnesota have electricity costs that are low compared with the pollutants released by coal and other fossil fuel generation, the research determined.

“We find that significant pricing distortions arise in electricity, where prices can be up to four times SMC in some states, and 25% or more below SMC in other states,” Borenstein and Bushnell wrote.

Those areas are outliers, however. Much of the nation has electricity and natural gas prices that generally reflect their true costs.

“A large part of the country actually is plus or minus a couple of cents from social marginal cost prices,” Borenstein said.

Getting Prices Right

The findings are important because energy prices influence consumer choices, Borenstein said.

Mispricing fossil fuels can impede decarbonization, he suggested.



Professors Severin Borenstein and James Bushnell speak with Energy Institute Director Andy Campbell. | UC Berkeley

CAISO/West News



“When you get that price right [using MSC], when consumers go to make consumption decisions, they’re seeing a price for a decision that actually reflects the cost their decision would impose on society,” he said.

“If we get all of the prices to reflect social marginal costs, [when consumers are] choosing between energy sources — say, between natural gas and electricity — for heating their house, they will be making that decision based on the energy costs that actually reflect the full cost of each energy source,” Borenstein said.

Another problem is that electrification efforts may enlarge the price gap between clean electricity and fossil fuels in states such as California where electricity is mispriced.

“While low-carbon electricity production sources have rapidly declined in costs, most analysts predict that ‘deep’ decarbonization will require costly investments in battery storage, transmission, and more exotic and expensive technology solutions, such as hy-

drogen for long-duration storage,” the paper said.

For economists, Bushnell and Borenstein wrote, “the logical solution to such a pricing gap would be carbon pricing either through a tax, cap-and-trade, or some other mechanism. This solution is complicated by the fact that there are existing taxes and other pricing distortions that have already caused fuel prices to deviate from marginal costs.”

In California, natural gas accounts for 86% of space and water heating, though efforts are underway to encourage residents to switch to electric heat pump space and water heaters. (See *Calif. Energy Commission Adopts 2022 Building Code*.)

“For both space heating and hot water heating, changing the volumetric prices of electricity and natural gas from their current levels to SMC would greatly alter the economics of the energy choice for these primary residential uses,” the authors wrote. “In both cases, current energy prices tilt strongly in

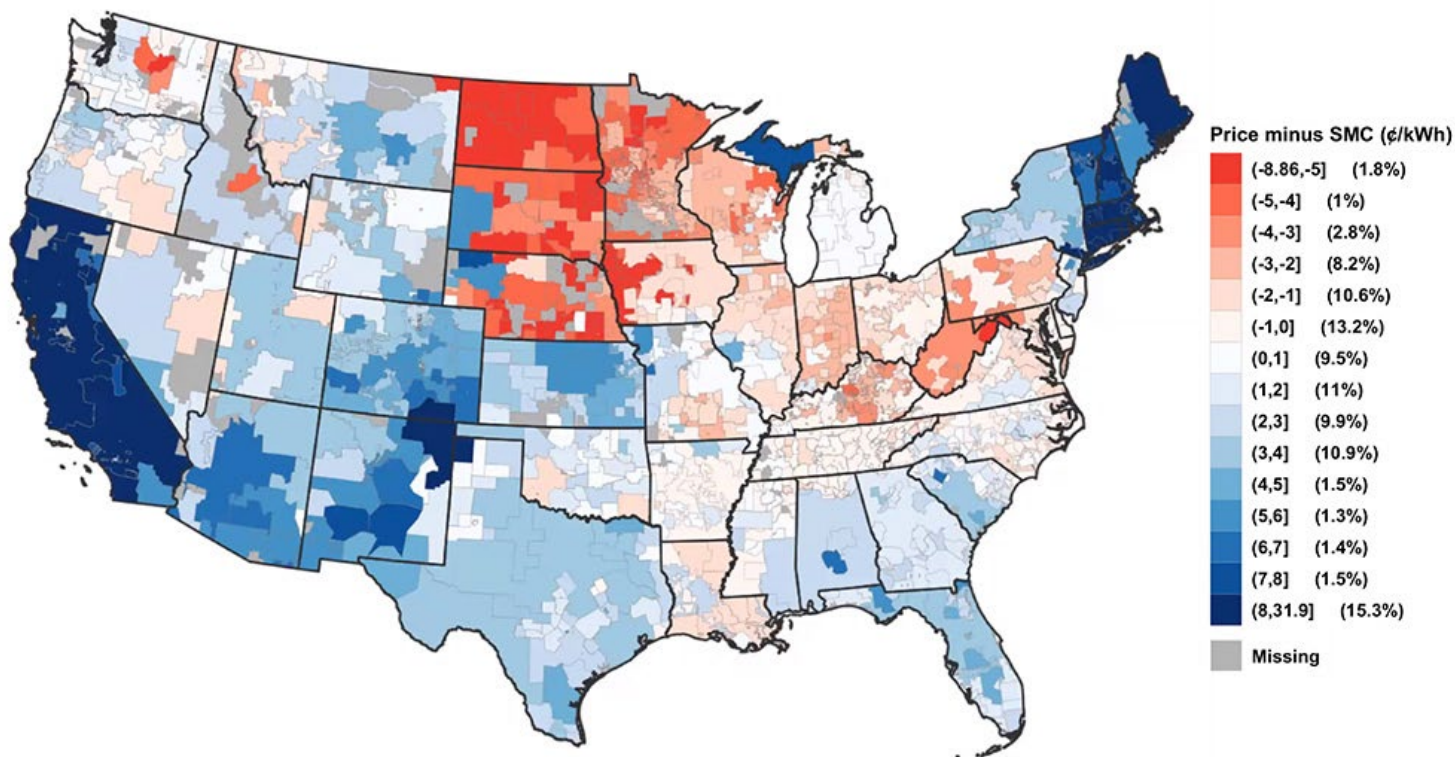
favor of natural gas, but pricing at SMC would effectively eliminate that difference.”

For cars, “gasoline ... is largely underpriced relative to SMC, a gap that is most extreme in dense urban areas most vulnerable to local air pollution,” the authors said.

California’s governor issued an executive order last year requiring all new passenger cars and trucks sold in the state to be electric vehicles or other zero-emission vehicles by 2035. The state is far from meeting that goal, however, and must exponentially increase EV sales.

That could change with accurate energy prices, Borenstein and Bushnell determined.

“Lower fuel costs are supposed to be one of the big advantages of electric vehicles, but at current rates in California — where we find gasoline is priced below SMC in most locations and electricity is priced well above SMC — we find the fuel cost advantage of EVs would increase by about \$500 per year on average if each fuel were priced at SMC.” ■



Retail electricity prices are highest in California and New England without "social marginal costs" factored in. | UC Berkeley

CAISO/West News

RA Program will Require Restructuring of NWPP

Continued from page 1

independent board.

“We believe that will help with approval, and it may even be necessary that the board of directors will take on the role of hiring staff and hiring outside current contractors, like the program operator or independent evaluator,” Robb said.

NWPP has made steady progress on developing the RA program since *kicking off* the effort in early 2020, attracting interest from beyond the eight Western states and two Canadian provinces currently covered by the organization. That has prompted the group to rebrand, from the “NWPP RA Program” to the “Western Resource Adequacy Program provided by NWPP.”

“We’re discovering that there is a lot of interest in this program all the way to the Desert Southwest, and one of the things that was recommended is that we change it so that it’s more encompassing of the geographical area that we are representing — so we’ve done that,” NWPP COO Gregg Carrington said Wednesday.

NWPP began operating interim “light-touch” RA programs beginning last summer, which

are designed to provide a “matching service” for entities either long or short in the electricity market. Participants have dipped into this summer’s program four times so far, Carrington noted, with most trades occurring during late June’s record-smashing heat wave in the Pacific Northwest.

In October, NWPP will launch a nonbinding, forward-looking program, a more relaxed phase of the market that will last through December 2022. The “forward showing” requires participants to demonstrate compliance with defined reliability metrics seven months ahead of RA seasons, but during the initial nonbinding period, participants will not be subject to penalties for coming up short of expected resources.

The penalty phase kicks in with the implementation of the binding program in January 2023, triggering the need for FERC to approve both the mechanics of the program and its governance.

Getting that approval will require the transformation of NWPP’s “semi-independent” board to one that is fully independent. The board will have the authority to approve budgets, provide organizational direction and set priorities.

More Committees

In a further attempt to ensure FERC’s approval before the binding program is rolled out, NWPP will establish a set of new stakeholder committees to beef up oversight of the RA program and the organization itself.

A proposed Nominating Committee — consisting of representatives from utilities, independent power producers, marketers, public interest groups and the states — will select board members. An RA Participant Committee will have “substantive authority” to amend the program and modify its rules, with changes subject to appeal to the board. A multisector Program Review Committee will be responsible for originating program changes.

And while its role is still being defined, a Committee of States will provide regulators a seat at the table. NWPP is working with the Western Interstate Energy Board and the Western Interconnection Regulatory Advisory Body to engage state regulators on the functions of that committee. “State buy-in and engagement for the regional RA program is critical to its success,” NWPP said.

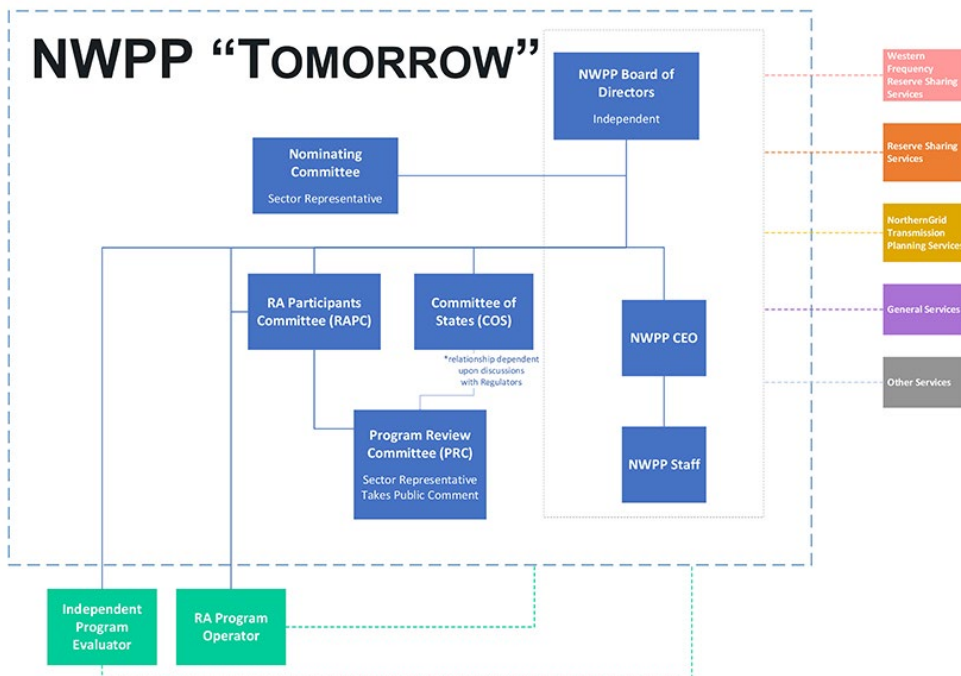
“We saw in the Southwest Power Pool [Western Energy Imbalance Service] order this past year that FERC is open to [the committee design] approach,” Robb said. “We think we have an ability to justify the type of program we’re setting up, and we want to make sure that ... what we’ve set up as an RA program stays in place, and we can get comfortable with operating in the in the framework that we’ve designed.”

Robb added that while participants will maintain “significant influence” over the program, the independent board “will always have ultimate authority.”

In addition to establishing clear board and committee oversight for the program, NWPP will also appoint an “independent evaluator” to analyze operations, settlements and program design — and to also recommend design changes. The body will not take on the role of a market monitor, nor will it wield any decisional authority.

NWPP earlier this month said it will contract with SPP to operate the RA program. The RTO had already been previously retained to design the program. (See *SPP to Operate NWPP’s Resource Adequacy Program*.)

NWPP hopes to file the governance changes with FERC next March. ■



Getting approval of NWPP’s RA program will require a significant restructuring of the organization’s governance structure, including appointment of an independent board and creation of new stakeholder committees. | NWPP

CAISO/West News

CPUC, Judge Pressure PG&E to Clear High-risk Lines

Utility's Possible Role in Starting Dixie Fire has Increased Concerns

By Hudson Sangree

The California Public Utilities Commission and a federal judge are pushing aggressively for Pacific Gas and Electric to clear trees from high-risk power lines during an already disastrous fire season.

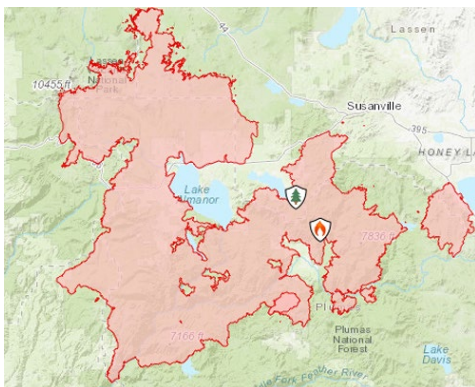
A tree falling on a PG&E distribution line is suspected of starting the Dixie Fire, now the second largest wildfire in state history, in the northern Sierra Nevada foothills on July 13. By Thursday, the fire had burned more than 747,000 acres and destroyed nearly 1,300 structures; it was 45% contained. (See [Dixie Fire Explodes, Burns Historic Town.](#))

CPUC President Marybel Batjer wrote to PG&E CEO Patricia Poppe on Aug. 18 telling her the Dixie Fire had exacerbated concerns about the utility's vegetation management and inspection practices.

"CPUC staff have recently initiated an investigation on the responsibility of PG&E infrastructure causing the Dixie Fire," in coordination with the California Department of Forestry and Fire Protection and law enforcement agencies, Batjer wrote.

Batjer also said she had directed CPUC staff to "conduct a fact-finding review regarding a pattern of self-reported missed inspections and other self-reported safety incidents to determine whether a recommendation to advance [PG&E] further within the [CPUC's] enhanced oversight and enforcement process is warranted."

As part of PG&E's bankruptcy reorganization last year, the utility agreed to subject itself



The Dixie Fire had burned more than 747,000 acres by Aug. 26. | © RTO Insider LLC



A firefighter hoses down "hot spots" on the Dixie Fire. | U.S. Forest Service

to a six-step process that could eventually end with its license being revoked and a state takeover. The CPUC put PG&E into the first step of that process on April 15 for its failure to prioritize tree cutting on its highest-risk power lines. (See [CPUC Applies Stricter Oversight to PG&E.](#))

Step one of the process requires enhanced reporting by PG&E. Step two would involve greater CPUC oversight of PG&E's management and operations. The second step can be triggered by an "electric incident ... that results in the destruction of 1,000 or more dwellings or commercial structures and appears to have resulted from PG&E's failure to follow commission rules or orders or prudent management practices."

"We've never had a process like this for any other utility, and I don't know of any other PUC in the country that has a process like this," Commissioner Clifford Rechtschaffen said in April. "It's a process that's warranted given PG&E's conduct."

The CPUC decided earlier this month to appoint an independent safety monitor for five years to keep watch over PG&E's risk-reduction efforts, including its wildfire mitigation plans. (See [CPUC Orders Independent Safety Monitor for PG&E.](#)) The utility owns 106,681 circuit miles of distribution lines and 18,466 circuit miles of transmission lines. More than half of its 70,000-square-mile service territo-

ry is in high fire risk areas.

"The [independent safety monitor] shall serve as the commission's consultant, dispensing reports, materials, advice, opinions and recommendations to the commission" under CPUC direction, the order said.

The CPUC has been after PG&E to improve its corporate safety culture since 2015, when it opened an investigation into the utility's safety practices following the 2010 San Bruno gas pipeline explosion, which killed eight people and leveled part of a suburban San Francisco neighborhood.

Jurors convicted PG&E of six felonies related to the disaster in 2016. The company remains on probation, supervised by federal Judge William Alsup, who has struggled to change the utility's safety practices, especially its vegetation management.

He expressed his anger at PG&E after a leaning gray pine tree fell on one of the utility's power lines in Shasta County, igniting the fatal Zogg Fire in September 2020. (See [PG&E Equipment Started Zogg Fire, Investigation Finds.](#))

"I think it was reckless, maybe criminally reckless, for PG&E to have left ... that gray pine looming," Alsup said at a hearing in February.

The judge recently ordered PG&E to explain its role in starting the Dixie Fire and to produce the lineman who discovered the fire for questioning at a Sept. 13 hearing. ■

ERCOT News



ERCOT Technical Advisory Committee Briefs

Staff Says Conservative Operations to Continue into 2022

ERCOT staff told stakeholders Friday that they plan to continue into next year their conservative operations approach of setting aside additional reserves through ancillary services procurement.

Since July, the grid operator has been setting aside at least 6.5 GW of operating reserves by more than doubling amounts of ancillary services, with the costs uplifted to load. The objective is to prevent a repeat of June's call for conservation that spooked Texas consumers with long memories of Winter Storm Uri in February. (See [ERCOT Stakeholders Sign Off on More Ancillary Services](#).)

"You will see us procuring more additional reserves than we have in the past. How we go about that is where we're looking at making changes," Jeff Billo, director of forecasting and ancillary services, told the Technical Advisory Committee during its regular monthly meeting.

Staff has increased responsive reserve service procurement from 2.3 GW to 2.8 GW during peak load hours on all days and upped non-spinning reserve service to ensure 6.5 GW of ancillary services is maintained for all hours of all days. Starting Sept. 1, the grid operator will add up to 1 GW of non-spin for hours when there's a higher potential of weather forecast uncertainty, rather than for all 24 hours.

ERCOT normally reports its ancillary service plans for the upcoming calendar year in January. Until then, Billo said, staff will be working on "more precise calculations" for what the grid operator needs and has already begun discussions with stakeholder groups.

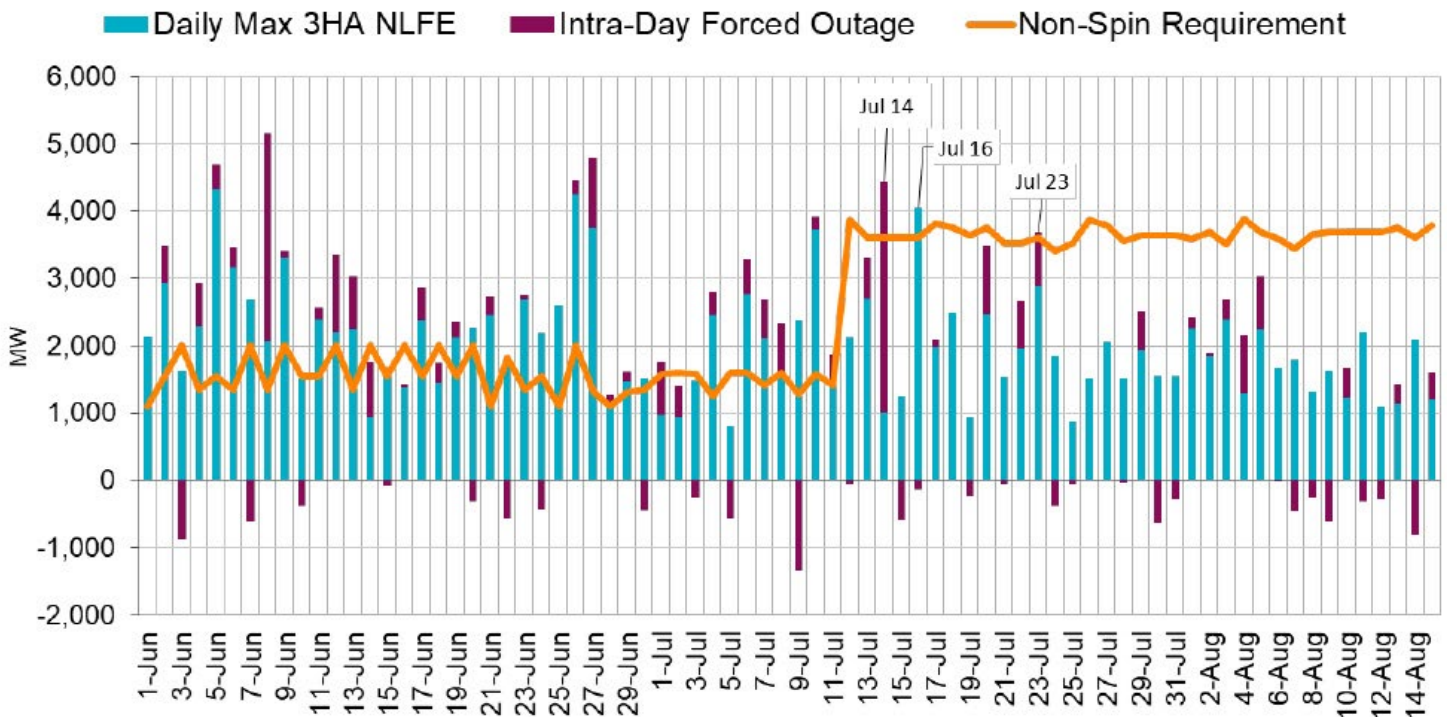
"There's support for being more conservative, but we think there are ways to finetune that," Reliant Energy Retail Services' Bill Barnes said.

Based on stakeholder suggestions, ERCOT is looking at changes necessary to allow non-controllable load resources to participate in non-spin services. Stakeholders have also



Bill Barnes, Reliant | © RTO Insider LLC

suggested load resources not be excluded from reserve calculations and that staff consider modifying the day-ahead process to eliminate voluntary participation.



ERCOT's use of non-spin ancillary service has increased with the transition to conservative operations. | ERCOT

ERCOT News



Members still disagree with the continued use of reliability unit commitment (RUC) and the amount of capacity it commits. Billo noted RUCs have been reduced since the ancillary services changes in July.

"The [Public Utility] Commission has been talking about how to create an efficient market, and we're happy to work with stakeholders on that," Billo said.

"I think you're hearing near-unanimous concern about the RUC part of this process, which has major impacts on reliability and the market," Barnes said. "You've got stakeholder support for part of what you're doing, but the additional RUC process doesn't make sense."

Barnes called ERCOT's use of RUCs an "outdated perspective," given the 1 GW of battery storage that has been added to the system.

"Batteries will solve the RUC problem," he said. "The time of long-lead time, inefficient gas plants to solve our problem is over. I think we're in a different system."

"If you look at the amount of batteries currently on the system, we're not there yet," Kenan Ögelman, ERCOT's vice president of commercial operations, responded. "If they were there and we were able to dispatch them across the challenging intervals we see, we wouldn't have to RUC. That part is a self-correcting issue, but we're not there yet."

TAC Structural/Procedural Review

The committee will conduct its annual structural and procedural internal review in September, which should not be confused with interim CEO Brad Jones' plan to transition to a senior-level group with representatives from each member organization, said TAC Chair Cliff Lange, with South Texas

Electric Cooperative.

Lange called the review a "self-reflective exercise." The review could lead to some of the same stakeholder discussion that dominated The TAC's July meeting with Jones. (See [ERCOT Technical Advisory Committee Briefs: July 28, 2021.](#))

Real-time Co-optimization Group Retired

Members approved staff's request to retire the Real-time Co-optimization (RTC) Task Force following their last update on the Passport Program, which bundled together RTC and several other high-profile initiatives. Much of that work has been delayed by staff's focus on implementing numerous upcoming Uri-related changes. (See "Passport Program 'Uncoupled,'" [ERCOT Board of Directors Briefs: Aug. 10, 2021.](#))

Passport Program director Matt Mereness said the stakeholder group has completed its deliverables, which include establishing policy principles for implemented RTC and drafting seven protocol changes. The market tool clears energy and ancillary services every five minutes in the real-time market, but it is not expected to come online until 2025 at the earliest.

Future status updates on Passport's projects will be done as part of ERCOT's regular portfolio management updates.

Southern Cross Directive Passes

TAC unanimously approved the combination ballot, which included added language to the committee's procedures that formalize *remote participation* in meetings and NRG Energy's request for a *permanent exemption* from ERCOT metering requirements for its coal-fired Lime-

stone Generating Station.

The ballot also included a system change request and single revisions to the nodal operating guide (NOGRR), retail market guide (RMGRR) and the resource registration glossary (RRGRR):

- **NOGRR227:** allows for single phase current magnitude/angle data for an interconnected intermittent renewable resource (IRR) over 20 MVA to be taken from either side of the main power transformer where turbines exist on feeders that are aggregated to two or more IRRs.
- **RMGRR167:** clarifies current documentation required for a successful submission requesting removal of a switch hold due to a deferred payment plan or tampering.
- **RRGRR031:** amends the glossary to accommodate registration of settlement-only energy storage systems to require the same level of registration detail required for energy storage resources under **RRGRR023**.
- **SCR813:** modifies the network model management system to highlight change submissions related to jointly-rated equipment, listing other entities that have also provided ratings. The submitter will be asked to confirm that the requested changes have been coordinated with the associated companies.

TAC endorsed **SCR814** separately, with Luminant and Calpine abstaining. The measure introduces a limit on the total number of point-to-point obligation bid intervals that can be submitted into the day-ahead market per counterparty. ■

— Tom Kleckner



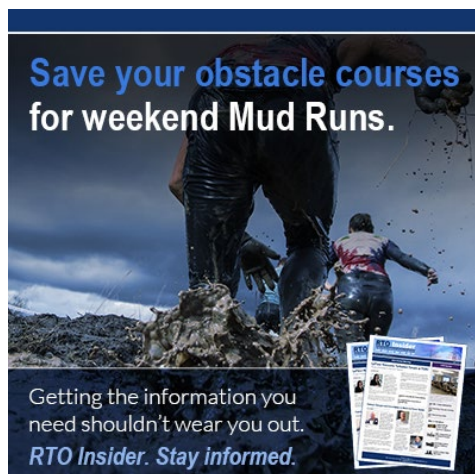
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ERCOT News



PUC Workshop Takes First Stab at Market Changes

Commissioners, Stakeholders Discuss ORDC, Ancillary Service Revisions

By Tom Kleckner

Texas regulators last week got their hands dirty by popping ERCOT's hood and discussing with stakeholders potential changes to an energy market that powers the state's economy but has been virtually untouched for almost 20 years.

It became evident that the market needed a tune-up (or an overhaul) after February's devastating Winter Storm Uri nearly crashed the grid and resulted in several days of non-rotating outages, hundreds of deaths, and billions of dollars in damage. The disaster led to leadership resignations at the Public Utility Commission and ERCOT and legislative bills that would alter the status quo.

"We're tackling an enormous challenge," PUC Chair Peter Lake said in kicking off the Thursday workshop. "We need and appreciate all the insight we can get."

Lake, one of four new commissioners who have replaced the previous three, had words of caution for ISO stakeholders. Noting comments in the docket (52373) that he characterized as "focused on preserving profits and incumbent business models," Lake said *Senate Bill 2* and *SB 3*, the Texas legislature's key bills in response to Uri, were "very much related to preserving reliability and accountability."

"We don't need comments telling us this crisis-based business model is just fine and we don't need any changes," he said, using his previous description of the ERCOT market. "That's not the direction we got from the legislature and certainly not the changes the people of Texas are demanding. You can save your breath."

At issue is the market's reliance on scarcity pricing, capped at \$9,000/MWh, designed to encourage new generation to take advantage of those prices. However, during the storm, about half of ERCOT's thermal generation was forced offline, leading to the market's inability to meet record winter demand.

Among the changes discussed during the workshop were tweaks to the operating reserve demand curve (ORDC), lowering the price cap, including renewables with firming capability in dispatchable generation, and adding new ancillary services to address ERCOT's current use of reliability unit commitments.



ERCOT's Kenan Ögelman explains the complexity of making market changes. | *Texas Admin Monitor*

Exelon echoed numerous comments in the docket when it suggested lowering the cap and widen the ORDC's tail. Texas energy consultant Doug Lewin, who *live-tweeted* the workshop, said that proposal would "spread revenues out over more hours of the year, but provide less revenue" during extreme scarcity or crisis periods.

"Great ideas today," Commissioner Jimmy Glotfelty said. "Whenever we do some improvements, there's going to be some reaction by the market. Hopefully positive, but maybe negative, too, but I believe the market will adapt. We have a good blackboard of ideas we're going to end up coalescing around that will improve this market for the good of reliability."

ERCOT's "wish list" of reliability initiatives, supplied by Woody Rickerson, vice president of grid planning and operations, included attracting and retaining flexible, dispatchable resources and encouraging resource owners to maintain dual-fuel capability and on-site fuel storage or energy storage.

Rickerson said the grid operator considers batteries to be a dispatchable resource and it will change its systems before the year is up to incorporate energy storage.

Lake and Commissioner Will McAdams both

pushed back several times against renewable resources, bending to Texas Gov. Greg Abbott's directive to incentivize thermal generation and allocate reliability costs to resources that can't guarantee availability. ERCOT has almost 30 GW of installed wind capacity, and it expects utility-scale solar to grow from 7.8 GW to more than 28 GW by 2024.

"My term runs out Sept. 1, 2025. I do not want to be catching a falling knife of 70% renewables on our system as the dominant fuel source and trying to back it up," McAdams said. "Me, personally, I don't expect lot of significant changes come Jan. 1, but I do expect us to start conversations as this market adapts to the resource mix's evolution to where we don't suffer reliability issues moving forward."

The PUC has set a schedule that includes four more workshops and contemplates a draft design by Oct. 21 and a final market design by Dec. 19.

Kenan Ögelman, ERCOT's vice president of commercial operations, cautioned the commission about ERCOT staff's ability to move quickly in making changes. He said ORDC changes could be implemented quickly, but a substantial rule change would be needed to lower the price cap from \$9,000/MWh.

ERCOT News



"The ancillary service type changes ... will take longer as I try to get those into my system so that they move from the day-ahead market system into dispatch," he said.

Commissioner Lori Cobos suggested the commission set up as many guardrails at the PUC as it can to shorten the timeline.

"All products are in ERCOT market rules," she said. "The only difference here is to consider whether these new products would be better housed in PUC rules to provide more regulatory certainty. We set up the framework and let ERCOT implement the details."

"The problem is, things tend to die in the stakeholder processes at ERCOT, and they die for a long time," McAdams said. "Nothing ever comes out of them sometimes."

The PUC's next market design work session is scheduled for Sept. 16 and will focus on demand response, including residential.

"The big unknown," Lake said of residential DR.

"We need to know what demand response in the residential world is already happening so we can get a better sense of how much is being addressed by market forces," he said. "We don't want to jump in and regulate something if market forces are already solving a problem."

Weatherization Rule Published

The commission took time from the workshop to approve for publication a [weatherization rulemaking](#) that requires ERCOT generators and transmission service providers to complete by Dec. 1 "all actions necessary to prevent a reoccurrence of any cold weather critical component failure" that occurred during Winter Storm Uri ([51840](#)).

The first phase of the PUC's development of "robust" weather emergency preparedness reliability standards is designed to "ensure the generation fleet is more resilient this winter than it was last winter," Lake said, and to comply with statutory deadlines set by the state legislature.

The draft rules require generators to implement the winter weather readiness actions identified after the 2011 winter weather event. TSPs are directed to put in place key recommendations contained in a separate report following the 2011 storm.

The generation and transmission entities must file winter weather readiness reports detailing their compliance activities with ERCOT and the PUC by Dec. 1. Those forms

must include a notarized attestation from the entities' highest-ranking "representative, official, or officer with binding authority."

ERCOT is required to conduct inspections of resources and transmission facilities for this winter, prioritizing the inspection schedule based on risk level. Violations are to be reported to the PUC for enforcement.

Stakeholders have until Sept. 16 to comment on the draft rules. The PUC is planning to have the rules in effect by Nov. 3.

The commission will work on the second phase of reliability standards, "a more comprehensive, year-round set" following an in-depth weather study currently being conducted by ERCOT and Texas' state climatologist that is due early next year. (See [Texas PUC Faces Sticky Issue in Setting Weather Rules](#).)

Securitization Hearings Conclude

The PUC on Wednesday wrapped three days of hearings on ERCOT's request for a pair of debt-obligation orders to finance \$2.9 billion in market debt stemming from high prices during the winter storm's Feb. 12-20 emergency period.

After spending barely 90 minutes on the grid operator's application to finance the \$800 million owed to the market by its participants ([52321](#)), the various parties spent the following afternoon and morning digging into ERCOT's proposal for a \$2.1 billion market uplift to cover short pays to the market ([52322](#)). (See [Texas PUC Hearings Begin on \\$2.9B ERCOT Securitization](#).)

ERCOT *said* it cannot "readily quantify" the uplift balance as it has "no way of knowing" which load-serving entities (LSEs) were exposed to real-time deployment adder (RDPA) charges and ancillary services costs in excess of the systemwide offer cap. The grid operator said it will have to rely on the LSEs themselves to quantify their exposure to those charges, as it does not have a way to quantify that amount.

"Accordingly, the final uplift balance will be the sum of all documented exposure by LSEs that is ultimately approved by the commission," ERCOT said.

Asked by Cobos what data ERCOT could provide to help unwind the costs, Ögelman said staff knows which qualified scheduling entities (QSEs) could have affiliated LSEs and the headroom allocated to QSEs as a whole.

"That type of information could be useful in calculating exposure," he said. "However, the

unique circumstances with how that QSE fits into an LSE will make that an accurate number or an extremely inaccurate number. It's hard to tie that back when there's so much under the QSE umbrella."

Ögelman said staff could likely share with PUC staff the number of QSEs that have affiliated LSEs, but they would be unable to break down the latter group.

"It's almost like a candy shop," he said. "There are lots and lots of flavors to how folks do their business arrangements."

Adding to the complexity is the number of disputes among ERCOT and market participants over the February charges that could result in additional costs.

Among the parties to the uplift proceeding is Rayburn Country Electric Cooperative, which owes the market \$640 million. The cooperative is involved in a dispute with ERCOT over \$260 million in AS and RDPA charges. All disputes must be settled before bonds can be issued, according to [House Bill 4492](#).

Rayburn also has an opportunity to securitize Uri costs under [Senate Bill 1580](#), which applies only to cooperatives. Rayburn is searching for clarity as to whether it can opt out of SB 1580 and remain a party to HB 4492.



Rayburn Country CFO David Braun | *Texas Admin Monitor*

gets paid in full. The challenge is the timing doesn't work well together."

As of Aug. 2, the ERCOT market was *short \$2.98 billion* from transactions during the storm.

Administrative Law Judge Hunter Burkhalter directed the parties to file their initial briefs Wednesday, with reply briefs due Sept. 8. McAdams asked parties who shared similar viewpoints to coordinate their comments so the commissioners could more easily digest their arguments. ■

Administrative Law Judge Hunter Burkhalter | *Texas Admin Monitor*



Administrative Law Judge Hunter Burkhalter | *Texas Admin Monitor*

ISO-NE News

Nantucket Residents File Lawsuit Against BOEM to Protect North Atlantic Right Whale

RENEW Northeast Skeptical of Group's Motives

By Emily Hayes

The advocacy group Nantucket Residents Against Turbines filed a federal lawsuit on Wednesday against the Bureau of Ocean Energy Management, claiming the agency did not comply with environmental laws when it approved Vineyard Wind's project off the coast of Nantucket, Mass.

The group pointed to the North Atlantic Right Whale as a reason to halt construction of offshore wind farms south of the island, a "nexus of activity" for a critically endangered whale species with a remaining global population of fewer than 400.

"Some people oppose the industrial offshore development because it will harm their ocean view," result in higher electricity rates and hurt commercial fishing, Val Oliver, co-founder of the group, said in a statement. "While those all are valid and true concerns, what motivates us in our opposition to the industrial offshore development is the fact that it will result in the destruction of our ocean floor, its ecosystem and have a deadly impact to countless bugs, birds, bats, fish and the critically endangered North Atlantic Right Whale."

But Francis Pullaro, executive director of RENEW Northeast, told *RTO Insider* that he is "somewhat skeptical" of the group's true motivation for legally challenging the OSW industry in Massachusetts.

"There has been a history of concern about visual impact," Pullaro said.

During a press conference on Wednesday,



A federal lawsuit filed on Aug. 25 by the group Nantucket Residents Against Turbines claims the construction of OSW turbines threaten the well-being of the critically endangered North Atlantic Right Whale. | Shutterstock

speakers on behalf of the group of residents indicated they would not be concerned about the turbines if they were built further offshore, which "demonstrates the group's intent is not about saving the environment but aesthetic," Pullaro said.

Before the Biden administration issued final permits in May for Vineyard Wind, the first commercial-scale OSW project in the U.S., the permitting process was paused for a cumulative impact review because of the precedent the project would set.

However, if the group is raising specific concerns about the impact of offshore wind turbines in the lawsuit, "we will certainly look at them," Pullaro said.

The *lawsuit* claims BOEM did not comply with the National Environmental Policy Act because the final environmental impact statement (EIS) does not "analyze an adequate

range of alternatives" or "adequately analyze the project's impact on the human and natural environment."

The group also states in the lawsuit that the EIS "relies on outdated, inaccurate, incomplete and inadequate information."

In the *final EIS*, BOEM said the project "could include effects on habitat or individual members of protected species, as well as potential loss of use of commercial fishing areas."

North Atlantic Right Whales "can't handle another stress level," Mary Chalke, another co-founder of Nantucket Residents Against Turbines, said during the press conference.

"A year ago, many environmental scientists testified to this fact in a public comment letter," Chalke said in a statement. "Our lawsuit hopes to intervene in order to protect our ocean and the important wildlife that inhabits it." ■



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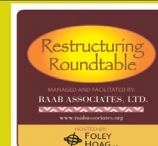
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MISO News

Entergy Won't Estimate Hurricane Ida Restoration Times

Continued from page 1

Entergy said it expected the Mississippi totals to increase as the storm crawled inland.

Entergy said Monday morning more than 2,000 miles of transmission lines and 216 substations were out of service throughout its service territory.

The restoration effort is certain to be lengthy and messy, with crews slow in being able to safely assess damage. Entergy said road closures and flooding make inspecting the destruction difficult.

Entergy New Orleans CEO Deanna Rodriguez [told](#) local news outlets on Monday that she had no restoration timeline to offer. Jefferson Parish Emergency Management Director Joe Valiente [predicted](#) it would take at least six weeks for customers in his parish to get power back. He called the damage “incredible.”

“With extensive damage, we have a lot of rebuilding ahead of us. We’ll be better prepared to give restoration estimates once assessments are done,” Entergy New Orleans announced in a Facebook post.

In a separate [press release](#), the company added it would be “premature to speculate at this time when power will be restored given the extent of the damage.” It said it would learn more as the weather clears and that its crews were using infrared cameras, drones and satellites to survey damage in some inaccessible areas.

Even with the technology, Entergy said “lack of access in areas like waterways and marshes could delay” damage assessment.

The utility said it continued to provide some backup power service to the New Orleans Sewerage and Water Board to bail out floodwater and pump drinking water into the city.

The Sewerage and Water Board’s pumps are normally partially powered by Entergy. MISO recently approved Entergy’s expedited request to construct a new 230-kV substation to take on all load for stormwater drainage by 2023 and supplant the board’s own aging turbines. (See [Entergy Expedites MISO Tx Project, Cancels 4 Others.](#))

By Monday morning, New Orleans City Council members were reportedly [questioning](#) whether Entergy’s plan deserves further scrutiny in light of the massive outages.

MISO spokesman Brandon Morris said the



Distribution lines tilt perilously at the border of Metairie and Kenner, La. | Entergy

RTO is coordinating with Entergy on restoration efforts but echoed that it will probably take “days to determine the full extent of the damage to their transmission lines and electricity generators.”

“Our member companies are working hard to assess the storm damage under difficult circumstances,” Daryl Brown, executive director of MISO South, said in an emailed statement. “Once those assessments are completed, our control room team will be working closely with them to prioritize restoration efforts. This process will take time and the safety of personnel is paramount.”

MISO said Ida wrought the most significant damage in Southeast Louisiana. MISO South remains under a severe weather alert and conservative operations until 11:59 p.m. tonight. Morris said those declarations could be extended or new warnings issued “to safely support member utilities’ damage assessment activities.”

The dead buses around New Orleans likely won’t be priced at MISO’s \$3,500/MWh value of lost load (VoLL) because the grid failure was brought on by a transmission emergency, not an insufficient capacity emergency.

MISO is in the middle of recasting its VoLL to a higher amount and getting a better handle on when it should be used in pricing. The RTO originally said *force majeure* events that lead to dead buses should not be priced using VoLL. (See [MISO to Outline New Pricing Plan for Hurricanes.](#)) Now MISO says VoLL is appropriate to price capacity emergencies, even when they’re caused by a *force majeure*. Local and systemwide transmission emergencies, the RTO said, are the events that should be shielded from VoLL pricing.

On close of business Monday, MISO’s Louisiana Hub was [trading](#) at a modest \$36.23/MWh. The Mississippi Hub was priced even lower at \$26.24/MWh. ■

MISO News

Entergy Expedites MISO Tx Project, Cancels 4 Others

Entergy companies have expedited a transmission project and canceled four others, the corporation told stakeholders during a MISO South planning meeting Aug. 23.

Entergy New Orleans said construction of a new 230-kV substation cannot wait on the 2021 MISO Transmission Expansion Plan's (MTEP 21) December approval by the Board of Directors. The utility said the substation is needed to ensure the Sewerage and Water Board of New Orleans' power reliability for stormwater drainage. It said waiting on approval would jeopardize its targeted June 1, 2023, in-service date.

MISO said Entergy is free to proceed with construction. Staff's Zack Bearden said analyses performed as part of the expedited project review indicated that the project will be able to reliably serve the increased load without adverse system impacts.

Entergy New Orleans will fund most of the \$27 million project, with Entergy Louisiana picking up nearly \$3 million.

Meanwhile, Entergy Arkansas is withdrawing four small baseline reliability projects in



Drainage pumps | New Orleans Sewerage and Water Board

northern Arkansas that were approved under MTEP 18.

The utility said the outage concerns that prompted the projects are no longer an issue. The canceled projects include the rebuild of 161-kV line segments varying in length from almost four miles to 13.5 miles.

Entergy Arkansas is also withdrawing the

construction of a 115-kV breaker station near Little Rock.

MISO's William Kenney said staff will evaluate all the withdrawal requests and return to a later South subregional planning meeting with a determination of the projects' reliability value. ■

— Amanda Durish Cook

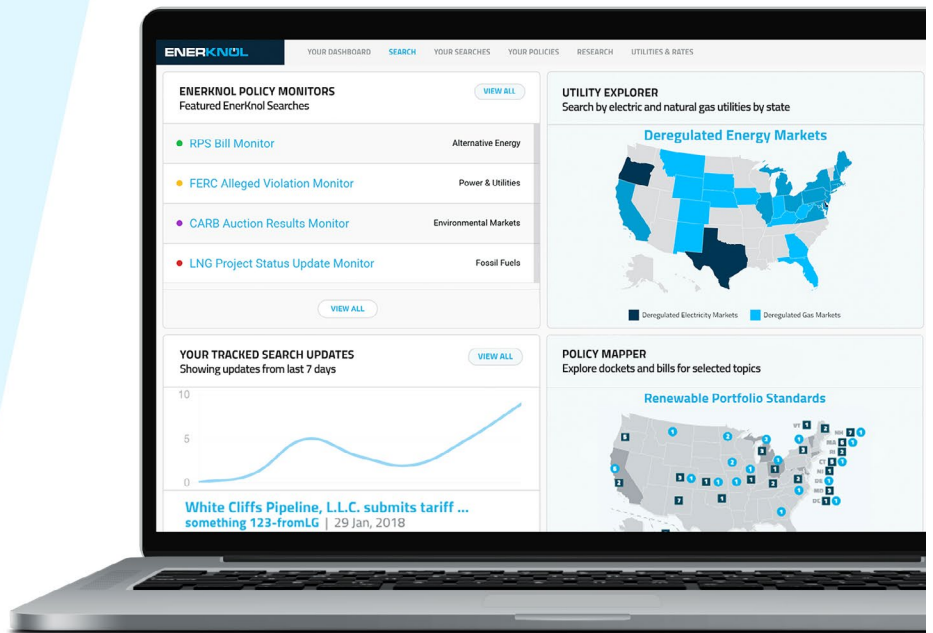
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MISO News

MISO: Lessons Remain From February's Winter Crisis

Training, Communications Planning Key to Future Disaster Response

By Holden Mann

At a webinar on cold weather preparedness hosted by SERC Reliability and ReliabilityFirst on Aug. 24, Trevor Hines, MISO's manager of reliability coordination for its South region, emphasized that while the RTO has been diligent about learning from February's cold-weather event and subsequent mass outages, there is still much work to be done implementing its lessons.

"You'll hear a theme here, as far as things that we need to make sure we're incorporating into our planning process, [that] being these unprecedented or extreme events," Hines said, adding that MISO staff have described the events of February as a "once in a career event" for which no training had ever prepared them.

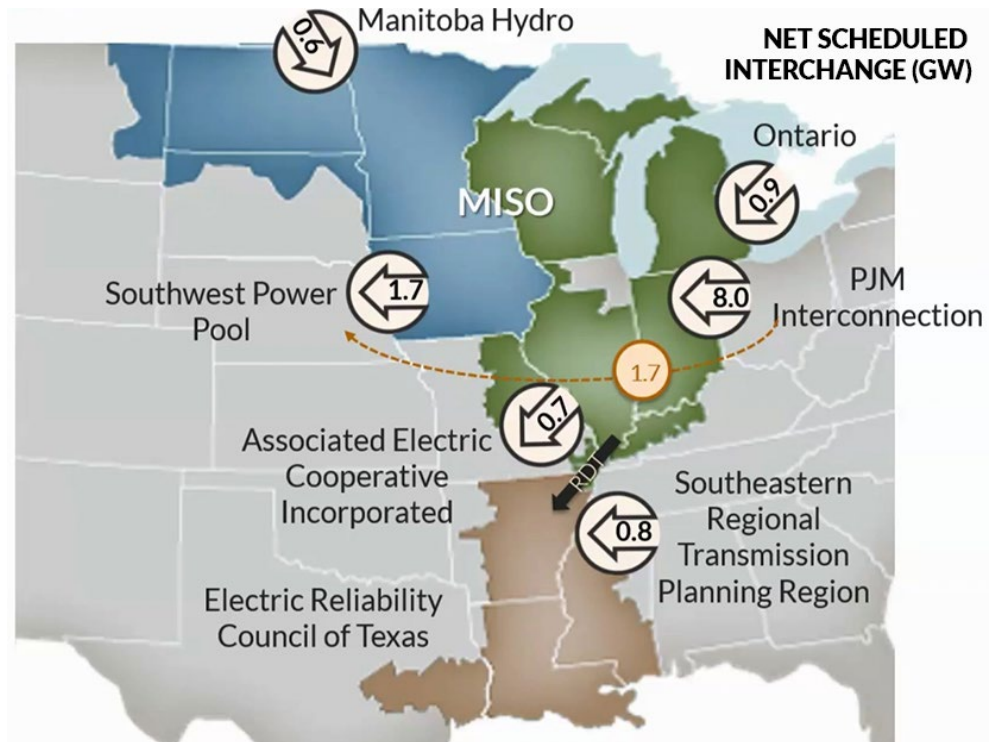
The exceptional circumstances went beyond the weather; MISO's *report* on the February events identified a number of unusual occurrences. For example, the normal west-to-east flow of energy across the MISO footprint reversed during the winter crisis, as the cold weather moving across the U.S. led to increased demand for energy in the Midwest while temperatures remained higher in the East.

This only proved temporary, as the cold weather continued to spread east as the week went on and eastern generating resources became more thinly spread. MISO began to experience "operational challenges," leading the RTO to exercise its emergency procedures, including load shed.

"As we all know, this is not an easy decision to make for a system operator. ... They are very aware of what the impact is of having to do this in the middle of a cold-weather event," Hines said. "The processes did work; we did not have any uncontrolled loss of load due to impacts [to] the transmission system. But we did have to make some hard decisions [to] keep the system reliable."

One reason the system operators had to make relatively quick decisions was that their training had never addressed handling east-to-west energy flows; Hines said this was because "current emergency load-shed plans are focused primarily on summer needs."

Another lesson from the cold snap is the need for "a unified communication or story to



Average flows into, out of, and through MISO from Feb. 15 to 17 | MISO

tell" when a mass event is affecting multiple areas at once.

"We are all on the same page trying to ensure the reliability of the bulk electric system during events like this; we should all be able to have a similar story as to what the impacts are and why we experienced those impacts," Hines said.

While MISO's report discussed the role of a common communication strategy in avoiding "negative press, concern from legislators and regulators, and ultimately customer frustration," Hines noted a further benefit to having designated communication staff: the ability to keep critical personnel focused on their jobs.

"We have system operators ... who were pulled into a lot of conversations, whether that be with the press [or] upper management, asking questions about what's going on ... and at times that would take away the subject matter experts from their duties of focusing on the reliability of the bulk electric system," Hines said.

Cold Snap Takes Stage at MRO

With winter inching closer, the Midwest Reliability Organization's annual reliability

conference on Aug. 24 also focused on February's big chill.

Oklahoma Gas and Electric Director of System Operations Dallas Rowley joked that the emphasis on the mid-February load shedding remains a "cold topic," rather than a hot one.

"Firefighters have to prepare for heat. For system operations, it's been a little hot," SPP Director System Operations C.J. Brown said, adding that the RTO is readying plans for the 2021 winter. "The fact is extreme weather is here to stay."

Brown said the February event's duration is what set it apart from other challenging operations. "In my 20 years, I've seen some rough days; I've seen some rough weekends. I've never seen a situation where we couldn't get our [balancing authority] healthy for so long. We were on the edge of seats for the better part of a week."

He said the cold snap will irrevocably change planning forecasts and resource adequacy prep work. The success story coming out of the event, Brown said, is MISO and SPP's coordination on imports and transmission capacity as the cold and ice persisted.

MISO News

Foundation for Resilient Societies founder Thomas Popik, whose consumer advocate nonprofit focuses on reliability, said ERCOT's major blackouts in mid-February have knock-on effects for MRO.

Popik said wind generation, at 120,000 GWh in 2019, makes up more than a quarter of MRO's nameplate capacity and is second only to coal's nearly 35% share of capacity. He said MRO and ERCOT share a similar fleet makeup.

"All resources can underperform in tandem," he said, adding that it was "unfortunate" that political leanings led some to blame the ERCOT load shed on renewable resources. He said aging coal plants can be quick to trip offline in underfrequency conditions brought on by extreme weather.

"If you already have 30 years of life in turbine blades, do you want to risk vibrations? It might be prudent to take a forced outage for the day," he said.

But Popik said ERCOT's single greatest failure during the event was not having a more detailed load-shed plan that prioritized critical infrastructure like hospitals and the electric compressors that pressurize natural gas supply.

"You have to have really good plans for what the prioritization is," he advised.

Popik also cautioned that NERC's N-1 contingency definition assumes failures are random and aren't correlated, as they tend to be in extreme weather events.

Popik said though ERCOT operators received flak for ordering load shed, he considers them "heroes." He said their targeted load shedding averted underfrequency load shedding and total system collapse. With several black start units on forced outage at the time, "it could have been days, weeks, months before a full restoration in ERCOT," he said.

"It's unfortunate the heat the operators took," Brown agreed. "Even in SPP, we had [members] of the public calling in to the control room. Somehow, they got the number. They thought it would be helpful. It was not helpful. ... We need to do a better job of educating what it takes to manage the grid."

MISO Executive Director of Systems Operations Renuka Chatterjee told the MRO Board of Directors that summer peak planning is no longer an acceptable standard.

"Professionally, I don't have an opinion on climate change. But there are more extreme

weather events within a year," she said.

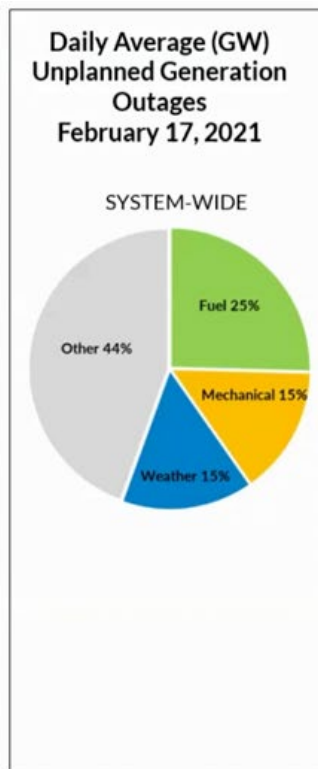
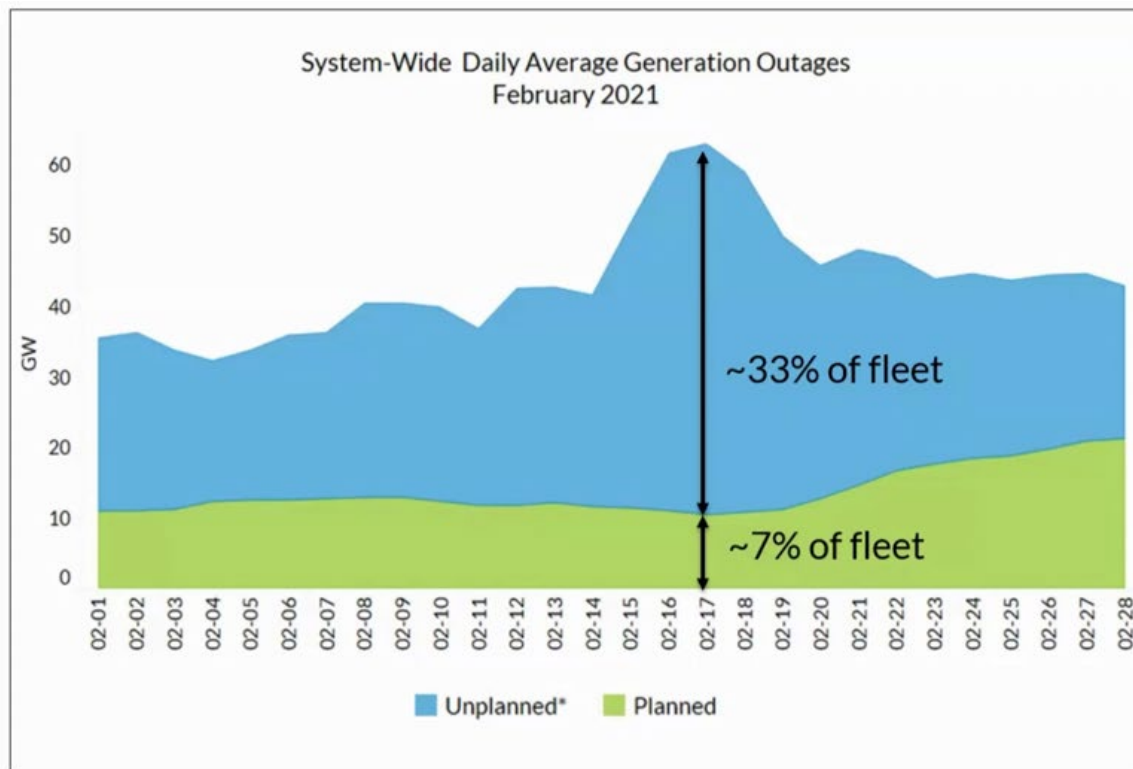
Chatterjee said that rather than one single strategy, MISO will need new flexibility products, commitments made days in advance and digitized load that can be calibrated up or down depending on system needs.

"We can say [in the] future, but I think the future is upon us," she said. "This is, I think, the energy industry's moment. ... In many ways, we're electrifying the same grid with different fuel. We're learning to operate with more wind, more solar."

Chatterjee recommended audience members read "*The Last Days of Night*," Graham Moore's historical thriller about the current wars during the 1890s.

"It's interesting for me to compare the people and attitudes of those times with the current effort to re-electrify America with new fuels," she said.

Chatterjee said MISO's growing workforce is emblematic of the transformation. She said she remembered a time when one pizza order could cover the RTO's staff at the turn of the millennium. Now, the RTO's employees number more than 1,000. ■



MISO's systemwide daily average generation outages for February 2021, with a chart showing the causes of unplanned outages on Feb. 17 | MISO

MISO News

FERC Allows Singaporean Stake in Duke Indiana

By Amanda Durish Cook

Eschewing consumer groups' concerns, FERC has approved a Singaporean government-owned investment firm to claim a 20% stake in Duke Energy Indiana.

FERC labeled the transaction consistent with public interest in an order issued Aug. 24 ([EC21-56](#)).

Duke Indiana in February filed an application to create a new holding company structure for its utility operations as part of a \$2 billion transaction that gives GIC Private Limited a 19.9% indirect minority interest in the utility. Duke Indiana plans to retain and control its remaining 80.1% indirect interest.

The commission determined the sale won't adversely affect competition because Duke and GIC don't own generation capacity in the same geographic markets and because MISO has operational control of Duke's transmission facilities. FERC noted Duke's

wholesale power will continue to be sold at market-based rates after the transaction and its transmission revenue requirement will remain unchanged.

Public Citizen, Citizens Action Coalition of Indiana, and the Sierra Club complained that giving minority control of Duke to a Singapore-controlled wealth fund is inappropriate. They also objected to Duke's agreement allowing GIC to name two directors to Duke Indiana's 10-member board of directors. (See [Consumer Groups Question Duke Indiana-Singapore Transaction](#).)

FERC said GIC's 27.6% indirect minority interest in the Genesee and Wyoming Railroad, which delivers coal to Duke Indiana's power plants, was not a conflict of interest as the consumer groups asserted. The commission noted that Duke Indiana's contracts and transactions with G&W will continue to go before the Indiana Utility Regulatory Commission (IURC) for review and approval. It also said that Duke Indiana promised to bar

GIC's handpicked board members from voting on coal-by-rail matters, which are unlikely to come before the board in the first place.

"Railroad transportation costs represent a very small percentage of Duke Indiana's total fuel costs," FERC said. "GIC Infra will not exert an influence on any rail service decisions that could potentially benefit G&W and result in cross-subsidization."

FERC did not address the consumer groups' claim that GIC was overpaying for the stake in return for "lucrative, above-market dividends." It said that assumption was beyond the scope of the proceeding.

The commission also batted away consumer groups' complaints that Duke and GIC were structuring the transaction to deliberately avoid the IURC's regulatory review. It said it found "no evidence that either state or federal regulation will be impaired" by the sale and pointed out that Indiana's commission had not raised any concerns. ■



Gibson coal station | Duke Energy Indiana

MISO News

MISO Zeros in on Seasonal Capacity Auction, Accreditation

By Amanda Durish Cook

MISO is firming up last-minute details for its seasonal capacity auctions and availability-based accreditation that some stakeholders continue to criticize as rushed and rash.

The grid operator says it will file with FERC in September a proposal to create four independent seasonal auctions, seasonal reliability targets and a tougher capacity accreditation. Stakeholders have overwhelmingly asked for more time before MISO makes the filing. (See [MISO Stakeholders Demand Breather on Seasonal Auction, Accreditation](#).)

Staff has held two workshops since Aug. 19 on the auction's design. MISO will also dedicate its Wednesday Resource Adequacy Subcommittee teleconference and another virtual workshop Sept. 8 to the proposal.

"This is a lot of work and a pretty significant push, so I appreciate you all's work on this," Zakaria Joundi, director of resource adequacy coordination, told stakeholders during the first workshop.

"I don't think I've seen anything that demonstrates that these proposals will improve reliability. It strikes me as kind of a strange patchwork," Power System Engineering's Tom Butz said. "We haven't gotten answers, and the burden of proof is on MISO."

Joundi said the workshops were meant to detail the near-final proposal, not to justify the changes. Over the past year, MISO has repeatedly explained that more emergency declarations, emerging winter reliability risks and accreditation that isn't indicative of actual unit performance necessitate the resource adequacy changes.

The new accreditation will be based on generator performance during "resource

adequacy hours," or tight margin hours, and emergency hours over four historical planning years. Units with insufficient performance data will rely on a generator-class average for seasonal accreditation.

However, the new accreditation will only apply to conventional generation, not renewables and storage. MISO is holding off on calculating seasonal effective load carry capability (ELCC) values to accredit wind and solar generation. Staff said they would discuss the accreditation of intermittent resources in the fourth quarter. Until then, the annual ELCC calculations stand.

The RTO is also waiting for more offer data on storage resources before it assigns them an accreditation method. The grid operator has until mid-2022 to fully bring storage into its markets under Order 841. (See [MISO: No Choice but to Double Up on 841 Compliance](#).)

"We're going to be moving to the same accreditation principles for all generation," Lynn Hecker, MISO's senior manager of resource adequacy coordination, said.

The RTO has changed some aspects of the plan this month. Offline capacity resources will now have a 12-hour grace period instead of 24 to start up during the resource adequacy hours. Failure to do so will result in accreditation reductions.

MISO Independent Market Monitor David Patton had criticized the 24-hour grace period as too lenient.

Kevin Vannoy, the grid operator's director of market design, said rooting accreditation in a resource's observed performance will provide a better indication of how it will perform when capacity is needed.

Scott Wright, executive director of market strategy and design, said the new accredi-

tation proposal is an improvement over the current "extremely diluted accreditation that we go through event after event with."

"One case in point that comes screaming to mind is how folks position themselves for a winter event. There's a lot of practical decisions folks make before the winter," he said, mentioning weatherization and fuel commitments.

More LMR Accessibility

Stakeholders questioned MISO's increase of load-modifying resources' required availability from a minimum of 10 calls per year to 16, divided by season, to receive a 100% capacity credit. Starting with the 2023/24 planning year, staff is proposing LMRs be available for five emergency calls in the winter, five in the summer, and three calls apiece in the two shoulder seasons. The grid operator reduces LMR capacity accreditations proportionally for anything less than full availability during the required calls.

MISO staff pointed out that LMRs can receive a full seasonal capacity credit by participating on a per-season basis.

"So that's the benefit of this proposal. An LMR that can't be available for the 10 days per year but can do five in the summer can receive full credit for a season," MISO market design adviser Dustin Grethen said.

Hecker said staff decided that the six additional calls are necessary because MISO is "seeing more and more emergency events, and we expect more as the resource mix changes."

Outage Treatment

MISO is no longer proposing to disqualify capacity resources that plan to be on outages longer than 30 days in a season. Now, the grid operator will require those resources to procure replacement capacity for every day they're on planned or forced outage beyond the 30-day limit.

Grethen said the 30-day limit is based on MISO's "reasonable expectation" that capacity resources are available "most of the season, at least two-thirds of it."

WPPI Energy's Steve Leovy said MISO was creating "a cliff" between 29-day and 31-day outages. He also said procuring replacement capacity in MISO is a "pain" because few suppliers are offering. ■



Otter Tail Power Co.'s new Astoria natural gas plant in South Dakota | Otter Tail Power Co.

NYISO News

NYISO Management Committee Briefs

ISO Mandating Employee Vaccinations

Based on rising COVID-19 cases in the Albany area, NYISO has delayed by one month its plans to bring staff back to the office and resume in-person stakeholder meetings, changing the staff return date to Oct. 4 at the earliest, CEO Rich Dewey told the Management Committee on Wednesday.

In addition, NYISO employees must get COVID-19 vaccinations, “and the deadline for being able to demonstrate that is also Oct. 4,” Dewey said. Market participants and meeting attendees will also have to show proof of vaccination in order to enter the building, though virtual meeting participation will still be an option.

One stakeholder asked whether the ISO is requiring booster shots.

“At this point we have not updated our policy to include boosters,” Dewey said. “We are tracking the recommendations from the [U.S.] Centers for Disease Control and Prevention] and applicable state government agencies, and we’ve got some medical advisers updating us on a regular basis. ... To the extent that the data and the science indicate that in the interest of health and safety boosters are more than just a good idea, we might amend the policy.”

Henri Brings Plenty of Rain, but Few Outages in NY

Hurricane Henri was forecast to hit Long Island on Aug. 22, but it weakened into a tropical storm and made landfall in Rhode Island, causing no more than 3,000 distribution customer outages in New York, NYISO Vice President of Operations Wes Yeomans said. (See *Restoration Efforts from Tropical Storm Henri Nearly Complete.*)

“It did hit Rhode Island hard, but [it] mostly became a rain event for eastern New York, and we’re very happy to report no generator or transmission outages as a result of the storm,” Yeomans said.

The ISO did schedule extra operators over that weekend to prepare for the storm, as did other operating areas and transmission owners, and operations management came in for Aug. 22, he said.

“We did work and coordinate operating plans with [the Long Island Power Authority], but you can imagine it could be tricky in a hurricane,” Yeomans said. “You might lose more

generation than you’re losing load, and that’s one set of operating procedures; or you might lose load faster than you’re losing generation, and that’s a different set.”

MC Nixes ROFR Tariff Changes

The committee voted not to recommend that the Board of Directors approve tariff changes to allow transmission owners to exercise a right of first refusal (ROFR) to build, own and recover the costs of upgrades to their transmission facilities in NYISO’s public policy transmission planning process, with only 42.38% voting in favor.

Under the proposed revisions, as recommended earlier in the month by the Business Issues Committee, TOs could exercise their ROFR even if the upgrades are part of another developer’s project selected by the ISO for cost allocation. (See *NYISO Stakeholders OK Tariff Changes for Right of First Refusal.*)

NYISO continues to think the revisions to establish a mechanism in the public policy process are necessary and time-sensitive, said Yachi Lin, senior manager for transmission planning. “As we have previously mentioned, and given the outcome of the vote today, the

NYISO will consider other avenues to revise the tariff. ... In particular, the NYISO will look at pursuing a [Federal Power Act] Section 206 filing,” rather than under Section 205.

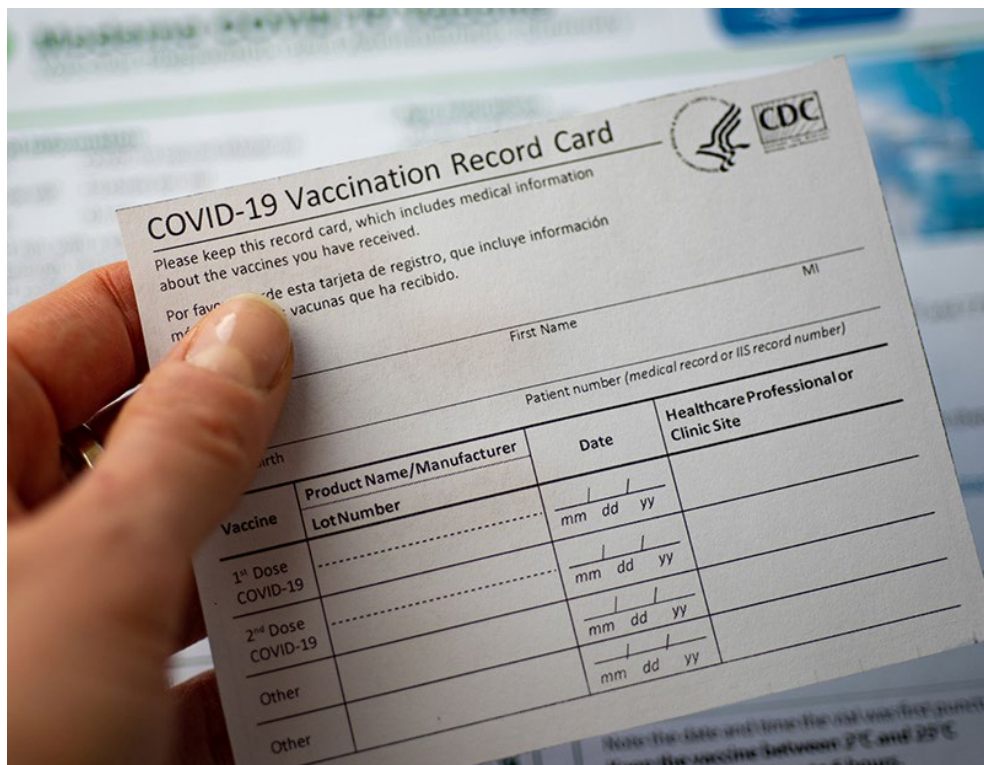
FERC in April confirmed that New York TOs have a federal ROFR under NYISO’s tariff and Order 1000 for upgrades to their transmission facilities, but the commission declined the ISO’s request for clarification that a TO exercising such upgrade rights should be treated as the developer (EL20-65). (See *FERC Confirms NYTOs’ Right of First Refusal.*)

Popova Elected Vice Chair

The MC also elected Julia Popova, NRG energy manager of regulatory affairs, to serve as vice chair.

Popova currently serves as chair of the Installed Capacity (ICAP) Working Group. For five years she has been NRG’s lead on state and energy policy strategies across states and markets in NYISO and ISO-NE. She assesses and advocates for changes in federal, state and local government regulations, legislation, and policies. ■

— Michael Kuser



NYISO is asking all employees and visitors to demonstrate proof of vaccination in order to enter its headquarters building effective Oct. 4. | Shutterstock

NYISO News

NYISO Q2 Energy Prices Rise on Higher Gas Prices, Load

By Michael Kuser

The NYISO Market Monitoring Unit reported energy markets performed competitively in the second quarter of 2021, with all-in prices ranging from \$21 to \$67/MWh, up 28 to 88% from the same period last year in all regions but New York City, which saw a decrease of 6.3%.

Energy prices climbed 26 to 110%, driven mainly by higher gas prices, which rose 55 to 62% across the system, Pallas LeeVanSchaick of MMU Potomac Economics, told the Installed Capacity/Market Issues Working Group on Thursday in presenting the State of the Market report for the second quarter.

“But we also saw that higher load levels were a significant driver relative to the second quarter last year, which was greatly affected by the pandemic,” LeeVanSchaick said.

Higher temperatures in June combined with nuclear and hydro output falling more than a gigawatt, driven by the Indian Point nuclear plant retirement and drier conditions, he said. “We saw also some significant transmission outages in Central East, which reduced transfers to Eastern New York and resulted in an additional need for gas-fired generation.”

Avoidable Commitments

Reliability commitments fell in New York City because of procedural improvements that reduced the commitment for N-1-1-0 load packet requirements.

But, LeeVanSchaick noted, “we see commitments that are happening that certainly

could be avoided if the NYISO was allowed to consider whether [gas turbines] in a particular NO_x bubble were actually needed to satisfy N-1-1-0 criteria.”

The state’s NO_x rule prevents New York City gas turbines in two portfolios from generating during the ozone season unless steam turbines in the same portfolios are also producing such that the portfolio-average NO_x emission satisfies the state Department of Environmental Conservation standard.

“An issue that we see in areas like New York City is that as you get more low-cost intermittent generation coming in, some of these older fossil units become less economic,” LeeVanSchaick said. “To a large extent they’ll still be running because of the need to provide operating reserves, so it’s useful to track as the resource mix changes. We want to be able to track things like emissions that are driven more by the need to provide reserves than by these energy requirements.”

One stakeholder asked what is preventing the ISO from modifying their software for commitments that could have been avoided, such as steam units that did not need to be activated to achieve peaking capacity. Steam turbines accounted for more than 50% of NO_x emissions in New York City in the second quarter.

The share of NO_x emissions from units flagged as committed for reliability was generally under 15% throughout April, then jumped up on May 1 to between 25 and 45%, remaining at a high percentage throughout May before coming down somewhat as loads increase in June, LeeVanSchaick said. “But it still remains higher [in June] than it was in April because you’re getting more generation commitments to meet NO_x bubble requirements,” which are effective from May to September.

The Monitor reported seeing less out-of-market commitments in New York City for local requirements in the quarter, and also “a lot less” out-of-market dispatch in Long Island because NYISO began modeling two 69-kV constraints there in the market software in mid-April.

The two constraints accounted for 40% of the day-ahead

congestion and 25% of real-time congestion on Long Island; consequently, out-of-market actions to manage 69-kV constraints fell notably, resulting in more efficient resource scheduling and pricing and lower associated uplift.

Capacity Market Highlights

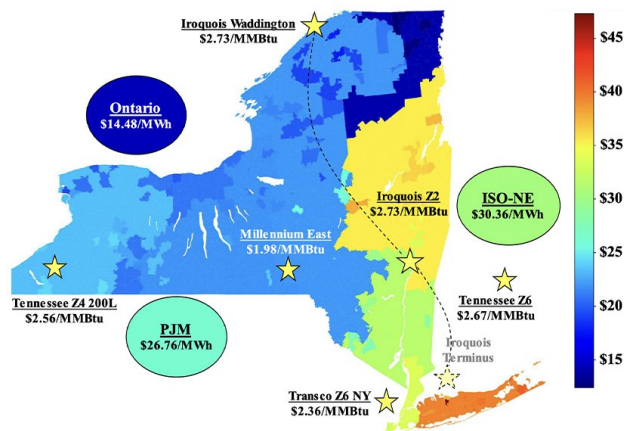
Capacity prices fell in New York City because of the much lower locational capacity requirement (LCR), while they rose in other areas because of the higher installed reserve margin (IRM) and the Indian Point retirement.

Spot capacity prices averaged \$6.59/kW-month in Long Island, \$3.85/kW-month in the Zone G-J locality and Rest-of-State, and \$6.37/kW-month in the city in the second quarter.

Prices increased substantially in all regions from the prior year, except in New York City where prices fell by 54%, driven primarily by a 6.3% reduction in the LCR from the prior capability year.

The steep reduction in the LCR year over year despite no significant changes in the supply mix in the city highlights some procedural inefficiencies in the IRM and LCR-setting process discussed in the Monitor’s 2020 report, LeeVanSchaick said.

Higher spot market offers and resultant unsold capacity influenced the spot price in April. Several units exited the market, most notably Indian Point 3 in May, which outweighed new entry and increased imports, he said. ■



All-in prices ranged from \$21 to \$67 per MWh, up 28% to 88% from 2020-Q2, in all regions but NYC, which saw a decrease of 6.3%. | NYISO

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NYISO News



CHPE Tx Line Opponents Tout Benefits of Excelsior Connect

By Emily Hayes

Opponents of proposed transmission lines that would cut through the Hudson River say Avangrid's (NYSE: AGR) Excelsior Connect proposal is a better option for reducing New York City's dependence on fossil fuel-fired generation.

The environmental organization Riverkeeper, which originally supported the long-planned Champlain Hudson Power Express (CHPE), believes that running the line through the Hudson River to access Canadian hydropower will contaminate drinking water.

"Based on what we know now, Avangrid's proposal is light years better than CHPE," John Lipscomb, Riverkeeper's patrol boat captain, told *RTO Insider*.

Excelsior also would help build an in-state renewable energy economy instead of making New York rely on power from another country, according to the organization.

CHPE would stretch more than 300 miles through New York state before going under the river to meet electricity needs for New York City.

As New York attempts to cut its GHG emissions, the city's energy market needs more high-voltage transmission lines to deliver renewable energy to its grid.

Hydroelectric dams in Canada are flooding ar-boreal forests, a process that emits methane, Lipscomb said.

"All the organic material that's at the bottom decomposes and creates methane," he said. "It's not quite honest to say they are green."

Riverkeeper withdrew its support for CHPE in 2019.

A Harvard University [study](#) found that when land is flooded to create reservoirs, microbes convert naturally occurring mercury in soils into methylmercury, a toxin that bioaccumulates in fish and poisons the food web of nearby Indigenous communities, which rely on the land for food in the remote Canadian wilderness.

CHPE received federal and state permits after it was "rigorously analyzed by regulatory experts during a multi-year process," including the U.S. Environmental Protection Agency and Army Corps of Engineers, Jennifer Laird-White, vice president of external affairs for

the company behind CHPE's infrastructure, Transmission Developers Inc. (TDI), said in a statement to *RTO Insider*.

Excelsior and CHPE are among a group of seven projects that were submitted in response to New York State Energy Research & Development Authority's (NYSERDA) Clean Energy Standard [Tier 4](#) request for proposals (RFP). Tier 4 projects must demonstrate that they can increase the penetration of renewable energy into New York City.

Excelsior would deliver 1,200 MW of wind and solar energy generated in upstate New York via an underground HVDC line to Queens.

Another project bid into the Tier 4 RFP, the Catskills Renewable Connector, also would run under the Hudson River.

The river is used as a drinking water source for seven communities in the mid-Hudson region. Those communities, which have termed themselves the "Hudson 7," worry that pollutants could be churned up during construction.

CHPE's cable would be laid along 200 miles in Lake Champlain and the Hudson River with

a machine that uses high-powered water jets to blast away sediment to create a seven-foot-deep trench.

That process, according to Riverkeeper, could churn up legacy contaminants such as polychlorinated biphenyl, which were once used as dielectric and coolant fluids in machines and dumped into the Hudson by General Electric.

Riverkeeper also says that the electromagnetic fields generated by the cables could interfere with the ability of the endangered Atlantic sturgeon to navigate and forage in the water.

However, a document from NOAA Fisheries sent to TDI in March said that "based on the analysis that all effects of the proposed project will be insignificant or discountable, we concur with your determination that the CHPE project is not likely to adversely affect any Endangered Species Act-listed species or critical habitat."

NYSERDA expects to award the Tier 4 renewable energy certificate contracts by the end of September for up to an aggregate 1,500 MW, but the authority also said it could exceed that total. ■



Transmission projects aimed at bringing renewable energy to New York City would dig under the Hudson River, but opponents say the plan could have potential negative consequences for surrounding communities. |

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PJM News



PJM Considering New Options for In-person Meetings

By Michael Yoder

PJM is considering holding a “test” meeting by the end of the year as it works toward returning to full in-person stakeholder meetings for the first time since the start of the COVID-19 pandemic.

In a *letter* to stakeholders Aug. 19, PJM CEO Manu Asthana said the RTO is still waiting until January for standing committees and senior standing committees to hold in-person meetings to “protect our people, our stakeholders and the security of the grid.” Asthana said remote attendance for all stakeholder meetings will also remain an option.

RTOs and ISOs across the country have been struggling to finalize plans for returning to workplaces and in-person meetings because of the unpredictable nature of the pandemic. (See *COVID Resurgence Scrambles RTOs’ Return.*)

Asthana said PJM received “mixed” feedback from a recent stakeholder survey, with some wanting to resume in-person meetings in the next few months and others preferring to wait until the start of 2022. He said the survey was also designed to understand corporate travel restrictions among stakeholders.

As a compromise for developing a meeting schedule, Asthana said, PJM is looking at the logistics of having a test in-person meeting before the end of the year. Asthana said PJM is also currently exploring options for an in-person Annual Meeting next year, but the RTO does not currently have a venue under contract for the event.

Asthana said the Delta variant of the COVID-19 virus and rising infection rates are forcing changes in plans and monitoring. He said any current plans by PJM “could very well change” based upon guidance from its epidemiologist and other health officials, including the U.S. Centers for Disease Control and Prevention and the Montgomery County Office of Public Health in Pennsylvania.

“Please know that we would like nothing more than to return to some level of normalcy, so that PJM employees can once again personally interface with our incredible stakeholder community,” Asthana said. “We hope that happens soon. However, the wellbeing of our employees and stakeholders, and the safety of the grid, must remain our highest priorities.”

Asthana also discussed vaccination protocols among PJM staff, saying the RTO is not

mandating vaccinations for employees “at this time.” But he said the RTO is “strongly encouraging” staff to be vaccinated.

Vaccination discussions among stakeholders have been going on for several months at meetings, with members expressing both the pros and cons of mandatory vaccinations. (See “COVID-19 Update,” *PJM Operating Committee Briefs: Aug. 12, 2021.*)

“We know through voluntary employee reporting that a relatively high percentage of our people are vaccinated at this point, and we’re fortunate that our surrounding community, Montgomery County, also has relatively high levels of vaccination among the eligible population. Additionally, we have implemented multiple safety protocols on our campuses to help provide a safe work environment for our people.

PJM recently concluded a three-week return-to-campus pilot program for some employees, Asthana said. The volunteer program tested PJM’s readiness and COVID-19 protocols to “identify best practices that will inform our phased return-to-campus plan,” Asthana said, which is still anticipated to start in the fall. ■



PJM officials and stakeholders hold a meeting at the PJM campus in Valley Forge in August of 2019. | © RTO Insider

PJM News



FERC Sanctions Exelon's Plan to Split Utility, Generation Businesses

By Jason York

FERC on Aug. 24 approved Exelon's proposal to split its regulated transmission and distribution business and merchant power generation into two separate publicly traded companies, determining that the transaction is "consistent with the public interest" (EC21-57).

Exelon Utilities would comprise six regulated electric and natural gas utilities in five states and D.C. The spinoff, Exelon Generation, would supply energy via its nearly 31,000 MW of capacity from nuclear, wind, solar, natural gas and hydro assets.

Consumer advocates from several PJM states — Delaware, Maryland, New Jersey and Pennsylvania, and D.C. — argued that the split will result in "significant reordering of market participants" and concentrate horizontal market power in the RTO, leading to "potential economic withholding." Exelon Generation would be the largest generation owner in PJM.

FERC said there would not be an adverse

effect on horizontal competition, however, because Exelon will not become "newly affiliated with any jurisdictional generation assets, and market concentration will not increase."

The advocates also raised vertical market power concerns that they said require further investigation. They argued that Exelon's application does not provide enough information to ensure that control of generation and transmission facilities will be disassociated.

The commission countered that even if Exelon's generation and transmission facilities were not wholly disassociated, there would be no adverse effect on vertical competition because common ownership and control of those facilities would remain the same after the final split of the companies.

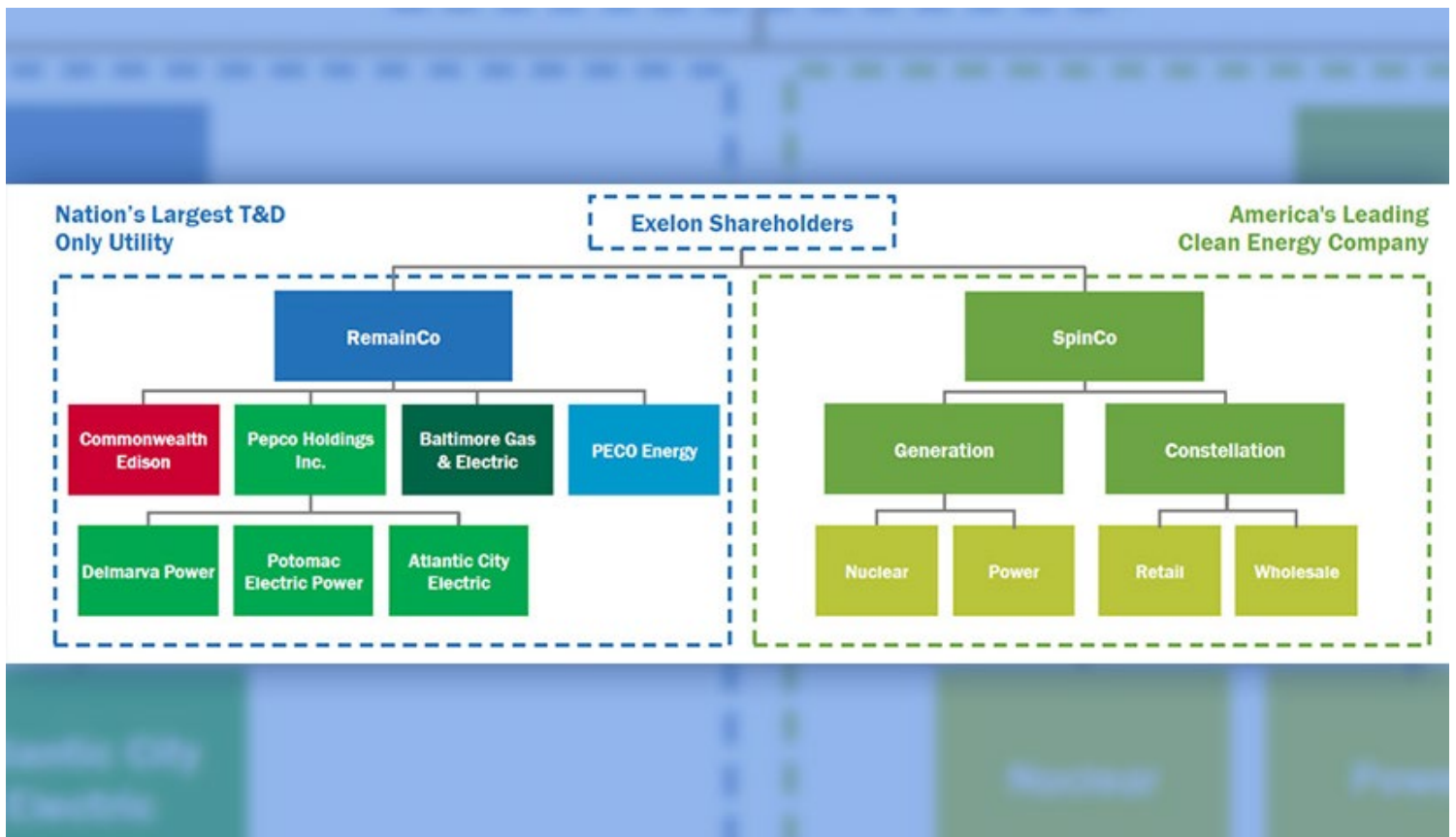
FERC also determined that there will not be a negative effect on rates. Accordingly, wholesale energy sales will continue at market-based rates, and Mystic Units 8 and 9 will make sales at cost-based rates through May 2024 and not pass any transaction-related costs through those rates without first obtain-

ing the commission's approval.

The consumer advocates also claimed that Exelon's application lacks the necessary detail to determine whether the company "will have an undue influence" in PJM stakeholder proceedings. Exelon holds one vote in the sector-weighted voting process in PJM's stakeholder committees. The advocates said that if Exelon is divided into two separate entities, each will vote in the stakeholder process, likely in different sectors.

The commission disagreed with those arguments and said that the new companies would be independent, "with separate and independent financial interests that will no longer be in complete alignment." They would also have separate management teams and boards of directors. FERC said this negates "doubling" of certain stakeholder voting rights.

Exelon hopes to complete the transition, which will require additional approvals by the Nuclear Regulatory Commission and the New York Public Service Commission, by the first quarter of 2022. ■



This is what Exelon's regulated transmission and distribution utilities and merchant generation unit will look after it is split into two different businesses. | Exelon

PJM News



PJM Examining Chemical Shortage

By Michael Yoder

PJM is investigating whether the shortage of a mineral used in sequestering emissions from coal units is impacting generation in the RTO.

Mike Bryson, PJM's senior vice president of operations, told *RTO Insider* on Thursday that at least two companies came forward in early August to the RTO, saying they were having trouble sourcing some of the chemicals associated with controlling emissions at coal plants. Bryson said the companies specifically cited trona, an evaporite mineral used as a source of sodium carbonate or soda ash, as one of the chemicals they were having difficulty locating.

In an email sent to stakeholders Aug. 18, PJM said the chemical shortages are "causing restrictions to unit output."

PJM began wondering if any other units were having similar issues with sourcing chemicals, Bryson said, so the RTO released a [survey](#) on Aug. 19 to all generating units, asking them to report any problems through the eDART system. The survey is set to remain open for responses through Sept. 10 and is limited to only coal-fired resources and all generation owners.

Bryson said PJM has received a "few responses" to the survey, and the RTO will analyze the data with the Independent Market Monitor and do any reliability assessments.

"We want to try and get a picture of what it looks like for the rest of the fleet that happen to respond," Bryson said.

Bryson said it's common for PJM to conduct surveys with its companies, usually sending them out pre-summer or pre-winter to gauge readiness of generation units. He said PJM sent out a survey in the spring after the February winter storm to determine any localized impacts.

Depending on the level of response to the survey, Bryson said, PJM will report out results at a future Operating Committee meeting. He said PJM can't report on the specific units involved because of confidentiality rules, but it may be able to direct companies having problems with sourcing to other stakeholders.

PJM companies had similar problem in the early days of the COVID-19 pandemic, Bryson said, with stakeholders reaching out and saying they were having problems

sourcing different chemicals. He said the RTO had to be careful to stay out of the middle of the sourcing issue because of anticompetitive measures.

Bryson said PJM is currently working with the companies experiencing issues and the Monitor to make sure the shortages aren't reflected in their bids and to understand any reliability issues. He said different companies use different chemicals to help with reducing sulfur dioxide emissions.

"There's no near-term reliability issues at all," Bryson said.

Trona

Trona, the primary source of sodium carbonate in the U.S., is mined in several different parts of the country, including California, Wyoming and Utah. It is used in everything from baking soda and paper to glass and chemical manufacturing. Some coal generation units use it to sequester carbon from flue gas.

In a [survey](#) released in June by the U.S. Geological Survey, soda ash production was 966,000 metric tons, a 3% increase compared with the previous month's production and 58% more than that of June 2020. For the first six months of 2021, soda ash production was 5.84 million metric tons (Mt), 17% more than the revised total for the same period of 2020.

USGS said ending stocks of trona in June decreased to 225,000 tons, 16% less than those in May, as the "demand for soda ash returned to near pre-pandemic levels in recent months and resulted in the large increases in consumption, exports and production reported for the first six months of the year."

Wyoming, the biggest producer of trona, produced 1.5 Mt in June, 5% more than production in May and 60% more than June 2020. For the first six months of 2021, USGS said, trona production was 8.27 Mt, 6% more than the revised total for the same period of 2020.

Other RTOs

A trona shortage in other RTOs and ISOs around the country doesn't seem to be happening right now.

Officials at ERCOT said they were not aware of any supply chain issues with trona or any other chemical involved in generation. SPP officials said its operations group is "not aware of any coal units in our footprint experiencing shortages similar" to those being experienced in PJM.

MISO spokesman Brandon Morris said the RTO has "not observed a significant trend in outages among coal plants" from a chemical shortage, and the overall outage rates in the RTO are "comparable with last year." ■

RTO Insider reporters Amanda Durish Cook, Tom Kleckner and John Funk contributed to this report.



Trona sample from California | E65vern, CC BY-SA 4.0, via Wikimedia Commons

PJM News



PJM MRC Briefs

Endorsement of Fast-start Revisions

PJM stakeholders Wednesday endorsed manual revisions implementing fast-start pricing even after some members questioned one of the changes.

In a sector-weighted vote of 3.41 (68.2%) at last week's Markets and Reliability Committee meeting, members *endorsed* the proposed revisions to *Manual 11: Energy & Ancillary Services Market Operations*. Two related revisions, to *Manual 18: PJM Capacity Market* and *Manual 28: Operating Agreement Accounting*, were unanimously endorsed as part of the meeting's consent agenda.

The revisions were first endorsed at the August Market Implementation Committee meeting. (See "Fast-start Pricing Revisions Endorsed," *PJM MIC Briefs: Aug. 11, 2021*.)

FERC accepted PJM's filing in May on the changes with an effective date of July 1. (See *FERC Accepts PJM Fast-start Tariff Changes*.) The RTO filed a *request* to move the effective date to Sept. 1 to avoid implementation during the summer peak period, which the commission *approved*.

Greg Poulos, executive director of the Consumer Advocates of the PJM States (CAPS), requested that the Manual 11 revisions be pulled from the consent agenda and voted on separately. Poulos said the Monitor identified a revision that concerned the advocates, pointing to section 4.2.9: Synchronized Reserve Market Clearing Price Calculation.

"We're concerned it's a step further than what was approved by FERC and would raise prices for consumers," Poulos said.

The Monitor originally *provided* an overview of concerns regarding the formation of ancillary service market clearing prices under some fast-start conditions at the Aug. 11 MIC meeting. The updated manual language in section 4.2.9 states, "In the pricing run, the cost of the marginal synchronized reserve resource may also include amortized start-up and amortized no-load costs due to integer relaxation for eligible fast-start resources."

The Monitor argued that PJM should not implement fast-start pricing in this way because it's inconsistent with previous filings and the Operating Agreement, saying the result of the change will be that the commitment cost of the marginal unit for reserves is included in the reserve clearing price when there is no lost opportunity cost. It made a *filing* earlier

Scenarios & Descriptions	Market Suspension Scenarios				
	1	2	3	4	
	No Day-ahead*	No Real-time <= 6 Hours	No Real-time > 6 Hours	No Day-ahead & No Real-time (hours may span multiple market days)	
			<= 6 Consecutive Hours	> 6 Consecutive Hours	
LMP Prices	Day-Ahead	Use DA	Use DA	Avg. of RT preceding and subsequent hour	\$0/MWh LMPs
	Real-Time	♦ Use RT Avg. of RT preceding and subsequent hour	Use DA	Avg. of RT preceding and subsequent hour	\$0/MWh MCPs
Regulation and Reserve Clearing Prices	♦ Use RT	Avg. of RT preceding and subsequent hour	Make resources whole to their actual MW, determine LOC	Avg. of RT preceding and subsequent hour	\$0/MWh MCPs
Relevant Offers if not available	♦ RT offers only	Last Available Offers	Use DA	Last Available Offers	Cost Based Offers
Dispatch MW	♦ RT only	Existing Ops procedures (EMS, VBUC, Incremental)	Existing Ops procedures (EMS, VBUC, Incremental)	Existing Ops procedures (EMS, VBUC, Incremental)	Existing Ops procedures (EMS, VBUC, Incremental)
Make-Whole	♦ Use RT	♦ Non-ramp-limited value based on LMP for Dispatch MW; make whole to lesser of dispatch or actual MW	♦	♦	Per current rules, but use cost-based offers (\$0/MWh LMPs)
FTR Settlements		♦	♦ Use DA	Avg. of RT preceding and subsequent hour	Zero value (no congestion LMPs)
Virtuals	♦ None	Settle against calculated RT LMP	Use DA (results in no settlement value)	None	None
Notifications	Email, Pardon, and All-Call				

| PJM

this month requesting FERC to evaluate the revision. PJM *responded* on Aug. 23, saying the challenge was "beyond the scope" of the compliance filing proceeding.

Susan Bruce, counsel to the PJM Industrial Customer Coalition (ICC), said she supported Poulos' perspective on the manual change and the reasoning of the Monitor for challenging the language. Bruce said the ICC was in "the uncomfortable position" of opposing a piece of a manual change that it otherwise would have supported.

Paul Sotkiewicz of E-Cubed Policy Associates said he believed the manual changes PJM made were consistent with what was filed before FERC and that a problem didn't exist in section 4.2.9.

Poulos made a motion to defer the vote on Manual 11 until the September MRC meeting, but the motion failed in a sector-weighted vote of 2.08 (41.6%).

Initial Margining Solution

One of the last significant changes resulting from the GreenHat Energy default is set to be voted on by stakeholders next month.

Michele Greening, lead stakeholder affairs consultant for PJM, *provided* an update on the activities of the Financial Risk Mitigation Senior Task Force (FRMSTF). Eric Endress of PJM *reviewed* the proposed *solution* and tariff *revisions* endorsed by the FRMSTF to address rules related to initial margining.

Stakeholders endorsed a *proposal* provided by Duke Energy and Perast Capital Management on initial margining at the Aug. 4 FRMSTF meeting with 69% support. A related proposal from PJM garnered 37% support at the meeting and failed to be endorsed.

GreenHat acquired the largest financial transmission rights portfolio in PJM between 2015 and 2018 but defaulted in June 2018, leaving stakeholders to cover more than \$179 million in the market. When the company defaulted, GreenHat had only \$559,447 in collateral on deposit with PJM. (See *Doubling Down – with Other People's Money*.)

Endress said the objective of initial margin under Duke and Perast's proposed methodology is to have a collateral deposit collected for future contracts and posted by a trading participant to protect against the financial consequences of a default. Initial margin is specifically set to cover the period it would take to unwind a defaulted portfolio.

Endress said initial margin is not a fixed quantity based on the initial contract inception, but it is updated at the time of every auction to "ensure that the appropriate risk is captured" of potentially unwinding a defaulted portfolio.

The initial margin method based on historical simulations methodology (IM-H) includes the confidence interval, which represents the range of values likely to include a population value within a certain degree of confidence. Endress said typically, the higher the confi-

PJM News



dence interval, the higher the resulting initial margin. PJM conducted analyses at confidence levels of 99%, 97% and 95% when evaluating the IM-H calculation.

In PJM’s testing of total FTR collateral, Endress said, the status quo had a failure rate of 8% based on backtesting, which represents the percentage of instances when collateral was insufficient to cover actual market moves. Endress said the 95% confidence interval, which Duke and Perast settled on, had a failure rate of 1.21%. PJM’s proposal used the 97% confidence interval, Endress said, which resulted in a failure rate of 0.9% in backtesting.

Both positive and negative mark-to-auction (MTA) would be part of the FTR collateral credit calculation in the proposal, and all bids would be considered during the bidding window and have IM-H calculated for them. The adjusted historical values based on the modeling of future transmission upgrades would no longer be included.

The methodology also uses the liquidation period, which represents the number of periods a defaulted portfolio can be liquidated. Endress said a two liquidation period was recommended to stakeholders and aligns with the potential unwinding of defaulted positions.

Several stakeholders questioned PJM, Duke and Perast over the proper confidence interval to use, with some pushing for 99% used by other RTOs.

Perast’s James Ramsey said the endorsed proposal suggested the 95% confidence interval because the failure rate was reduced to 1.21% from the status quo of 8%. Ramsey said the 97% interval proposed by PJM would cost an extra \$140 million to achieve a failure rate improvement of 0.3%.

“We just think the cost-benefit of that doesn’t make any sense,” Ramsey said.

Bruce said both the Duke and Perast proposal, along with the PJM proposal that

wasn’t endorsed at the FRMSTF, represented improvements over the status quo. She asked if there was a “comfort level in a hardwired relook” by Duke and Perast of the 95% confidence interval in the future to move closer toward industry standards on the number.

Duke’s Matthew Holstein said they would be open to re-examining the confidence interval at a future date if there’s a better methodology to reach the number or if there’s changing market conditions. He said given the data provided by PJM, the 95% confidence interval seemed better than the 97% or 99% numbers on a cost-benefit analysis.

“We want to make the best decisions for the market,” Holstein said.

The committee will be asked to endorse the proposed solution and tariff revisions at its next meeting.

Natural Gas and Electric Markets Issue Charge

Jim Davis, regulatory and market policy strategic adviser for Dominion Energy, reviewed a *problem statement* and *issue charge* related to natural gas and electric market coordination, saying they were the result of “continued concerns over the misalignment between the natural gas and electric markets.”

Fueling gas-fired units is fundamentally different from units with on-site fuel sources, Davis said, because they require close coordination with pipelines. There are more restrictive operations for gas-fired generation with a greater frequency of localized operational flow orders, which can also create greater imbalance penalties with more restrictive imbalance provisions, he said.

Davis said the primary problem with the current market design is that it discourages fuel procurement at the time generation is most needed. He said corporate structures regarding authorization, protocols and trading limits during extreme pricing events can prevent fuel purchases, leading to system failures like

the ones seen in ERCOT during the winter storm in February.

Secondary problems involving coordination and operations include greater limits on pipeline flexibility. High-demand events, Davis said, combined with decreased flexibility and the growth of intermittent resources on the grid will require greater coordination to maintain reliable operation of the electric system.

Key work activity in the issue charge would include providing education on topics such as the history of pipeline and electricity coordination, pipeline tariffs, products, procurement, imbalance charges and penalty structure; and the impact of intermittent generation on the system.

Davis said a goal is to take a “deep dive” into examining the recent grid emergency events in Texas by looking at the gas-electric coordination failures.

“We recognize that this is a broad and complex issue to address,” Davis said. “That’s why we believe education is going to be key in the scope of the work.”

A second key work activity would include identifying potential improvements to the PJM market to mitigate the impacts of misalignment. Davis said the issue charge calls for examining possible improvements to coordination and emergency procedures, looking at PJM’s situational awareness of the fuel supply and exploring improvements to PJM’s economic dispatch model.

Davis said out-of-scope items are issues that can only be resolved by FERC or the North American Energy Standards Board taking action to reform the gas market.

“We’re trying to keep this in the confines of what PJM has authority over,” Davis said.

The expected deliverables are accounting for natural gas transportation, gas procurement and oil reserves in PJM’s economic dispatch signal and reserve calculations, and developing market rules that can address the challenges of procuring gas over non-peak hours, weekends and holidays.

Davis said the goal is to begin the review process in October with a year set aside for work and reforms.

“I believe we’re at a critical point in history in the evolution and transformation of the energy industry,” Davis said.

Monitor Joe Bowring said the IMM agreed with the “broad statements” from Dominion about the issues with misalignment between

Confidence Interval	CLEARED REQUIREMENT			Failure Rate*	BID REQUIREMENT	
	Status Quo (\$B)	IM-H (\$B)	Change		Status Quo for Bids (\$B)	IM-H for Bids (\$B)
99%	\$1.345	\$1.534	14%	0.65%	\$1.604	\$1.806
97%	\$1.345	\$1.206	-10%	0.90%	\$1.604	\$1.439
95%	\$1.345	\$1.065	-21%	1.21%	\$1.604	\$1.281

Estimated confidence intervals for total FTR collateral | PJM

PJM News



gas and power and that it has been a topic of discussion for several years. But it disagreed that the gas side of the issue should be out of scope. Bowring said stakeholders should be allowed to express their views about the structure of the gas industry and make suggestions to FERC.

"If we simply accept the limitations of the gas side, that means ultimately imposing all the risks on PJM and PJM customers," Bowring said. "That doesn't make sense."

Davis said Bowring's comments will be considered before the next MRC meeting.

Bruce said the issue charge covers an important work effort, calling it a "pervasive issue" and challenging to solve. Part of the challenge as stakeholders is not having "the right people in the room" to start the conversation and that it's not just a PJM issue but a regional and national issue.

She said she wanted to know how pipeline operators would be involved in the conversation and expressed concern about PJM customers shouldering the costs of any changes while other industries and regions may reap the benefits of changes.

The committee will be asked to endorse the proposed issue charge at the September MRC meeting.

'Know Your Customer' Tariff Changes

Members unanimously endorsed two different tariff changes related to PJM's implementation of changes last year to the "know your customer" requirements and procedures.

Steve Pincus, associate general counsel for PJM, [reviewed](#) the proposed tariff [revisions](#) to address making cure periods uniform across the tariff and OA. Pincus said appropriate cure periods defined in section 15.1.5 of the OA were originally updated in that document, but not in section 7.3 of the tariff, which involves provisions limited to transmission service customers.

The new revisions eliminate duplicative specification of cure periods for transmission customer payment violations in section 7.3 of the tariff by referencing section 15.1.5 of the OA.

"The purpose of the change is to eliminate the confusion that could be caused if there's two different sets of rules applicable to a transmission customer," Pincus said.

Jessica Troiano, senior counsel for PJM, [reviewed](#) the proposed solution and tariff [revisions](#) to address making the definitions of working

credit limits uniform across the tariff.

Troiano said PJM requires all participants to maintain credit equal to the highest exposure experienced in the past year, which is usually the sum of the highest three consecutive weekly bills during that time called the peak market activity requirement. Participants' current obligations may not exceed 75% of the unsecured credit allowance as established by PJM settlement, or the working credit limit requirement.

The revisions eliminate duplicative definitions of "working capital limit," Troiano said, leaving only the definition in the definitions section of the tariff and removing the additional definition in Attachment Q of the tariff to remove ambiguity.

The changes now go to the Members Committee for a vote at the Sept. 29 meeting.

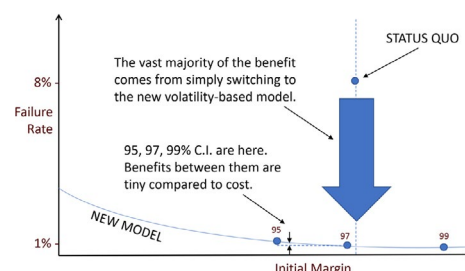
Market Suspension

Stefan Starkov, senior engineer for PJM's day-ahead market operations department, [reviewed](#) the proposed solution and tariff and OA [revisions](#) to address rules related to market suspension. The proposed rules were first endorsed at the June MIC meeting. (See "Proposed Rules for Market Suspension Endorsed," [PJM MIC Briefs: June 9, 2021](#).)

Starkov said the revisions are designed to provide clear business rules in PJM markets to account for a market suspension where the RTO cannot clear or produce market results.

PJM has several current versions of the tariff and OA reflecting approved and pending language before FERC, Starkov said, but the current draft does not reflect any pending language on five-minute dispatch pricing, reserve price formation and fast-start pricing. He said the language would be updated after FERC approval.

The RTO is looking to have an endorsement



Estimated cost vs. benefit of confidence intervals | Duke Energy/Perast

at the Sept. 29 MRC and final approval at the Oct. 20 MC meeting.

Calpine's David "Scarp" Scarpignato said the market suspension issue has "been a hole in the tariff." He requested that the final endorsement be pushed back by one month because of timing issues and that he had several proposed changes to bring to the stakeholder body.

PJM officials said Scarp would be able to introduce changes as friendly amendments at the next MRC meeting.

Consent Agenda

The committee unanimously endorsed several manual changes as part of its consent agenda. They included:

- revisions to [Manual 3A: Energy Management System \(EMS\) Model Updates and Quality Assurance \(QA\)](#) resulting from the periodic cover-to-cover review. The changes were endorsed at the August Operating Committee meeting. (See "Manual 3A Updates Endorsed," [PJM Operating Committee Briefs: Aug. 12, 2021](#).)
- revisions to [Manual 6: Financial Transmission Rights](#) resulting from the periodic cover-to-cover review. The changes include an update to section 6.8 to align language with the current approach for addressing a defaulting member's FTRs with various options. (See "Manual Revisions Endorsed," [PJM MIC Briefs: July 14, 2021](#).)
- revisions to [Manual 11: Energy & Ancillary Services Market Operations](#) addressing five-minute long-term changes and transparency. The manual revisions were endorsed at this month's MIC meeting. (See "Fast-start Pricing Revisions Endorsed," [PJM MIC Briefs: Aug. 11, 2021](#).)
- revisions to [Manual 20: PJM Resource Adequacy Analysis](#) resulting from the periodic cover-to-cover review. PJM said the minor changes included cleaning up outdated and redundant language and ensuring the manual language follows current processes in the RTO. (See "Manual 20 Endorsed," [PJM PC/TEAC Briefs: Aug. 10, 2021](#).)
- revisions to [Manual 28: Operating Agreement Accounting](#) resulting from the periodic cover-to-cover review. The manual changes were first endorsed at the July MIC meeting. (See "Manual Revisions Endorsed," [PJM MIC Briefs: July 14, 2021](#).) ■

— Michael Yoder

SPP News



DC Circuit Upholds FERC Ruling on SPP Z2 Saga

Acknowledges 'Free Pass' for Some Tx Users

By Rich Heidorn Jr. and Tom Kleckner

FERC acted correctly in reversing a retroactive waiver it had granted SPP over collecting transmission upgrade costs, the D.C. Circuit Court of Appeals ruled Friday, even as it acknowledged its order granted a “free pass” to some users of the system.

The commission had granted SPP a retroactive waiver of its tariff in 2016 so that it could invoice transmission service customers for Attachment Z2 credit payment obligations for 2008-2016 (ER16-1341). But it reversed course in 2019, saying its original decision was prohibited by the filed-rate doctrine and the rule against retroactive ratemaking. (See [FERC Reverses Waiver on SPP's Z2 Obligations.](#))

Attachment Z2 promised transmission upgrade sponsors would receive credits from any upgrade users whose service could not be provided “but for” the upgrade. But section I.7.1 of SPP’s tariff also required the RTO to invoice the charges monthly and to make any adjustments within one year. Because of software problems, it took SPP eight years to implement the attachment, during which the RTO did not invoice for the upgrade charges.

FERC issued a voluntary remand of the waiv-

er following a D.C. Circuit ruling in a separate waiver case involving PJM. (See [Duke, ODEC Rebuffed on Polar Vortex Gas Refunds.](#)) The commission ordered SPP to refund credit payment obligation amounts dating back to 2008, except for the one-year billing adjustment limit allowed in the tariff.

Oklahoma Gas and Electric, which had funded upgrades to serve wind farms in western Oklahoma, asked the D.C. Circuit to reinstate the waiver, saying SPP had provided notice of the upgrade charges through Attachment Z2, the stakeholder process and notations in its study reports.

But the court ruled that none of those sources provided the formal notice to satisfy the filed-rate doctrine ([20-1062, Oklahoma Gas and Electric Company v. FERC](#)).

“Although Attachment Z2 was an addition to the filed rate that set forth the possibility of upgrade charges, it did not provide notice that upgrade users could be charged outside of section I.7.1’s billing requirements,” the court said. “The other two alleged sources of notice — the stakeholder process and SPP’s study reports — cannot provide sufficient notice. Whatever information they might have provided, they were not filed with the

commission, and a filing ‘is required for all rate changes.’”

OGE and SPP also contended that FERC’s reversal of the waiver violated the cost-causation principle, which requires “all approved rates [to] reflect to some degree the costs actually caused by the customer who must pay them.”

The court disagreed. “The petitioners have provided no authority, nor have we found any, to suggest that a filed rate, which FERC found to be just and reasonable, can be waived because FERC later determines that its application violates the cost-causation principle. Cost causation is a principle for ratemaking, not an abstract principle that can trump a filed rate,” it said.

It acknowledged that its ruling means “users who benefited from the upgrades received a free pass” during the period for which SPP did not invoice. But, it added, “the filed-rate requirement is stringent and admits of no equitable adjustments by the commission or this court.”

“The outcome here should serve as a cautionary reminder to parties that, if circumstances change, they should take action at the outset, such as by seeking to amend the tariff or requesting prospective waivers from FERC to act in contravention of a filed rate,” the court said.

SPP responded to FERC’s reversal in June 2019 with a [compliance filing](#) that proposed a preliminary framework by which the RTO would unwind and resettle credit payment obligations assessed under Attachment Z2 and describing “the necessary assumptions and challenges associated with such unwinding and resettlement.” The commission has yet to act on SPP’s request.

“At this juncture, it is fair to say that there is no end in sight to the long and tortured history of Attachment Z2,” SPP told the commission in a [separate application](#) for a partial stay of its order, in which it requested settlement proceedings “to consider the numerous overlapping and interdependent issues pending.”

FERC in 2020 did approve the RTO’s request to replace Attachment Z2’s revenue credits for sponsored transmission upgrades with incremental long-term congestion rights ([ER20-1687](#)). (See [FERC Approves SPP's 2nd Go at Dropping Z2 Credits.](#)) ■



Oklahoma Gas and Electric's 121-mile Windspeed transmission line | [Oklahoma Gas and Electric](#)

Company Briefs

CMP Executive Chairman Battling Cancer

David Flanagan, executive chairman of Central Maine Power, confirmed last week that he has pancreatic cancer.

Flanagan, 74, said the illness was discovered last fall through routine medical tests and he is undergoing twice-weekly treatments. He will take on the less-demanding role of senior adviser when Joseph A. Purington takes over his position at the end of September.

More: [Portland Press Herald](#)

Dairyland Power to Purchase RockGen Gas Plant



The Dairyland Power Cooperative last week announced plans

to buy the 503-MW natural gas RockGen Energy Center. Financials were not disclosed.

The sale, contingent on regulatory approval, is expected to close by the end of the year.

Dairyland serves about 600,000 customers

of municipal and cooperative utilities in Wisconsin, Minnesota, Iowa and Illinois.

More: [Kenosha News](#)

Musk, Tesla File to Sell Electricity



Tesla Energy Ventures, a new subsidiary of Tesla, recently filed with the Texas Public Utility Commission to sell electricity on the retail market.

While details are minimal, Tesla could sell kilowatts that are either drawn from the grid or pulled from Tesla-made home batteries when the grid goes down. Tesla could also let individual Texans with solar panels earn money by sharing their excess power with the grid.

Tesla also told ERCOT that it wants to build two giant utility-scale batteries that will serve wholesale power companies in the state.

More: [Texas Monthly](#)

PNM, Avangrid Sweeten Merger Deal, CEO 'Offended' by Hearing Questions

PNM Resources and Avangrid last week

offered an additional \$10 million in economic development funding over 10 years (\$25 million total), plus strict regulatory controls to ensure grid reliability, to gain more support for their proposed merger. The concessions, which have been filed with the Public Regulation Commission, resolved some disputes with the PRC's Utility Division.

Meanwhile, Pat Vincent-Collawn, the president and CEO of the Public Service Company of New Mexico, said she found some comments made during the hearing earlier this month about the proposed merger inappropriate and was "embarrassed" and "offended."

Attorney Jeff Albright of Albuquerque asked Iberdrola and Avangrid executives about how the proposed utility company's board would be selected if the merger took place. After being told the board would be made up entirely of New Mexico residents, Albright asked if those might be newcomers from Syria, Russia, Qatar, Spain or Afghanistan.

More: [The Albuquerque Journal](#), [Santa Fe New Mexican](#)

Federal Briefs

EERE Announces Intent to Launch New Inclusive Energy Innovation Prize

The Department of Energy's Office of Energy Efficiency and Renewable Energy and the Office of Economic Impact and Diversity last week announced an Inclusive Energy Innovation Prize, which will provide cash prizes of up to \$250,000 each to groups and organizations to support entrepreneurship and innovation in communities historically underrepresented and underserved in the energy sector.

The prize aims to support organizations to create or identify activities that provide incubation, acceleration and community-based entrepreneurship and innovation services in climate and clean energy technologies, among other things.

The submission period will open in September.

More: [Office of Energy Efficiency and Renewable Energy](#)

EPA Pushes FERC to Weigh Climate Impacts of Pipelines, LNG

The Biden administration and the EPA are pressing FERC to more thoroughly consider greenhouse gas emissions when deciding whether to allow the construction of new natural gas pipelines and liquefied natural gas (LNG) export facilities.

In a series of letters to FERC, EPA intervened on two pipeline projects in Louisiana and New York, as well as a compressor station expansion in Pennsylvania. The agency said FERC should consider the possibility that the projects would not only hinder the development of clean energy, but also could be forced to shut down earlier than expected due to tightening climate regulations. The EPA is currently reviewing six other natural gas projects under consideration at FERC for similar intervention, a spokeswoman said.

More: [Houston Chronicle](#)

FAA's New Grants Would Electrify Airports



The Federal Aviation Administration last week announced \$20.4 million in grants to airports for using zero-emissions vehicles and electrifying equipment that currently relies on fossil fuels.

The funding announcement is part of \$300 million being spent on zero-emissions and electrification projects out of the FAA's \$3.5 billion airport grant program for 2021. In this round of grants, \$5.9 million will be available for zero-emission vehicle purchases, while another \$14.5 million will go toward reducing airport and ramp equipment emissions.

More: [Axios](#)

Global Electric Power Demand Returns to Pre-COVID Levels

Carbon dioxide emissions from the global

electric power sector rebounded in the first half of 2021 to above pre-COVID-19 levels, according to an analysis from London-based think tank Ember.

As electricity demand jumped from last year's lows, it outpaced the growth of renewable energy, which pushed global electricity-related emissions 5% above where they stood before the coronavirus outbreak. The report showed that places such as the U.S. and Europe cut emissions slightly, but even there, the pace of lowering greenhouse emissions was too slow to keep the world on a path to limiting warming to 1.5 degrees Celsius.

The U.S. experienced a 16% drop in carbon emissions from electricity in the first half of 2020 compared with the first half of 2019. But the electricity sector's emissions during the first half of 2021 were only 4% below those of 2019.

More: [The Washington Post](#)

Hogan Lovells Adds Chatterjee to DC Office

Global law firm Hogan Lovells last week announced it has added former FERC Chairman Neil Chatterjee to its energy regulatory practice as a senior adviser in D.C.

As a member of the regulatory practice, the firm believes Chatterjee's knowledge

and experience from FERC and on Capitol Hill will provide its clients with a significant advantage in the energy market.

More: [Hogan Lovells](#)

NextEra Seeks to Unmask Anonymous Group in Solar-Tariff Push



NextEra Energy last week asked the Commerce Department to either force an anonymous group of U.S. solar manufacturers to identify its members or throw out their requests to extend tariffs on imported panels.

In a letter to Commerce Secretary Gina Raimondo, NextEra challenged applications filed by the American Solar Manufacturers Against Chinese Circumvention, which seeks to extend import duties to certain Chinese-owned factories in Vietnam, Malaysia and Thailand, the top three suppliers of solar panels to the U.S.

A department spokesperson said it is evaluating NextEra's requests.

More: [Bloomberg Green](#)

Timeline Extended for Dakota Access Pipeline EIS

The U.S. Army Corps of Engineers last week said its final version of an envi-

ronmental review of the Dakota Access Pipeline is expected to come in September 2022, six months later than expected.

The Corps said the extension is meant to give entities, such as Native American tribes, more time to offer input. The Corps originally said the review would take 13 months but indicated in late 2020 that it would take longer given operator Energy Transfer's plans to expand the line's capacity.

More: [The Bismarck Tribune](#)

US Clean Power Sees Record Growth



The American Clean Power Association last week released data showing the country installed 9,915 MW of capacity in the first half of this year, a 17% increase over the first half of 2020.

The nation installed 5,620 MW of renewable capacity in the second quarter of 2021, which is a record for second quarter installations. New solar installations between April and June totaled 2,226 MW — a 73% jump over the first quarter. Second-quarter wind installations totaled 2,824 MW.

More: [American Clean Power](#)

State Briefs

ARIZONA

Tucson Electric to Offer Incentives for Home Storage Systems

Tucson Electric Power customers soon will be able to apply for upfront cash incentives to install battery storage systems on their homes, and more will be able to buy into community solar installations, as part of plans approved by the Corporation Commission last week.

TEP won approval to expand its GoSolar Home community-based program, which allows customers to buy power from a dedicated 5-MW PV facility and receive a fixed bill for up to 10 years. The commission also approved a plan to extend the program to renters and expand the facility supporting the program by 10 MW.

The commission approved TEP's proposed annual budgets of \$65.9 million for its

2021 and 2022 implementation plans under the state Renewable Energy Standard and Tariff.

More: [Arizona Daily Star](#)

CALIFORNIA

Kern County Approves Solar Project

The Kern County Board of Supervisors last week approved the Raceway 2.0 Solar Project.

The project, which will provide 271 MW of renewable energy and up to 100 MW of storage on 1,250 acres, is scheduled to be completed by the end of 2022.

More: [Bakersfield.com](#)

PUC Tells SoCalGas to Halt Upgrades at Gas Compressor Site

The Public Utilities Commission last week

wrote a letter to the Southern California Gas Company telling it to stop upgrades at the Ventura Compressor Station until the company meets the agency's demands.

The letter, penned by PUC Executive Director Rachel Peterson, requests that SoCalGas complete its additional review and hold a public forum before continuing, because of recent community opposition. SoCalGas said it plans to cooperate with the PUC's requests.

More: [Ventura County Star](#)

INDIANA

CenterPoint Eyes 335 MW of Solar PPAs



CenterPoint Energy last week announced it is seeking Utility Regulatory Commission approval to off-

take 335 MW of solar generation under two power purchase agreements (PPA).

Under the plan, CenterPoint's subsidiary CenterPoint Energy Indiana South is willing to buy 185 MW of solar photovoltaic projects being developed in Vermillion County. The contracted period is planned to be 15 years. Separately, the utility is seeking clearance to sign a 20-year PPA for 150 MW of solar capacity from a project in Knox County.

Both solar parks are scheduled to be online by 2023.

More: [Renewables Now](#)

MAINE

PAC Opposing Power Line Project Fined for Late Filing

Mainers for Local Power, a political action committee, was fined \$2,500 by the Maine Ethics Commission last week for violating state campaign finance law.

The commission unanimously voted to impose the penalty against the PAC, which failed to notify one of its major contributors, Calpine, that the company was required to file a major contributor report with the commission because it had donated more than \$100,000 to the PAC.

Mainers for Local Power was formed by Calpine and Vistra Energy to oppose the New England Clean Energy Corridor and support a ballot question aimed at killing the project.

More: [Portland Press Herald](#)

MINNESOTA

Appeals Court Upholds Superior Natgas Plant Approval

The Minnesota Court of Appeals last week ruled that the Public Utilities Commission was correct when it said the proposed 525-MW Nemadji Trail Energy Center "serves the public interest better than a renewable-resource alternative."

The PUC approved the \$700 million natural gas plant in 2018 but has faced backlash from environmental groups that say fossil fuel plants should no longer be constructed.

Despite the ruling, the project still faces several legal challenges in Wisconsin and at the federal level.

More: [Star Tribune](#)

Supreme Court Denies Line 3 Construction Appeal

The Minnesota Supreme Court last week said it will not review a lower court's decision to affirm the Public Utilities Commission's 2020 approval of Enbridge's oil pipeline.

A Court of Appeals in June voted 2-1 to uphold the PUC's approval of the 340-mile pipeline that will replace Enbridge's current Line 3, which is corroding and can operate at only 51% capacity. The \$3 billion-plus pipeline, which will transport oil from Canada, is more than 90% built.

In July, environmental and climate groups petitioned the Supreme Court to hear the case. However, the court hears fewer than 15% of the petitions it receives.

More: [Star Tribune](#)

NEBRASKA

Court Affirms Injunction Keeping NPPD from Ending Wind Contracts

The 8th Circuit Court of Appeals last week affirmed a federal judge's order blocking Nebraska Public Power District from canceling power purchase agreements with four wind farms in the state.

NPPD had argued that Elkhorn Ridge Wind, Laredo Ridge Wind, Broken Bow Wind and Crofton Bluffs Wind had violated agreements by transferring control of their parent company's ownership interests without its consent and wanted out of the agreements it signed in 2008.

Last year, U.S. District Judge Laurie Smith Camp said the wind farms had shown "as a matter of law that they did not default on their obligations under the PPAs." NPPD could still request review by the full circuit.

More: [Lincoln Journal Star](#)

NEW JERSEY

Rate Counsel Director Retires



Stefanie Brand, the longtime director of the Division of Rate Counsel, retired on Aug. 27, ending a 14-year run as the state's most prominent advocate fighting customers' rising utility bills.

During her time as director, Brand led the opposition to awarding \$300 million

in subsidies to keep three nuclear plants from closing, repeatedly sought to lower incentives to the solar sector, and largely succeeded in limiting the state's ability to build out the infrastructure for charging electric vehicles.

More: [NJ Spotlight News](#)

OHIO

Broadview Heights Establishes Regulations for Solar Systems

The Broadview Heights City Council last week approved regulations for solar energy systems on residential and commercial properties.

Under the regulations, all solar systems will require a city permit. Ground-mounted systems can't be visible from the street, extend beyond the width of the house or commercial building, or sit in front or side yards. Solar panels cannot exceed 6 feet in height from the ground. Furthermore, roof-mounted systems can't extend beyond the roofline in any direction, make the roof appear higher, or be installed on the part of the roof that fronts the street. Solar panels on a flat roof cannot heighten the roof by more than 5 feet.

"The legislation was intended to establish standards and provide information, both pros and cons, regarding the benefits vs. the risks (of solar power systems)," Councilman Joe Price said.

More: [Cleveland.com](#)

OREGON

PGE Eyes Rate Raise to Pay for Wildfire Resiliency, Decarbonization



Portland General Electric has asked the Public Utilities Commission for

a 2.9% rate increase that it says would go toward improving its distribution system in case of wildfires and weather events.

If approved, rates would increase by about \$7.44 per month starting in May.

More: [Salem Statesman Journal](#)

SOUTH DAKOTA

PUC Lets Some Utilities Stop Reporting COVID-19 Debts, Costs

The Public Utilities Commission last week agreed that Montana-Dakota Utilities, MidAmerican Energy and NorthWestern

Energy can stop publicly reporting their expenses from the coronavirus pandemic.

Xcel Energy and Otter Tail Power will continue filing quarterly reports. Black Hills Power declined to participate.

More: [KELO](#)

TEXAS

EPE Gets Air Quality Permits for Newman Power Plant Project

The Commission on Environmental Quality last week approved air quality permits for El Paso Electric's \$163.8 million Newman power plant project.

The permits clear the way for construction to begin on the 228-MW natural gas generator at the company's largest power plant.

The new generator is expected to be in operation by summer 2023.

More: [El Paso Times](#)

Radioactive Waste Storage Bill Revived by Abbott

The debate over plans for a new facility that would store spent nuclear fuel from around the country has been rekindled after Gov. **Greg Abbott** included efforts to



limit high-level radioactive waste in the state on his special session agenda.

Rep. Brooks Landgraf (R) represents Andrews County and has introduced a bill that

would prohibit the transportation, storage and disposal of high-level radioactive waste in the state. However, nuclear power and research reactors already in the state can continue to store their spent fuel on-site.

Andrews County is where a company called Interim Storage Solutions has applied to build a facility to store spent nuclear fuel until the federal government can establish an ultimate long-term site.

More: [The Dallas Morning News](#)

VIRGINIA

SCC Approves Appalachian Power Rate Increase

The State Corporation Commission last week approved a rate increase for Appalachian Power, effective Oct. 1.

The increase, which will raise residential customers' bills by \$2.17 a month, was granted to make environmental improve-

ments to the Amos and Mountaineer coal-fired power plants.

The SCC stopped short of giving the company the \$2.50 increase it asked for to keep the plants running through 2040. The ruling may force Appalachian to close the plants by 2028.

More: [The Roanoke Times](#)

WYOMING

PacifiCorp to Retire 14 Coal Plants by 2030

 PacifiCorp last week said in its

biennial Integrated Resource Plan that it intends to retire 14 of its 22 active coal units by 2030 and another five by 2040, with the remaining three shuttered shortly afterward. The plan should be finalized this week.

The company would retain two coal units at the Jim Bridger power plant but convert them to natural gas units in 2024.

Over the next two decades, the PacifiCorp anticipates building more than 3,600 MW of new wind and more than 5,600 MW of new solar, along with close to 6,700 MW of storage capacity.

More: [Casper Star Tribune](#)

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