

Wildfires Raise Concerns for Western Tx Lines

Derates, Shutdowns Pose Threat in Western Interconnection

By Hudson Sangree

The near shutdown of the California-Oregon Intertie by a wildfire last month renewed concerns about the vulnerability of major transmission pathways to wildfires and the disruption of vital supply lines in the Western Interconnection.

The Bootleg Fire in southern Oregon burned under and around the Pacific AC Intertie (PACI) in early July, severely derating it. The PACI consists of three parallel 500-kV lines that deliver power from Columbia River hydro-electric dams to Northern California.

The PACI's towers are 125-150 feet tall, on average, in a right-of-way wide enough to be seen from space. The safe distance keeps conductors clear of fire. The derate was caused by thick smoke, which can cause arcing on the lines, and the need to protect the safety of fire crews on the ground, officials with CAISO and the Bonneville Power Administration, which



A wildfire burned near high-voltage lines in south-central Washington state in 2013. | Washington State Department of Transportation

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Calif. Governor Proclaims Emergency as Blackouts Loom (p.13)

PG&E Faces New Criminal Charges, Wildfire Liability (p.15)

Midwestern Grid Operators Battle Summer Heat (p.40)

GOP Presses Glick on Natural Gas, Climate at FERC Oversight Hearing

Concerns over Pipeline Cybersecurity also Raised

By Rich Heidom Jr.



FERC Chairman
Richard Glick | © RTO
Insider LLC

WASHINGTON — FERC Chair Richard Glick bobbed and weaved his way through a House Energy and Commerce subcommittee hearing July 27 as Republicans attempted to pin him to positions on natural gas and decried the Biden administration's climate policies.

Glick and his fellow commissioners also addressed numerous questions on the cybersecurity of the nation's oil and gas pipelines.

The hearing spanned almost five and a half hours, including a 90-minute recess during floor voting, but only the FERC commissioners, their staff and committee staff attended all of

it in the John S. Dingell Room at the Rayburn House Office Building. About 17 Democrats and 14 Republicans made statements and asked questions during the hearing. Many of them sought to win endorsements of legislation they had sponsored or bring attention to issues in their districts. But none of those participating in person — Chair Bobby Rush (D-Ill.) and several representatives joined via video — remained for the entire hearing.

Many of the representatives left the hearing shortly after getting their five-minute spot to question the commissioners. Two — Reps. Greg Pence (R-Ind.) and Marc Veasey (D-Calif.) — arrived



Rep. Greg Pence
(R-Ind.) | © RTO Insider
LLC

Continued on page 8

Bipartisan Infrastructure Bill Offers Funding for Grid, EVs

Senate Vote Seen Within Days

By Rich Heidom Jr.

The Senate on Monday began debating a bipartisan \$1.2 trillion infrastructure bill, which would provide billions for grid improvements, alternative vehicle fueling, supports for existing nuclear plants and redevelopment of coal mining communities.

The text of the 2,702-page *Bipartisan Infrastructure Investment and Jobs Act* was released Sunday after clearing a procedural vote 66-28 on Friday, with 16 Republicans joining all 50 members of the Democratic caucus in support.

Majority Leader Chuck Schumer (D-N.Y.) said he hoped the Senate would consider amendments and approve the bill "in a matter of days," and quickly consider a \$3.5 trillion infrastructure package that Democrats hope to approve via a budget reconciliation process that is not subject to the filibuster.

The bipartisan bill includes new federal spending of about \$550 billion over fiscal years 2022-26. Here are some of the highlights of the bill's provisions on electricity

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MISO Stresses DR Capacity as Emergencies Accumulate
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DTE CEO Hints at Accelerating Coal Plant Closures
(p.25)

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NetZero Insider is now live!
 See p.27 for this week's coverage.

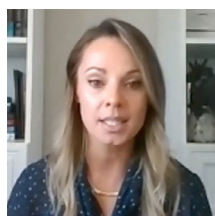
Smart Electric Power Alliance Grid Evolution Summit

Fleet Electrification Will Require Smart Grid Technologies

Utilities Must Become Energy Advisers

By John Funk

The electrification of trucking fleets will require utilities to adopt smart grid technologies and design new rates, says a representative of one California utility already pushing ahead with *EV charging programs* to meet the state's goal of 5 million electric vehicles on its roads by 2030.



Natasha Contreras,
SDG&E | SEPA

Natasha Contreras, San Diego Power & Electric's EV customer program manager, made the case for a slow, steady and smart buildout of EV charging infrastructure rather than massive projects during a *webinar* July 26 sponsored by the D.C.-

based Smart Electric Power Alliance.

"At the end of the day, it's not all about building infrastructure to accommodate EV load," Contreras told other SEPA panelists. "It's about adopting new technologies that can help us maximize the use of the existing grid and maximize the use of the abundant solar we do have.

"It's a matter of designing the right price signals to encourage people to charge during grid-friendly hours," she added. "And we have demonstrated through our existing EV rates that we can indeed shift EV load by sending the right price signals.

"Although there are currently more than 70,000 EVs in our service territory, we have not had to make significant upgrades to our grid to accommodate that EV load. It remains to be seen how much investment we need to make to the grid. But our goal is certainly to minimize the costs for our customers."

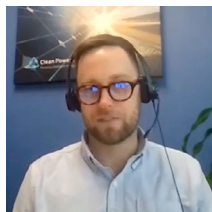
Although the focus of the discussion was "fleet electrification," discussion moderator Molly Middaugh — director of business development at *EVgo*, a Los Angeles-based company that has built more than 800 fast-charging stations in 34

states — kept the focus on "last mile" delivery fleets, including smaller companies that may



Molly Middaugh, EVgo
| SEPA

have to rely on their utilities for advice and directions.



Andrew Price, Clean
Power Research |
SEPA

To that point, Andrew Price — business development manager with *Clean Power Research*, a Napa, Calif.-based company that partners with utilities across the U.S. preparing to integrate EVs into their distribution grids — said forward-looking

utilities are already offering fleet electrification advice.

"In addition to designing and rolling out infrastructure programs, many are developing fleet advisory services to advise on the costs of charging, total cost of ownership ... suitable vehicle models, and ultimately offer best practice fleet charging guidance," he said.

"A good example is our partner DTE Energy and their *E-Fleets program*, which is being launched later this year. This program supports fleet operators looking to electrify, provides rebates for customer-sited charging infrastructure and funds a portion of service connection upgrades.

"Noting that very few commercial and industrial companies have enough on-site power to charge many EVs," Price said one answer to the expected surge in demand when EV charging systems are built is vehicle-to-grid-integration (VGI), enabling an EV or a fleet of EVs, while in charging docks, to sell power back to the system if it's needed.

"I think VGI is critical to all vehicle electrification applications, and it really must be incentivized," Price said.

Examples of VGI strategies include not only time-of-day pricing, which encourages EV owners to charge their batteries at off-peak hours, but also much more sophisticated integration systems, algorithmically controlled to limit charging to certain times and that also enable a utility to draw measured amounts of power from EVs connected to chargers. In other words, the power can flow in both directions.

Contreras said SDG&E is building a *five-year VGI pilot project* with a local school district in San Diego County that will connect six school buses to 60-kW "bi-directional, direct-current

fast chargers."

"The batteries on board the buses will soak up energy during downtime when clean energy is abundant on the grid — at midday, when solar energy production is at its peak — and return the energy to the grid in the evening as solar energy fades away," she explained.

"The goal is to help ease the strain on the grid, reduce energy costs for the school district and explore new technology to support the pathway to net zero. This pilot is the first of its kind to test advanced use cases of vehicle-to-grid technology," Contreras said.

Price said utilities with residential time-of-day rates would have a better chance of managing the demand from EVs, whether that demand is coming from vehicles owned by individual motorists or commercial fleets.

"We all know that the vast majority of charging takes place at home, so the continued rollout of residential time varying rates will be an increasingly valuable tool for utilities to manage the costs associated with EV charging," he said.

Consumer EVs or electrified school buses are just at the edge of the transformation of commercial fleets, especially the "last-mile" delivery services, said Frank Barton Sidles, EV fleet business development manager for *BP Advanced Mobility*.



Frank Barton Sidles,
BP | SEPA

"The demand response programs are going to play a critical part of managing the grid and the energy, so as to hopefully keeping the investments in the utility upgrades as low as possible to be able to allow for the greatest electrification as soon as possible," he said.

And while VGI arrangements will play "a critical part" in enabling utilities to offer charging services, commercial trucking fleets will have their own cost issues and will be most concerned with having the power when they need it.

"What the fleets want is ... to make sure that their vehicles have the power and the range to be able to do the route that they're supposed to be doing. Fleets have that strict scheduling regime of when they need to be on the road," Sidles said. ■

Smart Electric Power Alliance Grid Evolution Summit

Why Utilities are Externalizing Innovation to Accelerate Clean Tech

By Jennifer Delony

With electric utilities as its target customers, vehicle-to-grid software startup WeaveGrid knows that utility culture may not be the best at nurturing and accelerating clean tech innovation.

But some utilities get that, and they have decided to externalize their innovation efforts to compensate for it.

“The Sacramento Municipal Utility District [SMUD] has a long history of being a very innovative company ... but we also recognized that we do not move at the speed of light; and even though we’ve sped up our cycles, we still move like a utility,” Arlen Orchard, former SMUD CEO and current board chair for the California Mobility Center (CMC), said July 27.

Launched in 2019, CMC was the “brainchild of SMUD,” Orchard said during the virtual Smart Electric Power Alliance [Grid Evolution Summit](#). While SMUD is part of CMC’s advisory board, the center is a separate entity from the utility.

Orchard, who also is strategic adviser at EnerTech Capital, said CMC is a nonprofit, public-private consortium that functions as an accelerator for new, clean transportation technologies.

For WeaveGrid, participating in utility-related accelerator programs provides an opportunity to get feedback from its primary customers, CEO Apoorv Bhargava said during the event.

“It helps us accelerate what is generally a pretty long sales cycle for the utility,” he said.

In April, the Dominion Energy Innovation Center (DEIC) selected WeaveGrid as a member of its 2021 cohort. Like CMC, DEIC is a nonprofit, public-private partnership that accelerates clean tech and originated from a utility.

“From our founding [in 2009], our goal was to help decarbonize Virginia’s economy, create a cleaner, safer, more reliable grid, and to do that by supporting the entrepreneurs that were going to create the companies that would get us there,” DEIC Director Adam Sledd said during the event.

The DEIC cohort members participate in an 18-week program that includes networking space and mentoring to help their companies grow quickly.

“Navigating utilities, particularly when you’re



Utility-related innovation programs have helped WeaveGrid accelerate its vehicle-to-grid integration software to market so utilities can better integrate the growing wave of clean cars. | ChargePoint

trying to make a sale ... and helping them get comfortable with innovative solutions is generally hard,” Bhargava said.

His company, which supplies smart EV grid integration solutions to utilities, also participated in the Duke Energy-related Joules Accelerator. In May, the company secured \$15 million in Series A funding for its next stage of growth.

WeaveGrid’s readiness for seed funding positioned the company perfectly for a spot with DEIC, according to Sledd.

“In the last few years, we’ve gone from working with really early-stage companies to creating the DEIC Accelerate Program, where we bring in mostly companies that are at a little later stage,” he said.

DEIC looks for companies that have been around for a while, completed a seed funding round, and maybe even completed a pilot, according to Sledd.

“They are what we call ‘ready for primetime,’” he said. “They are ready to come into a Fortune 500 utility and meet some people, spend some time doing business development, and then hopefully do a pilot project that helps Dominion, or any other utility partner, move along in their innovation journey.”

CMC also selects later-stage startups for its program, which Orchard said is focused on rapid commercialization.

“We’ve put together a group of service providers narrowly tailored to the needs of the company and its products,” he said. The center provides access to everything from prototyping to initial manufacturing to navigating the California regulatory environment, he added.

It’s all done in “a very curated fashion,” he said. “It helps them move through things more quickly and not have to figure it out on their own.”

While CMC and DEIC try to bridge the agile life of a startup and the slower timeline of a utility business model, it can be a challenge driving utility innovation from the outside.

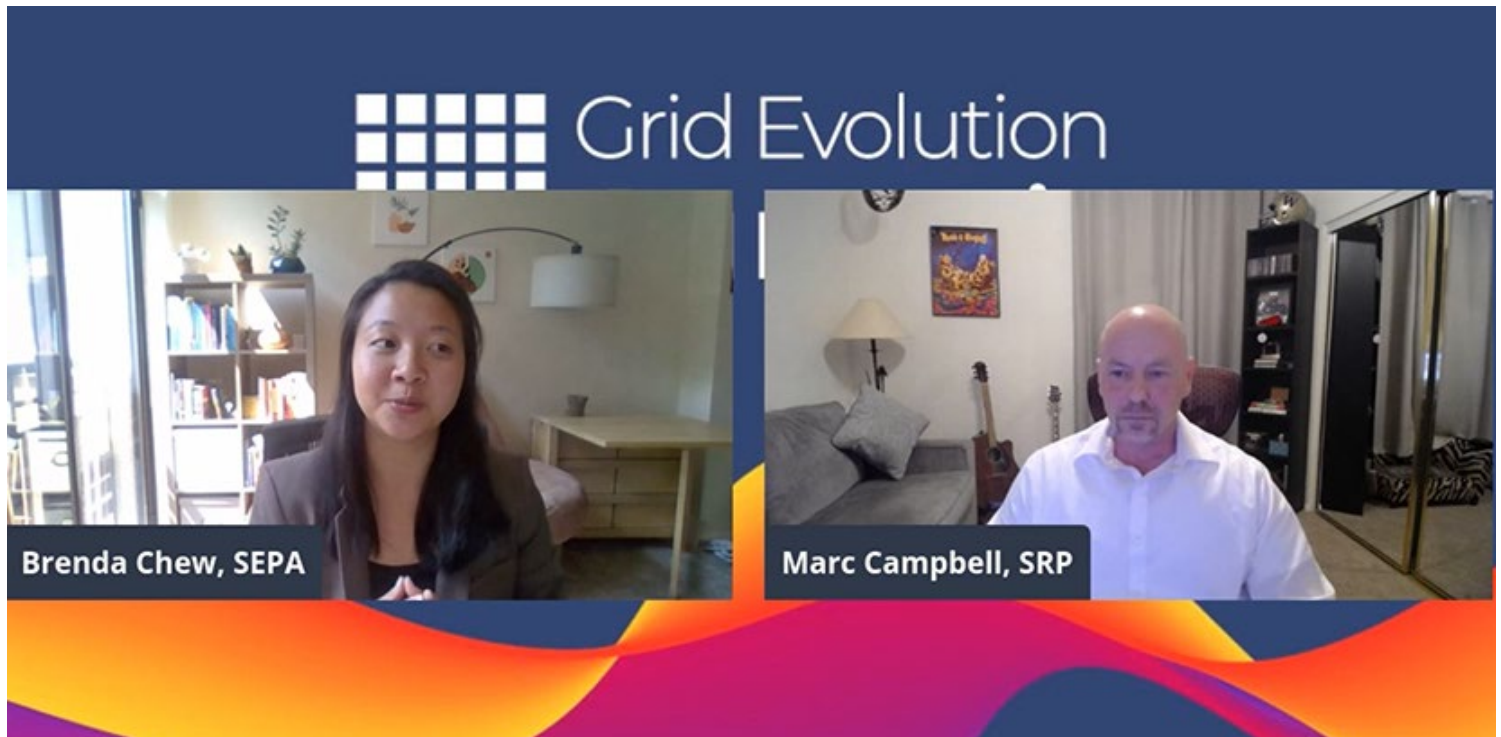
DEIC overcomes that hurdle by listening to utility employees and understanding the problems that they are currently trying to solve.

“We’re bringing them solutions that they asked for and that are already on their to-do lists for the year,” Sledd said. “We’re being responsive, rather than just trotting out some cool startups.”

Eventually, Orchard said, what happens in the area of innovation can begin to influence a necessary cultural shift within a utility. ■

Smart Electric Power Alliance Grid Evolution Summit

SRP Details Stakeholder Engagement Strategy to Accelerate Carbon Reduction



| SEPA

By Jason York

When the Salt River Project, one of Arizona's largest utilities, sought to identify stakeholders with solid commitments to transportation electrification, it wanted to reach as many different constituencies as possible. Cities and towns in the Phoenix area with detailed climate action plans supporting the proliferation of electric vehicles were low-hanging fruit.

Enter the American Lung Association, not a top-of-mind player in the decarbonization of the transportation sector, but Marc Campbell quickly linked to the valid reason otherwise.

"When it comes to electric vehicles, stop and think about air quality and the impacts on people that have lung disease, and [the American Lung Association is] a pretty vocal stakeholder in that arena," said Campbell, manager of sustainability policy and programs for SRP. "They can reach legislators and other organizations in a different way than a utility does."

Speaking on July 27 at the Smart Electric Power Alliance's virtual *Grid Evolution Summit* during a session on stakeholder engagement as part of accelerating carbon reduction, Campbell said that when SRP made changes to its [2035 Sustainability Goals](#), there was a five-month pro-

cess with more than 60 community stakeholders and customers to gain recommendations and support for the revisions.

As part of SRP's strategy to get 500,000 EVs in its service territory, Campbell wanted to identify 10 strategic stakeholders that had a strong commitment to transportation electrification and the ability to influence others and take tangible action to reach goals. For example, the American Lung Association said in a [report](#) that the widespread adoption of zero-emission transportation technologies like EVs could produce wide-ranging health and climate benefits.

The hope was to create a "positive process with a lot of momentum," and Campbell said the 10 "founding partners" got other groups excited about the EV initiative. That also created an organic word of mouth, Campbell added.

"The way that we have built this has been extremely collaborative," Campbell said. "We did not come into it with any sort of SRP-specific agenda."

The stakeholder process can be a "black hole," according to Campbell, who said that it was important that SRP's "gravitational pull" not be felt too strongly in this instance.

"We didn't want this to be about SRP. We

wanted this to be about transportation electrification," Campbell said. "As we started to design the foundations, we were really careful to make sure that our partners had a strong voice in determining what the vision and mission of this group were going to look like, and that's what gets people excited, because they can start to see themselves as a part of the process."

In electrifying the transportation sector, Campbell said it is not a space in which utilities typically operate. That requires "a lot of community partners" for SRP to reach its EV goal.

As part of SRP's more extensive sustainability stakeholder process, which will tackle goals like reducing carbon per megawatt-hour by 65% from 2005 levels by 2035 and by 90% by 2050, "the ingredients are still largely the same."

"It's about open dialogue, transparency and creating common visions of where you can go," Campbell said. "The primary difference here is that there are some stakeholders that might want you to get to a place — particularly the carbon emissions reduction from our from generating facilities — that you can't quite get to yet, and that is a very tough conversation when you start to talk about the limits of your system." ■

Smart Electric Power Alliance Grid Evolution Summit

Bonus content from *NetZero Insider*

SEPA Highlights Lessons from Microgrid Feasibility Study at Housing Project

By *Martin Berman-Gorvine and Rich Heidom Jr.*

All microgrids may be different, but the process of developing one can be standardized.

That was one of the takeaways of a microgrid feasibility study by Baltimore Gas & Electric (BG&E), officials of Annapolis, Md., and the Smart Electric Power Alliance (SEPA) for a public housing development now under construction.

Funded by a \$100,000 grant from the Maryland Energy Administration, the collaborators considered four scenarios for the Newtowne 20 public housing project, which the Housing Authority of the City of Annapolis (HACA) is redeveloping after razing a 1970s-era project that originally stood on the site. Residents are expected to move into the 78-unit housing project next spring.

Whether the microgrid will be built is uncertain. SEPA delivered a preliminary report to MEA a few weeks ago, and a project team of BG&E, HACA and property developer Penrose are considering potential business and financial models. They hope to seek funding from the Federal Emergency Management Agency's Building Resilient Infrastructure and Communities [program](#).

Regardless, participants told SEPA's Grid Evolution Summit last week that they learned a lot from the exercise.

"This is what we do — help utilities learn how to fish," Jared Leader, SEPA's senior manager of research and industry strategy, said of SEPA's role in the project. "This gets under the hood

for microgrids, so maybe we can develop a template we can use for future projects."

The centerpiece of the feasibility study process was stakeholder engagement, which began with kickoff meetings involving city officials, HACA, environmental consultants, residents and Penrose in the summer of 2020. "The stakeholder engagement is important," said Justin Felt, BG&E's manager of strategic planning. "You want people to stand up and say they support it."

"The width and breadth of the stakeholder pool that the team put together was impressive," said Jennifer Adams, HACA's director of development. "We had all different backgrounds. Education was important, so that all became familiar with the basics."

Stakeholders were presented with four scenarios, including the ability of the entire community to "island" during grid disturbances or limiting that capability to a community center, where residents could recharge their phones and access the Internet. The participants also considered whether to include rooftop and carport solar and whether to include a natural gas generator for backup.

Because not all stakeholders can understand all the engineering details, Felt said, "it's important to boil it down, and not give them 20 options and tons of footnotes."

Ultimately, the team settled on a 184-kW rooftop solar system with a 55-kW battery and a 90-kW natural gas generator that could provide five days of islanding capability for the entire development.

"It was a surprise," said Leader. "We went into it thinking that natural gas would be a non-starter, but I remember that the mayor's office ... was keen on including some of that in a minimal amount to reduce the cost and to increase the duration of the ability of this site to island."

"We were thinking maybe the entire facility wouldn't be served; it would just be the community center," he added. "But the stakeholders really wanted to see" coverage for all the homes.

"One of [the] barriers identified through the study was the difficulty in passing savings on to the end user due to complex HUD regulations on how utilities feed into affordable rents," Adams said in an email after the presentation. "So, there is no cost benefit to residents. However, residents would directly benefit from energy resiliency in the case of any power interruption." This was attractive to the residents, who had experienced frequent power outages in the old buildings, she said.

Learning Opportunity for Utility

BG&E had applied to the Maryland Public Service Commission several years ago for permission to build its own microgrid, but the commission turned it down, recently rejecting fellow Exelon (NASDAQ:EXC) utility Pepco's microgrid proposal as well, said Felt.

BG&E would not be the owner of the Newtowne 20 microgrid, he said in an interview with *NetZero Insider*. "Some distribution infrastructure in front of the meter would need to be owned by the utility. But the natural gas generation [planned as a backup source of power] would not be owned by us."

"The purpose of this project ... is to get a sense of economics, what the technical details would look like," he added. "With this feasibility study we can gain some learnings, especially around stakeholder engagement."

"This is a perfect example of an energy project that can really advance some of the equity, environmental and social justice goals within communities, as well as resiliency needs and sustainable energy, to populations that have historically been left out," Leader said in an interview. "It's still nascent, and utilities are still grappling with what microgrids are and what their role should be. It's an interesting pilot to demonstrate BG&E's role and their strategy in working on this." ■

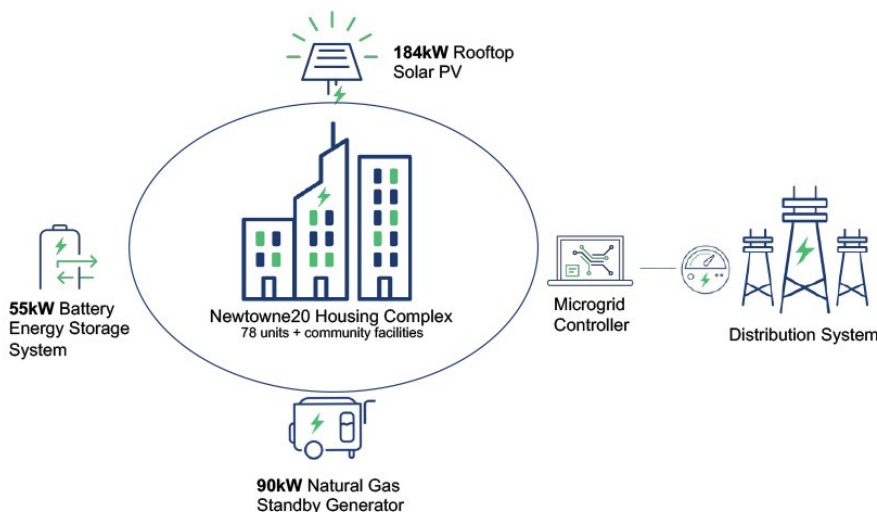


Illustration of a proposed microgrid at Annapolis, Md., housing complex | SEPA

Smart Electric Power Alliance Grid Evolution Summit

Bonus content from *NetZero Insider*

Hawaii's PBR Efforts Get Conference Spotlight

By *Cody Brooks*

Hawaii's recent move to performance-based regulation (PBR) is still "a work in progress," state Public Utilities Commission Chair James Griffin told participants at the Smart Electric Power Alliance (SEPA) Grid Evolution Summit last week.

"None of this is easy. I want to be clear: It was contentious," Griffin said Wednesday. Hawaii switched from cost-of-service regulation to PBR in June, an effort "two-and-a-half years in the making," with some programs still being implemented.

Hawaii's PBR framework includes "four big sections," Griffin said, including revenue adjustment mechanisms, performance incentive mechanisms (PIMs), grid services incentives and a collaborative effort between the PUC and energy efficiency providers to provide programs for low- to moderate- income residents.

Noting Hawaii's "high electricity cost environment," Griffin said, "From the outset of this, [the PUC] did want to see Day One savings for customers."

Moderating the discussion with Griffin, SEPA Managing Director Janet Gail Besser pointed to a key feature of Hawaii's PIMs: "The focus is on outputs or outcomes for customers to set rates, rather than inputs on the part of the utility — what it costs to serve the customer."

Griffin said the PUC wants to ensure cost savings by setting a key productivity factor for utility companies at zero. "Our prior experience with this did inform us that this was a sufficient factor to meet our goals."

But speed is of the essence for the PUC. "The timing aspect of this is really important for us, and I think that's where we're still looking for improvement. We're wanting to see the projects come online sooner. The incentive structure here is front-loaded, but I haven't quite seen the urgency yet to move the timelines up, so we're still working on that."

Griffin referred to the PUC's contentious proceeding around the looming shutdown of a critical coal plant on Oahu, with the commission repeatedly expressing frustration at Hawaiian Electric's halting efforts to replace the plant with renewable resources. "Our near-term needs enough replacement resources for when our power plants go offline." (See [Hawaii PUC Weighs Coal Plant Closure Options.](#))



James Griffin | NEPR

Besser asked Griffin about the PUC's pilot process for the PBR framework, "because that's something that SEPA has been encouraging and sees as very important for grid modernization — in particular, how to really expedite the review of pilots so that utilities can get new pilots and new operating practice out there quickly to see if they're actually going to benefit customers."

Griffin explained that the commission has 45 days to review a pilot plan once it has been submitted. Investors and developers need to have their "homework done" so that the review process does not become bogged down, he said. "We hope to see more of this in the next five years."

"This has been a cultural change internal to the commission as well," Griffin said. "One of my observations is that this is what it's going to take for this to be successful. What the tradition has been is, we've received some pilot applications in the past, but generally they follow through our normal regulatory framework. So, a \$1 million request for a short-term pilot would be treated, in our former process, similar to a \$400 million dollar [advanced metering infrastructure] request."

Griffin said the commission can accept that some projects will fail, "and it's better to learn that and avoid the long, protracted fight over something that you learned, that you shouldn't be doing. That's been a cultural discussion internally ... We need to allow the utility the flexibility to do these pilots, learn, and even find out where things don't work out perfectly."

Griffin pointed to the PUC's experience with Hawaii Gas. "We had a good case with our gas utility, trying to look at different renewable gas technologies a while ago. And we learned that

it wasn't [commercially viable] yet, and to me, that was a decent learning experience. So, we can see some of this on the electricity side too," he said.

No Easy Shortcuts

All this change has been noted by crediting agencies, who have since raised their outlook for Hawaiian Electric.

"We weren't quite on a watch yet, but this docket and these decisions were being closely watched through the entire period," Griffin said, referring to the utility. "As we worked through the process, we were put on an upgrade watch. The outlook was upgraded." He said that before the upgrade, the utility was not doing well, with its S&P rating "one notch above junk status."

Asked what lessons or key takeaways he would share with other states, Griffin said "the incentive mechanisms can be very powerful" and that the PUC is seeing "actual results delivered."

"Taking the time to set it up right, it's been a very resource-intensive process for our commission. There's no easy shortcuts here if you want to do the type of comprehensive review, comprehensive stakeholder engagement that we've done ... Don't underestimate the undertaking," he said

The PUC chair also made clear that the decision to switch from a cost-of-service regulation to a PBR framework was resolute. "It's something that we see is a strong part of our future. We're not intending to return back to a traditional cost-of-service regulatory framework, and it was important to signal that from the outset." ■

FERC/Federal News



GOP Presses Glick on Natural Gas, Climate at FERC Oversight Hearing Concerns over Pipeline Cybersecurity also Raised

Continued from page 1

just before their time slots and left immediately after. When Rush called a recess for a floor vote after more than three hours of testimony, all the members of the subcommittee had left the meeting room, leaving the FERC commissioners with only staffers.

Preserving the US 'Standard of Living'

Rep. Cathy McMorris Rodgers (R-Wash.) was among the Republicans who insisted climate change concerns should not impinge on Americans' lifestyles.

The government must "make sure policies work for people:

protect our way of life;

protect our standard

of living. We must make sure that our policies enable, not undermine, access to affordable and reliable energy," she said. "We all agree in the importance of a clean energy solution, but not as a substitute for the affordable energy that keeps the lights on."



Rep. Cathy McMorris Rodgers (R-Wash.) | © RTO Insider LLC

Rodgers said state renewable energy mandates and "certain existing electric market structures are driving out traditional baseload generation," resulting in what she called "an electric reliability crisis."

Rep. Bill Johnson (R-Ohio), who proposed a bill ([H.R.1575](#)) that he said would "cut Washington red tape" slowing LNG exports, got into a testy exchange with Glick.

Johnson said the Biden administration was undermining efforts to project American power abroad by "greenlighting" Russia's Nord Stream 2 gas pipeline while expressing "disdain for America's domestic pipeline infrastructure and support for [a] radical rush to decarbonization."

Citing data from the National Energy Technology Laboratory that found U.S. LNG has lower lifecycle emissions than Russian gas, Johnson pressed Glick on whether FERC would include climate considerations in reviewing permits for LNG export terminals.

Glick said court rulings limit FERC to considering only direct emissions, and that downstream impacts are under the jurisdiction of the Department of Energy. "I understand your



After more than three hours of testimony, all of the members of the House Energy Subcommittee had left the meeting room, leaving the FERC commissioners with only staffers and a few members participating via video. | © RTO Insider LLC

question, Mr. Johnson; we just don't have authority to consider that," Glick said.

"Well sure you do," Johnson shot back. "You just don't want to answer."

Rep. David McKinley (R-W.Va.) challenged Glick over FERC's March ruling on Berkshire Hathaway Energy's proposal to replace 87 miles of facilities on its Northern Natural Gas pipeline — the first time the commission assessed the greenhouse gas emissions of a proposed natural gas infrastructure project and its impact on climate change. (See [FERC Assesses Climate Impact of Gas Project for 1st Time.](#))

"What level of CO₂ emissions is going to be acceptable?" he asked, accusing Glick of making "very subjective determinations."

Rep. Nanette Diaz Barragán (D-Calif.) returned to the subject at the end of the hearing, asking Glick "what is the threshold at which a

[gas] project's climate impact is too great to move forward?"

"I can't tell you at this point what level of emissions is too much," he said. "It's not just the emissions level. It's actually whether you can mitigate those emissions. There's a whole bunch of other potential adverse impacts — whether it be [threats to] species or wetlands, to air emissions, to a whole bunch of other impacts associated with a pipeline that the commission, when we consider a certificate proposal, try to mitigate."

"We very well could ... require the pipeline developer to mitigate their greenhouse gas emissions before we made a final decision on a pipeline. [But] we have to address these issues on a case-by-case basis."

Several representatives used their time to pitch bills they have sponsored, including Scott Peters (D-Calif.), who touted his [bill](#) to give FERC "backstop" transmission siting authority if states refused to act. (See [Can New Laws Overcome Tx Permitting Roadblocks?](#))

Rep. G. K. Butterfield (D-N.C.) [wants](#) to amend the Natural Gas Act to give FERC the authority



Rep. David McKinley (R-W.Va.) | © RTO Insider LLC

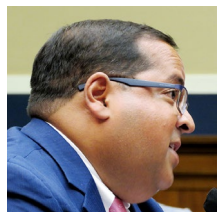
FERC/Federal News



to order refunds when an interstate pipeline is found to be overcharging, as the commission has for addressing overcharges by electric utilities under the Federal Power Act. Glick agreed that not having gas refund authority “inhibits us from being able to fully protect consumers.”

Cybersecurity, Pipelines

Cybersecurity and the ransomware attack on the Colonial Pipeline were raised by several representatives, including Ranking Member Fred Upton (R-Mich.).



FERC Commissioner Neil Chatterjee | © RTO Insider LLC

“This is a new reality that all of us have to deal with in the energy space,” said Commissioner Neil Chatterjee, who coauthored an article with Glick in 2018 that urged Congress to move responsibility for pipeline security from the Transportation Security Administration to an agency with sufficient resources to address cybersecurity threats.

“In May, Glick and Commissioner Allison Clements called for “mandatory cybersecurity standards,” like NERC’s Critical Infrastructure Protection (CIP) standards, to cover the nation’s 3 million miles of natural gas, oil and hazardous liquid pipelines.

“If a missile had taken out the Colonial Pipeline, we would very clearly recognize that as an act of terrorism or war and known how to respond accordingly. Our mindsets are not quite there yet for something like a cyberattack taking out critical energy infrastructure,” Chatterjee said. “But the reality is the economic and national security impact is the same as if it was a missile attack. So I think it’s incumbent upon all of us to remain vigilant, identify regulatory gaps and work to stay ahead of this.”



FERC Commissioner Mark Christie | © RTO Insider LLC

“When you look at what happened on the pipeline, the seriousness of that demands a response much higher than an economic regulator such as FERC” can provide, added Commissioner Mark Christie.

In May, Glick and Commissioner Allison Clements called for “mandatory cybersecurity standards,” like NERC’s Critical Infrastructure Protection (CIP) standards, to cover the nation’s 3 million miles of natural gas, oil and hazardous liquid pipelines.



FERC Commissioner Allison Clements | © RTO Insider LLC

There is “a mismatch between the mandatory standards that the electric industry follows and the voluntary guidance that the pipeline industry currently follows” under TSA, Glick told the committee last week.

Last month, TSA announced that it would require operators and owners of “critical” pipelines to develop and implement a cybersecurity contingency and recovery plan, including protections against ransomware and other threats. (See *TSA Issues New Pipeline Cybersecurity Requirements*.) Glick said he had not reviewed the proposal.

Glick said he would like to see additional supply chain protections for entities regulated by NERC.

“As we saw in the SolarWinds example, the supply chain is not safe currently from cybersecurity threats,” he said. “We have a rule that says utilities have to have a plan to address supply chain. I think we need to go forward with that and implement some specific standards.”

Chatterjee said standards are not the only response. He recalled a recent conversation with the CEO of a pipeline company who had been briefed by the Office of the Director of National Intelligence “at a high level that his system was vulnerable, but no one in his company had a high enough security clearance to gain access to the classified briefing to know where to make investments in his system.”

“These kinds of things are easily remediable,” Chatterjee continued. “We need to find ways to [help] the private sector, where these executives now find themselves on the front lines of 21st century warfare. I don’t think that’s a hyperbolic statement; that’s the reality of protecting critical infrastructure today, and we need to work together.”

Different Role

Asked during a break in the hearing for his reaction to his first oversight hearing as chairman, Glick — who like Chatterjee served as a Senate staffer before joining the commission — joked, “It’s a lot easier sitting back behind the members [as staff] than being in front of them.” ■



(Left to right) FERC Chairman Richard Glick and Commissioners Neil Chatterjee, Allison Clements and Mark Christie testified at the House Energy and Commerce Subcommittee on Energy’s hearing. Commissioner James Danyl participated via video. | © RTO Insider LLC

FERC/Federal News



Bipartisan Infrastructure Bill Offers Funding for Grid, EVs

Senate Vote Seen Within Days

Continued from page 1

and climate change, based on the bill text and a [summary](#) from the Senate Committee on Environment and Public Works:

Electric Vehicle Charging and Alternative Vehicle Fueling (\$7.5 billion): The bill would support development of “publicly accessible electric vehicle charging infrastructure” as well as hydrogen, propane and natural gas fueling infrastructure along designated “alternative fuel corridors” with an emphasis on “rural, disadvantaged, and hard-to-reach communities.” The bill authorizes \$2.5 billion from the Highway Trust Fund over five years for a new competitive grant program to build out alternative fuel corridors and \$5 billion for a new Electric Vehicle Formula Program to provide money for states to build electric vehicle charging infrastructure. Grants would be limited to \$15 million each.

Clean School Buses and Ferries (\$7.5 billion): The bill includes \$2.5 billion for replacing existing school buses with zero-emission buses and \$2.5 billion for those running on alternative fuels. Another \$2.5 billion is targeted for the replacement of existing ferries with electric or low-carbon ferries.

Port Truck Emissions Reduction Program: The bill would provide \$400 million to reduce air emissions from trucks idling at port facilities.

Existing Nuclear Plants (\$6 billion): Nuclear plants at risk of closing because of market conditions would be eligible to participate in a bidding process for subsidies administered by the Department of Energy.

Former Coal Sites: Section 40209 makes the sites of former coal mines and generating plants eligible for \$750 million in grants for repurposing the properties as an “advanced energy property.” Qualifying technologies would include renewables (solar, hydro, wind, geothermal or hydrothermal, fuel cells, microturbines or energy storage systems and carbon capture use and sequestration). Manufacturing of electric or fuel-cell vehicles and heavy-duty hybrids also would be eligible.

Grid Infrastructure and Resilience: Section 40101 would provide \$5 billion in grants for supplementing existing grid hardening efforts, reducing the risk of wildfire and the consequences of “disruptive events.” Eligible



The Senate began debate Monday on the \$1.2 trillion bipartisan infrastructure bill. | C-SPAN

projects would include weatherization and fire-resistant technologies; undergrounding of electrical equipment; relocation and reconductoring of power lines; vegetation and fuel-load management and distributed energy resources. Half of the funding would be for states and tribes with the other half for entities such as electric grid operators, generators, storage operators, transmission owners and distribution providers.

Section 40103 authorizes \$6 billion for demonstrations of “innovative approaches to transmission, storage, and distribution infrastructure to harden and enhance resilience and reliability.”

Section 40106 creates the “Transmission Facilitation Program,” which authorizes the Department of Energy to sign contracts for up to 50% of the capacity of new transmission lines of at least 1,000 MW or upgrades to lines of at least 500 MW to encourage other entities to contract for capacity. It allows up to \$2.5 billion in borrowing at any one time. The bill prioritizes projects that enhance “capacity, efficiency, resiliency, or reliability,” including reconductoring with advanced conductors and hardware and software enabling dynamic line ratings, advanced power flow control, or grid topology optimization. Also favored would be projects that facilitate interregional transfer capacity or lower greenhouse gas emissions.

Reaction

Many interest groups expressed their support for the package after the agreement was announced and cleared procedural votes last week.

The Nuclear Innovation Alliance praised the inclusion of full funding for two large demonstration projects under the Advanced Reactor Demonstration Program, saying it will “catalyze private sector innovation and cement U.S. leadership in advanced nuclear technologies.”

The Business Network for Offshore Wind said it would “jumpstart offshore wind supply chain opportunities and enable states to strategically invest to develop port facilities” through funding for port and transmission upgrades and a manufacturing tax credit.

The Carbon Capture Coalition was encouraged by “provisions to scale deployment of carbon capture, removal, utilization and associated CO₂ transport and geologic storage infrastructure.”

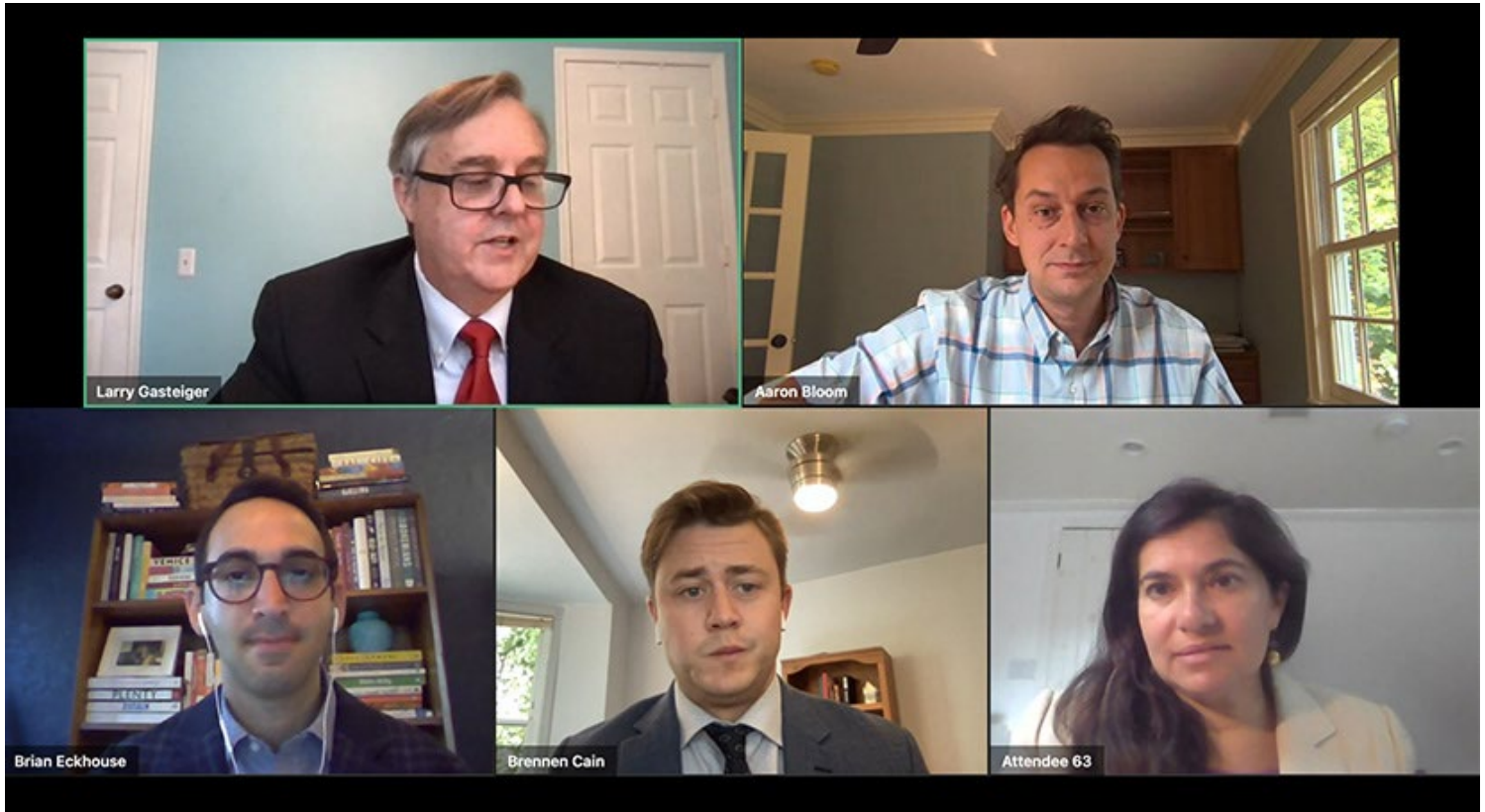
The Clean Energy Business Network urged passage, saying, “Supporting the clean energy industry would create both immediate AND long-term benefits by generating well-paid manufacturing and construction jobs in every part of the country while creating a stronger, healthier, and more resilient future.” ■

FERC/Federal News



Panel Says Tx Spending Can Fix Economy, Fight Climate Change

Christie Supports Role of State Regulators on Project Need



Clockwise from top left: Larry Gasteiger, WIRES; Aaron Bloom, ESIG; Julia Frayer, London Economics International; Brennen Cain, BlueGreen Alliance; and Brian Eckhouse, Bloomberg News. | WIRES

By Michael Kuser and Michael Yoder

Tens of billions of dollars in transmission project spending could help the economy recover from the pandemic and help fight climate change, according to a panel at the WIRES 2021 Summer Meeting on Thursday.

“Delaying the infrastructure also delays our success at curbing the significant property damages and health damages to our economy” resulting from extreme weather events, said Julia Frayer, managing director of London Economics International.

LEI in May published a *report* that examines the economic impact from \$83 billion in approved or planned transmission projects across the U.S.

A transmission project that runs between PJM and NYISO doesn’t necessarily undermine the benefits of a project in the Midwest between SPP and MISO, Frayer said.

“When we talk transmission versus renew-

ables, many folks think of lots of renewables; every rooftop will have a solar panel, so we don’t need transmission,” Frayer said. “I think that is a myth that has a probably grown too big and is on very shaky facts, because in fact it is a combined system that we’re trying to create here.”

Building interregional transmission lines is key to making the power grid work better, said Brennen Cain, policy adviser with clean energy advocacy coalition BlueGreen Alliance.

“There are all these places that are producing renewable energy right now ... and increasing connectivity to deliver power to places that don’t have the capacity for massive solar farms or onshore wind farms is going to be vital,” Cain said.

To add more solar in parts of the country will require massive increases in the transmission network, said Aaron Bloom of Energy Systems Integration Group (ESIG). “Because we don’t have that we’re seeing lower quality sites being developed ... and they’re just struggling to find

that place to interconnect,” which slows down the scale of deployment.

Panel moderator and Bloomberg News reporter Brian Eckhouse asked about labor unions advocating for large transmission projects.

“Engagement from labor unions comes with individual projects when those projects are planned and have approval and are shovel-ready,” Cain said. “We focus our efforts on making sure that the federal investment in these projects ... have labor standards attached to them.”

The multiplier effect is also known as the “drop in the water” effect, Frayer said.

One dollar goes to the construction worker, who in turn needs to go and buy some groceries, or buy or rent a home, “and we want to see this private sector spending really reach as far across the economy as possible,” Frayer said.

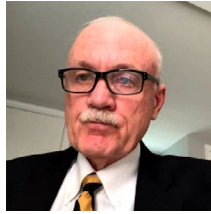
States Key to Tx Planning

Need is the key factor in building large infra-

FERC/Federal News



structure projects, whether generation, distribution or transmission, and state regulators are best situated to determine need, said FERC Commissioner Mark Christie, who spent nearly 17 years on the Virginia State Corporation Commission before being appointed to FERC in January 2021.



FERC Commissioner
Mark Christie | WIRES

“The best transmission policy is the policy that is actually achievable ... so it needs to be based on the reality of the circumstances,” Christie said. “State regulators are critically important to getting needed infrastructure built, and you’re not going to get the needed transmission built without state regulator involvement and the credibility that they’re going to bring.”

Christie recalled the “extremely controversial” Trans Allegheny Interstate Line (TrAIL), a 165-mile, 500-kV transmission line that crossed Pennsylvania, West Virginia and Virginia.

“I can remember sitting in high school gyms where people were passionately opposed to having this 500-kV line built,” he said.

All three state commissions, despite the opposition, approved TrAIL and it got built, which today is the largest single regional project ever built in PJM, he said.

Christie recalled another controversial project, Project Mountaineer, which was going to be four 765-kV lines running from West Virginia to East Coast load centers. He never had a chance to rule on the project because PJM, which had originally put it in its Regional Transmission Expansion Plan as a needed project, ultimately changed the load forecast and took it out.

He challenged the presumption that had the federal government designated the project as a National Interest Electric Transmission Corridor (NIETC), it would have been built. None of the opposition would have gone away, and state regulators still would have done monthslong analyses, taken hundreds of pages of testimony and held hearings where people could express their opposition, he said.

It’s the states that determine the need, and “it’s the states who are going to review all the projects and do what we did in TrAIL and compile an extensive record which can stand up on appeal — and it did stand up on appeal. ... That’s the vital role that state regulators play getting these projects built because the state

commissions do their due diligence and have credibility,” Christie said.

He also dismissed the idea of a national “transmission czar” who could force a needed project on an unwilling public.

“I don’t think it’s realistic to think some national transmission czar is going to override a decision made by state officials and have any credibility in that state, and I think you’re going to have a firestorm of opposition if you start trying to do that,” Christie said.

State vs. Federal

Developing coordination and collaboration between state and federal agencies will be a major key in successfully upgrading the transmission system as renewable resources continue to proliferate, according to participants in the second panel in the afternoon.

Abe Silverman, general counsel of the New Jersey Board of Public Utilities and self-professed history lover, said that when he looks at the current transmission buildout, he is seeing the “most profound transmission expansion since rural electrification” in the 1930s.

Silverman said New Jersey is at the forefront of the transmission expansion as it continues to proceed with its offshore wind initiatives, including installing 7,500 MW in the next decade. (See [NJ Awards Two Offshore Wind Projects](#).) He said adding generation in locations that previously did not have it is creating transmission, interconnection and distribution-level issues.

“We’re talking about for the first time taking the grid to places where it isn’t at the moment, whether that be off the Eastern Seaboard or to renewably constrained areas that don’t have a robust transmission system,” Silverman said.

The “herculean challenge” of building out transmission must be done at a price that consumers can afford, Silverman said, or excessive costs will “kill this transmission revolution.” He said the “enormous untapped power” between state and federal regulators will help to keep costs in check, pointing to entities like PJM playing a major role.

Silverman said New Jersey wouldn’t be able to enact their ambitious wind goals without the use of the state agreement approach with PJM that began a year ago to aid in the transmission planning. (See [PJM Dusts off ‘State Agreement’ Tx Approach](#).) He said he would like to see similar programs be the default across the country.

“States can’t be expected to take on this bur-

den alone,” Silverman said. “We really need to be working with our fellow states and collaborators.”

Sue Glatz, director of strategic initiatives and interregional planning at PJM, said the RTO has recognized the world is “generally moving towards decarbonization.” She said that while PJM remains technology- and fuel-neutral for generation, it recognizes the change in generation goals among different states and must assure their processes are in place to meet the changes and the “evolution of the fuel mix” in the region.

Glatz said the state agreement approach has allowed PJM to work with a state like New Jersey on complicated transmission planning projects not typically done on a local level. “We’d like to see that this becomes perhaps a role model or a template should other states want to move forward either individually or collectively.”

Moderator Jodi Moskowitz, deputy general counsel and RTO strategy officer for Public Service Enterprise Group, asked where the lines of responsibility and authority exist between FERC and the states regarding transmission planning and cost allocation.

Jennifer Murphy, director of energy policy and senior counsel for the National Association of Regulatory Utility Commissioners, said she’d like to see a move away from the idea of “lines of authority” to “areas of cooperation.” Murphy said there are different ways RTOs and ISOs take into account state perspectives and input into the planning process across the country, and having a way to share lessons learned and best practices in planning with different entities would be helpful.

Murphy said she agreed with comments made earlier in the conference by Christie, which she said debunked the myth that states are the entities slowing down or stopping infrastructure development. Murphy said there are ongoing efforts in Congress to “increase the backstop siting authority” for the federal government, but that it’s “imprudent” for the federal government to take that role.

Federal regulators typically aren’t familiar with state laws and different circumstances on the local level regarding projects, Murphy said, leading to scenarios and planning that aren’t in the best interest of states.

“To have the federal government override a decision can be very detrimental not only to the process but to the public interest in general,” Murphy said. “It’s important to listen to state regulators.” ■

CAISO/West News



Calif. Governor Proclaims Emergency as Blackouts Loom

By Hudson Sangree

California Gov. Gavin Newsom signed an emergency declaration Friday aimed at keeping the lights on this summer by paying for demand response from industrial users, speeding battery interconnections and waiving clean air regulations to allow for backup diesel generation.

“While we build toward a safe, affordable and reliable energy future that benefits all our communities, we’re also taking action to meet the challenges caused by climate change that are already at our doorstep,” Newsom said in a [statement](#).

The governor faces a recall election in September. Former Gov. Gray Davis was recalled after the Western energy crisis of 2000-2001 caused blackouts. The state experienced its first rolling blackouts since the crisis last August, when demand outstripped supply during a severe Western heat wave. Close calls followed in September and in June and July.

In his emergency [proclamation](#), Newsom cited the ongoing effects of heat waves, drought and wildfires in the West.

“Because of drought conditions, water supplies in California’s reservoirs have dropped to lev-

els so low that hydroelectric power plants have had to reduce or cease production, leading to a reduction of nearly 1,000 MW of capacity and further exacerbating the drought’s impact on California,” he said. (See [Western ‘Megadrought’ Curtails Hydropower](#).)

He also cited a potential shortfall, under extreme circumstances, of up to 3,500 MW this summer and 5,000 MW next summer.

During a heat wave in July, the Bootleg Fire in southern Oregon derated the Pacific AC Intertie, “which delivers power from the Pacific Northwest to California, by almost 4,000 MW,” it noted. (See [CAISO Declares Emergency as Fire Derates Major Tx Lines](#).)

“Many other transmission lines are located in high fire threat areas, including lines located in other states on which California depends, and thus wildfires are likely to continue impacting California’s energy supply unpredictably during this wildfire season,” Newsom said.

The governor ordered a series of measures, some of which backtrack on the state’s push toward clean air and energy. The closure of fossil fuel plants in the West without sufficient nonpolluting resources to replace lost capacity is part of the state’s energy shortfalls. (See [CPUC Orders Additional 11.5 GW but No Gas](#).)

Newsom’s order allows greater use of gas and diesel backup generators on days when CAISO declares an energy warning or emergency “based on its determination that, despite its reliance on all available resources, an imminent shortfall is projected because of an extreme heat event, a sudden and severe reduction in transmission capacity (including reductions due to wildfire), or both.”

It also releases ships in port from the requirement that they connect to shore power rather than continuing to run their diesel engines.

“Ships that are berthed in California ports while the CAISO grid warning or emergency notice is in effect shall not be required to use shore power until 11:59 p.m. on the third day following the last consecutive day on which the CAISO issued a grid warning or emergency notice,” Newsom said.

The governor’s office last summer asked U.S. Navy and Marine ships to disconnect from shore power to help avoid additional blackouts. (See [CAISO Provides More Details on Blackouts](#).)

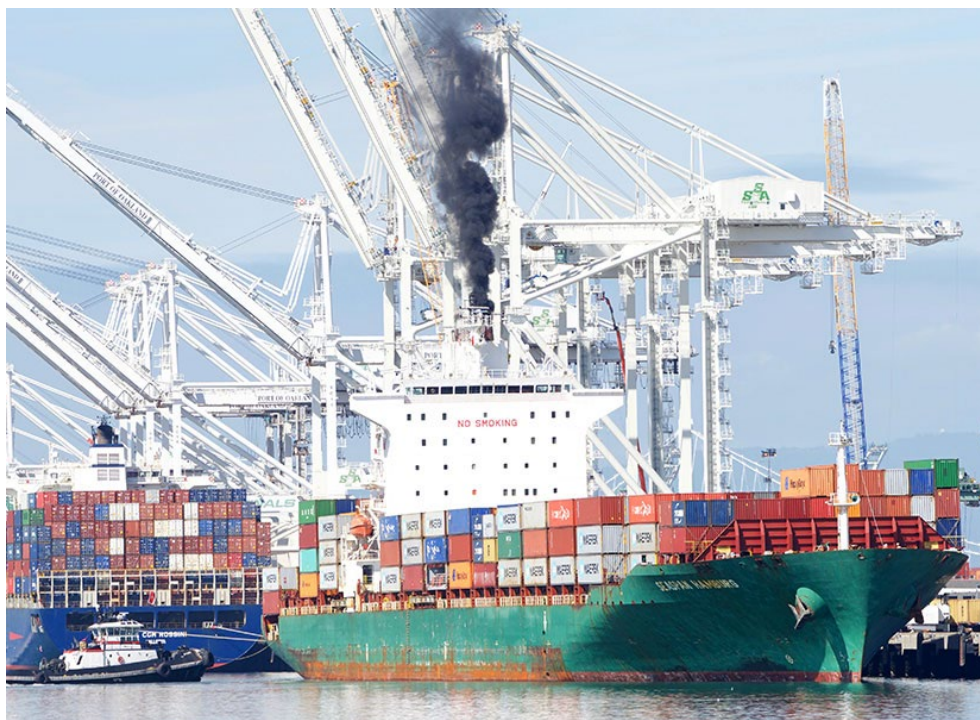
The proclamation also suspends certain water discharge requirements “for any thermal power plant that maintains operations to abate the effects of [an] emergency.”

The governor ordered the state’s utilities to pay large industrial customers a premium of \$2/kWh to cut usage during tight supply conditions. Industrial customers in California currently pay an average of 14 cents/kWh for electricity, according to the U.S. Energy Information Administration.

He also ordered CAISO, the California Public Utilities Commission, the California Energy Commission and state agencies to speed the connection of lithium-ion batteries and other clean-energy resources this summer by expediting permitting and cutting through red tape.

State law and regulations “are suspended to the extent that the Energy Commission determines that such systems should be licensed,” he said.

“All energy agencies shall act immediately to achieve energy stability during [emergencies],” he said. The CPUC, the CEC and CAISO “are requested to work with the state’s load-serving entities on accelerating plans for the construction, procurement and rapid deployment of new clean energy and storage projects to mitigate the risk of capacity shortages and increase the availability of carbon-free energy at all times of day.” ■



A container ship spews diesel smoke in the Port of Oakland. Gov. Newsom’s order released ships in port from connecting to shore power rather than continuing to run their diesel engines. | Shutterstock

CAISO/West News

Wildfires Raise Concerns for Western Tx Lines

Derates, Shutdowns Pose Threat in Western Interconnection

Continued from page 1

runs the lines, said at the time.

The incident also limited transmission on the Pacific DC Intertie (PDCI) connecting Oregon to Southern California via Nevada. The derate was meant to prevent overload on the PDCI, which can serve as a relief valve for the PACI.

As a result, CAISO declared a Stage 2 energy emergency on July 9 while it grappled with the loss of nearly 4,000 MW during a moderate heat wave, narrowly avoiding blackouts. (See [CAISO Declares Emergency as Fire Derates Major Tx Lines](#).)

“The fire in Oregon which took out the big transmission lines leading down to California was a very extreme event,” CAISO CEO Elliot Mainzer said Friday in a media briefing on supply issues. “It didn’t last very long, but it was an event that we think is likely to become more frequent in the future.”

As of Monday, the Bootleg Fire was still burning at about 414,000 acres and was about 84% contained.

‘Disasters that Reduce Transmission’

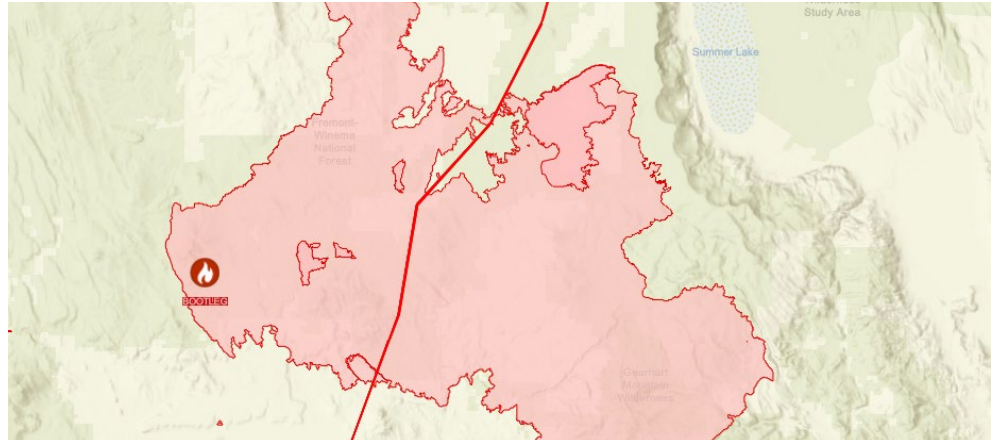
Fires affecting transmission lines are nothing new. In the past, such blazes were a prime concern for stakeholders in the West. But lately, the danger of wildfires to transmission lines has taken a back seat to concerns about power lines starting fires and the need for public safety power shutoffs (PSPS).

The July incident raised old concerns anew, said Dede Subakti, CAISO vice president of system operations.

“We saw firsthand on the weekend of July 9 that wildfires, even those in another state, can affect supplies in California,” Subakti said. “Because we are in an interconnected grid, natural disasters that reduce transmission capability can impact our system.”

The Western Electricity Coordinating Council (WECC) maintains a [wildfire dashboard](#) that coordinates information about fires from official sources with a map of high-voltage lines in the West. Last week, for instance, it showed 71 transmission lines threatened by wildfires, including seven 500-kV lines in the Western U.S. and the Canadian provinces of British Columbia and Alberta.

WECC, which has primary responsibility for



The burn area of the 414,000-acre Bootleg Fire encircled the Pacific AC Intertie on Friday. | WECC

ensuring Western reliability, declined to make any of its experts available for interviews. Spokesperson Julie Booth sent *RTO Insider* an email referencing the reliability organization’s recent webinars on wildfires, which focused primarily on public safety power shutoffs, and said it had begun an information-gathering process among some of its stakeholders.

“In addition to our two wildfire preparedness webinars in May that included best practices and lesson learned, we have also initiated a wildfire data request to select entities within the [Western Interconnection],” Booth wrote. “The request is an attempt for WECC to better understand how wildfires and public safety power shutoffs have affected the reliable operation of the Western Interconnection. We expect to analyze and discuss the findings in early October.”

“Additionally, we will continue to closely monitor wildfire activity and its impacts on the bulk power system through our situation awareness function,” she said.

Drought Dangers

At about the same time as the Bootleg Fire was advancing toward the PACI in Oregon, large wildfires were burning in Arizona, where transmission lines cross the state in a big “X” centered on Phoenix.

In WECC’s wildfire webinar in May, Wade Ward, fire mitigation specialist with Arizona Public Service (APS), warned of a potentially dangerous summer after years of drought.

“If you look at any of the indices across the Southwest, certainly the potential is there for some very large and frequent fires this year,”

Ward said.

The state’s vast ponderosa pine forests sit atop the Colorado Plateau, the site of massive wildfires in prior years. The blazes included the state’s largest wildland blaze, the 538,000-acre Wallow Fire in 2011, and the 469,000-acre Rodeo-Chediski Fire in 2002. Both fires derated APS lines, Ward noted. (See [Western Drought Increases Wildfire Risks](#).)

Trees on the Mogollon Rim, which marks the southern edge of the plateau, are so stressed by drought that they are bursting into flames during controlled burns by the U.S. Forest Service intended to reduce ground fuels near power lines, Ward said.

Mainzer said Friday that the West faces daunting challenges from drought, wildfires and tightening supply as states transition from fossil fuels to renewable resources.

“Earlier this year I expressed guarded optimism that our grid was more prepared for the summer, while acknowledging that extreme West-wide heat was still a significant risk,” Mainzer said during Friday’s briefing to discuss an emergency proclamation by Gov. Gavin Newsom to free up resources and increase generation. (See related story, [Calif. Governor Proclaims Emergency as Blackouts Loom](#).)

“But over the course of the past three months,” he said, “as we’ve experienced worsening drought conditions, a declining hydro production, unprecedented heat throughout the West and increasingly dangerous wildfires impacting key transmission lines, it’s become clear that we’ve entered a new normal and that extraordinary action is required.” ■

CAISO/West News

PG&E Faces New Criminal Charges, Wildfire Liability

Dixie and Zogg Fires Bring Utility More Trouble

By Hudson Sangree

PG&E Corp. last week said it could face serious financial consequences from the massive Dixie Fire burning in Northern California but denied it committed any crimes in starting last year's fatal Zogg Fire.

The company issued its denial of criminal culpability in response to Shasta County District Attorney Stephanie Bridgett's announcement Thursday that her office had "determined that PG&E is criminally liable for causing the Zogg Fire."

The fire killed four residents, including a mother and her young daughter, destroyed 204 structures and burned more than 56,000 acres in September and October.

Bridgett said on Facebook that "a final decision as to the nature and grade of charges has not yet been made. A filing decision will be made prior to the anniversary of the Zogg Fire."

PG&E disputed the prosecutor's finding in a statement Friday.

"The company already has resolved civil claims with Shasta County and continues to reach settlements with individual victims and their families impacted by the Zogg Fire in an effort to make it right," the utility said. "We do not, however, agree with the district attorney's conclusion that criminal charges are warranted given the facts of this case."

An investigation by the California Department of Forestry and Fire Protection (Cal Fire) found that the Zogg Fire began when a leaning gray pine tree fell onto a PG&E power line near the rural community of Igo, in Shasta County. (See [PG&E Equipment Started Zogg Fire, Investigation Finds.](#))



Smoke from the Zogg Fire billows in Shasta County, Calif., on Sept. 27, 2020. | Cal Fire Shasta-Trinity Unit



Firefighters work the Dixie Fire on July 29, 2020. | U.S. Forest Service/Lassen Nation

Cal Fire's findings came after PG&E acknowledged its equipment probably started the fire and after a federal judge blamed the utility for leaving a line energized during high-threat fire conditions and failing to clear vegetation.

"I think it was reckless, maybe criminally reckless, for PG&E to have left that ... gray pine looming," Judge William Alsup said in a February hearing. "It was leaning at a 60-degree angle over that line. Gray pines ... have a shallow root system. That tree had also been burned earlier. That tree was a clear and present danger to the line, and whoever made the decision to leave that tree up should be looked at very carefully. And PG&E did leave it up."

Dixie Fire

Alsup oversees PG&E's criminal probation from the San Bruno gas pipeline explosion in September 2010. He has already ordered PG&E to explain its role in starting the Dixie Fire.

The 244,000-acre blaze in the Sierra Nevada foothills was about 30% contained as of Saturday with more than 5,000 firefighters battling it.

PG&E said previously that the fire started July 13, near where a tree had fallen onto one of its distribution lines in the rugged Feather River

Canyon. Cal Fire seized PG&E equipment as part of its investigation. (See [PG&E Says Its Line May Have Started Dixie Fire.](#))

In its second-quarter [report](#) to the U.S. Securities and Exchange Commission on Thursday, PG&E said it would likely face new liabilities from the Dixie Fire.

"While the cause of the 2021 Dixie Fire remains under investigation and there are a number of unknown facts surrounding the cause ... the utility could be subject to significant liability in connection with this fire," it said. "If such liability were to exceed insurance coverage, it could have a material impact on [PG&E's] ... financial condition, results of operations, liquidity and cash flows."

PG&E's stock price, already depressed by news of the Dixie Fire, sunk from \$9.24/share prior to Thursday's earnings report to \$9.08 by the close of trading Friday. The company's stock has yet to recover from its bankruptcy in the wake of catastrophic fires in 2017 and 2018 that cost it tens of billions of dollars. Those fires included the Camp Fire, the state's deadliest and most destructive wildland blaze, which killed at least 84 residents and leveled the town of Paradise. Fires in 2019, 2020 and 2021, possibly started by PG&E equipment, have kept the company in troubled circumstances. ■

CAISO/West News

EIM Governance Review Committee OKs Power Share with CAISO

By Hudson Sangree

The Western Energy Imbalance Market's Governance Review Committee (GRC) on Monday unanimously approved its proposal for a new delegation of authority between the EIM Governing Body and the CAISO Board of Governors.

The GRC said the *provisions* would increase the EIM's authority over matters affecting it. CAISO tariff changes that apply to the EIM and its stakeholders, for example, would also require Governing Body approval.

The proposed shared authority would be exercised at joint meetings of the two groups, with decisions requiring majority approval by both. In the event of a deadlock, the Governing Body could file separately with FERC, asking it to resolve the dispute. The EIM could seek its own outside attorneys in such a case.



EIM GRC Chair
Therese Hampton |
CAISO

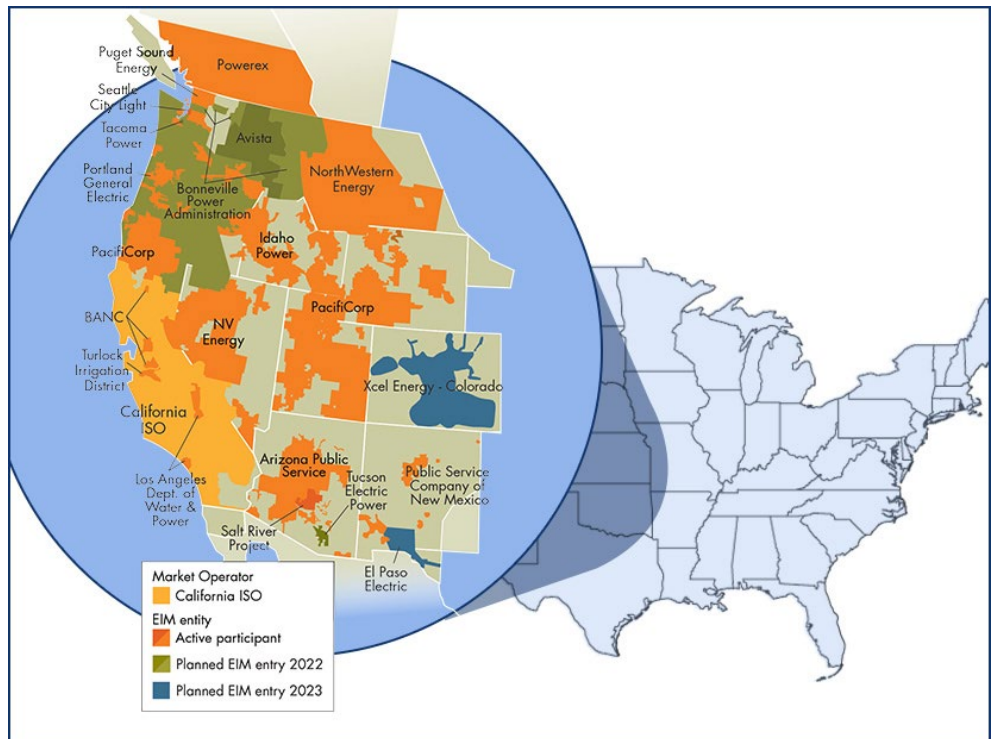
"The proposal expands the scope of issues over which the EIM Governing Body holds formal approval authority and puts many of the [EIM's] real-time market issues under joint authority of the two boards," GRC Chair Therese Hampton said.

"It provides a strong incentive for both boards to resolve differences before going to FERC while also recognizing that there may be some circumstances where a filing is needed."

Stakeholders generally supported the changes, though some expressed concern about FERC settling potential disagreements. The California Public Utilities Commission and other commenters cited a recent controversy over wheel-throughs in CAISO as a matter in which EIM participants were at odds with the ISO, and FERC intervened. (See [EIM Governing Body Rejects Part of CAISO Summer Plan](#) and [FERC OKs CAISO Wheel-through Restrictions](#).)

Monday's recommended changes still require approval by the Governing Body and CAISO board in a joint session scheduled for Aug. 20.

The proposed governance updates are the result of a three-year stakeholder process. The EIM charter, adopted in 2015, required "a review of EIM governance in light of accumulated experience and changed cir-



As of spring 2021, 14 participants plus CAISO were active in the Western EIM. | CAISO

cumstances" within five years of the market's launch.

The delegation-of-authority provisions are the second phase of the GRC's efforts. The first phase — involving the selection of Governing Body members, stakeholder engagement and other matters — passed without disagreement. (See [CAISO Board Approves EIM Governance Changes](#).)

The second, more controversial phase of changes seeks to bolster the independence of the EIM, a CAISO-run interstate market whose voluntary participants reap financial benefits without being subject to ISO authority.

Idaho Public Utilities Commissioner Kristine Raper, a frequent California critic, said that as the GRC's representative of the EIM Body of State Regulators (BOSR), she supported the joint authority proposal.

"We are pleased with the way this joint authority looks in this final proposal," Raper said on behalf of the BOSR. "I look forward to this being presented to both the Governing Body and the Board of Governors."

The expanding EIM now includes 14 participants in addition to CAISO, with more scheduled to join in the next two years. Its footprint

encompasses portions of 10 Western states.

CAISO announced Monday that the EIM had set a new quarterly record of nearly \$133 million in benefits in the second quarter of 2021, bringing the total benefits for market participants to \$1.4 billion since the EIM launched. The benefits represent cost savings achieved through market optimization and grid efficiencies.

By 2023, there will be 21 market participants, representing more than 78% of load within the Western Interconnection, CAISO said.

Competition from SPP's start-up Western Energy Imbalance Service and hesitation from Colorado entities that had been set to join the EIM have cast some doubt on the CAISO-led market, however. (See [Xcel Delays Joining EIM to Examine Options](#).)

SPP has also made a recent push to start a Western RTO, after repeated attempts in California to expand CAISO to other states failed. (See [Commitment Deadline Set for SPP West Participation](#).) The momentum for a Western RTO has increased, as multiple states have passed bills to consider the benefits of joining one. (See [Arizona to Weigh RTO Membership](#).) ■

ERCOT News



'Best Market in World' Faces Uncertain Future

ERCOT Stakeholders Debate Texas Grid's Future at EBA Summit

By Tom Kleckner

AUSTIN, Texas — Peter Cramton, ERCOT board member for more than five years and board vice chair for 15 days, spoke wistfully of his tenure, which ended shortly after February's winter storm brought the grid to its knees.

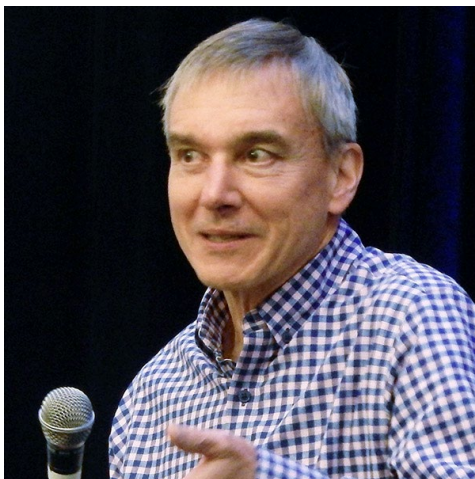
"I still believe ERCOT is the best market in the world," he said last month during a symposium on Texas' energy system sponsored by the Energy Bar Association (EBA) and the University of Texas School of Law.

"The mission was so clear. We delivered reliable energy at the least cost," he said. "We embraced that. Then, you can let the engineers, the market designers, the stakeholders jump in and all work together and solve this very technical problem. It works beautifully, most of the time, until it doesn't."

It didn't in February. The storm's ice accumulation and below-freezing temperatures rendered about half of ERCOT's thermal generation useless as demand, fueled by poorly insulated homes, spiked to record levels. Millions of Texans went without power and hundreds died during the days of misery that followed.

Fingers were quickly pointed at the lack of dependable renewable energy and ERCOT's leadership, especially the out-of-state board members who hailed from cold-weather locales such as Illinois, Maine, Michigan and Canada.

One of the Texas legislature's many bills addressing the winter storm's aftermath blew



Peter Cramton | © RTO Insider LLC



Moderator Michael Jewell (second from left) introduces panelists (left to right) Michael Nasi, Jackson Walker, Becky Armendariz Klein, Klein Energy; and Carl Richie, attorney, for a discussion on legislative actions. | © RTO Insider LLC

up the board structure. The five unaffiliated directors and eight directors elected by their market segments will be replaced by eight political appointees. All Texans, of course.

The board's political makeup, unlike most other regional grid operators, has left stakeholders unnerved. CAISO's board members are appointed by the California governor and approved by the state Senate, a result of the 2000-2001 energy crisis.

"Politics and electricity don't mix very well. Electricity is very technical. Physics wins. As a result, it puts politics in an uncomfortable position," Cramton said.

"There was tremendous value with the prior structure, which emphasized independent expertise ... I don't think it makes sense to have the ERCOT board be all political appointees," he said. "What the legislature and the governor should do is set broad principles and explain what they want to accomplish, and delegate that authority to the regulators. The [Public Utility Commission] then delegates the im-

portant operational authority to ERCOT."

Becky Armendariz Klein, a principal with Klein Energy and a former PUC chair and ERCOT board member, agreed with Cramton. She reminded her audience that she had joined with other former Texas commissioners to recommend the ISO's board be made up of independent directors who go through a search process, "like a corporate board." (See *Former PUC Commissioners Weigh in on ERCOT Fixes.*)

"That really takes some of the politics out of it and brings some objectivity [to the process]," Armendariz Klein said. "We felt as a group that independent board directors at ERCOT are really important, so maybe one day, that will change."

'Kind of a Pickle'

Armendariz Klein and Cramton were among the speakers discussing lessons learned from the winter storm and next steps to be taken during the July 15 summit. Except for those who spent the spring lobbying and testifying

ERCOT News



before the legislatures, it was the first in-person meeting since March 2020.

EBA President Mosby Perrow was so thrilled to be back among fellow human beings that he donned the last suit he wore one year, four months and seven days ago. But who's counting?

"We're back, which feels very good," a tieless Perrow said. "We thought the EBA summit was a perfect vehicle to have a non-partisan, vigorous debate about what should happen to prevent another blackout."

Rick Smead, managing director of advisory services for RBN Energy, was the natural gas industry's lone representative. Addressing the loss of fuel supplies that hamstrung ERCOT's response, he was duly apologetic, calling the lack of deliverability "the catalyst of everything that happened."

"It doesn't feel good. We left it on the shelf like a Soviet grocer," Smead said. "It was the loss of power to producers that made it such a prolonged and deep outage, so somehow, the producers have to have a different design. The weather simply went ... beyond their designs."

Much of the discussion focused on the uncertain future. The PUC, ERCOT staff and its stakeholders are just beginning to dirty their hands in redesigning the ERCOT market's focus on affordability over reliability. PUC Chair Peter Lake has called the energy-only market's emphasis on scarcity pricing, designed to incent new generation, a "crisis model," while ERCOT Interim CEO Brad Jones is stressing reliability over affordability.

Gov. Greg Abbott, meanwhile, has *directed* the PUC — whose three members he has appointed over the last three months — to streamline incentives for thermal resources and allocate

reliability costs to resources that can't guarantee availability, such as renewables. (See *PUC Debates Answers to ERCOT's Reliability Issues*.)

Will the new market create new winners and losers? That's likely, but no one is making predictions right now.

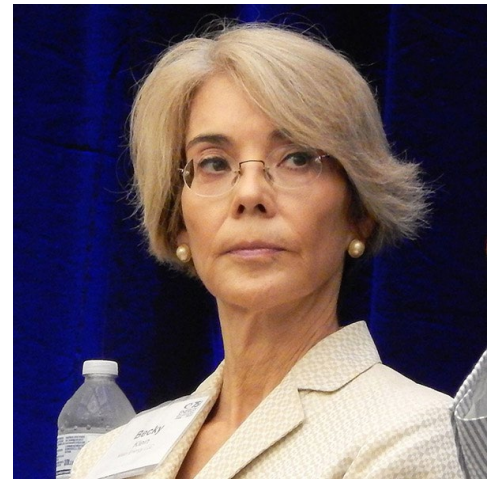
"ERCOT is in a state where it wants to perform incredibly conservatively. What that means is price suppression, and price is the way we incent new investment and resources," said Amanda Frazier, Vistra's senior vice president of regulatory policy. "[The governor] wants more dispatchable generation. The way the market is designed, which we've always thought was correct, was that prices and revenue streams will create the investment that we need. A lot of that investment has been through the development of renewable resources."

Armendariz Klein said she is sensing concern in the investment community, which she said is in "kind of a pickle."

"On the one hand, they're attracted to the Texas market because of its historically low wholesale prices," she said, noting ERCOT's bounty of renewable resources is important to them.

"Especially now where there's a lot of impetus for them to report out on environmental activities. Their shareholders are asking for that too," Armendariz Klein said. "Going forward, we're going to have pricing in the market that's more expensive. That's just expected. Texas will have higher wholesale prices, but who knows what happens to the renewable portfolio. I think in time, that mix is going to change."

Energy consultant Alison Silverstein put in a plug for the report she drafted for Armendariz Klein and four other PUC commissioners. The



Becky Armendariz Klein, Klein Energy | © RTO Insider LLC

report, "Never Again: How to Prevent Another Major Texas Electricity Failure," lists 22 recommendations to improve the ERCOT grid.

Several of the measures call for strengthening housing efficiency, including retrofits for low-income and multifamily housing across Texas. More than half of the state's homes were built before building energy codes with insulation requirements were adopted in 2001, the report says, and more than 60% of Texas homes are heated with electricity instead of gas.

"Most of [the recommendations] are nowhere near the governor's and legislature's immediate priority list," Silverstein said. "That's unfortunate because most of the measures have low costs. Those things don't have the same headline glamour as pounding your fist on the table and demanding to build more power plants." ■

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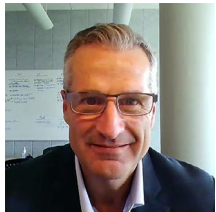
ERCOT News



ERCOT Technical Advisory Committee Briefs

Members Push Back Against Revamped TAC Structure, Conservative Ops

ERCOT stakeholders, somewhat overlooked in the political and regulatory sausage-making taking place in the aftermath of February's winter storm, took advantage of two opportunities to express themselves last week.



Interim ERCOT CEO
Brad Jones | ERCOT

First, they pushed back against interim CEO Brad Jones' plan to convert the Technical Advisory Committee into an officer-level group. TAC members then critiqued ERCOT's use of ancillary services and reliability unit commitments to create

additional operating reserves and reduce the risk of emergency situations this summer. (See [ERCOT Stakeholders Sign Off on More Ancillary Services](#).)

"I view the ancillary services [procurement] as a completely political move to ensure we don't have scarcity again this year," Luminant's Ian Haley said during Wednesday's virtual TAC meeting, speaking to some members' view that Texas political leadership wants to avoid another grid emergency while the legislature is still in session.

But there's little doubt that ERCOT's governance structure is under the microscope right now. That's why Jones addressed the TAC on Point No. 36 in his [60-point roadmap to grid reliability](#): "Ensure the Technical Advisory Committee is comprised of senior-level members from each member organization to promote timely decision-making."

"If you don't think TAC is in the crosshairs, you're not paying close attention," Jones said. "There is a significant level of focus on TAC and the reliability of TAC in the future. I sense that; I feel it; and I want to ensure TAC has every opportunity to succeed."

Jones, who sat before the TAC six years ago as the grid operator's COO, said that with eight new independent directors — politically appointed and likely without ERCOT ties — joining the board as soon as Sept. 1, he's hoping they will recognize the value the committee provides. Under new Texas law, the board will exclude market participant representatives.

"It's uncertain to me what support the board will want from a stakeholder-led TAC," he

said. "I hope to put TAC in the best position to survive and thrive."

Jones said a committee composed of officer-level representatives will have a big-picture view and be able to make quicker decisions without checking in with their superiors.

Several TAC members noted they are already relied upon to make those decisions and that they represent market segments, not companies, but Jones held firm.

"Do you believe that with a group of eight board members — who have not been around ERCOT before and with a government that has lost some level of confidence in the stakeholder process — do you believe TAC can continue to fill that role without raising its profile?" Jones asked.

Jones asked.

"Absolutely," said Morgan Stanley's Clayton Greer, a long-time TAC member.

"I have a concern with that," Jones said.

"It's style or substance," Greer responded. "If they want substance, they've got it. If they want style, I'm not very stylish."

Jones suggested the committee could become an advisory group, saying he has heard concerns about the lack of stakeholder involvement in ERCOT's governance structure. He said his end goal is to have the TAC "valued by the new board," but how that is achieved is up to the committee's members.

"We can't assume we can do things like we have in the past," Jones said.

"I think TAC will become more important than it's even been," Reliant Energy Retail Services' Bill Barnes said. "Those [independent] board members are going to need to hear from TAC. These are billion-dollar decisions. The market is designed to promote competition. It's complicated; it's technical. Every decision we make at TAC affects the market in a certain way."

TAC Chair Clif Lange, of South Texas Electric Cooperative, said he will work with ERCOT staff to further the discussion in a series of workshops.

TAC Asks for More Data on AS Procurement

TAC members left staff with a short list of to-

dos following their discussion on ERCOT's use of conservative operations during the summer.

The committee asked staff to report back with the number of times the additional resources have kept the grid out of emergency situations this summer; whether the high rate of generator forced outages has continued into July; and the market costs for procuring additional ancillary services.

"As we've said, we're going to operate in a more conservative manner, but we're also committed to working with stakeholders to make sure the market works," said Jeff Billo, ERCOT's director of forecasting and ancillary services.

Since June, the grid operator has been maintaining at least 6.5 GW of operating reserves by more than doubling greater amounts of ancillary services, with the costs uplifted to load. Billo said the grid operator's goal is to keep 65 GW of generation online and available into September.

"It's giving us 50 cents in one pocket and taking \$2 out of the other pocket in energy costs," Haley said, noting that Luminant is one of the largest ancillary service providers. "We do still think this is a very bad idea."

Just Energy's Eric Blakey took off his vice chair's hat to stand up for the retailer electric providers (REPs) "who get the calls during outages."

"We seem to be doing this without any consideration of the costs. 'Oh, the REPs will take care of that,'" he said. "I'm not sure that's going to be a sustainable market design. ERCOT needs to realize they're taking dollars out of the market. We need help from ERCOT to identify the cost increase so we can work with the commission to get that recovery."

\$47 Million Market Resettlement

ERCOT staff told the committee that about \$47 million will be uplifted to the market for an incorrect dispatch instruction that ordered a generating resource to ramp down Feb. 17-19.

Staff [said](#) the error will result in a resettlement on a load-ratio share following the market participant's dispute resolution. The resource was paid \$4 million for Feb. 17, \$28.4 million for Feb. 18 and almost \$15 million for Feb. 19, said Kenan Ögelman, ERCOT's head of commercial operations. "The amounts are significant."

The error took place after the ERCOT grid nearly collapsed during the winter storm,



Clayton Greer, Morgan Stanley | © RTO Insider LLC

ERCOT News



when prices were held at \$9,000/MWh in an effort to keep all available generation online.

ERCOT will post market notices for each resettlement.

Members Side with PUC Order

Members voted to approve a nodal protocol revision request ([NPRR1086](#)) that aligns ERCOT protocols with the Public Utility Commission's recent order to eliminate the market's pricing mechanism link to natural gas prices ([51871](#)).

The measure adds a provision to ensure a resource, through its qualified scheduling entity (QSE), can recover its marginal costs during scarcity pricing situations while the low systemwide offer cap (LCAP) is in effect.

The PUC in June approved a rulemaking that revises the grid operator's pricing mechanism by eliminating a provision that ties the LCAP value to the natural gas price index and replaces it with a make-whole provision. (See "Commission Nixes Gas Index Link," [Texas PUC Briefs: June 24, 2021](#).) Previously, the LCAP had been set daily to the higher of \$2,000/MWh or 50 times the natural gas price index, as calculated by ERCOT. The PUC order eliminates the gas price index component and sets the LCAP at \$2,000/MWh without an alternate calculation.

The TAC first rejected a proposed amendment modifying a multiplier that decreased costs allocated to capacity-short QSEs and increased costs spread to all loads. Katie Coleman, who advocates for Texas Industrial Energy Consumers, filed [comments](#) saying the smaller multiplier does not meet the PUC's directive that the make-whole costs are allocated "in a manner that encourages market participants to fully hedge their loads."

"But for the LCAP, entities that are not hedged would be exposed to any costs above \$2,000/MWh but below \$9,000/MWh," Coleman wrote.

The amendment failed, 12-13 with four abstentions, over concerns the language would result in more costs shifted to loads. The TAC then approved the NPRR by a 20-3 margin, with six abstentions.

Southern Cross Directive Passes

The committee approved six revision requests, taking separate votes on two of them when some members said they would abstain.

Luminant and CPS Energy abstained from a vote on [NPRR1083](#), which passed 27-0 and prohibits uplift charges to QSEs acting as cen-



ERCOT's Technical Advisory Committee during one of its last pre-COVID meetings | © RTO Insider LLC

tral counterparty clearinghouses in wholesale market transactions or regulated as derivatives clearing organizations as defined by the Commodity Exchange Act.

Shell Energy North America abstained from [NRR1073](#) over concerns that another NPRR under development would provide a better approach. NPRR1073 prevents a market participant from exiting the market to escape uplift charges and then trying to re-enter under a different name.

The committee's unanimously approved combination ballot included the latest in a series of directives tied to [Southern Cross Transmission](#), a proposed HVDC line in East Texas that would ship more than 2 GW of energy between the Texas grid and Southeastern markets. (See "Members Debate Southern Cross' Bid to be Merchant DC Tie Operator," [ERCOT Technical Advisory Committee Briefs: Feb. 22, 2018](#).)

[Directive 9](#) required staff to evaluate whether the Southern Cross project would require any modifications to existing or additional ancillary services. In a [white paper](#), staff said [NPRR1034](#), approved in February, gives ERCOT authority to establish limits on DC tie transfers and to curtail their schedules when necessary to address the risk of unacceptable frequency

deviations. They found there was no need for other ancillary service changes to accommodate the Southern Cross DC tie.

The combination ballot also included an NPRR, single changes to the planning (PGRR) and retail market (RMGRR) guides, and a system-change request (SCR):

- [NPRR1079](#): separates ERCOT contingency reserve service, which will come in a future release, from fast frequency reserve project language being added to the 48-hour day-ahead market report requirements.
- [PGRR091](#): gives interconnecting entities 60 days to complete an application for a full interconnection study.
- [RMGRR165](#): gives ERCOT additional discretion in scheduling and conducting a mass transition project for defaulting REPs and involving volunteer REPs accepting their customers.
- [SCR815](#): aligns market guides, streamlines processes, increases transparency and tracking, and improves communication among market participants in the MarkeTrak tool used to resolve retail market issues. ■

— Tom Kleckner

ERCOT News



ERCOT to PUC: Changes Coming to Outage Procedures

ERCOT staff last week *told* Texas regulators it would change its outage procedures to avoid a repeat of conservation calls made twice this spring, when an inordinate amount of forced outages reduced supplies against unexpected rises in demand. (See *Texans' Conservation Keeps ERCOT Grid Stable*.)

Staff proposed protocol changes for planned outages with more than 45 days' notice, which are currently approved with the proper lead time. The requests would be approved or rejected depending on whether "the approved aggregate amount of all outages is less than an allowable capacity for each day of the request."

Woody Rickerson, ERCOT's vice president for grid planning and operations, said during the Public Utility Commission's open meeting Thursday that the changes would also require updates to the grid operator's outage scheduler software. That will require vendor changes, Rickerson said, and a vendor has yet to be hired.

Staff process about 26,000 outage requests a year, with 70% classified as forced or maintenance-level outages that are submitted with



PUC Chair Peter Lake (center) discusses the commission's upcoming schedule with Commissioners Will McAdams (left) and Lori Cobos. | *Texas Admin Monitor*

less than three days' notice. Rickerson said most of those are automatically accepted, as forced outages are considered unavoidable.

Planned outages, about 10% of the total, are also automatically accepted under current protocols. The other 20% of outages are a mix

of planned, extensions and maintenance-level outages.

In other action, the PUC formally revoked the retail electric provider certificates for Griddy Energy (51859) and GB Power (51961). ■

— Tom Kleckner

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ISO-NE News

Maine Prepares Statewide Storage Pilot for Critical Services Second Initiative Will Target Load Shifting for EV Chargers, Battery Storage

By Jennifer Delony

Efficiency Maine is taking lessons learned from a commercial energy storage pilot to design a new program for putting storage at critical care facilities.

Maine's new energy storage law directs the agency to launch a new pilot by January to install up to 15 MW of energy storage at hospitals, fire departments, police stations and other facilities that provide critical services. The law, which Gov. Janet Mills signed at the end of June, establishes a goal of 400 MW of installed storage capacity for the state by 2030. (See [New Maine Law Sets 400-MW Energy Storage Target for 2030](#).)

For the new pilot, the agency will target "sophisticated energy consumers," such as large hospitals, that can support 1.5 MW to 2 MW of storage capacity, Efficiency Maine Director of Strategic Initiatives Ian Burnes said on Wednesday.

"We learned with our commercial storage pilot that if you go small, you pay a lot per kilowatt," he said during a Northeast Energy and Commerce Association webinar on Maine's storage goals. "We want to find solutions that are the lowest cost per kilowatt and provide the most benefit."

The commercial pilot included installation of batteries at three locations to study how dispatching the battery energy can affect peak demand, according to Burnes.

"One of the things we found right away is that with the smaller systems, the controllers that we needed to control those batteries were very expensive," he said.

The agency also is planning to launch a new statewide load shifting initiative that takes lessons learned from a bring-your-own-device (BYOD) pilot for reducing load during peak demand periods.

Under the new initiative, the agency plans to limit the technologies that can participate to start, Burnes said.

"What we found from our [BYOD] pilot is that heat pumps ... are so efficient that shifting that load doesn't get us much benefit," he said. "We're going to start with the largest, most reliable devices in people's homes, which are the [electric vehicle] chargers and battery storage systems."



Northern Light Health, one of the largest hospitals in Maine, could qualify for a new energy storage pilot program that will target critical facilities that are sophisticated energy consumers. | [Northern Light Health](#)

The BYOD pilot demonstrated that residential and small customers responded well to incentives for networking their battery storage systems to help mitigate peak demand, according to Burnes.

Under the new initiative, the agency will pay participants to dispatch battery energy to reduce the state's exposure to peak charges and peak infrastructure, he said.

Challenges

As Maine works to achieve its new energy storage goal, it faces unique challenges, according to Sen. Eloise Vitelli (D), who sponsored the energy storage legislation ([LD 528](#)).

"Our energy systems are very complex," she said during the webinar. "They're dynamic, they're interwoven and interdependent on each other and on other systems, on the markets both in-state and regional, and the technologies that keep changing and developing."

The state is starting to build the capacity to address the challenges that arise from complex market dynamics, but Vitelli said it's difficult to keep policy in line with what's happening "on the ground."

Legislators will need to be "nimble," she said, even if they are "not known for that."

The energy storage market also needs to remain technology-neutral, a challenge that Vitelli says can be an opportunity as well.

Storage is not all about batteries, and the energy storage law acknowledges that reality, she said.

The law directs the Public Utilities Commission to consider the feasibility of a pilot program that would develop power-to-fuel projects that convert renewable energy to hydrogen gas, methane or other fuel.

On July 26, the PUC issued a request for comments on the program ([Case 2021-00208](#)). The inquiry seeks information on the definition of power-to-fuel projects, possible benefits to the grid, ratepayer impacts and project examples in other states. Comments are due Aug. 16, and the PUC will submit a report to the legislature in February.

"We need to make sure that we're staying abreast of what some of the other technologies are that may emerge that will play a role in storage as we work to reach our clean energy goals," Vitelli said. ■

ISO-NE News

Eversource Focuses on Connecticut amid Appeal of Penalties

By Jason York

Eversource Energy, New England's largest utility, spent a good deal of its [second-quarter earnings presentation](#) with analysts Friday talking about one state in the region: Connecticut.

Whether it was lingering issues from the response to Tropical Storm Isaias last year, current storm preparedness levels, offshore wind or electric vehicles, Connecticut was front and center for CEO Joe Nolan. He said improving Eversource's relationship with Connecticut policymakers and ratepayers is his "top priority."

To prepare for Tropical Storm Elsa — which last month produced heavy rain and wind but not the widespread power outages and restoration problems in Connecticut that accompanied Isaias last August — the utility brought in 500 extra line crews and tree-trimming teams and prepositioned them with its 700 line crews and 250 tree teams. There was also an online portal for cities and towns to prioritize repair sites for Eversource's teams. Nolan said it was "a good exercise" for Eversource to show that "a lot of things have changed for our business."

Eversource was forced to make these changes through legislation and regulatory mandates in the wake of Isaias. First, the Connecticut General Assembly passed the [Take Back Our Grid Act](#), which directed the Public Utilities Regulatory Authority (PURA) to develop and implement performance-based regulations, including financial penalties such as fines and reductions of return on equity.

PURA finalized a \$28.6 million civil penalty

and annual profit reductions of about \$31 million against Eversource last month after releasing an April assessment of the utility's storm performance. Eversource [appealed](#) the ROE reduction in state court. The "pancaking" of penalties, according to Eversource CFO Phil Lembo, forms the basis of the appeal, which the company believes violates state law in effect at the time of the storm.

Update on OSW, EVs

Eversource's joint offshore wind ventures with Ørsted continued to make significant progress during the quarter, Nolan said. He first cited the agreement with Dominion Energy to charter its U.S.-built, Jones Act-compliant wind turbine installation vessel, currently under construction in Texas. Upon completion, he said, the vessel will sail to New London, Conn., where Eversource will use it to install wind turbines for the Revolution and Sunrise Wind projects. Work has also recently begun at State Pier in New London to convert it into a central staging area for OSW, Nolan added.

PURA approved a [comprehensive EV charger program](#) to support the state's push for having at least 125,000 zero-emission vehicles on the road by the end of 2025. Nolan said Eversource appreciates several PURA changes made to the draft decision "to enhance the program's expected success," and the utility will submit an implementation plan by Oct. 15.

Outside of Connecticut, Eversource will have invested \$55 million in its Massachusetts EV program by the end of the year, helping to connect about 4,000 charging ports. It also has proposed spending more than \$190 million on



Eversource Energy's Berlin, Conn., campus | © RTO Insider LLC

EV support from 2022 to 2025, including \$68 million in capital investments to add charger infrastructure in environmental justice communities.

Earnings

Eversource reported earnings of \$264.5 million (\$0.77/share), up about \$12 million from the same period in 2020 (\$252.2 million, \$0.75/share) driven by its transmission and distribution segments. Transmission earned \$137.6 million during the quarter, up from \$129.5 million, and distribution was up \$121.6 million from \$115 million.

Transcript courtesy of [Seeking Alpha](#). ■



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MISO News

MISO Stresses DR Capacity as Emergencies Accumulate

By Amanda Durish Cook

MISO has been framing load-modifying resources (LMR) this summer as necessary to access its demand response fleet during operating emergencies, de-emphasizing the emergency protocols the RTO must enact before deploying them.

Speaking during a Reliability Subcommittee teleconference Thursday, MISO's Jason Howard said the use of LMRs will probably become "the new normal" within the footprint. Since 2016, MISO has experienced a substantial rise in the frequency and severity of generation emergencies.

Howard said intensifying weather events paired with additional gigawatts of wind and solar resources coming online within the next three years will make demand response's use even more ubiquitous.

"There are definitely things that make managing the reliability margins very challenging," Howard said. "Having to step into that max gen step 2A for demand response will become more of a normal occurrence as we face tight operating conditions."

J.T. Smith, MISO's senior director of operations planning, agreed. "Those are the resources that are provided to us and, unfortunately, we have to be in an emergency to access them," he said.

Smith said despite multiple hot weather and capacity *advisories* issued in July, the grid operator hasn't had to enter emergency procedures since a brief declaration on June 10 for the North and Central regions. (See "MISO

Defends June Emergency Declaration," *MISO Market Subcommittee Briefs: July 8, 2021.*)

"Luckily, we haven't had to move past that because the fleet has responded well and we're out of [maintenance] outage season," he said.

Customized Energy Solutions' Ted Kuhn asked whether MISO is considering limiting the number of emergency-only resources that can clear the capacity auction.

WEC Energy Group's Chris Plante, chair of the Resource Adequacy Subcommittee, asked stakeholders to provide feedback during future meetings on the possible saturation of emergency-only resources.

Stakeholders asked whether thermal generation retirements and renewable growth is driving up demand response use.

"I have a theory, and it's not necessarily proven, but we're seeing thermal retirements replaced with smaller natural gas plants and other energy resources, and it just drives us to a point where when that capacity is needed, it just drives us to that usage," Smith said.

A decade ago, he said, MISO had available capacity well above its reserve margin requirements. Today, the grid operator simply works with tighter margins, Smith said.

MISO Executive Director of Systems Operations Renuka Chatterjee said it was expected that MISO would use its demand response fleet to manage summer heat. She said the RTO considers the LMR fleet as the capacity that members have made available to the grid operator.

"We will be using all of the capacity that's avail-



Jason Howard, MISO | © RTO Insider LLC

able to us to continue delivering energy this summer," Chatterjee said during the Entergy Regional State Committee meeting on July 20.

MISO averaged an 83.4-GW load in June and peaked at 112.2 GW on June 11, a day after the June 10 maximum generation event.

Howard said an unusually hot weather pattern encased much of the North and Central regions in the days leading to the event. He also said 22 GW of non-planned outages was the "primary contributor" to the tight conditions. In addition to forced and lingering generation maintenance outages, Howard said capacity dropped with high transmission congestion and lower-than-anticipated wind production.

Howard said that during the event, the RTO was granted a temporary 250 MW increase to the 2,500-MW South-to-Midwest transfer limit so that resources in MISO South could provide additional support northward. ■

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MISO News

DTE CEO Hints at Accelerating Coal Plant Closures

By Amanda Durish Cook

Amid a strong second quarter showing, DTE Energy's Jerry Norcia signaled that the utility could be accelerating some coal plant closures.

"We're looking at how we can accelerate our coal retirements. ... We are looking very closely at how we can accelerate all of these retirements prior to 2040," Norcia told financial analysts during the company's second-quarter earnings call July 26.

DTE committed to retiring all its coal generation by 2040 in its last integrated resource plan in 2020.

Norcia said the company would issue an update "likely at the end of the year or early next year as to what those plans may look like."

"We continue to look at ways to accelerate our coal fleet retirements and potentially file our updated IRP before September of 2023," he said. "We're spending a lot of time with various stakeholders through the summer, including our board, having those conversations, trying to balance the interest of acceleration and, of course, affordability and reliability."

The Michigan Public Service Commission

rejected DTE's last IRP for insufficient development of renewable energy and energy efficiency savings. The company eventually earned the PSC's approval by promising more ambitious energy savings goals and energy-efficiency programs. (See [Michigan PSC Orders DTE to Redo IRP](#).)

On June 4, DTE completed the retirement of the 1950s-era, coal-fired River Rouge Power Plant along the Detroit River. Norcia said River Rouge is one of the three coal-fired plants DTE is retiring by the end of 2022 and an "integral part of our company's clean energy transformation."

DTE reported \$329 million (\$1.70/share) in total operating earnings for the second quarter. The earnings were \$19 million higher than the second quarter of 2020, primarily because of higher commercial sales, rate implementation and warmer weather, the company said.

During the quarter, Michigan regulators gave the utility the go-ahead to expand MIGreenPower, the company's voluntary renewable energy program, by another 1 GW of new voluntary wind and solar by the end of 2023, Norcia said. He added that the program will soon become more affordable and accessible to low-income customers.

Norcia noted that new MIGreenPower customers include the state of Michigan, Detroit real estate company Bedrock, Trinity health-care system, and Detroit Diesel. He said the program has reached 950 MW of "voluntary renewable commitments" and approximately 35,000 residential customers, with an additional 400 MW in "very advanced stages of discussion."

"MIGreenPower is one of the largest voluntary renewable programs in the nation and helps advance our work toward our net-zero carbon emission goal while helping our customers meet their decarbonization goals," Norcia said.

He said DTE has also partnered with Ford to install rooftop solar and battery storage at the Ford Research and Engineering Center. The array can generate more than 1,100 MWh of clean energy and will be used to power electric vehicle chargers, Norcia said.

Norcia also reported that DTE Midstream is a completely standalone business. DTE announced late last year that it would spin off its non-utility natural gas pipeline, gathering and storage business. (See [DTE Energy to Cleave Pipeline Business](#).) ■



DTE's Monroe coal-fired plant | DTE Energy

MISO News

MISO Dusts off MVP Cost Allocation for Long-range Tx Plan

By Amanda Durish Cook

MISO said it will likely draw on a decade-old cost allocation method for its long-range transmission plan — at least in the Midwest.

The grid operator proposed using the cost allocation of 2011's Multi-Value Projects (MVPs), with some departures, during a stakeholder cost allocation teleconference Wednesday.

The costs of MVPs were recovered through a 100% uniform, "postage stamp" rate from load. While the method would apply to long-range projects in MISO Midwest, the grid operator is holding off on proposing a method for projects in MISO South.

"Once we took a step back, we saw a lot of parallels with the Multi-Value Project type," MISO planner Jeremiah Doner told stakeholders.

Doner said the method's emphasis on congestion relief, reliability, energy policy goals and economics fits well with the aims of the current long-range plan, even 10 years later.

"We also heard that we should try to leverage what's already in our tariff. This [allocation] has gone through a lengthy stakeholder process and FERC approval. So instead of coming up with a completely new project type, let's look at the Multi-Value Project and see what needs to be changed," he said.

The RTO intends to maintain the MVPs' 100-kV minimum voltage threshold and \$20 million cost minimum. To qualify for recovery, the grid operator proposed that long-range transmission projects meet the MVP criteria of supporting state or federal energy policies; addressing NERC issues and showing reliability benefits across multiple zones; and demonstrating multiple types of economic value across multiple pricing zones with at least an overall 1:1 benefit-to-cost ratio over the first 20 years of service.

Reviving the MVP methodology also means MISO might consider evaluating projects in groupings, though it's not certain yet that it will advance portfolios of projects for approval in annual transmission cycles. The RTO has yet to announce any specific projects under the long-range transmission plan.

The postage stamp rate will likely be calculated based on local balancing authorities' monthly net actual energy withdrawals and follow a 40-year depreciation schedule with operations and maintenance costs thereafter for projects.



| MISO

Doner said MISO would not enact a system-wide postage stamp rate and instead opt for a subregional rate. "We would define MISO as the MISO Midwest and MISO South subregions" for the purposes of allocation.

The Environmental Groups sector and some MISO transmission owners last month advocated for a subregional postage stamp methodology. (See [MISO Members Revive Debate over 'Postage Stamp' Cost Allocation](#).)

Different Treatment for MISO South

Exactly how South transmission projects would be allocated on a subregional basis remains up in the air.

"At this point in time, we're not ready to make a recommendation on how to allocate costs in the South," Doner said.

MISO South regulators last month voiced opposition to long-term planning. (See [South Regulators Lambast MISO Long-term Tx Planning](#).) The grid operator is hoping for majority support

among its states' regulatory bodies on its long-range plan.

Stakeholders registered concern that MISO South might get special treatment through a different cost allocation method. Some pointed out that a few areas in MISO Midwest have limited transfer capability, similar to the Midwest-South subregional constraint, but will nevertheless share in a Midwest postage stamp rate.

"If MISO South comes up with a different cost allocation scheme ... then are we basically suggesting that customers' in the Midwest ... benefits are going to be viewed differently? Can you help me understand how that would pass the fairness test, the equity test?" energy consultant Kavita Maini asked.

Maini said the fairness question will be particularly important for members who own facilities in both regions.

Doner said the question was fair, and the RTO would have more information when it propos-

MISO News

es a specific cost allocation for MISO South.

“To the extent that the cost allocation differs, the rationale for that is going to be important,” he said.

Clean Grid Alliance’s Natalie McIntire said she was troubled that MISO has not yet proposed an allocation method for the South.

North Dakota Public Service Commissioner Julie Fedorchak urged MISO to build stronger business cases and show more proof of heightened reliability to sell the dramatic transmission expansion. “I need more than this to sign my ratepayers on to 40 years of costs,” she said.

Fedorchak said there needs to be clarification on what qualifies as a long-term transmission project, otherwise “anything could be labeled a long-range project” and cost-shared regionally.

Doner said MISO will build business cases as projects emerge, including demonstrating future NERC violations without them. MISO has already said that voltage and thermal issue will proliferate in the Midwest footprint without

major transmission construction. (See *MISO Analyses Show Reliability Woes Without Transmission Builds.*)

The Union of Concern Scientists’ Sam Gomberg said that while he understands the concerns around protecting consumers from wasteful spending, he said he’s confident that MISO would present clear business cases as staff begin to analyze specific transmission solutions.

“Our world is changing so fast that we can’t wait on a perfect process. If we wait — I don’t want to say we will be left in the dark, because that would be too literal — but we’ll be behind the eight-ball,” Sustainable FERC Project attorney Lauren Azar said. She said if members wait any longer, there will be a scramble to build infrastructure.

Azar urged stakeholders to look no further than the 2011 MVP portfolio, whose benefits increased over time and even stabilized the grid as February’s winter storm lashed the footprint.

“They brought benefits that were never con-

sidered in the benefit analysis or the triennial reviews,” she said.

WPPI Energy’s Steve Leovy said that while he agrees with broad cost sharing, he hoped to see an allocation plan where MISO assigns a portion of costs to interconnecting generators.

“It’s imperative that generations see the cost impacts of their siting decisions,” Leovy said. “This is a big undertaking. We shouldn’t really on existing mechanisms to allocate costs.”

WEC Energy Group’s Chris Plante also asked that MISO modify the MVP methodology to include elements of its shared network upgrades so that generators share cost burdens.

“The long-range transmission plan is not an interconnection study. It’s a broad, regional system needs study,” McIntire countered.

Azar said the long-range plan contemplates the “total transformation” of the industry over the next two decades, including retirements, electrification and utility goals.

“Just placing this on the back of the generators is not the thing to do,” Azar argued. ■

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NYISO News

NYISO Proposes Changes to CRIS

By Michael Kuser

NYISO last week proposed changes to three concepts of capacity resource interconnection service (CRIS): the retention notification process, transfers and partial expiration.

The project's objective is to investigate ways to tighten CRIS retention rules where it is not fully utilized, Market Design Specialist Emily Conway *told* the Installed Capacity/Market Issues Working Group on July 27.

CRIS is a threshold requirement for an internal generator or an unforced capacity deliverability rights (UDR) facility with a terminus in a locality to participate in NYISO's Installed Capacity (ICAP) market.

Notification Process

Current rules state that for a facility contemplating a CRIS transfer to a different location, it must notify NYISO prior to the start of the Class Year deliverability study in which the transfer will be evaluated. The ISO proposes to modify the rules to require retired units to demonstrate, prior to each deliverability study, whether a transfer (at the same or different location) is anticipated and feasible before the CRIS expires.

This requirement could make resources seeking CRIS more likely to be deliverable by removing the unused CRIS from the deliverability base case, Conway said.

Transfers

The proposed changes for same-location

CRIS transfers would allow units to transfer their CRIS while still in the process of shutting down, or elect to continue operating as energy resource interconnection service only.

Units can currently only transfer unused CRIS at the same location if the facility is deactivating and the new unit will be online before the CRIS expires. Proposed modifications would permit same-location CRIS transfers even if the transferor unit is not deactivating, which could allow for more flexibility and potentially more deliverability for new resources, and thus less likelihood of CRIS units requiring system deliverability upgrades, Conway said.

The proposed changes would make the rules for same-location transfers consistent with the rules for different-location transfers with respect to deactivation requirements, Conway said.

Partial Expiration

NYISO currently sees value in limiting a portion of a unit's CRIS where its existing CRIS exceeds its utilization and capability, such as when a facility requests CRIS at its full nameplate but goes in service at a lower megawatt level. The net megawatt output can likely never reach full nameplate, so the facility gets to hold onto more CRIS than it can ever use, absent an uprate or modification, Conway said.

Other examples include when a facility downsizes after obtaining its CRIS, or if a facility only uses a percentage of its CRIS over time in the ICAP market.

"If the ratio of the unit's CRIS and utilization

or capability is consistently falling below the specific threshold, a portion of that CRIS could be expired, which would potentially increase deliverability headroom," Conway said. "For example, if a unit is consistently testing below 90% of its CRIS value, the CRIS could be expired."

For the ISO proposal, "consistently" means for a consecutive three-year period. For units that are in an ICAP-ineligible forced outage or mothballed, the partial expiration rule would not be applicable, as they have already begun their three-year clock and could return to the system at full capacity.

For the threshold level, NYISO proposes to set it to 90% to remain consistent with trends of historic degradation levels.

If a unit falls at or below the threshold, the unit's CRIS level would be reset to its maximum test or offer value within the three-year period, plus 5% of the unit's original CRIS, which gives units flexibility for recoverable losses and maintenance repairs, Conway said.

The proposed changes would be effective on a rolling three-year, moving-forward basis, using the maximum test and/or offer value within that three-year period, and would be applicable to all generators as well as controllable lines.

If stakeholders decide later this year to prioritize this project, it could be a completed market design concept in 2022. ■



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NYISO News

NYISO Management Committee Briefs

Likely Sept. Return to Meeting in Person

NYISO hopes to return to holding in-person stakeholder meetings starting Sept. 20, two weeks after staff are scheduled to return to work at the ISO building, CEO Rich Dewey told the Management Committee on Wednesday.

“I will offer the caveat that at least in some parts of the country, though not yet in the Capital District or New York generally, this new Delta variant is causing a significant rise in infections that has caught our attention,” Dewey said.

The ISO monitors the national situation daily and “will push that date back” if necessary for the health and safety of employees and market participants, he said.

“We’re not at that juncture yet, but we’re going to keep our eyes on that and will give people plenty of notice if we decide to change those dates,” Dewey said.

In a survey of market participants the ISO conducted about the return to in-person meetings, respondents were evenly split between those who want to restart in-person meetings immediately and more cautious respondents who would like to wait longer. Market participants will continue to have the option to join the meetings remotely in either case, he said.

In addition, because the conference center is set up with desks abutting each other, the ISO will require all participants to prove vaccination against COVID-19 in order to attend meetings in person.

Cost of Service Study

The committee on Wednesday voted against (70.15%) conducting a new cost-of-service study in 2021/22 to evaluate the Rate Schedule 1 allocation between withdrawals and



A Con Edison worker connects an adapter that uses the residential electric meter socket as a point of interconnection for solar power. | Con Edison

injections.

The ISO wanted to consider the RS1 impact of the most significant market design changes to be implemented since 2005, all concerned with integrating and optimizing renewable resources such as hybrid resources, co-located energy storage and large-scale solar, *said* Chris Russell, manager of customer settlement.

“Conducting a new cost-of-service study in 2021-2022 would help provide rate certainty for new entrants, as well as a more solid basis for NYISO cost recovery and budget planning,” Russell said.

Stakeholders resisted the idea, partly because they felt the resource mix is in such flux now that a study on the current RS1 allocation of 72% withdrawals and 28% injections would soon be out of date.

The most recent RS1 study done in 2010/11 was scheduled to be effective for a minimum of five years, through December 2016. Because the MC voted to decline conducting a study in 2016/17, a study would go forward in succeeding years unless the committee takes a required vote in the third quarter of each year to decline conducting such a study. The MC has voted against conducting a study every year since 2017.

Robert’s Rules of Order discourage the making of negative motions, thus stakeholders know

this issue as the annual “yes means no” motion.

Metering Updates for Demand-side Resources

The MC also unanimously approved a tariff *update* to allow municipal electric utilities to provide metering and/or meter data services for demand-side resources, and recommended that the NYISO Board of Directors authorize ISO staff to file such revisions with FERC under Section 205 of the Federal Power Act.

The update will be consistent with the ISO’s historical practices and in the future will also apply to distributed energy resources, *said* Alexis Hormovitis, distributed resources operations analyst.

NYISO has historically accepted demand-side resource meter data from transmission owners and meter data service providers, including municipal electric utilities.

In 2019, the ISO submitted the DER participation model tariff revisions to FERC, which modified the types of entities eligible to provide metering and meter data services.

NYISO said the revisions will close an unintended gap in its tariff and that it will continue to accept demand-side resource meter data from municipal electric utilities. ■

– Michael Kuser



Con Ed Smart Meter | Con Edison

PJM News



PJM Stakeholders Blast TOs' Petition to Rate-base Network Upgrades

By Rich Heidom Jr.

PJM stakeholders urged FERC on Wednesday to reject a proposal that would allow transmission owners to fund network upgrades and add them to their rate bases.

Environmental groups, state regulators, generators, industrial customers and the RTO's Independent Market Monitor all filed comments opposing the proposal (ER21-2282). WIRES and the Edison Electric Institute, two groups whose members include the PJM TOs, were the only ones filing comments in support.

In their June 30 *proposal*, the TOs' contended their ability to raise capital is being threatened because they are being forced to absorb the risks of the increasing transmission needed to support new renewable generation without earning any return on the assets.

Under PJM's "participant funding" model, generators provide the capital for network upgrades, and the additional infrastructure is added to rate bases at zero cost, allowing TOs to recover only their operations and maintenance expenses from network transmission customers.

When FERC approved the funding model in 2004, the TOs said, PJM's Regional Transmission Expansion Plan (RTEP) envisioned the addition of 10,700 MW of new generation and the RTO was processing only 55 interconnection requests. As of October 2020, PJM's interconnection queue listed about

1,600 requests totaling 147,000 MW in new generation. (Only 23% of projects and 15% of requested capacity megawatts in the queue are ultimately developed and interconnected, according to PJM's 2020 RTEP report.)

"When the commission approved the existing funding model in PJM, the impact on the PJM transmission owners from the failure of that model to provide a return or profit on network upgrades was minimal due to the limited number of network upgrades on the transmission system and generation interconnection requests in the PJM interconnection queue at the time," the TOs said. "As the number of network upgrades has grown, the corresponding risk of owning and operating those facilities has also increased. The anticipated increase in network upgrades over the next several years makes the continuation of the existing funding model unsustainable."

The filing included an affidavit in which David Weaver, vice president of transmission strategy at Exelon, cataloged the risks he said TOs face from the expanded grid: litigation and regulatory penalties resulting from transformer fires and accidents; NERC compliance risks; environmental risks from the discharge of contaminants; damage to transmission lines from severe weather; and liability over outage coordination.

To address the issue, the TOs proposed giving themselves the option to provide the initial funding for upgrades and the ability to earn a

return on the facilities. They said the proposal was modeled on one FERC approved in MISO last year following the D.C. Circuit Court of Appeals' 2018 *Ameren* ruling, in which the court said the commission failed to consider complaints from TOs who claimed RTO policy forced them to accept "risk-bearing additions to their network with zero return" and essentially act as "nonprofit managers" of network "appendages." (See *MISO Gauging Aftershocks of TO Self-fund Order*.)

'Convolved Procedure'

In filings Wednesday, opponents of the proposal questioned the TOs' claimed risks and contended there is no evidence that they are having trouble attracting capital. They also said it would raise generators' interconnection costs and allow vertically integrated utilities to favor their own generation affiliates.

Because PJM did not join the TOs' June 30 filing, Invenergy said they must prove their proposal is "consistent with or superior to" the commission's reimbursement policy.

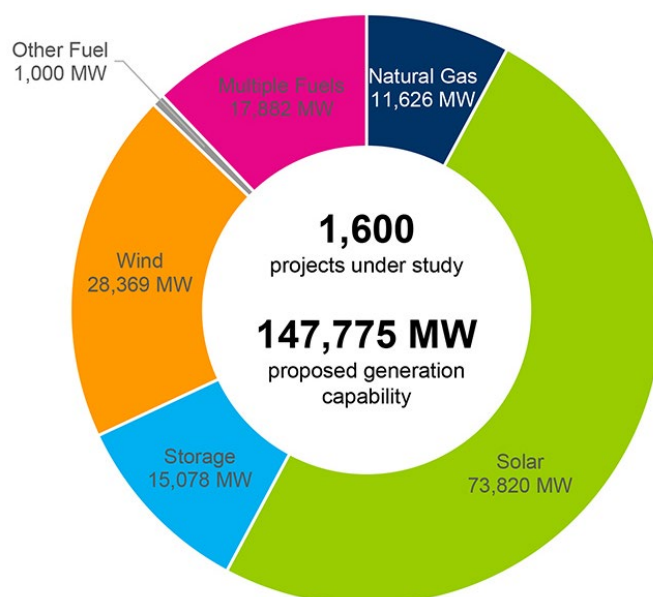
FERC Order 2003 required interconnection customers to initially fund network upgrades, with the TOs reimbursing the costs and adding the infrastructure to its rate base after generation projects achieve commercial operation. But PJM and its TOs won FERC approval for an alternative model in which interconnection customers receive tradable transmission rights instead of reimbursement.

"Instead of reverting to the commission's existing Order No. 2003 reimbursement policy, which would address these concerns and permit the PJM TOs to earn a reasonable return on network upgrades, they propose something entirely different: a convoluted procedure that will burden customers with additional costs, create opportunities for undue discrimination and for which the PJM TOs attempt to provide the thinnest of evidentiary support," Invenergy said.

"The filing elides the fundamental truth that PJM, with the unanimous support of the PJM TOs, voluntarily sought the variation and impact that is the subject of the filing," said the American Clean Power Association, Advanced Energy Economy, Natural Resources Defense Council, the Sustainable FERC Project and the Sierra Club, filing as "joint protesters."

'Risks' Questioned

"The PJM TOs describe a number of risks that businesses in the utility space face, but like the



PJM Interconnection queue volume (as of Oct. 20, 2020) | PJM

PJM News



New York transmission owners who earlier this year sought a similar additional profit opportunity, they present no evidence that they are the least unable to attract capital or that the current network upgrade funding rules have any material impact on their ability to do so," Invenergy said. "Indeed, given that most network upgrades are improvements to the existing system (e.g., to replace old equipment with new equipment), these improvements most likely reduce the risks inherent in owning and operating a transmission system."

The Organization of PJM States Inc. (OPSI) said the TOs offered only anecdotes in support of their claims of increased risk "but do not attempt to quantify these risks in any way. For example, the TOs entitle one type of risk 'Operational and Safety Risks' and provide an affidavit that describes those risks as 'the inherent safety hazards involved in both the installation and day-to-day operations of high-voltage transmission equipment.' If there is one type of risk the TOs should be able to quantify, it is this type. ... The Weaver affidavit spends over 1,200 words describing this type of risk, yet at no time sets forth even an approximate cost of this type of risk for an average network upgrade.

"Many of the risks complained of by the TOs could potentially — but not certainly — result in increased expenses for a TO. In the event of increased expenses, and so long as the expenses are the type meriting commission approval for ratemaking, the TO will pass its increased expenses onto transmission ratepayers through its transmission tariff," OPSI added.

"PJM TOs' argument that they are unable to attract capital under the existing funding approach is undercut by the many indicators of financial wellbeing ... including attracting billions of dollars in capital in recent years, receiving authorization from the commission to issue over \$19.9 billion of new securities

and maintaining strong credit ratings," the joint protesters said. "That risk is not reflected in PJM TOs' [Securities and Exchange Commission] filings, and many of the TOs cited investments associated with attaining these clean energy targets as revenue opportunities. This marked inconsistency may explain why complainants offer no evidence that rating agencies have downgraded ratings (or might downgrade them in the future) because of an increase of generation in the queue that would result in increased amounts of network upgrades."

The PJM Industrial Customer Coalition (ICC) said the commission should hold an evidentiary hearing to determine the extent of the risks faced by TOs under the current rules.

'Explicit Attempt to Eliminate Competition'

OPSI also called the proposal "anticompetitive and discriminatory."

"Because generation-owning TOs will be able to unilaterally increase the interconnection cost of a competitor's generation, benefiting the TO's own or affiliate generation, the proposal provides an economic incentive for discrimination," OPSI said. "Even if the proposal did not allow the TOs to pick and choose who faces increased costs, adding additional costs for new-entry generation to interconnect still puts that new generation at a competitive disadvantage to incumbent generation; of course, TO-affiliated generation is incumbent generation."

PJM's Monitor said the TOs' proposal should be rejected because they are not authorized to propose changes to the RTO's market design. "The rules that TOs propose to change were filed by PJM pursuant to its exclusive authority under Section 205 [of the Federal Power Act], and they remain subject to such authority," it said.

The Monitor said "the proposed changes are an explicit attempt to eliminate competition" by increasing the cost to interconnect new generation. "Rather than eliminating competition to fund interconnections, the rules should extend competition to the financing of all transmission projects, including reliability projects in the RTEP."

For its part, PJM agreed that the proposal "raises the potential for undue discrimination." It said the TOs' pledge to include notices of their decisions to elect to fund a network upgrade in the interconnection customer's facilities study report was an insufficient protection.

Instead, PJM said TOs should be required to list the criteria they will apply in determining whether or not to fund upgrades. "Posting criteria may assist an interconnection customer in understanding which network upgrades a transmission owner may elect to fund at a time when the customer is making its initial siting choices," PJM said. "The commission should seek additional clarity with respect to any circumstances under which the transmission owners would elect or decline to fund network upgrades before accepting the proposal."

Increased Costs

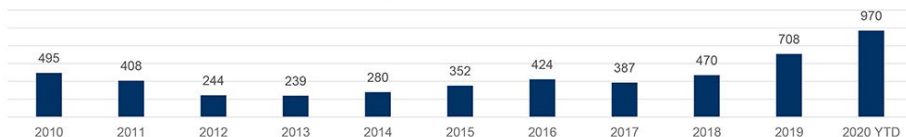
Invenergy said its experience in MISO shows that "the capital cost typically charged when initial funding is elected can be higher than the cost of capital that is available to the interconnection customer. And this does not even account for the incentive PJM TOs will have in studying future requests to exaggerate the network upgrades required for an interconnection and the costs of those upgrades in order to maximize rate base."

It also said the proposal would raise generators' costs because it would require them to pay for TOs' income taxes and provide a letter of credit as financial security for as long as 20 years. "Under the current participant funding model, security is posted only prior to the completion of the upgrades and is reduced dollar for dollar as the customer pays for the upgrades."

In addition it could deny interconnection customers capacity interconnection rights and incremental auction revenue rights created by the upgrades, Invenergy said.

PJM acknowledged that TO funding of network upgrades could benefit an interconnection customer if its cost of capital is less than the customer's. "However, any advantages associated with the lower cost of capital may be lost if the interconnection customer is

New Requests Submitted to PJM



Proposed Generating Capability, MW



New generation requests (as of Oct. 20, 2020) | PJM

PJM News



required to maintain a letter of credit for the full cost of the project post construction,” PJM said. Requiring 20 years of financial security “may adversely impact the continued development of the competitive market in the PJM region.”

Cost Shifting

Several commenters raised concerns that the plan would result in cost shifts.

“The PJM TOs provide no good reason why, given the commission’s general finding that network upgrades benefit all grid users, any return on those facilities must be borne solely by the interconnection customer,” Invenergy said.

OPSI said it would shift the risk of default from individual generators to transmission customers. “Having no incentive to ensure receipt of effective security when issuing loans for building network upgrades, TOs will be more susceptible to accepting ineffective forms of security, thus unjustly increasing the general ratepayers’ exposure to charges for unrecovered portions of loans in default,” it said.

The ICC also said FERC should ensure that any changes do not increase costs for transmission customers. “The commission must remain steadfast to ensure that other transmission customers do not subsidize service to interconnection customers,” it said.

PJM said the proposal would impose costs on its members by making the RTO responsible for administering the *pro forma* network upgrade funding agreement, billing and collecting payments, and holding the security required.

The Long Island Power Authority and Neptune Regional Transmission System filed joint comments seeking assurances that interconnection customers will remain solely responsible

for the capital costs of network upgrades and that those costs will not be incorporated into transmission rates for PJM network integration transmission service or firm point-to-point transmission service to the border of PJM.

Ameren Order

Opponents also contended the TOs offered a misleading interpretation of the *Ameren* order, saying that although the court vacated the commission’s orders, it did not reach the merits of the MISO TOs’ arguments.

“The commission did not reverse its prior determination that the MISO initial funding option is impermissible, nor did it find that the MISO funding option is just and reasonable or that the flaws previously identified with were incorrect,” Invenergy said. “The commission simply abandoned any effort to develop a record under FPA Section 206 to support a determination one way or the other.”

“In fact, the court was explicitly permitting the commission to conclude what the TOs now say the commission cannot conclude, so long as the commission justifies its reasoning,” OPSI said.

Other Protests

Shell Energy North America said the proposal “raises significant issues with respect to the integration of new resources, including offshore wind projects.” The company said it should be set for hearing, “subject to the outcome of settlement procedures, which include technical conferences” and subject to the Advance Notice of Proposed Rulemaking that FERC issued on July 15 (RM21-17). (See *FERC Goes Back to the Drawing Board on Tx Planning, Cost Allocation.*)

Consumer advocates for D.C., Maryland, Delaware and Illinois said the TOs’ proposal,

“submitted without the consent of any other PJM Member, would raise costs and risks for consumers, undermines competition, could negatively impact the development of certain generation resources, and is contrary to the ongoing efforts by FERC and PJM to craft more robust interconnection and cost allocation policies. While the [joint consumer advocates] do not dispute that additional interconnection and cost allocation reforms may be needed to better promote competition and to protect both ratepayers and transmission utilities from the impacts of interconnecting additional generators on PJM’s system, the Transmission Owners’ request is premature and unsupported [and] provides no analysis of its impacts on costs, competition, or other consumer interests.”

Others filing comments opposing the proposal included solar developer Savion, the Solar Energy Industries Association, J-POWER USA and Public Citizen.

Defending the TOs

WIRES defended the proposal, saying it “aligns with the Biden administration’s climate change goals.”

“The PJM transmission owners are poised to play a pivotal role in the prompt and reliable interconnection of network resources in order to make the necessary accommodations to support this exciting clean energy transition,” WIRES continued. “While these efforts will be made, they cannot continue to be made on a nonprofit basis or achieved if significant enterprise risks are left uncompensated.”

“As increasing amounts of generator-funded assets are turned over to be owned, operated and maintained by the PJM TOs, larger amounts of the TOs’ business would operate as a ‘nonprofit,’” EEI said. ■

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PJM MRC/MC Briefs

By Michael Yoder

Markets and Reliability Committee

Non-firm Transmission Service Pre-emption Endorsed

PJM stakeholders last week endorsed tariff language revisions to exclude the right of first refusal (ROFR) process from the evaluation of non-firm transmission service requests. The changes were driven by the RTO's concerns around new federal standard requirements.

One member objected to the revisions in an acclamation vote held at Wednesday's Markets and Reliability Committee meeting, while the tariff language was approved on the consent agenda at the Members Committee meeting held later in the afternoon. The revisions were originally approved at the July Operating Committee meeting. (See "Non-firm Transmission Service Pre-emption," *PJM Operating Committee Briefs*: July 15, 2021.)

Jeffrey McLaughlin, senior lead engineer in PJM's transmission service department, *reviewed* the "quick fix" *problem statement* and *issue charge* to modify *language* in section 14.2 of the tariff related to pre-emption of non-firm transmission service.

McLaughlin said the quick fix was necessary because of compliance requirement changes within version 3.2 of the North American Energy Standards Board's (NAESB) Business Practice Standards, which FERC adopted in January 2020 and becomes enforceable on Oct. 27. (See *FERC Adopts NAESB Business, Communication Rules*.)

McLaughlin said an accelerated timeline in the stakeholder process was necessary to ensure FERC responds to PJM's proposed filing under Federal Power Act Section 205 prior to the October enforcement date. Because the MC has no meeting scheduled for August, McLaughlin said, the vote needed to take place in July to allow for a 60-day window for a FERC ruling.

"We do understand this is an aggressive timeline," McLaughlin said. "We didn't take the decision to move forward with it lightly."

McLaughlin said PJM staff determined that the changes to the ROFR process caused by the NAESB standards could cause significant problems for the RTO's non-firm transmission



PJM's Market Implementation Committee met Jan. 8, 2020 at the Conference and Training Center in Valley Forge, Pa. | © RTO Insider LLC

service processes and OASIS customers. He said the changes could create uncertainty for the most frequently used transmission products and have detrimental impacts on the day-ahead and real-time energy markets.

PJM employs an automated engine for processing non-firm transmission service requests where customers receive instantaneous evaluations, McLaughlin said, but the pre-emption established by the NAESB standards introduces "significant delays" to the process through "back-and-forth negotiation" involved in the evaluations.

McLaughlin said the NAESB changes could result in more than two-hour delays for hourly challenger requests and more than 24-hour delays for daily challenger requests depending on the specific scenario being evaluated.

He added that PJM staff were also concerned that transmission service reservations procured in smaller increments — such as hourly and daily reservations — could be at greatest risk for pre-emption. Most of PJM's service requests fall into this high-risk category, he said, with more than 90% of the 45,000 confirmed requests in 2020 consisting of hourly or daily service granted within 24 hours of the service start time.

"Unfortunately, because hourly is the shortest in duration, it's also at the highest risk of

being pre-empted," McLaughlin said. "It leaves customers with little time to react and to make alternate arrangements."

PJM's proposal included using section 13.2 of the tariff, which already contains language to exclude pre-emption from the evaluation of short-term firm transmission service. McLaughlin said the revisions extend similar language to section 14.2 of the tariff, excluding pre-emption from non-firm request evaluation.

He said the tariff revision will prevent processing delays, minimize "unnecessary customer uncertainty for little benefit," and avoid impacts to the day-ahead and real-time markets.

PJM will make a Section 205 filing this month to get a ruling before the October implementation of the NAESB standards, McLaughlin said. The RTO made a separate *compliance filing* with the commission on July 27 to comply with the NAESB standards and to request a continued waiver of certain standards.

"We feel strongly that this solution is in the best interest of stakeholders," McLaughlin said.

If FERC does not approve the Section 205 filing, McLaughlin said, PJM's backup plan includes implementing the pre-emption process with its July 27 compliance filing, but the process would be conducted in a "customized and more streamlined way" with stakeholders to avoid delays in OASIS.

PJM News



Susan Bruce, counsel to the PJM Industrial Customer Coalition (ICC), said some ICC members were struggling to understand the “urgency” on the ROFR process as the issue hasn’t been discussed much in stakeholder meetings. Bruce wanted to know what market segments were directly impacted by the issue and asked whether the Independent Market Monitor thought the change would cause any problems.

McLaughlin said the change primarily impacts OASIS users and could create too much uncertainty for them. After reviewing with its legal team, the RTO realized a Section 205 filing was necessary to modify the existing tariff language in order to avoid the uncertainty the NAESB standards could create.

Market Monitor Joe Bowring said the IMM supported PJM’s changes “both on the substance and the speed” in which they were being implemented. He said gaming opportunities could be “more severe” under the NAESB rules than under the PJM approach.

“We don’t see unintended market power consequences or gaming issues associated with PJM’s approach,” Bowring said.

Fast-start Manual Revisions

The Monitor questioned PJM about potential manual revisions resulting from the implementation of fast-start pricing.

PJM’s Vijay Shah, lead engineer for real-time market operations, and Rebecca Stadelmeyer, manager of market settlements development, reviewed proposed revisions to *Manual 11: Energy*

& Ancillary Services Market Operations, Manual 18: PJM Capacity Market and *Manual 28: Operating Agreement Accounting* to address PJM’s filing of its fast-start tariff changes approved by FERC in May. (See *FERC Accepts PJM Fast-start Tariff Changes*.) The manual changes were introduced in a first read at the July Market Implementation Committee meeting. (See “Fast-start Pricing Manual Revisions,” *PJM MIC Briefs: July 14, 2021*.)

Shah said section 2.1 in Manual 11 was reorganized and includes new sections on fast-start-capable resources, fast-start-capable adjustment processes and eligible fast-start resources. Manual 11 changes also feature new day-ahead sections, Shah said, including energy offers used in day-ahead price calculations and day-ahead integer relaxation, along with real-time sections on how energy offers are used in the real-time price calculation.

Multiple sections were updated to provide clarity on how fast-start pricing will impact current business rules in PJM, Shah said.

“There’s a slew of changes throughout the manual with fast-start,” Shah said.

Stadelmeyer highlighted the changes in Manual 28, including the dispatch differential lost opportunity cost credits and double counting of commitment costs. She said the credits ensure resources dispatched to accommodate the “inflexibility” of fast-start resources follow PJM’s dispatch instructions to maintain power balance.

The Monitor originally called attention to

section 4.2.9: Synchronized Reserve Market Clearing Price Calculation in Manual 11 at the July MIC meeting. The updated manual languages 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 noted that FERC required PJM to implement fast-start pricing for locational marginal pricing by relaxing the eco min constraint for fast-start units. Integer relaxation relaxes both the eco min and eco max constraint for fast-start units.

PJM’s filings do not state that integer relaxation applies fast-start pricing to reserve prices, the Monitor said, and the Sept. 1 implementation includes application of fast-start prices to reserve prices in some situations. This change to reserve prices was not included in PJM’s filings or accepted by FERC, according to the IMM.

The Monitor said it believes PJM should not be implementing fast-start pricing in that way because FERC did not approve that change in its fast-start order issued in December.

Bowring said FERC did not approve PJM’s approach to “integer relaxation” in section 4.2.9 that the proposed implementation must be modified to reflect what the commission issued in its order. He said the Monitor believes the existing manual language in the section is adequate and doesn’t need to be updated.

Bowring said he will provide more comments for stakeholders on the section at the August

Transmission Service Products

Name	Increment	Type	Class	Subclass	Period	NERC Priority	Other Priority
hour-NONFIRM-NETV/K-EXT_NON_DESIG-NF	HOURLY	NETWORK	NON-FIRM	NON-DESIGNATED-NPC	FULL_PERIOD	6	300
hour-NONFIRM-NETV/K-EXT_NON_DESIG-VI	HOURLY	NETWORK	NON-FIRM	NON-DESIGNATED-V/PC	FULL_PERIOD	6	700
hour-NONFIRM-PTP-NPC	HOURLY	POINT_TO_POINT	NON-FIRM	NPC	FULL_PERIOD	2	210
hour-NONFIRM-FACILITY-RELEASED	HOURLY	FACILITY	NON-FIRM	RELEASED	FULL_PERIOD	6	900
hour-NONFIRM-NETV/K-SPOT-IN-V/PC	HOURLY	NETWORK	NON-FIRM	SPOT-IN	FULL_PERIOD	6	400
hour-NONFIRM-PTP-V/PC	HOURLY	POINT_TO_POINT	NON-FIRM	V/PC	FULL_PERIOD	2	610
hour-SECONDARY-PTP-NPC	HOURLY	POINT_TO_POINT	SECONDARY	NPC	FULL_PERIOD	1	100
hour-SECONDARY-PTP-V/PC	HOURLY	POINT_TO_POINT	SECONDARY	V/PC	FULL_PERIOD	1	500
day-FIRM-PTP	DAILY	POINT_TO_POINT	FIRM		FULL_PERIOD	7	800
day-FIRM-NETV/K-EXT_DESIG	DAILY	NETWORK	FIRM	DESIGNATED	FULL_PERIOD	7	800
day-FIRM-FACILITY-RELEASED	DAILY	FACILITY	FIRM	RELEASED	FULL_PERIOD	7	950
day-NONFIRM-NETV/K-EXT_NON_DESIG-NPK	DAILY	NETWORK	NON-FIRM	NON-DESIGNATED-NPC	FULL_PERIOD	6	300
day-NONFIRM-NETV/K-EXT_NON_DESIG-OFF	DAILY	NETWORK	NON-FIRM	NON-DESIGNATED-NPC	OFF_PEAK	6	300
day-NONFIRM-NETV/K-EXT_NON_DESIG-ONI	DAILY	NETWORK	NON-FIRM	NON-DESIGNATED-NPC	ON_PEAK	6	300
day-NONFIRM-NETV/K-EXT_NON_DESIG-OFF	DAILY	NETWORK	NON-FIRM	NON-DESIGNATED-V/PC	OFF_PEAK	6	700

The Transmission Service Products page of the OASIS application | PJM

PJM News



MIC meeting.

5-Minute Dispatch Revisions

Aaron Baizman, PJM senior engineer for real-time market operations, *provided* a first read of *revisions* to Manual 11: Energy & Ancillary Services Market Operations that would address changes and transparency to five-minute dispatch at the MRC, calling it a “heavily edited version.”

Baizman provided a first read of the revisions at the July MIC meeting. (See “5-Minute Dispatch Manual Revisions,” *PJM MIC Briefs: July 14, 2021*.)

PJM updated and added a “significant amount of sections” in Manual 11, Baizman said, with some of the sections seeing major changes. He highlighted section 2.3.3.1: Capacity Resource Offer Rules, which includes an added rule stating hydropower capacity resources “shall meet the must-offer requirement by either self-scheduling or may allow the day-ahead market to schedule by using the pumped storage optimization model.”

Baizman said the hydropower resources section had minor language changes based on stakeholder feedback at the July MIC for consistency throughout the tariff.

Section 2.5: Real-time Market Clearing Engine was “heavily edited” with multiple diagrams updated and additional information added for real-time security-constrained economic dispatch (RT SCED) optimization concerning the marginal resource identification process. Section updates also include additional inputs for RT SCED and information for transparency.

The MRC will vote on endorsement of the revisions at its August meeting, Baizman said, and PJM is looking to have the revisions effective by Nov. 1.

Consent Agenda Manual Endorsements

Several manual changes were endorsed on the MRC consent agenda with one stakeholder objecting. The endorsements included:

- Revisions to *Manual 13: Emergency Operations* to address conservative operations, PJM’s emergency protocols to ensure the bulk electric system remains reliable during extreme events. The manual changes were originally endorsed at the July Operating Committee meeting. (See “Manual 13 Changes Endorsed,” *PJM Operating Committee Briefs: July 15, 2021*.)
- Conforming revisions to *Manual 14A: New Service Request Process* to address the new service

requests deficiency review requirements. The revisions were endorsed at the July Planning Committee meeting. (See “Manual 14A Revisions Endorsed,” *PJM PC/TEAC Briefs: July 13, 2021*.)

- Conforming revisions to *Manual 18: PJM Capacity Market*, *Manual 20: PJM Resource Adequacy Analysis*, *Manual 21: Rules and Procedures for Determination of Generating Capability* and *Manual 21A: Determination of Accredited UCAP Using Effective Load Carrying Capability Analysis* to address the effective load-carrying capability (ELCC) for limited-duration resources and intermittent resources. The revisions require a unit’s ELCC accreditation to be updated annually based on system conditions and unit performance. (See “ELCC Manuals,” *PJM MRC/MC Briefs: June 23, 2021*.)
- Revision to *Manual 33: Administrative Services* for the Operating Agreement around the operating reserve demand curve (ORDC) data in accordance with FERC transparency requirements. The new section states that PJM may publish annual information on aggregated forced outages for the RTO and other reserve zones directly relevant to the ORDC calculations. (See *FERC Approves PJM Reserve Market Overhaul*.)
- *Revisions* from the Governing Document Enhancement and Clarification Subcommittee (GDECS) addressing administrative changes and clarifications in the tariff and OA. PJM said the eight tariff and OA revisions were found to be “simple and non-controversial enough” that they were reviewed one time at the GDECS, receiving unanimous stakeholder support.

Members Committee

Manual 34 Revisions

Stakeholders are looking to update Manual 34 regarding media and photography rules at PJM meetings.

John Horstmann, director of RTO affairs at AES Ohio, presented the proposed revisions to *Manual 34: PJM Stakeholder Process* addressing *photography in meetings* and *media guidelines*.

Horstmann said both changes resulted from feedback by members and have been discussed extensively at the Stakeholder Process Forum. He said the photography issue was initially introduced for discussion in June 2019 at the forum.

The photography manual change states, “All photographs must be approved by the subject(s) of the photo for use in print, news-

letters, advertisements, marketing materials, electronic and social media. Photographers must obtain a written release from the subject(s) prior to taking their picture.”

“It’s nothing more than a courtesy to ask somebody before publishing their photograph,” Horstmann said.

The PJM media relations team brought manual changes to clarify what constitutes a media outlet after some stakeholders challenged information being disseminated by members after meetings.

The media change states, “Any individual or organization that disseminates information on a public platform from a PJM stakeholder meeting that includes direct quotation and attribution of any comments, and/or images, is subject to the rules pertaining to media regarding the quoting of individuals and/or their companies and photographing meeting participants. ‘Public platform’ includes but is not limited to publicly accessible social media, website, blogs, audio, video, or electronic and hard copy print media.”

Horstmann said when Manual 34 was originally written, social media was in its infancy. He said stakeholders don’t want a running dialogue of conversations from meetings ending up on social media because the information could stifle discussions.

The MC will be asked to approve the proposed revisions at its September meeting.

Consent Agenda

Two different revisions were approved on the MC consent agenda. They included:

- Revisions to Manual 34: PJM Stakeholder Process to address clarifications within the newly revised *section 9.5: Motion Amendments*. The changes give committees the chance to defer a main motion or an alternate motion on an issue to the next meeting through a two-thirds sector-weighted vote if they’re “not timely published” before a meeting.
- Tariff *revisions* to address concerns associated with the pro forma interconnection construction service agreement’s lack of superseding language and current automatic termination provision. The revisions were endorsed at the June MRC meeting. (See “ICSA Revisions Endorsed,” *PJM MRC/MC Briefs: June 23, 2021*.) ■

PJM News



NRC Conducting Special Inspection of Davis-Besse

By Michael Yoder

The Nuclear Regulatory Commission is launching a special inspection at the Davis-Besse nuclear power plant in Ohio after a reported “complicated” reactor trip last month and multiple diesel generator failures during testing and maintenance operations.

Prema Chandrathil, a public affairs officer at NRC’s regional office in Lisle, Ill., said a six-member team started the inspection July 26 to review the response of Energy Harbor, the owner of the plant, regarding the failure of its diesel generators, including the cause analysis, maintenance practices and system designs.

NRC said Davis-Besse experienced four failures of emergency diesel generators in the last 24 months during required testing and one failure of a station blackout diesel generator during maintenance.

“The inspection will take as long as necessary

to review the issues and understand exactly what happened and why,” Chandrathil said. “After the NRC completes the special inspection, we will document any findings in a report which will be publicly available.”

Davis-Besse has two emergency diesel generators, which are designed to provide emergency power during the loss of off-site power, along with one station blackout diesel generator, which provides power to the plant in case both emergency generators fail. Officials said one generator is sufficient to enable the plant to safely shut down and remain in a stable condition in an emergency.

NRC said that as its inspectors were planning for the examination of the diesel generators, Davis-Besse experienced an unplanned reactor trip on July 8 in which “certain pieces of equipment did not function as designed.”

According to a [report](#) sent to NRC, the reactor “automatically tripped due to trip of the main

turbine, caused by failure of a non-safety-related breaker during functional testing” around 10 p.m. with the unit at 100% power. The report said following the reactor trip, the unit’s steam feed rupture control system “automatically initiated on low steam Generator 1 level, actuating both turbine-driven auxiliary feedwater pumps,” and operators manually started high-pressure injection pumps “in response to overcooling indications.”

“There was no impact on the health and safety of the public or plant personnel,” the report said. “Operators took action to address the equipment issues, and the reactor was shut down safely and placed in a stable condition. After making the necessary repairs, the reactor returned to power.”

NRC officials said based on the complications of the reactor trip, the agency chose to expand the special inspection to “better understand equipment performance issues and operator response.” ■



Davis-Besse nuclear plant in northern Ohio | NRC

PJM News



FERC Rejects Challenges to Decision on EOL Projects in PJM

Commission Upholds Ruling, but Clarification Divides Danly and Clements

By Michael Yoder

FERC rejected two different challenges related to its decision in December regarding end-of-life (EOL) transmission projects in PJM, keeping its original ruling in place.

Though it ended up modifying its original order, the commission still denied a rehearing request by a group of PJM stakeholders concerning its December order (*ER20-2308-001*). FERC also dismissed a complaint filed by Duquesne Light Co. that requested the commission to prevent PJM from submitting proposed amendments to the Operating Agreement the RTO deems to be unlawful (*EL20-59*).

In December, the commission rejected a stakeholder proposal to move EOL projects under the RTO's planning authority, siding with transmission owners who argued that it would violate their rights (*ER20-2308*). (See *FERC Rejects PJM Stakeholder EOL Proposal*.) FERC said the proposal, initiated by American Municipal Power (AMP) and Old Dominion Electric Cooperative (ODEC) and passed by the PJM Members Committee in June 2020, went "beyond the scope of planning responsibilities" delegated to the RTO.

The proposal created lengthy and heated debates among stakeholders and a protest by the TOs, who claimed in a *letter* and discussions

that the amendments violated their rights under the Consolidated Transmission Owners Agreement (CTOA). (See *PJM Stakeholders Endorse End-of-Life Proposal*.) The commission accepted the TO sector's own tariff amendments concerning EOL projects in August 2020, rejecting arguments in rehearing requests by more than a dozen load-side stakeholders (*ER20-2046*). (See *FERC Accepts PJM TOs' End-of-Life Revisions*.)

Rehearing Denied

In the rehearing request, the stakeholder group argued that the commission erred in its December ruling by "reading the CTOA too narrowly in finding the provisions delegating to PJM rights to plan 'enhancements' and 'expansions' of the PJM system did not cover 'replacement decisions' such as EOL projects." It said the regional planning obligations delegated to PJM through the CTOA is "broad enough" to consider EOL projects.

It also argued that the proposal "respected the PJM transmission owners' retained rights to make decisions to maintain and retire transmission assets" and that the commission's "narrow reading" of the CTOA "rendered meaningless PJM's regional planning authority over 'enhancements' to the transmission system."

FERC said the "central question" to the

proceeding was whether the TOs delegated consideration of EOL projects to the RTO under the CTOA. The commission said that upon further consideration, it found the CTOA to be "ambiguous regarding whether consideration of EOL projects was a matter delegated to PJM."

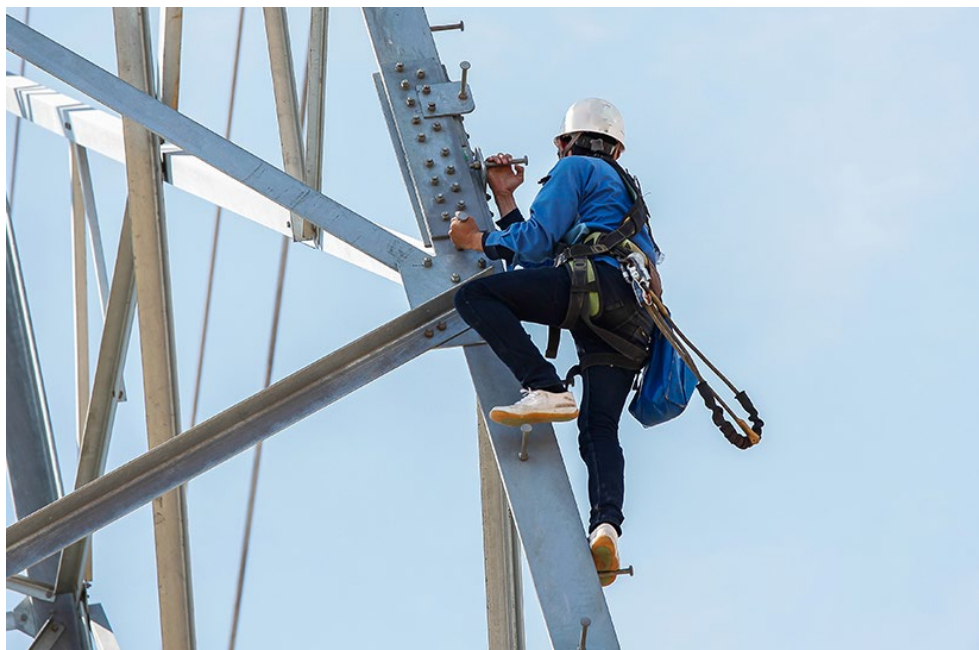
"Consideration of EOL projects is not directly addressed in the CTOA," FERC said in its ruling. "Rather, as discussed in the December 2020 order, under the CTOA, PJM is limited to 'conduct[ing] its planning for the expansion and enhancement of transmission facilities,' while the PJM transmission owners retain the right to 'maintain' their transmission facilities, the right to determine when facilities should be retired and any rights that are not 'specifically transferred' to PJM."

FERC said several relevant terms, including "expansion" and "enhancement," are not defined in the CTOA, but that the terms "enhancement of transmission facilities," "maintain" and "retire" can "reasonably be read to reserve consideration of EOL projects to the PJM transmission owners."

"Viewed through the lens of the general reservation providing that the PJM transmission owners gave up only those rights 'specifically transferred' to PJM, we are not able to conclude that the CTOA provides for the transfer of responsibility for the consideration of EOL projects," the commission said in its ruling. "Indeed, the clarity and specificity with which the CTOA parties addressed other issues, particularly responsibility for rate design, further demonstrates that the CTOA does not clearly indicate whether the PJM transmission owners 'specifically transferred' responsibility for the consideration of EOL projects to PJM."

But the commission said it continued to disagree with the group's interpretation of the CTOA, stating the goal of the interpretation of an agreement is to "decipher the intent of the parties to the contract."

"Here, the signatories to the contract are PJM and PJM transmission owners, and the wording of the CTOA read in light of extrinsic evidence suggests they did not intend for PJM transmission owners to delegate consideration of EOL projects to PJM," FERC said in its order. "At the time the CTOA was signed, the status quo was for the PJM transmission owners to retain responsibility for EOL projects."



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PJM News



Concurring, but Differing, Opinions

The order elicited strongly worded concurrences from two commissioners.

Commissioner James Danly said he agreed that the stakeholder group's request for rehearing should be denied, but he said he disagreed with FERC's clarification, specifically that the CTOA is "ambiguous" as to which parties have the responsibility for EOL projects.

"There is no ambiguity regarding whether the PJM transmission owners delegated authority over 'end-of-life' or 'replacement' decisions to PJM," Danly said. "PJM transmission owners retained the right to 'maintain' or 'retire' their facilities. While PJM transmission owners delegated 'planning for the expansion and enhancement of transmission facilities' to PJM, a decision to replace an existing facility is not an 'expansion' and would only be an 'enhancement' in the limited sense of extending the useful life of the transmission facility."

Danly said it was wrong for the commission to "resort to extrinsic evidence when the contract language is unambiguous" and that the language could open a "Pandora's box that could undermine even further the incentives the PJM transmission owners have to remain in PJM.

"Now that we have found the Consolidated Transmission Owners Agreement to be ambiguous, we have arrogated to ourselves the power to 'interpret' that agreement in the future to take away rights that the owners unambiguously reserved to themselves," he continued. "I can imagine that power becoming a sore temptation down the road. While the ultimate outcome in this case is correct, the path by which the majority arrives at its decision is



Ms. Allison Clements

FERC Commissioner Allison Clements | © RTO Insider LLC

not. I guarantee the PJM transmission owners will take note."

While also concurring, Commissioner Allison Clements took the opposite opinion of Danly, saying the order misinterpreted the CTOA "in a manner that inappropriately constrains the commission's authority to ensure cost-effective, holistic transmission system planning in the PJM region."

Clements said rejection of the proposal and rehearing request was warranted only because it "painted with too broad a brush advancing an amendment to the PJM Operating Agreement that would require PJM to plan for both regional and certain local EOL projects." Clements said the CTOA "clearly grants authority to PJM to plan for regional EOL projects," but it is "ambiguous" regarding local EOL projects.

She said arguments made by the TOs that building entirely new facilities to replace old ones constitutes "maintenance" was a "bald assertion" and lacked "common sense."

"When a decision is made to retire and replace something, the act of preservation ends," Clements said. "When a driver sends an old car to the junkyard and buys a new one, no reasonable person would ever say such an action is 'maintenance' of the junked car, even if the new car is the same or a similar model."

FERC's decision is "highly consequential," Clements argued, because EOL projects in PJM are set to become a significant portion of new infrastructure projects because of the RTO's aging transmission system. It will allow TOs to retain authority over regional EOL projects in PJM "so long as they plan to exactly replace those facilities." She said a holistic assessment of the grid needs to be considered to ensure customers do not overpay and have PJM retain the responsibility for planning the grid with regional benefits.

"While transmission planning reform can and must continue to better ensure the development of a grid that cost-effectively serves customers, today's order is unfortunately a step in the wrong direction at a time when more holistic, forward-looking transmission planning is desperately needed," Clements said.

Duquesne Challenge

Duquesne requested last year that FERC direct PJM to refrain from filing amendments to the OA that the RTO has determined violate the CTOA. Duquesne said PJM must comply with the Federal Power Act and may not "circumvent" contractual obligations under the CTOA by "unilaterally filing with the commis-



FERC Commissioner James Danly | © RTO Insider LLC

sion amendments that are 'inconsistent with those obligations.'"

PJM originally filed additional *comments* after it filed the EOL proposal in July 2020, saying it believed the proposal violated its governing documents and commission precedent on the RTO's and the TOs' roles in transmission planning. (See *PJM Files EOL Proposal over TO Protest.*)

PJM and stakeholders filed motions to dismiss Duquesne's complaint, with the RTO saying an approval of the request "would bar future filings pursuant to Section 205 of the FPA by PJM that an individual transmission owner may argue violates the CTOA in ways not specified or that violate commission precedent in ways not explained."

They also argued the complaint was "speculative and premature and that Duquesne has failed to identify any issue that is ripe for review." The RTO contended that the best course of action was to "present to the commission its views on the stakeholder proposal so that the commission could resolve the legal conflict regarding the validity of the proposal."

FERC ultimately granted to motion to dismiss Duquesne's request.

"We see no general obligation for PJM to pre-judge the legality of a particular filing before determining whether to make that filing either on behalf of the members or the PJM transmission owners," the commission said. "The onus of determining the legality of a filing falls on the commission, and PJM's evaluation of the merits of a filing should not operate to bar PJM from making a filing before the commission from the PJM transmission owners or on behalf of the members." ■

PJM News



FERC Accepts PJM ELCC Tariff Revisions

By Michael Yoder

FERC last week approved PJM's proposal to use the effective load-carrying capability (ELCC) method for determining capacity values for variable, limited-duration and combination resources (ER21-2043).

PJM stakeholders last September endorsed a revised joint stakeholder proposal to revise the RTO's tariff and Reliability Assurance Agreement (RAA) to implement ELCC, over the objections of the Independent Market Monitor and others who said the plan was flawed and could have a profound effect on the capacity market. (See [ELCC Method Endorsed by PJM Stakeholders](#).)

FERC initially rejected PJM's proposed ELCC revisions in April, finding that the plan's "transition mechanism" was "unjust, unreasonable and unduly discriminatory" (ER21-278-001). The commission had said the mechanism would discount the accredited capacity value of some ELCC resources "below their actual capacity value in order to value other ELCC resources above their actual capacity value," but it noted that PJM's approach to determining the accredited capacity value of variable, limited-duration and combination resources was "just and reasonable."

In June, PJM submitted an updated ELCC proposal that removed the transition mechanism and also defined the ELCC classes in the RAA, which the commission also suggested in April. PJM said its updated ELCC proposal was nearly identical to its initial proposal besides the removal of the transition mechanism.

The updated proposal took effect Aug. 1.

ELCC Methodology

In its updated proposal, PJM argued that the ELCC construct performed several important functions, including recognizing the "diminishing returns associated with greater levels of deployment for most ELCC resource types," ensuring that the RTO doesn't become over-dependent on a single resource with "inherent limitations." PJM also said the methodology "recognizes the synergistic relationship among distinct resource types" across the RTO region and "evolves with a changing load shape to account for changes in the future grid such as greater electrification of heating and transportation."

The commission found the updated proposal

to be just and reasonable because it "assigns a capacity value to the portfolio of ELCC resources consistent with their collective contribution to meeting PJM's loss of load expectation (LOLE) standard." FERC also said the proposal "recognizes the synergistic and antagonistic interactions between ELCC resource classes, and justly and reasonably allocates ELCC capacity value amongst those resource classes."

Both AES and the IMM argued that the ELCC was unjust and unreasonable because it "values all resources of a given class at the class average ELCC capacity value computed by PJM for that delivery year, and thereby overvalues their expected contribution to system reliability." The protesters advocated for an ELCC framework that would "assign a lower capacity value to the 'last' incremental megawatt of ELCC resource capacity."

But the commission was not persuaded by the AES arguments and contention that the ELCC framework "must preserve the capacity value of a resource at the time of interconnection."

"We rejected PJM's prior ELCC filing because we found unjust and unreasonable and unduly discriminatory PJM's proposed transition mechanism, which would place a floor on ELCC capacity value for earlier vintages of resources," FERC said in its order.

The commission also found the IMM "failed to demonstrate that PJM's proposal to use an average method for determining ELCC values is unjust and unreasonable." FERC said it disagreed with the assertion that PJM's proposal would "assign an 'incorrect' class average capacity value to ELCC resources, in contrast to the IMM's preferred marginal ELCC value."

"By its nature, the ELCC method of capacity valuation depends on resources' relative share of the resource mix, how resources' output compares to the expected load profile, and the order in which resource classes and individual resources are modeled within the ELCC analysis," the commission said in its order.

In its filing, PJM said it intends to continue reviewing and managing the ELCC methodology, assumptions, inputs and administrative procedures "through an annual stakeholder cycle and post an annual report on the ELCC construct" and that it intends to "provide sufficient transparency" in documentation. The RTO said it plans to post a model and data

that includes simulated dispatch of demand response resources and forced, planned and maintenance outages for unlimited resources.

PJM has been formulating conforming revisions to several manuals addressing ELCC limited-duration and intermittent resources in stakeholder meetings. (See "ELCC Manuals," [PJM MRC/MC Briefs: June 23, 2021](#).)

"We find that, given PJM's commitment 'to provide sufficient transparency that interested parties have the opportunity to reproduce ELCC results to a sufficient degree of accuracy that they can anticipate future ELCC values, especially for the purposes of investment decisions,' the measures PJM includes in the updated ELCC Proposal will provide interested entities sufficient transparency into its ELCC methodology, results and key values," FERC said in its order.

Concurrence and Dissent

Commissioner Mark Christie dissented from the order, saying the proposal "has not been improved sufficiently" since FERC ruled on it in April and that "consumers and system reliability may well suffer."

Christie agreed with the IMM's opposition to the proposal and said that "the mere possibility of future refinements that may fix its fundamental flaws is speculative."

"It comes down to this for me: PJM's ELCC may well force consumers to pay for capacity that does not deliver or to overpay for the amount of capacity that the resource does deliver," Christie said in his dissent. "That is both a cost problem and a reliability problem."

Commissioner James Danly issued a separate concurrence on the order, while agreeing with Christie's assertion that a "marginal approach to allocating capacity to individual resources would be preferable to PJM's proposed resource-class based averaging mechanism." But despite his view that PJM could take a better approach to the issue, Danly said it didn't change the standard FERC must apply under a Section 205 filing.

"Should parties seek rehearing, I urge them to concentrate their pleadings on why PJM's proposal is not just and reasonable or why it is unduly discriminatory or preferential," Danly said in his concurrence. "That, ultimately, is all we are called upon to decide here." ■

SPP News

Midwestern Grid Operators Battle Summer Heat

SPP Sets New Record for Peak Demand as Footprint Roasts

By Tom Kleckner

SPP set a new peak load record last week as a heat dome left much of the Midwest sweltering in near 100-degree Fahrenheit temperatures.

Regionwide electricity usage in SPP's 14-state footprint reached 51.04 GW at 4:24 p.m. CT on Wednesday. The RTO's previous record came in August 2019, when peak load bit 50.67 GW.

The grid operator declared conservative operations, beginning at noon Thursday and ending at 8 p.m. Friday. However, it extended a resource alert until 8 p.m. Saturday. It was originally to have ended Friday night.

When operating under conservative operations, SPP can commit generation to serve load earlier than during normal operations and ahead of standard day-ahead market processes. The declaration alerts market participants that they should make available all necessary generating resources to meet

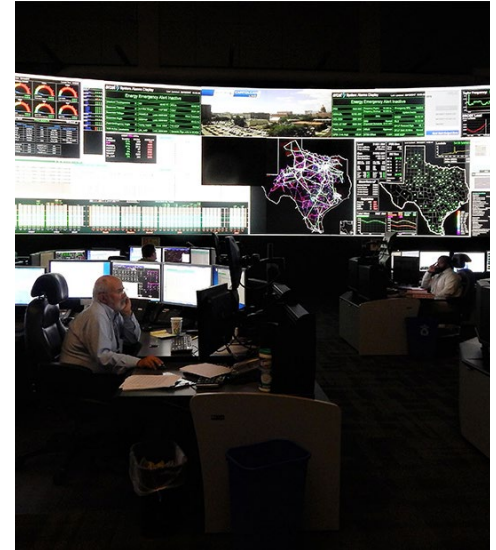
the expected high demand.

The RTO had issued the resource alert for July 26 to 30. It uses resource alerts when severe weather conditions, significant outages, wind forecast uncertainty and/or load forecast uncertainty are expected.

ERCOT has been running under conservative operations since June, increasing its supply of operating reserves and using reliability unit commitments to strengthen grid reliability. (See [ERCOT Stakeholders Sign Off on More Ancillary Services](#).)

Those measures have helped the Texas grid operator meet demand without falling back on emergency actions. ERCOT warned last week that it might reach its record peak this week of 74.8 GW, set in 2019. Staff forecasted a load of nearly 74.7 GW on July 26, but it came in at 72.9 GW, its high for the week.

The load forecasts for Sunday and Monday were nearly 74.8 GW and 76.9 GW, respectively. High temperatures are expected to be at or above 100 F through Aug. 6.



ERCOT's operations center | © RTO Insider LLC

MISO last week instituted a hot-weather alert meant to prepare operations personnel and facilities for potential conservative operations. The alert expired Wednesday evening. ■

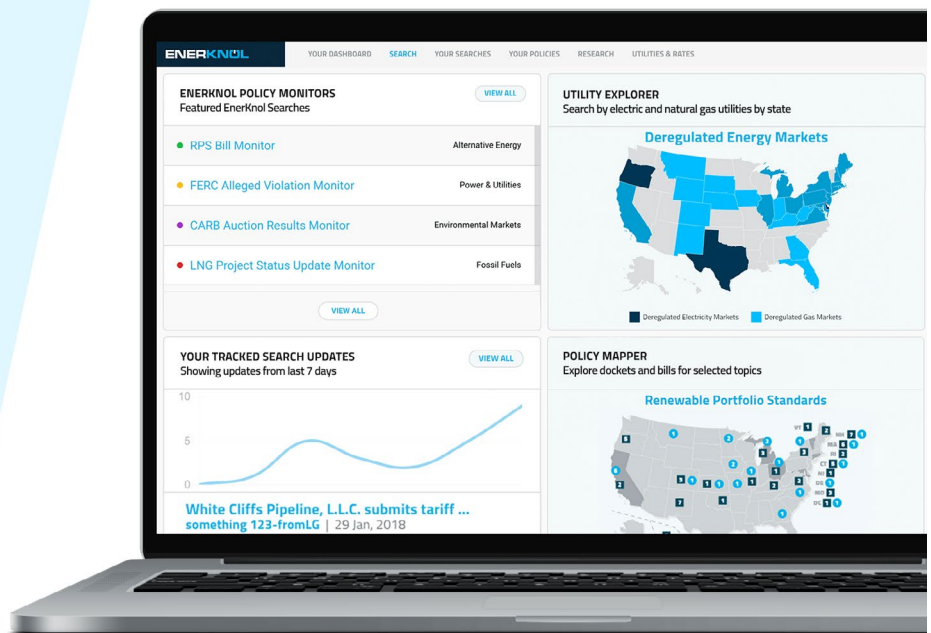
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SPP News

SPP Board of Directors/Members Committee Briefs

Grid Operator Releases Report on Performance During Winter Storm

SPP last week released a *comprehensive report* on what it said was the most operationally challenging week in its 80-year history: Feb. 14-20, when a winter storm resulted in the first load shed in the RTO's history.

The report, "A Comprehensive Review of SPP's Response to the February 2021 Winter Storm," was compiled by hundreds of SPP staff, stakeholders, regulators and the Market Monitoring Unit working together in five parallel workstreams. It recommends 22 actions, policy changes and assessments related to fuel assurance, resource planning and availability, emergency response, market design, operator tools and other critical areas.

It also points a finger at the lack of fuel, saying generation's unavailability was "the largest contributing factor to the severity of the winter weather event's impacts ... exacerbated by record wintertime energy consumption and a rapid reduction of energy imports."

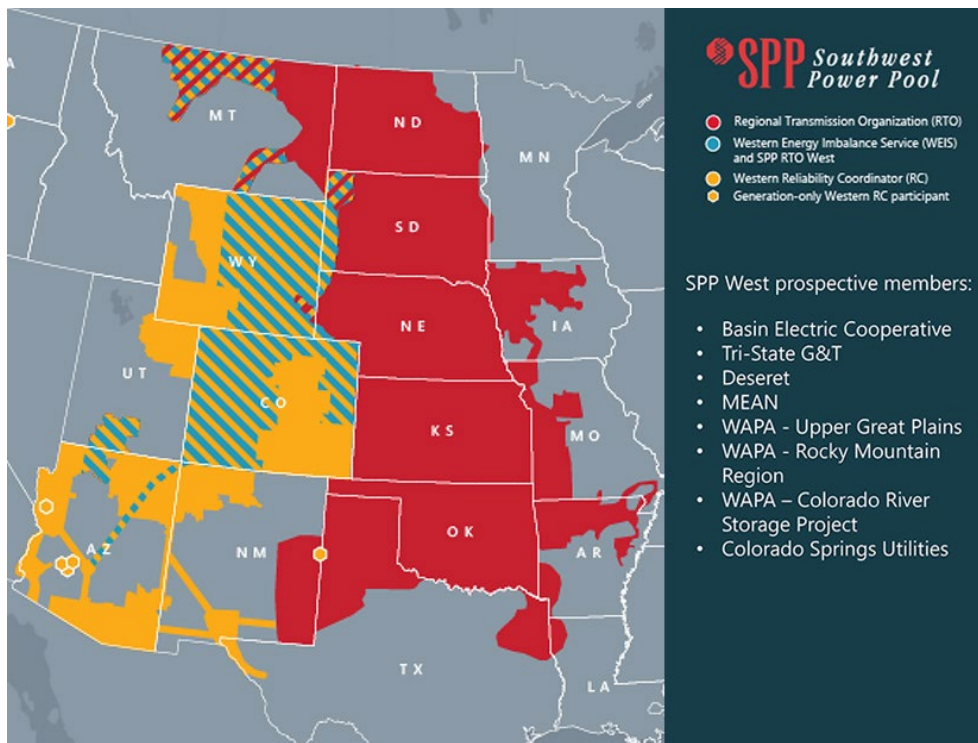
The root cause reveals a need to develop policies that improve fuel assurance and resource adequacy and "highlights the need to further assess SPP's ability to reliably operate the system with more intermittent and fewer baseload resources," the report said.

The teams' evaluations found SPP's market typically has about 55 GW of available generation capacity in February. That capacity dipped to 35 GW during the week of Feb. 14, primarily because of higher-than-usual fuel-supply deficiencies, wind turbine freezing and other operating equipment's struggles in extremely cold conditions.

The Board of Directors and Members Committee both approved the report July 26 during a joint meeting with the Regional State Committee. They directed staff to work on recommendations addressing the root causes and asked that additional analysis be conducted on the natural gas supply's failure.

"That will help us to peel the layers of the onion back a little further," Nebraska Public Power District's Tom Kent said.

Staff were also ordered to prioritize work on the remaining recommendations, provide a project plan and quarterly progress updates, and issue letters requiring SPP's generator operators to inform the RTO about their plans to assure generation availability for the upcoming



SPP's Western Interconnection footprints | SPP

winter.

"I know many of us don't want to experience this again," COO Lanny Nickell said. "Many of us around the virtual table truly believe our staff, particularly our operators, and our stakeholders made the best out of a tremendously challenging situation. We will come out on the other side of this event wiser and better prepared for the future.

"Will our best be even better next time? Absolutely," he said.

The MMU last month released a similar report on the winter event that also zeroed in on the unavailability of natural gas supplies. (See "February Storm Review Nearly Complete; MMU Issues Report," *SPP Markets and Operations Policy Committee Briefs: July 12-13, 2021.*)

Much of the SPP footprint, from the Dakotas to the Gulf Coast, went through several days of record low temperatures. Electricity usage rose to record winter levels as the RTO was forced to shed load twice for a total of almost four hours.

"We were grateful for every single megawatt we could get our hands on," Nickell said.

"This report isn't the end of an effort. It's the beginning of our hard work to improve our

ability to mitigate future grid emergencies," board Chair Larry Altenbaumer said.

He said the "elephant in the room" is the nature of the gas industry's contracts. Energy prices rose from about \$18/MWh to \$4,300/MWh as gas prices shot through the roof. SPP plans to coordinate with the gas industry to develop trading practices that give its members access to gas when demand is high.

"We need to find a way to really get into an advocacy mode, in conjunction with the state regulators, political leaders [and] organizations that we are a part of," Altenbaumer said. "Unless we make that kind of comprehensive effort, this will happen again and again and again.

"That is an industry that just does not learn from the experiences it has," he said.

FERC and NERC are expected to release their joint report on the winter event in September, while several states in SPP's footprint are conducting their own investigations.

Last month, Basin Electric Power Cooperative and North Iowa Municipal Electric Cooperative Association filed a *complaint at FERC*, asking to be reimbursed \$77 million by SPP for agreeing to provide energy during the event.

SPP News



Admin Fee Cap Bumped 8.1%

SPP will raise its administrative fee to 46.5 cents/MWh from 43 cents, an 8.1% hike from where it has stood since 2017.

The board and members approved the Finance Committee's recommendation after SPP's 2021 budget forecast found a significant increase in the net revenue requirement (NRR) between 2021 and 2022; that the transmission service billing units are projected to be flat during the entire period; and that the forecast rate exceeds the tariff cap as early as next year.

The cap is calculated by dividing the budgeted NRR, including true-up from prior periods, by the tariff's estimated amount of transmission service to be provided in the coming calendar year. The committee said setting the tariff rate cap at a higher level than the forecasted rate avoids continual adjustments to the cap and FERC filings.

"Obviously, costs are extremely important to members," FC Chair Susan Certoma said, acknowledging the committee doesn't yet know the cost of the winter weather recommendations and other pending initiatives.

"It's admirable to craft a plan while the sands shifting under your feet," Oklahoma Gas & Electric's Usha Turner said. "Our concern is that we are struggling to manage our [day-to-day work] today. Growth is great, but are we managing the priorities we have today as Job 1? Many among your membership are not seeing that same ability to increase their spending and resources."

Golden Spread Electric Cooperative's Mike Wise, who sits on the FC, called the increase "more reasonable" than the 50-cent cap the committee considered.

"I don't think the board [and] the members want to see a 50-cent cap," Wise said. "We spent significant time and consternation dealing with this particular issue in our meetings. We did have a very difficult discussion, but we reached a collaborative number of 46.5, and it was unanimous."

SPP is expecting a slight under-recovery for the year as the NRR and fee forecasts are both under budget, the latter because of lower billing units.

Board OKs Western Expansion, GI Queue Plan

The board approved two previously stakeholder-endorsed proposals in affirming recommendations for a *policy-level agreement* for members

interested in joining its Western Interconnection RTO and unclogging the generation interconnection queue's backlog of requests.

Directors and members approved the Strategic Planning Committee's recommendation to sign off on the terms and conditions for new and existing members adding their Western transmission facilities under SPP's tariff. The terms and conditions are only valid until April 15, 2022. Western parties intending to financially commit to the RTO will execute another commitment agreement before that date, with a projected go-live date of March 1, 2024. (See *Commitment Deadline Set for SPP West Participation.*)

SPP and CAISO have both been working to expand their market offerings in the Western Interconnection. Altenbaumer noted that Arizona, Colorado and Nevada regulators are all considering requiring their utilities to join RTOs.

"Clearly, the level of activity taking place in the West is increasing," he said. "While the size of this particular RTO West is limited, it gives us a great opportunity to establish a foothold in [the Western Interconnection] ... and credibility."

"Having an option for us to have an RTO is extremely important right now," Tri-State Generation and Transmission Association's Joel Bladow said. "We know a good structure will come from SPP."

The grid operator has created a DC tie task force to reach consensus with its prospective members on cost allocations and policies for the four DC ties between the Western and Eastern interconnections. SPP plans to operate single balancing authorities across the ties, with its Integrated Marketplace solving for a single market solution in both BAs.

The task force is scheduled to present its findings this fall. The expansion project's expenditures, currently estimated to be about \$30 million, are to come before the FC and board next May. SPP hopes to secure FERC approval of its governing document changes in the first half of 2023.

The prospective Western participants include Basin Electric, Colorado Springs Utilities (CSU), Deseret Power Electric Cooperative, the Municipal Energy Agency of Nebraska, Tri-State, Wyoming Municipal Power Agency, and the Western Area Power Administration's (WAPA) Upper Great Plains-West region, Colorado River Storage Project and Rocky Mountain region.

Except for CSU, the organizations joined SPP's Western Energy Imbalance Service

(WEIS) market for its February launch before announcing their intent to explore full RTO West participation. The grid operator said CSU expects to join the WEIS in 2022 and is also exploring RTO membership.

Southwestern Public Service abstained from the Members Committee vote.

The board also approved the Strategic and Creative Re-engineering of Integrated Planning Team's (SCRIPT) plan to resolve a four-year backlog of *GI requests* by 2024 and directed staff to work with the appropriate stakeholder groups in developing revision requests. (See "Renewable Developers Applaud SPP's Plan to Reduce GI Queue's Backlog," *SPP Markets and Operations Policy Committee Briefs: July 12-13, 2021.*)

The GI queue's backlog dates back to 2017. It comprises 533 interconnection requests for 100.3 GW of capacity, most of it wind and solar generation.

SCRIPT's strategy is to reduce restudies through development milestones, increase financial commitments, and simplify and reduce study timelines.

"The proposal is designed with the premise that as generation projects become more developed and they are willing to place more at risk, they are much less likely to withdraw from the process," Antoine Lucas, SPP's vice president of engineering, told stakeholders.

WAPA's Lloyd Linke voted against the motion, saying the agency has found the costs of connecting tribal entities to the federal transmission system "substantially larger" since joining SPP.

MMU Briefs Draft Market Report

The MMU reviewed a draft of its 2020 State of the Market Report, which has been delayed a couple of months by the Monitor's involvement in the winter storm report.

The report will be issued during the second week of August, the Monitor said. A webinar will be scheduled to discuss that report and the MMU's quarterly spring report.

The annual report's key conclusions include:

- Wind generation accounted for the largest percentage of total energy produced, at 31.3%, just ahead of coal at 31%. SPP's nameplate wind capacity increased to just over 27.3 GW in 2020, up about 22% from 2019.
- Day-ahead market prices averaged \$17.69/MWh and real-time prices averaged \$16.62/

SPP News

MWh, a 20% drop for both from 2019 and the lowest since the Integrated Marketplace went live in 2014. The average gas price at the Panhandle Eastern hub was \$1.72/MMBtu, down 11% from \$1.93 the year before.

- Total electric consumption was down about 3% in 2020 as a result of the COVID-19 pandemic. The annual peak load of 49,569 MW was also 3% lower than in 2019.
- Market-to-market (M2M) payments from MISO to SPP jumped to \$82.8 million last year, up significantly from \$17.5 million in 2019. Most of the increase occurred in the year's last three months, typically a high-wind period.
- The reliability unit commitment process' make-whole payments dropped from \$70 million in 2019 to \$51 million in 2020. Day-ahead market make-whole payments were up, however, from \$32 million in 2019 to \$53 million in 2020.
- The GI process totaled nearly 98 GW of additional resources last year. All but 5 MW are for renewable or storage projects.
- Day-ahead and real-time congestion costs totaled over \$442 million, an 8% decrease from 2019.

Wind energy "plays a significant role in the market outcomes we see, particularly with the volatility of prices and lower market prices," MMU Executive Director Keith Collins said.

The Monitor made three new recommendations, all unrelated to the winter storm: updating market and outage requirements to improve transmission congestion rights' funding; improving M2M efficiencies by working with MISO; and raising the offer floor to -\$100/MW.

Joint Tx Study Team Takes on Costs

SPP and MISO staff told the board and members that cost-allocation discussions with stakeholders will continue into August as the two RTOs work together to identify joint transmission projects that might ease their interconnection queues.

Lucas said the study team has completed its initial reliability and economic studies and has already shared background on the grid operators' cost-allocation mechanisms.

"We want to be flexible around what is always a challenge, and that is developing the cost-sharing proposals that will best resolve that situation," Lucas said. "As [MISO Executive

Director of System Planning and Competitive Transmission] Aubrey [Johnson] always says, 'The best cost-sharing approach is the one most people agree to.' We want to get everyone in the room together and have the respective RTO staffs put together a package that facilitates the best solution."

The team has developed two groups of projects that would best address the constraints identified in the first assessments. The economic analysis revealed downstream congestion entering the models, Lucas said, but an ensuing evaluation indicated "material improvement" in adjusted production cost savings. (See [MISO, SPP Name Projects to Help Queue Troubles.](#))

A final portfolio is expected to be completed in September and a draft report shared in October.

Johnson said the study team has found value in learning more about each other's processes and "working through challenges." So close has the collaboration been between SPP and MISO that Lucas, noticing both he and Johnson were wearing light blue shirts paired with traditional blazers, remarked, "We've even started dressing alike."

"I'm glad you got the memo," SPP CEO Barbara Sugg joked.

SPP Finalizes Strategic Plan

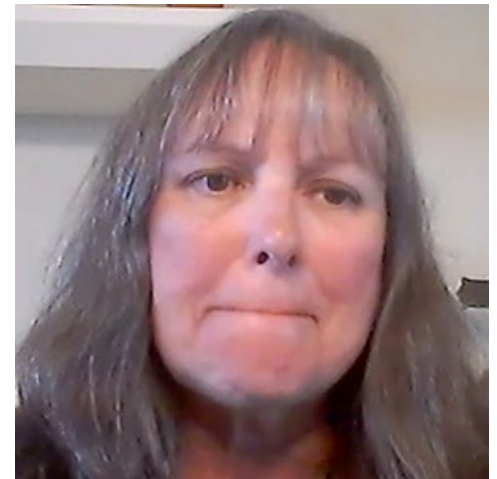
Sugg said she was "incredibly proud" to present a new [five-year strategic plan](#) defining how SPP will actively engage with stakeholders as it stakes a leadership position among the RTOs.

The board and members unanimously approved the plan, which envisions SPP "leading our industry to a brighter future while delivering the best energy value."

"We developed this plan during changing and uncertain times," Sugg said. "We navigated through these challenges, including the pandemic and historic winter storm, and emerged stronger. Collaborating with our members, we're finding creative and innovative ways to strive toward a world where people have more accessible, reliable, sustainable, flexible and affordable power."

Bruce Rew, the grid operator's senior vice president of operations, said the organization's first mission statement, approved in April, sees SPP "leading our industry to a brighter future while delivering the best energy value."

"If we're sitting around five years from now celebrating our success, what has led us to that point?" he said. "You set a goal and do every-



DeAnn Walker reacts to her resolution from the Regional State Committee. | SPP

thing you can to achieve it."

"Wherever we land at the end of five years, we're going to be in a better place," OG&E President and COO Peggy Simmons said.

Altenbaumer said the SPC will go through the plan's rollout details during its September off-site workshop. He praised the plan's quality as a result of engagement with the Members Committee, SPC and regulators.

"Those additional levels of engagement were investments that were well worth it," he said. "There's been a lot of work done to get to this point, but it has to be balanced with the other things that are priorities to the organization. All of that has to be done consistently with what our organizational capabilities are."

RSC Meets Briefly

The Regional State Committee briefly conducted its quarterly business meeting before the joint updates began, honoring two of their members who have left the group.

The RSC presented both Arkansas Public Service Commissioner Kim O'Guinn and former Texas Public Utility Commission Chair DeAnn Walker with resolutions recognizing their work and time on the committee. A similar resolution was offered to SPP's Sam Loudenslager, a liaison to the RSC who is retiring in October.

"It was an honor to serve with each and every one of you," said an emotional Walker, who resigned from the Texas PUC in February shortly after the winter storm nearly collapsed the ERCOT grid. "Thank you for everything, and I miss all of you."

Walker gave a special shoutout to Oklahoma Corporation Commissioner Dana Murphy, who called and texted her with frequent sup-

SPP News

portive messages during and after the storm.

Board OKs Revision Requests

The board approved several revision requests previously endorsed by the Markets and Operations Policy Committee, including a market-based approach for managing uncertainty (RR449); a new methodology for accrediting wind and solar resources (RR418); a recommendation to develop initial effective limits for reliability coordinators based upon

previous experience or analysis (RR414); and a white paper on cost allocation for energy storage used as transmission assets. (See "Uncertainty Product Endorsed," *SPP Markets and Operations Policy Committee Briefs: July 12-13, 2021.*)

Directors also signed off on the consent agenda, which included:

- the Corporate Governance Committee's recommendation to add Lincoln Electric System's Dennis Florom and NextEra Energy

Resources' Matt Pawlowski to transmission-user seats on the SPC, and Lincoln Electric's Emily Koenig to a TU seat on the Finance Committee.

- staff's mitigation plan to ease the burden on transmission planners. (See "Tx Planning Mitigation Gets OK," *SPP Markets and Operations Policy Committee Briefs: July 12-13, 2021.*) ■

— Tom Kleckner

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Company News

Xcel Increasing Pace of Decarbonization Effort

Company Plans Early Retirement of Coal Plants, Adds More Renewables

By Tom Kleckner



Xcel Energy is accelerating its transition away

from fossil-fueled resources by proposing to add about 10 GW of renewable generation in its Minnesota and Colorado service territories.

Incoming CEO Bob Frenzel told financial analysts during Xcel's second-quarter earnings call on Thursday that the company's Northern States Power subsidiary has filed an alternative plan with Minnesota regulators that would retire all coal plants and reduce carbon emissions 85% by 2030 from 2005 levels, a 5-percentage point increase from a previous plan.

Xcel's Colorado affiliate, Public Service Company of Colorado, submitted a proposal in March for a \$1.7 billion, 560-mile, 345-kV transmission project it says will enable up to 5 GW of renewable generation in eastern Colorado.

Frenzel said during the call that he is only fol-

lowing in the footsteps of Ben Fowke, who is stepping down after 10 years as CEO on Aug. 18. (See [Xcel Energy CEO Fowke to Retire.](#))

"I recognize the LeBron James-sized shoes that I'm filling," said Frenzel, who joined Xcel five years ago and currently serves as president and COO. "Ben and I have worked closely on the development and the execution of our strategy, and that will not change. We'll continue to lead the clean energy transition, enhance our customers' experience and ... constantly work to keep our customers bills low and deliver an affordable product."

Frenzel said innovation "is more critical than ever" as the Minneapolis-based company moves toward its goal of 100% carbon-free electricity by 2050.



Retiring Xcel Energy CEO Ben Fowke during 2020's EEI conference | Edison Electric Institute

"It's really been an amazing decade as CEO. ... I'm really proud of the tremendous accomplishments we made as a company," Fowke said. "It's really hard to retire from a role that I've truly enjoyed, but I'm leaving the company in great hands."

Xcel's Minnesota resource plan calls for shutting down the A.S. King and Sherco 3 coal units in 2028 and 2030, respectively. The generators have a combined capacity of 1.3 GW. It would also add nearly 6.9 GW of solar, wind and storage resources and hydrogen-ready combustion turbines.

The Minneapolis-based company *reported* second-quarter earnings of \$311 million (\$0.58/share), compared to 2020's second-quarter performance of \$287 million (\$0.54/share). That beat the Zacks Consensus Estimate of 56 cents/share.

Xcel's share price spiked to \$69.76 when the market opened Thursday but finished the week down at \$68.25. ■



Xcel Energy's Sherco power plant in Becker, Minn. | Xcel Energy

Company Briefs

AEP Names Senior VP, Chief Human Resources Officer



American Electric Power (AEP) recently named Phillip Ulrich the company's senior vice president and

chief human resources officer, effective Aug. 2.

Ulrich has more than 26 years of experience in human resources. He most recently served as chief human resources officer at Flex, a global manufacturing company with more than 170,000 employees in 30 countries.

More: [AEP](#)

Duke Energy Reaches 10,000-MW Renewable Milestone

Duke Energy announced last week that with its 144-MW Pflugerville Solar facility in Texas coming online, the company now owns, operates, or has purchased 10,000 MW of renewable energy in the U.S.

Duke Energy's renewables portfolio includes nearly 200 sites in 22 states, with more than 1,000 MW of new projects under construction throughout the country.

Duke has set a goal of reaching 16,000 MW of renewables by 2025 and 47,000 MW by 2050.

More: [Duke Energy](#)

GE Renewable Energy Shrinks Q2 Loss

General Electric Renewable Energy cut its loss by 61% year-over-year in the second quarter of this year to \$99 million.

The company's revenues increased 16%

reported and 9% organically to \$4 billion.

More: [Renewables Now](#)

Georgia Power Discloses More Vogtle Delays



Georgia Power's parent, Southern Co., last week announced another delay in its completion of the Vogtle nuclear expansion and said its share of the costs have increased by nearly \$500 million.

Southern not only pushed back its timeline for completing the first of two new reactors, but also announced a delay for the second reactor. It also cautioned that further delays on both are possible. The two new reactors were originally slated to be in operation in 2016 and 2017, respectively.

Federal regulators could also continue to increase scrutiny of the project to fix quality problems. The company said in a filing that "various design and other licensing-based compliance matters" have arisen or may arise that, if not resolved, could lead to additional delays and costs.

More: [The Atlanta Journal-Constitution](#)

Hedge Fund to Invest in Lordstown Motors

Lordstown Motors said in a filing last week with the Securities and Exchange Commission that hedge fund YA II PN has agreed to buy up to \$400 million worth of its shares over three years.

Lordstown's operations have been under increasing scrutiny in recent months after the company said it had no firm orders for its vehicles after originally saying it had enough to maintain production through 2022. The

company's CEO and chief financial officer also resigned.

More: [The Associated Press](#)

Nikola Founder Trevor Milton Charged with Securities Fraud

Federal prosecutors last week filed securities fraud charges against Trevor Milton, the former CEO of the electric vehicle start-up Nikola.

An indictment by the U.S. attorney's office charged Milton with misleading investors about the technology for battery- and hydrogen-powered vehicles the company had hoped to manufacture. In a separate civil case, the SEC also accused Milton of securities fraud. The two legal filings said that for nearly a year, Milton used social media, television and podcasts to spread "false and misleading statements regarding Nikola's product and technology."

Nikola said in a statement that Milton has not been involved with the company since resigning in September 2020.

More: [The New York Times](#)

Shell Takes Over Inspire Energy



Shell New Energies US last week said it has finalized a deal to take over residential renewables retailer Inspire Energy as part of wider

plans to expand its clean-power and low-carbon portfolio in the U.S.

The value of the deal, which is expected to be completed in the fourth quarter, was not disclosed.

More: [Recharge](#)

Federal Briefs

Biden Admin. to Curb Toxic Wastewater from Coal Plants, Eventually



The EPA last week announced it will set stricter requirements for how coal-fired power plants dispose of wastewater contaminated with arsenic, lead

and mercury. It will undo one of the Trump administration's major regulatory rollbacks.

Last year, the EPA weakened rules forcing many coal plants to treat wastewater with modern filtration methods and other technology before it reached waterways.

However, the agency will not immediately revert to the stricter standards set under President Obama in 2015, allowing the weaker Trump-era rule to remain in effect. That means many plants will be allowed to send polluted wastewater into rivers and streams for several more years while the

agency writes the regulations. The EPA said it expects to propose new requirements on wastewater by next fall, with a finalized rule expected by the end of Biden's term.

More: [The Washington Post](#)

BOEM Wants Wind Proposals for Areas Off Morro Bay

The Bureau of Ocean Management last week announced its intention to publish a

call for information and nominations for two new areas within the proposed 399-square-mile Morro Bay offshore wind farm call area. The area is located about 17 to 40 miles offshore of Cambria and San Simeon, several miles northwest of Morro Bay.

Once the revised Morro Bay call for information and nominations publishes in the Federal Register, a 45-day public comment period begins, running through Sept. 13. After that process is complete, BOEM will conduct an environmental review to examine how floating turbines could impact marine ecosystems, birds, ocean currents and more.

The next step in the process would be a lease sale auction, which may happen as soon as mid-2022.

More: [The Federal Register](#), [The Tribune](#)

Federal Review Recommends Leaving Canceled ACP Pipe, Felled Trees in Place

A draft supplemental environmental impact statement of the canceled Atlantic Coast Pipeline recommends that some 31 miles of installed pipeline and 83 miles of trees felled for the project be left in place to minimize further disturbance to wildlife and vegetation. The conclusions, which require FERC approval and are not a formal decision, were issued two weeks ago.

The plans, developed by pipeline owners Dominion Energy and Duke Energy, called for leaving already installed pipe in place, removing 83 miles of trees that had been felled but not cleared, restoring another 83 miles of cleared and graded land and backfilling and reclaiming sites where facilities were being constructed. FERC staff agreed with many of the proposals except for the idea of removing trees, which it said should be left in place unless landowners object.

More: [Virginia Mercury](#)

Power Plants Required to Report Emissions Reduced Carbon Footprints

Fossil-fuel based power plants reduced their carbon emissions by more than 7% after they were required to report the amount of greenhouse gases they release, according to a Carnegie Mellon University study.

That finding was more significant for plants owned by companies listed on the S&P 500 Index, which cut emissions by 11% after they were required to report carbon emissions. While plants subject to the reporting requirements reduced their emissions, the study also found that companies that owned both plants that were required to report and plants that did not have to report ended up increasing the emissions released from their non-reporting plants.

In 2009, the EPA began requiring sources that emit 25,000 metric tons or more of carbon dioxide per year to report how much they were releasing, with some exceptions.

More: [Houston Chronicle](#)

Renewables Generated Record Amount of Electricity in 2020, EIA Says



Renewable energy sources generated a record 834 billion kWh of electricity in 2020, or about 21% of all the electricity generated in the United States, according to the EIA.

Only natural gas (1,617 billion kWh) produced more electricity than renewables, although renewables surpassed both nuclear (790 billion kWh) and coal (774 billion kWh) for the first time.

More: [pv magazine](#)

Review, Public Meetings Set for Kitty Hawk Wind Project

The Department of the Interior last week



announced the BOEM will conduct an environmental review of the proposed Kitty Hawk wind project off the North Carolina coast. Three online public meetings have been scheduled for August.

BOEM has published a notice of intent to prepare an environmental impact statement, opening a 30-day public comment period extending through Aug. 30. BOEM will review a construction and operations plan submitted by Kitty Hawk Wind for the project consisting of up to 69 turbine generators, one offshore substation, inter-array cables and up to two transmission cables that will make landfall in Virginia Beach.

If approved, the project would be the first to operate offshore of North Carolina.

More: [CoastalReview](#)

US Added Record 26 GW of Renewables in 2020

The U.S. installed a record 26 GW of clean energy in 2020 to reach more than 170 GW of wind, solar and battery storage power capacity, according to a report from the American Clean Power Association.

The nation added 16,836 MW of land-based wind, 8,894 MW of utility-scale solar, and 760 MW of storage capacity, which represented 78% of all new installations in 2020, up from 28% in 2010.

The top five states for clean power generation last year were Iowa (57.6%), Kansas (43.4%), Oklahoma (35.5%), South Dakota (32.9%) and North Dakota (30.8%).

More: [Renewables Now](#)

State Briefs

CALIFORNIA

LA County Aims to Stop SoCalGas from Expanding Aliso Canyon Site



Los Angeles County leaders last week voted unanimously to send a letter to the

Public Utilities Commission, which oversees operations at the Aliso Canyon natural gas storage facility, to stop SoCalGas from

expanding the site's storage capacity.

The vote comes after a group of oil companies asked the PUC to raise the facility's allowable gas inventory.

San Fernando Valley communities have been dealing with the aftermath of a 2015 gas leak when 109,000 metric tons of methane was released into the air. Nearly 8,300 households were evacuated with residents reporting nosebleeds, dizziness and

respiratory problems. In 2017, then-Gov. Jerry Brown released an order through the Public Utilities Commission and the Energy Commission to phase out the facility within 10 years.

More: [Los Angeles Daily News](#)

San Francisco Asks PUC for Price for PG&E's Power Lines

San Francisco officials last week petitioned the Public Utilities Commission to study the

value of Pacific Gas & Electric's local electric equipment so that the city can once again try to purchase them. The petition comes about two years after the city unsuccessfully tried to pay \$2.5 billion for PG&E's local system amid the company's wildfire-caused bankruptcy.

San Francisco leaders say they want to purchase the system because it will give them more control over the grid within the city's borders. The city is also motivated by a series of disputes with PG&E over how facilities connect to the company's grid.

PG&E pushed back on the petition, saying its San Francisco electric equipment was not for sale.

More: [San Francisco Chronicle](#)

COLORADO

Eagle Announces Net-zero Goal

The Eagle Town Council last week unanimously passed a resolution adopting a goal to achieve net-zero carbon emissions in town government's internal operations by 2028 and in the "greater community" by 2030.

Despite some doubt from councilmembers that the goal is achievable, Mayor Scott Turnipseed said, "I just got very strong recommendations ... to go for it. If you end up short, you end up short."

More: [Vail Daily](#)

CONNECTICUT

State Announces Settlement with Third-party Electric Supplier



Attorney General **William Tong** last week announced the state has reached a \$400,000 settlement with Town Square Energy over claims that the company's marketing tactics violated state consumer protection laws.

Town Square Energy had been accused of enrolling customers in service plans without their consent and deploying agents who wrongly represented themselves to be utility employees. The company was also alleged to have solicited the company's services door-to-door at public housing locations in violation of "no trespassing" signs and refusing to provide information in Spanish when requested.

More: [CT Post](#)

IOWA

Palo City Council Disapproves of NextEra Solar Farm



The Palo City Council last week denied a request to endorse NextEra's proposal

for a 3,500-acre solar farm on land set aside for conservation.

A common concern among the public centered around the farm's impact on future growth opportunities and property values.

More: [KCRG](#)

LOUISIANA

Tangipahoa Council Endorses Solar Regulations

The Tangipahoa Parish Council last week unanimously approved new rules for solar plant developments, capping off weeks of debate between farmers and property owners.

The new rules require 50 feet of vegetation to surround utility-scale solar plants, which must follow the parish's existing drainage standards, among other rules.

The vote ensures that solar farms planned in Tangipahoa will not proceed completely free from regulation, as NextEra Energy and Invenergy are planning projects in the area that could break ground by 2023.

More: [The New Orleans Advocate](#)

MAINE

Ratepayer Advocate Wants Probe of CMP Management Structure



Public Advocate **Barry Hobbins** last week filed a request with the Public Utilities Commission to open investigations into Central Maine Power following an independent audit that found the utility's management structure played a role in

its service problems.

Hobbins said an investigation and its findings could implement remedies for the utility's problems and improve service to its customers.

The PUC initiated the auditor's report in January 2020 after it had investigated the utility and ordered it to compensate custom-

ers for billing errors and pay at least a \$10 million management efficiency fee.

More: [Bangor Daily News](#)

NEBRASKA

NPPD Seeks Comments on Reducing Carbon Footprint

Nebraska Public Power District leaders will seek public comments at five locations in August on how to reduce the utility's carbon footprint.

NPPD board members want constituents' views on "the risks associated with being a carbon-emitting utility," setting the utility's carbon reduction goals and choosing principles in doing so.

More: [The North Platte Telegraph](#)

NORTH DAKOTA

PSC Approves CO₂ Transport Pipeline Permit

The Public Service Commission last week unanimously approved a permit for a 7-mile pipeline that will transport carbon dioxide captured from Basin Electric's Great Plains Synfuels Plant to a nearby site for underground storage.

The pipeline is estimated to cost \$25 million and could become operational in August 2022.

More: [The Bismarck Tribune](#)

OREGON

Gov. Brown Signs Clean Energy Bill



Gov. **Kate Brown** last week signed the state's clean energy bill that lays out a timetable for Portland General Electric and Pacific Power to reduce their greenhouse gas emissions.

The bill requires the two companies to submit plans to reduce emissions by 80% from a baseline amount by 2030, 90% by 2035, and 100% by 2040.

The legislation also bans the expansion or new construction of fossil fuel power plants and allocates \$50 million in grants for community-based energy projects, among other measures.

More: [Oregon Public Broadcasting](#)

PUC OKs Klamath Dam Removal

The Public Utility Commission last week approved an order granting transfer of four Klamath River dams and 8,000 acres of property from PacifiCorp to the Klamath River Renewal Corporation (KRRC).

This decision was required as part of the Klamath Hydroelectric Settlement Agreement that aims to decommission and remove the J.C. Boyle, Copco No. 1, Copco No. 2 and Iron Gate dams, known as the Lower Klamath Project.

FERC in June approved the transfer of PacifiCorp's operating license for the dams to the KRRC, Oregon and California. The transfer of the license, and ultimate conveyance of the dams and associated property, will occur when FERC finishes an environmental review and approves a separate application from the KRRC to surrender the operating license to decommission and remove the dams.

More: [Herald and News](#)

SOUTH CAROLINA

Dominion Plan Calls for All-gas Cope Plant



Dominion Energy recently released a 15-year integrated resource plan that

calls for the Cope Generating Station to burn all natural gas beginning in 2030. The

plant currently burns a mix of natural gas and coal.

The 415-MW plant can operate up to full capacity when using natural gas. The station frequently operates up to this load when natural gas supplies are available and economical.

Dominion also plans to shut down operations at its Wateree and Williams coal-fired plants by 2028.

The Public Service Commission has accepted the utility's integrated resource plan.

More: [The Times and Democrat](#)

VIRGINIA

Holland Council Approves Solar Project

The Holland City Council last week voted 5-3 to approve a conditional use permit for a 4-MW solar facility near Virginia Tech's Tidewater Agricultural Research and Extension Center.

Dimension Renewable Energy would build and operate the facility.

More: [Suffolk News-Herald](#)

WASHINGTON

2021 Heat Wave Becomes Deadliest Weather-related Event in State History

The heat wave that scorched the state

earlier this summer has been blamed for 112 deaths — making it the state's deadliest weather-related disaster.

The previous record came in 1910 when an avalanche near Stevens Pass killed 96 people in two trains.

On June 28, at least 1,038 people headed to the emergency room for heat-related illness in Oregon, Washington, Idaho and Alaska.

More: [KUOW](#)

WYOMING

Rail Tie Wind Project Completes State Permitting Process

The Industrial Siting Council recently voted 5-1 to grant the Rail Tie Wind Project its second of three major permits.

The council approved the 504-MW wind farm with 29 additional conditions. Among the requirements are groundwater testing before and after construction, a quarter-mile setback of all construction roads from neighboring properties, and the installation of airline detection lighting systems that will enable lights to turn off when airplanes aren't nearby.

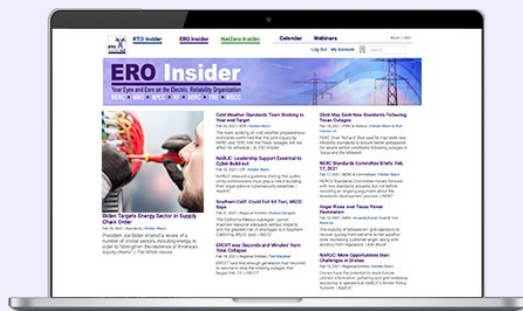
The Industrial Siting Division is aiming to work out impact assistance funding and initiate the final 45-day window for permit finalization in early September.

More: [The Cheyenne Post](#)

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