RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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Texas Supremes Sidestep Ruling on ERCOT Lawsuit Shield

By Tom Kleckner

The Texas Supreme Court on Friday left standing an appellate ruling granting ERCOT sovereign immunity from lawsuits, an issue the courts will likely revisit in suits involving last month's blackouts (*18-0781*).

Five justices on the nine-person court said a lower court's dismissal of a complaint in a case that began five years ago rendered the case moot and that, according to the Texas Constitution, they no longer had jurisdiction to rule in the case. The procedural ruling means that for the time being, ERCOT still enjoys sovereign immunity, as do many governmental agencies.

The Texas House of Representatives is not taking up a bill to reprice billing errors in the ERCOT market. | *Texas Highways*

Panda Power sued ERCOT and three of its officers for fraud, misrepresentation and breach of fiduciary duty in 2016, claiming it was led by the grid operator's demand projections to spend $2.2 billion on three gas-fired power plants that were never needed. ERCOT argued the case should be dismissed because the Public Utility Commission has exclusive jurisdiction

Continued on page 24

FERC Assesses Climate Impact of Gas Project for 1st Time

Danly and Glick Spar During Open Meeting over Decision

By Michael Brooks

In a shift in commission policy, FERC on Thursday for the first time assessed the greenhouse gas emissions of a proposed natural gas infrastructure project and its impact on global climate change (CP20-487).

Chair Richard Glick said he was able to reach a compromise with Commissioners Neil Chatterjee and Allison Clements on the order, which nevertheless approved Berkshire Hathaway Energy's proposal to replace 87.3 miles of facilities on its Northern Natural Gas pipeline, from South Sioux City, Neb., to Sioux Falls, S.D.

The commission found that there would be no downstream emissions from the project, and that the emissions related to its construction did not outweigh its benefits.

The "South Sioux City-to-Sioux Falls A-line Replacement Project will enhance safety, security and operational efficiency of Northern Natural's pipeline system in South Dakota and Nebraska," FERC said in a *statement*.

The decision is a potential landmark in the ongoing battle over whether to consider GHG emissions in its gas certificate orders, which began in May 2018 when the Republican majority, including Chatterjee, said it would no longer consider the indirect impacts of a project. (See *FERC Narrows GHG Review for Gas Pipelines*.) Since then, Glick has continually

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Senate Explores Different Roads to Decarbonize Transportation

Electrification May not be Quickest Way to Reduce Emissions, Experts Say

Toyota's Robert Wimmer talked up the automaker's hydrogen vehicles — including its heavy-duty truck (above) — at the Senate ENR Committee's hearing on transportation technologies March 16. | *Toyota*

By K Kaufmann

Unlike General Motors and other U.S. carmakers, Toyota is not going all in on electric vehicles.

"Maximum GHG reductions can be achieved with consumers having more access to technology, not less," said Robert Wimmer, the company's director of energy and environmental research, speaking before the Senate Energy and Natural Resources Committee

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In this week's issue

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

NetZero Insider is live!

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

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

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

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

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

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

Policy, Planning Needed to Reach Net-zero Grid by 2035

World Puts Gasoline in the Rearview Mirror

Calif. Energy Commission OKs $50M for Truck Charging

Bill Plans Resilience Investing for CT Green Bank

Discontent Mounts over HECO Coal Plant Closure Plans

Minnesota Power IRP Pledges End to Coal by 2035

Gas Industry Brings Fight Against Building Electrification to NC

Nev. Bill Would Tax EV Charging

Bill Would Track Nevada Renewable Trade Flows

Hydrogen Energy Station in NY to Support Grid

NY Green Bank Targets Solar + Storage Market

NY Greenlights 100-MW High Bridge Wind Farm

RI Seeks Munis' Input on Microgrid Funding

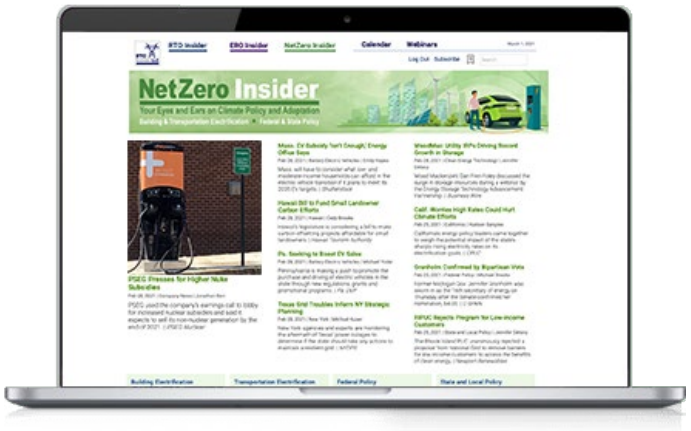
RI Senate Passes Bill with Enforceable Emissions Targets

Virginia Passes EV Rebates Without Funding

House Bill Tackles Both Ends of the Bovine

Wash. PUD Breaks Ground on Hydrogen Plant

Wash. Bill Proposes Mileage Charge for EVs



Counterflow

By Steve Huntoon

The New Technoking and His Bitcoin Crown

By Steve Huntoon

Does anyone need more evidence that things are out of whack (as if GameStop, SPAC and NFT frenzies aren't enough) than that the head of one of the world's most valuable companies has just *declared* himself "Technoking"? Oh, and his son's name is X Æ A-12? And he wants to die on Mars (just not on impact)?

Of course we're talking about Elon Musk, who also fancies himself a great environmentalist.

What to make of Elon directing Tesla's purchase of $1.5 billion of Bitcoin and decreeing it currency for the purchase of Teslas?

Hypocrisy. Bitcoin consumes a staggering amount of electricity. Its current annual consumption is estimated at 132 TWh.[1] The world's banking system electric consumption is estimated at a similar amount of electricity, 140 TWh.[2]

Here's the deal. Bitcoin's aggregate value is about $1 trillion,[3] while the world's banking system represents at least $96 trillion of global money supply.[4] In other words, Bitcoin consumes roughly 100 times as much electricity for an equivalent store of value. Bad news for the planet.

If we do a little more math, it's estimated that Bitcoin currently represents 0.6% of global electricity consumption.[5] Using Bitcoin's aggregate value of about $1 trillion, and assuming it were to replace global money supply of $96 trillion, then global electricity consumption due to Bitcoin alone would be about 60% of all current global electricity consumption.[6]

As Bitcoin's price rises, so does its energy consumption. | *Cambridge Bitcoin Electricity Consumption Index*

Bitcoin Defenders

Let me touch on two claims made by Bitcoin defenders. First, Bitcoin defenders cite the relatively small percentage of Bitcoin electricity consumption relative to current global electricity consumption. That is a fallacious comparison because Bitcoin at present is a relatively small store of value compared to total global money supply. It's like the shipping industry saying that bunker fuel (a.k.a. heavy fuel oil) is a small contributor to global carbon emissions (3%) so the industry should get a pass on its enormous carbon emissions per unit of energy. And Bitcoin electricity consumption is exploding as its value increases.[7]

A second claim is that most Bitcoin electricity consumption is served with renewable generation. This claim doesn't appear to be true, either now or for the future.[8] And even if it were true that would just mean Bitcoin is siphoning off renewable generation that would otherwise displace non-renewable generation.[9]

Bottom Line

Bitcoin is a clear and present danger, directly undermining our efforts to fight climate change.

Maybe Musk is hoping that making Earth hotter will make Mars travel attractive. ■

[1] https://cbeci.org/ (visited March 19, 2021 at 12:15 am EDT); https://www.forbes.com/sites/lawrencewintermeyer/2021/03/10/bitcoins-energy-consumption-is-a-highly-charged-debate--whos-right/?sh=36df78c07e78.

[2] *Id.*

[3] Assuming current Bitcoin value of about $57,000, and total Bitcoins outstanding of about 18,600,000.

[4] https://www.visualcapitalist.com/all-of-the-worlds-money-and-markets-in-one-visualization-2020/. This $96 trillion does not include longer term monetary assets. It also excludes other stores of global wealth like real estate and company stocks, which are not themselves money/near money.

[5] *Forbes* article cited in footnote 1.

[6] The math is $96 trillion divided by $1 trillion times 0.6%.

[7] https://www.cnbc.com/2021/02/05/bitcoin-btc-surge-renews-worries-about-its-massive-carbon-footprint.html#:~:text=Bitcoin's%20energy%20needs%20are%20%22enormously,to%20the%20Cambridge%20researchers'%20estimates.

[8] https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/3rd-global-cryptoasset-benchmarking-study/ (finding that 39% of cryptocurrency consumption is met with renewable sources); https://qz.com/1982209/how-bitcoin-can-become-more-climate-friendly/; https://www.bbc.com/news/technology-56012952.

[9] And a note on one more wrinkle, the mysterious cap on total Bitcoins of 21 million. While this might suggest an ultimate end to Bitcoin mining, the future is clear as mud. For one thing the number of Bitcoins awarded for every "block" of mining is cut in half every 210,000 blocks, so it gets progressively harder to earn Bitcoins. The standard belief is that mining will continue until around 2040 (unless the cap is somehow lifted and mining continues indefinitely) https://www.investopedia.com/tech/what-happens-bitcoin-after-21-million-mined/. And even if no more Bitcoins could be created, and its mining therefore ends, other cryptocurrency mining could continue.

FERC/Federal News

FERC Assesses Climate Impact of Gas Project for 1st Time

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dissented on the commission's approvals of gas projects, arguing that it was ignoring a directive from the D.C. Circuit Court of Appeals.

"Going forward, we are committed to treating greenhouse gas emissions and their contribution to climate change the same as all other environmental impacts we consider," Glick said in a statement. "A proposed pipeline's contribution to climate change is one of its most consequential environmental impacts, and we must consider all evidence in the record — both qualitative and quantitative — to assess the significance of that impact. I look forward to continuing to work with my colleagues as we refine our methods for doing so."

"This order is a great example of a pragmatic compromise, because without compromise like this, needed infrastructure won't get built," Chatterjee said during the commission's open meeting Thursday. "I want to emphasize that our prior orders were legally strong, and today's order doesn't change that. But policy evolves, and I'm always willing to work with my colleagues to move forward."

In an email, Chatterjee declined to elaborate on why he switched his position. He *told* the *Washington Examiner*, however, that he chose to compromise because it enabled the project to move forward.

"This is [President] Biden and Glick's FERC approving a natural gas project," Chatterjee said. "I stand by the approach the commission took under my leadership, but these are necessary projects, and Chairman Glick promised me he was not against all natural gas infrastructure. This shows that. Now we've got him on the record."

Glick told reporters after the meeting that he did not choose Northern Natural in particular to compromise on and that, going forward, the commission would evaluate each project on a case-by-case basis.

Danly vs. Glick

Commissioners James Danly and Mark Christie dissented on the order in part, over the climate analysis.

Danly, the previous chair, in particular delivered a forceful rebuke of the decision and got into a rare, off-the-cuff argument during the meeting with Glick.

"Northern Natural marks a dramatic change, a very drastic departure from the commission's longstanding position that it lacks the tools to assess the significance of GHG emissions in our project certificates," Danly said. "In my view, this order does not meet the bare requirements of the [Administrative Procedure Act] to support the reversal in course with the reasoned decision-making required to justify such a departure from previous issuances," making the order "legally infirm."

He argued that none of the parties in the proceeding were "on notice that such a dramatic change would occur" in "a fairly small, obscure certificate proceeding. Also critically, none of the parties outside of the proceeding could have anticipated that this would be the vehicle for these changes, so they weren't aware of the fact that they would want to intervene to protect their interests."

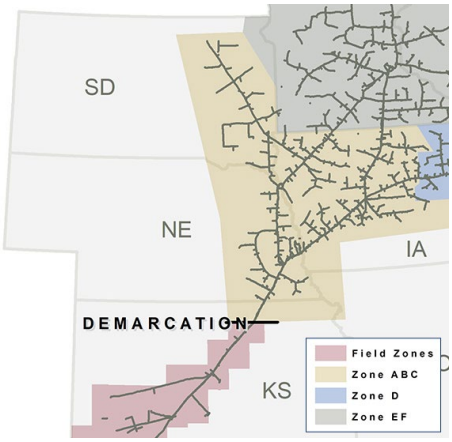
Danly urged that "every single natural gas pipeline company, every LNG company and every shipper should intervene in every single certificate proceeding pending before the commission. All of them. There's no other way, if you don't do that, to ensure your status as a party to the litigation ... if another drastic change of course comes without warning." He said that he would include a list of the proceedings in his dissent and also post it on his *webpage* on the commission's site.

Glick responded by urging "all the other people who have been screwed by the commission ... over the years" to intervene as well. He called Danly's remarks "the height of hypocrisy."

"You were the general counsel, Mr. Danly, when the commission" issued the May 2018 decision, "without any notice, without telling landowners, without telling people who are concerned about climate change, that we were going to change our ... approach to how we handle pipeline proceedings. ...

"We need to hear from" those impacted by the projects too, "not just the voices of those who can afford high-priced D.C. law firms and participate in these proceedings," Glick said.

The chairman also questioned the logic of Danly's argument. "Are we supposed to tell the people at Northern Natural that we're not going to vote on their [proposal] until we go through a generic proceeding? ... I don't think it's right to hold on to these orders and do nothing. If we have the votes to go in a different direction, we should. When you were chair, Commissioner Danly, we were not even allowed to vote on certain orders that you thought were legally infirm, even though there were statutory deadlines for those particular orders."



FERC approved Berkshire Hathaway Energy's proposal to replace 87.3 miles of facilities on its Northern Natural Gas pipeline, from South Sioux City, Neb., to Sioux Falls, S.D. | *Berkshire Hathaway Energy*

Glick was referencing the high number of omitted and struck agenda items from the last open meeting under Danly's brief chairmanship during the last months of the Trump administration. (See *FERC Ends Trump Era with a Busy Agenda*.)

Danly then "amended" his remarks to urge everyone to intervene, saying he highlighted gas companies "because they are probably the ones with, at least in the last couple of issuances, the most at stake." He also acknowledged Glick's criticisms of the May 2018 decision as accurate. "I was, however, as you pointed out, the general counsel; I was not a voting commissioner. So there is a degree to which I think a fair-minded person would acknowledge that though I was part of staff at the time, I was certainly not the one who ultimately voted for any of the orders that were issued back then."

He also noted that he had brought forward numerous orders that he knew were going to be voted down. "In the history of the commission, I think you would be unlikely to find any chairman who was as willing to take his lumps as I was during my brief tenure in advancing the policies in the orders that I thought were legally correct with the very real possibility that I would lose. I think that some credit should be given to me on that." ■

FERC/Federal News

FERC Limits State 'Opt-out' on DR

By Rich Heidorn Jr.

FERC on Thursday reversed its ruling giving state regulators the power to prevent demand response from participating in distributed energy resource aggregations (*RM18-9-002*) and signaled it may eliminate the opt-out requirements of Orders 719 and 719-A (*RM21-14*).

The first order responded to issues raised on a request to rehear Order 2222, which directed RTOs and ISOs to open their markets to DER aggregations (*Order 2222*, *RM18-9*).

The commission's September ruling found existing RTO and ISO rules unjust and unreasonable because of their barriers to broader participation by aggregated DERs in capacity, energy and ancillary service markets. The commission said DERs are generally too small to meet the minimum size requirements to participate in the markets and also may be unable to meet certain qualification and performance requirements because of their operational constraints.

Removing the barriers will improve competition and allow grid operators to avoid the dispatch of more expensive resources to meet system needs, FERC said. DERs can locate where price signals indicate they're most needed, reducing congestion costs, it added.

Orders 719 and 719-A, adopted in 2008, allow "relevant electric retail regulatory authorities" to prevent an aggregator of retail customers' DR from participating in RTO/ISO markets.

Before Order 2222, FERC had not addressed how Order 719's opt-out provision applies to DR resources that participate in RTO/ISO markets through an aggregation that includes resources other than DR.

The order issued Thursday said that the Order 719 opt-out should not apply to heterogeneous DER aggregations but would continue to apply to DER aggregations composed solely of DR.

FERC attorney Karin Herzfeld said aggregations including DR "do not fall squarely" within the Order 719 opt-out because they are not solely aggregations of retail customers.

Extending the opt-out to DR in heterogeneous DER aggregations would undermine Order 2222's potential to eliminate barriers to competition and its commission's goal of ensuring a technology-neutral approach to DER aggregations, she said.

The order said one of the biggest values of DER aggregations is their ability to take ad-

Freedom Solar Power's 214-kW solar array at a car dealership in San Antonio | *Freedom Solar Power*

FERC/Federal News

vantage of the different resources' operational attributes and complementary capabilities. Ensuring that DR can combine with other forms of DERs could increase both the number and the variety of DER aggregations, FERC said.

Chairman Richard Glick and Commissioners Allison Clements and Neil Chatterjee supported the order, while Mark Christie and James Danly were opposed.

Christie said the ruling would impact municipal and public power authorities and electric cooperatives in addition to state regulators. He also predicted it would result in "significant" costs to consumers.

"If I was going to describe this order in one word, I think I would use the Greek word 'hubris,'" Christie said. "It's based on the belief that the members of this commission know better how to manage the complicated issues of timing, grid reliability and the costs of behind-the-meter DER deployment than all the state regulators in all the 50 states."

He said it also reflected the "false belief" that state regulators, co-ops and public power officials are opposed to BTM DER deployments.

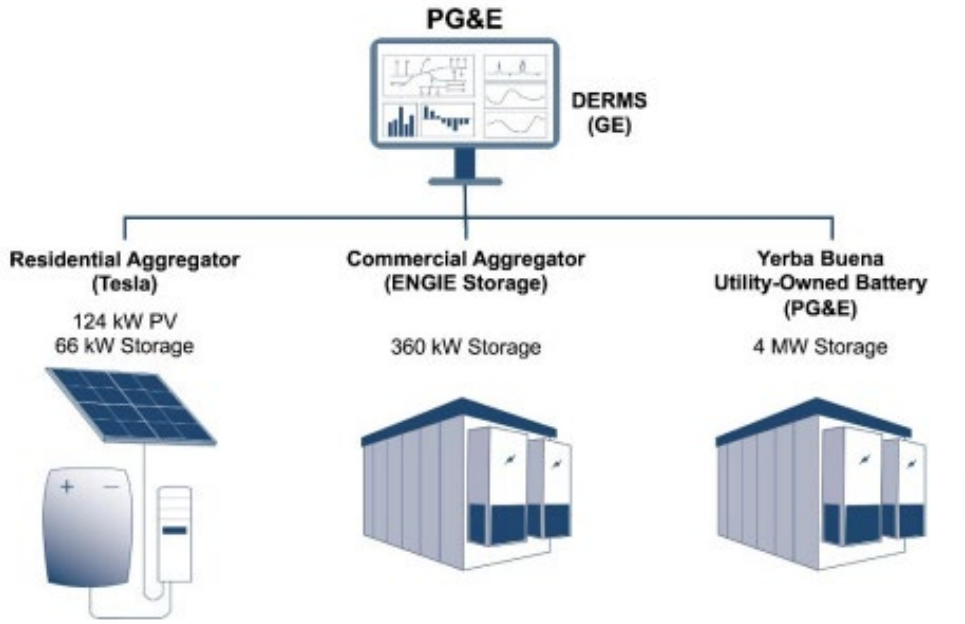
"I know that that's just not true," said Christie, who joined FERC in January after almost 17 years as a Virginia regulator. "States have been dealing with these issues for years and taking the lead in DER deployments. So have the munis; so have the public power authorities; so have the co-ops."

Christie also responded to Chatterjee's insistence that the ruling does not intrude on state authority. "Well, of course it does," Christie said. "That's the whole point of this order."

Glick said he knows some state regulators have been frustrated with FERC's jurisdictional approach in Order 222 and Order 841, which required RTOs to remove barriers to participation by energy storage.

"The states have a legitimate interest in the reliability of their distribution systems, and some are concerned that the participation of BTM resources in wholesale markets will make it more difficult," he said. "In my view, the states still retain important tools such as jurisdiction over DER interconnection and the ability to condition DER participation in retail markets in a manner that ensures DER participation in wholesale markets won't interfere with reliability.

"It's important that FERC work as closely with state [regulatory commissions] as possible as this nation continues to transition to a clean energy future," he added. "The old lines between retail and wholesale have become increasingly blurred with the advent of new technologies and services, and we need to work together to ensure a common goal."



PG&E's DER management system demonstration | *National Renewable Energy Laboratory*

Notice of Inquiry

Separately, the commission also issued a Notice of Inquiry on whether it should reconsider the ability of states to prevent DR from participating in wholesale markets under Order 719. The NOI asks whether the circumstances regarding the DR opt-out have changed since 2008 and about the potential benefits and "resulting burdens" of removing it.

"A lot has changed since that order was first issued, and I think it is prudent for us to reconsider whether the opt-out remains appropriate," Glick said.

Among the changes, FERC staffer Joe Baumann cited improvements in technologies used to aggregate retail customers as well as smart thermostats, "grid interactive" buildings, and smart meters that allow for load to be managed through geographically targeted demand reductions.

At a press conference after the meeting, Glick responded to Chatterjee's suggestion that the commission initiate a Notice of Proposed Rulemaking to consider eliminating the opt-out. "I wasn't comfortable at this point going to that because I'm not entirely convinced at this point that the record is sufficient to make a determination that the opt-out should be eliminated," he said.

The commission said it was not reconsidering the DR opt-in rule for small utilities (those distributing 4 million MWh or less annually). Initial comments will be due 90 days after publication of the order in the *Federal Register*, with reply comments due 30 days after that.

QF Interconnections

The Order 2222 reconsideration also clarified FERC's jurisdictional approach to the interconnections of qualifying facilities (QFs) under the Public Utility Regulatory Policies Act that participate in DER aggregations. The commission said that the presence of DER aggregations is a new circumstance not previously considered in the commission's QF interconnection precedent and that Order 2222 addresses only DER aggregators' participation in RTO/ISO markets, not a DER's direct participation in those markets.

The order clarifies that the interconnections of QFs that participate in RTO/ISO markets exclusively through DER aggregations will be treated the same as the interconnections of non-QF DERs that participate in DER aggregations.

The commission said its approach would avoid a significant increase in the number of distribution-level QF interconnections subject to the commission's jurisdiction, which could burden RTOs and ISOs. ■

FERC/Federal News

Senate Explores Different Roads to Decarbonize Transportation

Electrification May not be Quickest Way to Reduce Emissions, Experts Say

Continued from page 1

on March 16. "Consumer needs vary greatly. Some live in urban areas with short commutes; some need room for families; some live where weather or terrain mandate four-wheel drive. If we tie our horse to a single approach, many consumers will simply opt for an internal combustion engine."

Wimmer was one of five industry and government leaders speaking to the committee on the need to accelerate development of low- and no-carbon transportation technologies, in addition to vehicle electrification. Led by Chair Joe Manchin (D-W.Va.), the hearing sounded a shift in the legislative narrative on clean transportation, from a primary focus on electrification to an all-of-the-above approach to decarbonization.

"Whether electrolyzers that produce hydrogen from water or the batteries that power electric vehicles, we've got to advance the technologies needed for the vehicles of the future and their supply chains," Manchin said in his opening statement.

"I believe that innovation, not regulation, is the best way to improve our country's mobility," said Sen. John Barrasso (R-Wyo.), the committee's ranking member. "We should encourage a variety of technologies that reduce costs for consumers, lower emissions and take advantage of the vast energy and mineral resources that we have in the country."

The hearing's focus on domestic supply chains, manufacturing and jobs also provided potential common ground for future bipartisan legislation. For example, Manchin pointed to his recently introduced American Jobs in Energy Manufacturing Act, which he said would carve out $4 billion "for exclusive use in coal communities, driving jobs into areas that have seen the biggest economic impact of the transition to a cleaner energy future."

Sen. John Barrasso (R-Wyo.) | *U.S. Senate*

Echoing Wimmer, other experts at the hearing said electrification may not be the quickest or most efficient way to reduce emissions for different forms of transportation, especially for heavy-duty equipment used in the industrial and shipping sectors.

The Department of Energy's "sustainable transportation strategy to decarbonize transportation includes all modes: air, sea, rail and road," said Kelly Speakes-Backman, principal deputy assistant secretary for energy efficiency and renewable energy. "It encompasses activities in fuel streams of electrification, hydrogen and fuel cells and biofuels."

Tony Satterthwaite, vice chairman of industrial truck and equipment manufacturer Cummins, said the path to clean transportation "must capture all the benefits from all the technologies, including internal combustion, natural gas and alternate fuels, range-extended electric vehicles, battery electric vehicles and hydrogen fuel cells.

"Hydrogen technologies are particularly ripe for government and industry investment," Satterthwaite said. "It is one of the most effective enabling technologies for broad and deep decarbonization of hard-to-abate sectors like rail."

Wimmer also pitched for hydrogen in light-duty vehicles, talking up the Mirai (Japanese for "future"). Toyota's mid-size hydrogen fuel cell vehicle is currently available in the U.S. but only in California, which has 50 hydrogen refueling stations. About 6,500 Mirais are on the road in the U.S., and 10,000 worldwide, he said.

But the company remains bullish on its hybrids, Wimmer said. With 16 different models, including two plug-in hybrids, the company has 4 million hybrid vehicles on the road in the U.S. and will roll out another plug-in hybrid and two new EVs next year, he said.

"Recent data shows that plug-in hybrids can achieve nearly the same or better GHG reductions than [battery electric vehicles], depending on your daily driving patters," he said.

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

Supply Chains

The supply chain for lithium-ion batteries is one of the thornier issues surrounding EVs. Both Democrats and Republicans at the hearing raised concerns about U.S. dependence on foreign sources for lithium, cobalt and other rare earth minerals, particularly in countries where labor and environmental standards are lower than in the U.S.

Battery recycling could provide a domestic supply chain but is still in the early stages of development in the U.S., said Adam Mueller-weiss, president of the Responsible Battery Coalition and chief sustainability officer for Clarios, a battery manufacturer.

"A very small percentage of lithium-ion batteries are being recycled today. There is a significant amount of diversity [in battery chemistries]; there isn't a one-size-fits-all. That's why it's so important to understand the full life cycle of these materials, from mining to manufacturing to end of life and recycling," Muellerweiss said.

He noted that the Responsible Battery Coalition is working with DOE's Joint Center for Energy Storage Research to create "a platform for the battery industry to assess the full life-cycle attributes of various battery technologies before they go into production. By modeling the complete life cycle in advance, a manufacturer has the opportunity to compare and contrast different battery chemistries," Muellerweiss said.

FERC/Federal News

In addition, he pointed to the DOE's Lithium-Ion Battery Recycling Prize, which is providing grants to industry teams developing new recycling technologies with the goal of profitably recycling 90% of lithium-ion batteries in the U.S.

Janvier Nkurunziza, international trade and commodities analyst for the U.N., argued that beyond developing domestic supply chains, the U.S. should leverage its financial and technological expertise to help new business models take root in emerging economies where rare earth minerals are mined.

"These countries need a win-win, joint venture model based on impact investing," Nkurunziza said. "In this model, investment is judged not only by rate of return but also its impact [on] where it takes place, especially its impact on the environment. The U.S. can be a champion; [it] can go in with a better model, better standards."

The Policy Pitch

While no proposals for specific legislation were discussed at the hearing, some of the expert witnesses offered suggestions.

Muellerweiss closed his testimony by stressing the importance of a life-cycle approach to battery recycling. "Over the next 20 years, more than 2 million metric tons of used lithium-ion batteries for electric vehicles will reach end of life in the U.S. alone. These batteries must be considered a critical resource, not a waste," he said.

Wimmer asked for consumer purchase incentives. "They should be structured to promote all electrified vehicles, and these incentives shouldn't sunset too quickly, or they won't provide the investment certainty manufacturers need," he said. "Similarly robust incentives for infrastructure and fuel production are needed."

Scaling up green hydrogen also means scaling up and cutting the costs of electrolyzers, Satterthwaite said. "We believe tax credits are an effective way to spur demand and investment. The current challenge we see with electrolyzer costs is essentially that [need for] further technology development and increased volume."

The U.S. should consider adopting "significant incentives" like those now moving green hydrogen forward in Europe, he said.

But, like Wimmer, Satterthwaite said U.S. efforts to decarbonize transportation should remain technology neutral. "In our experience, performance-driven standards allow us to reduce emissions today and continue to innovate and improve as infrastructure challenges are addressed," he said.

When technology is pushed into the market before it is ready, Satterthwaite said, costs are higher, reliability and consumer confidence are lower, and consumers keep their older vehicles longer. ■

FERC/Federal News

Battle Lines Drawn over CLEAN Future Act

Democrats and Republicans Find Little Common Ground on Decarbonization Bill

By K Kaufmann

When congressional Democrats first introduced the Climate Leadership and Environmental Action for our Nation's (CLEAN) Future Act in January 2020, it was already a mammoth 622 pages long. But the *updated version of the bill* before the House Energy and Commerce Subcommittee on Environment and Climate Change now weighs in at 981 pages.

The bill sets out a comprehensive roadmap for the U.S. to cut carbon emissions 50% by 2030 and reach net-zero by 2050. A hearing on Thursday — the bill's initial outing since it was formally introduced March 2 — provided a view of the wide gap in policy objectives between Democrats and Republicans on the subcommittee, which will be a challenge to the bipartisan collaboration both sides said they seek. The bill will get a second hearing before the Subcommittee on Energy this Wednesday.

Democrats focused on the bill as a job and innovation generator, with special provisions targeting environmental justice communities and workers and communities that have or could lose jobs as a result of the nation's transition away from fossil fuels.

Rep. Frank Pallone (D-N.J.), chair of the House Energy and Commerce Committee, called out three of the new programs and projects added to the updated bill:

- A green bank-style Clean Energy and Sustainability Accelerator with $100 billion in funding would help states, cities, communities and businesses finance a range of clean technologies, infrastructure and resiliency projects.
- An expanded Buy Clean program for federal procurement would include a new Climate Star program, similar to EPA's EnergyStar program. Climate Star would rate and promote industrial products, such as cement and steel, with low-carbon footprints, particularly for federal procurement.
- An Office of Energy and Economic Transition at the White House would coordinate federal action to support workers and communities affected by the transition. Funding would be available to set up one-stop community organizations to advise and help workers connect with training, counseling and employment opportunities, as well as other "wraparound" services.

Rep. Paul Tonko (D-N.Y.) | *House Energy and Commerce Committee*

Subcommittee Chair Paul Tonko (D-N.Y.) stressed the bill's recognition of regional differences in decarbonization strategies and impacts. "It's not for me or anyone else in Washington to try to dictate these transitions," Tonko said. "It must be a community-driven process, since every affected community will have different needs, different wants and different assets. The CLEAN Future Act provides federal resources and technical assistance to empower local community leaders to manage their own economic transitions."

Rep. David McKinley (R-W.Va.), the subcommittee's ranking member, fired back, saying that decarbonizing the U.S. economy would "destroy our livelihoods, disrupt families, decimate communities, increase utility bills [and] threaten the stability of our grid," without curbing the impacts of climate change.

Rep. Cathy McMorris Rodgers (R-Wash.), ranking member of the committee, raised concerns that a clean energy future based on wind, solar and battery energy storage would leave the U.S. too dependent on Asian supply chains, particularly those from China. She called for a market-based approach "to reduce regulations in order to deploy new, cleaner technologies more quickly and at a lower price. This path rejects one-size-fits-all central planning."

Tackling Industrial Emissions

Other provisions in the bill, such as requiring utilities to join RTOs or ISOs, were not discussed on Thursday. (See *Draft Climate Bill Would Make RTO Membership Mandatory*.) Rather, experts providing input and suggestions at the hearing largely drilled into provisions targeting industrial emissions.

Rebecca Dell, director of industry programs at the ClimateWorks Foundation, underlined the importance and potential impacts of decarbonizing federal procurement through the Buy Clean and Climate Star programs.

"Buy Clean policies require or incentivize the government to buy building materials made with cleaner processes. The environmental stakes are not small," Dell said. Ambitious plans for rebuilding and expanding U.S. infrastructure could generate "an additional 200 million tons of CO2 emissions from making the associated building materials."

"Cement is responsible for the largest share of emissions in public construction, but it only accounts for about 1% of the cost of projects," Dell said. "Because it's such a small portion of the total cost, even if clean cement is more expensive than conventional cement in the near term, it won't significantly change the overall cost of infrastructure."

Industrial emissions currently make up 29% of the country's total carbon emissions but are difficult to decarbonize because of their "tremendous diversity and reliance on a large quantity of energy and heat," said Bob Perciasepe, president of the Center for Climate and Energy Solutions and a former EPA deputy administrator. A number of renewable thermal technologies — such as geothermal, green hy-

FERC/Federal News

drogen and concentrated solar power — could provide lower-carbon alternatives, Perciasepe said, but federal leadership is needed because efforts at the state level have been fragmented.

He sees the Clean Energy and Sustainability Accelerator as "a financial facility that will help accelerate the deployment of those innovations as they occur, getting to that next step of implementation and deployment."

Kevin Sunday, director of governmental affairs for the Pennsylvania Chamber of Business and Industry, provided a counterpoint, stressing the importance of natural gas as an economic engine for his state and the country — and its ongoing role in lowering commercial and industrial carbon emissions.

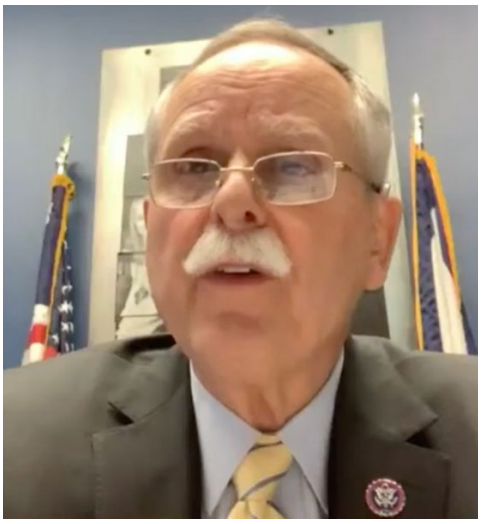
"The United States has lapped the European Union in growth over the past decade and a half, while reducing emissions more, and our energy prices are much lower," Sunday said. "We're seeing natural gas and renewable resources being paired together to develop resilient microgrid projects and critical infrastructure like airports and the Navy Yard in Philadelphia. Combined heat and power projects are helping universities, hospitals, systems manufacturers, and pulp and paper and food product segments manage costs and improve sustainability."

He called for permitting reforms to help drive innovation and infrastructure growth. "It takes entirely too long to build any new infrastructure in this country if that project is touched by the National Environmental Policy Act," Sunday said. "It is imperative we streamline the federal decision-making process."

Jason Walsh, executive director of the Blue-Green Alliance, was focused on provisions in the bill that would help grow U.S. manufacturing, competitiveness and union jobs.

"I want to note, in particular, the act's establishment of an interagency transparency and disclosure program to enhance the quality and availability of data used to calculate emissions of [Buy Clean]-eligible materials and strengthen our understanding of the competitiveness of U.S. manufacturers across industries," Walsh said.

"America's energy transition is well underway, but a transition that is fair for workers and communities isn't something that will happen organically," he said. "We need a broad, holistic, governmentwide response. We should be clear that the best approach to the energy transition among workers and communities and sectors not already impacted is one that prevents economic disruption and employment loss before it happens." ■



Rep. David McKinley (R-W.Va.) | *House Energy and Commerce Committee*

FERC/Federal News

Diversity Panels Focus on Action and Impact in Clean Tech Programs

To be Successful, Diversity Initiatives Must Drive Long-term Cultural Change, Panelists Say

By K Kaufmann

2020 was the year when clean tech, like other business sectors across the country, was put on notice that talking about diversity in the workplace was not enough. The Black Lives Matter movement that erupted in the aftermath of the killing of George Floyd shifted the industry's focus to action and impact, according to speakers at two recent panels on diversity, equity and inclusion (DEI) in renewable energy and clean tech.

For example, at the Atlantic Council's March 8 webinar on bridging the gender gap in clean tech, Jennifer Holmgren, CEO of carbon capture and recycling firm LanzaTech, reported that the company has now reached gender parity in its major science teams and has an employee-driven DEI group.

"They did a questionnaire that was really eye-opening for us on how people felt in the company," Holmgren said. "Nobody ever asks, 'Are you feeling uncomfortable?' Some of these [initiatives] don't happen top down. They bubble up, and people get together and become conscious of the need to act."

At wind developer Siemens Gamesa, Abby Watson leads the company's North American government affairs efforts and was also recently named co-director of a new Diversity, Equity and Inclusion Council. "We're not only looking at our workforce, but we are also looking at our supply chain," Watson said during a DEI-themed session at the American Council on Renewable Energy's Policy Forum on March 10. "We spend a lot of money, and we are looking at how we can spend more of that money with women- and minority-owned businesses."

The session also served as an introduction to some of the first women- and minority-owned companies selected for ACORE's Accelerate program. Launched in December, the initiative provides these organizations a two-year free membership in ACORE, plus other networking and *pro bono* services to help them grow their businesses.

Talking about the new program, Watson said, "Just providing information about opportunities is not enough. There are real barriers that women- and minority-owned businesses face that larger, more established businesses don't, especially when you're looking at becoming a supplier to a large, multinational, publicly traded corporation."

Dana Clare Redden, founder and CEO of commercial and low-income solar developer Solar Stewards, was on both panels. Her company is among the first group selected for the Accelerate program. One of her key issues was ownership.

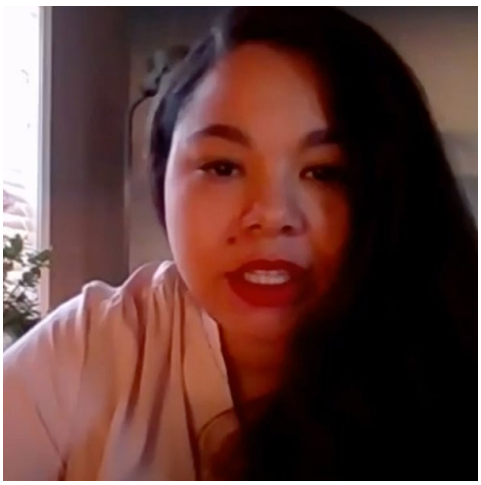
"Participation is great, a great place to start," Redden said at the ACORE session. "But it's really ownership that tips the scales, whether that be through entrepreneurship or even the ownership of those energy assets. To create this diverse workforce, one of the simplest ways is to plan energy assets in Black and brown communities. When we hear about caps on big [solar] deployment, when we hear about barriers to [distributed generation], it really does seem like an equity issue," she said.

Ownership and equity also require access to funding, said Kristal Hansley, founder and CEO of WeSolar, a community solar developer with a focus on developing projects in communities of color. Looking at growing efforts to put electric vehicle chargers in low-income and disadvantaged communities, Hansley said, "We can't even break into that market unless we want to license existing [charging] software. We don't have the capital. If we [get] the funding, we can put IT software folks together and come up with our own charging stations within our community. That's the key part; that is the hardest barrier, and no one ever talks about that."

Holmgren sees similar biases facing women innovators seeking venture capital for startups. "Our culture systemically supports approaches that select women out," she said. "There aren't enough women on the VC side, and therefore they're not investing enough in woman leaders or founders. If you look at the questions that a woman gets asked versus a man there have been studies that show that when the men are asked questions when they're raising cash, people want to talk about promotion, gains; for women, they ask them downside scenarios. So, it's kind of a spiral."

Meat on the Bone

The common thread in both the Atlantic Council and ACORE sessions was that to be successful, DEI initiatives must also drive cultural change inside organizations and at multiple levels. "You've got to make sure that once you have a diverse workforce in the door, they feel comfortable, safe and trusted, and bring their full selves to that mission," Redden said during the Atlantic Council webinar.



Dana Clare Redden, founder and CEO of Solar Stewards | *Atlantic Council*

Emily Reichert, CEO of Greentown Labs, a Massachusetts-based clean tech incubator, agreed, noting that, in her experience, startups with a diverse founding team go "farther faster. I haven't done a scientific study to understand exactly why that is, but I would imagine it is because there are more voices at the table, there are more perspectives being shared."

Watson talked about cultural change on a more pragmatic level, looking at the obstacles women face in training and getting technical jobs in the wind industry. Wind turbine technician is one of the *fastest growing job categories* in the U.S., but working on an offshore project may mean that technicians will spend two weeks or more at sea, living on a "hotel ship," she said.

"That's an opportunity that's going to be really difficult for people to access if they have childcare obligations and elder care obligations," Watson said. "And so, we can not only work with states on funding the workforce piece but also look at the policies that need to be in place that help facilitate workforce participation. We need meat on that bone."

But cultural change also means taking a long view, Holmgren said. "Anything we do in this space needs to be real," she said. "It's not about what you put on your website, or your statistics, or what you're putting out there as goals. It's about really building the infrastructure for the long haul, because all of this takes a really long time." ■

FERC/Federal News

FERC Reverses Ruling on Montana QF

By Rich Heidorn Jr.

FERC on Thursday reversed its September order denying a Montana solar hybrid project certification as a qualifying facility because its capacity was too large.

The Public Utility Regulatory Policies Act (PURPA) limits qualifying facilities to 80 MW. The commission originally found that Broadview Solar's project exceeded the cap despite the 80-MW limitation on its interconnection with the NorthWestern Energy transmission system. (See *Montana Hybrid Ruling Departs from PURPA Precedent*.)

In Thursday's ruling, the commission reinstated its longstanding "send-out" analysis, which determines a facility's power production capacity based on the electricity that it can actually deliver to the interconnecting electric utility (*QF17-454-006*).

Broadview's project includes solar panels with a gross capacity of 160 MW DC and a 50-MW battery. But limitations on the project's inverters allow it to produce and deliver only 80 MW to the interconnection with NorthWestern, FERC said.

"We were applying simple common sense," said FERC Chair Richard Glick, who had dissented on the original order. "It is not fathomable to conclude that Congress would be more concerned about the electricity a project could theoretically generate on its own but not deliver to any customer. Instead, since the statute is all about the sale of a project's output, the appropriate way to look at a facility is to assess how much can actually be sold the purchasing utility."

"This case provided the commission the first occasion to interpret how PURPA's limitation on a facility's 'power production capacity' applies to a facility such as Broadview's, which has a large array of solar PV cells but is physically incapable of producing more than 80 MW of power for delivery to the purchasing utility," FERC said in a press release.

FERC said the prior ruling — by Commissioners Neil Chatterjee, Bernard McNamee and James Danly — erred by departing from PURPA, its own regulations and precedent.

Broadview had contended that FERC's finding in 1981's *Occidental Geothermal, Inc.* that "a facility's power production capacity is not necessarily determined by the nominal rating of even a key component of the facility" backs up its claim that the solar facility falls within the 80-MW limit.

The company also cited FERC's determination in Malacha Power Project, Inc., a 1987 ruling that said that "the electric power production capacity of the facility is the capacity that the electric power production equipment delivers to the point of interconnection with the purchasing utility's transmission system."

"We commend FERC's decision to reverse the September 2020 Broadview order, which upended the 40-year precedent FERC used to measure capacity for PURPA facilities," Gizelle Wray, director of regulatory affairs for the Solar Energy Industries Association, said in a statement. "This is good news for solar plus storage facilities across the United States and will ultimately make sure that independent power producers are fairly evaluated when it comes to calculating their capacity and the value they bring to the grid." ■

| *SEIA*

FERC/Federal News

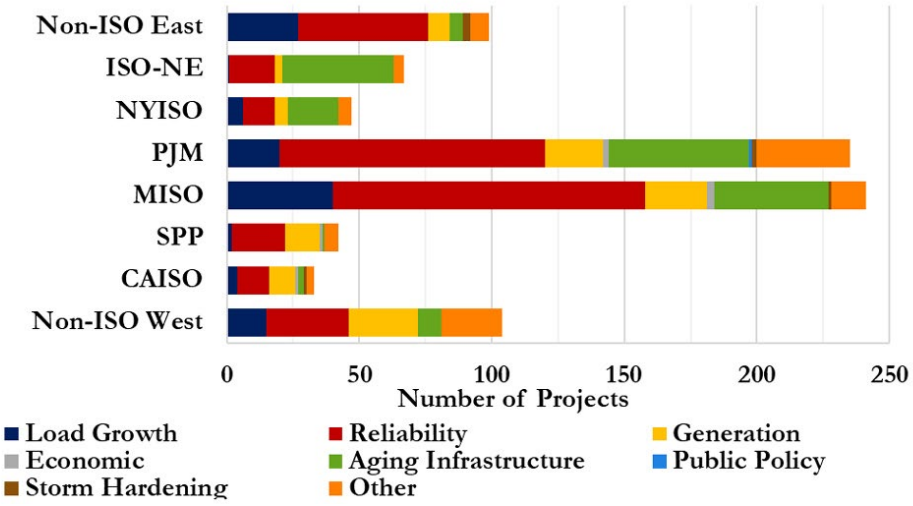
COVID, Storms, Wildfires Roiled Markets in 2020

'Unique and … Challenging Year'

By Rich Heidorn Jr.

The COVID-19 pandemic and record hurricane and wildfire seasons made 2020 "a unique and at times challenging year," FERC said in its State of the Markets *report* Thursday.

Electricity prices dropped for the second consecutive year, with record-low prices in some regions, thanks to the pandemic, low gas prices and a mild 2019/20 winter, the Office of Energy Policy and Innovation's Division of Energy Market Assessments reported.



New Line-related Transmission Projects: Transmission projects with 2020 in-service dates within FERC order 1000 planning regions | *The Three C Group*

Energy Prices

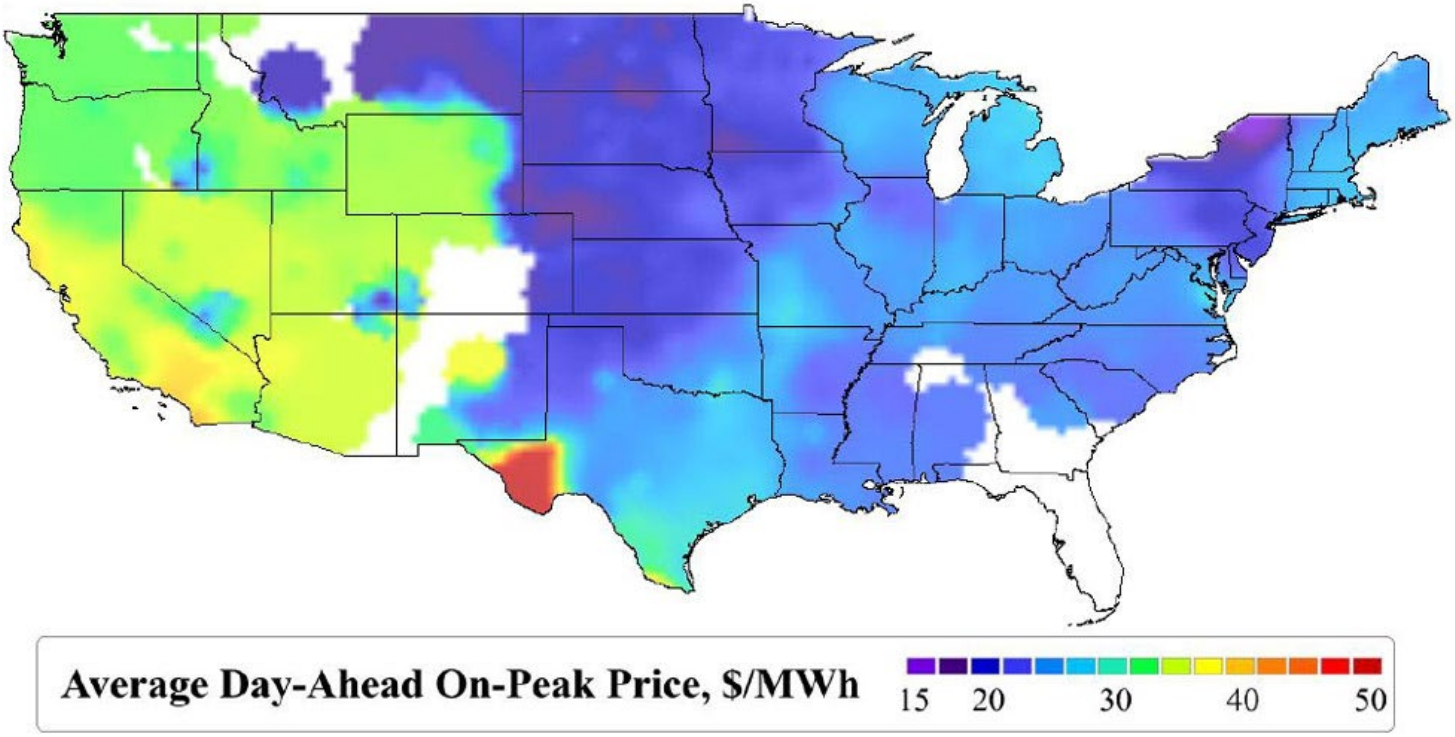
The pandemic reduced average electricity demand by 4 to 10% in commission-jurisdictional ISOs during the spring, and daily load patterns changed as commercial and industrial demand dropped and residential use increased, resulting in a more gradual morning peak than in the past.

Average day-ahead on-peak prices declined in 2020 at all but two nodal pricing hubs, CAISO SP15 and Palo Verde.

The biggest price reduction was in ERCOT, reflecting high prices in the summer of 2019. Large declines were also seen in the Northeast and Mid-Atlantic, with prices in NYISO Zone J (New York City) down 27%.

The drops were bad news for power plant operators. Net revenue — total revenue less short-run marginal cost — for a hypothetical new natural gas combined cycle power plant in PJM was down 23% in the first three quarters of 2020 compared to a year earlier.

But not all regions benefited, as Long Island and the western shore of Chesapeake Bay saw



Annual average day-ahead on-peak price at ISO and Non-ISO pricing nodes in 2020 | *Hitachi Powergrids Velocity Suite*

FERC/Federal News

higher prices than neighboring areas because of transmission congestion. FERC also noted price separation between SPP and MISO along the Kansas and Missouri border, citing "inefficiencies that prevent the economic transfer of energy between regions including insufficient transmission capacity."

Storms, Fires

Stay-at-home orders reduced commuting and contributed to an 8% year-over-year drop in U.S. oil production. (See *World Puts Gasoline in the Rearview Mirror*.) Natural gas production, buoyed by increased liquified natural gas exports and power plant demand, was down only 2%, by comparison.

A severe heat wave led to load shedding in California last summer. The state also experienced five of the 10 largest wildfires on record in 2020. In August and September, CAISO's solar electricity generation dropped by one-third from July as offshore winds pushed wildfire smoke into Southern California.

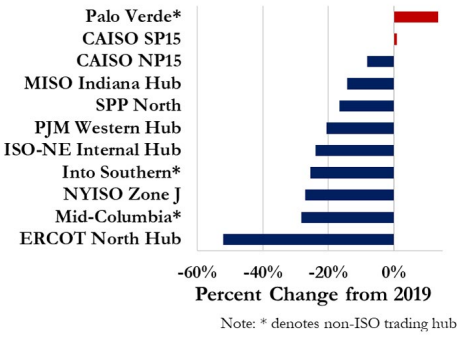
The 2020 Atlantic hurricane season was the most active in history, with 30 named storms. MISO's Gulf Coast was hit with three storms, which caused severe damage to transmission and distribution lines.

Generation Shift Continues

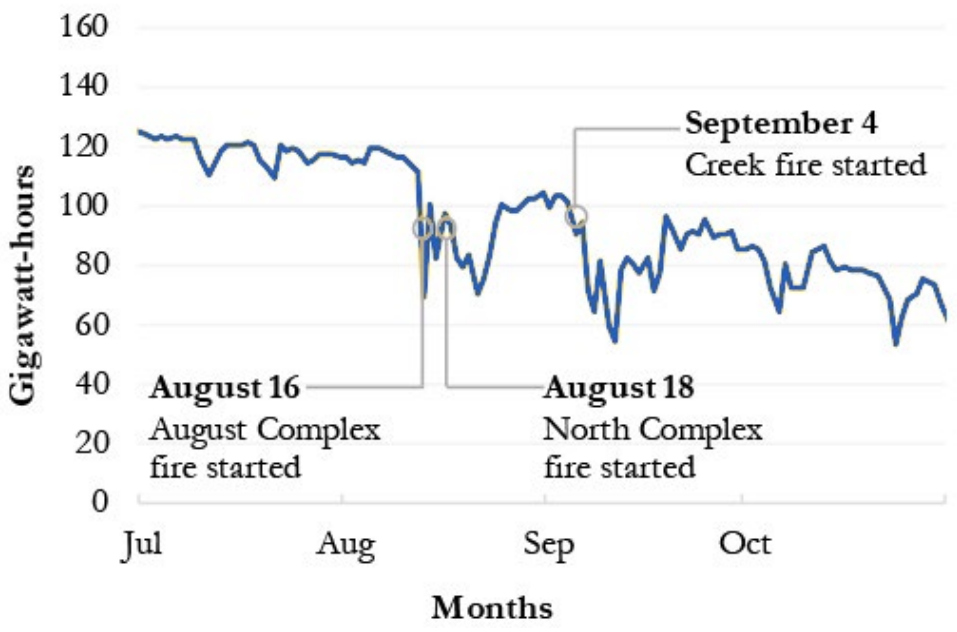
Natural gas and renewable generation resources accounted for most new capacity additions while nuclear and coal generation resources accounted for most retirements.

The continental U.S. added more than 41 GW of new capacity — dominated by 32 GW of renewables (nameplate) and 7.5 GW of natural gas — and retired 14 GW, including 9.6 GW of coal.

Within commission-jurisdictional wholesale markets, MISO led with 5.9 GW of new wind and 2.4 GW of natural gas, while PJM had the most retirements at 2.6 GW, mostly coal.



Change in annual average day-ahead on-peak price from 2019 for select hubs | *S&P Global Market Intelligence*



Daily solar generation in CAISO | *FERC*

NYISO was the only jurisdictional market to see a net decrease in capacity, caused by the April 2020 retirement of the 1-GW Indian Point Unit 2 nuclear plant. SPP added 5.4 GW of wind, and CAISO added 1.9 GW of solar and 1.4 GW of natural gas.

Battery storage additions almost quadrupled last year from 152 MW to 733 MW, including 626 MW in CAISO. By 2023, CAISO projects adding more than 3.6 GW of storage, while ERCOT and NYISO plan to add over 1.2 GW each.

The Energy Information Administration reported that natural gas was responsible for 39% of electricity net generation in the continental U.S. in 2020, up from 36% in 2019. Coal-fired generation dropped to 20% from 24%.

Wind and solar operating capacity shares increased in all jurisdictional markets, with wind boosting shares in SPP and MISO and solar up in CAISO. The combined share of wind and solar rose from 9% to 11%, EIA reported.

Market Developments

There were several noteworthy market developments, with the Western Energy Imbalance Market expanding to 11 members with the addition of Salt River Project and Seattle City Light on April 1. Another five utilities are expected to join or expand their participation in the EIM this year.

SPP's Western Energy Imbalance Service was approved by FERC and began operations on Feb. 1 with participants including Basin Electric Power Cooperative, Municipal Energy Agency of Nebraska, Tri-State Generation and Transmission Association and three Western Area Power Administration marketing regions.

Transmission Additions

FERC said more than 800 line-related transmission projects went into service in commission-jurisdictional transmission planning regions in 2020, citing data from *The C Three Group*. Most additions were in MISO and PJM.

Only four of those projects were selected via competitive bidding processes under Order 1000, and only one of them was completed by a merchant transmission developer, the Harry Allen-Eldorado Desert Link in WestConnect constructed by LS Power.

FERC noted two interregional developments: MISO's approval of an interregional project previously approved by PJM near the Indiana-Michigan border and the announcement by MISO and SPP of a Joint Targeted Interconnection Queue Study to find cost-effective projects along the seam between Nebraska and Kansas in MISO and Iowa and Missouri in SPP. "This study comes after four prior efforts were unable to find projects both regions were willing to pursue," the commission said. ■

FERC/Federal News

Public Skeptical of New FERC Participation Office

By Michael Brooks and Rich Heidorn Jr.

Aggrieved landowners across the country told FERC on Wednesday that they doubted its new Office of Public Participation (OPP) would improve the commission's decision-making over natural gas infrastructure.

Still, many expressed gratitude to the commission for holding its first ever "listening session" and gathering input on the office, created in 1978 under the Public Utility Regulatory Policies Act but only recently given renewed attention by Congress at the end of last year. Under the Energy Act of 2020, FERC has until June 25 to issue a report on the office's status, including its structure and budget. (See *FERC Sets 'Listening Sessions' on New Office*.)

The session — scheduled for an hour-and-a-half Wednesday and focused on landowners and impacted communities — lasted far longer than that, as more than 350 people each spoke for up to three minutes. The vast majority of these were landowners who had fought, many in vain, with gas companies exercising eminent domain to build pipelines, compressor stations and LNG facilities.

Many took the opportunity not to give their advice on OPP, but to criticize the commission for its ineffective public outreach, sounding similar complaints by protesters at commission headquarters over the years. They spoke of only learning about their properties being taken just before construction was to begin; of the commission's poorly designed website and electronic filing process; and of traveling to scoping meetings hundreds of miles away to voice their concerns, only to feel ignored when a project was approved.

Citing these past experiences, speakers said they were deeply mistrustful of the commission, and they doubted a new office could fix that mistrust.

"FERC can never be trusted to make the right decisions based on fact," said one speaker, a resident of Virginia in the path of the Mountain Valley Pipeline. He called OPP a "baby first step" toward improvement, but he ultimately dismissed it as a political stunt meant to stifle public protest.

"The heart of the issue is there is no rational discourse with FERC," said another speaker, a resident of New Jersey that would be impacted by the PennEast Pipeline. He dismissed OPP as "window dressing."

"It will take a lot more than OPP for FERC to regain public trust," another speaker said.

Without establishing trust, said a speaker from Pennsylvania, "OPP is just lipstick on a pig."

Those that did give recommendations for the office shared similar concerns:

- The director of the office should be someone with experience in community organizing and outreach.
- The office should be overseen by an advisory

The under-construction Mountain Valley Pipeline | *Chesapeake Climate Action Network*

FERC/Federal News

board, made up of members both geographically and ethnically diverse and whose directions are legally binding.

- FERC should "completely overhaul" (a phrase used by multiple speakers) its website and make filing comments on a project as easy as sending email.
- OPP should hold far more scoping meetings in a variety of places around the impacted area to allow for more participation.

The session was the first of four FERC had planned. The next day, at the commission's open meeting, Commissioner Allison Clements, whom Chair Richard Glick appointed to oversee the office's institution, announced that staff were working on scheduling a fifth, to be held in the evening, as many speakers also complained about the time it was held (1 p.m. ET). As she did at the opening of the session, Clements asked the public for patience as staff learn as they go.

Clements called the session "a powerful experience" and said she had "already learned a great deal."

"We heard people express anger, frustration, devastation and inequity," she said. "And then we also heard people channel these experiences into productive recommendations for the commission to consider in setting up the office."

Language Barriers

Clements also acknowledged that many complained about the lack of opportunities for Spanish speakers to participate in the session, and that FERC would try to hold a sixth session entirely in Spanish.

But during the second session, held Monday, speakers also urged FERC to translate all documents in the dominant languages of the region where a proposed project would be located. One speaker, representing the Houston-based Bayou City Waterkeeper, said that 140 languages are represented by the residents in the Galveston Bay area, with sizable populaces of Chinese and Vietnamese speakers.

This session ended at the hour-and-a-half mark on the dot, with some speakers able to queue up for a second turn. Though the session was intended to focus on environmental justice and indigenous communities, some speakers merely reiterated landowner concerns while paying lip service to those communities.

Those who did offer substantive comments on indigenous concerns stressed that "consultation is not consent," and that FERC should not conflate the concerns of these communities with those of their tribal governments. They also urged the commission to make an effort to consult with tribes not federally recognized.

FERC Threatens $20M Fine

Several speakers in both sessions urged the commission to simply stop approving gas infrastructure projects — something that would take a highly unlikely act of Congress.

But on Thursday, FERC said it did assess, for the first time, the greenhouse gas emissions of a project and its impact on global climate change, finding it negligible. (See related story, *FERC Assesses Climate Impact of Gas Project for 1st Time*.)

The commission also ordered Energy Transfer Partners and Rover Pipeline to show cause why they should not be fined $20.2 million for misleading the commission regarding Rover's destruction of a historic Ohio property (*IN19-4*).

The order includes a report by FERC's Office of Enforcement alleging that during the application process for a certificate to build Rover's $4.2 billion, 711-mile pipeline, the company misrepresented its intended treatment of a historic house in Dennison, Ohio, known as the Stoneman House.

Staff said Rover purchased the house in May 2015 and demolished it in May 2016 without notifying the commission.

"Rover stated that it was 'committed to a solution that results in no adverse effects' to the Stoneman House, an 1843 farmstead located near Rover's largest proposed compressor station," the commission said. "In truth, the OE staff report alleges Rover was simultaneously planning to purchase the house with the intent to demolish it, if necessary, to complete its pipeline."

The order says that the commission has not adopted or endorsed the staff report. Rover has 30 days to respond.

Separately, FERC ordered Midship Pipeline Co. to resolve restoration issues along the right of way for the Midcontinent Supply Header Interstate Pipeline Project in Oklahoma (*CP17-458, CP19-17*). The commission said landowners have complained of ponding from trench subsidence, erosion, compaction, construction debris on-site, topsoil loss and lack of revegetation. The order said the commission "strongly recommends that Midship engage the commission's dispute resolution service to assist in negotiations between Midship and certain landowners." ■

FERC/Federal News

LIFT Act Could Pour $312B into Infrastructure

Moniz Says US Needs Carbon Capture and Hydrogen, Along with Renewables and EVs

By K Kaufmann

Former Energy Secretary Ernest Moniz came to Monday's House Energy and Commerce Committee hearing on the *Leading Infrastructure for Tomorrow's (LIFT) America Act* with a strong argument for spending billions of dollars on modernizing the nation's electric grid, as proposed in the bill.

Referencing the recent power outages in Texas, Moniz told the committee, "The urgency of upgrading our energy infrastructure in a changing climate is painfully clear. The weather patterns of the past are not adequate to inform those in the future, and this profoundly affects infrastructure planning."

However, Moniz's view of energy infrastructure extended well beyond the electric grid. For example, he pointed to hydrogen as a potentially clean fuel with multiple applications across the U.S. economy, while also noting its synergies with other low-carbon technologies such as carbon capture and sequestration.

"Infrastructure needs for achieving deep decarbonization could lower the overall development costs of hydrogen fuel," he said. "Federal and state governments should work together to incentivize early-mover hydrogen-CO_2 hubs. Congressional action to encourage the purchasing of existing rights of way to allow CO_2 pipelines to co-locate with other infrastructures would be beneficial."

While energy infrastructure comes in for a major portion of the $312 billion in proposed spending in the LIFT Act, the bill also contains billions for expanding broadband and health care infrastructure and updating the nation's 911 systems. Recently introduced by all 32 Democrats on the committee, the bill includes $69 billion for clean energy and energy efficiency and $41 billion for electric vehicle charging infrastructure, Chair Frank Pallone (D-N.J.) said.

Former Energy Sec. Ernest Moniz | *House Committee on Energy & Commerce*

"I don't think there's any better way to stimulate the economy for the future than to modernize our badly aging infrastructure," Pallone said in his opening remarks at Monday's hearing.

The committee's *summary of the bill* provides a further breakdown of the specific energy funding proposed for the 2022-2026 fiscal years, including:

- $3.87 billion for electric grid infrastructure, with a focus on modernization, security, resilience and efficiency;
- $500 million for school energy-efficiency retrofits;
- $1 billion to support solar installations in low-income and disadvantaged communities;
- $3.8 billion to reduce pollution at ports by electrifying port infrastructure;
- $375 million to support the development of alternative-fuel infrastructure and the deployment of alternative-fuel vehicles.

Pallone said he sees the bill as a "beginning" step for bipartisan collaboration, but Rep. Cathy McMorris Rodgers (R-Wash.), the committee's ranking member, saw little common ground. She called the bill a "slush fund for the Green New Deal." A 2017 version of the bill had an $85 billion price tag, versus the more than $300 billion now proposed, she said.

"It's another example of how Speaker [Nancy] Pelosi wants to take us back to the Dark Ages, rolling blackouts, uncertainty as to whether the lights will come on when we turn on a light switch, [and] people having to buy generators to ensure heat in their homes," Rodgers said. "We should be working together, rather than holding these virtual hearings where we're all guilty of just making our own points and not listening."

Streamline, not Shortcut

Moniz was one of four expert witnesses at the hearing. Others included Dr. Tom Frieden, former director of the Centers for Disease Control, speaking on health care infrastructure; Tom Wheeler, former chair of the Federal Communications Commission; and Michael O'Rielly, another former FCC commissioner, both speaking on broadband.

Rep. Cathy McMorris Rodgers, ranking member | *House Committee on Energy & Commerce*

While primarily talking about energy infrastructure, Moniz also stressed the connection and interdependence between the nation's electric and digital infrastructures. Broadband is an integral part of modernizing the grid, he said.

"Smart cities and communities should focus on digital backbone infrastructure, integrated smart electricity and telecommunications systems linked to big data, sensors, real-time modeling and artificial intelligence capabilities," he said. "The integration of IT in the electricity system on both the high-voltage transmission and the distribution system will be extremely important for new services and for resilience and reliability."

Moniz also emphasized the need to streamline, but not shortcut, federal, state and local permitting for infrastructure projects and recommended strengthening the bill's focus on "large-scale carbon management."

"If we're going to make net-zero and eventually net-negative, we will need technologies like carbon dioxide removal from the atmosphere in multiple ways, including terrestrial and mineralization," he said. "We need to have our infrastructure minds focused on these new infrastructures that we will need." ■

CAISO/West News

Calif. Must Triple Capacity to Reach 100% Clean Energy

Study Finds Massive Build-out of Wind, Solar and Storage Required

By Hudson Sangree

California can reach its goals of providing retail customers with 100% clean energy by 2045 but will need to build renewable generation and storage resources at a record pace over the next quarter century to get there, a new report found.

Senate Bill 100, signed by Gov. Jerry Brown in 2018, set the state's clean energy target and required an initial progress *report*, which was released March 15 and presented to the California Energy Commission (CEC) on Wednesday. The 178-page report was the product of a joint effort by the CEC, the California Public Utilities Commission (CPUC) and the California Air Resources Board, with modeling and analysis performed by energy consulting firm E3.

CEC Chair David Hochschild said the analysis made it clear that California can achieve what many had dismissed as unrealistic.

"We're in a moment where what was previously considered mythology — the vision of getting to 100% clean energy — just a couple of years ago … is now law [or a goal] in 17 states, and it's President Biden's energy goal for the United States," Hochschild said. "California can take great credit for being a part of driving that vision forward, and this report will be an important milestone."

Meeting the mandates of SB 100 will require a massive undertaking costing billions of dollars, the analysis determined. The state will need to nearly triple its solar and wind resources along with an eightfold increase in battery storage, it found.

Wind turbines near Rio Vista, Calif. | © *RTO Insider*

The biggest increase must be in utility-scale solar, the report said. The state had 12.5 GW of large solar arrays in 2019 but needs 69.4 GW by 2045. Customer solar such as rooftop arrays will need to increase from the current 8 GW to more than 28 GW in the same time frame, it said.

Battery storage is regarded as key to maintaining the reliability of a grid largely dependent on unpredictable renewable resources. The negligible amount of battery storage now connected to the grid must grow to nearly 50 GW by 2045, the report found. The analysis envisions a relatively small increase in long-duration storage such as pumped hydropower.

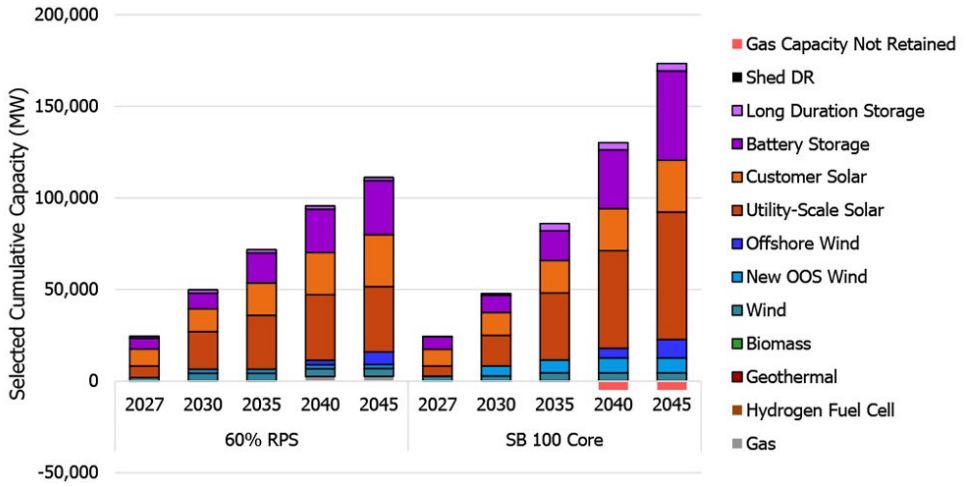
It projects more than doubling onshore wind from 6 GW to 12.6 GW and adding 10 GW of offshore wind, which currently does not exist and will likely prove controversial in California.

The buildout rate dwarfs state efforts so far. "Over the last decade, California has built on average 1 GW of utility solar and 300 MW of wind per year, with a maximum annual build of 2.7 GW of utility-scale solar and 1 GW of wind capacity," the report said. The state may need to add an average of 6 GW of new renewable resources and storage annually to meet its goals.

The effort will add at least $4.5 billion to the annual cost of electricity by 2045, it said.

The cost will be offset by social benefits such as cleaner air and better public health along with thousands of jobs in the manufacturing and installation of wind and solar resources and in the development of new clean energy technologies, the report stated.

"Achieving 100% clean electricity by 2045 is not only a bold pursuit, but a wise one," CPUC President Marybel Batjer said in a statement. "Such action is required to avoid the worst impacts and costs of climate change and to ensure the delivery of safe, affordable, reliable and clean power to all Californians." ■



A graph shows cumulative capacity additions needed to reach California's 100% clean energy goal by 2045. | *California Energy Commission/E3*

CAISO/West News

Newsom's $1.5B ZEV Plan Takes Flak from Democrats

By Hudson Sangree

Fellow Democrats are questioning California Gov. Gavin Newsom's budget proposal to spend $1.5 billion to accelerate the adoption of zero-emissions vehicles (ZEVs) by building charging infrastructure and providing incentives to low-income households and buyers of heavy-duty vehicles.

Newsom's proposal does not renew funding for the state's Clean Vehicle Rebate Program (CVRP), a mainstay of the state's transportation electrification efforts for the last decade. CVRP gives a $2,000 rebate to mid-income residents who buy an EV.

During a State Assembly budget subcommittee hearing on Wednesday, the omission proved controversial — as did what lawmakers called a troubling lack of specificity in the governor's proposal.

Assemblymember Phil Ting (D), chair of the full Budget Committee, said during Wednesday's *hearing* that the governor's plan to spend such a vast sum remains too vague for him to support.

"You're coming forward to this committee for over $1 billion of appropriation, and I'm hearing a lot of very lofty goals but no detailed information," Ting told representatives of the California Energy Commission (CEC) and the California Air Resources Board (CARB), the agencies that would administer programs funded by Newsom's plan. "What are we getting for $1.5 billion?"

Hannon Rasool, deputy director of the CEC's Fuels and Transportation Division, said $300 million would go toward installing 62,000 EV chargers and building 21 hydrogen refueling stations.

But details about how the CEC and CARB intend to spend the other $1.2 billion were less concrete. Sydney Vergis, a CARB division chief, told the subcommittee that funds would be put toward "buckets" of various programs and that, later, a public process would help determine how to spend the money specifically.

Several Democratic members of the subcommittee — Budget Subcommittee 3: Climate Crisis, Resources, Energy and Transportation — said the sketchy outlines from the agencies and governor's office would not justify such large appropriations.

CEC Commissioner Patty Monahan told the subcommittee that the proposed allocations were a statement of the state's larger goals and would put commercial interests at ease about investing in ZEVs.

"This big investment now shows the world that we're committed," Monahan said. She agreed with Ting, however, that a "cash-on-the-hood" rebate program was the best way of getting residents to buy electric vehicles.

Ting questioned eliminating the CVRP incentives. He said it did not make sense to build so much infrastructure without enough EVs to use it. The state is far behind its target, ordered by former Gov. Jerry Brown in 2018, of putting 5 million ZEVs on the road by 2030, he noted.

Democrats Among Critics

Building on Brown's order, Newsom in September ordered that all new passenger vehicles sold in California must be ZEVs by 2035. (See *Can California Meet Its EV Mandates?*)

Newsom's budget proposal is meant to bolster that effort. His proposed *budget* for fiscal year 2022, released in January, would allocate $1 billion to ZEV infrastructure, including charging and fueling stations for battery-powered EVs and hydrogen fuel cell electric vehicles (FCEVs). (See *Calif. Governor Proposes $1.5 Billion for ZEVs*.)

The spending plan calls for securitizing revenues from vehicle registration fees to support the expansion of the CEC's Clean Transportation Program. A portion of the proceeds would fund loans "to leverage additional private sector capital to build the necessary infrastructure," the governor's office said in its summary of the plan.

Another provision would allocate $465 million in one-time cap-and-trade funds for incentives, rebates and financial assistance "to improve access to new and used zero-emission vehicles," including $315 million for heavy-duty vehicle adopters and $150 million for low-income programs, it said.

The plan would put $50 million toward the installation of ZEV charging stations at state-owned facilities.

Those now questioning the proposal include Democrats representing liberal, affluent districts where EV adoption is widespread.

Subcommittee Chair Richard Bloom, whose district includes Malibu and Beverly Hills, and Assemblymember Laura Friedman, who represents Glendale and Burbank, said they too wanted to see more specifics from Newsom, the CEC and CARB.

"One of the things that we're suffering from here today, if it hasn't been evident, is a lack of analysis showing that the proposals that are being made support the goals that we all share," Bloom said. "More information demonstrating that would be very, very welcome as we continue to analyze the budget proposals that are made by your agencies."

Friedman said the low-income components needed more work.

"I think this program has to have extremely strong oversight and metrics and guardrails, because it's a lot of money that will be put up," Friedman said. "Great intentions, but it would be awful to see later that the money was spent and it's not helping the communities that it's intended to help."

Ting authored a 2018 measure, Assembly Bill 2127, that requires the CEC to assess the EV charging infrastructure needed to reach the state's ZEV goal and reduce greenhouse gas emissions to 40% below 1990 levels by 2030.

"I am a big fan of the idea that we need to do upfront investments," Ting said. "The time is definitely now to be investing in this infrastructure. However, I'm not clear what we're investing in, and it's not clear what we are spending this money on, so if we don't know what we're getting for a billion dollars … I don't know we could approve that."

In a Jan. 11 *hearing* of the full Budget Committee, Assemblymember Jim Wood (D) asked whether it was appropriate for the governor to propose spending $1.5 billion on ZEVs but far less on helping small businesses recover from the economic damage of the pandemic.

Priorities need to be targeted, and addressing the pandemic is paramount, Wood said. That includes reopening schools and businesses and putting people back to work.

"I think my environmental record is pretty strong in this building," he said. "I own an electric car. I love my electric car. [But] we have $1.5 billion in the budget for electric car infrastructure and incentives. We have $575 million going to small businesses. I wonder, is that the right number?"

The state's 4 million small businesses are an economic driver for the state, and the workers they employ will be among the residents purchasing ZEVs, Wood said.

"Those are the people," he said, "that are going to buy the electric cars, that are going to use that [charging] infrastructure." ■

CAISO/West News

FERC OKs NextEra Purchase of GridLiance

By Hudson Sangree

FERC on Thursday conditionally approved NextEra Energy Transmission's $660 million purchase of GridLiance transmission operations in MISO, SPP and CAISO, saying it would not harm competition or increase rates for customers (*EC21-10*).

NEET announced in September it would buy GridLiance West, GridLiance High Plains and GridLiance Heartland from a subsidiary of Blackstone Energy Partners. (See *NextEra Buying GridLiance for $660M*.)

FERC concluded the transaction would not harm horizontal competition because it "does not involve the change in ownership or control of any generating assets or capacity" or vertical competition even though the "proposed transaction involves the upstream change in control over transmission and related assets.

"However, there is no change in control over electric products or inputs to electric products," FERC said. "NEET and its subsidiaries do not currently have any jurisdictional transmission facilities in MISO and SPP. NEET's subsidiaries do have jurisdictional transmission facilities in CAISO, and they are under CAISO's operational control and subject to CAISO's OATT [Open Access Transmission Tariff]."

Rates would increase for some transmission customers after the sale, but NEET would mitigate the increase by "creating an offsetting rate reduction in the formula rates during the first five years after the proposed transaction closes," FERC said. "Specifically, applicants propose that NEET will push down a portion of the tax amortization from goodwill created by the proposed transaction at the holding company level in an amount sufficient to reduce the income tax allowance of GridLiance West and GridLiance HP and fully offset the rate increase associated with the reversal of the ADIT [Accumulated Deferred Income Taxes] balances."

FERC said it had faith that NEET's proposal would avoid rate increases over the ADIT calculations.

In addition, FERC noted, "applicants also commit to hold transmission and wholesale customers harmless from the transaction and transition costs associated with the proposed transaction in excess of transaction savings for five years."

Ameren, a utility that serves 2.4 million customers in Illinois and Missouri, expressed concerns that its customers would bear the costs of NEET's acquisition of GridLiance Heartland, but the commission said NEET's cost mitigation measures and commitment to hold customers harmless would prevent that outcome.

FERC, however, found that NEET's explanation of how the deal "will not result in the cross-subsidization of a non-utility associate company" insufficient and ordered it to file additional information within 60 days.

Launched in 2014, GridLiance markets its expertise in planning, engineering, construction and operations to small transmission owners, including electric cooperatives and public power. Backed by Blackstone Energy Partners, an affiliate of *The Blackstone Group*, it also offers its "partners" a source of capital investment for transmission projects.

Among other ventures, the independent transmission company owns 700 miles of high-voltage lines in Illinois, Kansas, Kentucky, Missouri, Nevada and Oklahoma.

NEET develops, owns and operates transmission facilities across the U.S. and Canada. It has operating assets in California, New Hampshire and Texas, including Lone Star Transmission in Central Texas (330 miles of double-circuit 345-kV line and six substations). For Florida-based NextEra, the acquisition will give it a bigger foothold in the Midwest after failing in its 2016 bid for Texas' Oncor.

NextEra's subsidiaries own or operate merchant generating facilities in 37 states and Canada with a combined net generating capacity of approximately 24,000 MW. NextEra also owns Florida Power & Light and Gulf Power, public utilities that serve wholesale and retail electric customers in Florida. ■

GridLiance's Sloan Canyon Switching Station near Hoover Dam in Nevada | *GridLiance*

ERCOT News

D'Andrea Resigns from Texas Commission

Announcement Follows Leaked Phone Call with Wall Street Investors

By Tom Kleckner

Arthur D'Andrea, Texas' last remaining utility regulator, resigned March 16 at Gov. Greg Abbott's request, 13 days after he was appointed chairman of the Public Utility Commission.

D'Andrea submitted his resignation shortly after Texas Monthly published an *article* based on a recording of a March 9 phone conversation between the commissioner and financial investors.

In the call, which was closed to the public and media and coordinated by BofA Securities, D'Andrea discussed whether the PUC would reprice what was then $16 billion of market transactions. He also talked about his efforts to give the market "some calming force."

"We knew at the time we were making a bit of a financial mess, and now we're doing our best to clean it up," he said at the beginning of the call.

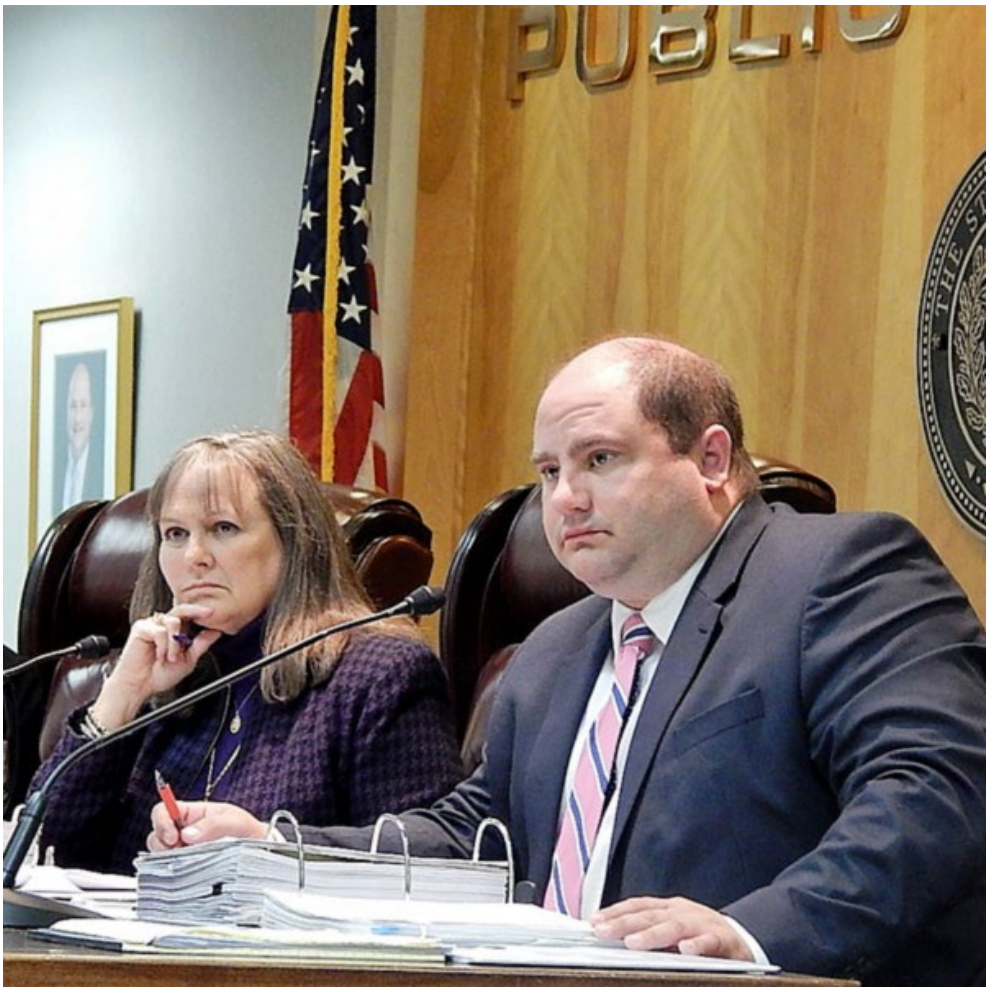
During a March 5 PUC open meeting, D'Andrea and Commissioner Shelly Botkin had declined to reprice the market as ERCOT's Independent Market Monitor recommended. The Monitor said the grid operator's decision to extend $9,000/MWh scarcity pricing Feb. 18-19, after the grid had stabilized following a near-collapse, was a billing error. (See *Texas PUC Won't Reprice $16B Error*.)

Botkin resigned on March 8 following that meeting.

"It's become a political issue here in the state," D'Andrea said on the recording. "There are some very important people who do not want to reprice, full stop. There are also some very important people who want to reprice. We are still sorting that out. The best I can do is put the weight of the commission in favor of not repricing."

D'Andrea apologized for the "instability" and then said the "good news" is that the repricing issue couldn't last past last week, a reference to ERCOT's 30-day internal deadline to correct market prices.

The PUC told the magazine that the call was part of regularly scheduled discussions between commissioners and investors and that it had been rescheduled by the February storm. D'Andrea did not share confidential information or say anything he hasn't already said in public, the commission said.



Former Texas PUC Chairs DeAnn Walker and Arthur D'Andrea during a 2018 Public Utility Commission workshop | © *RTO Insider*

Abbott, who appointed D'Andrea chairman on March 3 shortly after DeAnn Walker's resignation, said he will name a replacement "in the coming days" who will chart "a new and fresh course for the agency." D'Andrea's resignation is effective immediately upon a successor's appointment.

"Texans deserve to have trust and confidence in the Public Utility Commission, and this action is one of many steps that will be taken to achieve that goal," Abbott said.

The governor had defended D'Andrea on March 12 against Lt. Gov. Dan Patrick's call for his resignation over his refusal to reprice the market transactions, which the IMM has since reduced to $4.2 billion, in addition to $900 million in incorrectly awarded ancillary services. (See *Abbott Rejects Call to Fire D'Andrea*.)

D'Andrea said he was in a very comfortable position as a commission of one.

"I went from being on a very hot seat to having one of the safest jobs in Texas. I think it's just going to be me for a while," he said on the tape, expressing his belief that Abbott would wait until after the legislative session ends May 31 to appoint new commissioners.

"I think they probably enjoy having just one person up there because they can secure promises from me and I can't just say, 'Oh, well, my fellow commissioners wouldn't go along.' It's easier for everyone, actually, much as I miss my colleagues. At a time like this, when I'm communicating all the time with the legislature, it's easier to just be going through one person."

Abbott appointed D'Andrea to the commission

ERCOT News

in 2017.

The PUC's open meeting scheduled for Thursday was canceled.

D'Andrea, Bivens Stick to Their Positions

Earlier March 16, D'Andrea spent about 10 minutes before the Texas House's State Affairs Committee. He reiterated his opposition to retroactively repricing the market, saying market rules explicitly allow price corrections only in the case of an input error or system malfunction.

"The rules are pretty clear it's got to be ERCOT fat-fingering, and that's not what happened here," D'Andrea told the panel. "The people who thought they were going to win but are now going to lose, they are going to sue. We will have lost for a second time, and we'll still have this mess."

IMM Director Carrie Bivens also testified before the committee, standing by her position that the Monitor made the right call in saying ERCOT made a "pricing error" in extending the $9,000/MWh scarcity prices for 32 hours after the grid had stabilized.

"I don't want to act as if it's an easy decision. On [Feb. 18], it was easy to say this isn't how we think things should be priced," she said. "It still seems a clear choice now, standing here in late March. It's more complex because the derivatives market has been settled based on this market. We recognize there are large costs on both sides of making this change. We still fall on the side that it's the best thing to do, but we want to acknowledge there are good arguments, and reasonable people can disagree."

Bivens stuck to her guns under further questioning by committee Chair Chris Paddie (R), who posited that ERCOT's decision to extend scarcity pricing, at a time when load was no longer being shed and reserve supplies were beginning to accumulate, was made for reliability purposes.

"I absolutely understand that they had a reliability goal, that they were trying to accomplish that with this pricing intervention," Bivens said, arguing ERCOT's decision wasn't in compliance with the PUC's emergency order that put the scarcity prices in place.

"It was at odds with an efficient market, supplementing judgment with the normal supply and demand and making that order last longer than it should have lasted," she said.

Paddie asked about generators that did everything right by winterizing and hedging their positions. "Is it possible someone will now be asked to give us money out of their pocket and give it to someone who didn't do things as well?"

"That money should not have been put in their pocket in the first place," Bivens responded.

Rep. Richard Peña Raymond (D) expressed frustration with the $46 billion in market transactions that occurred during the winter storm, almost five times ERCOT's normal annual market activity. Repricing $16 billion of transactions still left $30 billion to energy providers.

"We're not even disputing the $30 billion. We're saying, 'Hey, the $30 billion, you're going to get that,'" Raymond said, his voice rising.

Rep. Richard Peña Raymond questions IMM Director Carrie Bivens during a hearing before the House State Affairs Committee. | *Texas House*

"Little folks get hit all the time. They're going to get hit with a $30 billion bill, and we're not talking about doing anything about that at all."

Asked by Rep. Todd Hunter (R) who would benefit from repricing the market, Bivens said she is a wholesale market expert, not a retail market expert.

"Time will tell," she said. "We don't know how those dollars will end up."

ICE: Repricing 'Detrimental' to Texas

Chris Edmonds, global head of clearing and risk at Intercontinental Exchange (ICE), gave the Texas House some ammunition in its battle with the Senate over whether to reprice the market.

Testifying before the State Affairs Committee on March 16, Edmonds said statements that ICE would reprice its ERCOT market derivatives if the grid operator did the same are "simply inaccurate."

"The events around [the storm] are not clerical errors or billing mistakes or market mistakes," he told the committee in his opening remarks. "The market reacted exactly as expected. Retroactively modifying the prices is not the way to resolve the issue from February … and will lead to far great macroeconomic pain for a larger group of Texans and market participants."

Edmonds said repricing the market would "erode" confidence in "future markets related to Texas" and "produce detrimental consequences for economic activity within the state.

"Any such decision through this political process will forever define the 'open for business' culture that Texas has worked diligently for decades to create," he said.

The Senate on March 15 proposed legislation that would have required the PUC to order ERCOT to reprice the market transactions in question by March 20. Patrick, who presides over the Senate, then asked the House to follow suit. (See *Texas Senate Passes Bill to Reprice ERCOT Feb. Sales*.)

However, the House has focused on reforms to protect consumers, restructure ERCOT, securitize distressed utilities, build infrastructure and improve the energy market's resilience.

"Testimony today demonstrated the complexity of the financial elements of resettlement," House Speaker Dade Phelan said in a *tweet*. "Repricing based on disagreement with PUC and ERCOT's management decisions is an extraordinary government intervention in the free market." ■

ERCOT News

Texas Supremes Sidestep Ruling on ERCOT Lawsuit Shield

Continued from page 1

over Panda's claims.

A trial court ruled in Panda's favor, but ERCOT appealed and the 5th Court of Appeals in Dallas ruled that the grid operator is not a governmental unit but was entitled to sovereign immunity. The appeals court ordered the trial court to dismiss the lawsuit. Panda then appealed to the Supreme Court, leading to the decision Friday.

"Because the trial court's interlocutory order merged into the final judgment and no longer exists, we cannot grant the relief the parties seek," the majority said. "As a result, any decision we might render would constitute an impermissible advisory opinion, and these consolidated causes are moot."

Chief Justice Nathan Hecht was among four who dissented from the ruling, saying the majority's procedural ruling was incorrect.

"The immunity issue has been important to [Panda and ERCOT] since the case was first filed in the trial court more than five years ago. Now it happens that the public stakes are high too," Hecht *wrote*. "After Winter Storm Uri last month, the public also wants to know whether ERCOT can be sued. Will ERCOT be immune to claims against it for failing to prevent the power outages across Texas that not only crippled millions of users but resulted in water outages that were at least as bad, if not worse?

Lt. Gov. Dan Patrick during a legislative hearing on the Texas blackouts | *Texas State Senate*

… The parties want to know. The public wants to know. The court refuses to answer. The court can resolve the parties' dispute, but instead it chooses delay and wasting more of the parties' and judicial system's time and resources."

The Panda case now returns to the appeals court.

ERCOT, which has said it needs immunity from lawsuits because it is funded by generators' transaction fees, welcomed the ruling.

In an emailed statement, spokesperson Leslie Sopko said, "ERCOT looks forward to presenting these arguments in the court again once the pending case in the Dallas Court of Appeals has concluded."

February's outages prompted lawsuits by individuals, counties and ERCOT market participants against the grid operator, PUC and other market participants. (See "ERCOT, MPs Hit with Lawsuits," *Texas PUC Turns Focus to Customer Bills*.)

The winter storm and the ensuing dayslong blackouts have been blamed for at least *57 deaths*.

House Ignores Senate Repricing Bill

The Texas House State Affairs Committee last week voted out six bills related to the February blackouts, but it declined to take up a bill, rushed through the Senate on March 15, that would reprice billions in market transactions piled up during 32 hours of scarcity pricing after the grid was stabilized last month.

During a *press conference* following the committee votes, Lt. Gov. Dan Patrick, who presides over the Texas Senate, cited a nonbinding *legal opinion* from Attorney General Ken Paxton in making his case that the PUC has the authority to retroactively reset prices.

Patrick called on Gov. Greg Abbott to use his emergency powers to force the PUC the reprice the market transactions, which amount to $5.1 billion. Commission Chair Arthur D'Andrea, who resigned last week but retains his position until a successor is named, has steadfastly refused to order the ERCOT market be repriced. (See *D'Andrea Resigns from Texas Commission*.)

"Under an emergency declaration the governor has extraordinary power. He is the commander-in-chief. He is the ruler of all of the agencies," Patrick said. "He can make this corrective action if he so chooses."

Paxton's opinion said that a court would likely find such an action legal if it "furthers a compelling public interest."

"Such authority likely could be interpreted to allow the [PUC] to order ERCOT to correct prices for wholesale electricity and ancillary services during a specific timeframe," Paxton wrote.

The six bills passed on by the House committee included:

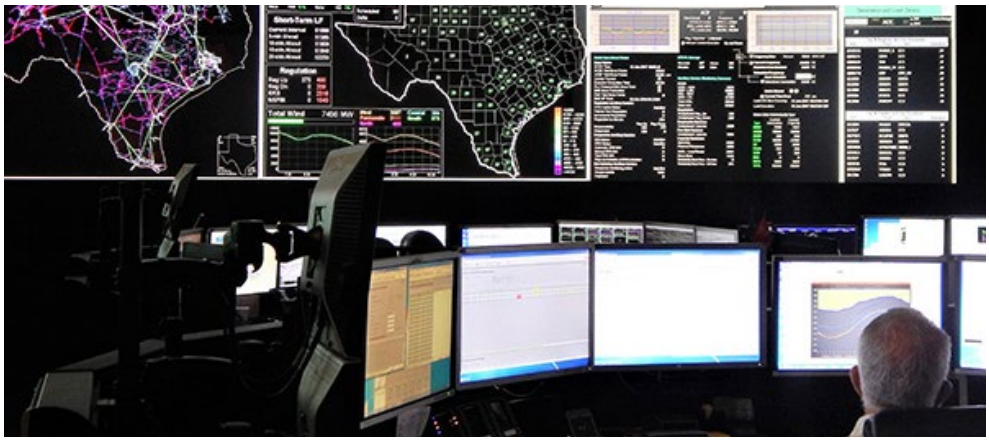
- *HB10*: replaces five unaffiliated directors on the ERCOT board with three members, including one representing residential consumers, appointed by the governor, and one each appointed by the lieutenant governor and the speaker of the house.
- *HB11*: defines "extreme weather emergency" and requires the PUC to order each generator in the ERCOT market to implement measures to prepare for such events by Nov. 1 and to restore service as soon as possible following an event.
- *HB12*: orders a study on a statewide disaster alert system similar to the state's Amber Alert system.
- *HB13*: establishes the Texas Energy Disaster Reliability Council — comprising ERCOT, PUC, Railroad Commission and Texas Division of Emergency Management personnel — to prevent extended power outages caused by a disaster and coordinate other activities during the disaster.
- *HB16*: prohibits the sale of wholesale-indexed retail electric products, such as those once offered by now-bankrupt Griddy Energy, whose customers received bills of $5,000 or more in February.
- *HB17*: prevents any Texas regulatory authority, planning authority or political subdivision from adopting or enforcing measures that prohibit utility connections based on energy sources. *According* to the Natural Resources Defense Council, Texas is among at least 15 states that are considering "pre-emption" legislation, including Arkansas, Colorado, Florida, Georgia, Indiana, Iowa, Kansas, Kentucky, Mississippi, Missouri, North Carolina, Ohio, Pennsylvania and Utah.

Committee Chair Chris Paddie said the bills are essentially shells, leaving room for revisions as they move through the legislative process. ■

ERCOT News

Software Error Could Mean ERCOT Price Revisions

By Tom Kleckner



ERCOT operators manage the grid during calmer times. | © RTO Insider

ERCOT said Wednesday it will seek board approval for a potential price correction needed because of software errors that occurred on Feb. 15 when the grid operator shed 20 GW of load after losing half its generation at the height of a winter storm.

The grid operator said in a *market notice* that an initial staff analysis determined that the errors affected dispatch instructions for 79 intervals between 9:45 a.m. and 10:35 p.m. that day. Correcting the pricing errors would increase prices by 1 cent/MWh to $1,241.68/MWh, with an average increase of $58.36/MWh.

ERCOT said it also reviewed whether the programming error affected prices for the Feb. 16-17 operating days. However, it found that market prices for those days were already subject to the Public Utility Commission's order that implemented $9,000/MWh scarcity pricing and were not affected.

The grid operator's protocols allow it to take the price-correction request to its Board of Directors for approval. The board is scheduled to meet on April 13.

An ERCOT spokesperson said the Technical Advisory Committee will discuss the issue during its *meeting* on March 24.

Staff found that ERCOT's market management system software contained programming errors that resulted in the use of an incorrect megawatt amount for the estimated deployed emergency response service (ERS) component of Security Constrained Economic Dispatch's (SCED) real-time online reliability deployment price adder on Feb. 15. ERCOT was at its highest energy emergency alert that day and deployed all ERS resources. Those resources remained deployed during the EEA until their deployment obligations were exhausted.

ERCOT said that while it was able to determine accurate prices for the affected SCED intervals, it is still developing software fixes to address the noted issues.

The market notice attracted attention from some in the Texas media, given the current controversy over whether to reprice $16 billion of market transactions on Feb. 18-19. (See *Texas Senate Passes Bill to Reprice ERCOT Feb. Sales*.)

However, price corrections because of software input errors are not uncommon. Last October, the board approved price corrections for 25 operating days as a result of two unrelated events. (See "Board Approves 2 Sets of Price Corrections," *ERCOT Board of Directors Briefs: Oct. 13, 2020*.)

ERCOT stakeholders subsequently approved a nodal protocol revision request (*NPRR1024*) that isn't expected to go into effect until April 1. The measure requires ERCOT to seek board review of real-time prices if, within 30 days of the affected operating day, staff determines correcting an error would result in "an absolute value impact to any single counterparty" based on certain metrics.

The grid operator also *alerted* market participants that it has posted an application for gas facilities that provide fuel to generators so they can request designation as a "critical load-serving electric generation and cogeneration."

Almost half of ERCOT's natural gas-fired generation was lost during the winter weather because *power was cut to gas infrastructure* not listed as critical load. ■

ISO-NE News

ISO-NE Planning Advisory Committee Briefs

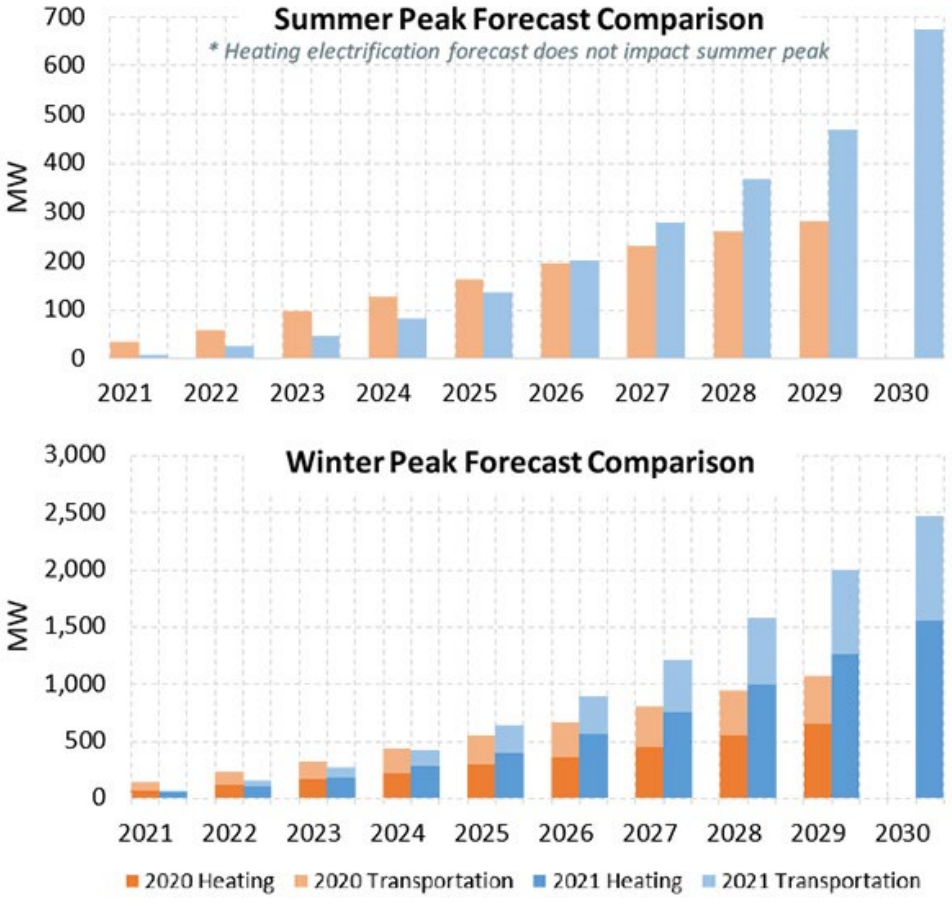
Update on 2021 CELT Forecast

The 2021 capacity, energy, loads and transmission (CELT) forecast will have a reconstituted methodology for passive demand resources (PDRs), ISO-NE's Jon Black and Victoria Rojo told the Planning Advisory Committee Wednesday in "*a high-level update.*"

In October, FERC accepted tariff *changes* to base the calculation on the capacity supply obligations (CSOs) acquired by PDR resources in the most recent Forward Capacity Auction.

Previously, values for PDRs — mostly energy efficiency — were based on the resources' performance. The new methodology exhibits a lower level and slope, resulting in a lower gross load forecast.

Additionally, Black mentioned the forecasted impact of heating and transportation electrification on state and regional energy and demand, which ISO-NE began including in the 2020 CELT. The heating forecast focuses on the winter months only (October through April) and looks at consumer adoption of air-source heat pumps (ASHPs) across New England. Black said the RTO updated its methodology to account for the energy and demand impacts of both partial and full heating applications, taking advantage of state-level adoption forecasts that separate the two categories. He added that ISO-NE also consulted with electrification specialist *Sagewell, Inc.* to use recent advanced metering infrastructure data to isolate the impact of each ASHP category better.



An update from the draft 2021 CELT report forecast shows that in comparison to last year the electrification of the heating and transportation sectors would increase energy and peak impacts in both summer and winter heading toward 2030. | *ISO-NE*

Transportation electrification has focused on light-duty vehicles to date, but Black said freight vehicles and electric buses, trains and trolleys could be considered in the future. Updated assumptions regarding state forecasts for adopting electric vehicles have been implemented, including direct input from Maine, Massachusetts and Vermont. According to Black, EV adoption forecasts for Connecticut, New Hampshire and Rhode Island reflect a blending of the Transportation and Climate Initiative projections of electrified light-duty vehicles stock growth and ISO-NE's 2020 EV adoption *forecast*.

Forthcoming updates to the 2021 CELT forecasts will finalize energy efficiency and solar PV forecasts and incorporate Moody's February 2021 macroeconomic outlook and final FCA 15 results for PDR CSOs. Black and Rojo said that additional discussion on regional gross and net forecasts for energy and summer and winter demand is slated for the PAC meeting on April 14.

Tx Planning Assumptions for Battery Storage

Meena Saravanan, transmission planning engineer for ISO-NE, presented the RTO's proposed assumptions for battery storage in transmission planning. She said that decreasing energy storage costs and an increase in intermittent resources will drive a proliferation of battery storage installations in New England.

Saravanan said there was only about 20 MW of battery storage installed in the region until last year. However, there is 3,000 MW of stand-alone battery storage in the interconnection queue, and more than 600 MW of battery storage cleared FCA 15, compared to only 5 MW in FCA 14. According to Saravanan, state initiatives such as Massachusetts' 1,000-MWh energy storage target by 2025 will further accelerate battery storage projects. Massachusetts also incentivizes electricity supply from clean energy technologies during seasonal peak demand periods through the *Clean Peak Energy Standard*.

Saravanan split batteries into two categories based on their participation or non participation in the wholesale electricity market: market-facing and non-market-facing.

Market-facing and non-market-facing batteries will have different rules and financial incen-

ISO-NE News

tives for operation. Market-facing batteries are expected to respond to locational marginal pricing (LMP), provide capacity through the Forward Capacity Market and be exposed to Pay-for-Performance penalties and incentives. Conversely, non-market-facing batteries are not expected to respond to LMP or participate in the FCM, which gives the RTO much less visibility and control over those batteries. Some battery installations are co-located with renewable resources and may not have interconnection rights to charge from the grid in the absence of renewable production. Saravanan asked for feedback on the assumptions by April 1.

Eversource Replacing Wood Structures in NH

Christopher Soderman of Eversource Energy laid out the utility's *plan* to replace 546 laminated wood structures across eight 115-kV transmission lines in New Hampshire with weathering steel monopoles at an estimated cost of $98 million.

Soderman said the steel monopoles offer compliance with current clearance and strength code requirements, improved reliability and storm resilience and increased strength to support larger conductor sizes in the future if needed. He added that Eversource would coordinate these replacements with ongoing projects to take advantage of mobilization, permitting and outreach efforts, and access to shared rights-of-way. Remaining lines with laminated wood structures in New Hampshire would be assessed in the coming months, he said. Additional structure replacement projects will be presented to the PAC if necessary. There is potential for all laminated wood structures to require replacement. The in-service dates for the work range between the end of this year and December 2022. ■

— Jason York

ISO-NE News

ISO-NE Consumer Liaison Group Discusses Biden Energy Policies

By Jason York

The ISO-NE Consumer Liaison Group's first meeting of the year March 12 featured a discussion on the impact of the Biden administration's energy policies on New England consumers.

The CLG meets quarterly and serves as a public forum between the RTO and New England consumer organizations and advocates to exchange information about the economic impacts on the region's bulk power system and wholesale electricity markets.

"There are still battles about natural gas pipelines and other infrastructure, so we're still very much, as the rest of the country is, in the fossil fuel era," said David Cash, dean and associate professor at the John W. McCormack Graduate School of Policy and Global Studies at the University of Massachusetts-Boston. "It's that whole era that the Biden-Harris administration is attempting to move out of."

Cash said that "any time" New England spends money on imported natural gas, "those are dollars that are leaving the region." He added that the "volatility of energy costs" and "$20 billion a year on fossil fuel subsidies" also mean consumers' taxes support a "well established, 100-year-old sector." He said vulnerable communities bear the economic costs and public health impacts of maintaining the status quo.

"These racial inequities of energy-related health burdens and environmental justice of the current fossil fuel system are intertwined with issues of wealth disparities, education and other social inequities," Cash said.

ISO-NE headquarters in Holyoke, Mass. | *ISO-NE*

President Biden, he noted, laid out "aggressive goals" in an *executive order*, such as 100% net-zero emissions by 2050 and 100% carbon-free electricity by 2035, plus $2 trillion for clean energy spending on buildings, cars, transportation in addition to wind, solar and battery storage. There is also "a real focus on American union labor and American-made materials for infrastructure." Environmental justice is "integral to the energy transformation that needs to happen."

"The term 'justice' is used 32 times in this 15-page document," Cash said. Disadvantaged communities dependent on the fossil fuel economy would receive 40% of the proposed $2 trillion investment.

However, David Springe, executive director of the National Association of State Utility Consumer Advocates, said his group is "very concerned about cost, and how that cost gets addressed in any given state is subject to state policies."

"One of their policies they announced was that they want to put in 500,000 [electric vehicle] chargers by 2040, which is a huge amount," Springe said. "A lot of those chargers are obviously going to affect the distribution-level system, in terms of where those chargers get in, and honestly the Biden administration has been a little unclear about whether they're going to also include as part of that money, the upstream, make-ready costs for electric vehicles."

Springe said policies promoting electrification would increase retail prices through ISO-NE's transmission planning and operations.

"Nothing that [ISO-NE] does is free," Springe said. "Unfortunately, it all gets passed down to consumers." ■

ISO-NE News

Carver-Kingston Line Review Holds for NTA Analysis

By Emily Hayes

A transmission line proposed by Eversource Energy in eastern Massachusetts has regulators seeking more information about whether solar-plus-storage would be an appropriate non-transmission alternative for the project.

Solar panels and battery storage are "no longer in the boutique range;" they are "becoming pretty substantial," Andrew Greene, director of the Massachusetts Energy Facilities Siting Board, said during a public hearing Thursday.

Eversource, however, said in its proposal that solar-plus-storage was not a cost-effective or timely alternative under current market conditions.

The need for the project was identified through an ISO-NE-led study with Eversource of peak demand on the grid in Plymouth and Norfolk counties. The study found low-voltage conditions and thermal overloads in the Kingston, Mass., area that could affect service to 44,000 customers. The proposed 8-mile transmission line would connect the Carver, Plympton and Kingston substations to meet that reliability need, according to Eversource's *proposal*.

Keith Jones, principal engineer at Eversource Energy, said during the hearing that adding a new renewable energy project in the area and pairing it with solar would also require transmission upgrades.

"We don't yet know the full requirements of all the transmission upgrades, and we don't know how these will be from a load forecasting standpoint," Jones said.

The reliability issues in the area, he added, need to be addressed by 2022 to avoid a potential overload or overheating problem on the existing lines.

The load reduction achieved by a solar and battery storage system in the area would need to reach approximately 50 MW by 2022, Bob Andrew, director of systems solutions at Eversource, said.

Greene questioned whether a proliferation of energy storage under the state's Solar Massachusetts Renewable Target (*SMART*) program and Clean Peak Energy Portfolio *Standard* could affect the need for the new transmission line.

SMART has been operating since 2018 to encourage development of community solar for low-income customers. Last year, the state energy department revised the program to make it easier and more appealing for private solar developers to serve low-income customers.

Massachusetts also adopted its new clean peak *standard* last August. The standard aims to ensure that peak load demands are increasingly met with clean energy resources instead of traditional fossil fuel resources.

Department of Public Utilities officials at the hearing directed Eversource to submit further information before it can continue with the transmission line review process. Among other things, DPU is seeking additional analysis on how much solar and storage would be necessary to meet the reliability needs in the Kingston area. It also is seeking details on what the impact to the project might be from the growth of the SMART program and clean peak standard. ■

A growing interest in Massachusetts for solar-plus-storage, like this 4.5 MW solar-3.8 MWh storage facility in Amesbury, has regulators questioning whether these technologies would be an appropriate non-transmission alternative for Eversource's proposed 115-kV Carver-Kingston line. | *CS Energy*

ISO-NE News

PPL to Sell UK Business, Acquire Narragansett Electric

By Michael Yoder

PPL will sell its U.K. utility business to National Grid for nearly $11 billion and in turn buy the London-based company's Rhode Island utility, the companies said Thursday.

The deal will give Pennsylvania-based PPL its first foothold in ISO-NE.

Under the terms of the first agreement, National Grid will acquire Western Power Distribution (WPD) for 7.8 billion pounds ($10.9 billion). PPL last summer announced its plan to sell WPD and focus on its U.S. business. Four distribution network operators serving 7.9 million customers in central and southwest England and south Wales comprise WPD. (See *PPL to Sell UK Operations, Focus on US* and *PPL Close to UK Sale, Ramping up Investments*.)

In a separate transaction worth $3.8 billion, PPL will acquire National Grid's Narragansett Electric Company, a move PPL officials call a "strategic repositioning" to focus solely on domestic energy concerns.

"The strategic transactions we are announcing today immediately unlock value for shareowners and achieve the objectives we set out in launching the process to sell our U.K. utility business," PPL CEO Vincent Sorgi said. "They will refocus our business mix squarely on strong, rate-regulated U.S. utilities; strengthen our credit metrics; enhance long-term earnings growth and predictability; and provide us with greater financial flexibility to invest in sustainable energy solutions for those we serve."

The deal will see PPL sell the U.K. subsidiary holding its WPD interests to National Grid in an all-cash transaction of 14.4 billion pounds, including the takeover of about 6.6 billion pounds of debt. The sale is expected to net about $10.2 billion for PPL.

As part of Thursday's announcement, National Grid also *said* it will look to sell a majority stake in its U.K.-based National Grid Gas Transmission business.

Sorgi said PPL sees National Grid as a "respected partner" with a track record of successful generation operations in the U.K., positioning them to be able to focus on advancing decarbonization initiatives and to continue WPD's emphasis on a "strong commitment to employees, customers and the communities we serve in the U.K."

"We believe National Grid will continue to deliver positive outcomes for all of WPD's stakeholders," Sorgi said.

In the separate deal, PPL will acquire Narragansett Electric in a transaction valued at $5.3 billion, including the takeover of about $1.5 billion of Narragansett Electric debt. PPL said it plans to use a portion of the proceeds from the sale of WPD to finance Narragansett's acquisition.

PPL headquarters | *PPL*

Narragansett Electric is the largest electricity transmission and distribution service provider in Rhode Island, as well as a natural gas distributor, serving about 780,000 customers.

Sorgi said PPL is "eager to play a key role" in helping to advance Rhode Island's aggressive decarbonization goals, including a target of 100% renewable energy by 2030. (See *RI Seeks to Lead with 100% Renewable Goal* and *NE Energy Leaders Discuss Paths to Decarbonization*.)

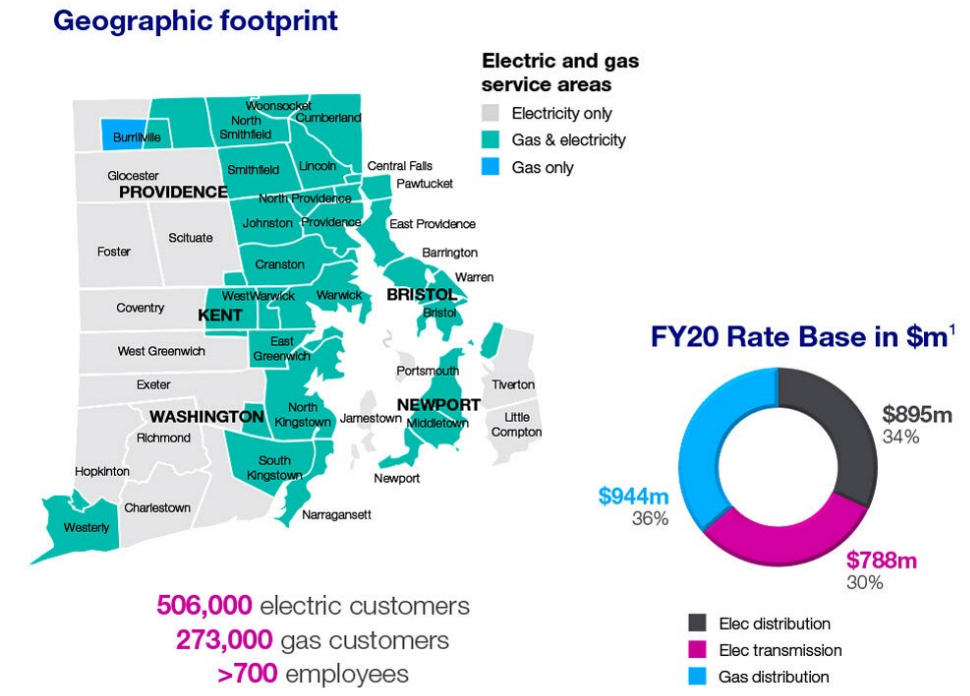
"We believe our experience in automating electricity networks can help the state achieve its target of 100% renewable energy by 2030," Sorgi said. "And we look forward to being a strong community partner in Rhode Island, something that has been a hallmark of PPL for more than a century."

National Grid CEO John Pettigrew said PPL is "gaining a world-class operation" with its acquisition of Narragansett Electric.

"We are confident in PPL's ability to continue operating this business in a manner that serves Narragansett Electric's communities, customers and stakeholders well," Pettigrew said.

The acquisition of WPD presented a "unique opportunity" for National Grid, Pettigrew said, allowing the company to "achieve scale in U.K. electricity distribution, a key component of our strategy to be at the heart of a clean, fair and affordable energy future."

"We are pleased that this announcement is enabling two highly motivated operators to connect with two high-quality businesses in furtherance of our respective visions," Pettigrew said. ■



| *National Grid*

MISO News

MISO Reveals Contentious Long-range Tx Project Map

By Amanda Durish Cook

MISO unveiled a first look at possible long-range transmission projects Wednesday, igniting testy exchanges between stakeholders over the necessity of extensive grid expansion.

The RTO released an indicative *map* of solutions meant to give stakeholders a rough idea of project needs that might be pursued later this year under its long-range transmission package. The portfolio included more than a dozen 345-kV additions and a few 500-kV and 765-kV projects. Some stakeholders during Wednesday's Planning Advisory Committee (PAC) argued against the expansion, while others said it was long overdue.

Staff said they may recommend some of the outlined transmission needs in the 2021 Transmission Expansion Plan (MTEP 21) later this year, but only if analysis can provide business cases for the projects.

Representatives from the Mississippi Public Service Commission led stakeholder questioning of MISO's planning assumptions for the first round of long-range projects, which rely on a 20-year future planning scenario. The grid operator has said for months that it would use Future I — assuming 100% of utility integrated resource plans and 85% of utility announcements and state targets, with load growth consistent with current trends — as a starting point for long-range transmission planning. (See *Long-term Tx Plan Edges Out MISO GI Coordination*.)

MISO designed the future scenario to resemble member's carbon goals, renewable generation additions and thermal generation retirements. It is one of three futures *developed* with stakeholders' input in 2019 and early 2020. Staff gave notice late last year that they would rely on the three futures scenarios to model long-range transmission solutions.

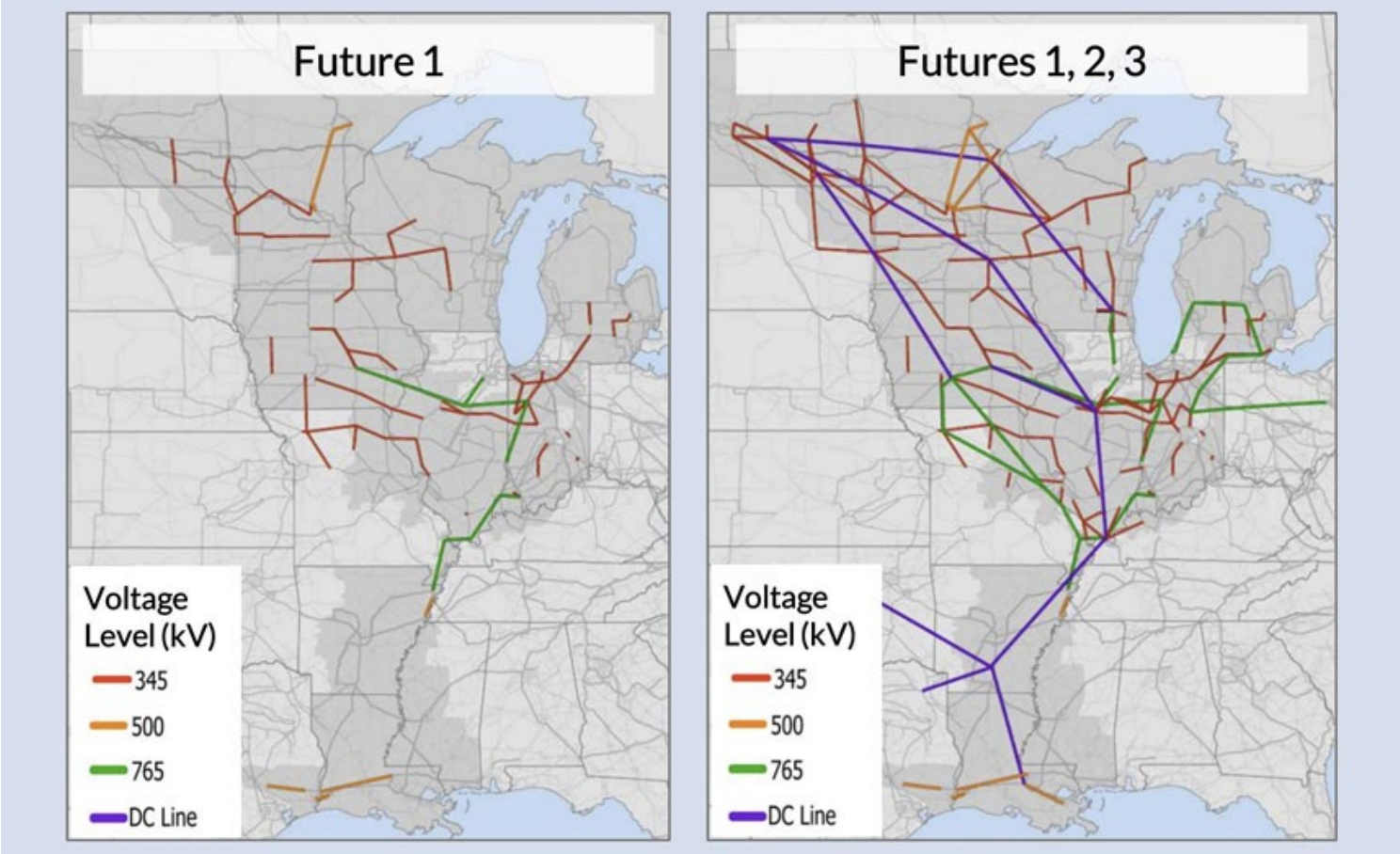
Alongside new 345-kV lines across the Midwest, the draft map calls for a large 765-kV line spanning Iowa, Illinois, and Indiana, and a second that begins in Indiana and links MISO Midwest with MISO South. The map also shows 500-kV solutions across Manitoba, Canada, and Minnesota and an oft-constrained area in East Texas and western Louisiana.

When MISO adds Futures II and III assumptions — with wind and solar penetration of 30% and 50%, respectively, by 2039 — the map indicates a need for several more 500-kV and 765-kV lines and a massive footprint-wide network of DC lines. Staff said some HVDC lines could be developed first as 765-kV lines and later adapted to DC with converters.

Mississippi PSC staffer Bill Booth said it was the first time that he heard MISO might pursue HVDC lines as part of the long-range plan.

"It seems a little bit like we're making this up as we go along," Booth said. He asked MISO to develop a "logical, strategic plan" that can be implemented "over time."

MISO's executive director of system planning, Aubrey Johnson, said staff must perform more



Draft transmission needs under Future I and all three planning futures | *MISO*

MISO News

analysis before it advances any proposals as preferred solutions.

WEC Energy Group's Chris Plante criticized the first future scenario as not completely in line with utilities' integrated resource plans, especially during the next five to eight years. He said MISO's urgency could be exaggerated.

"I don't think that Future I represents my company's near-term resource plans," Plante said.

But Clean Grid Alliance's Natalie McIntire said it will be a challenge to get necessary transmission lines up within the next five to eight years to bring planned renewable generation online.

"As far as we're concerned, this planning process is already behind schedule," McIntire said. "We've been through all of this already, and I don't think it's useful … for stakeholders to rehash futures assumptions."

McIntire argued that Future I, which originally predicted a 40% carbon reduction from 2005 levels by 2040, quickly morphed into a 63% reduction based on members' new and updated goals.

"Future I is becoming faster all the time," she said.

Stakeholders Invoke Southern Blackouts

"We had major blackouts a month ago in MISO South, and to take this long to figure out that we need more power to get to MISO South is absurd," Southern Renewable Energy Association Director Simon Mahan said. "We've got people down here that have been without power and water, and to litigate this over five years? This is taking too long. Let's not do this, especially in sight of what happened last month."

Sustainable FERC Project Counsel Lauren Azar said she's seen firsthand the fallout from an under-planned grid when she was a Wisconsin Public Service Commissioner.

"Back in the 1990s, Wisconsin's grid almost collapsed due to the lack of transmission," Azar said. "The grid is evolving … whether we like it or not. We're going to see a rapid transformation. And we also saw in the South, laid bare … that we don't have a resilient system down there."

Azar was referencing the summer of 1997, when two of Wisconsin's nuclear stations were offline for repairs and inadequate transmission system upgrades left the state flirting with widespread blackouts.

Johnson said MISO believes there's strength in a more interconnected system that can deliver renewable energy to load centers. He said increasing electrification also compounds MISO's sense of urgency.

"The electric sector has not had to respond to demand growth anything like this in the past decade," Johnson said.

Booth asked whether the RTO envisions all solar generation in MISO South being deliverable to MISO Midwest and conversely, all wind generation in MISO Midwest being able to move into the South.

"I think we're saying there's a level of interconnectedness," Johnson said. "I don't think it's a case where everything from the South has to go North."

Though MISO has a rough idea of some routes, it does not have a cost-sharing method for the projects.

Jarred Miland, senior manager of system planning coordination, said if the stakeholder-led cost-allocation working group cannot settle on a new allocation mechanism for long-range projects by the end of the year, MISO will use the methods under its existing project categories.

Stakeholders again asked staff for more frequent updates on the long-term planning effort.

WPPI Energy's Steve Leovy said the long-term planning effort deserves more than quarterly presentations to stakeholders.

"We've heard that recurring crescendo from the stakeholders," Senior Director of Transmission Planning Jeff Webb said. MISO has no problem delivering monthly updates at PAC meetings, he said. However, Webb warned that some updates could be brief if there are few developments to report.

Plante asked for more detailed discussions beyond those in the PAC and separate stakeholder workshops on long-term planning.

"Those of us that are transmission planning geeks want to know the end-point substations. … What are the constraints these projects are hoping to solve," Plante said. "That's the level of transparency we're looking for. The PAC's agendas are simply too full to have this kind of fulsome discussion. Time just doesn't allow for it." ■

MISO News

FERC Finds Few Errors in Co-op's Challenge of Ameren Illinois Rates

By Amanda Durish Cook

Southwestern Electric Cooperative got a few wins last week in its challenges to Ameren Illinois' annual formula rate updates.

FERC was not swayed by most of the co-op's arguments against Ameren's accounting practices behind its formula rate updates for 2020 and 2019, but it did find a few discrepancies in the 2020 rate filing (*ER20-1237*).

The commission ruled Thursday that Ameren inflated construction-related materials and supplies by putting them on the wrong line in its 2020 books. It ordered Ameren to recalculate its formula rate within 60 days to correct the oversight.

FERC also said Southwestern had credible concern about nearly $20,000 classified as transmission operations and maintenance under an account meant for regulatory costs. It asked Ameren to elaborate within 60 days as to whether that amount was "incurred in connection with a formal case before a regulatory body."

Finally, the commission said that Ameren placed company-owned life insurance amounts "for officers and other employees for policies in which Ameren Illinois is the beneficiary" in the wrong accounts, overbilling wholesale transmission customers. The commission again ordered a correction within 60 days.

Southwestern has challenged Ameren's formula rate filings for three years, often unsuccessfully. (See *FERC Orders Ameren Accounting Changes* and *Challenge to Ameren Illinois Rate Rejected Again*.)

This time, Southwestern said Ameren recorded some 2020 costs relating to customer service software and net metering software in the wrong account. FERC pointed out that Southwestern couldn't name a more appropriate account to place the expenses.

FERC also said Southwestern was mistaken in its argument "that expenses deemed nondeductible by the IRS are automatically not includable for recovery in rates."

"The commission has no such policy, nor does Ameren Illinois' formula rate reflect such a policy," the agency said.

Contrary to Southwestern's arguments, FERC said public relations costs could be included in Ameren's general expense account and thereby included in the formula rate.

FERC also rejected an argument that Ameren is understating its excess accumulated deferred income taxes (ADIT).

Finally, the commission disagreed that Ameren was including distribution-related expenses in transmission-related expense accounts.

FERC also defended its prior ruling on Southwestern's challenge of Ameren's 2019 formula rate update (*ER19-1276-001*).

Southwestern claimed that any ADIT associated with retired plants is excess ADIT and should be returned to customers. But FERC said the co-op misunderstands ADIT and said the loan "is not kept by the utility, but instead is reversed and payable" to the IRS.

FERC continued to deny Southwestern's request that Ameren offer more detail around its $14.8 million amortization of excess ADIT. The commission agreed with Ameren that the utility's software system isn't sophisticated enough to verify the total excess ADIT broken down by specific plants.

Southwestern argued that transmission customers "are improperly penalized because they do not have sufficient justification for the calculations by Ameren Illinois."

FERC also denied Ameren's rehearing request that its renewable energy credits (RECs) should be classified as inventory rather than a prepaid expense.

"RECs should not be removed from the books of account because they are still available for use by the owner," the commission said. ■

Ameren employee at a substation upgrade in 2021 | *Ameren Illinois*

MISO News

MISO Spinning Reserves Get Baked-in Cost Recovery

By Amanda Durish Cook

FERC last week granted MISO permission to embed the production costs of providing spinning reserves in its market prices.

The commission said in an order March 18 that the RTO's plan to add a deployment cost adder for suppliers of spinning reserves is fair (*ER21-679*), although Commissioner Allison Clements expressed concerns over market impacts.

MISO's current clearing process for selecting spinning service doesn't incorporate costs incurred when it's deployed as contingency reserves, including demand response's shutdown costs. The grid operator said its proposal gives spinning reserves a simpler means of recouping the costs of providing energy. (See "Spinning Reserves May Get Embedded Deployment Cost Recovery," *MISO Market Subcommittee Briefs: March 5, 2020*.)

The RTO's spinning reserves are online and synched to the grid; they are meant to be available within 10 minutes for contingency events. MISO has not included energy deployment costs for spinning reserves since it began its ancillary market in 2009. When it commits spinning reserves, they are guaranteed to be made whole to their production costs. However, assets committed outside the market don't have the same make-whole guarantee. Some units are made whole through uplift; others never recoup deployment costs.

With FERC's approval, spinning reserve suppliers will reflect their expected deployment costs in their offers. MISO has said the move will probably raise spinning reserve clearing prices and could cause some resources with high deployment costs to not offer.

In any hour, MISO clears about 800 to 900 MW of spinning reserves, usually at about $2/MW.

FERC disagreed with some stakeholders' contention that the proposal represents a departure from MISO's cost-based market framework. On the contrary, it said the move could lead to more efficient pricing because resource offers would be based on the expected cost to provide spinning reserves.

"[MISO's] market software currently selects (and pays uplift to) resources with low spinning reserve offers but high deployment costs when lower-cost alternatives are available," the commission said. "Under the proposed reforms, spinning reserve offers will also reflect a resource's anticipated deployment costs, and the market will be better able to select the set of spinning reserve resources that minimize the total cost of meeting the system's … requirement."

FERC ordered that MISO make a minor adjustment in its proposal by removing a reference to spinning reserve's "incremental energy costs" within 45 days. The commission pointed out that as a demand response resource type, spinning reserves have shutdown and/or hourly curtailment costs, not incremental energy costs.

Clements' Concerns

Clements concurred with a separate statement, voicing apprehension over the proposal's effect on price formation and reserve market participation.

She pointed out the proposal is a departure from MISO's current market, where only some resource types are currently eligible to set prices and some can be deployed even when energy prices don't fully cover their costs.

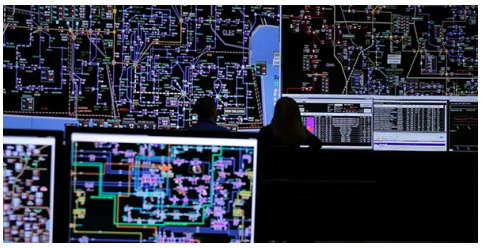
"Regardless of the cause of the shortfall, it can and does occur, as MISO explains," Clements said. "Currently that shortfall is recovered by the resource through make-whole payments. But because MISO's proposal does away with those make-whole payments, MISO must offer an alternative means for recovery: Resources will be permitted — and arguably compelled — to include in their reserve offer a portion of the costs they may incur if they are instead asked to provide energy after a contingency event.

"That is, they will be asked to approximate their potential energy revenue shortfall based on a future unknown energy price and add that to their reserve offer. We can therefore expect that the reserve price will, at times, reflect not simply the marginal resources' cost of providing reserves during the given interval, but also its approximated revenue shortfall if it is instead deployed for energy," Clements said.

Opponents of the proposal argued that the rule would deter resources from providing reserves if they have high costs of providing energy and are ineligible to set prices.

Clements said that with MISO allowing energy costs within reserve offers, "[it] is moving away, even if only in a small way, from reserve prices reflective solely of reserve costs."

While she said her concerns didn't rise to the level of second-guessing her approval decision, Clements said she would monitor the proposal's effects on market pricing and participation.



MISO control room | *MISO*

She also encouraged MISO — once its new market platform is functional — to consider whether its reserve selection, pricing and deployment can be improved.

Waiver for Voltus

FERC separately approved a MISO tariff waiver for Voltus, which offered its aggregated demand response resources as spinning reserves and incurred about $200,000 in unrecovered shutdown costs over seven occasions in 2019 (*ER20-1892*).

The waiver will allow Voltus to recover the shutdown costs through an adjustment on an upcoming market settlement statement, even though the online demand response category Voltus deployed doesn't have defined security-constrained unit commitment instructions necessary to receive revenue sufficiency guarantee payments.

Voltus had initiated an alternative dispute resolution with MISO to recoup its shutdown costs.

FERC's second spinning reserve ruling of the day had another commissioner penning a statement. This time, Commissioner James Danly dissented, saying the $200,000 recovery amounted to retroactive ratemaking.

Danly said though MISO's tariff was confusing as to whether spinning reserves should recoup shutdown costs, the provisions were no different than the "provisions [that] prevented generation owners from recovering the unexpectedly high costs of natural gas they purchased to generate electricity during a cold snap."

"The commission simply has no discretion to grant the retroactive relief requested by Voltus based on equitable consideration," Danly said. "The commission has acted outside of its legal authority by granting a retroactive rate increase."

Danly added that the commission failed to consider the impact the waiver would have on third parties, although no one protested the waiver. ■

NYISO News

NYPSC OKs South Fork OSW Cable Routes, Statewide IRM

By Michael Kuser

The New York Public Service Commission on Thursday approved the 132-MW South Fork Wind project's application to lay 7.5 miles of export cable from the federal waters boundary to a substation in East Hampton, Long Island (Case No. 18-T-0604).

"This order marks a milestone in New York's bold initiative to decarbonize its electric grid through the development of offshore wind resources," PSC Interim Chair John B. Howard said. "While we have years of work ahead of us, today's approval of Deepwater Wind's South Fork's Article VII application moves New York closer to its goal. As with every Article VII case before the commission, we strive to strike the proper balance between the public need and environmental compatibility. I believe this application meets the test."

The Bureau of Ocean Energy Management in February held a public hearing at which fishermen, environmentalists, labor unions and local residents broadly supported South Fork's construction for the Long Island Power Authority in a joint venture between Ørsted and Eversource Energy. (See *BOEM Hears Public Support for South Fork OSW*.)

"We commend the PSC and its staff, local and state elected officials, the multiple state agencies that were a part of this process, and all of the experts, advocates and community leaders whose efforts over the past two years brought us together and made today's milestone possible," Joe Martens, director of the New York Offshore Wind Alliance, said in a *statement*.

Commission Approves Installed Reserve Margin for 2021/22

The commission also approved the New York State Reliability Council's recommended 20.7% installed reserve margin (IRM) for the New York Control Area under base conditions, and preliminary locational capacity requirements (LCRs) of 82.6% and 95.1% for New York City and Long Island, respectively (Case No. *07-E-0088*). The IRM and LCRs apply to the upcoming capability year that runs from May 1 to April 30, 2022.

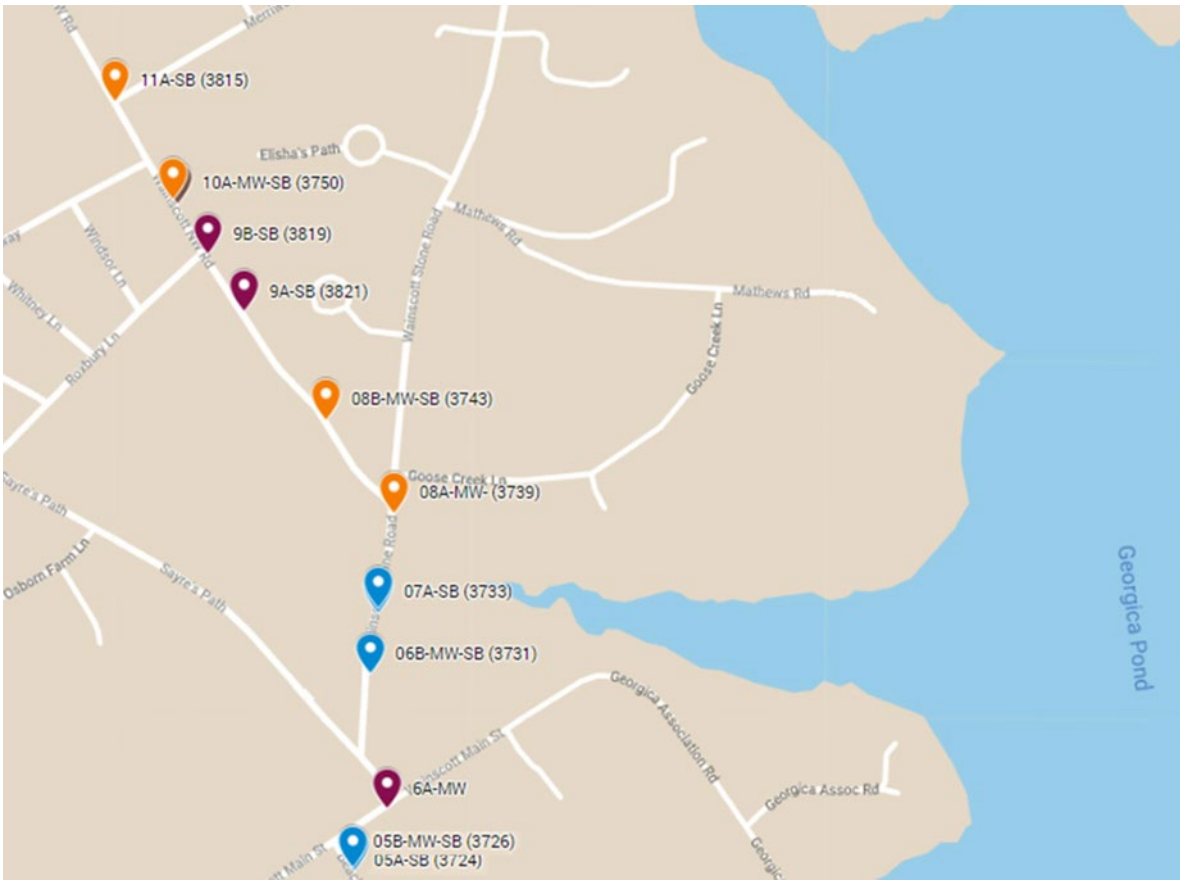
"This item deals with the fundamental operation of our entire electric grid," Howard said. "Failure of the grid has much more existential consequences. As we decarbonize our energy systems, the foremost responsibility of this commission going forward is to ensure our electric grid maintains its reliability at the highest possible standards. I believe this is a truly moral obligation."

The 2021/22 IRM study base case result represents a 1.8-percentage-point increase from the 18.9% base case IRM set last year. The NYSRC said the increase was primarily driven by updated load forecast uncertainty, representation of the limited output of certain energy-limited resources (which can't operate at installed capacity for all hours of the day) and the retirement of generation coupled with system topology changes.

Those factors and others indicated a cumulative 3.1% increase in the estimated IRM, while decreased enrollment of special case resources coupled with improved performance, a new load forecast and other parameters decreased the IRM by 1.3%.

"The New York State Reliability Council's primary responsibility is determining the state's installed reserve margin ... and I'm mindful that the improved IRM has not been over 20% in 20 years," Commissioner Diane X. Burman said. "I can't underscore enough the importance of reliability."

The 2021/22 IRM study relied on the General Electric Multi-Area Reliability Simulation (GE-MARS) modeling software program in conjunction with load and transmission models to calculate probabilities for generator outages and determine how many days per year New York could expect capacity shortages. ■



SFW Cable Route Bore Sites: South Fork Wind drilled 34 soil borings along the planned onshore cable route, each boring approximately four inches wide and 5-20 feet deep. | *South Fork Wind*

NYISO News

NYISO Monthly LBMPs More than Triple from a Year Ago

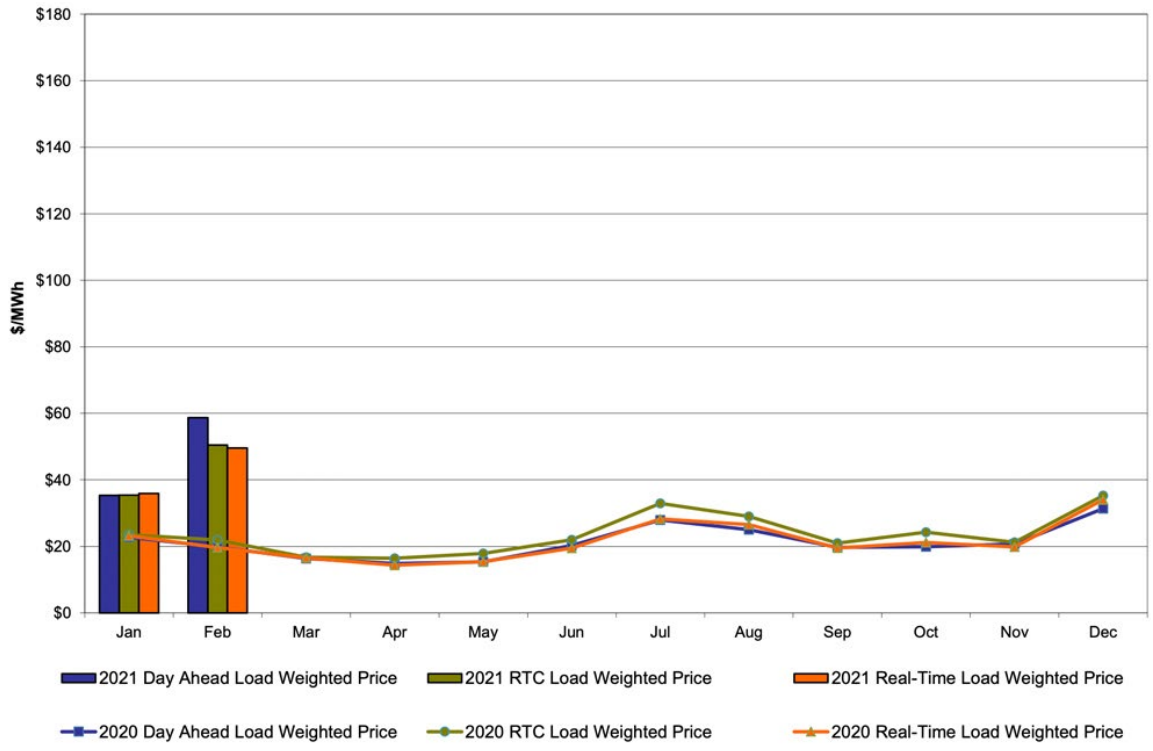
NYISO locational-based marginal prices averaged $63.70/MWh in February, up from $37.83/MWh the previous month and more than triple the $21.11/MWh average in February 2020, Rana Mukerji, senior vice president for market structures, said in delivering the monthly operations *report* to the Business Issues Committee on Wednesday.

Day-ahead and real-time load-weighted LBMPs came in higher compared to January, and Mukerji attributed the difference to higher natural gas prices and a much colder February this year than last.

Year-to-date monthly energy prices averaged $52.90/MWh, a 108% increase from $25.40/MWh a year ago. February's average sendout was 434 GWh/day, up from 427 GWh/day in January and 417 GWh/day a year earlier.

Transco Z6 hub natural gas prices averaged $5.22/MMBtu for the month, up from $2.94/MMBtu in January and up 179.8% year-over-year.

Distillate prices rose compared to the previous month and were up 6.2% year-over-year. Jet Kerosene Gulf Coast averaged $11.79/MMBtu, up from $10.45/MMBtu in January. Ultra Low Sulfur No. 2 Diesel NY Harbor averaged $12.71/MMBtu, up from $11.17/MMBtu in January.



NYISO monthly average internal LBMPs for 2020-2021 | *NYISO*

February uplift increased to -15 cents/MWh from -31 cents/MWh in January, while total uplift costs, excluding the ISO's cost of operations, came in higher than those in January.

The ISO's local reliability share jumped to 15 cents/MWh in February from 9 cents/MWh the previous month, while the statewide share climbed to -30 cents/MWh from -40 cents/MWh.

The Thunderstorm Alert cost in New York City was $0. ■

— Michael Kuser

PJM News

OPSI Asks PJM to Consider State Regulators for Board

By Michael Yoder

The Organization of PJM States Inc. (OPSI) is asking PJM to consider candidates who have state regulatory experience as the RTO searches for two new members of the Board of Managers this year.

The board's Nominating Committee is currently weighing candidates to replace outgoing board members Ake Almgren and John Foster, with a slate of nominees to be presented to stakeholders for a vote by April.

PJM Chair Ake Almgren | *PJM*

PJM Board Member Charles Robinson | *PJM*

In the *letter* sent to committee Chair Charles Robinson on March 12, OPSI requested that PJM "broaden its diversity of expertise" by selecting at least one candidate with state regulatory experience.

"Having individuals on the board with firsthand knowledge of the need for fair balancing of interests faced by regulators entrusted with implementing public policy directives should be a priority," OPSI President and Delaware Public Service Commissioner Harold Gray said.

PJM has an opportunity to add individuals with an understanding and background of complex issues as the RTO is experiencing "unprecedented change driven largely by public policy mandates," Gray said.

OPSI argued that the qualification criteria contained in PJM's September *announcement* of the replacement search, "fall short." The RTO said that a "preferred candidate may have expertise and experience in public utilities laws and regulations," or prior "day-to-day experience in state or federal regulation; possibly a former state or federal public utility regulatory commissioner."

The organization pointed out that five grid operators' boards already have board members with state regulatory experience, including ERCOT, which requires the chair of the Public Utility Commission of Texas to sit on the board as a non-voting, *ex officio* member.

The other current board members are NYISO's Ave Bie, former chair of the Wisconsin Public Service Commission; SPP's Joshua Martin, former chairman of the Delaware Public Service Commission; MISO's Nancy Lange, former chair of the Minnesota Public Utilities Commission; and ISO-NE's Mark Vannoy, former chairman of the Maine Public Utilities Commission.

Sally Talberg, former chair of the Michigan Public Service Commission, also briefly served as chair of ERCOT's board until last month's winter storm. (See *ERCOT Chair, 4 Directors to Resign*.)

"PJM would not be unique to require this of its board, as other regional transmission organizations or independent system operators have already included such background on their respective boards," Gray said.

OPSI also recommended PJM "maximize the number" of new voting board members who currently reside within the RTO's service area.

The letter said having board members from the PJM region "would add vital understanding of state policies and issues within the PJM footprint."

OPSI President Harold Gray | *Delaware PSC*

"As you deliberate and ultimately decide upon qualified candidates for the next members of the PJM Board of Managers, now and moving forward, we urge you to consider the fundamental improvements that OPSI's two recommendations would provide, and to nominate accordingly," Gray said.

Almgren, the current chair of the PJM board, has been a part of the RTO since 2003. He took over as chair in 2018, replacing Howard Schneider, who served on the board from its inception in 1997 until retiring.

Almgren has headed his own energy technology consulting company, Orkas, since 2003. He also served on the Department of Energy's Electricity Advisory Council from 2014 to 2017.

PJM Board Member John Foster | *PJM*

Foster, the chair of the Risk and Audit Committee, has also been a board member since 2003. A certified public accountant, Foster previously was vice president, treasurer and principal accounting officer of Compaq and senior audit manager with PricewaterhouseCoopers. ■

PJM News

Icahn Capital Given 2 Seats on FirstEnergy's Board

Indicted Lobbyist in Bribery Scandal Found Dead in Fla.

By John Funk

FirstEnergy last week announced it had reached an agreement with Icahn Capital to add two of the conglomerate's employees as new members to the utility's board of directors, effective March 18.

FirstEnergy in February announced during an analyst call that it had learned that Carl Icahn was buying up to $920 million of its shares. Icahn had not contacted the company at that point. (See *FirstEnergy Shares Jump on Icahn Investment*.)

The agreement to expand the board to include Icahn's representatives also "provides that Mr. Icahn and his associates will not exercise substantial influence or control over FirstEnergy or any of its subsidiaries," the company said in a release.

The announcement came just hours after former U.S. Attorney David DeVillers, in remarks before the governing board of the Ohio Consumers' Counsel, made it clear that the investigation is continuing into how former Ohio House Speaker Larry Householder and four associates orchestrated the 2019 passage of House Bill 6, creating a $1.3 billion public bailout of nuclear power plants previously owned by FirstEnergy.

Noting that the grand jury investigating the case had been in recess from November until March 1 because of a spike in COVID-19 cases, DeVillers said the probe is now active again, with the grand jury meeting weekly.

"I suspect that you're going to hear a bit more about that case, in regards to the other side of things. ... You have an indictment and you have five or six people in it ... and after the indictment, the investigation doesn't stop," he said.

"And if they find more people that may be involved through the superseding indictment, and more individuals are added to that indictment or more charges are added to the indictment, that's not unusual and specifically not unusual in the present case," he said.

In response to a question from Consumers' Counsel Bruce Weston, DeVillers also said that corporations can be charged and, if found guilty, can be fined. Often corporations at that point cooperate in order to lessen the fines, he said.

FirstEnergy's board in recent months has fired five top executives, including former CEO Charles Jones, who was appointed in 2015 after his predecessor, Anthony Alexander, abruptly left the company.

As DeVillers began his remarks, he noted that he had just learned that one of the five people his office had indicted in the HB 6 investigation had been found dead.

Neil Clark, 67, indicted on federal racketeering conspiracy charges in July 2020 along with Householder and three associates, was found dead March 15 in a parked car near Naples, Fla. A handgun was found in the car. An autopsy is pending.

Clark had insisted he was innocent of the charges even after two others pleaded guilty in October 2020. He was a long-time Columbus, Ohio, lobbyist and former budget director for the Ohio Republican caucus. In October he announced he was writing a "tell-all" book about his years in the lobbying business. ■

FirstEnergy's Akron, Ohio, headquarters | *DangApricot, CC BY-SA 3.0, via Wikimedia Commons*

PJM News

FERC Backs PJM IMM on Market Power Claim

By Michael Yoder

FERC ordered PJM on Thursday to revise its market seller offer cap (MSOC) to prevent sellers from exercising market power in the RTO's capacity market, but it emphasized the decision would not impact the long-delayed Base Residual Auction (BRA) scheduled for May.

The commission sided with the arguments made in separate complaints filed in 2019 by the Independent Market Monitor and several consumer advocate groups that challenged PJM's Capacity Performance (CP) assumptions, saying the rules allowed sellers to exercise market power (*EL19-47*).

FERC ordered PJM stakeholders to submit briefs on the "appropriate remedy for the complaints" within 45 days and reply briefs may be submitted within 30 days after that.

"Although we are granting the complaints and finding that the existing rate is unjust and unreasonable, we conclude that additional record evidence is needed to set the appropriate replacement rate," FERC said in the order.

The Issue

The Monitor said in its February 2019 complaint that PJM's MSOC has been inflated by the "unreasonable and unsupported" expectation of 30 performance assessment hours (PAHs) annually. As a result, the Monitor said, it was prevented from effective mitigation of market power and was able to subject only a fraction of very high offers to unit-specific cost reviews. (See *Monitor Asks FERC to Cut PJM Capacity Offer Cap*.)

Unit-specific MSOCs are supposed to be based on avoidable costs and the opportunity cost of taking on a CP obligation, the Monitor said, including its expectations of bonus payments or penalties for performance during an emergency. The time span for measuring performance was changed from PAHs to five-minute performance assessment intervals (PAI) in compliance with FERC Order 825 in 2018.

A PAI is triggered when PJM determines a supply reliability issue exists, providing credits for generators that overperform their capacity commitments and penalties for those who underperform.

In August 2018, the Monitor concluded that PJM ratepayers were overcharged by $2.7 billion (41.5%) in the 2018 BRA because of "economic withholding" encouraged by the inflated MSOC. (See *IMM: PJM 2018 Capacity Auction was 'Not Competitive'*.)

The Monitor suggested using 60 PAIs or five PAHs — compared with the current 360 PAIs/30 PAHs — in calculating a more appropriate seller cap.

Some intervenors in the docket said the current default offer cap allows capacity resources to exercise market power "to the detriment of consumers" because the PAI value used to set the default offer cap is well above levels PJM has experienced.

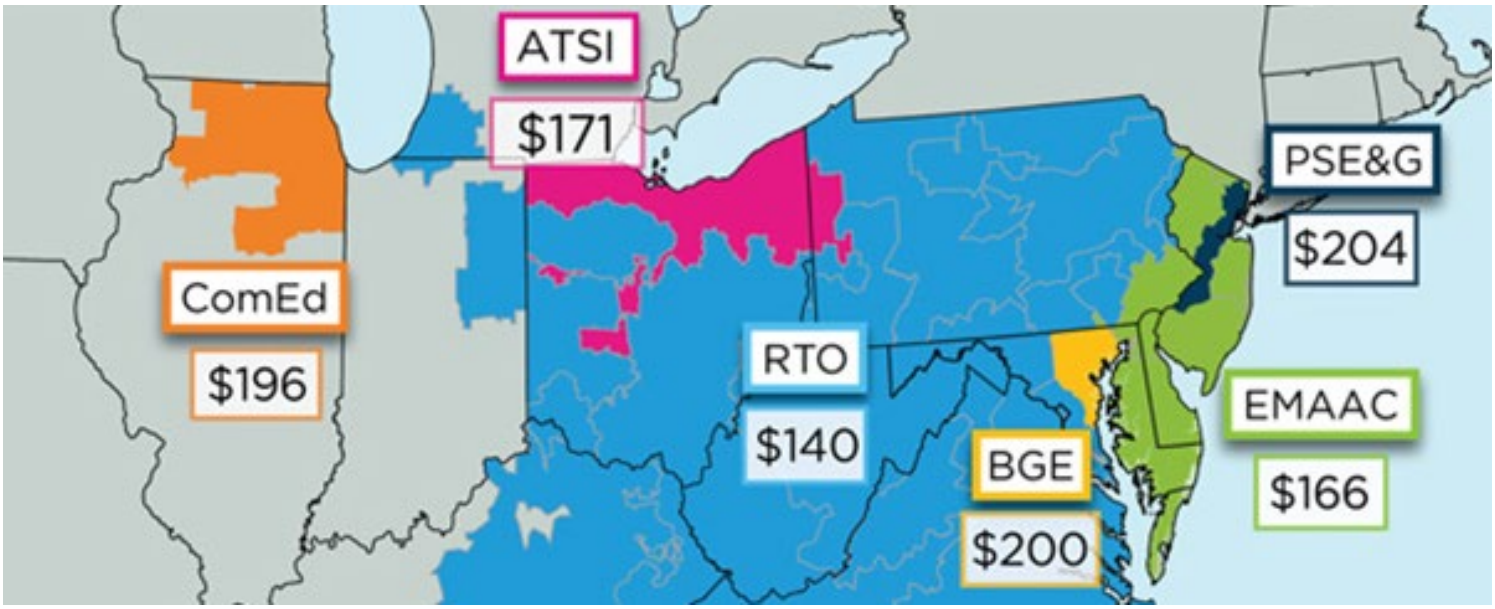
PJM argued in filings that the Monitor was not permitted to file a complaint under tariff rules and that it had failed to provide evidence that the cap — approved four years prior as part of the CP construct — and the results of BRAs suddenly became unjust and unreasonable. (See *PJM: Dismiss Monitor's Offer Cap Complaint*.)

FERC said precedent already existed under previous proceedings allowing the Monitor to file complaints against PJM, pointing to the 2019 decision related to a challenge of its fuel-cost policy. (See *FERC Upholds PJM Monitor's Right to Protest Fuel-cost Policies*.)

"As a threshold matter, we find that the Market Monitor is not barred from filing a complaint in this proceeding," the Commission said in its order. "We further find that it is no longer just and reasonable for PJM to use 360 for Expected PAI in the default offer cap formula and order further briefing on the appropriate replacement rate."

FERC said "based on the record demonstrating consistently low PAI each year," it found that the 360 PAI exceeds market participants' "reasonable, actual expectations of the number of

Continued on page 41



PJM's Independent Market Monitor contends ratepayers were overcharged by $2.7 billion (41.5%) in the 2018 Base Residual Auction because of economic withholding encouraged by an inflated market seller offer cap.| *PJM*

PJM News

FirstEnergy Names Chief Ethics and Compliance Officer

FirstEnergy has named Antonio Fernández vice president and chief ethics and compliance officer effective April 12. For the past five years, Fernández has been chief compliance officer and chief privacy officer for Public Service Enterprise Group.

According to FirstEnergy, Fernández's mission will be "to manage a dedicated team of compliance professionals and strengthen FirstEnergy's ethics and compliance function." Fernández will report to Hyun Park, senior vice president and chief legal officer. The company hired Park in January to oversee its ethics and compliance program.

Facing an ongoing Justice Department racketeering investigation stemming from the company's alleged involvement in the 2019 passage of a $1.1 billion bailout of two Ohio nuclear power plants owned by a former subsidiary, FirstEnergy in early November fired both its chief legal officer and chief ethics officer. A week earlier, the company fired CEO Charles Jones and two other top executives involved in marketing and external affairs, explaining that the three had "violated certain FirstEnergy policies and its code of conduct."

Antonio Fernández, FirstEnergy | *FirstEnergy*

FirstEnergy Chairman Donald Misheff said the company's board is "confident that [Fernández] will build on the proactive steps the board and management are taking to address challenges and rebuild trust with stakeholders."

CEO Steven Strah said the company welcomes Fernández. "His fresh perspective will be invaluable as we create an environment in which every member of the team views ethics and compliance as critical, organizational and personal imperatives. ■

— John Funk

FERC Backs PJM IMM on Market Power Claim

Continued from page 40

PAI the system will experience in a given year." The commission found that the default offer cap in PJM's tariff is "incorrectly calibrated" and may "unjustly and unreasonably prevent the appropriate review of offers."

"Although revising the expected PAI used to establish the default offer cap may ultimately represent the just and reasonable replacement rate, we find it is necessary to direct briefing that would enable the commission to further consider the appropriate replacement rate, including alternative approaches to market power mitigation in the capacity market," FERC said in the filing.

The commission ordered PJM and stakeholders to determine a suitable replacement rate, addressing the "appropriateness of using different values" for penalty PAI and expected PAI in the default CP MSOC calculation and a method for setting each value.

FERC said it recognized that PJM's capacity auction for the 2022-23 delivery year is scheduled for May and determined it should go ahead as scheduled under the current rules to prevent a further delay.

FERC said anticompetitive conduct observed during the auction may be referred to the commission, promising it will "take all measures necessary and appropriate to address anticompetitive conduct in the May 2021 auction."

"As the courts have repeatedly explained, the commission's discretion is at its zenith when fashioning remedies, and we find it to be an appropriate and equitable exercise of that discretion not to further delay the upcoming auction while the commission determines the just and reasonable replacement rate," the order said. "The commission will, of course, continue to exercise its oversight of the upcoming auction."

Commissioner Opinions

The unanimous decision by FERC instructing PJM to determine a suitable replacement rate elicited several responses from the commissioners.

Chairman Richard Glick said he was "pleased" with being able to issue the order and said the commission has spent "far too much time on buyer-side market mitigation" over the last several years. Glick said FERC has a responsibility to protect consumers from excessive prices brought about by the market power that sellers have in the system.

"We haven't picked a particular approach on how we're going to revise it," Glick said. "But I think everyone unanimously agreed that the current approach allowed entities with market power to go forward without being screened, and that's the issue we need to tighten up."

Commissioner Neil Chatterjee said the order did two key things. He said it showed the commission agreed with the Monitor that the offer cap as currently configured is "not serving its intended purposes" and that the commission avoided a "rush to judgment" on the correct path forward on the issue.

"We seek more input from parties on the appropriate replacement rate," Chatterjee said.

Chatterjee added that the commission "took pains" to make it clear in the order that there should be no delays or impacts to the upcoming BRA.

"It was extremely important to me that we exercise our discretion to avoid auction delays," Chatterjee said. "It's frankly the reason I could ultimately support this item."

Commissioner Allison Clements said the commission granted two "highly consequential complaints" brought by the Monitor and consumer advocate groups and that it was important to remember the "scale of the problem." Clements said given the size of PJM's capacity market, the exercise of market power can lead to billions of dollars in "unjustified costs."

"The Market Monitor and consumer advocates present compelling evidence here that the market power mitigation rules are not calibrated correctly and urgently need to be fixed," Clements said. ■

PJM News

Pa. to Source 50% of Govt. Electricity from Solar

By Michael Yoder

Pennsylvania is set to take a leap in its renewable energy procurement in what officials are describing as the largest solar commitment by any state government in the U.S.

Gov. Tom Wolf announced Monday that nearly 50% of the electricity used by the state government will be produced by seven new solar energy arrays comprising 191 MW of capacity to be built around Pennsylvania. Pennsylvania PULSE (Project to Utilize Light and Solar Energy) will go into operation in January 2023 as part of the governor's *GreenGov* initiative created in 2019. (See *Pennsylvania Joins US Climate Alliance*.)

Wolf said when he introduced the GreenGov initiative, he challenged the state government to lead by example through lowering greenhouse gas emissions in state operations and to obtain at least 40% of electricity from renewable resources.

The governor also cited the May sunset date of Pennsylvania's Alternative Energy Portfolio Standard — which drove solar and renewable development for the past 15 years — as a spark to making local renewable energy markets strong.

"Pennsylvania has been a national energy leader for more than 100 years," Wolf said. "As we continue to diversify our grid with clean, renewable sources of energy, we want to maintain Pennsylvania's leadership position and bring the associated economic, health and environmental benefits to all Pennsylvanians."

The solar arrays will be built in seven locations in six counties, including Columbia, Juniata, Montour, Northumberland, Snyder and York. Officials said the 191-MW project is expected to deliver 361,000 MWh per year and supply 100% of energy for 434 accounts across 16 state agencies, or roughly half the electricity used by state government.

The solar usage will reduce carbon dioxide emissions statewide by 157,800 metric tons each year, officials said, the equivalent of emissions from around 27,000 homes or 34,000 cars.

Lightsource BP, a utility-scale solar developer, will build, own and operate the solar arrays, creating hundreds of new construction jobs. The arrays will be built on as much as 2,000 acres of farmland, with farmers signing 30-year leases with Lightsource.

Gov. Tom Wolf | *Commonwealth of Pennsylvania*

Kevin Smith, CEO of Lightsource BP of the Americas, said the private long-term ownership of the arrays teamed up with government entities procuring the electricity is a "great model" that can be replicated across the country. Smith said Lightsource, which is headquartered in Philadelphia, currently owns and operates four solar arrays generating 90 MW of power in the state.

"What the Commonwealth of Pennsylvania is doing is a model for other governments in the U.S. to address climate change and usher in a new sustainable era, bringing measurable job and economic benefits to its people while reducing emissions that lead to healthier citizens," Smith said.

The Pennsylvania Department of General Services contracted with Exelon subsidiary Constellation to secure a 15-year fixed-price supply agreement for about 5 cents/kWh.

The solar renewable energy credits created by the projects will be retired when purchased by Pennsylvania, officials said, guaranteeing they won't be used by other entities looking for renewable credits for climate goals.

Secretary Opinions

Secretary of General Services Curt Topper said the contract with Constellation provides the state with "long-term price protection and budget certainty."

"Pennsylvania PULSE reflects our commitment to making renewable energy the heart of DGS energy strategy," Topper said. "We're excited to have this new model in place as we work toward more clean energy use in the future."

Governor Wolf's *Climate Change Executive Order* in 2019 set a goal of lowering Pennsylvania's GHG emissions 26% by 2025 and 80% by 2050 compared with 2005 levels.

The order also re-established the GreenGov Council, made up of the secretaries of the departments of General Services, Environmental Protection (DEP) and Conservation and Natural Resources (DCNR), which was originally charged with developing strategies for GHG reductions. Other goals for the group included reducing energy usage by state government at least 3% annually and replacing 25% of the state vehicle fleet with electric vehicles.

DEP Secretary Patrick McDonnell said Pennsylvania needs to move toward renewable energy in every sector of the government and economy to step up to meet GHG reductions. McDonnell cited power plants, transportation and manufacturing as key groups in meeting goals.

He said Pennsylvania needs to be more aggressive with its solar deployment, with only 1% of electricity in the state currently coming from 700 MW of installed solar capacity. He added that Pennsylvania can get 10% of its electricity from solar if it can reach 11 GW of installed solar capacity by 2030.

"Solar energy at an enterprise scale, as Pennsylvania PULSE demonstrates, will make a big impact," McDonnell said. "The cleaner the grid is, the cleaner other greenhouse gas mitigations will be, such as switching to electric transportation." ■

PJM News

Va. Solar Farm Wins PJM MOPR Challenge

By Michael Yoder

FERC last week found that the tax relief granted to a solar farm being constructed in Virginia does not fall under PJM's minimum offer price rule (MOPR) or qualify as a state subsidy (*EL21-35*).

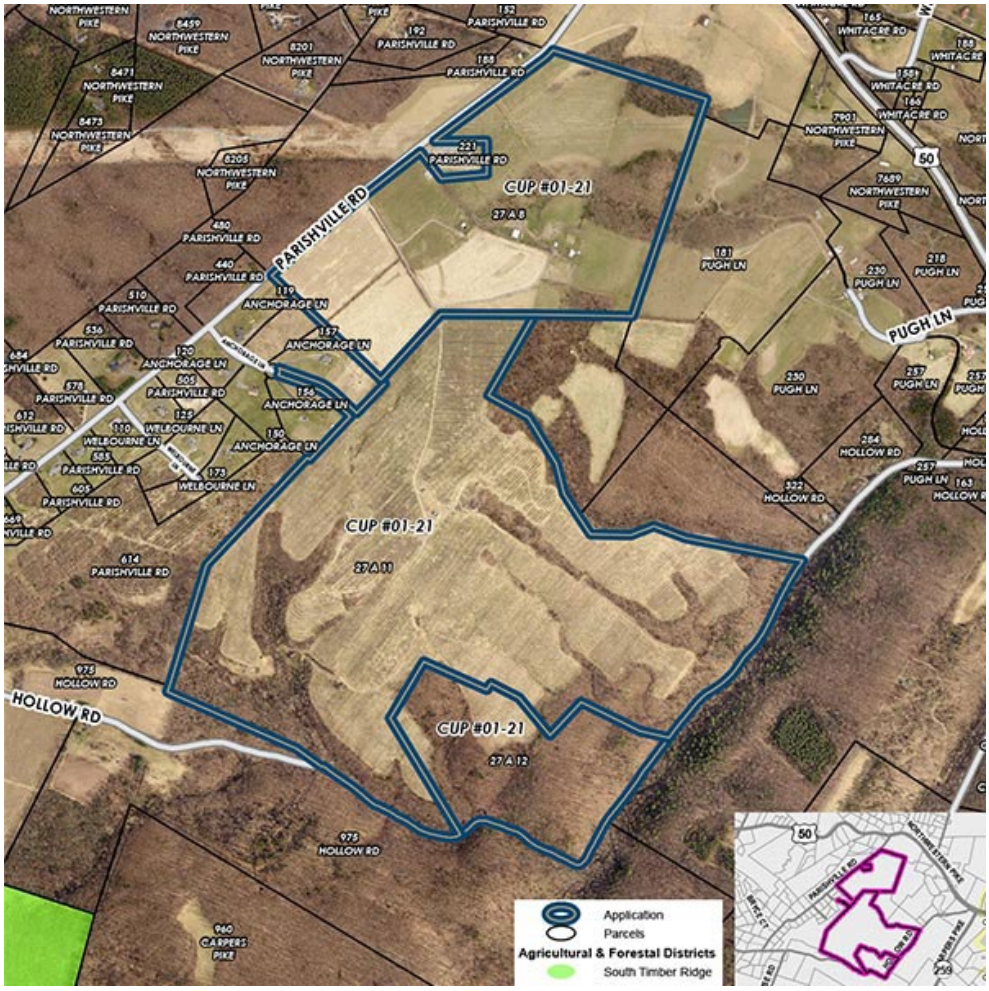
Hollow Road Solar, a 20-MW qualifying facility being developed in Frederick County, filed a petition with the commission seeking confirmation that it will not be subject to the MOPR in the upcoming Base Residual Auction (BRA) for the 2022/23 delivery year scheduled to take place in May. The project sought a determination that local property tax relief granted by a *Virginia pollution control statute* is exempt from the definition of a state subsidy under the MOPR.

The facility's developers brought the petition to FERC after seeking guidance from PJM.

They said the commission specifically exempted "general industrial development" and "local siting statutes" from the definition of state subsidy in recent MOPR orders, saying that comparable support was generally publicly available and not "tethered to" or "directed at" PJM's wholesale capacity or energy markets. (See *FERC Acts on PJM MOPR Filing*.)

Hollow Road argued that the Virginia statute should be exempt from the MOPR because its benefits are available to all businesses and not "nearly directed at or tethered" to the "new entry" or "continued operation of generating capacity" in the PJM capacity market. It said the subsidy is focused on the control and abatement of pollution in Virginia.

In its response, PJM said it previously examined the statute and proposed to stakeholders that it met the definition of a state subsidy under the tariff. The RTO said provisions of the statute have separate sections specifically addressing property tax exemption rules that applied only to standalone solar facilities.



Hollow Road Solar project | *Frederick County Planning & Development*

In its December 2019 MOPR order, FERC said the definition of state subsidy focuses on out-of-market payments that "squarely impact the production of electricity or supply-side participation in PJM's capacity market" and does not include "every form of state financial assistance that might indirectly affect commission-jurisdictional rates or transactions."

The commission also allowed an exclusion for certain forms of state support that are "available to all businesses and not nearly directed at or tethered to the new entry or continued operation of generating capacity in the federally regulated multistate wholesale capacity market administered by PJM."

In Thursday's order, FERC said the Virginia provisions should be excluded from the definition of state subsidy because they apply "broadly to certified pollution control equipment and facilities" and not just those used in electricity generating facilities. Under the statute, certified equipment and facilities include "any property, including real or personal property, equipment, facilities or devices, used primarily for the purpose of abating or preventing pollution."

"We find that the Virginia pollution control statute is generally available and not nearly directed at or tethered to wholesale market participation, and therefore excluded from the definition of state subsidy," FERC said.

"The reference to solar facilities cited by PJM does not require a contrary conclusion," the commission said. "Solar facilities are included as part of a non-exhaustive list of example technologies that also includes a wide range of equipment unrelated to electric generation or the PJM capacity market — everything from certain on-site sewage systems, thermal energy storage devices and 'equipment used to grind, chip or mulch trees [and] tree stumps.'"

PJM's Independent Market Monitor argued that the fact that some nonpower production entities may be eligible for tax relief under the law is "irrelevant for purposes of the MOPR" and that providing an exclusion for the statute would "create a loophole undermining implementation of the MOPR."

The commission disagreed.

"The definition of state subsidy was never intended to cover every form of financial

PJM News

assistance," FERC said. "Excluding the Virginia pollution control statute from the definition of state subsidy will not affect the applicability of the MOPR to those subsidies that it was intended to address."

Commissioner Views

FERC Commissioner James Danly provided the lone vote against the petition, dissenting strongly in a separate statement.

Danly faulted the commission's finding that the Virginia law's subsidy is "generally available" because it includes other technologies such as sewage systems and tree chippers. He said most of those technologies had been included in the statute since 2003, but solar equipment was added by separate bills in 2014 and 2016.

The "overwhelming preponderance of statutory text" in the statute involves solar facilities, Danly said, including whole sections devoted solely to solar facilities and creating conditions for those facilities to receive tax relief.

"Our order today thus allows a subsidized solar facility to bypass the PJM minimum offer price rule and bid into the PJM Base Residual Auction below its actual costs," Danly wrote. "The consequences for PJM's capacity market prices are obvious. Every existing capacity resource in the applicable zone will suffer artificially low prices caused by new resources 'competing' on an uneven playing field.

"Many disagree that PJM should mitigate new renewable resources subsidized by the states, but the proper course is to change the mitigation rules (if in fact they need to be changed) rather than to declare that tax relief overwhelmingly directed at solar facilities is not really a subsidy directed at solar facilities because the tax relief may also be available to a wood chipper," he said.

Commissioner Neil Chatterjee expressed appreciation for Danly's reasoning and his "certitude" on the issue but said the majority opinion offered a "well explained, thoughtful analysis" and that he was "pleased" to support the ruling. He said Hollow Road's petition gave the commission the opportunity to apply the MOPR rule "in a manner that's both consistent with our prior findings and reflective of plain old common sense."

"We've made clear along the way that the MOPR is not intended to address generally available state assistance, nor should it reach every program that may indirectly affect the economics of a particular resource," Chatterjee said.

Technical Conference

FERC issued the ruling just before hosting a *technical conference* tomorrow at which it will lead stakeholders in a discussion of the role of capacity markets in Eastern RTOs and ISOs.

The first panel will explore the growing interplay between state policies and capacity markets and examine the long-run impact of continuing with the status quo MOPR framework.

A second panel will zero in on the implications of continuing the status quo MOPR in the PJM capacity market and consider the viability of the market with current rules as state policies continue to impact resources. FERC officials want to determine whether PJM can retain its responsibility for resource adequacy as states take measures to create their own energy resource mix.

A final panel will look at alternative approaches for the PJM capacity market and its evolution with changing state policies.

MOPR's Outside Viewpoints

In a recent *report* titled "The Numbered Days of PJM's MOPR-Ex?", ClearView Energy Partners said PJM could change its market rules as early as this summer. Those changes could include a reversal or narrowing of the MOPR to be approved in time for the BRA for the 2022/23 delivery year scheduled to take place in December.

"We think that a smaller, more 'residual' capacity market looms as a real possibility over the next several years, unless an overarching federal program (such as a clean energy standard or substantive [greenhouse gas] limits) is enacted," ClearView wrote in its report.

ClearView said it may be easier for PJM to allow its states to take on their own decarbonization goals through "bilateral arrangements" rather than attempting to create a solution for all the states in the RTO.

"Unless or until federal policy overtakes individual state agendas on decarbonization, meeting disparate needs through a centralized market appears destined to be problematic," ClearView said. ■

PJM News

Appeals Court Backs NJ Nuclear Subsidies

By Hugh Morley

A New Jersey Appellate Court on Friday dismissed a lawsuit seeking to block state subsidies for Public Service Enterprise Group's Salem and Hope Creek nuclear plants, which paid the company $300 million last year.

The court ruled that there was nothing wrong with the process by which the state Board of Public Utilities (BPU) assessed whether Salem 1, Salem 2 and Hope Creek were eligible to take part in the state's Zero-Emission Certificate (ZEC) program, and concluded that they deserved subsidies (*A-3939-18*).

The three-judge panel made its 47-page ruling in response to a suit filed by the New Jersey Division of Rate Counsel, which is charged with protecting ratepayers' interests, to block the BPU's 2019 subsidy award. The Rate Counsel argued that the award of ZEC's to the three plants was arbitrary and capricious and that none of the three plants need the ZEC subsidies to remain financially viable.

The suit struck at the heart of New Jersey's plan for nuclear energy to remain a key element of the state's power generating system as it seeks to transition to carbon-free energy, much of which is still in the early development stage.

The ZEC program provides subsidies to nuclear power plants at risk of closure so that they can remain open to generate carbon-free power and help the state meet its goal of reducing greenhouse emissions by 80% by 2050. Gov. Phil Murphy has said he wants to the boost the share of energy generated by carbon-free resources to 50% by the end of the decade.

The Ruling and Future Subsidies

The Rate Counsel filed the appeal after the BPU on March 18, 2019, awarded ZEC's to Hope Creek, which is owned and operated by PSEG and Salem 1 and 2, which PSEG operates and co-owns with Exelon. (See *NJ Approves $300M ZECs for Salem, Hope Creek Nukes*.) At the time, BPU Board President Joseph Fiordaliso said the plants provided 32% of the state's energy mix and 90% of its clean energy.

The board rejected a conclusion by its staff evaluation team, which found that all three units would operate profitably through May 2022 and were therefore ineligible for the subsidies. PJM's Independent Market Monitor also said the plants are profitable, an assessment it reiterated in its State of the Market report earlier this month. (See *PJM Monitor Sounds Market Power Alarms*.)

But the BPU said the evaluation team improperly excluded from its calculations consideration of PSEG's operational and market risks, as required by the legislation creating the ZEC program.

In its ruling, the court agreed. "The plain language … makes clear that the legislature intended for the board to consider the applicants' 'costs and risks' when determining eligibility. Had the legislature intended for the board to exclude the applicants' operational and market risks when analyzing financial eligibility … and to instead assess only whether the applicants were `projected to not fully cover [their] costs,' it would not have included the words 'and risks' after 'costs.'"

The ZEC program awards subsidies worth about $300 million a year to PSEG, and the company is lobbying for an extension of the award. However, PSE&G CEO Ralph Izzo said in February that the subsidy, which works out to $10/MWh, is not enough to make the plants competitive with natural gas and zero-marginal-cost renewables. (See *PSEG Presses for Higher Nuke Subsidies*.)

Robyn Roberts, public information officer for the rate counsel, said that the agency, while not surprised by the decision, had hoped for "some independent analysis" of the issues in the case.

"Instead, the court simply applied deference to the agency without considering the considerable impact on ratepayers, many of whom are suffering under the current economic crisis," she said. Roberts said no decision has yet been made on whether to appeal the ruling.

PSEG's Hope Creek, Salem 1 and Salem 2 nuclear plants are receiving subsidies from New Jersey ratepayers. | *Public Service Enterprise Group*

PSEG welcomed the court's ruling.

"This decision confirms that the BPU appropriately followed the statute and gives clear guidance on how to apply the existing law to the ZEC case currently before the BPU," said Marijke Shugrue, a spokeswoman for PSEG. "Nuclear is critical to achieving New Jersey's clean energy goals for 2050."

The BPU, which saw Friday's ruling as an affirmation of the need for the ZEC award, is expected to decide in the coming weeks on whether to extend the ZEC subsidies to PSEG for another three years.

Environmentalists 'Disappointed'

Jeff Tittel, director of the New Jersey Sierra Club, said the organization was "disappointed" by the court's ruling because the nuclear subsidies divert funds that could be used for renewable energy projects.

"The Appellate Division sided with nuclear subsidies over the ratepayers," he said. "We think this decision will mean the people of New Jersey will be paying more for electricity and enriching the utilities at the expense of renewable energy and the environment."

"This subsidy takes money away from renewable energy and undercuts efforts in achieving clean energy goals," he said, adding that the state will be paying the subsidies for decades.

The Rate Counsel argued that the power plant operators had not met a requirement of the ZEC program that without a subsidy the state would be in danger of losing the carbon-free generation. Under the requirement, the plants needed to show that they wouldn't cover the "risks and costs" of operating and would cease to do so in three years, the opinion said. The Rate Counsel argued that the plants had overstated their costs and understated revenues, and none of the plants needed subsidies to be financially viable, the opinion said.

The Rate Counsel also argued that the BPU "ignored its responsibility to ensure that the $0.4-cent/kWh charge mandated in the ZEC Act to fund the ZEC program was just and reasonable," the opinion said.

The appellate panel, however, concluded that the BPU had compiled an extensive record to show that the plants could close without the subsidy, and concluded that the agency did not have the power to change the $0.4-cent/kWh charge, which was set by the legislature. ■

SPP News

FERC Rejects 2 of 3 SPP Waiver Requests

By Tom Kleckner

FERC last week cited the filed rate doctrine on retroactive ratemaking to reject a pair of SPP requests for waivers to resettle billing errors.

The commission on Thursday denied a waiver of the 365-day limitation period to modify settlements in SPP's market-to-market (M2M) process with MISO (*ER19-477*) and a one-year billing adjustment limitation to resettle past invoices because of a billing error (*ER18-2404*).

FERC found the waiver requests to be retroactive ratemaking, saying the doctrine "forbids a regulated entity to charge rates for its services other than those properly filed with the appropriate federal regulatory authority." The rule also "prohibits the commission from adjusting current rates to make up for a utility's over- or under-collection in prior periods," it said.

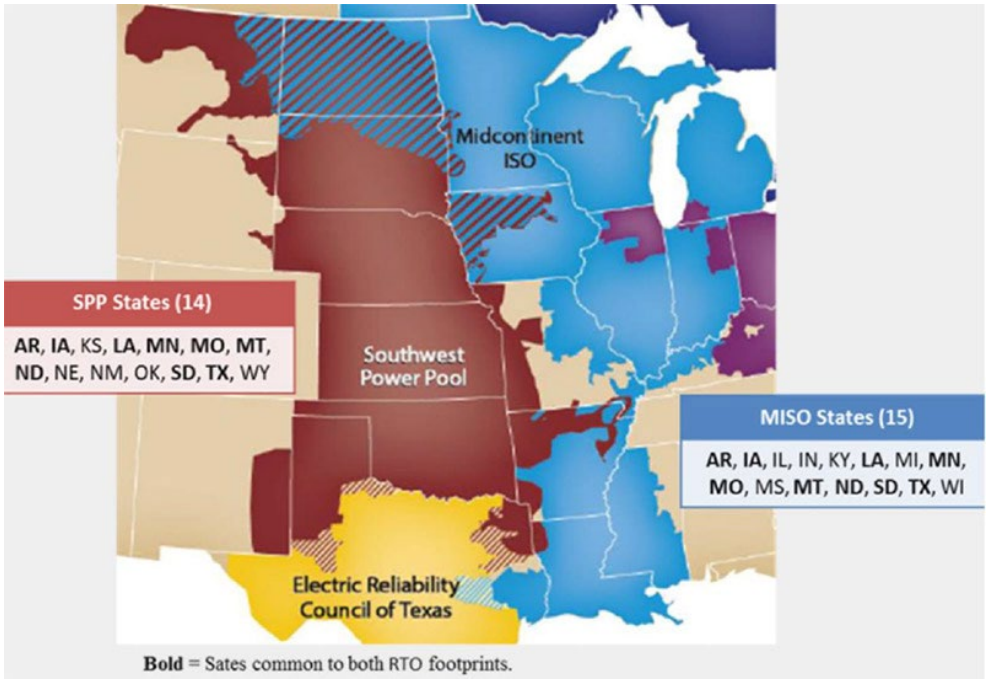
The commission said the first request did not give ratepayers sufficient notice that old M2M settlements were subject to change.

The settlements in question date back to 2015 and 2016. SPP said that between when the M2M process began and before the RTOs signed a memorandum of understanding, they discovered four instances between March 2015 and December 2016 where issues with flowgate use, classification or reporting during M2M events resulted in incorrect settlement calculations.

FERC has granted SPP a waiver to help it settle transactions over the market cap during the February winter storm. | *Xcel Energy*

SPP said it did not reach final agreement on the M2M resettlement process and the four settlements until October 2018. The resettlements amount to a $1.75 million payment from SPP to MISO. SPP has accumulated more than $168 million in settlements from MISO since the process began. (See *SPP M2M Hits Staggering $168.1M*.)

The RTO also tried to correct a billing error of $901,758 for point-to-point transmission service to Nebraska Public Power District. SPP said a non-billable transaction was changed to billable in its settlement, resulting in NPDD being double billed from June 2016 to December 2017. The 2016 charges were not resettled when staff set out to correct the error in January 2018.



The SPP-MISO seam | *Organization of MISO States*

SPP, MMU Given Time to Verify Costs

FERC on Wednesday did approve a request by SPP and its Market Monitoring Unit to waive three tariff provisions that will allow more time to verify costs and settle disputes over market transactions during the February winter storms (*ER21-1331*).

FERC's approval adds 40 days to the normal 35-day deadline for market participants to submit information for offers above $1,000/MWh to be recovered through make-whole payments. It also allows 105 days instead of 45 to review cost submissions and waives the limitation on a market participant's ability to dispute consecutive settlement statements.

Numerous market offers exceeded SPP's $1,000/MWh cap during the winter event, peaking at $4,274/MWh. The MMU is reviewing the offers under FERC Orders 831 and 831-A, which require that energy suppliers receive a reasonable opportunity to recover their actual costs of providing energy. ■

Company Briefs

Former FERC Chairman Wellinghoff to Lead Voltus Regulatory Efforts

Voltus last week announced that former FERC Chairman Jon Wellinghoff will join the company's leadership as its chief regulatory officer.

During his tenure as FERC chairman, Wellinghoff was responsible for Orders 719, 745 and 755, among others, which helped cement the market integration of distributed energy resources.

More: *Voltus*

Foxconn Considering Building EVs in the US

Taiwanese electronics giant Foxconn, which is aiming to become a manufacturer of electric vehicles, said last week it is considering building a plant in the U.S. for production of its first battery-powered vehicles.

Foxconn is contemplating using its Wisconsin facility or one of its plants in Mexico to make its vehicles, company Chairman and CEO Young Liu said. Foxconn signed an agreement with California-based start-up Fisker last month to develop a new EV. The companies said they plan to start jointly producing vehicles in 2023.

More: *The New York Times*

Lawsuit Claims Lordstown Defrauded Investors

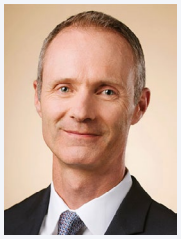
A lawsuit filed last week by shareholder Chris Rico against electric truck startup Lordstown Motors claims the company defrauded investors by making false claims about the number of preordered trucks and production progress.

Lordstown CEO Steve Burns acknowledged that the Securities and Exchange Commission is conducting an investigation based on a report issued two weeks ago by the investment firm Hindenburg Research, which holds a short position on the company's stock. Rico's complaint is largely based on the report, which said Lordstown has "no revenue and no sellable product" and has "misled investors on both its demand and production capabilities."

Burns said the company's board of directors has formed a special committee "to review matters" surrounding the SEC inquiry.

More: *The Associated Press*

Metcalfe Stepping Down as President of We Energies, WPS



Tom Metcalfe, the president of both We Energies and Wisconsin Public Service, will leave each position at the end of the year and relocate to Australia for personal reasons, parent company WEC Energy Group said last week.

Metcalfe, who joined the company in 2004, has been president of the subsidiaries since November 2018. He will remain in his position through the end of this year. After that, he will assume an advisory role for several months until his retirement in July 2022.

WEC Energy said it will name Metcalfe's successor later this year.

More: *Milwaukee Business Journal*

Peabody CEO to Step Down

Peabody Energy CEO Glenn Kellow announced last week that he will step down later this year once the company's board identifies a successor.

Kellow, who was named CEO in 2015, will continue to serve as a company consultant for 12 months following his departure.

More: *Bloomberg*

Rivian to Install 10,000 EV Chargers Across US, Canada by 2023

Amazon-backed EV startup Rivian last week announced it will install more than 10,000 fast chargers across the U.S. and Canada by 2023. The "Rivian Adventure Network" consists of Level 2 chargers and is designed to allow quick recharges along highways.

The company is also installing waypoint Level 2 AC chargers, each with a 11.5 kW charging speed, to add about 25 miles of range for Rivian's R1T pickup and R1S SUV. The first such waypoint chargers will be installed in Colorado's state parks beginning in July.

More: *The Verge*

Federal Briefs

FERC Pushes Back Order 860 Compliance Deadline, Effective Date

FERC on Thursday delayed the compliance deadline and effective date for Order 860, its 2019 rulemaking lessening the reporting requirements of electricity sellers with market-based rate authority (MBRA), until July 1.

At its monthly open meeting the same day, the commission *issued* a Notice Seeking Comments on a proposal to collect additional data from certain sellers, with comments due 60 days after the notice's publication in the Federal Register. As such, FERC said, "a delay in the compliance date of Order No. 860 is necessary to allow for public comment ... and for the commission to have adequate time to review those comments."

The original compliance and effective date was April 1. (See *FERC Upholds Orders 860, 861*.)

More: *RM16-17*

DOE Backs Projects to Produce Hydrogen from Coal, Biomass

The Department of Energy last week announced it awarded $2 million to four research and development projects aimed at advancing clean-hydrogen production technologies.

The awards are aimed at finding different ways to produce hydrogen and explore hydrogen production through co-gasification, which "blends waste from biomass, plastic and coal feedstocks with oxygen and steam under high pressures and temperatures, which has the potential to produce cleaner hydrogen. When combined with carbon capture and storage, this process may even lead to net-negative emissions."

The projects receiving funds include en-

deavors at Auburn University, the University of Kentucky, the University of Utah and the Electric Power Research Institute.

More: *POWER Magazine*

EPA Asks Court to Throw out Significant Contribution Rule

EPA last week asked a court to throw out the Significant Contribution Rule, which could prevent setting greenhouse gas limits on multiple polluting industries. The rule, finalized just before President Donald Trump left office, only allows GHG limits on power plants and exempts industries such as oil and gas production and iron and steel manufacturing.

The agency said in a court filing that the Trump administration "failed to provide any public notice or opportunity for comment on the central elements of the Significant Contribution Rule, rendering it unlawful." It also said the administration did not undertake significant analyses relevant to the rule's "underlying legal and factual questions."

The regulation says only sectors whose pollution makes up more than 3% of the country's GHG emissions are "considered to contribute significantly to dangerous air pollution." EPA calculations determined that between 2.5 and 3% of U.S. GHG emissions come from the oil and gas sector.

More: *The Hill*

EPA Toughens Smog Curbs at Power Plants

EPA last week said that it will require power plants in a dozen states to cut their smog emissions to help areas downwind of the plants.

The agency estimated the changes would reduce emissions by 17,000 tons beginning this year. It first proposed the changes late last year after a court in 2019 found that it had been failing to protect some states from significant upwind pollution.

The states with the polluting plants are Illinois, Indiana, Kentucky, Louisiana, Maryland, Michigan, New Jersey, New York, Ohio, Pennsylvania, Virginia and West Virginia.

More: *Reuters*

Sens Propose $500B to Electrify Public Transit

Members of Congress last week introduced legislation that would allocate $500 billion over the next decade for electrifying the country's public transit system.

The BUILD GREEN Act calls for a massive increase in spending on electric infrastructure and, for about $50 billion annually, would top current federal spending on highways ($46 billion last year). About $150 billion would be set aside for electric rail, vehicles and charging equipment. Other projects could include highway or bridge construction that would install publicly available EV equipment.

Each state would receive at least $2 billion, and no single state would receive more than $40 billion, while the Department of Transportation would fund 85% of project costs.

More: *The Detroit News*

AGs Challenge Trump-era Rollback of Energy Efficiency Standards

Thirteen attorneys general last week filed a petition to eliminate a provision in the Department of Energy's energy efficiency standards they claim allows for inefficient residential furnaces and commercial water heaters.

The provision, which the Trump administration issued in its final week, treats heaters that use less efficient, noncondensing venting as a separate class of products requiring separate regulations. DOE has already identified both rules as contradicting environmental executive orders signed by President Biden.

New York Attorney General Letitia James is joined in the lawsuit by the attorneys general for California, Illinois, Maine, Massachusetts, Minnesota, Nevada, New Mexico, Oregon, Vermont, Washington, New York City and D.C.

More: *The Hill*

US Solar Industry Posts Record Growth in 2020

Solar installations increased 43% year over year in 2020 in the U.S., reaching a record 19.2 GW of new capacity, according to a report released last week from the Solar Energy Industries Association and Wood Mackenzie. Solar represented 43% of all new electricity generating capacity added.

In the fourth quarter alone, the nation added more than 8 GW of capacity — a quarterly record.

The U.S. currently has 97.2 GW of total solar capacity installed.

More: *CNBC*

US to Burn More Coal in 2021

U.S. power plants will consume 16% more coal this year than in 2020, and then another 3% in 2022, the Energy Information Administration said last week.

The agency said the increase will stem from higher natural gas prices and recovery from the COVID-19 pandemic.

China (51.7%) and India (11.8%) are the only two countries that rank ahead of the U.S. (7.2%) in terms of global coal usage.

More: *Bloomberg Green*

State Briefs

CONNECTICUT

Regulators Criticize Eversource's Prep, Response to Tropical Storm Isaias

The Public Utilities Regulatory Authority last week released a 111-page report criticizing Eversource Energy and United Illuminating for poor preparation and response to Tropical Storm Isaias last summer.

The PURA said neither Eversource nor UI "fully met the authority's or their respective customers' reasonable expectations for managing a major storm." The authority was harder on Eversource, citing poor communication with customers, failure to manage municipal liaison programs and inadequate response to weather forecasts. As many as 800,000 Eversource customers were unable to report outages during the storm.

Eversource spokeswoman Caroline Pretyman said the company stands by its storm response and was well prepared despite a changing forecast.

More: *Hartford Courant*

ILLINOIS

Clean Energy Jobs Act Advances to House Floor

The House Energy and Environment Committee last week advanced bills that would overhaul the state's energy industry.

The Clean Energy Jobs Act (HB 804) would put the state on track to reach 100% renewable energy by 2050, while the Path to 100 Act (HB 2640) would increase the cap on energy bills from about 2% to 4% to provide funding for renewable projects. Both bills moved out of committee and on to the House floor by 18-11 votes.

More: *The Pantagraph*

INDIANA

NIPSCO Fined for Pipe Safety Violations

The Utility Regulatory Commission last week ordered NIPSCO to pay more than $1.13 million in civil penalties for violations in 2019 related to the company's failure to locate or mark pipelines in two days as required before gas line excavations.

The fine is the company's third since 2017 when it received a fine for similar violations; payment cannot come from customers. The money will go into the state's general fund.

More: *The Journal Gazette*

IOWA

House Passes Bill Prohibiting Local Gas, Propane Bans

The House of Representative last week voted 57-36 to approve a bill that would prohibit cities and counties from banning propane or natural gas hookups in homes.

Rep. Jon Jacobsen (R) said he offered the bill to keep competition for energy providers high.

The bill heads to the Senate for further consideration.

More: *KMA Land*

Solar Farm Planned for Decommissioned Nuclear Site

NextEra Energy of Florida last week outlined plans to build a 690-MW solar farm on 3,500 acres at the decommissioned Duane Arnold nuclear plant site.

The project, which is expected to be operational in 2023, would create about $41.6 million in tax revenue and result in $50 million in payments to landowners, said Project Manager Kimberly Dickey. NextEra hopes to negotiate leases with landowners this summer and begin construction next winter.

More: *The Gazette*

LOUISIANA

New Orleans City Council Wants to Launch Independent Audit into Entergy

New Orleans City Council President Helena Moreno, who also chairs the council's utility committee, last week said she is in favor of launching an independent and comprehensive management audit of Entergy New Orleans following a number of controversies that have plagued the company.

Since the year began, council has held two emergency meetings related to Entergy failures, opened an investigation into high January bills, opened a formal forensic investigation into power outages on Mardi Gras night, and joined a $1 billion complaint that claims mismanagement of the Grand Gulf Nuclear Station. The company is also trying to figure out if and how scammers may have gotten access to customer data.

Although no official action has been taken, Moreno said she would move forward on authorizing an audit. The Energy Future New Orleans Coalition also sent a letter to the council urging it to order an audit of the Entergy.

More: *The Lens*

OHIO

DeWine Taps Former Franklin County Judge as New PUCO Chair

Gov. **Mike DeWine** last week picked former Franklin County Judge Jenifer French to succeed Sam Randazzo as Public Utilities Commission chair.

French worked as a civil litigator and a suburban Columbus council member before taking the bench on the Franklin County Court of Common Pleas in 2015. She lost her bid for reelection in November.

Randazzo resigned in November after FBI agents searched his home and FirstEnergy revealed top executives had paid him $4.3 million to end a consulting contract.

More: *WOSU*

OREGON

Plan Would Compel Utilities to Go to All Carbon-free Power

An amendment to House Bill 2021 would require utilities generate all their power from carbon-free sources by 2040. It would also set interim goals for reductions of 85% below specified baselines by 2030 and 90% by 2035.

Utilities would submit their plans to the Public Utility Commission, while baselines would be developed by the Environmental Quality Commission.

The bill would allow Portland General Electric, Pacific Power and Idaho Power to raise rates by up to 6% (subject to PUC regulation) to help pay for the transition.

More: *Portland Tribune*

RHODE ISLAND

Cable-related Power Outage Could Cost Block Island Ratepayers

The reburial of two 34,500-volt subsea cables on Block Island will involve a potential 10- to 14-day power outage during April that could lead to ratepayers footing the bill if there are any delays. The outage will require Block Island Power to supply diesel generated electricity to 2,000 ratepayers. The cost for generating electricity using diesel fuel during a 14-day period is about $91,000. The cables are part of the Block Island Wind Farm's transmission system.

National Grid, which owns the cable, agreed in a settlement with BIP to pay some fuel costs during the first 10 days of the outage. Ørsted, the company that owns and operates the wind farm, said its repairs will not involve passing along any costs to ratepayers. However, if the outage extends beyond 10 days, BIP and its ratepayers would be required to pay the fuel bill for National Grid's side of the project to the tune of $6,500 per day.

More: *Providence Business News*

PUC Extends Shutoff Moratorium

The Public Utilities Commission last week extended the moratorium on utility shutoffs

until June 25. It was set to expire on April 15.

The PSC has adopted several measures in response to the COVID-19 pandemic, voting last March to require utilities to suspend late fees, interest charges and credit-card fees for all customers. It also put a halt to collections for unpaid water, gas, electric and sewer bills.

More: *The Providence Journal*

WISCONSIN

PSC Votes to End Moratorium on Utility Shutoffs

The Public Service Commission last week voted to end the state's moratorium on utility shutoffs on April 15.

Chairwoman Rebecca Cameron Valcq attributed the decision to the sharp drop in confirmed cases of COVID-19 and the state's progress in the vaccine rollout.

Utilities reported that more than 93,000 residential customers and 4,800 commercial customers are at risk of having their service disconnected next month, according to the PSC, although many of the customers may be eligible for deferred payment plans.

More: *Milwaukee Journal Sentinel*