

FERC, NERC Share Findings on February Winter Storm *Preliminary Report Calls for Winterization, Greater Electric-gas Coordination*

By Tom Kleckner

FERC and NERC staff on Thursday presented a series of recommendations to prevent a recurrence of the February winter storm that led to unprecedented outages in the Midwest and left hundreds dead and caused billions of dollars in damages in Texas (AD21-28).



Snow covers a hill in front of the Texas Capitol. | Jno Skinner, CC BY-4.0, via Wikimedia

The joint inquiry team put much of the blame on a lack of gas supply that took more than 61 GW of power offline, calling for the electric and natural gas industries to strengthen their winter preparedness and coordination to prevent a recurrence.

“This subject literally is a matter of life and death,” FERC Chair Richard Glick said during the commission’s open meeting. Noting that state officials have acknowledged more than 200 Texans died during the storm and that a “significant percentage” died because of a lack of energy, he said, “In this day and age, we had people who froze to death because of power outages. That’s beyond unacceptable.”

Glick hearkened back to the 2011 winter weather event in Texas, which led to similar winterization recommendations.

Continued on page 7

Facing City Council Inquiry, Entergy Says it Could Sell New Orleans Utility Arm

By Amanda Durish Cook

Entergy New Orleans last week said it will be left with four paths forward — including a merger or sale of the utility — should the New Orleans City Council force a change in the city’s electric utility structure.

The company’s statement came after New Orleans City Council President Helena Moreno announced earlier this month that she will propose a study on potential new ownership of electric and gas operations in the city, including the creation of a city-owned utility.

The council unanimously approved a resolution Thursday that kicks off the study. It also approved a *resolution* asking FERC and NERC to investigate the causes of any transmission failures in Louisiana related to Hurricane Ida and whether “Entergy’s investment in transmission has allowed adequate access to competition and new technologies to enhance reliability and cost savings for customers.”

Anticipating the study, Entergy said it could

either sell its New Orleans unit; merge it with Entergy Louisiana; create a standalone company free of the Entergy name; or step out of the way as New Orleans navigates a municipal utility.

Entergy’s rejoinder comes after the City Council has repeatedly voiced its displeasure with the performance of the greater New Orleans system in the wake of Hurricane Ida. (See *Entergy Investigations Certain to Follow Hurricane Ida Restoration* and *Entergy Touts Restoration; NOLA Leaders Question Lack of Blackstart Service*.)

Entergy indicated it prefers a merger of its New Orleans and Louisiana subsidiaries, which would remove the council’s oversight and replace it with that of the Louisiana Public Service Commission.

“A merger would bring lower rates to New

Continued on page 37

Tensions Boil over MISO South Attitudes on Long-range Transmission Planning (p.35)

PG&E Denies New Manslaughter Charges

Utility Sued over Dixie Fire, Prosecuted for Zogg Fire



Shasta County District Attorney Stephanie Bridgett said her office could prove PG&E started the Zogg Fire, killing four. | *Shasta County DA*

By Hudson Sangree

A prosecutor’s decision Friday to charge Pacific Gas and Electric with four counts of involuntary manslaughter from last year’s Zogg Fire came two weeks after the utility was sued for starting the immense Dixie Fire and grilled by a federal judge over why it didn’t do more to prevent it.

The filing of charges by Shasta County

Continued on page 15

Also in this issue:



Oregon RTO Committee Ponders Paths to Regionalization
(p.14)



Overheard at the 2021 GCPA Fall Conference
(p.21)



SOO Green Seeks Relief from PJM Rule on External Capacity
(p.41)

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In this week's issue

Counterflow

Participant Funding and Its Discontents 3

FERC/Federal

FERC, NERC Share Findings on February Winter Storm 1
 DOE Targets 90% Cut in Cost of Long-duration Storage 5
 Overheard at National Clean Energy Week 9
 FERC's Dodge Steps down as OER Head 11
 U.N. Hosts Energy Dialogue During General Assembly 12

Southeast

FERC Removes Southern Co. Mitigation in SC 13

CAISO/West

PG&E Denies New Manslaughter Charges 1
 Oregon RTO Committee Ponders Paths to Regionalization 14
 Calif. Governor Signs Climate, Wildfire, Energy Bills 17

ERCOT

Search Firm Chosen to Find New ERCOT Board Members 19
 Overheard at the 2021 GCPA Fall Conference 21
 Texas PUC Directs Tx Construction in Valley 23

ISO-NE

ISO-NE Elects 2021 Board of Directors Slate 26
 LaFleur Elected Chair of ISO-NE Board 26
 ISO-NE Elects 2021 Board of Directors Slate 27
 NEPOOL Reliability Committee Briefs 28
 ISO-NE Planning Advisory Committee Briefs 29
 FERC Approves PPL Acquisition of Narragansett 30
 Overheard at the NECA Fuels Conference 31
 FERC Denies Rehearing of ISO-NE Capacity Market Values 32
 FERC Pauses Tx Upgrade Charges for NE Solar Dev 33
 Glick, Panel Discuss Critical Role of Tx in Decarbonizing NE 34

MISO

Facing City Council Inquiry, Entergy Says it Could Sell New Orleans Utility Arm . . 1
 Tensions Boil over MISO South Attitudes on Long-range Transmission Planning . 35
 LSEs, Southern Regulators Pan MISO Resource Assessment 39
 MISO Warns Queue Won't Stay at 150-GW High 40
 MISO Extends Seasonal Auction Discussions 40

PJM

SOO Green Seeks Relief from PJM Rule on External Capacity 41
 PPL Acquires Portion of SOO Green Project 41
 PJM TOs Respond to FERC Questions on Rate-base Network Upgrades 43
 FERC Rejects Panda Hummel Settlement 45
 PJM MRC/MC Preview 46
 PennEast Pipeline Throws in the Towel 47

Briefs

Company Briefs 48
 Federal Briefs 48
 State Briefs 49

NetZero Insider is now live!
 See p.10 for this week's coverage.

Counterflow

By Steve Huntoon

Participant Funding and Its Discontents

As we contemplate throwing hundreds of billions at new transmission in order to interconnect new renewable generation — \$2,360 billion according to the Princeton net-zero study¹ — here’s a cautionary note on a central target of the Advance Notice of Proposed Rulemaking (ANOPR) FERC announced in July²: participant funding.

Participant Funding: ABCs

Participant funding has been a foundational principle in all the RTOs³ — dating back more than 20 years in PJM for example.⁴ Stated simply, a new generator pays for whatever upgrade of the grid is needed to maintain reliability with the interconnection of its project. If the new generator causes a reliability risk, a.k.a. violation, that didn’t exist before, the new generator pays to relieve the violation.

Economics

This principle makes so much sense that even an economist can explain it. Take, for example, a developer pursuing two potential wind proj-

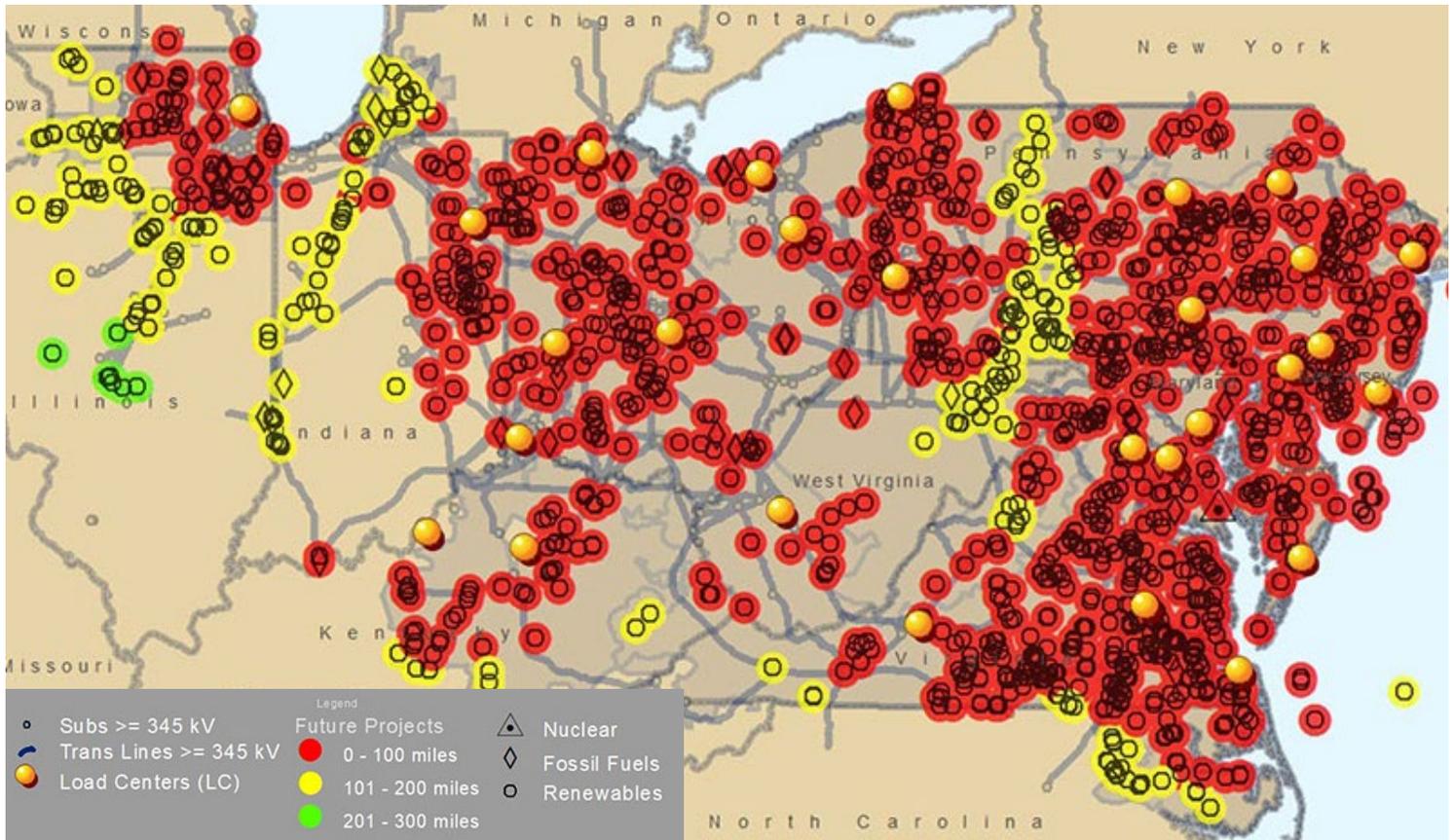
ects of the same size and capacity factor; the first would cost about \$110 million to build and the second would cost about \$90 million. The first would necessitate \$10 million in grid upgrades in order to maintain reliability, and the other would cost \$50 million in grid upgrades. If the developer has to consider the *total* cost of its alternative projects, then it will opt for the first project at a total cost of \$120 million instead of \$140 million for the second. If, instead, others (transmission customers for example) will pay for the upgrades then the developer will opt for the second project at a total cost to it of \$90 million instead of \$110 million. The generator saves \$30 million on its project; transmission customers pay \$50 million for the upgrades; and the difference of \$20 million is a deadweight loss to society. Not good.

And Fairness

Not only is participant funding economic, it is also fair. Other than paying for any necessary upgrades, the new generator gets access to the grid for *free*; transmission customers and

past generators paid (and pay) for the existing grid. Transmission customers pay for the transmission service from the generator to load. And transmission customers will pay for any upgrades needed in the future even if the new generator contributes to the need for such future upgrades.

The discontents like to say (often in the case of the ANOPR) that a new generator’s upgrades can provide increased transmission capability, a.k.a. “headroom,” that provides system benefits like lower energy costs and higher reliability. What this ignores is that the new generator gets the benefit for *free* of existing headroom paid for by transmission customers and past generators. To illustrate this, a new generator’s project could increase loading on, say, 10 transmission lines (remembering that this is a grid where new generation injected at a single point is distributed across many lines⁵). On, say, eight of the 10 lines there is existing headroom, paid for by others, such that the project does not cause a reliability violation on those lines. The generator gets to use that headroom for *free*.⁶ On



Many proposed renewable projects in PJM are within 100 miles of load centers. | PJM

Counterflow

By Steve Huntoon

the other two lines there are reliability violations, and the generator pays for upgrades to relieve those violations. *Manus manum lavat*, hand washes hand.

Speaking of fairness, let's not forget the many, many billions that investors have contributed to construct and interconnect the existing generation that today provides us reliable electric service at reasonable cost and at declining carbon emissions. Changing the rules now to favor new generation investment, at the disadvantage of past generation investment, would be unfair.

System Benefit Claims

Even if the above weren't enough — which it ought to be — we need to carefully scrutinize claims of system benefits. Let's remember at a basic level that whatever energy savings benefit comes from new generators at uneconomic locations, that we'd get roughly the same benefit from new generators at economic locations. Why pay extra to subsidize uneconomic generation?

And a few words about the latest study to claim benefits for customers as a reason to abandon participant funding: A study by the ICF consultancy paid for by the American Council on Renewable Energy (ACORE).⁷ In a nutshell ICF started with a pool of 663 network upgrades in SPP and MISO, and selected 12 (2%). One criterion for selection was that the upgrade capital cost be low relative to the potential generation that would be connected; it's unclear how that might have biased the results. In any event, if

you add up all the costs of the 12 upgrades,⁸ the total is about \$3.3 billion. If you add up all the claimed benefits to load, the total is about \$990 million. Somehow these results are supposed to show that we should get rid of participant funding and just bill load for the \$3.3 billion. So load would pay \$3.3 billion and in return get \$990 million of benefits. Such a deal!

The study also ignores the benefits that new generation gets for free from transmission that was paid for by others, as discussed in the preceding section. Is the benefit that new generation gets from others more than the benefit it provides others? I don't know, and neither does anyone else.

As for the assertion: more transmission = more reliability, this is specious. The grid is planned to satisfy reliability criteria. More transmission facilities driven by the need to interconnect remote generation (the ANOPR's premise is that the new generation we need is remote) may, or may **not**, increase reliability. All else equal, the longer the transmission line the less the reliability (think longer lines' increased exposure to extreme weather and, yes, more squirrels).

Remoteness

The ANOPR tried to come up with a reason why the last 20 years of RTOs developing — and FERC blessing — participant funding should be thrown away. (See *FERC Goes Back to the Drawing Board on Tx Planning, Cost Allocation*.)

The lead claim seems to be that since Order No. 2003 was issued, "the composition of

the generation fleet has rapidly shifted from predominately large, centralized resources to include a large proportion of smaller renewable generators that, due to their distance from load centers, often require extensive interconnection-related network upgrades to interconnect to the transmission system. The significant interconnection-related network upgrades necessary to accommodate geographically remote generation are a result that the commission did not contemplate when it established the interconnection pricing policy for interconnection-related network upgrades."⁹

I count four fatal flaws in this thesis. First, I can't find anything in Order No. 2003 that says participant funding turned on a lack of remote, smaller generation, or that the commission didn't contemplate the possibility of remote, smaller generation needing "extensive" network upgrades. Second, conditions on the ground when Order No. 2003 was issued don't support the thesis, as there already were wind projects, such as 30 listed in the PJM queue.¹⁰ Third, currently proposed renewable projects aren't necessarily remote from load centers as this PJM slide shows.¹¹ Fourth, perhaps most fundamental, if new renewable generation is relatively remote and if that can cause "extensive" network upgrades, then all the more reason that such generation **not** be interconnected without considering total cost, including upgrades.

Wrapping Up

Participant funding was the right idea 20 years ago. And it still is. ■

¹ https://netzeroamerica.princeton.edu/img/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf, slide 136.

² Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, 176 FERC ¶ 61,024, 86 Fed.Reg. 40266 (2021).

³ The ANOPR states at P 105: "Over time, each RTO/ISO sought, and the Commission accepted, independent entity variations to adopt some form of participant funding rather than the crediting policy."

⁴ PJM Interconnection, L.L.C., 87 FERC ¶ 61,299, at page 17 (1999) ("... generators will be required to pay the full cost of grid expansion this type of proposal forces the developer to consider the economic consequences of its siting decisions when evaluating its project options, and should lead to more efficient siting decisions.")

⁵ A good introduction to the basic concepts is here, <https://www.e-education.psu.edu/ebf483/node/513>.

⁶ To get a little technical, take a line that has peak loading of 70 MVA, and a maximum line rating of 100 MVA. Suppose the project increases the peak loading to 85 MVA. Because that is still below the maximum line rating of 100 MVA, the new generator pays nothing for increasing the peak loading.

⁷ <https://acore.org/wp-content/uploads/2021/09/Just-Reasonable-Transmission-Upgrades-Charged-to-Interconnecting-Generators-Are-Delivering-System-Wide-Benefits.pdf>.

⁸ Exhibit 2 on page 5.

⁹ ANOPR at P 100.

¹⁰ <https://pjm.com/planning/services-requests/interconnection-queues>, select "Wind" as fuel and the "Dates" tab for queue date.

¹¹ <https://pjm.com/-/media/committees-groups/committees/pc/2021/20210827-workshop-4/20210827-item-04-data-analysis-presentation.ashx>, slide 3.

FERC/Federal News



DOE Targets 90% Cut in Cost of Long-duration Storage

With Multiple Technologies Available, Industry Analysts Say Goal Can be Reached

By K Kaufmann

To decarbonize the fast-evolving U.S. grid by 2035, long-duration storage technologies that can provide 10 or more hours of power will have to be developed and deployed by 2030, according to Eric Hsieh, director of grid systems and components at the U.S. Department of Energy.

But hitting that deadline may not be possible because of the long and expensive process new technologies must go through to test and validate their performance, he said.

To allow enough time for manufacturing, permitting, interconnection and construction, “any new technologies would probably need to be ready by 2030” to be operational by 2035, Hsieh said during the DOE’s Long-Duration Storage Shot Summit on Thursday. “So, under any scenario of achieving this goal, there’s less time on the calendar, between

now and deployment, than the time these technologies” would normally need for performance testing.

This “information gap” — and the use of artificial intelligence and machine learning to accelerate testing — is now the focus of a consortium of researchers at the DOE’s national laboratories. They have launched a Rapid Operational Validation Initiative (ROVI) to build the tools and datasets that could cut the performance testing process from years to weeks, said Eric Dufek, department manager for energy storage at the Idaho National Laboratory.

The national labs have already developed some AI and machine learning capabilities that might soon “do rapid, accurate and cost-effective performance characterization and provide the quantitative, reliable certainty to everybody that is developing and deploying different assets,” Dufek said during a panel on the initiative.

The need for speed is at the heart of the Long-Duration Storage Shot (LDSS), the second of the DOE’s Earthshots aimed at driving down the costs of certain key energy technologies that will need to be commercialized and deployed at scale to reach President Biden’s 2035 deadline for a 100% clean electric grid. Six to eight “shots” are planned for the initiative, beginning with the Hydrogen Shot, announced in June, which is aimed at cutting the cost of green hydrogen, produced with clean energy, from its current price of \$5/kg to \$1/kg within a decade.

Launched in July, the LDSS has set an even more ambitious target: cutting the levelized cost of long-duration storage 90% to 5 cents per kWh-cycle for 10 hours of duration or longer, Hsieh said.

That target is based on the 2020 capital costs and levelized cost of storage (LCOS) of lithium-based batteries, Hsieh said. At the same time, “the Storage Shot is technology-neutral



The DOE wants long-duration storage technologies — like Energy Vault’s towers that raise and lower 35-ton blocks of concrete — to hit a levelized cost of \$0.05 per kWh-cycle for 10 hours or more within the next decade. | *Energy Vault*

FERC/Federal News



and includes all technologies with a pathway to the specified cost and performance targets," he said.

A wide spectrum of technologies is in the running to fill the long-duration space. Traditional pumped hydro currently accounts for more than 90% of grid-scale storage in the U.S., but other possibilities include liquid air, compressed air, hydrogen, flow batteries and gravity-driven technologies. For example, the California-Swiss startup Energy Vault uses tall towers to store and discharge energy by lifting and lowering 35-ton blocks of concrete.

The sheer number of "potential pathways here offer potential breakthrough avenues and obviously also challenges," said Jason Burwen, interim CEO of the Energy Storage Association, who believes the DOE's target is achievable.

"Each technology points you toward different cost problems to tackle," Burwen said in a phone interview with *RTO Insider*. "Thermal storage technologies, for example, there's a lot of promise there because you're talking about materials and thermal mass, which can scale ... probably fairly well at low cost, and then it becomes a matter of solving for the containment vessel associated with those."

Speaking to *RTO Insider* on Monday, Yiyi Zhou, clean energy specialist at BloombergNEF, also saw a number of possible candidates for hitting the 5-cent target, including hydrogen, compressed air and aqueous, or liquid air, technologies.

"[The] leveled cost of hydrogen for renewable electricity has the potential to reach below U.S. \$1," Zhou said. "This is the equivalent to about 2.5 cents per kWh."

But, she cautioned, an LCOS that low might only be applicable in certain markets.

Faster, More Granular, More Complex

Lithium-ion batteries are the dominant technology in residential and grid-scale storage today, allowing for durations of four to six hours and a range of flexible grid support services. But according to a range of policy makers and industry stakeholders at the LDSS summit, increasing levels of renewable energy on the grid will require longer-duration technologies.

"Once you get past 20 to 30% penetration of renewables, the whole system changes. It becomes faster; it becomes much more granular in terms of the information you require. It becomes certainly much more complex," said Audrey Zibelman, who at the end of 2020



Audrey Zibelman,
Google X | DOE

left her position as managing director and CEO of the Australian Energy Market Operator to join X, Google's Moonshot Factory, as vice president for the electric grid.

"But [what] all that gets down to is that

you need a huge amount of flexibility in the system; you need to be able to respond instantaneously to changes," Zibelman said. "And you need to recognize that as weather [solar and wind] becomes some of your biggest fuels, storage becomes an increasingly critical feature both in managing the grid so that it can take advantage of the free fuel of weather and become much more efficient, as well as resilient, as well as reliable."

Renewables and electrification of transportation, buildings and other sectors of the economy could result in some states seeing their electric grids shift from summer-peaking to winter-peaking systems, as is already beginning to happen in North Carolina, said Christopher Ayers, executive director of public staff at the North Carolina Utilities Commission.

With the state's strong solar market pumping out excess power, "we need that energy that is produced in the afternoon in large quantities; we need it at 6, 7 and 8 in the morning on January, February and March mornings," Ayers said. "Right now, we don't have the technology that allows us to bridge that gap. Once we have long-duration storage and start integrating [that power] into the system, we can become more cost-effective by also leveraging low-cost energy generation."

In the remote town of Cordova, Alaska, Clay Koplin, CEO of the Cordova Electric Cooperative, sees long-duration storage as "the holy grail." Working with the DOE, the town of about 2,200 has been able "to modernize our grid and be very efficient with the resources we have, but [that] just can't replace the need for storage," Koplin said.

Long-duration storage would mean the town would be able to store excess solar energy from its long summer days to use during the winter, and eventually run 100% on clean

power, Koplin said.

Data: A Two-fold Problem

Beyond cost-cutting, a major challenge for scaling long-duration technologies is validating their performance, a process that often requires a huge amount of data collected over years, said Ben Kaun, program manager for energy storage and distributed generation at the Electric Power Research Institute.

"Utilities are used to very long-life assets," Kaun said during the panel on ROVI. "Battery energy storage technologies that are available right now typically are guaranteed for 10 to 20 years. That already raises some eyebrows for the stakeholder group. In addition, there's only been a few years that most of these technologies have in-the-ground experience that we haven't had the chance to prove out."

And, with the grid constantly evolving, Kaun said, "This creates a situation where there's insufficient predictive data about what's going to happen to these assets in the future."



Craig Horne, Wellhead
Electric | DOE

Craig Horne, managing director of energy storage at natural gas and solar developer Wellhead Electric Company, agreed. "You really have a two-fold problem where you have a limited amount of data that predicts performance and then

a limited amount of insight as to how that performance needs to manifest in order to bring in revenues and provide service to the customers," he said.

A platform like ROVI would allow developers to "see that no matter how a use case may evolve, that we can get a high degree of confidence that this storage asset would be able to respond appropriately," Horne said.

Getting the system up and running, however, will mean collecting and sharing performance data — including proprietary information — from a range of industry players, a problem the labs are already working on, Dufek said.

"If something is proprietary and not necessarily something you want the entire world to see, we can also deal with that," he said. "We can clearly link and coordinate between those two sets so that we continue to evolve the entire system without actually developing or creating the need to develop a specific tool for every single activity." ■

FERC/Federal News



FERC, NERC Share Findings on February Winter Storm

Preliminary Report Calls for Winterization, Greater Electric-gas Coordination

Continued from page 1

"That recommendation was watered down to guidelines that few generators followed," he said. "The biggest single reason [for the outages] was the vast majority of generators hadn't winterized their facilities. I guarantee you that this time, FERC will not permit these recommendations to be ignored or watered down."

NERC CEO Jim Robb joined Glick for a press conference after the meeting.

"I want to share [Glick's] commitment ... that this is not going to be a paper report that's just going to sit on someone's shelf and be valued because of the length of it and the weight of it," he said. "We're really going to be committed to putting this into action."

Robb did throw a shoutout to ERCOT's operators, who brought the grid back from the brink of collapse as they scrambled to meet record winter demand while dealing with a massive loss of generation. (See [ERCOT: Grid was 'Seconds and Minutes' from Total Collapse.](#))

"I think it is impressive that the operator managed to not let the entire Texas grid collapse. That's not much comfort to those without power for six or seven days, but I think there's something to celebrate there," he said.

ERCOT had to make do without an average of 34 GW of generation Feb. 15-17, according to the inquiry, equivalent to nearly half of its all-time winter peak of 69.9 GW before it began to lose generation.

The study team said the storm led to the



FERC Chairman Richard Glick | © RTO Insider LLC

largest controlled firm load-shed event in U.S. history and the third largest loss of load, trailing only the August 2003 Northeastern blackout and the August 1996 West Coast blackout. More than 1,000 generating units in the Midwest experienced either an outage, a derate or a failure to start from Feb. 8 to 20.

The team laid much of the outages' blame on freezing generator components and fuel-supply issues. The report said all fuel types were affected but that 57% of the 1,045 impacted generators were natural gas-fired units that primarily faced fuel-supply challenges.

Referring to comments from Texas politicians and others who pointed fingers at renewable resources, Glick said, "Today's report makes it clear that the facts don't support this rhetoric. This should make us rethink the current approach to assess when dispatchable generation should be available."

The preliminary report makes nine key recommendations, including changes to mandatory reliability standards that build upon those developed in the wake of a 2019 joint inquiry into a prior cold weather event and recently approved by FERC. (See [FERC Approves Cold Weather Standards.](#))

The recommendations include:

- require generator owners to identify and protect cold weather-critical components;
- build new or retrofit existing units to operate to specific ambient temperatures and weather based on extreme temperature and weather data;
- take into account the effects of wind and precipitation in winterization plans;
- create corrective action plans for generator owners that experience freeze-related outages; and
- ensure the system operator is aware of the generating fleet's operating limitations so that they can plan mitigation actions.

The preliminary report also recommends that generator owners be provided the opportunity for compensation and recovery of the costs of building or retrofitting to operate to a specific temperature, and that Congress, state legislatures and jurisdictional regulators require gas facilities to prepare and follow cold weather preparedness plans.

"We can't allow this to happen again," Glick said. "This time, we must take these recommendations seriously, and act decisively, to ensure the bulk power system doesn't fail the next time extreme weather hits."

Glick said the storm's effects would have been much worse in SPP and MISO had they not been able to import power from PJM. He said ERCOT's lack of interconnections with the other U.S. grids and its limited ability to import power was "unfortunate."

"ERCOT is essentially an island unto itself," Glick said, repeating a familiar expression among Texans who relish their freedom from FERC jurisdiction. "That is very short-sighted. That is nothing more than cutting off your nose to spite your face."

The Texas Public Utility Commission is looking into strengthening its connections with the Eastern and Western Interconnections. ERCOT has also included an item to "assess the potential costs and benefits of increased transmission both internal and external to ERCOT and increase coordination with other power regions" in its 60-point [roadmap to grid reliability](#).

"Changes are obviously needed to protect Texans from future winter weather events ... and ERCOT is working closely with the PUC to aggressively implement [new state legislation]," ERCOT spokesperson Leslie Sopko said in an email. "We fully expect the report's findings to complement the positive impact of the PUC's market-redesign work sessions and our 60-point Roadmap to Improving Grid Reliability."

Asked about ERCOT's isolation and the PUC's discussion of interconnections without involving FERC, Glick said he "couldn't care less" about jurisdiction.

"All I care about is making sure that we don't have a repeat of what happened last winter, which was tragic," he responded, saying jurisdictional issues are for Congress to decide. "We just need to work with our friends at the PUC and other policymakers in Texas to encourage a greater level of interconnection. We can work out the concerns that they have about FERC jurisdiction; we can work that out down the road."

The Texas Reliability Entity has scheduled a winter weatherization [workshop](#) for this Thursday to review the cold weather standards and

FERC/Federal News



share best practices in preparing generators for severe winter weather.

"I appreciate the recommendations outlined within the report to improve grid reliability," Texas RE CEO Jim Albright said in a statement. "We'll continue to work with our stakeholders within the Texas Interconnection via outreach and training such as [the workshop]."

In an emailed statement, SPP spokesperson Meghan Sever said the RTO's initial assessment of the preliminary findings and recommendations is in "strong alignment" with FERC's.

"We've both determined that fuel-supply issues were at the heart of the reliability issues we experienced, that strong interconnections and effective communication helped to mini-

mize the impacts of the storm, and that better coordination between the gas and electric industries is needed to mitigate the threats of similar events in the future," she wrote. "We're working hard to implement the recommendations that came from our own analysis and expect much of what we are working on to satisfy FERC and NERC's recommendations."

American Electric Power, a major player in the MISO and SPP markets, said it relies on the "collective reliability" of the combined fleet.

"Therefore, AEP supports the development of NERC standards that will assure that all generators in the regions are preparing for these conditions in a comparable fashion," spokesman Scott Blake said in an email.

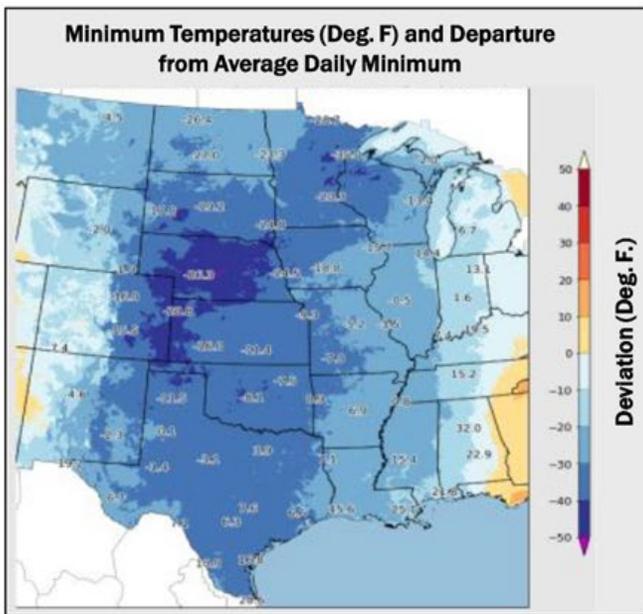
"Similarly, we support efforts to improve the

weatherization protection for the natural gas infrastructure, including having pipelines share the state of weatherization of their equipment with generators that may be adversely impacted."

The inquiry team comprised nearly 50 staff members from FERC, NERC and its regional entities: Midwest Reliability Organization, Northeast Power Coordinating Council, ReliabilityFirst, SERC Reliability, Texas RE and WECC. The Department of Energy and the National Oceanic and Atmospheric Administration also contributed.

The final report is scheduled to be released before winter. ■

Michael Brooks contributed to this story.



• The February 2021 event is the **fourth** in the past 10 years which jeopardized bulk-power system reliability due to unplanned cold weather-related generation outages:

- 2011 – 29,700 MW
- 2014 – 19,500 MW
- 2018 – 15,800 MW
- 2021 – **61,800 MW**

Cold weather conditions on Feb. 15, 2021 | NOAA

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FERC/Federal News



Overheard at National Clean Energy Week

Policy Symposium Focuses on Carbon-free Technologies, Supply Chains

By K Kaufmann



PSEG CEO Ralph Izzo
| *National Clean Energy Week*

According to Public Service Enterprise Group CEO Ralph Izzo, the first step in getting to a 100% decarbonized grid is simply “getting people to use less energy than they use today, without sacrificing quality of life or activities they find

valuable.”

The technologies — from LED light bulbs and smart thermostats, to energy-efficient appliances — are here, Izzo told a virtual audience at National Clean Energy Week’s Policy Makers Symposium. But, he said, “one of the policy changes that’s important to help bring about the embracing of these technologies is to allow the utility to profit as much from investing in technologies that reduce throughput as we do from technologies that enhance throughput.”

With regulations in New Jersey that provide such incentives, Izzo said, “our shareholders are indifferent as to whether we invest money in a programmable thermostat or a transformer or substation.” PSEG would be investing \$1 billion in energy-efficiency programs over the next three years, he said.

Izzo was speaking on Wednesday, the second day of the symposium, which provided an overview and significant insights into the mainstreaming of the clean energy transition in the U.S. and how certain, more traditional sectors of the energy industry are positioning themselves to be part of a low- or no-carbon economy. No representatives from solar or wind companies or associations spoke at the event.

The symposium also heavily focused on the ongoing congressional negotiations over the bipartisan infrastructure package and \$3.5 trillion budget reconciliation bill, and what key incentives and initiatives in the two bills will survive to reach President Biden’s desk.

Izzo spoke in favor of the Clean Electricity Performance Program (CEPP) in the budget reconciliation bill, which would provide incentives to utilities to meet mandated clean energy targets and penalize those that don’t. The CEPP, tax incentives and a price on

carbon could, he said, help create “more of a national market as opposed to a balkanized, fragmented, state-by-state market, and you’d really see investment levels take off.”

PSEG announced in June that it was pushing up its target for cutting its greenhouse gas emissions to net zero from 2050 to 2030. It is “in the process of completely exiting the fossil fuel business” through a combination of plant closures and sales, Izzo said. While the utility’s energy mix going forward will be nuclear, offshore wind and solar, he said, developing carbon capture and storage technologies should be a national priority.

Natural gas “is so abundant and so low-cost that perhaps the nation would be wise to continue to preserve some optionality around that, as long as we can mitigate the carbon attributes,” he said.

Carbon-free Technologies Initiative



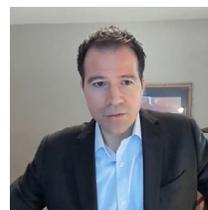
Armond Cohen, Clean Air Task Force | *National Clean Energy Week*

nuclear and geothermal, to CCS and zero-carbon fuels, such as hydrogen. These technologies are needed to fill the “24/7 dispatchable gap” as the deployment of solar, wind and storage accelerates over the next decade, said Armond Cohen, executive director of the Clean Air Task Force, a member of the initiative.

Jeff Lyng, director of energy and environmental policy at Xcel Energy, noted that his company is planning on nearly doubling its solar, wind and storage resources in Colorado and adding close to 6 GW of wind, solar and storage in Minnesota.

Such deployments must be paralleled with the development of other carbon-free technologies, Lyng said.

Similarly, a panel on Sept. 21 centered on the Carbon-Free Technology Initiative, an alliance of energy advocacy groups and investor-owned utilities, with a focus on advancing a portfolio of carbon-free resources, from advanced



Jeff Lyng, Xcel Energy
| *National Clean Energy Week*

“I think we can all appreciate that that’s going to take time. That’s going to take focus, and I think we really have to keep it in the ‘important and urgent’ quadrant, because we’ll need these technologies in the 2030s to achieve those carbon-free aspirations,” he said.

Getting there will mean research and development that goes beyond a single pilot project, Cohen said. “The first of a kind is always going to be very high cost and may not fully represent to the commercial community that something has been de-risked,” he said.

“Let’s not just do one and walk away and assume the market’s going to deal with it,” he said. “Unless we can do a substantial cluster of deployments of the technology, we’re really not going to get those economies of scale and learning that issue into the commercial space.”

Supply Chain

Anyone who cares about clean energy should also care “about accessing minerals in an environmentally responsible way,” said Sen. Lisa Murkowski (R-Alaska), who delivered Wednesday’s keynote on the urgent need to build out a domestic supply chain for critical minerals, such as lithium, cobalt, nickel, zinc and copper. These minerals are a key part of solar and energy storage supply chains, and the dependency of the U.S. industry on foreign sources — especially in China — is “unacceptable,” requiring a holistic, whole-of-government approach, Murkowski said.

“A truly complete supply chain” should include not only mining, but processing and refining minerals, she said. “I think our country right now is at a crossroads when it comes to critical minerals. We can move forward without action, continue to look the other way [or] we can take the other path. We can acknowledge the challenge; we can face it head on.”

As passed in the Senate, the bipartisan infrastructure bill would extend Department of Energy loan guarantees to critical mineral projects, which “would open an avenue of new financing [and] make available technical



Sen. Lisa Murkowski (R-Alaska) | *National Clean Energy Week*

FERC/Federal News



expertise and resources at the department," Murkowski said. Permitting reforms to expedite "responsible mining" of critical minerals on public land are also in the bill, she said.



Anthony Staley, The Doe Run Company | National Clean Energy Week

Speaking on a panel following Murkowski's keynote, Anthony Staley, vice president of the metals division at The Doe Run Co., known primarily for lead extraction and recycling, underlined the connection between clean energy and the need for rapid development of domestic supply chains for critical minerals.

For the U.S. to meet its emission-reduction commitments under the Paris Agreement, it might have to increase its production of critical minerals fourfold, he said.

"But in order to generate the raw materials

we need, we need to make sure that we produce them in a clean way," Staley said. Companies like Doe Run face "a lot of the regulatory hurdles and international competitive costs disadvantages associated with strategic subsidies and inconsistent environmental standards from other countries," he said.

Permitting a new mine can take seven to 10 years, and such delays "decrease the mineral value at a mine by about one-third," Staley said. Further, even well established companies like Doe Run ship their minerals to China for processing.

"This always strikes me as really curious, because when you look at other countries, the first thing they do upon finding a mineral resource is immediately legislate that the processing of those minerals and metals is done within the confines of the country," he said.

Izzo on COVID

Deviating somewhat from the topic of the

discussion, PSEG's Izzo said the utility industry is not coming to grips with the changes to system reliability and resilience that are emerging as a result of the COVID-19 pandemic.

"People are working from home, and I think that many people will continue to work from home, even after we get higher penetration of vaccines and have the virus under control, and what that will mean is pretty profound for our industry," he said. With people working in homes where most systems are electrified, outages will have deeper impacts.

"You can't work, and more than likely your phone may not be fully charged, nor will your vehicle be fully charged, so you may not be able to call somebody, and you may not be able to get in the car and go to work," Izzo said. "That's a whole new set of reliability and resiliency [issues]. That's going to require a whole new way of thinking and design." ■

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FERC/Federal News



FERC's Dodge Steps down as OER Head

Deputy Ortiz to Take over on Acting Basis

By Holden Mann

Andy Dodge has left his position as director of FERC's Office of Electric Reliability (OER), Chairman Richard Glick said at the commission's open meeting Thursday. David Ortiz, who has served as the office's deputy director for the past five years, has stepped in as acting director.

Announcing the change in his opening remarks, Glick did not indicate precisely when Dodge had stepped down, saying only that it happened "recently." The OER [website](#) has already been updated to replace Dodge with Ortiz. Glick said Dodge will return as a senior adviser to the Office of Energy Infrastructure Security (OESI), where he worked as an electrical engineer from 2016 to 2018 before leaving to run OER.

"I believe [these changes] will strengthen our bench to address growing threats to the reliability of the grid," Glick said. "I want to thank Andy for his service in leading OER and thank David for agreeing to take on this added responsibility."

OER oversees the development and review of reliability and security standards, as well as utilities' compliance with those standards. It also leads or joins periodic reviews of the ERO Enterprise and utilities; leads or joins analysis and investigations of complaints, blackouts, near-misses or other issues with the bulk power system to determine whether standards were violated and if they are adequate for their purpose; and oversees NERC's regular reliability assessments to identify constraints on the BPS. Joseph McClelland, the office's inaugural director, now heads OESI.

Ortiz became deputy director of OER in April 2016 following a three-year stint as deputy assistant secretary for energy infrastructure modeling and analysis at the Department of Energy. He previously served as acting



David Ortiz, acting director of OER | FERC

OER director for about nine months in 2018 after the departure of the previous director, Michael Bardee, stepping back when Dodge took over the same year. ■

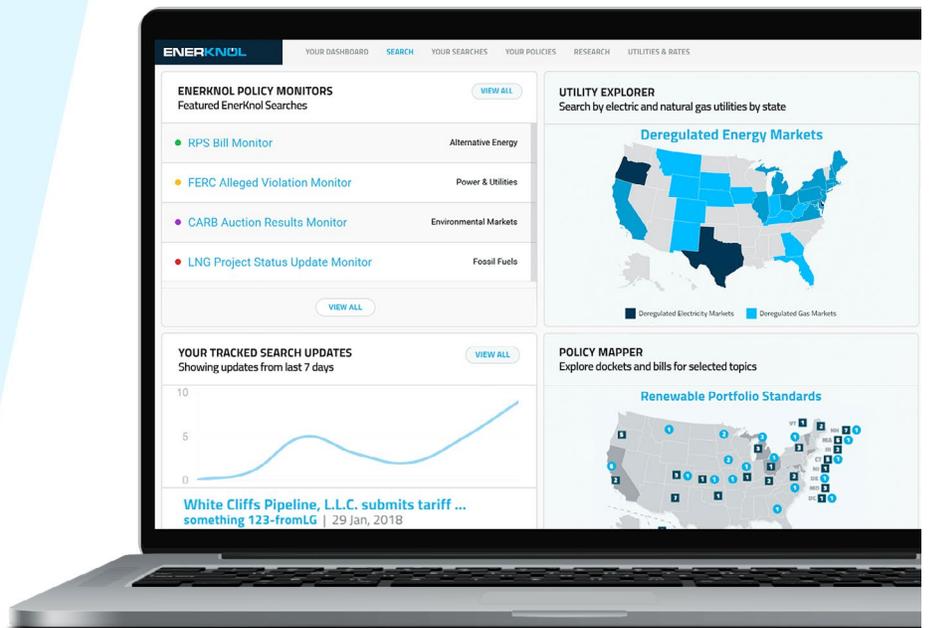


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FERC/Federal News



U.N. Hosts Energy Dialogue During General Assembly

By Michael Kuser

As world leaders gathered in New York last week for the United Nations General Assembly, presidents and prime ministers mixed with program directors and policy advocates at a conference to shape a unified global response to climate change through renewable energy.



Nisha Pillai, BBC | United Nations

“The conference is a way of bringing together [the 17 U.N. Sustainable Development Goals] on climate action onto the same trajectory,” said BBC World News presenter Nisha Pillai, who moderated a panel on “raising collective ambition.”

“Governments alone cannot do the transformations that are needed to fulfill this and also to get us to the goals of the Paris Agreement by the end of the century,” Pishai said.

U.N. Secretary-General António Guterres on Friday convened a “high-level *dialogue on energy*” concurrent with the General Assembly in order to accelerate action on clean, affordable energy for all, the first gathering of leaders at the U.N. in more than 40 years devoted solely to energy issues.



Damilola Ogunbiyi, Sustainable Energy for All | United Nations

“I always tell people from my own country, Nigeria, that energy is our climate action,” Ogunbiyi said. “Getting rid of 25 million generating sets is part of our climate action, as is giving 90 million people energy access. ... But from tomorrow it’s all about how do we translate that ambition on the ground and how do we get a lot more people to deliver it.”

Co-investment Stimulus

To consider how much the situation has changed in recent years, look at the stimulus packages that have been mobilized in the in-

dustrialized world, said Achim Steiner, U.N. Development Program administrator.

“To start with, there is a multiple amount of funding, public finance and policy signals being put in place right now that will accelerate the transition,” Steiner said. “For example, in terms of clean energy the European Green Deal translates into a €60 billion fund that is now being given to the minister of ecological transition in Italy to green Italy’s economy.”

Investment can’t just be made in one part of the world, particularly the part of the world that can afford it, he said.

“This is not a zero-sum game, as \$100 billion from the rich world is actually going to leverage trillions of dollars of investment in clean energy in the global South,” Steiner said. “This is the co-investment proposition of our time. Now if we can make that equation work, we can not only achieve SDG 7 [the goal of ensuring universal access to clean, affordable and reliable energy], we can actually surpass it.”

Global energy company ENGIE is committed “to deliver on the decarbonization agenda” both for itself and its industrial clients, whom it helps to decarbonize their operations, ENGIE CEO Catherine MacGregor said. The company aims to be carbon neutral by 2045.

“I think very importantly we have to have shorter-term goals, which allows us to really track progress,” MacGregor said. “We are a private company and the task on us is to really be able to deliver progress, concrete projects.”

The company’s ability to collaborate with other private-sector actors as well as policymakers is important to meet the challenges facing the energy sector, she said.

“As an example of that, hydrogen is a massive potential solution for the hard-to-abate sector, but everything needs to happen in hydrogen — market design, policy, regulation — and here the private sector and government working together is so important,” MacGregor said.

The Paris Agreement provides the overall framework for action for the world, but then it also says every country and every commu-



Achim Steiner, UNDP | United Nations

nity needs to have a plan and those are the nationally determined contributions (NDC), said Patricia Espinosa, executive secretary of the United Nations Framework Convention on Climate Change (UNFCCC).

Pillai asked about “coherence” between the individual actions and the NDCs. NDCs represent pledges on climate action that seek to limit global warming to well below 2 degrees Celsius — and preferably 1.5 degrees — over pre-industrial levels.

“Ensuring that the individual actions by all stakeholders, especially the private sector, the financial community, of course, and the governments, provide the enabling environment is really the key to going from plans into implementation and reality,” Espinosa said.

Gender Equity

Women-owned businesses have lower access to investments because they lack collateral and also face conscious and unconscious bias in investment processes, said Arunabha Ghosh, CEO of India’s Council on Energy, Environment, and Water.

“The general energy compact for us, the coalition believes, must be their means to harness and channel the support that women need to grow their businesses and to make them resilient,” Ghosh said. “One way of doing this is by leveraging investments from those interested in returns — not just on economic returns but on gender impacts, on results.”

The World Bank is doing a lot of good work in gender equity, and the agreements made at the U.N. also need to be a catalyst to increase investments from both the public and private sectors to intentionally and directly invest in women’s businesses, Ghosh said.



Sheila Oparaocha, ENERGINIA | United Nations

“We find whether you are in a developing country, but even in the most economically advanced countries, we still find that women are marginalized from decision making and leadership in the energy sector,” Oparaocha said. ■

Southeast

FERC Removes Southern Co. Mitigation in SC

FERC on Thursday agreed to remove market mitigation measures for Southern Co. in the Dominion Energy South Carolina balancing authority area, saying the utility meets the standards for market-based rate authority (*ER10-2881-035, et al.*).

The commission agreed to lift the mitigation because Southern had no indicative screen failures in the region, where it holds a market share of 6.6 to 13%.

The commission also approved Southern's continued use of market-based rates in Duke Energy Florida (market share 2.9 to 9.3%), Duke Energy Carolinas (6.9 to 7.7%), Florida Power & Light (6.0 to 8.0%), PowerSouth (0 to 16.6%), Tennessee Valley Authority (2.1 to 3.5%), Seminole BAA (0 to 0.1%) and Florida Municipal Power Pool BAA (0 to 0.4%).

But the commission said Southern's tailored mitigation — day-ahead and hour-ahead energy auctions — for the Southern BAA (41.7 to 51.9%), Jacksonville Electric Authority



Southern Co. headquarters in Atlanta | Southern Co.

(17.1 to 21.4%), Santee Cooper (0 to 30.3%) and the city of Tallahassee (0 to 19.8%) must remain in place.

The commission said Southern failed the wholesale market share screen in the Southern, Jacksonville and Santee Cooper BAAs. Southern said that although it narrowly passed the screen for the Tallahassee BAA for the summer and fall seasons, it would “conservatively treat the [Tallahassee BAA] as having two screen failures.”

Other MBRA Approvals

In separate orders, the commission also approved MBRA and accepted updated market power analyses for Commonwealth Chesapeake Co., *et al.* (*ER10-3078-005, et al.*); Munnsville Wind Farm, *et al.* (*ER10-2834-007 et al.*); Talen Energy Marketing, *et al.* (*ER15-2013-011, et al.*); Homer City Generation (*ER13-55-025*); and Caithness Long Island and Moxie Freedom (*ER20-2271, ER20-2755*). ■

— Rich Heidorn Jr.

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CAISO/West News

Oregon RTO Committee Ponders Paths to Regionalization

By Robert Mullin

A meeting to hash out an upcoming Oregon study on RTO membership took some philosophical twists last week as discussion turned to how the state's participation might fit into other developments in the West and whether incrementalism might be the best approach to unifying the region's grid operations.

In kicking off the first meeting of the state's RTO Advisory Committee, Adam Schultz, electricity and markets policy lead at the Oregon Department of Energy (ODOE), clarified that the study that [Senate Bill 589](#) requires from the department by year-end is not expected to provide recommendations on whether the state should compel utilities to join an RTO. (See [Oregon Study to Examine Benefits, Risks of RTO Participation](#).)

The objective, according to Schultz, is "to gather and synthesize the range of perspectives on the benefits, costs, opportunities, challenges and risks of RTO formation that exists among a diverse range of Oregon stakeholders to inform the state legislature and other interested parties."

The Advisory Committee includes representatives from the state's three investor-owned

utilities (Portland General Electric, PacifiCorp and Idaho Power), consumer-owned utilities, independent power producers, the legislature, the governor's office, organized labor, and environmental and social justice groups.

During the meeting Sept. 20, committee members from the electricity sector appeared to lean in support of RTO membership, a view that even extended to consumer-owned power providers.

"There's a lot of talk about RTOs and organized markets across the region. We're participating in many of those and are excited about the opportunities that it can create," said Frank Lawson, general manager of the Eugene Water and Electric Board. "I would say that we're generally favorable of the idea, and we also know that the details matter."

Robert Echenrode, CEO of Umatilla Electric Cooperative in Eastern Oregon, said his utility's interest in an RTO stems from its "rather significant load" and the potential for renewable energy growth in the region.

"We're very interested in both sides of the RTO equation. We anticipate a net benefit," Echenrode said.

"I'd say our view is that we favor market de-

velopment, but markets done right," said Fred Heutte, NW Energy Coalition (NWECC) senior policy associate. "Of course, there's a lot of different issues and perspectives underneath that cliché."

Ben Kujala, director of power planning at the Northwest Power and Conservation Council, pointed to the "transformative" energy policies taking shape in the West — particularly in California — that "are really going to change the way" the system and markets work. He wondered how Oregon can best position itself to mitigate any risks that might arise from those changes.

"I think one of the things you always have to keep in mind in any report looking at something like this is ... is [the development of an RTO] an incremental change to the current state — or would the current state be better going forward?" Kujala said.

Mike Goetz, general counsel for the Oregon Citizens' Utility Board, said the study should examine other efforts already underway in the West to inform the possible shape of an RTO. He pointed specifically to the Northwest Power Pool's (NWPP) Western Resource

Continued on page 18



Transmission line in Umatilla County, Oregon. | © RTO Insider LLC

CAISO/West News

PG&E Denies New Manslaughter Charges

Utility Sued over Dixie Fire, Prosecuted for Zogg Fire

Continued from page 1

District Attorney Stephanie Bridgett marked the second time this year PG&E has been criminally charged for a wildfire and the fourth time in five years the utility has faced charges in disasters related to its gas and electric systems.

"While criminal prosecutions of corporations are rare, one of the primary reasons to charge a corporation criminally is a finding that illegal behavior is widespread. It's serious. It's offensive, and it's so persuasive that the only appropriate action is criminal charges," Bridgett said Friday in a [press conference](#). "My office has made such findings and believes that criminal charges are appropriate at this time."

PG&E CEO Patti Poppe denied the accusations Friday in a video-recorded [statement](#) and [news release](#).

"We've accepted Cal Fire's [the California Department of Forestry and Fire Protection's] determination, reached earlier this year, that a tree contacted our electric line and started the Zogg Fire ... but we did not commit a crime," Poppe said.

Cal Fire concluded in March that the Zogg Fire began on Sept. 27, 2020, 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](#).)

The fire killed an 8-year-old girl, the girl's mother, a 79-year-old woman and a 52-year-old man who were overtaken by flames as they tried to flee. It burned more than 56,388 acres and destroyed 204 structures.

The DA's office charged PG&E with involuntary manslaughter for the four deaths and accused it of 27 other felonies and misdemeanors related to the fire.

It was the second time the state's largest utility has been charged with homicide. PG&E pleaded guilty in June 2020 to 84 counts of involuntary manslaughter and one count of arson in the 2018 Camp Fire. (See [PG&E Pleads Guilty to 84 Homicides and Arson](#).)

Jurors convicted PG&E in August 2016 of six felonies stemming from the San Bruno gas pipeline explosion in 2010, which killed eight people. The crimes consisted of obstructing a federal investigation and violating pipeline

safety standards; PG&E was not charged in the deaths. A federal judge sentenced the utility to five years' probation starting in January 2017.

In April, Sonoma County prosecutors charged the utility with five felonies and 28 misdemeanors from the October 2019 Kincadee Fire including "recklessly causing a fire with great bodily injury" to firefighters and emitting harmful contaminants such as wildfire smoke and ash into the air, harming children. PG&E has also denied criminal liability in the case. (See [Prosecutors Charge PG&E for 2019 Kincadee Fire](#).)

'Reckless and Criminally Negligent'

Bridgett contended in her press conference that years of disasters have failed to improve PG&E's safety culture.

"It appears they haven't changed," the prosecutor said Friday.

As in prior cases, she said, PG&E failed in its statutory and regulatory duty to maintain its equipment and clear vegetation to reduce the fire risk. The 100-foot-tall pine tree that started the Zogg Fire was marked as hazardous in 2018 but never removed; it had a damaged trunk and was leaning at a 23-degree angle on a downhill slope toward PG&E's lines, she said.

"Their behavior was reckless and criminally negligent, and it resulted in the death of four people," Bridgett said.

Poppe said Friday the utility has been struggling to cope with the West's persistent drought and climate change that has "forever changed the relationship between trees and power lines."

"Two trained arborists walked this line and, independent of one another, determined the tree in question could stay," Poppe said in her statement. "We trimmed or removed over 5,000 trees on this very circuit alone."

PG&E is investing \$1.4 billion in vegetation maintenance and plans to remove 300,000 trees and trim 1 million more while burying 10,000 miles of power lines in high-threat fire areas, she said.

"This vital safety work is all done by real people who are trying every day to do the right thing," she said. "My coworkers are working so hard to prevent fires and the catastrophic losses that come with them. They have ded-



PG&E CEO Patti Poppe denied her company's criminal liability in the Zogg Fire. | PG&E

icated their careers to it. Criminalizing their judgment is not right. Failing to prevent this fire is not a crime."

Dixie Fire Proceedings

Federal Judge William Alsup, who oversees PG&E's probation in the San Bruno explosion, has also said he believed it was "reckless, maybe criminally reckless, for PG&E to have left ... that gray pine looming." The judge has been trying to get PG&E to improve its line maintenance practices. (See [CPUC, Judge Pressure PG&E to Clear High-Risk Lines](#).)

Alsup also has taken a hard line with PG&E on the Dixie Fire, a 963,000-acre blaze still burning in the Sierra Nevada Foothills of Northern California. It is the largest single blaze in state history and second only in the list of all-time-biggest fires to last year's August Complex of 38 fires that grew together and topped 1 million acres.

Cal Fire is investigating the possibility that a fir tree falling on a PG&E line in the rugged Feather River canyon may have started the fire on July 13, and the utility has acknowledged its equipment may have sparked the blaze. (See [PG&E Says Its Line May Have Started Dixie Fire](#).)

On Sept. 13, Alsup called a PG&E "troubleman" to the stand to answer questions about the day in mid-July when he was asked to investigate blown fuses on a PG&E line and hours later discovered a small fire that may have exploded into the Dixie Fire.

CAISO/West News



The troubleman, whose name was withheld from the media for his protection, described the hours it took him to reach the line over rough, circuitous roads, the Associated Press [reported](#). When he finally got there, he found a fire burning near where a fir tree had fallen onto the line and tried to put it out using fire extinguishers and a shovel.

Alsop told the PG&E worker he did not blame him for the Dixie Fire but asked why PG&E hadn't shut down the line once it was clear something was wrong, according to the AP. The troubleman said he would have needed an order from supervisors to shut off power to customers.

Alsop instructed PG&E to produce transcripts of calls between the troubleman, dispatchers and his superiors by Aug. 17. The transcripts filed with the court showed confusion among the parties and difficulty communicating by radio and cell phone over remote, mountainous terrain.

"If anyone can hear this, we have fire northwest of Cresta Dam on the hillside," the troubleman said on a call after 5 p.m. When a supervisor eventually responded, the troubleman said: "There's a fire on the hillside. It's small now, but it's picking up. ... I would think if they get a helicopter up here, they can put it out quickly, if it gets here quick."

Alsop told PG&E lawyers at the hearing that with only four months left in its probation, "my job is to rehabilitate you, and that is what I am going to do until the last minute," the AP reported.

Two days later, the first lawsuits against PG&E were filed on behalf of 200 plaintiffs whose homes and properties were destroyed in the fire.

The San Diego law firm that filed the complaints, Singleton Schreiber McKenzie & Scott, said in a [statement](#) that the power outage in the Feather River canyon was first reported at

7 a.m. on July 13, but the PG&E troubleman did not arrive on scene until after 4 p.m. The law firm said PG&E was negligent in failing to maintain an appropriate clearance between its equipment and surrounding vegetation.

"It's clear that PG&E started this fire," lead attorney Gerald Singleton said in the statement. "The best thing they can do is to acknowledge that fact and make the survivors whole."

Lawsuits over the 2015 Butte Fire, the 2017 Northern California wine country fires and the 2018 Camp Fire resulted in a settlement that gave a fire victims trust a 20% equity stake in PG&E at the conclusion of the utility's Chapter 11 reorganization in June 2020.

Initially valued at \$13.5 billion, the trust fund has lost at least \$2.5 billion in value because of PG&E's involvement in the fires of 2019, 2020 and 2021, the trustee said. (See [PG&E Value Lags as Dixie Fire Rages.](#)) ■



A firefighter takes a break while using a chainsaw along a Dixie Fire line. | [Matt Irving/Bureau of Land Management](#)

CAISO/West News

Calif. Governor Signs Climate, Wildfire, Energy Bills

\$15 Billion Package Tackles Climate Woes

By Hudson Sangree

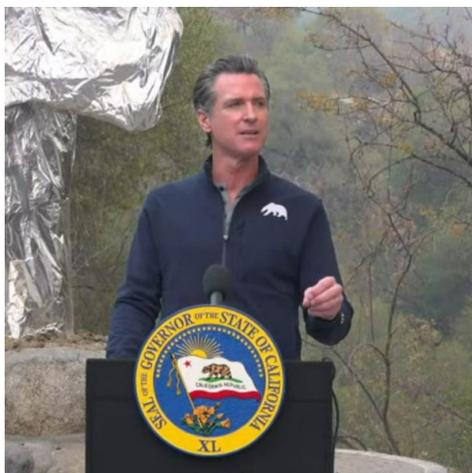
California Gov. Gavin Newsom signed two dozen bills dealing with climate change, renewable energy and wildfire prevention on Thursday as he stood amid the smoke of the KNP Complex of wildfires burning in Sequoia National Park.

Newsom also touted billions in *spending* associated with the bills and this summer's *budget* plan, which he signed in July. The governor and lawmakers have continued discussing specifics of the 2021-2022 spending plan, most of which were included in a budget trailer bill, *Senate Bill 170*, that Newsom signed Thursday.

"Today's signing represents about a \$15 billion commitment to climate resiliency," Newsom said during his announcement and *press conference* in the national park. "It's an unprecedented investment by any state in U.S. history."

Previous allocations and Thursday's updates devote \$1.5 billion to reduce the risk of wildfires by improving the health of forests and wildlands, including projects to create strategic fuel breaks, reduce forest fuels and harden at-risk communities against wildfires.

The budget and corresponding legislation allocate \$5.2 billion toward drought response and water resilience, including for emergency drought relief projects, drinking water and wastewater infrastructure programs, and



Newsom stood before a historic Sequoia National Park sign wrapped in foil to prevent it from burning in the KNP Complex. | *Calif. Governor's Office*



Firefighters wrap giant sequoias to keep them from burning in the KNP Complex of fires in Sequoia National Park. | *National Park Service*

sustainable groundwater management.

"Climate change is making droughts more common and more severe," a *statement* by the governor's office said.

The spending package includes \$3.7 billion over three years to bolster the state's resilience against "multi-faceted climate risks, including extreme heat and sea level rise" and \$1.1 billion over two years to support sustainable agriculture practices that reduce methane emissions from livestock and greenhouse gas emissions from agricultural equipment.

The state's decision to spend a history-making \$3.9 billion to boost adoption of zero-emission vehicles was also part of the spending spree, funded with billions of dollars in unexpected surplus revenue. The state plans to spend \$2 billion for medium- and heavy-duty ZEV incentives and infrastructure and \$1.2 billion to promote consumer adoption of zero-emission passenger vehicles. (See *Calif. Earmarks \$3.9B for ZEVs Through 2024.*)

24 Bills Signed

Newsom signed a spate of policy-making measures Thursday in addition to the budget trailer bill.

The governor signed *Assembly Bill 525*, by Assemblyman David Chiu, instructing the California Energy Commission (CEC) to develop planning goals for offshore wind generation for 2030 and 2045 and to coordinate with state agencies to develop a strategic plan for OSW development, to be submitted to the legislature by June 2023. (See *OSW, GHG Bills Go to California Governor.*)

The Biden administration announced in May it plans to offer leases for the state's first offshore wind areas — a 399-square-mile block off Morro Bay in Central California that could support 3 GW of wind generation and the Humboldt Call Area off Northern California, large enough for an additional 1.6 GW. (See *BOEM to Offer Leases for Calif. Offshore Wind.*)

Newsom signed *SB 596*, ordering the California Air Resources Board (CARB) to develop a strategy for decarbonizing cement production

CAISO/West News



by July 2023 and to set a goal of achieving net-zero greenhouse gas emissions no later than Dec. 31, 2045.

“California is now the leader in driving decarbonization of the cement industry — a crucial material in the built environment, but one that accounts for 7% of all global greenhouse gas emissions and is one of the most challenging industries to decarbonize,” Sen. Josh Becker, the bill’s author, said in a statement Thursday. (See [Challenges Loom for Decarbonizing Concrete](#).)

The CEC recently began looking more seriously at decarbonizing building materials as part of the state’s GHG reduction strategy. Cement production accounted for 1.8% of GHG emissions in 2017, according to CARB. (See [CEC Targets ‘Embodied Carbon’ in Buildings](#).)

Newsom also signed the following measures:

- AB 322, by Assemblymember Rudy Salas, requires the CEC to consider bioener-

gy projects for biomass conversion in its investment planning process for the Electric Program Investment Charge (EPIC) program.

- SB 27, by Sen. Nancy Skinner, creates the California Carbon Sequestration and Climate Resilience Project Registry to maintain a list of eligible but unfunded projects, “which then may be funded by public or private entities in order to mitigate California’s greenhouse gas emissions and improve climate resilience,” a Senate analysis of the bill said.
- SB 23, by Sen. Henry Stern, orders the CEC to submit to lawmakers an assessment by Dec. 31, 2023, of “firm zero-carbon resources that support a clean, reliable, and resilient electrical grid and will help achieve the existing statutory goal of ensuring renewable energy and zero-carbon resources supply 100% of all retail sales of electricity to California customers” by the end of 2045, a Senate analysis said.

- SB 109, by Sen. Bill Dodd, creates the Office of Wildfire Technology Research and Development at the California Department of Forestry and Fire Protection (Cal Fire) to evaluate emerging firefighting technology.
- AB 697, by Assemblymember Ed Chau, allows the state to plan and implement forest restoration projects on national forest lands through an expanded Good Neighbor Authority Program.
- AB 9, by Assemblymember Jim Wood, establishes new state entities and officials charged with preventing wildfires. It creates the Regional Forest and Fire Capacity Program in the state Department of Conservation, establishes the position of deputy director of Community Wildfire Preparedness and Mitigation in the Office of the State Fire Marshal and transfers some fire safety duties from Cal Fire, which has its hands full fighting fires, to the fire marshal’s office. ■

Oregon RTO Committee Ponders Paths to Regionalization

Continued from page 14

Adequacy Program effort and CAISO’s proposed extension of its day-ahead market into the Western Energy Imbalance Market (WEIM). (See [RA Program will Require Restructuring of NWPP](#).)

“I know there’s folks out there that kind of see a resource adequacy program and extended day-ahead market as steppingstones towards potentially getting into a more regionalized approach that leverages geographic and resource diversity,” Goetz said. “Maybe taking a step back and looking at what those programs can offer ... could set our region up best to form an RTO that really gets the most bang for his buck.”

All-in vs. Incrementalism

An RTO shouldn’t be expected to solve every problem in the region, according to Sarah Edmonds, director of transmission services at Portland General Electric.

“There are some things that make sense to embed in the market, particularly those items that respond best to the economic signals of supply and demand, but there are some more difficult things that have made sense in other places to do out of market,” Edmonds said.

“Whether it’s an RTO or something less than,” she continued, a market solution could potentially complement “foundational RA requirements.” RA information could be then fed into an RTO’s optimization process to provide economic solutions in the day-ahead and real-time time frames.

“So I see it more as not the provider of RA, necessarily, but as maybe a more efficient engine that RA can be connected to,” she said.

Ravi Aggarwal, a manager with the Bonneville Power Administration, said that while multiple studies look at the benefit of a West-wide RTO, none has examined the potential for a market consisting of only Northwest entities.

“I think we need to think about a more staged and incremental approach, if you think that the chances of success are perhaps higher,” Aggarwal said.

Aggarwal said the Northwest’s “three-legged stool” of regional planning, RA and markets is already being served by Northern Grid, NWPP and the WEIM, respectively.

“I think that incremental approach makes you learn from your mistakes and refine it before you go on,” he said. “So all I’m advising is that as you guys are providing input to the legislators, think about ‘all-in’ versus an incremental approach, and look at the pros and cons of it,

and see the benefits in doing one versus the other.”

Spencer Gray, executive director of the Northwest & Intermountain Power Producers Coalition, said his members would likely disagree with Aggarwal’s view on strength of the Northwest’s planning platform, contending that it does not go “beyond the plans” of incumbent utilities.

“You might find a diversity of views on what incrementalism means — what is satisfactory incrementalism versus a re-entrenchment of the status quo,” Gray said.

NWEC’s Heutte cautioned that an incremental approach to regionalization might not move quickly enough for Oregon to achieve its decarbonization goals. Under the current structure, the state doesn’t benefit from the “full range of diversity” of Western energy resources, he said. Furthermore, it’s becoming increasingly complicated for grid operators to manage the “expanding list” of storage resources that are becoming more diverse in scale, location, type and performance.

“And to me, that’s the advantage of moving forward to full market. That full market would be able to take the greatest advantage of the resource diversity to decarbonize the system, and to make it more reliable,” Heutte said. ■

ERCOT News



Search Firm Chosen to Find New ERCOT Board Members

By Tom Kleckner

The ERCOT Board Selection Committee has engaged an executive search firm to scour the state for eight independent directors to sit on the grid operator's reconstituted governing board, the Public Utility Commission of Texas said Sept. 20.

The committee, comprising three members handpicked by Gov. Greg Abbott, Lt. Gov. Dan Patrick and House Speaker Dade Phelan, chose Chicago-based Heidrick & Struggles to conduct the search. The firm, as directed by new [legislation](#), will look to fill the vacancies with Texans with executive-level experience in finance, business, engineering (including electrical engineering), trading, risk management, law or electric market design.

The Texas legislature changed the board's composition after the devastation of Febru-

ary's winter storm left Texans outraged that the five previous independent directors lived out of state. (See [ERCOT Chair, 4 Directors to Resign](#).)

The new independent directors will replace the market participant representatives who currently sit on the [board](#) and, along with the Office of Public Utility Counsel, have voting rights. The ERCOT CEO and PUC chairman will fill out the 11-person board.

Speaking Sept. 20 during the Gulf Coast Power Association's virtual fall conference, interim ERCOT CEO Brad Jones said he knows of only two individuals who have been mentioned as potential board members.

"I would be thrilled to have both of them on the board. I'm very encouraged by those two names," he said.

The board's next meeting is Oct. 12, making it

unlikely all eight independent directors will be seated by then.

State legislation signed into law earlier this year created a three-person, uncompensated selection committee. They are Arch "Beaver" Aplin, CEO of the Buc-ee's convenience store chain and chairman of the Texas Parks and Wildlife Commission; G. Brint Ryan, former chairman of the University of North Texas System Board of Regents and CEO of a global tax consulting firm; and attorney Bill Jones, chairman emeritus of the Texas A&M University System Board of Regents.

Aplin, a backer of Republican interests, was named to the committee by Abbott. According to Transparency USA, a database that discloses money in state politics, [Aplin has donated](#) between \$1,000 and \$375,000 to 19 GOP political action committees since 2015, including just over \$1 million to Abbott. ■



ERCOT's operations center | © RTO Insider LLC

Now Hiring

Director, Enforcement

Texas Reliability Entity, Inc. (Texas RE) is seeking applicants for the position of **Director, Enforcement**, who is responsible for overseeing the activities of Texas RE's Enforcement business group.

Texas RE's Enforcement group resolves issues pertaining to NERC Reliability Standards in a fair, accurate, and consistent manner. The director provides strategic input for resolving all noncompliance issues, directs and executes tasks and projects concerning all aspects of NERC Reliability Standards enforcement, directs settlement negotiations, provides support and direction to managers in applicable program areas, and more.

The ideal candidate must have a bachelor's degree from an accredited university, and at least seven years of progressively responsible experience in the electric utility industry with a background in BPS system planning, operations, security, regulatory operations, and/or compliance activities. Candidates must also have at least three years of current experience managing employees.

Texas RE is committed to attracting top talent from a diverse candidate pool. During the interview process, candidates will meet with a cross-section of Texas RE employees who bring a broad set of perspectives to the discussion. Our inclusive, friendly work environment encourages employees to collaborate across and outside of our organization, while also offering opportunities for personal growth.



Texas RE is a 501(c)(3) nonprofit corporation located in Austin, Texas. For a full description of the Director, Enforcement position, visit [Texas RE's website](#). Resumes with cover letters should be sent to careers@texasre.org with the position title in the subject line.



ERCOT News



Overheard at the 2021 GCPA Fall Conference

PUC's Lake, ERCOT's Jones Focused on More Reliable Grid



GCPA Board President Katie Coleman (left) and Pat Wood (right) share a laugh with the Texas PUC's Darryl Tietjen as they honor him with the Pat Wood Power Star Award during the association's virtual Fall Conference. | GCPA

The Gulf Coast Power Association had hoped to resume in-person meetings with its annual Fall Conference last week, but it was forced to return to a virtual format with COVID-19's re-emergence in Texas.



Interim ERCOT CEO Brad Jones | GCPA

No matter. Peter Lake, chairman of the Public Utility Commission, and interim ERCOT CEO Brad Jones appeared virtually with separate keynote appearances to get the Sept. 20-22 conference off to a good start.

"We're starting with a blank sheet of paper," Lake said, alluding to the PUC's work to redesign the ERCOT market after it came within

minutes of total collapse during February's devastating winter storm.

Andrew Barlow, the commission's director of external affairs, noted to Lake that the market is like an airplane sitting on the runway while being built. Lake promptly corrected him.

"We're building an airplane while we're flying the airplane," Lake said. "We're definitely at 35,000 feet while working on it," Lake said. "I hope that in five years, most Texans don't even think about the power grid or talk about it. It comes on; it's affordable; it's reliable; and it's not even a topic of conversation at the dinner table."

During his keynote, Jones said he was asked to bring trust back to ERCOT when he accepted the temporary leadership position

after his predecessor was fired.

"No one in the world does wholesale competition and retail competition like we have in Texas," he said. "The event in February greatly tarnished our reputation, not to mention the horrific impacts on the many people in the state of Texas."

Jones said ERCOT needs to "swing the pendulum" back to reliability, which he said has been overshadowed by an emphasis on affordable and clean energy.

"Our focus is on making improvements



Texas PUC Chair Peter Lake | GCPA

ERCOT News



throughout the market,” he said. “The fact we are carrying the majority of the blame for the event is not a place we’re going to dwell upon. We’re going to dwell upon how to we fix this going forward.”

Texas Digs Bitcoin Miners

Bitcoin entrepreneurs, drawn by Texas’ low energy prices and business-friendly environment, are flocking to the Lone Star State. The state’s political leaders have welcomed the bitcoin miners, recognizing blockchain and cryptocurrency in its commercial law this summer.

Bitcoins are a digital currency that only exist and are exchanged online. Bitcoin “mining,” which uses complex calculations to verify transactions, is energy-intensive. It consumes more than 121 TWh/year, according to Cambridge University. The ERCOT market designates these loads as “controllable load resources.”

“I can’t wait until they arrive,” said Jones, who recently visited a 300-MW facility east of Austin. “What cryptocurrency does for us, or any data center, is allow those loads to participate in the market. They’re able to come off the grid quickly, making them a fantastic load for us to serve because it brings up the valleys of our loads while not increasing our peaks at all.”

Recently, technology firm Lancium *broke ground* on a bitcoin mining facility near Fort Stockton in West Texas, the first of what it says will be several “clean campuses.” The facility is expected to reach its full capacity of 325 MW by the end of 2022.

Compute North is already operating a *mining operation* a couple of hours away in Big Spring.

“We think there’s a bigger opportunity that these controllable loads can have a number of applications at one location, but also be flexible at times,” Lancium CEO Michael McNamara said. “I’m not an expert on transmission design, but by moving these loads, we are effectively exporting energy by converting it into a product.”

Renewables Still Viable

Several panelists said the outspoken preference by regulators and legislators for dispatchable or conventional generation over intermittent renewable resources does not mean Texas’ bounty of wind and solar resources will soon be diminished. The renewable developers are still interested in the state — interested, but cautious.

“February threw everyone for a loop in how to invest,” EIG Global Energy Partners’ Shalin Parikh said. “We are seeing a more measured approach to financing of these projects over the last six to eight months. Developers may still see value in renewable projects in ERCOT, but until the market broadly has a better handle on how these hedged contracts are structured going forward against risk, I think we’ll see a little bit of wait-and-see approach.”



Bob Helton, Dynegy | GCPA

“Transmission will be the limiting factor for renewables. That’s the challenge for the legislature and the commission and ERCOT,” Dynegy’s Bob Helton said. “We see more of this outside Texas than we do coming in. The rules are going to have

to be change, so we can integrate [renewables] better and more appropriately; so that ERCOT can look at them and they can begin providing ancillary services.”

Energy consultant Alison Silverstein, referred to as “The Oracle” by her panel’s moderator, said it might be time for the decision-makers to take alternatives to thermal generation more seriously.

“If there’s anything I’d like to change, it’s attitudes,” she said. “Doing it the way traditional generation has always done it has not been super successful for ERCOT. We’re getting way too many close calls. It’s time, when you’re in a deep hole, to stop digging and try other tools. Let’s look for and exploit every resource.”

Industry Leaders Honored

The GCPA honored the industry’s seasoned veterans and its up-and-coming professionals with a pair of its annual awards.

Darryl Tietjen, who leads the PUC’s Rate Regulation Division, was presented — albeit virtually — with the Pat Wood Power Star Award by its namesake. During his 30 years at the commission, Tietjen has worked on numerous projects and cases involving the transition to a competitive electricity market and filed recommendations on every securitization issue related to the PUC’s financing orders.

“Darryl is viewed by so many as the steady hand and wise oracle for energy policy in our state,” said Wood, who chaired both the PUC and FERC, calling Tietjen an “indispensable part” of ERCOT’s transition to a competitive market. “He knows the first name of the com-

mission is ‘public.’ He understands healthy competition and balanced regulation. He’s one hell of a fun guy to be around, and he has been since I’ve ever known him.”

“I’ve always marveled at the caliber of people in this industry,” Tietjen said. “I’ve had the great fortune to work for and with a stellar set of commissioners, stakeholder groups and folks throughout the industry. That’s one of the reasons I’ve been able to hang around so long. I’m going to embark on a very complex and deep analysis of whether it is feasible for me to work another 30 years, or maybe 40 years.”

ExxonMobil’s Alexandra Williams was awarded the organization’s emPOWERing Young Professionals Award, presented to an individual younger than 40 who has achieved excellence in the industry, made unique contributions to the market’s success, and served as a role model and leader. Williams was ill and unable to call in.

NERC’s Lauby Sees 3D Transition



Mark Lauby, NERC | GCPA

Keynote speaker Mark Lauby, NERC’s chief engineer and a senior vice president, labeled the grid’s transition to clean energy as a “3D transformation”: decarbonized, distributed and digitized.

NERC’s “focus is always on whether we can operate the grid reliably. Will the grid be resilient? Will we be able to respond to events on the grid and restore it?” Lauby said.

He said among the questions that need to be addressed in ensuring a resilient and reliable system is from where the balancing resources will come.

“We have wind and solar, but they’re variable. Right now the transition is being sorted by natural gas,” Lauby said. “Until we get small modular nuclear units and hydrogen [resources], we need to get to that bridge and know how far that bridge is going to be. We’re ending up with a resource mix that is more sensitive to extreme weather.

“We will need to look at other ways to make up for that uncertainty that comes with variable generation,” he said. “The metamorphosis of the bulk power system requires [the ability] to quantify these emerging issues.” ■

— Tom Kleckner

ERCOT News



Texas PUC Directs Tx Construction in Valley

2nd Circuit Will Meet Short-term Needs Ahead of Greenfield Project

By Tom Kleckner

Texas regulators exercised their newfound regulatory authorities Thursday in bypassing ERCOT's stakeholder process and directing three utilities to add a second 345-kV circuit to an existing transmission line in the frequently constrained Rio Grande Valley.

Citing the its "broad, statutory authority to order construction that ensures safe and reliable power," the Public Utility Commission ordered AEP Texas, South Texas Electric Cooperative (STEC), Sharyland Utilities and Electric Transmission Texas (ETT) to add a second circuit to their portions of the 385-mile line that circles the region.

Utility representatives said it will take almost three years to add the second circuit. Given the commission's demand for an accelerated timetable, the project will still be completed before ERCOT's planned construction of a new 345-kV line in the Valley. The grid operator is recommending the project, which has a \$1.28 billion price tag, and plans to get board approval before the year is up. (See [ERCOT Finds 345-kV Solution for Valley Constraints.](#))

Woody Rickerson, ERCOT vice president of grid planning and operations, said the greenfield project will meet future load growth and generation development through 2040 and address reliability and stability constraints. Seven of ERCOT's 16 generic transmission constraints are in the Valley, which sits at the edge of the Texas Interconnection with limited long-distance transmission circuits.

Adding a second circuit and new facilities to close the loop on an existing 345-kV line from San Miguel down to North Edinburg and then over to Palmito will wring an additional 300 MW of capacity for the region, where the grid operator has been having trouble keeping up with load growth.

"We don't want to see anything delay" the project, Rickerson said. It "would get us out of this just-in-time [cycle] ... and would be a step change from what we've done in the past. This is a kickstart all the way to 2040."

Commissioner Will McAdams compared the project's cost to the multibillion-dollar 345-kV Competitive Renewable Energy Zone in West Texas that connected renewable resources to the state's urban population centers.



AEP Texas' Wayman Smith (right, with ERCOT's Woody Rickerson) explains the complexities of adding a second circuit to an existing 345-kV line. | [Texas Admin Monitor](#)

However, adding the second circuit will still cost up to \$500 million, according to the utilities' projections. Sharyland *estimates* it will cost \$106 million to \$128 million for its 47-mile portion and to close the loop, while STEC *forecasted* it will spend \$31.8 million to add to its 42 miles.

ETT, a joint venture between AEP and Berkshire Hathaway Energy subsidiaries, *said* its portion will run from \$311 million to \$350 million and that AEP's facilities will cost \$28.9 million.

As the commissioners struggled to understand the short-term project's costs, AEP Texas Project Manager Wayman Smith explained that while the original line was double-circuit-capable, the towers did not have arms on both sides. He said additional structures also have to be added when the line makes a severe turn, as the turn can't be made with circuits on both sides of the tower.

Smith said some 70 miles of its lines already have conductors hanging and arms because they were used to interconnect three different wind farms.

"We're not going to put the Valley at risk,"

Smith said. "That has put us in a bind, because now we have infrastructure that should have been built with two circuits from the beginning."

Commissioner Lori Cobos said the utilities will still be expected to meet regulations' ratemaking principles and standards. "This is not a blank check."

Offer Cap Could be Halved

The PUC has given ERCOT stakeholders until Thursday to file comments on whether halving the \$9,000/MWh high systemwide offer cap (HCAP) to \$4,500/MWh is an "appropriate level" and whether the change will have any consequences on the value of lost load, currently set at the HCAP when the latter is in effect ([52631](#)).

McAdams, who filed a [memo](#) suggesting the action, said he did so in the "interest of market certainty" and to "assuage consumer concerns" by putting in place safeguards that market participants and residential consumers can rely on as ERCOT, hoping to avoid a repeat of February's devastating storm, heads into the winter months.

ERCOT News



Last winter's storm "was traumatizing. We recognize that," McAdams said. "The next winter after [it] will be remembered by consumers of all classes."

The comment period would begin a process that could have a new HCAP in place by December. The commission could also take up the issue during its next market redesign work session on Oct. 14.

"This isn't market redesign. This is market design," McAdams said.

The HCAP is currently set by rule at \$2,000 after it remained at \$9,000 for too many consecutive hours during the storm as ERCOT battled to meet demand with about half of its available generation. That resulted in about

\$50 billion in market transactions during the week of the storm, sending several retailers and one cooperative into bankruptcy. The cap is set to revert back to \$9,000/kWh on Jan. 1.

In ERCOT's energy-only market, the price cap is designed to incent generators to produce power during scarcity conditions. While reducing the cap would cut into generators' profits, Stoic Energy's Doug Lewin, a consultant for 16 years in the market, said even they have filed comments urging the cap be reduced.

"This is the one thing that is almost certain to happen," he told *RTO Insider*. "I think politically, it has to happen."

McAdams has also *suggested* opening a rulemaking to decouple demand response resources from the emergency energy alert levels, identify a more conservative trigger for deploying emergency response service (ERS) resources and consider raising the ERS resources' spending limit from the current \$50 million.

PUC Chair Peter Lake said the commission will consider and take action on the feedback it has gathered in recent months on proposed changes to the operating reserve demand curve, ancillary services and other market features.

"We run the risk of putting Band-Aids on bullet holes," he said. "The legislature has asked us to look at ancillary services and new products, but also to ensure broader reliability in the marketplace. I'm asking the stakeholder community to think about the kind of substantial changes to the ERCOT market's normal functions ... that will ensure the resources and economics of the ERCOT model go to generating resources that provide reliable power in any form or fashion."

Debt Securitization on the Calendar

The commission said it will take up an order securitizing debt from the winter storm following an unopposed settlement in one of two related dockets.

Vistra's Amanda Frazier said during last week's Gulf Coast Power Association's Fall Conference that parties to ERCOT's request for a debt-obligation order to finance \$2.1 billion in market debt have *filed* a settlement. She said the agreement addresses three key issues: the methodology and allocation of securitization proceeds among load-serving entities; how LSEs would document their exposure; and establishing opt-out provisions for municipalities and cooperatives (52322).

"We put a lot of work into the agreement. PUC staff really helped drive that outcome," Frazier said.

McAdams said it would be prudent to give staff additional time to cover the agreement's finer points and issues before issuing a final order. Staff has also scheduled time next week for the commissioners to discuss the settlement.

The second securitization docket *proposes* to finance \$800 million to replenish ERCOT funds used to reduce short pays to the market (52321). As of Sept. 1, the market was still short almost \$3 billion.

ERCOT filed its debt-obligation requests in



Closing 345-kV Loop

The existing 345-kV line runs from San Miguel to North Edinburg to Palmito. | ERCOT

ERCOT News



August, and a three-day hearing was held earlier this month. (See “Securitization Hearings Conclude,” *PUC Workshop Takes First Stab at Market Changes*.)

PUC to Intervene in ANOPR

Following staff’s recommendation, the commission will intervene in FERC’s Advanced Notice of Proposed Rulemaking to reconsider its regulations on regional transmission planning, cost allocation and generator inter-connection processes (*RM21-17*). (See *FERC Goes Back to the Drawing Board on Tx Planning, Cost Allocation*.)

ERCOT is not within FERC’s jurisdiction and serves about 90% of Texas’ load. MISO, SPP and WECC all oversee portions of the remainder.

Noting MISO is currently working on long-term transmission-planning issues and cost-allocation measures, Cobos, who represents the PUC on the Organization of MISO States, said, “I think it’s important we get involved in these issues at the federal level.

“We do need transmission to ensure reliability in those areas of the state that are not within ERCOT,” Cobos said. “Those are very important areas of the state as well, and we need to make sure those ratepayers are not being allocating costs for other parts of those ISOs and RTOs that they’re not getting benefit from.”

Staff *proposed* the commission intervene in the FERC docket, direct them and outside counsel to monitor the proceeding, and participate in relevant discussions with SPP and MISO state regulators (*41211*).

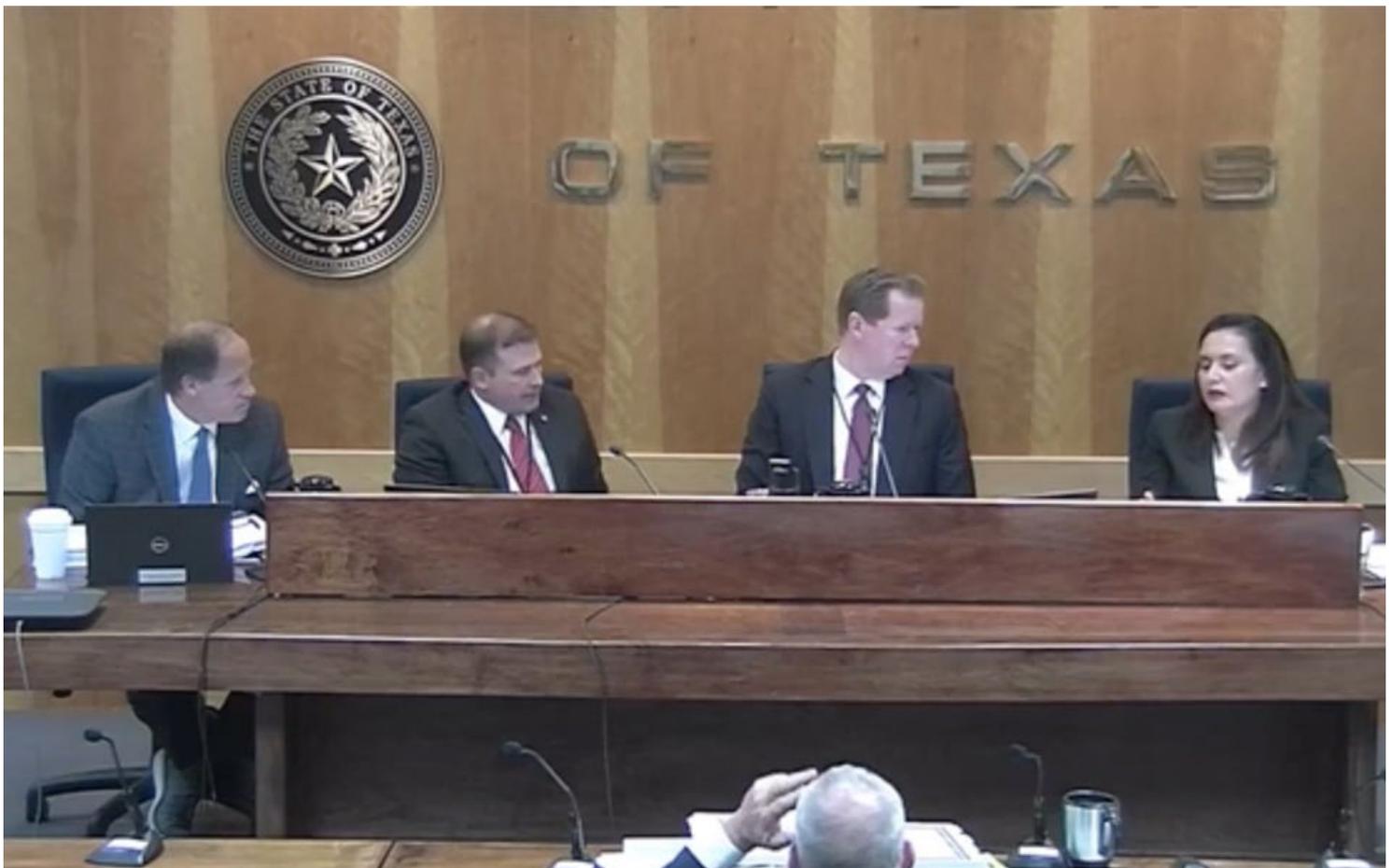
“These regions, they’re not easy games to play in,” Commissioner Jimmy Glotfelty said. “Us getting in there and building relationships — getting them to understand what we want and what we need — is important.”

In other actions, the PUC:

- extended through May 2022 ERCOT’s requirement to make public generator forced and maintenance-level outages and derates within three operating days. Existing proto-

cols have kept that information confidential until 60 days after the operating day. The commission in June ordered the grid operator to report that information after an above-normal number of outages forced a conservation call. The grid operator is working on a pair of protocol changes that will set up timely automated public reporting of outages (*52266*).

- gave Executive Director Thomas Gleeson authority to solicit nominees to the Texas Energy Reliability Council, recently created by legislation. The council will be responsible for ensuring that Texas’ electric and energy industries meet “high-priority human needs,” address “critical infrastructure concerns” and improve their coordination and communication. It will comprise eight members, five of which will individually represent dispatchable power entities, transmission and distribution utilities, retail electric providers, municipalities and cooperatives. Three others will speak for energy sectors not otherwise represented (*52557*). ■



PUC’s Lori Cobos explains the Rio Grande Valley’s transmission constraints to fellow commissioners (left to right) Jimmy Glotfelty, Will McAdams and Peter Lake. | *Texas Admin Monitor*

ISO-NE News

ISO-NE Elects 2021 Board of Directors Slate

Anders, Corneli, Flax Join Board; Curran Re-elected; Expansion to 11 Members for 1 Year

By Jason York

ISO-NE announced the election of its four-person 2021 Board of Directors slate on Thursday, which will expand the board to 11 members for one year.

Incumbent Michael Curran and newcomers Caren Anders, Steve Corneli and Catherine Flax comprised the slate elected to serve three-year terms starting Oct. 1. The new members will replace the retiring Kathleen Abernathy, the current chair, and Philip Shapiro.

The slate was nominated by the Joint Nominating Committee (JNC), a panel comprising seven current board members, NEPOOL's six sector leaders and Massachusetts De-



Continued on page X

Clockwise from top left: Catherine Flax, Steve Corneli, Caren Anders and Michael Curran | ISO-NE

LaFleur Elected Chair of ISO-NE Board

By Jason York

The ISO-NE Board of Directors announced Friday that Cheryl LaFleur was elected as its next chair, replacing Kathleen Abernathy, who is retiring this month.

LaFleur, whose term will begin this Friday, joined the board in 2019 after serving for more than nine years as a FERC commissioner.

"I'm honored to take on this role at such a pivotal time in New England's transition to a clean energy future," LaFleur said. "I look forward to working with my colleagues on the board, the ISO-NE team, and government and industry leaders to help move the region forward."

In addition to Abernathy, who has been chair since 2019, Philip Shapiro is also retiring. He served as chair from 2014 to 2019.

"Kathleen and Phil's leadership during a period of unprecedented change in the energy industry has put New England on the path to a cleaner, more reliable grid. We are grateful to them both for their service in multiple roles on the board, their warmth and humanity, and their invaluable contributions to our organi-

zation and the region," ISO-NE CEO Gordon van Welie said. "With her wealth of knowledge and experience, Cheryl is the perfect leader to build upon this foundation. We feel very fortunate that she has committed to help us, and the region, navigate the opportunities and challenges presented by the clean energy transition."

The board has also announced the following committee assignments for the upcoming term:

- Audit and Finance Committee: Michael Curran (chair), Steve Corneli and Catherine Flax
- Compensation and Human Resources Committee: Roberto Denis (chair), Caren Anders, LaFleur and Vickie VanZandt
- Information Technology and Cyber Security Committee: Mark Vannoy (chair), Brook Colangelo, Curran and VanZandt
- Joint Nominating Committee: Colangelo (chair), Anders, Corneli, Curran, Denis, Vannoy and VanZandt
- Markets Committee: Barney Rush (chair), Corneli, Curran, Flax and Vannoy
- Nominating and Governance Committee: Colangelo (chair), LaFleur, Rush, Vannoy



Cheryl LaFleur | ISO-NE

- System Planning and Reliability Committee: VanZandt (chair), Anders, Colangelo and Denis

With the elections of Anders, Corneli and Flax, plus the re-election of Curran, the board will have 11 members for one year. It will return to 10 when VanZandt retires in 2022. (See related story, *ISO-NE Elects 2021 Board of Directors Slate.*) ■

ISO-NE News

ISO-NE Elects 2021 Board of Directors Slate

Anders, Corneli, Flax Join Board; Curran Re-elected; Expansion to 11 Members for 1 Year

Continued from page X

partment of Public Utilities Chair Matthew Nelson, representing the New England Conference of Public Utilities Commissioners. The NEPOOL Participants Committee also voted on the slate, which reached the required 70% support for endorsement.

“Caren, Steve and Catherine bring a wealth of diverse experience and knowledge to the ISO New England Board of Directors,” ISO-NE CEO Gordon van Welie said. “This experience and knowledge will be a benefit to all of New England as the region moves towards the clean, reliable grid of the future.”

While the election of the four-person slate pushes the board to 11 members, it will return to 10 when Vickie VanZandt retires in 2022. (See “Five Advance to Next Interview Round for Board Positions,” *NEPOOL Participants Committee Briefs: May 6, 2021.*)

Shapiro, according to *the minutes from a July 21 executive* session of the PC, said that the “exceptional quality” of the new candidates for the board and the significant turnover in membership looming in the next several years both made the effort of choosing three new candidates “extraordinarily challenging” for the JNC. As a result, waivers to the Participants Agreement to accommodate a four-person slate were approved by the PC.

Anders, Corneli, Flax Join; Curran Re-elected

A transmission expert, Anders, an executive adviser for Quanta Technology, works with utility clients. Her career includes leading Duke Energy’s transmission organization, overseeing 2,100 employees responsible for serving seven million customers. Before joining Duke, Anders served as vice president of transmission and substations at Exelon. She holds a bachelor of science degree in mechanical engineering from the University of Pennsylvania and an M.B.A. in finance from Drexel University.

Principal and owner of Strategies for Clean Energy Innovation, Corneli focuses on the efficient deployment of clean resources for a range of clients including think tanks, distributed energy technology companies and clean energy and environmental advocates. Before his consultant work, Corneli served as senior vice president of policy, strategy and sustainability at NRG Energy. He has also worked as a consumer advocate within the Minnesota Attorney General’s Office for seven years. Corneli holds a bachelor of arts from St. John’s College in Santa Fe, N.M., and an M.P.A. from the University of Minnesota’s Humphrey Institute, with a concentration in energy, environment, and technology policy.

This year, Corneli participated as a speaker during a wholesale market design technical

forum organized by New England states. He *said* any successful energy market designed for rapid decarbonization would need to find efficient portfolios of complementary clean energy resources. (See *NE States Considering Different Market Models.*)

Flax is president of private investing at X Machina Capital Strategies, focusing on investments related to energy transition in the oil and gas arena. She is an economist who has worked as a senior executive in several investment banks’ energy, power and commodities businesses. Flax also served as global head of commodity finance at J.P. Morgan and managing director and head of commodities, Americas, at BNP Paribas during her career. She has also served on a range of industry and corporate boards and advisory boards. Flax holds a bachelor of science in economics and finance from Texas A&M University, and a master’s in economics from Brown University.

Curran joined the RTO’s board in 2019 after serving as chair of the MISO Board of Directors. Curran spent most of his career in the financial services and investment community, including the Boston Stock Exchange, where he was chair and CEO. Before joining the stock exchange, Curran was managing director and chief operating officer of Kemper Funds and International Mutual Funds for Zurich Scudder Investments. He is a graduate of Dickinson College. ■



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ISO-NE News

NEPOOL Reliability Committee Briefs

Tariff Change Sought for Order 1000 'Lessons Learned'

ISO-NE's first competitive transmission solicitation under Order 1000 last year ultimately resulted in incumbent utilities National Grid and Eversource Energy's proposal winning. The RTO launched a "lessons learned" process following that solicitation through its Planning Advisory Committee to discuss potential improvements.

One of those improvements, according to a [presentation](#) from ISO-NE Director of Transmission Planning Brent Oberlin at the NEPOOL Reliability Committee meeting on Sept. 21, is modifying the tariff to address the possibility of single or multiple qualified transmission project sponsors (QTPS) developing the complete solution and that more than one selected qualified transmission project sponsor agreement (SQTPSA) may be required.

Corresponding changes are also needed to the tariff so they "appropriately reflect competitively developed transmission projects into the Forward Capacity Market (FCM) network model."

As part of the tariff changes, which are also being reviewed by the Transmission Commit-

tee, ISO-NE proposes to allow for a subset of needs identified in the RFP to be solved by a QTPS and for QTPSes to submit joint proposals, which could result in multiple sponsors developing the complete solution, requiring multiple SQTPSAs.

Oberlin said that if combined proposals solve the needs identified in the RFP, each selected QTPS would need to sign a separate SQTPSA and have their portion of the project added to the Regional System Plan project list.

The RC will vote on the tariff revisions at its Oct. 19 meeting, with Participants Committee action scheduled for its Nov. 4 gathering. ISO-NE will file tariff changes with FERC before the end of the year.

RC Recommends Support for Tie Benefits and ICR

The RC *voted* to recommend that the PC support ISO-NE's proposed Forward Capacity Auction 16 tie benefits and installed capacity requirement (ICR) and related values for the 2025-2026 capacity commitment period. (See "ISO-NE's Proposed ICR Shows Decrease for FCA 16." *NEPOOL Reliability Committee Briefs: Sept. 1, 2021.*)

The RTO put forward an ICR of 32,568 MW for FCA 16, a 1,585-MW decrease from FCA 15. The ICR is the minimum system capacity needed according to Northeast Power Coordinating Council reliability criteria.

ISO-NE's annual calculations also account for operators' ability to purchase energy from neighboring balancing authority areas during a capacity deficiency. The RC voted to recommend Hydro-Québec interconnection capability credits (HQICCs) of 923 MW — up from 883 MW last year — which resulted in a net ICR of 31,645 MW, a 4.9% decrease from FCA 15.

FCA 16 will have the same zones as FCA 15: Northern New England as export-constrained with Maine nested inside, and Southeast New England as import-constrained.

The PC will take up the matter at its Oct. 7 meeting, ahead of a FERC filing by Nov. 9.

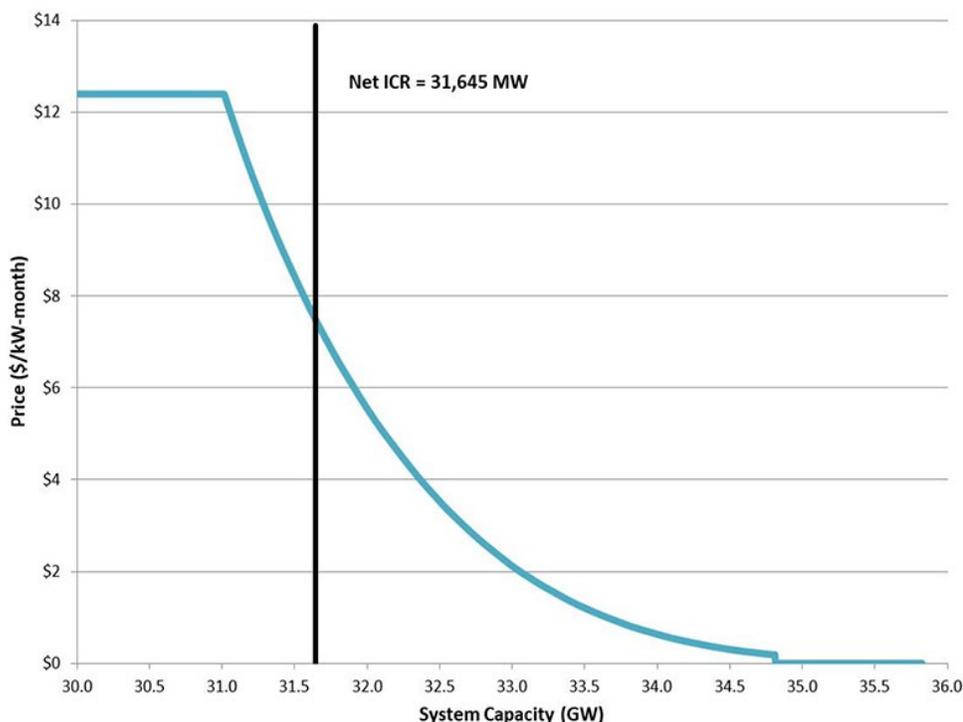
2022 Load Forecast Cycle Kicks off

The RC *received a preview* from the RTO's Victoria Rojo of the plan for the upcoming Load Forecast Committee cycle, which will develop the long-term energy and demand forecasts that ISO-NE will publish in the 2022 Capacity, Energy, Loads and Transmission (CELT) report.

Planned work for the load forecast includes:

- making improvements to the transportation electrification forecast include additional vehicles classes: light-duty fleet vehicles, medium-duty delivery trucks, school buses and transit buses;
- investigating refining weather sensitivity of energy and demand for light-duty passenger vehicles;
- reviewing winter model performance and explore changes to input variables to boost performance, with a discussion on any modeling changes at either the LFC's December or February 2022 meetings; and
- consider including more recent weather through 2020, which the LFC will discuss at its November or December meetings.

The final energy and demand forecasts will be published by ISO-NE next year in the 2022 CELT report. ■



Forward Capacity Auction 16 demand curve | ISO-NE

— Jason York

ISO-NE News

ISO-NE Planning Advisory Committee Briefs

Pilot Study to Focus on Cape Cod OSW

ISO-NE is proposing a pilot study to analyze the potential curtailments experienced by new generation from the addition of offshore wind on Cape Cod, according to a [presentation](#) at the Planning Advisory Committee meeting Wednesday from Al McBride, the RTO's director of transmission services and resource qualification.

The study's purpose is to allow market participants to assess the impacts of proposed intermittent resources' operating characteristics and availability criteria. However, the study will not result in changes to the interconnection standards or criteria. McBride said that if changes to the interconnection standards or criteria are warranted, ISO-NE can discuss them with the PAC and NEPOOL stakeholders after reviewing the results.

McBride added that by doing a pilot study, ISO-NE can look at the results more "narrowly" and "we can see what the reaction is and how folks want to take it from there."

The scope of work will look at transmission constraints found in the first Cape Cod Resource Integration Study (CCRIS), OSW production, area load, solar development and curtailment analysis approach.

The CCRIS focused on adding new 345-kV transmission infrastructure between West Barnstable and Bourne. It identified that 1,200 MW of OSW, in addition to the 1,600 MW with completed system impact studies, could be interconnected on Cape Cod. However, N-1 and N-1-1 constraints were observed when more than 2,800 MW were added. In addition, transmission outages along the corridor from Cape Cod could also reduce transfer capability and cause curtailments.

Load on Cape Cod is seasonal. For most of the year, load is less than 300 MW and peak load is approximately 600 MW. McBride said that if a large amount of generation is connected to the cape, most of the injected power will flow away from it to the rest of the system. For example, if 2,800 MW of generation are running on the cape, and there is 300 MW of load, 2,500 MW will be exported out. McBride noted that the net export level would only increase with the addition of distributed solar generation.

McBride said the RTO hopes to have some preliminary results of the curtailment analysis

before the end of the year.

Western and Central Mass. 2029 Study Update

Sarah Lamotte, ISO-NE assistant engineer in transmission planning, provided an [update](#) on the conclusion of the Western and Central Massachusetts (WCMA) 2029 study.

The 2029 WCMA needs assessment identified time-sensitive N-1 and N-1-1 voltage violations under peak load conditions along the 69-kV A-1 and B-2 line corridor between Vernon station in Vermont and Pratts Junction station in Massachusetts. For the WCMA solutions [study](#), it was determined that National Grid's asset condition projects, including the A-1 and B-2 line asset condition project, would be included in the cases before developing alternative solutions.

Lamotte said that the RTO reran an analysis to include the A-1 and B-2 project to examine the status of the criteria violations observed

in the original needs assessment. The new analysis is referred to as the WCMA 2029 Needs Assessment Addendum. Out of the four asset condition projects, the A-1 and B-2 line was selected to be added to the addendum cases because the project has the greatest potential impact on the criteria violations observed in the initial needs assessment.

The updated testing showed that all of the criteria violations identified along the A-1 and B-2 line corridor were no longer observed. In addition, a short-circuit analysis was also performed, and no overburdened breakers were identified.

With no criteria violations observed in the addendum analysis, the need to study a solution disappears, according to Lamotte, which concludes the WCMA 2029 study effort.

ISO-NE will provide a 15-day comment-and-review period for stakeholders, and the final addendum will be posted next month. ■

— Jason York



| Shutterstock

ISO-NE News

FERC Approves PPL Acquisition of Narragansett

By Michael Brooks

FERC on Thursday approved PPL's purchase of Narragansett Electric in Rhode Island from National Grid for \$3.8 billion, giving the Pennsylvania-based company a foothold in ISO-NE (EC21-87).

The commission found that the transaction would not have any effect on horizontal or vertical market power, nor would it have an adverse effect on rates. It made the latter determination over the protest of Rhode Island Attorney General Peter Neronha, who argued that PPL and Narragansett did not include enough information in their application. FERC did not directly address this argument, but it pointed to the companies' five-year hold-harmless commitment as enough to satisfy its analysis of the deal's impact on rates.

Neronha also protested the fact that the application did not contain information as to how PPL would continue to support Rhode Island's climate goals, such as home energy-efficiency programs. FERC agreed with PPL that this was not relevant to the transaction. For its part, PPL said that Narragansett would continue to comply with state climate policies.

No other parties challenged any other aspects of the application.

PPL announced the deal in March, along with a separate, \$11 billion agreement to sell its U.K. utility business, Western Power Distribution, to the London-based National Grid. (See *PPL to Sell UK Business, Acquire Narragansett Electric*.) Narragansett is the largest electricity transmission and distribution service provider in



PPL headquarters in Allentown, Pa. | PPL

Rhode Island, as well as a natural gas distributor, serving about 780,000 customers.

PPL *said* it expects to complete the transaction by March 2022. It still needs approval from the Rhode Island Division of Public Utilities and Carriers. In its application with the agency, it had asked that a final order be issued by Nov. 1, in time for when heating demand ramps up in the state.

"We're pleased with FERC's decision, which puts us one step closer to concluding an acquisition we believe will drive significant value for Rhode Island families and businesses and strengthen PPL," CEO Vincent Sorgi said in a statement. "As we await final approval, we look forward to partnering with Narragansett Electric's talented team to deliver energy safely, reliably and affordably to Rhode Island customers." ■

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ISO-NE News

Overheard at the NECA Fuels Conference

By Emily Hayes

Oil and gas companies are turning to renewable gas, green hydrogen and biofuel as a pathway to cutting emissions in the transportation and building sectors while retaining existing infrastructure.

But deep energy efficiency retrofits coupled with building electrification via heat pump and induction cooktops is the central solution to decarbonizing buildings, said Ben Butterworth, senior manager of climate and energy analysis at the Acadia Center. He spoke at the Northeast Energy and Commerce Association's (NECA) Fuels Conference on Sept. 22.

The conference brought together policy experts from stakeholder organizations, such as Acadia, oil and gas companies Enbridge and Shell Oil, and utilities Eversource and National Grid, to discuss the benefits and challenges of green hydrogen.

Zeyneb Magavi, co-executive director of

the Home Energy Efficiency Team (HEET), presented the alternative of using geothermal heat pump networks for clean home heating and cooling.

Following is some of what we overheard at the event.

New England utilities, such as Eversource and National Grid, are in the process of approving and siting locations to test HEET's geothermal energy technology. Companies such as Enbridge and Shell Oil are investing in renewable natural gas or green hydrogen to reduce emissions while using existing natural gas infrastructure.

Green hydrogen is created by splitting water into hydrogen and oxygen in an electrolyser using electricity powered by renewable energy.

"It's going to take multiple pathways to achieve decarbonization," said Steve Elliott, director of business development for Enbridge. "I think we really need to consider leveraging

the best attributes of molecule-based energy like gas."

However, green hydrogen faces steep challenges, which inhibits a widescale rollout. There is a 20% to 40% energy loss in the electrolysis process and green hydrogen-based, low-temperature heating systems consume 500% to 600% more electricity than heat pumps, making it much less cost-effective, Butterworth said.

Pure hydrogen is a five times more potent greenhouse gas than carbon dioxide when it is released directly into the atmosphere via leaks, and it leaks out of pipes more easily than natural gas because the molecules are smaller, Butterworth said.

"We don't have time for the green hydrogen economy to develop," he said. "We need action now."

As an alternative to hydrogen, Magavi's GeoBlock concept, also known as a geothermal district, could use existing natural gas rights-of-way to heat and cool buildings. The GeoBlock is a system of networked ground-source heat pumps with a shared ambient temperature loop that delivers cooled or heated water to customer buildings. A heat pump in the building pulls heating or cooling off the supply loop, and geothermal boreholes in the right-of-way maintain the temperature of the system.

"If we are going to meet our emissions mandates, and do it without raising customer bills," the GeoBlock is a solution that is "ready to do that now," she said.

Thermal energy can be deposited in bedrock for storage and removed, in part, a year later, helping to make geothermal energy distribution systems highly cost-effective, Magavi said. European installations of similar shared loop systems without boreholes report 30% to 40% energy savings because they allow the utility to move excess or waste thermal energy across space and reuse it, according to HEET.

Adding boreholes to the shared loop allows the utility to store excess or waste thermal energy for reuse, whether it's wind energy at night that is used the next day or heat in the summer used the next winter.

"If installed by a utility and amortized over time as gas pipes are, the GeoBlock is projected to deliver heating at a lower cost than gas," Magavi said. ■



As an alternative to hydrogen, the GeoBlock allows building heat pumps, like the one seen here, to pull heating or cooling off a geothermal supply loop installed in existing natural gas rights-of-way. | Shutterstock

ISO-NE News

FERC Denies Rehearing of ISO-NE Capacity Market Values

By Jason York

FERC on Thursday denied a rehearing request by the Electric Power Supply Association (EPSA) and New England Power Generators Association (NEPGA) on a pair of commission orders issued this spring related to the recalculated cost of new entry (CONE), net CONE and performance payment rate (PPR) values used in ISO-NE's Forward Capacity Market (FCM) (ER21-787-003).

The commission reaffirmed that ISO-NE's proposed definition of net CONE did not violate the RTO's tariff or the filed-rate doctrine. FERC added that it continues to find that ISO-NE estimated the values at issue in a manner consistent with tariff requirements, using "just and reasonable" inputs and methodologies.

"ISO-NE is entitled to file revised methodologies, which may include the use of updated definitions, at any time in advance of the FCA [Forward Capacity Auction]," the commission

wrote. "This approach is supported by the language of the tariff, which establishes the relevant temporal limitation on the filing of new net CONE values."

The ISO-NE tariff requires the RTO to file new values with FERC before the FCA in which they are to apply.

According to the commission, EPSA and NEPGA's argument that the filed-rate doctrine bars the calculation and filing of new values until after a revised tariff definition takes effect "does not reasonably reflect either the authority provided to ISO-NE by the tariff or an appropriate application of the filed-rate doctrine."

"The tariff and filed-rate doctrine do not require that the methodology underlying the calculation of net CONE be anything other than the approved methodology on file at the time the net CONE values are implemented," FERC wrote.

Additionally, FERC said EPSA and NEPGA's

claim that the commission was departing from precedent was made "without adequate explanation."

FERC said the situation is "analogous" to a Dec. 15, 2009, filing in which ISO-NE proposed updated values for the installed capacity requirement (ICR) for use in the final FCM configuration auction held in March 2010. That filing also included proposed amendments to the ICR methodology, which were used to derive the updated values. The commission accepted the updated values and the tariff amendments effective Feb. 15, 2010.

"Similarly, here ISO-NE used the proposed definition of net CONE to calculate its updated net CONE values for the upcoming FCA, which is allowed by the tariff," FERC wrote. "Accordingly, we continue to find here that the commission appropriately determined that ISO-NE was entitled to base its recalculations on the definition it 'intended to file and have in effect in advance of that FCA.'" ■



FERC headquarters | © RTO Insider LLC

ISO-NE News

FERC Pauses Tx Upgrade Charges for NE Solar Dev

By Jason York

FERC on Thursday ordered National Grid subsidiaries New England Power and Narragansett Electric to cease assessing direct assignment facility charges to a solar developer interconnecting four 9.6-MW projects until they properly comply with a provision in ISO-NE's tariff ([EL21-47](#)).

Under the tariff, direct assignment facilities are transmission upgrades or additions constructed for the sole benefit or use of a transmission customer. Their costs are thus not shared and are directly assigned to the customer; in this case, distribution utility Narragansett, which passed the costs of the upgrades necessary to interconnect the projects through to developer Green Development in their interconnection service agreement.

Green Development complained to FERC that transmission owner New England Power had not properly followed ISO-NE's process for designating the upgrades as direct assignment facilities to Narragansett. It also argued that the upgrades were not for Narragansett's sole benefit or use.

The commission said that Green Development had demonstrated that the upgrades

had not been "specified in a separate agreement" from the ISA between the three companies, as required by ISO-NE.

But FERC also said that the developer had not demonstrated the upgrades were not solely for Narragansett.

"Green Development contends that, because the upgrades will allow Green Development to interconnect to Narragansett's distribution system, the upgrades cannot be considered for the 'sole use/benefit' of Narragansett," the commission wrote said. "Green Development provides no evidence to support this proposition. The direct assignment facilities are upgrades to Narragansett's transmission system, and Narragansett will be the only transmission customer using the upgrades, which are necessary to ensure that Narragansett can accommodate the interconnection of Green Development's projects to Narragansett's system while continuing to reliably serve its existing network loads."

FERC did find that Green Development met the burden of proof to demonstrate a failure to comply with the second part of the definition of direct assignment facilities that requires them to be "specified in a separate agreement among ISO-NE, the interconnec-

tion customer and the transmission customer, as applicable, and the transmission owner whose transmission system is to be modified."

National Grid admitted that the upgrades had not been specified in a separate agreement but contended that the transmission service agreement among New England Power, Narragansett and ISO-NE stipulate that they are subject to direct assignment facility charges, thus satisfying the RTO's requirement. The commission disagreed with that argument.

"We find that the Narragansett TSA does not specify the direct assignment facilities that New England Power seeks to assign to Narragansett; rather it merely states that 'service under this local service agreement shall be subject to the following charges' and then lists a number of charges including a 'direct assignment facility charge,'" FERC wrote. "Accordingly, we agree with Green Development that the upgrades have not been specified in a separate agreement as required by the definition of direct assignment facilities."

The commission ordered that New England Power not to assess direct assignment facility charges to Narragansett for the upgrades "unless and until it complies with this part of the definition." ■



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ISO-NE News

Glick, Panel Discuss Critical Role of Tx in Decarbonizing NE

By Jason York

FERC Chair Richard Glick said that when he looks at the interconnection queues across the U.S., it amazes him how clear the direction is in terms of the resource mix: More than 90% of generation are renewable projects, “and that says a lot.”

“I think people realize that if you’re going to have that much intermittent renewable resources, there are some issues that need to be addressed,” Glick said in delivering a keynote at Raab Associates’ 171st New England Electricity Restructuring Roundtable.

Glick said the U.S. needs “a significant build out” of the transmission grid to access renewable resources far from load centers. “It’s an enormous task, not just in terms of finding companies that are willing to invest in these projects and providing the right incentives.” Between siting, permitting, construction and operation, it takes a lot of time. “We need to take that into account.”

Glick acknowledged that FERC has “significant” but not “complete” authority of the grid. However, in dealing with public policy transmission projects, Glick said the current paradigm is not “sufficient.”

In July, FERC announced an Advanced Notice of Proposed Rulemaking (*RM21-17*) to reconsider its rules on transmission planning, cost allocation and generator interconnection, acknowledging that Order 1000 has failed to provide interregional expansions to deliver increased renewables and meet the challenge of climate change. (See *FERC Goes Back to the Drawing Board on Tx Planning, Cost Allocation.*)

Glick said cost allocation is “a huge impediment” toward greater investment and devel-

opment. He also surmised that tens, if not hundreds, of billions of dollars, are needed for transmission, “and people that invest that money are going to want to recover it.”

“That means consumers are going to have to pay for it somewhere, and I think that’s one of the areas from a FERC perspective that I’d like to focus on a little bit more,” Glick said. “How can we make sure that the transmission that is needed — that the investments that are made are truly the most efficient investments — that consumers get the biggest bang for their buck? That’s going to be the dominant issue as we move forward, whether it be at the state level or the federal level.”

Improving Tx Planning, Investment and Siting

Following Glick’s keynote, four panelists from the RTO, state, utility and consultant spaces drilled down deeper on improving transmission planning, investment and siting in New England.

“We are pivoting from a time when we really wanted to use transmission to support markets and economic efficiency — as well as reliability, of course — toward a ... new objective function of decarbonization targets,” said Sue Tierney, senior adviser at Analysis Group. “We need robust scenario planning approaches. The states’ energy and electricity requirements need to be at the center of these scenarios. We need to look at multiple pathways [to decarbonization] and analyze transmission needs that come out robustly to support a variety of different scenario pathways.”

The existing planning process needs improvement, conceded Bill Quinlan, president of

transmission and offshore wind projects for Eversource Energy. Still, it did produce “a very reliable, efficient grid for New England.”

“Whether it’s eliminating congestion down in southwest Connecticut, opening up interstate power flows, allowing fossil plants to retire, there’s a lot of goodness that has come out of the reliability-based planning that has taken place over a decade,” Quinlan said. “We do need to open up the planning process and create a new planning framework that allows the region to achieve its clean energy goals.”

Judy Chang, undersecretary of Energy and Climate Solutions in the Massachusetts Executive Office of Energy and Environmental Affairs, said that any new planning processes are not going to be perfect “the first time.”

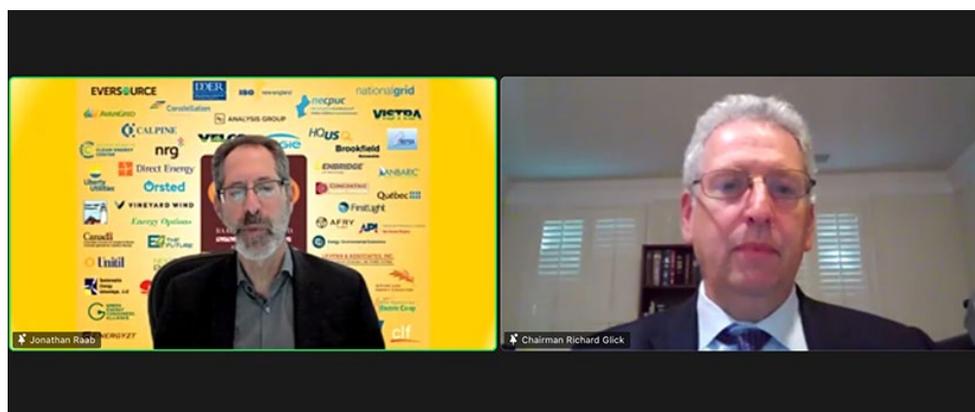
“It takes several iterations to get it right, not that there is a final answer or anything,” Chang said. “But I think we improve as we do this, so we have to do this quickly, the first time acknowledging that we may not get every scenario right, and every assumption right, or even the stories behind each scenario quite right; or might not have satisfied everybody’s curiosity and input. This is difficult for the [RTO], but we have to strike a balance. We have to take into account the input, but we also have to do it quickly, knowing that we’ll have another chance to come back and refine.”

ISO-NE CEO Gordon van Welie said there is plenty of renewable energy potential in New England, “more than enough to support what we need for decarbonization.”

“I think there are limits to how much consensus we can expect in the stakeholder process. We have to recognize transmission investments tilt the playing field, and so that’s going to limit how much consensus can be achieved in the stakeholder process,” van Welie said. “The most important consensus we need is amongst the New England states because if we don’t get consensus amongst the states, we won’t make progress. I think our history shows that, and so that’s really the vital ingredient to this.”

Historically, when the states are aligned, Quinlan said, “solutions become a reality.”

“Stakeholder engagement, I think that’s key; everyone really does need to have a voice in this, but directionally, I don’t think there’s a big difference of opinion as to what the future should look like,” Quinlan said. ■



Jonathan Raab of Raab Associates (left) and FERC Chair Richard Glick | Raab Associates

MISO News



Tensions Boil over MISO South Attitudes on Long-range Transmission Planning

By Amanda Durish Cook

Divisions between MISO South regulatory staff and stakeholders deepened last week over the RTO's long-range transmission plan.

MISO's southern entities clashed with environmentalists and transmission owners over cost allocation and the future resource assumptions behind the long-range plan. Stakeholders are increasingly accusing Entergy and its regulators of trying to impede the planning process for anti-competitive reasons. (See [MISO Stakeholders Blame Entergy for Long-range Transmission Impasse](#).)

Separate but Equal Allocations

Under increased pressure from stakeholders who say it hasn't done enough regional planning, MISO called for separate but equal allocation methods for its South and Midwest regions.

MISO on Thursday prescribed using 2011's Multi-Value Project (MVP) cost allocation for both regions, eschewing Entergy and South regulators' ask for distinct allocations. (See [MISO Stakeholders: Separate](#)

Allocations Isolate Regions.)

However, MISO said the recovery of project costs will likely be confined to separate portfolios. Some stakeholders said confining the costs of projects to a subregion ignores that project benefits could cross boundaries and disincentivizes ever building more transfer capability between the regions.

MISO proposed to recover the cost of long-range projects from members using the MVP's 100% uniform, "postage stamp" rate from load if the projects either support state or federal energy policies; address NERC issues and show reliability benefits across multiple zones; and demonstrate 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. The long-range projects must have at least a 100-kV rating and \$20 million cost minimum.

Entergy and MISO South regulators, on the other hand, wanted a different allocation that assigns costs directly to project beneficiaries from either increased reliability, economic gains or attained policy goals. They also asked

for a 1.25:1 benefit-to-cost ratio and 230-kV minimum voltage thresholds.

"The idea is to keep the project type criteria the same across the footprint," MISO Director of Economic and Policy Planning Jeremiah Doner said at a cost allocation working group meeting Thursday. "We did say we were open to exploring reasonable regional differences ... but we see a number of challenges with implementing the MISO South proposal."

Doner said the proposal would essentially have the RTO performing two separate planning processes. He also said the proposal's measure of reliability benefits only through the avoided costs of future reliability projects was too narrow and "doesn't capture a broad type of reliability benefits."

"It would really add another layer of complexity and difficulty to the transmission planning processes," Doner said. "It wouldn't result in a 'roughly commensurate, beneficiaries pay' allocation."

Doner also said there isn't precedent at FERC for allowing separate cost allocations in a single RTO.



Tower from the Badger-Coulee MVP project in Wisconsin | IBEW

MISO News



Some stakeholders want MISO to consider applying Entergy and MISO South regulators' proposal throughout the entire footprint for long-term projects, forgoing the MVP-style allocation.

The Union of Concerned Scientists' Sam Gomberg countered that that would severely stall any project development.

"I really see a vote for this as an end to system-wide transmission investments. It's overly restrictive to what we're going to be able to do to actually get steel into the ground," Gomberg said.

"When you look at the cost allocation from Entergy — which that's what this is — it makes it harder for projects to get built," agreed Simon Mahan, executive director of the Southern Renewable Energy Association.

Mahan said that if someone proposed to reinforce the grid so the February blackouts in MISO South didn't happen again, those transmission projects probably would not get approved under the narrow benefit definition. He also pointed out Entergy has never built a market efficiency project since joining the RTO. He questioned how the proposal would help MISO South supply reliable power as the resource mix evolves, weather events intensify and existing facilities age out.

"I just don't see how this proposal will make reliability better here in the South," he said. "We've still got people down here without power three weeks after Hurricane Ida."

Otter Tail Power's Stacy Hebert said the MVP portfolio has been shown to benefit MISO South and its cost allocation has withstood challenges at the U.S. Supreme Court level. She said a Midwest-South split between cost allocations begs the question why have the Midwest and South under the same RTO at all.

"We're one RTO and should be treated as such," Ameren's Jeff Dodd said simply.

"I would implore, beg or ask kindly that you not create a regional seam," Missouri Public Service Commission economist Adam McKinie agreed.

But Texas Public Utility Commission Market Economist Werner Roth said MISO's stance was a flip-flop from its earlier position that it would be open to unique cost allocations between Midwest and South.

"It honestly feels like MISO ... gave us this shiny object to look at for a few months," he said.

MISO Executive Director of System Planning Aubrey Johnson said that after speaking with FERC staff and counsel, the RTO discovered different cost allocations pose "a higher hurdle" for commission acceptance.

Mississippi Public Service Commission attorney David Carr said the state was "disappointed" with MISO's response to a different cost allocation for South and demanded a list of names at FERC that MISO staff have spoken to. Johnson said he couldn't do that.

"I'm as frustrated with anyone about the mixed messages, but I think people are missing the bigger picture," Xcel Energy's Drew Siebenaler said. He said MISO shouldn't allocate the costs of regionally beneficial projects differently based solely on physical location.

Lauren Azar, attorney for the Sustainable FERC Project, said MISO South's proposal "would create a number of free riders and is inappropriate."

"I also think very few projects would be approved under the MISO South cost allocation," Azar said. She said FERC's Order 1000 dictates one allocation method per project type, so it shouldn't come as a surprise that FERC would frown upon a special MISO South allocation.

Azar said it's disingenuous to assume that a project's physical location is demonstrative of the benefits it provides. She said the interconnectedness of the grid disproves that, with grid disturbances in Winnipeg felt as far south as Florida. Two allocations would effectively extend MISO South's transition period, where it was exempted from regional cost allocation for the five years after it joined the RTO in 2013.

"MISO North is going to continue to be the full payer of the region's reliability," she said.

New Orleans-based clean energy consultant Andy Kowalczyk said he would like a list of the state regulators and Southern utilities that support Entergy and MISO South regulators' allocation proposal. He said MISO South is not a "homogenous" bloc that's uniformly on board with the plan, noting the New Orleans City Council's recent letter to MISO pleading with it for transmission solutions. (See related story, [Facing City Council Inquiry, Entergy Says it Could Sell New Orleans Utility Arm.](#))

"We shouldn't be following something that results in no projects," Kowalczyk said.

MISO could advance \$30 billion or more in transmission expansion for board approval in March; so far it's only set to propose projects

located in MISO Midwest. (See [MISO Targets March Approval for Long-term Tx Projects.](#))

Loud Row over Future Fleet Assumptions

A virtual workshop Friday on the long-range transmission plan devolved into a shouting match between Mississippi PSC consultant Bill Booth and other stakeholders. Booth was questioning MISO's renewable penetration forecasts and their weighting in MISO South at length when several stakeholders interrupted him to tell him the matter was already settled.

Johnson said the estimates were built years ago into Future I of MISO's transmission planning futures, and it was decided months ago that the RTO would use an unweighted Future I to identify the first possible solutions under the long-range transmission plan.

MISO will next move to the more progressive Futures II and III to identify more possible transmission projects. Some stakeholders pointed out that Future I contains the tamest of all MISO's renewable predictions and is built on members' own carbon-cutting plans, making it difficult to question.

"I want to commend MISO for their patience here. I also want to call out what is clearly an effort by Bill Booth to obfuscate and drive this conversation off the rails ... and ultimately drive as many holes in the process as possible," UCS' Gomberg said. "I think it's pretty obvious what is happening here. I would request MISO please take more control over this meeting." He also asked that stakeholders refrain from "stupid" questions. Seconds later, he apologized for use of the adjective.

Multiple stakeholders said Booth should discuss his lingering concerns about the planning futures with MISO staff outside of the meeting instead of dominating several meetings in a row with repeat queries.

"I don't think the purpose here is to hear out a minority of stakeholders a majority of the time. ... There's one group of stakeholders that is taking up all the oxygen in the room," Kowalczyk said.

WEC Energy Group's Chris Plante said he construed Gomberg's and Kowalczyk's comments as "threatening" and asked MISO to conduct a review of them pursuant to the Stakeholder Governance Guide.

Reliability Subcommittee Chair Ray McCausland offered his services as a neutral facilitator of the next long-range transmission workshop in October. ■

MISO News

Facing City Council Inquiry, Entergy Says it Could Sell New Orleans Utility Arm

Continued from page 1

Orleans residents, create a larger company with stronger financial strength for investments and spread the risk of storm costs across a larger customer base,” Entergy wrote in a [press release](#) Sept. 21.

Entergy said creating an independent utility for New Orleans would “likely create significant credit risk, which in turn would raise financing costs and could challenge the ability to fund ongoing business operations and secure funds for storm restoration.”

“Even as part of Entergy Corp., Entergy New Orleans has been downgraded twice in the last 12 months by rating agencies due to its storm risk and weakening financial performance,” the company warned.

It also mulled the sale of Entergy New Orleans to an interested buyer: “If a willing buyer

with sufficient financial strength is identified, such a transaction could lead to benefits or drawbacks depending on the specific circumstances regarding the transaction.”

The municipalization of Entergy assets by New Orleans is another risky option, the company said. While the city could exert “maximum control” over rates and business operations and access to disaster relief reimbursement, Entergy said the option “could result in higher financing costs and additional operational expenses.”

Moreno responded to Entergy’s plan on Twitter, revealing that she had mistakenly been sent Entergy’s media strategy and timeline, containing several prepared answers to hypothetical questions.

“When you’re coming at your regulatory body with a media ploy to change up regulators, don’t accidentally send me your whole

messaging and media plan with your news release,” she [tweeted](#).

Entergy’s public relations plan apparently included refusals to speculate on what entity might purchase Entergy New Orleans and the sale’s possible effect on shareholder earnings. It also contained explanations emphasizing Ida’s strength and the concept that storm restoration costs will need to be recovered despite a possible change in ownership.

Entergy said that along with its predecessor, New Orleans Public Service Inc., it has been part of the “fabric of the New Orleans community for more than 100 years.” It pointed out that its corporate headquarters are located within the city.

Rod West, group president of Entergy Corp.’s utility operations, said it’s “obvious” that Entergy has “reached a critical juncture in [its] relationship with the City Council.”



Hurricane Ida damage in New Orleans on Aug. 30 | Entergy

MISO News



“While we believe that the actions of Entergy New Orleans have always been in the best interest of our New Orleans customers, some members of the council have publicly expressed a different opinion. Certain proposed actions would prohibit ENO from recovering critical storm restoration costs and freeze funding mechanisms previously approved by the council, thus inflicting further financial decline on ENO and adversely impacting ENO’s ability to provide quality service to its customers,” West said.

West said Entergy and the council “have a long history of working together to find common ground on solutions for customers that solve complex problems and achieve important objectives to a sustainable energy future.”

“Despite a comprehensive and dedicated restoration effort that saw the overwhelming majority of New Orleans customers’ power restored within a week after the strongest hurricane ever to hit our region, several members of the council have expressed their intent to introduce and support a process that could potentially have another entity own and operate electric and gas service in the city,” he said. “We are positioned to support the City Council as they evaluate various options and prepared to move forward with whatever path the council chooses.”

City Implores MISO for Transmission Projects

The City Council last week also accused Entergy of interfering with MISO’s long-term grid planning so that its system remains largely free from competition.

Moreno sent a letter to MISO CEO John Bear and President Clair Moeller on Sept. 20 in

which she urged the RTO to “fulfill its obligations to plan and build a reliable regional grid,” specifically in New Orleans.

She said she discovered recently that stakeholders believe Entergy is “obstructing progress in MISO at the expense of those who rely on the grid for affordable power.”

She cited former FERC Commissioner John Norris’ allegations of Entergy influence on the MISO planning process at September’s Board Week. Norris said he and fellow commissioners greenlit Entergy’s membership in MISO believing that its connections to the larger grid would be augmented. He said he was dismayed that seven years later, no transmission links have been built. (See *MISO Stakeholders Blame Entergy for Long-range Transmission Impasse.*)

“Historically, Entergy isolated itself to ensure only Entergy’s generators could supply electricity to its customers,” Moreno wrote. “This parochialism resulted in inflated rates to customers and diminished Entergy’s ability to deliver electricity when Entergy’s generators or transmission grid went down. When Hurricane Ida hit, New Orleans and its people once again suffered the consequences of Entergy’s protectionism. Some even died because of power outages in the city. MISO was supposed to ensure that Entergy could no longer prevent the development of a reliable and interconnected transmission grid in MISO South. The citizens of New Orleans need MISO to fulfill its promise.”

Moreno said the city “embraces” MISO’s long-range transmission and asked that it develop transmission solutions for Greater New Orleans in 2022. She said the city’s battering by Ida and increasingly bad weather means the city cannot afford to wait another

year “without a solid plan” in place. She said New Orleans is ready to participate in MISO’s stakeholder process to ensure transmission solutions are analyzed.

“For too long, the region surrounding New Orleans has been served by a grid that was built in a piecemeal manner and without sufficient connections to other geographic areas. Given recent stakeholders comments, I question whether our grid was designed and built by a utility that is more interested in protecting its own interests than those of its customers,” she wrote.

Moreno also sent copies of the letter to the Organization of MISO States Executive Director Marcus Hawkins and President Julie Fedorchak.

Entergy rebutted that it doesn’t dictate MISO transmission planning and will have to shoulder its share of construction costs if the RTO approves projects.

“The transmission projects that are ultimately approved as part of MISO’s long-range transmission plan are not determined by Entergy but rather by MISO, based on the feedback of numerous MISO stakeholders,” the utility said in a statement to *RTO Insider*. “The initial set of long-range transmission projects proposed by MISO is estimated to cost approximately \$30 billion, and Entergy New Orleans would be required to pay its allocated share of these costs. Given these substantial costs, it is important that we work carefully through the MISO stakeholder process to advocate on behalf of our customers’ interests and provide thoughtful input to MISO and our regulators on this important matter in the coming months.” ■

MISO News

LSEs, Southern Regulators Pan MISO Resource Assessment

By Amanda Durish Cook

Load-serving entities and southern regulators are decrying MISO's efforts to create its first long-term regional resource assessment report for release at year's end.

The grid operator plans to perform a regional resource adequacy assessment to identify areas in its footprint that will be short on supply. Some member utility representatives and MISO South state public service commission staff argue that the assessment will be misused in state regulatory dockets to denigrate utilities' resource plans.

The assessment will differ from the RTO and Organization of MISO States' annual resource adequacy survey, which relies on LSE responses. It will also be distinct from the grid operator's evaluations conducted before its annual capacity auction. While those estimates only look five years and one year in advance, respectively, the new assessment will examine the footprint's resource retirements and additions five to 20 years in advance.

MISO says the new assessment will be purely informational and refreshed annually for its members. The RTO will tap Applied Energy Group, which will scour utilities' retirement announcements, renewable additions and sustainability goals for more information.

"The world around us is changing a whole lot. As the fleet evolves, ongoing comprehensive analysis is needed to detail risks and inform MISO and stakeholders," staff engineer Aditya Jayam Prabhakar said during a special workshop Sept. 20.

Jayam Prabhakar said this year's assessment will focus on the new resources on the horizon and when they'll be built. He said MISO will examine how an evolving resource mix could increase resource-adequacy risks and how the system's needs might change. Jayam Prabhakar said the assessment wouldn't be used to justify the grid operator's transmission planning.

But Mississippi Public Service Commission consultant Bill Booth said that identifying system needs through the report is at odds with a purely informational aim. He noted that MISO cannot dictate that resources be built.

"So, what is it going to do? Make recommendations?" Booth asked of the assessment.

Jayam Prabhakar said the report will merely

inform members and regulators about what the RTO sees coming.

WEC Energy Group's Chris Plante said he worried that the study would be cited in arguments before state commissions against utilities' integrated resource plans.

"You may inadvertently box in load-serving entities," he said. "People are going to use this report to their advantage, to the extent that they see an advantage."

Fresh Energy's Allen Gleckner said Plante's argument didn't make sense. "To argue against transparency of information so it serves your interests at the commissions is baffling. If you have a good plan in front of your commission, this study should support your planning," he said.

Plante said LSEs must juggle confidential purchase agreements and fluid and confidential planning beyond a five-year horizon. He also said WEC has found that MISO's vision of the future resource mix clashes with its own.

"You cannot hold the whole system hostage by saying, 'Well your plan doesn't agree with my plan, but I'm not going to tell you how,'" argued the Union of Concerned Scientists' Sam Gomberg. He said it's impossible for an intervenor to misuse a well-researched and informational report in state commissions' dockets.

Gleckner said he found LSEs' five-year plans as being confidential "odd."

"Frankly, that's the kind of behavior by LSEs that makes planning so hard," he said.

Jayam Prabhakar said MISO will simply extrapolate its members' plans and update them annually. "There's [nothing] extra being added in this assessment," he said.

Consumers Energy's Kevin Van Oirschot said it's a "fallacy" that the study would be purely informational.

"I would say just stop pretending that somebody is not going to use this for something," he told MISO staff.

He also said he worried the study would be based on "inaccurate or incomplete" information and would put utilities in a position of continually defending themselves against the report.

America's Power Michelle Bloodworth said it's important for MISO to give its members a



Sheldon coal generating station near Lincoln, Neb. | Nebraska Public Power District

view of the resource mix beyond a five-year timeline.

OMS Executive Director Marcus Hawkins agreed and said OMS and MISO were able to iron out snags within the early days of their joint resource adequacy survey. He said it has since become a useful snapshot of the RTO's near-term supply.

Mississippi PSC staffer David Carr asked that MISO clarify the appropriate use of the study ahead of time.

MISO currently estimates it will have about 30% renewable penetration by 2028. By 2040, it expects the Midwest region to achieve 54% renewable energy generation and a 40% carbon reduction from 2021 levels. MISO South is expected to have 36% renewable energy generation and a 55% carbon reduction by 2040.

MISO engineer Hilary Brown said the grid operator was able to secure about a third of its projected resource expansion through members' integrated resource plans. She said not all MISO utilities are under obligations to produce IRPs and their absence doesn't mean members aren't actively planning their future resource fleets.

The year-end assessment will coincide with MISO's Markets of the Future report, which will outline changes necessary to manage a vastly different future generation fleet. (See *MISO Begins Pondering Future Market Changes.*) ■

MISO News

MISO Warns Queue Won't Stay at 150-GW High

MISO is putting stakeholders on notice that withdrawals are imminent in its record-setting 150-GW interconnection queue.

Speaking at a meeting of the Interconnection Process Working Group on Sept. 20, MISO Manager of Resource Utilization Jesse Phillips said he expects to see up to a quarter of the new entries withdraw projects soon. October marks the first phase of the queue's three-part definitive planning phase, when interconnection studies are performed and upgrade costs assigned. Phillips said projects will leave the queue before ever making it to the first phase.

"As we know, the queue fluctuates, and this is ... a volatile period," Phillips said. "We already have seen some withdrawals."

MISO's queue is back in the triple digits after the RTO processed the 2021 collection of new generation hopefuls. New proposals pushed the interconnection queue to 980

projects totaling 153 GW, MISO's largest ever. (See [MISO IC Queue Tops 150 GW; Solar Maintains Lead](#).)

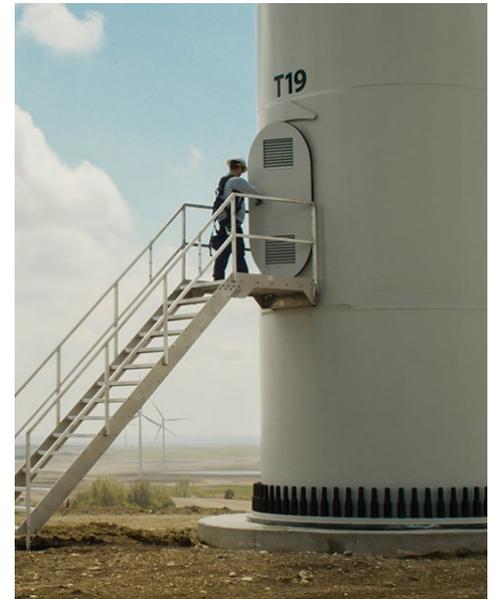
Developers this year submitted 487 applications representing approximately 77 GW; 83% of the proposed new megawatts are renewable.

"Solar requests are the highest fuel requested," Phillips reported.

MISO said the 2021 applicant group marked the first time that requests for energy storage interconnections outstripped requests for wind generation interconnection. The RTO processed 44 GW worth of solar requests, 12 GW in storage projects and a little more than 9 GW in wind requests.

MISO has not yet set an application deadline for generation project plans for its 2022 queue cycle. ■

— Amanda Durish Cook



Merricourt Wind Energy Center | Otter Tail Power

MISO Extends Seasonal Auction Discussions

By Amanda Durish Cook

MISO will give stakeholders an additional two months to question its plan for four seasonal capacity auctions with separate reserve margins and a capacity accreditation based on a generating unit's performance during tight conditions.

Richard Doying, the RTO's executive vice president of market and grid strategy, said Sept. 20 that staff will now file the proposal with FERC in late November or early December. The filing was originally scheduled to be made at the end of September.

"We do nonetheless realize the importance of moving on this quickly," Doying told stakeholders during a special call. "We believe that two months will be adequate to address any questions you may have."

Doying said the extra time will be used to make sure stakeholders fully understand all the elements of the proposal.

The Resource Adequacy Subcommittee voted earlier in September to pause the new capacity paradigm for a year. MISO leadership has said it would give stakeholders more time to debate the filing, but not enough that the delay would risk implementation in the 2023-24

planning year. (See [MISO Backs Divisive Seasonal Capacity Design](#).)

Some stakeholders said MISO mischaracterized the vote as a simple ask for more time to comprehend the proposal, when members had made it clear they disagreed with the plan. MISO should have focused on researched validation for the proposal, they said.

Doying said he was fully aware MISO was not granting all the stakeholder asks that were on the ballot.

"We believe it would be unwise and risky to delay beyond the 2023-24 timeline. ... I certainly will acknowledge and take full ownership that this does not grant everything that the stakeholders requested," he said.

Multiple stakeholders said the grid operator has not addressed members' discomfort with the proposal.

Cleco Cajun's Tia Elliott said widespread acceptance of the proposal is unlikely given that staff only unveiled a final proposal in August.

"There are fundamental issues here that have not been addressed," Power System Engineering's Tom Butz said. He argued MISO doesn't yet have a method to measure whether an

auction's season will be reliable.

"I am being very firm that there are fatal flaws with this that will not be helped by having a lower accreditation," he added.

Travis Stewart with the Coalition of Midwest Power Producers also said stakeholders would like to see a study proving that the design will improve capacity supply.

Entergy's Wyatt Ellertson said there's too much uncertainty about the seasonal auctions' impacts.

"I think if we have [cost of new entry] auction prices in multiple zones, that's not going to help anyone," he said, asking staff to devise some "guardrails" so members don't suffer "enormous financial penalties."

WPPI Energy's Steve Leovy said MISO could have already filed its four-season auction had it isolated the accreditation for a separate filing. Members are generally on board with a four-season auction but have concerns with stricter accreditation, he said.

Doying said leadership may consider "transition mechanisms" that could help "smooth" the changeover to a new capacity construct. MISO will hold more talks on the plan over the next 60 days. ■

PJM News



SOO Green Seeks Relief from PJM Rule on External Capacity

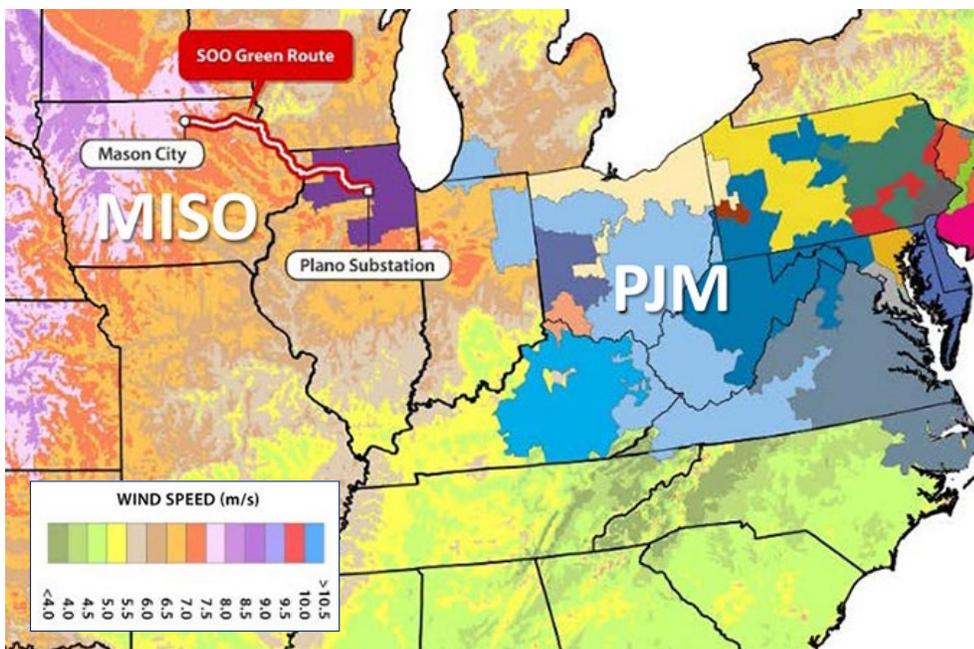
By Rich Heidorn Jr.

The developer of a proposed 2,100-MW HVDC line escalated its fight with PJM last week, asking FERC to eliminate capacity rules it says are blocking its project from competing.

SOO Green HVDC Link ProjectCo, which seeks to deliver wind generation from MISO to the PJM market, asked the commission to prevent PJM from applying to its project rules on external capacity resources delivered over AC lines.

“Applying PJM’s external capacity rules to external resources importing capacity via controllable high-voltage direct-current transmission lines creates unjust and unreasonable barriers to entry for such resources and constraints on interregional trade without providing offsetting reliability benefits,” SOO Green said in a filing Sept. 21. It asked the commission to approve an alternative structure that it said would meet PJM’s reliability needs and align the RTO’s tariff with existing FERC-approved constructs for capacity imports via HVDC facilities in ISO-NE and NYISO.

“AC transmission flows are free-flowing,



Direct Connect’s SOO Green HVDC Link project | SOO Green

allowing power to flow along the path of least resistance, or impedance. In contrast, HVDC transmission facilities are fully controllable and can be directly dispatched: Power only

flows on an HVDC transmission facility when operators dispatch the converter stations

Continued on page 42

PPL Acquires Portion of SOO Green Project

By Michael Yoder

PPL has acquired a portion of the SOO Green HVDC Link, giving the Pennsylvania-based energy company a role in the controversial transmission project aimed at delivering wind generation from MISO to the PJM market.

Details of the deal announced Monday were limited, but PPL will partner with Direct Connect Development, a Minneapolis-based company developing the \$2.5 billion project, which consists a 350-mile, 2,100-MW, 525-kV underground transmission line sited along existing Canadian Pacific rail lines and designed to deliver renewable energy from upper MISO to Illinois and the PJM grid.

SOO Green’s other owners are Copenhagen Infrastructure Partners, Siemens Energy and Jingoli Power. Construction is currently planned to begin in 2023 and take three years to complete.

“SOO Green is very pleased to welcome PPL



SOO Green HVDC Link is planned to consist of 350 miles of underground cables alongside existing rail lines, bringing wind generation in MISO to PJM. | SOO Green

to the SOO Green team,” said project founder Trey Ward. “As a diversified utility with deep transmission development expertise, PPL will

bring unique capabilities to help advance this

Continued on page 42

PJM News



SOO Green Seeks Relief from PJM Rule on External Capacity

Continued from page 41

at either end of the line. This fundamental technological difference between AC and HVDC transmission — and the associated underlying operational distinctions — renders PJM’s external capacity rules unnecessary,” the complaint said.

PJM established capacity import limits to prevent excess congestion but exempted pseudo-tied generators over which it has direct dispatch control.

“PJM’s external capacity rules, while found reasonable for external resources flowing across the uncontrolled AC interface, were not designed for controllable interregional HVDC transmission facilities,” SOO Green said. “The commission recognized, at the time it approved the external capacity rules, the incompatibility between the external capacity rules and capacity imported over an HVDC line; however, it has not yet been clearly presented with the issue of external capacity imports via a controllable HVDC transmission facility in PJM until this filing.”

The developer said ISO-NE and NYISO have used controllable interregional HVDC transmission lines reliably for years. “Such lines can likewise satisfy PJM’s reliability and resource

adequacy needs.”

Capacity sold into PJM would be backed by a set of generating units within MISO that have firm transmission service to SOO Green’s withdrawal point and firm transmission service across SOO Green to its injection point.

SOO Green said PJM would not need to control individual external generators directly to manage power flows across the HVDC transmission facility. “Instead, PJM would issue dispatch instructions to the HVDC converter station — located within and directly connected to PJM — to schedule power flows,” it said. “Given PJM’s direct dispatch control of power flows across HVDC transmission facilities, PJM and MISO do not need to coordinate generator redispatch, as required for pseudo-tied generators delivering across the AC network, to manage congestion across their shared interface.”

SOO Green said an analysis conducted for it indicated that its project would also improve intraregional power transfer capability within MISO under normal operating conditions. “By reducing congestion, SOO Green will enable the reliable delivery of 2,100 MW of supply from multiple MISO subregions to the project’s interconnection point of withdrawal without requiring major interconnection

upgrades,” it said.

Last week’s complaint opened a new chapter in SOO Green’s efforts since late 2019 to enter the PJM capacity market. In May 2020, PJM stakeholders approved the creation of the HVDC Senior Task Force at the developer’s request. But after four task force meetings from July to October 2020, SOO Green said it and the RTO had reached a “stalemate” because PJM staff were unwilling to consider alternatives to the pseudo-tie construct for external capacity resources delivered via HVDC.

In June, SOO Green filed a complaint alleging that PJM’s tariff and Operating Agreement are unjust and unreasonable because the RTO requires merchant transmission facilities to complete a “profoundly delayed generation interconnection process” for studies and integration into the grid (EL21-85). (See [SOO Green Seeks Participation in PJM RTEP Process](#).) That complaint is still pending.

Asked for comment on the new complaint, PJM told *RTO Insider* that SOO Green “was afforded extensive opportunities to present its proposal to PJM and its stakeholders. PJM and many stakeholders noted the issues associated with the SOO Green proposal, which PJM will enumerate in its response.” ■

PPL Acquires Portion of SOO Green Project

Continued from page 41

landmark project.”

Project officials have touted the model of using underground cables co-located with existing rights of way to avoid using eminent domain to advance the transmission route. Officials said installing underground cables will enable faster state permitting by avoiding environmental and visual impacts tied to traditional overhead transmission lines.

PPL COO Gregory Dudkin said his company wanted to “gain insight” into SOO Green’s approach to the project as it ramps up its own clean energy transition. It is “excited to lend” its own experience in transmission development on the project.

“PPL is pleased to support a project focused on transforming how major transmission line projects are built in the U.S.,” Dudkin said.

“SOO Green’s innovative approach aims to remove key barriers to interregional transmission line construction that will be essential to connecting more largescale renewable energy to the grid.”

Project Challenges

SOO Green has been jostling with PJM over the project, asking FERC to eliminate capacity rules that it says are blocking its project from competing in the market. (See related story, [SOO Green Seeks Relief from PJM Rule on External Capacity](#).)

PJM stakeholders originally approved an *issue charge* in June 2020 to consider integrating HVDC converters as a new type of capacity resource in the RTO. (See [HVDC Initiative Endorsed by PJM Stakeholders](#).) Work at the HVDC Senior Task Force failed to reach a consensus on the issue. (See “HVDC Senior Task Force Update,” [PJM MRC/MC Briefs: March 29, 2021](#).)

Direct Connect filed a complaint with the commission in June, arguing that PJM’s tariff and Operating Agreement are unjust and unreasonable because the RTO requires merchant transmission facilities to complete a “profoundly delayed generation interconnection process” for studies and integration into the grid (EL21-85). (See [SOO Green Seeks Participation in PJM RTEP Process](#).)

Karl Miller, CEO of Jingoli Power, said SOO Green is a “critical link” in the development of the grid of the future.

“We’re thrilled PPL has recognized the project’s revolutionary model to ease constraints for other regional wind and solar developments that will help make the U.S.’ ambitious clean energy goals possible,” Miller said. “We’re eager to get to work with our new partners.” ■

PJM News



PJM TOs Respond to FERC Questions on Rate-base Network Upgrades

By Michael Yoder

PJM transmission owners responded to FERC’s deficiency notice on their proposal to add network upgrades to rate base, arguing that the RTO’s tariff provides TOs with the “express authority” to make changes to any of the sections relating to transmission revenue requirements, cost allocation or cost recovery (ER21-2282).

In August, the commission directed the TOs to provide evidence backing up claims that their ability to raise capital is being threatened because they must absorb the risks of increasing transmission upgrades without earning returns on the assets. (See [FERC Seeks Evidence in PJM TOs’ Bid to Rate-base Network Upgrades.](#))

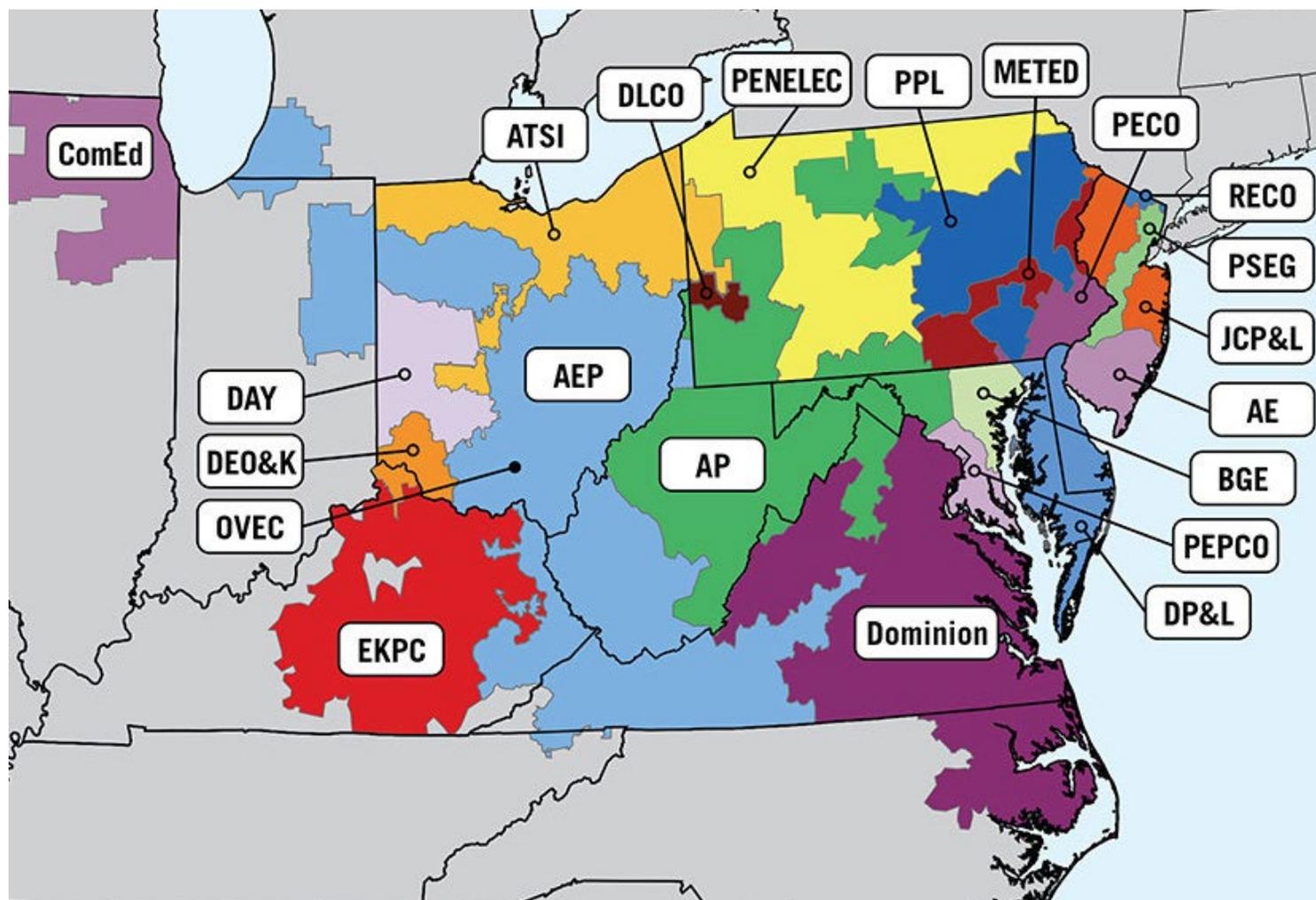
The TOs *asked* FERC on June 30 to allow them the option to fund network upgrades and add them to their rate bases. Under PJM’s “participant funding” model approved in 2004, generators provide the capital for network upgrades, while the additional infrastructure is added to rate bases at zero cost, allowing TOs to recover only their operations and maintenance expenses from network transmission customers.

In their filing Sept. 20, the TOs did not respond directly to the commission’s request for “evidence that investors have informed the PJM TOs that they hold concerns over future investments in the PJM TOs given the projected increase in network upgrades.”

Instead, the TOs noted that they filed their proposal under Section 205 of the Federal Power Act. “Thus, they do not need to

demonstrate that the existing methodology absent the transmission owner’s option to fund network upgrades is unjust and unreasonable,” they wrote. “Instead, they need only show that the proposed revisions are just and reasonable.”

The TOs said when PJM was created as an independent system operator in 1997, the D.C. Circuit Court of Appeals “made very clear that absent a voluntary waiver,” the TOs retained all their rights under the FPA to make Section 205 filings “relating to rate design changes with respect to services provided by their own assets.” The TOs said the court “explicitly held” that the commission exceeded its jurisdiction when it attempted to “deprive utilities of their rights ‘to initiate rate design changes with respect to services provided by their own assets.’”



PJM transmission zones | PJM

PJM News



“The PJM transmission owners need not prove they retained the rights to file the proposed revisions; those rights are granted by statute,” the TOs said in their response. “To successfully challenge the PJM transmission owners’ rights to file the proposed revisions, protesters or the commission would have to show that the PJM transmission owners expressly waived those rights. There is, however, no evidence supporting such a showing.”

Several environmental groups, state regulators, generators, industrial customers and PJM’s Independent Market Monitor filed comments in July opposing the TOs’ proposal, alleging there’s no evidence the TOs are having trouble attracting capital. (See *PJM Stakeholders Blast TOs’ Petition to Rate-base Network Upgrades*.)

FERC staff asked the TOs to provide evidence that their return on equity (ROE) rates “do not currently account for the risks of owning and operating the transmission system with the network upgrade additions.”

The TOs said there is a “simple and straight-forward” reason the approved ROE rates do not account for the risks of owning and operating network upgrades, saying existing commission-approved ROE for transmission facilities “does not currently account for the risks of owning and operating network upgrades.”

“The commission-approved ROE for transmission rates is applied to the PJM transmission

owner’s rate base, and that rate base does not currently include network upgrades,” the TOs said in their response. “Thus, the PJM transmissions owners do not earn a return or receive any compensation for owning and operating network upgrades.”

FERC asked whether the TOs’ ROE would decrease if they obtained the ability to put the upgrades in rate base.

The TOs said if the commission approves the proposed revisions, there would be “no reason or justification to reduce the commission-approved ROEs.” They said allowing for earnings on network upgrades would be compensation for owning and operating them and to “account for the risks of those facilities, which are separate from the risks addressed by the commission-approved ROE that the PJM transmission owners earn for their other transmission facilities on their system.”

The TOs said they have been forced to own and operate network upgrades “on a non-profit basis.”

“In a market economy, no private business would voluntarily choose to pursue such a business model,” the TOs said. “While the PJM transmission owners are regulated entities, they are for profit entities, and therefore must be compensated for the service that they provide.”

The TOs said that gross plant for transmission

assets has increased more than five-fold from \$14.96 billion in 2004 to \$77.72 billion in 2020. Over the same period, gross plant for network upgrades increased from \$35 million to \$1.31 billion, rising from 0.2% of the total gross plant to 1.7%.

FERC asked the TOs to describe the criteria they will use to determine whether to initially fund individual upgrades and the disclosures they would make about their decisions.

The TOs said they intend to fund network upgrades “if they have the capital budget and business flexibility to do so.” They said they have not yet developed “specific criteria” for the determination on whether to “exercise the transmission owner funding option.”

“Following the commission’s approval of their proposal, they will be in a better position to consider developing criteria to guide their decision-making process and to publicize those criteria,” the TOs said in their filing. “The criteria may include, for example, a minimum dollar threshold that would exclude network upgrades below a certain dollar amount; other potential criteria are still being considered.”

The TOs requested that FERC accept the proposed revisions “without hearing, modification or condition” and have an effective date of Aug. 30.

PJM’s TOs include American Electric Power, Dominion Energy, Duke Energy, Exelon, PPL and Public Service Enterprise Group. ■

ERO Insider

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PJM News



FERC Rejects Panda Hummel Settlement

By Michael Yoder

FERC on Thursday rejected Panda Hummel Station's proposed settlement on its annual revenue requirement for reactive service under the PJM tariff, remanding the proceeding to the chief administrative law judge to resume hearing procedures ([ER19-391](#)).

The commission sided with [comments](#) by its trial staff who found the proposal for the 1,153-MW natural gas-fired combined cycle generation station in Snyder County, Pa., to be a "settlement in name only."

"The terms are egregiously one-sided and the 'settlement' annual revenue requirement (ARR) is not the result of a negotiated compromise among the participants, but rather is an amount of Panda Hummel's own choosing," staff said.

FERC said it has an "independent responsibility" to consider the public interest in reviewing filings and may approve a settlement contested by trial staff, even if staff "raises material issues of fact."

"The commission recognizes the importance of comments submitted by trial staff, as trial staff represents the public interest in settlement and hearing proceedings, and, when appropriate, has rejected settlements where trial staff was the only participant to object," FERC said. "Here, we have carefully considered Panda Hummel's arguments and find that the settlement rate may be excessive, such that we cannot find the settlement to be fair and reasonable and in the public interest. Thus, we find that it is appropriate to resume hearing procedures in this proceeding."

Panda Hummel Settlement

In November 2018, Panda Hummel proposed a rate schedule that included an annual reactive service revenue requirement of \$6.7 million.

After the commission responded by ordering hearing and settlement judge procedures, Panda Hummel filed a [proposal](#) offering to reduce its ARR for reactive power to \$5.6 million. Panda Hummel said its original filing "based certain costs and inputs on budgets or estimates." The reduced ARR updated those figures — operations, maintenance, administrative and general costs — with actual expenses, the company said.

The proposed settlement also laid out the

methodology used to calculate the revenue requirement, stating that major equipment costs included in the revenue requirement were similar to ones approved in 2018 by the commission for the Public Service Enterprise Group Keys Energy Center, a 755-MW combined cycle gas plant in Maryland ([ER18-1222](#)).

Panda Hummel argued that FERC approved costs from the PSEG Keys settlement "for a generator that is not materially different from the facility except that it is smaller in size and has lower cumulative costs for its major equipment."

Settlement Responses

FERC trial staff responded that the settlement was not fair or reasonable because it gives Panda Hummel "the sole right to accept any modifications and effectively gives Panda Hummel the unilateral power to decide when refunds are made." The staff contended that there was no way to verify the settlement's annual revenue requirement and that it contained a "fundamental lack of certainty because it is expressly reliant on issues being examined in separate cases."

Staff also argued that the settlement should be rejected because it "seeks to bypass the commission's settlement and hearing processes." They said allowing Panda Hummel to "unilaterally select its own revenue requirement, eschew its burden of proof obligation, avoid an assessment of its rates and scrutiny of its costs, and forego settlement and hearing procedures" was not fair or reasonable.

In its decision, the commission said it found Panda Hummel's proposed methodology in the settlement to be "flawed" and included inputs that are "inconsistent" with FERC policy.

"We disagree with Panda Hummel that PSEG Keys' as-filed costs as reflected in the PSEG Keys settlement can be adopted by any plant that shares some similarities with it, without any further inquiry," the commission said. "In any event, the commission's approval of the PSEG Keys settlement is non-precedential."

The IMM made its own [comments](#) regarding the Panda Hummel settlement in August 2020, saying it "opposes the unilateral offer of settlement to the extent that the settlement would not be analyzed on its merits, including under the just and reasonable standard." The IMM also argued that trial staff is the "only participant raising cost of service issues and the settlement should not be ap-



Panda Hummel Station, a 1,096.5-MW combined cycle plant on the Susquehanna River near Sunbury, Pa. | [Bechtel Corp.](#)

proved without addressing these issues."

The commission said the IMM failed to file an affidavit or supporting evidence regarding its challenges to the revenue requirement and that the primary objection "appears to raise a policy issue regarding whether trial staff's objection to a settlement should render it contested and subject to the just and reasonable standard.

"This issue, in addition to not being a disputed issue of material fact, is outside the scope of the settlement," the commission said.

Settlements Approved

The commission approved uncontested settlements regarding reactive supply and voltage control for the Michigan Public Power Agency ([ER21-2348](#)) and Story County Wind ([ER20-1906-001](#)).

The commission also approved an uncontested settlement reducing the transmission revenue requirement (TRR) for DATC Path 15's ownership of the Path 15 Upgrade — an 84-mile, 500-kV transmission line along the existing Path 15 corridor in California — from \$25.6 million to \$20.5 million from June 13, 2020 through June 12, 2022; \$18.8 million from June 13, 2022 through June 12, 2023; and \$18.5 million from June 13, 2023 through the next rate case ([ER20-1006-001](#)). DATC had originally proposed a TRR of \$21.7 million.

Also approved was an uncontested settlement reducing Wisconsin Electric Power's return on common equity from 11% to 9.85%, effective July 1, 2020 ([ER21-1965](#); [EL20-57](#)). Cloverland Electric Cooperative had challenged Wisconsin Electric's 11% ROE as excessive. ■

Rich Heidorn Jr. contributed to this report.

PJM News



PJM MRC/MC Preview

Below is a summary of the issues scheduled to be brought to a vote at the PJM Markets and Reliability Committee and Members Committee meetings on Wednesday. Each item is listed by agenda number, description and projected time of discussion, followed by a summary of the issue and links to prior coverage in *RTO Insider*.

RTO Insider will be covering the discussions and votes. See next Tuesday's newsletter for a full report.

Markets and Reliability Committee

Consent Agenda (9:05-9:10)

B. Stakeholders will be asked to *endorse* revisions to the Regional Transmission and Energy Scheduling Practices *document*. The document was endorsed at the Market Implementation Committee meeting Sept. 9. (See "Energy Scheduling Practices Revisions Endorsed," *PJM MIC Briefs: Sept. 9, 2021*.)

Endorsements/Approvals (9:10-10:40)

1. Energy Price Formation Charter (9:10-9:25)

Members will be asked to *approve* revisions to the Energy Price Formation Senior Task Force (EPFSTF) charter. Votes will be taken on the *original* proposal and a *second* with proposed amendments from Exelon.

2. Natural Gas and Electric Markets Issue Charge (9:25-9:40)

The committee will be asked to *approve* the proposed *issue charge* and review the *problem statement* related to natural gas and electric market coordination. Dominion Energy said the problem statement and issue charge were the result of continued concerns over the misalignment between the natural gas and electric markets. (See "Natural Gas and Electric Markets Issue Charge," *PJM MRC Briefs: Aug. 25, 2021*.)

3. Market Suspension (9:40-10)

Stakeholders will be asked to endorse the proposed solution and Operating Agreement revisions to address rules related to market suspension. PJM said the revisions are designed to provide clear business rules in the RTO's markets to account for a market suspension where it cannot clear or produce market results. (See "Market Suspension," *PJM MRC Briefs: Aug. 25, 2021*.)

4. Initial Margining Solution (10-10:40)

Members will be asked to *endorse* a proposed solution and tariff *revisions* from work done in the Financial Risk Mitigation Senior Task Force (FRMSTF) to address rules related to initial margining. The work is one of the last significant changes resulting from the Green-Hat Energy default. Upon endorsement of a proposed solution, the committee will also be asked to approve the sunset of the FRMSTF in an additional vote. (See "Initial Margining Solution," *PJM MRC Briefs: Aug. 25, 2021*.)

Members Committee

Consent Agenda (1:40-1:45)

B. The committee will be asked to approve proposed revisions to *Manual 34: PJM Stakeholder Process* addressing *photography in meetings* and *media guidelines*. The changes resulted from feedback by members and discussions at the Stakeholder Process Forum. (See "Manual 34 Revisions," *PJM MRC/MC Briefs: July 28, 2021*.)

C. Stakeholders will be asked to *endorse* proposed *revisions* from the Governing Document Enhancement and Clarification Subcommittee (GDECS) addressing administrative changes and clarifications in the tariff and OA. PJM said the revisions were found to be "simple and noncontroversial enough" that they were reviewed one time at the GDECS, receiving unanimous stakeholder support. (See "Consent Agenda Manual Endorsements," *PJM MRC/MC Briefs: July 28, 2021*.)

D. Members will be asked to *endorse* proposed *revisions* to address making cure periods uniform across the tariff and OA. PJM said appropriate cure periods defined in section

15.1.5 of the OA were originally updated in that document, but not in section 7.3 of the tariff, which involves provisions limited to transmission service customers. (See "Know Your Customer' Tariff Changes," *PJM MRC Briefs: Aug. 25, 2021*.)

E. The committee will be asked to *endorse* proposed *revisions* to address making the definitions of working credit limits uniform across the tariff. The revisions eliminate duplicative definitions of "working capital limit" and leave it only in the definitions section of the tariff.

Endorsements (1:45-2:15)

1. PJM Administrative Rates (1:45-2)

Stakeholders will be asked to *endorse* the proposed solution and tariff *revisions* related to PJM administrative rates. The RTO is asking for endorsement after a first read to conduct a rate filing to FERC by Thursday and have a target effective date of Jan. 1, 2022.

2. Nominating Committee Elections (2-2:15)

Members will be asked to *elect* the sector representative nominees for the 2021-2022 Nominating Committee. The nominees include: Brian Vayda, executive director of the New Jersey Public Power Authority (Electric Distributors); Mike Gahimer of the Indiana Office of Utility Consumer Counselor (End-Use Customers); John Brodbeck, senior manager of transmission at EDP Renewables North America (Generation Owners); Bruce Bleiweis of DC Energy (Other Suppliers); and Jim Davis, regulatory and market policy strategic adviser for Dominion Energy (Transmission Owners). ■

— Michael Yoder

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PJM News



PennEast Pipeline Throws in the Towel

By Rich Heidom

Developers of the proposed PennEast Pipeline said Monday they are canceling the natural gas project, conceding defeat in a seven-year battle despite a U.S. Supreme Court ruling supporting their ability to seize properties in New Jersey via eminent domain.

“Although PennEast received a certificate of public convenience and necessity (CPCN) from FERC to construct the proposed pipeline and obtained some required permits, PennEast has not received certain permits, including a water quality certification and other wetlands permits under Section 401 of the Clean Water Act for the New Jersey portion of the Project,” the company said in a statement. “Therefore, the PennEast partners, following extensive evaluation and discussion, recently determined further development of the project no longer is supported. Accordingly, PennEast has ceased all further development of the project.”

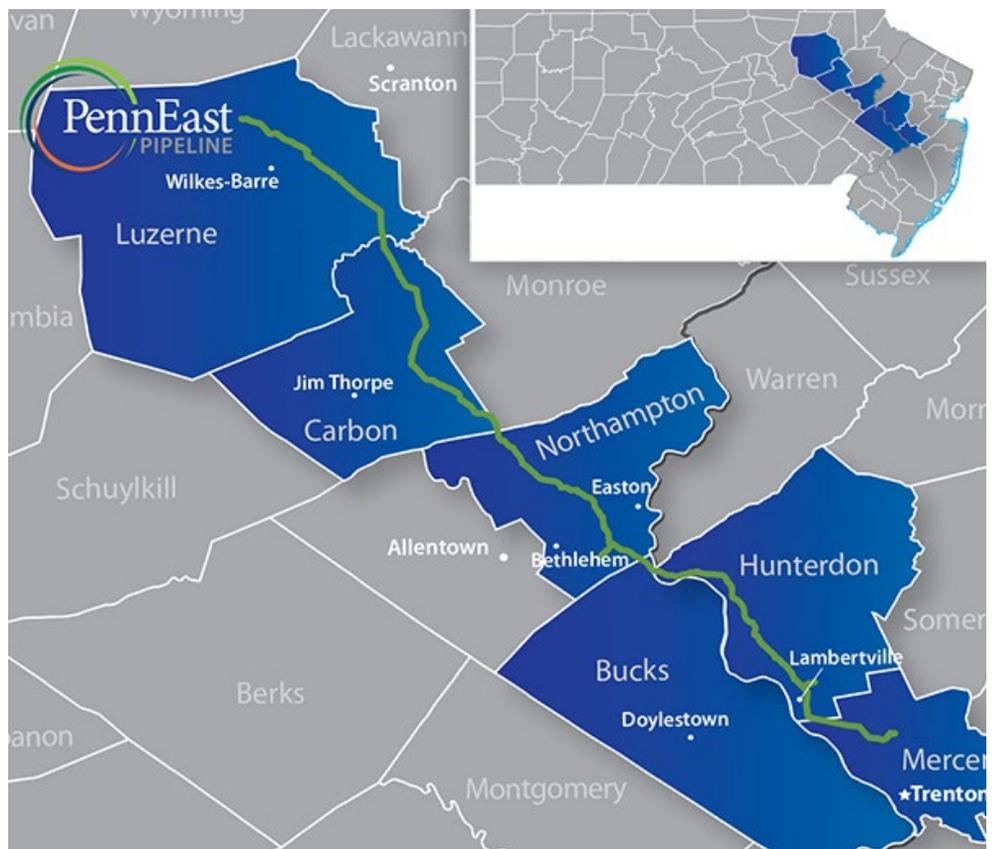
The \$1.2 billion 120-mile pipeline would have delivered shale gas from Luzerne County in Northeastern Pennsylvania to Transco’s pipeline interconnection in Mercer County, N.J.

Monday’s announcement was foreshadowed when four of the five partners — New Jersey Resources Corp. (NYSE:NJR), South Jersey Industries (NYSE:SJI), Southern Co. (NYSE:SO), and a subsidiary of UGI Corp. (NYSE:UGI) — told investors recently they were writing off about \$354 million from their books, representing nearly their entire investment in the project. Enbridge Inc. also was a partner (NYSE:ENB).

Last week, the New Jersey attorney general announced in a federal court filing that PennEast had dropped its bid to condemn 42 parcels in which the state claims a property interest, most of them privately owned land on which the state Jersey has granted conservation easements.

In June, the Supreme Court ruled 5-4 that the Natural Gas Act allows private energy companies to seize “necessary” land for a project if they have obtained a CPCN from FERC. New Jersey officials responded to the order with a vow to continue their fight against the project.

“I welcome today’s decision by PennEast to cease development on the PennEast Pipeline and am committed to protecting our state’s



The proposed PennEast pipeline would have delivered shale gas from Pennsylvania into New Jersey. | PennEast Pipeline

natural resources and building a clean energy future that works for all New Jerseyans,” Gov. Phil Murphy said in a tweet.

Abigail M. Jones, vice president of legal and policy at PennFuture, said the pipeline would have damaged streams, wetlands and forest habitat while increasing greenhouse gas emissions.

“New Jersey had denied critical environmental permits for the pipeline, which resulted in PennEast proposing to bifurcate its process and build the Pennsylvania-portion in phases to allow for construction to move forward,” she said in a statement. “PennEast’s announcement that they will cease development of the pipeline is great news, especially for the many landowners in Pennsylvania whose properties were threatened by eminent domain and clearcutting for a pipeline to nowhere.”

The *Consumer Energy Alliance* (CEA), a group backed by oil and gas producers and mining interests, said the cancellation was “a sign that even with a Supreme Court victory under

its belt, critical infrastructure in the U.S. faces needless and politically-motivated opposition.”

“Unfortunately, a regulatory process designed to get things built safely and in the public interest has fallen prey to anti-business interests and compliant elected leaders,” said CEA Mid-Atlantic Director Mike Butler.

The Energy Information Administration *reported* last week that the U.S. benchmark natural gas spot price at the Henry Hub in Louisiana has been at a premium to Northeast natural gas hubs since the third quarter of 2020, “as total Appalachian supply exceeded demand growth and storage levels were above average.”

“Although storage levels fell in 2021, other factors, such as record high Gulf Coast LNG exports, winter freeze-offs in Texas and neighboring producing areas, and Appalachian pipeline outages kept the Henry Hub price premium over Northeast hubs higher than 2018-2020 annual averages in 2021,” EIA said. ■

Company Briefs

Avangrid Renewables Appoints Miranda as President Onshore



Avangrid Renewables last week announced the appointment of Jose Antonio Miranda as presi-

dent onshore; he will oversee the growth of the company's onshore wind and solar business.

Miranda was previously CEO of onshore in the Americas region for Siemens Gamesa and chairman of its boards in the U.S., Mexico and Brazil.

More: [Avangrid Renewables](#)

GM Has Bolt Battery Fix, Will Replace Modules



General Motors last week said it will again accept battery supply from LG Energy Solution and allow replacement battery modules for recalled Chevrolet Bolts to ship to dealers as soon as mid-October.

For weeks, GM has been evaluating LG's manufacturing processes to figure out how two defects occurred in Bolt cells, forcing the automaker to recall all Bolt EVs and Bolt EUVs. The automaker has confirmed

13 battery fires. GM and LG said they have discovered what caused the defects and "have addressed them to make sure that they can't happen going forward," according to GM Director of Cell Engineering and Electrification Strategy Tim Grewe.

GM said the cause of the fires is two manufacturing defects: a torn anode and a folded separator. To create a battery fire risk, both must be present in the same battery cell.

More: [The Detroit News](#)

Moody's Warns Entergy's Finances Could be Threatened by Ida, Politics

The investment rating agency Moody's has changed its outlook for Entergy and its two Louisiana subsidiaries to "negative" after the company estimated Hurricane Ida repairs would be more expensive than previously anticipated.

The agency also expressed concern about an increasingly contentious political environment that has seen the New Orleans City Council sparring with the utility over the extended outages post-Ida. A "higher risk political, regulatory and operating environment" could create financial problems for the utility going forward, according to a Moody's press release.

The change moves Moody's outlook on \$17 billion in Entergy bonds from "stable" to "negative," suggesting it saw challenges ahead for the company. Entergy, Entergy Louisiana and Entergy New Orleans will still hold the "moderate" ratings they held before the storm.

More: [The New Orleans Advocate](#)

Shell Sells Permian Basin Oil, Gas Business to ConocoPhillips



Royal Dutch Shell last week sold its oil and gas business in the Permian Basin to ConocoPhillips for \$9.5 billion.

The deal is a major move for Shell as it faces pressure to reduce its oil and gas production and produce more clean energy in response to concerns from investors and the public about climate change.

Meanwhile, the purchase furthers ConocoPhillips' investment in the Permian Basin. Last year, the company bought oil driller Concho Resources for \$9.7 billion. Acquiring Shell's land makes ConocoPhillips a top Permian producer alongside Chevron, Exxon Mobil and Pioneer Natural Resources.

More: [The Texas Tribune](#)

Federal Briefs

Dems Prep Carbon Tax Option to Pay for Spending Bill



Senate Democrats are developing a carbon-tax proposal that could be used to offset some of the costs of a sweeping social-spending bill as well as direct cash payments to households, according to

Senate Finance Committee Chairman **Ron Wyden**.

A "substantial portion" of the revenue generated from the tax would be disbursed to Americans in the form of cash payments, Wyden said. That could help increase public support for the tax but would also mean less money to offset the cost of the up-to-\$3.5 trillion reconciliation bill.

More: [Bloomberg](#), [The New York Times](#)

Manchin, Barrasso Announce Bill to Revegetate Forests

Sens. **Joe Manchin** (D-W.V.) and John Barrasso (R-Wyo.) last week introduced the "America's Revegetation and Carbon Sequestration (ARCS) Act of 2021" in response to a series of devastating wildfires. The bill would establish a national revegetation plan under the umbrella of the Interior Department and the Forest Service.

The bill would require Interior and the Forest Service to establish a revegetation task force for each region of the U.S. within 18 months. Each task force would develop a region-specific revegetation plan in the six

months following their establishment.

More: [The Hill](#)

Summer California Wildfires Release Most CO₂ in 2 Decades



Between June and August, California fires emitted twice as much carbon dioxide as the same period last year, and far more than any other summer in nearly two decades, according to the Copernicus

Atmospheric Monitoring Service.

Over the three months, the service said the fires released more than 75 million metric tons of carbon dioxide. Overall, fires in the Western United States released 130 million tons of CO₂ this summer, according to

estimates, which included about 17 million tons in Oregon.

Copernicus uses data from sensors on several NASA satellites that measure surface brightness temperatures. It then looks for deviations from normal temperatures that

indicate a fire and estimates how much energy the fire is radiating. From that, using information about vegetation types, it estimates how much carbon dioxide and other gases are being emitted.

More: [The New York Times](#)

State Briefs

ARIZONA

ACC to Investigate Southwest Gas After Explosion

The Corporation Commission last week said it will open an investigation into Southwest Gas in connection with a handful of natural gas leaks that have resulted in evacuations and an explosion.

On Aug. 26, an explosion at a Chandler print shop left four people injured. More recently, a natural gas leak prompted evacuation of several homes on Sept. 9.

Southwest Gas confirmed to the commission that the Driscopipe 8000 high density polyethylene pipe was present in both incidents. What has made this type of pipe a cause for concern is its potential for material degradation; the Pipeline and Hazardous Materials Safety Administration issued an advisory about the pipe in March 2012. There are 10,300 miles of Driscopipe 8000 pipes installed within Southwest Gas service territory.

More: [Arizona Republic](#)

SRP to Partner on Large Solar Plant

The Salt River Project last week said it will partner with Enlight Renewable Energy to build the 400-MW CO Bar Solar plant.

Construction of the project, which will be built on private land, is expected to start in 2023. The plant is scheduled to be operational in 2024.

More: [The Associated Press](#)

ARKANSAS

Man Sentenced for Role in Elm Springs Wind Farm Fraud

Cody Fell was sentenced to 10 months in federal prison last week after he testified in the fraud trial of two associates related to a failed wind farm project.

Fell, who worked at Dragonfly Internation-

al, pleaded guilty to federal wire-fraud and tax-evasion charges in December 2018. He agreed to plead guilty and cooperate with the government; he testified against Jody Davis and Phillip Vincent Ridings at their fraud and money laundering trial. Davis and Ridings were charged with nine counts of wire fraud, aiding and abetting wire fraud, money laundering, and aiding and abetting money laundering. Both men were found guilty on all counts on Sept. 3 and await sentencing.

More: [Northwest Arkansas Democrat Gazette](#)

CALIFORNIA

Ocotillo Wind Turbine Collapses

A 300-foot turbine collapsed to the ground last week at the Ocotillo Wind Energy facility. It was the second turbine to collapse since 2016. No injuries or damage to other structures were reported.

The project, which was built by Pattern Energy, also had a turbine fire in January 2015, and an 11-ton blade hurled off onto a public trail in May 2013, among other mechanical failures.

Siemens, the manufacturer, blamed the 2016 failure on a malfunction that resulted in a blade striking the tower. The estimated lifespan of a turbine is about 20 years. It is unclear why Ocotillo has had so many serious failures with the 2.37-MW turbines.

The Bureau of Land Management has ordered the wind farm to halt operations.

More: [East County Magazine](#), [Imperial Valley Press](#)

PG&E Outage Impacts 5,340 Customers in Santa Cruz Mountains



Approximately 5,340 PG&E customers were without power in the Santa Cruz Mountains on Sept. 20 after a squirrel chewed through electric equipment.

The outage was the most recent in a string

of blackouts, which PG&E has largely attributed to a new fast-trip system, a feature the utility provider installed in high fire risk areas beginning July. As a result of that update, power is cut off when lines are disturbed by a falling tree branch, gnawing squirrel or otherwise, in an effort to prevent wildfires from igniting.

More: [Santa Cruz Sentinel](#)

Solar Association Sues State Over Installation Restrictions



The California Solar and Storage Association

last week filed a lawsuit against the state and its new restrictions on who can install batteries on solar units.

In the lawsuit, the association asked the Superior Court of California in San Francisco to overturn the rule changes and allow the current training standards to remain in place for those who install solar panels and battery systems. Bernadette Del Chiaro, the executive director of the association, said the new rules would affect hundreds of companies in the state and 35,000 workers — and make it nearly impossible for solar and battery companies to deliver their products.

In two rule changes in July, the Contractors State License Board voted to prevent solar contractors from installing batteries to promote the safe installation of equipment involving power, requiring some workers to be certified electricians.

More: [The New York Times](#)

COLORADO

Xcel Energy Requests Rate Increase



Xcel Energy has asked the Public Utilities Commission for a rate increase, citing the rising prices of natural gas and damage done to

processing facilities by Hurricane Ida.

Monthly bills for a residential natural gas customer would go up by an average of \$11.22 (14.38%), while small businesses would see rates rise by an average of \$48.50 (15.83%).

If approved, the new rates would go into effect Oct. 1 and last for three months.

More: [The Denver Post](#)

INDIANA

Madison County Approves New Solar Moratorium

Madison County Commissioners last week voted unanimously to approve the recommendation of the Plan Commission to reinstitute a moratorium on solar projects larger than 50 MW. The moratorium will remain in effect until March 21, 2022, or until the county's new solar ordinance is adopted.

The moratorium will not affect solar projects of less than 50 MW.

A previous moratorium expired on July 7.

More: [The Herald Bulletin](#)

KANSAS

Evergy to Keep Lawrence Coal Plant Open

 Evergy last week said it will keep part of its Lawrence coal plant open to run occasionally on natural gas despite earlier plans to shutter it completely.

Earlier this year, Evergy filed its integrated resource plan with regulators, outlining proposals to add more renewable energy and retire fossil fuel generators. In it, the utility pledged to shutter the Lawrence Energy Center by the end of 2023 and add 350 MW of solar power. However, the company filed with the Corporation Commission to instead convert one of the two remaining units at the center to run on natural gas intermittently. It also revealed a plan to invest in 190 MW of solar.

Evergy Spokeswoman Gina Penzig said the company remains committed to the renewable additions it outlined and that the change to 190 MW is a "reflection of challenges with specific near-term solar projects."

More: [Kansas Reflector](#)

LOUISIANA

Entergy Seeking Rate Increase for Repair Costs from Storms



Entergy Louisiana is seeking permission from the Public Service

Commission to charge customers nearly \$2.1 billion to cover the cost of repairing its grid following Hurricanes Laura, Delta, Zeta and the subsequent winter storm in February.

The average residential customer would pay an extra \$5 a month for the next 15 years, Entergy officials said. But it's likely the charges would not take effect until next year as the PSC won't vote on the request for another eight to 10 months. The Bond Commission must vote on whether to issue bonds, a process that could draw out the implementation even longer.

More: [The Advocate](#)

MICHIGAN

State to Have First Electrified Road to Wirelessly Charge EVs



Gov. **Gretchen Whitmer** last week announced that the state will host the Inductive Vehicle Charging Pilot, which would allow an electric vehicle to charge simply by driving on a road and not have

to stop to be plugged in. The state could have the first wireless charging infrastructure on a public road anywhere in the country, although Indiana is preparing to test the same technology.

A one-mile stretch of road somewhere in Wayne, Oakland or Macomb counties will be picked to host the pilot. The Department of Transportation is planning to issue a request for proposal on Sept. 28; however, it is not clear how the technology will work, how soon the project would be operational or how much it might cost.

The Indiana project would use magnetizable concrete to enable wireless charging of EVs, according to a Department of Transportation news release. It said it expected to test the technology on a public roadway within one to two years.

More: [Detroit Free Press](#)

MINNESOTA

University of Minnesota to Phase Out Fossil Fuel Investments

The University of Minnesota last week said it plans to withdraw all of its investments in fossil fuel-related companies over the next five to seven years amid pressure from students who want the school to do more to fight climate change.

University leaders say the school will make no direct investments in carbon 200 companies, nor will it make new private investments in funds that invest heavily in fossil fuel extraction or processing.

Just over 4% of the university's \$1.75 billion central endowment is invested in fossil fuel-related companies, according to a university statement.

More: [Star Tribune](#)

OHIO

Court Approves Construction of Duke Energy's Central Corridor Pipeline

The Supreme Court last week approved the construction of Duke Energy's 14-mile Central Corridor Pipeline.

Duke says the new pipeline is necessary to replace aging infrastructure and will reduce its reliance on gas from stations south of the region. It will also allow Duke to retire peaking plants that supply gas in cold weather.

Residents along on the pipeline's route worry the pipeline will leak or explode, while a Duke consultant said the pipeline will only reduce reliance on one southern station by 5%.

More: [Cincinnati Inquirer](#)

Gov. DeWine's Top Lobbyist Resigns

Dan McCarthy, the legislative director for Gov. Mike DeWine, resigned on Sept. 23.

McCarthy, a top lobbyist who once counted FirstEnergy as a client, was president of a 501 (c)(4) "dark money" group, Partners for Progress, that forwarded \$5 million of utility money to former House Speaker Larry Householder, according to a federal complaint. McCarthy was not charged.

In a deferred prosecution agreement, FirstEnergy agreed to a \$230 million federal fine and admitted that it paid nearly \$61 million in bribes to Householder who in exchange achieved passage of a \$1.1 billion bailout of its two Ohio nuclear reac-

tors. The plants are now owned by Energy Harbor, a company created in federal bankruptcy from former FirstEnergy subsidiary FirstEnergy Solutions.

More: [The Columbus Dispatch](#)

PENNSYLVANIA

State Releases Climate Action Plan

Gov. **Tom Wolf** last week issued a climate plan for 2021 that lays out 18 ways to reduce greenhouse emissions by 25% by 2025 and 80% by 2050, compared to 2005 levels.

The plan notes that the state's average temperature has risen nearly 2 degrees since 1900 — most of it in the last 20 years — and that the future is likely to feature more warmth, flooding and extreme weather unless greenhouse emissions are lowered. The results of warming could lead to an 8% increase in rain and cause more inland flooding, including in the Delaware Estuary coastal zone around Philadelphia.

Among the recommendations for the next five years are updated building codes that focus on energy efficiency and overall improvements in efficiency for commercial, residential and industrial buildings. More solar energy and incentives for farms to increase efficiency are also noted.

More: [The Philadelphia Inquirer](#)

TEXAS

State Asks Court to Block License for Nuclear Waste Site

Gov. **Greg Abbott** and other officials last

week petitioned the 5th U.S. Circuit Court of Appeals to review a Sept. 13 order by the Nuclear Regulatory Commission authorizing Interim Storage Partners to receive and store up to 5,000 metric tons of spent fuel and about 230 metric tons of low-level radioactive waste for 40 years at a planned repository in Andrews.

The petition asks the court to vacate the license by calling it unlawful. It does not detail the state's legal arguments.

More: [Reuters](#)

VIRGINIA

Dominion Energy Accelerates Solar, Storage Buildout Plans



A plan filed by Dominion Energy with the Corporation Commission last

week outlining how it intends to comply with the Virginia Clean Economy Act, which requires the utility to be carbon-free by 2045, calls for an acceleration of the deployment of solar and storage.

Dominion is proposing the development of more than double the storage and solar it submitted to the commission last year. Plans call for more than a gigawatt of new renewable capacity, with 918 MW coming from new solar and 103 MW from new storage.

In addition to outlining yearly targets for the percentage of Dominion's energy port-



folios that must come from renewables, the law requires Dominion to propose 16.1 GW of solar and onshore wind, 5.2 GW of offshore wind and 2.7 GW of storage projects by 2035.

More: [Virginia Mercury](#)

WASHINGTON

Sauk-Suiattle Tribe Sues Seattle City Light Over 'Green' Stance

The Sauk-Suiattle Indian Tribe last week filed a class-action lawsuit against the city of Seattle and Seattle City Light on behalf of its members and the public, claiming the utility's green power claims are misleading and hurting the tribe.

The lawsuit seeks to stop Seattle City Light from claiming it's a fish-friendly, green and environmentally responsible utility until Seattle provides fish passage at its three Skagit River dams. More than 80% of City Light's energy comes from hydropower.

More: [The Associated Press](#)

WISCONSIN

PSC Approves Polk County Solar Facility

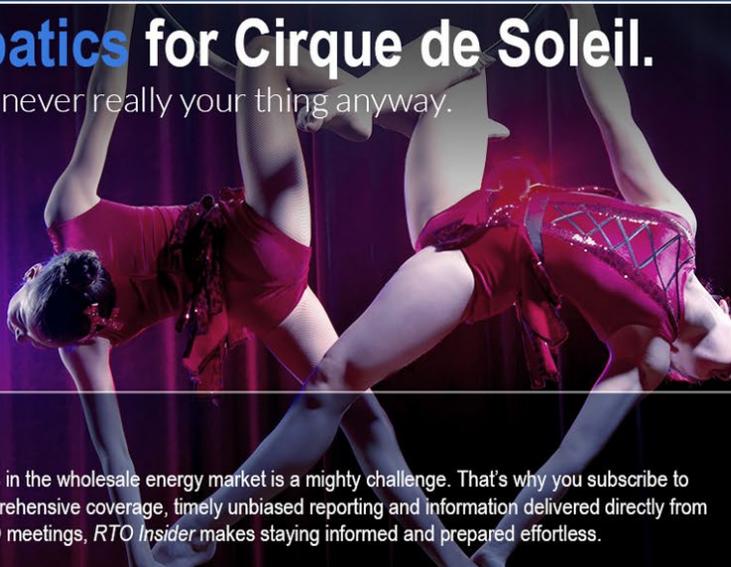
The Public Service Commission last week voted unanimously to issue a construction permit for the 100-MW Apple River Solar Project.

The 700-acre project is the 11th large-scale solar plant the PSC has approved since 2019.

More: [Wisconsin State Journal](#)

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