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FERC/Federal News



Glick Aiming for Final Transmission Rule by End of Year

Commission Chair Speaks at NASEO, Addresses New Backstop Siting Authority

By Michael Brooks

WASHINGTON — FERC Chair Richard Glick said Wednesday he is hoping to issue a final rule out of the commission's Advanced Notice of Proposed Rulemaking (ANOPR) on transmission planning and cost allocation by the end of the year or early 2023 (RM21-17).

Speaking at the National Association of State Energy Officials' (NASEO) annual Energy Policy Outlook Conference at the Fairmont Hotel in Georgetown, Glick gave attendees eating their lunches a high-level overview of what the commission is examining as part of the proceeding, which began last July. The commission received hundreds of comments by mid-October, most agreeing that U.S. transmission planning needs to be more proactive as more renewables seek to interconnect to the grid. (See *FERC Tx Inquiry: Consensus on Need for Change, Discord over Solutions.*)

"I'm very hopeful that in the very near future, we'll have a Notice of Proposed Rulemaking, which is the next step in the regulatory process, and then hopefully a final rulemaking by the end of the year," Glick said. "We'll see if we get there. We have a lot to do, but there really is a pressing need here to act. Sometimes the regulatory process seems to take years, and with the way the law works, sometimes it's important that it does take years. But we're seeing how much we can expedite the process and move forward with the rulemaking."

Asked about Glick's timeline at a Northeast Energy Bar Association panel discussion Thursday, former FERC Chair Joseph Kelliher was skeptical, citing data that "the average time from the first step to a final rule ... was 23 months."

"It's taken a maximum of 34 months in one case, and the fastest of the rules [Order 890] was 17 months," he said.

Kelliher also noted that the ANOPR resulted in three separate statements, two of which he said "read like dissents."

"I find that looking at history, it's impossible, frankly, for the commission to issue a [broad] final rule by December or January," he said. "So I think it's either going to take longer, or the scope has to change and has to be narrowed, or perhaps has to be broken up into different orders."

Much of the NASEO conference was focused on how states will use the federal dollars they are going to receive from the Infrastructure Investment and Jobs Act, enacted in November. But tucked into the law, with its billions for energy and transportation infrastructure, was a provision giving FERC backstop siting authority over transmission projects, which Glick called "the elephant in the room."

Under the law, if state regulators deny them approval for a project, utilities can file a petition with FERC asking it to overturn the ruling. Many long-distance, interstate transmission project proposals have failed because of a single state rejecting them. Transmission policy experts have long argued for backstop siting authority, as there is wide agreement that interstate lines are needed to meet urban demand for renewable energy from rural areas.

Glick downplayed the significance of the authority, but the audience was dubious.

"We're going to wait to see how this works out," he said, which prompted nervous laughter from the audience. Glick paused with a smile, before saying, "I understand that there's a lot of angst about it at the state level. ... But I kind of question whether you're going to see utilities out there come to FERC and say, 'I want you to reject what my state commission just did.' I think it's going to be difficult for utilities to do that."

At that there was a wave of murmurs through the audience.

Glick emphasized that FERC and the states are working together on transmission issues. He pointed to the Joint Federal-State Task Force on Electric Transmission, formed by the commission and the National Association of Regulatory Utility Commissioners. The task force will hold its second meeting, focused on cost allocation, at NARUC's Winter Policy Summit this week. ■



FERC Chair Richard Glick speaks at NASEO's annual conference at the Fairmont hotel in D.C. on Feb. 9. | © RTO Insider LLC

FERC/Federal News



Industry Welcomes DOE's Better Grid Initiative

Moeller: Tx 'Key to Unlocking' Renewable Resources

By Tom Kleckner

The Department of Energy's Building a Better Grid initiative has been warmly received by those within the industry who see prioritizing national transmission solutions as integral to adding more renewable resources to the grid.

They include Phillip Moeller, executive vice president at Edison Electric Institute, which represents investor-owned utilities.

"Transmission is going to be the key to unlocking those resources that are cleaner but generally far, far away from where the load centers are," he said during a recent [United States Energy Association](#) virtual webinar on the DOE program. "We're encouraged that there's more talk about transmission in Washington, with the bipartisan infrastructure bill ... not only setting the policies in place that will allow for better planning and ideally more construction, but also figuring out the economic side and giving some clarity to the return on these investments."

Under Building a Better Grid, DOE will work to identify high-priority national transmission solutions capable of relieving congestion and accommodating more clean-energy resources. The department launched the program last month following the enactment of the Infrastructure Investment and Jobs Act that contained billions of dollars for grid infrastructure and expanded federal siting authorities. (See [DOE to Tackle Tx Siting, Financing, Permitting in Better Grid Initiative](#).)

The department says the nation's grid will need to expand by 60% by 2030 and by three times its size by 2050, if President Biden's goals of a decarbonized grid by 2035 and a net-zero economy by 2050 are to be met. It says large renewable projects in remote areas and offshore wind will need high-voltage transmission lines to efficiently bring power to urban demand centers.

However, DOE has determined about 70% of the nation's existing transmission lines and transformers are more than 25 years old. According to a [2021 study](#) from the Lawrence Berkeley National Laboratory, more than 750 GW of solar and wind and 200 GW of storage were backed up in grid operators' interconnection queues at the end of 2020.

Tri-State Generation and Transmission Association CEO Duane Highley, speaking on

the same panel with Moeller, said his organization is looking forward to working with DOE. Calling his cooperative a "poorly named company" because it serves four states in its 200,000-square-mile footprint through its member systems, Highley said "transmission is extremely important for us as we're making our energy transition."

Based in Colorado, Tri-State intends to meet the state's 80% decarbonization mandate by 2030.

"In order to do that, many gigawatts of wind and solar have to be moving across time zones in order to balance everything else," Highley said.

Fortunately for Tri-State, it's a member of SPP in the Eastern Interconnection, and it has plans to also join SPP's Western expansion, RTO West. The grid operator has facilitated the construction of more than \$10 billion of new infrastructure, much of it to interconnect wind farms on the plains of Nebraska, Kansas and Oklahoma.

SPP COO Lanny Nickell joined Highley on the panel to share the RTO's experiences that he thought would be helpful to DOE's initiative. He said the RTO owes much of its success to an agreement reached more than 10 years ago with its footprint's state regulators to share transmission upgrade costs.

The result? Nickell said wind generation has grown from providing 6% of SPP's annual energy needs to now providing 35% on an annual basis, helping reduce carbon dioxide emissions by more than 29% over the last seven years. He referenced a transmission-value study that indicates new transmission installed since 2015 has provided \$5.24 of benefits for every \$1 invested. (See "JTIQ, Tx Value Staff Reports," [SPP Markets and Operations Policy Committee Briefs: Jan. 10-11, 2022](#).)

Nickell said SPP relied on the transmission infrastructure to import up to 14% of its energy during last February's severe winter storm.

"Our situation would have been much more catastrophic had it not been for the strength of our system and our connections with neighboring systems," he said. "Extreme weather events are happening much more frequently, and a more resilient system is going to be needed to prepare for future events. Utilities and developers continue to request more renewable resources to add to their portfolios.



Texas wind farm | Target

More transmission is needed to meet these goals reliably and affordably."

That includes more DC ties between the Eastern and Western Interconnections. Seven of the eight back-to-back DC ties in the U.S. and Canada link SPP with the Western Interconnection, but they only provide 1,320 MW of capacity.

Nickell used an analogy of two neighboring swimming pools linked by a common garden hose to highlight the ties' limitations.

"Very limited, basic capacity. They're garden hoses. They're small," he said. "That's what limits us from really obtaining the value and the benefit [of interconnections]. That's what needs to be considered in terms of really unlocking the system's value."

"The need to tie the grid together east to west is directly tied to the DOE proposal because you get a federal entity that could study and bring together private companies to help build and construct this network," Highley said. "What we really need is to move that solar east and west across time zones. [Building a Better Grid] is going to resolve a lot of our issues with integrating renewables into the grid."

Asked where new east-west transmission should be built, Nickell said SPP has yet to conduct studies for that but said he would definitely like to see more infrastructure along the Eastern Interconnection's western footprint.

"We've been referred to as the Saudi Arabia of wind. We've got a lot of wind potential that we could deliver both east and west," he said. "A lot of the solar potential, though, exists in the West. Wouldn't it be great if we could swap those out? We can benefit from solar when the wind's not blowing and from wind when the sun's not shining." ■

FERC/Federal News



Senate Committee Looks Deeper into Clean Hydrogen

Fact-finding and Talk of Need for New Regulations

By John Funk

Sen. Joe Manchin (D-W.Va.) made it clear Thursday that he not only supports the Biden administration's clean hydrogen programs but also wonders why there is no production tax credit for the fuel.

"Let me tell you what's happened for credits in the last 10 years — production tax credits for wind and solar. Twenty-five to \$30 billion we've invested. Hydrogen? Zero production tax credits," Manchin, chairman of the Senate Energy and Natural Resources Committee, said during a hearing concerning hydrogen's potential as a fuel.

"We have got to get off the dime and start doing something or we're going to be left behind and be totally, totally subservient to China, I believe. I believe we're putting ourselves in one hell of a mess," Manchin said.

A hydrogen production tax credit was included in the administration's ill-fated Build Back Better bill, which Manchin refused to support, partially because of the cost of the social programs the legislation would have also created.

Manchin also said he believes West Virginia, rich in shale gas, would be an ideal location for one of the Biden administration's planned hydrogen and carbon hubs. The administration's plan would be to produce low-cost hydrogen from plentiful shale gas and inject the leftover carbon dioxide into geological formations. Using funds authorized by the bipartisan Infrastructure Investment and Jobs Act passed by Congress last fall, Biden allocated \$8 billion for the creation of four hydrogen hubs around the nation.

The administration wants to lower the price of "green" hydrogen produced from the electrolysis of water powered with renewable energy to \$1/kg by the end of the decade, compared with \$5/kg today, according to the Department of Energy, and as much as \$14/kg according to other sources. "Blue" hydrogen produced by steam reforming of methane, with carbon capture, costs about \$2/kg to produce.

Sen. James Lankford (R) from Oklahoma, another state rich in natural gas, also expressed support for using hydrogen as a fuel, but said questions of infrastructure and regulatory oversight must be addressed.

The committee also examined using existing natural gas pipelines to move hydrogen. Sunita Satyapal, director of hydrogen and fuel cell technologies office within the U.S. Department of Energy, said hydrogen can cause embrittlement of some pipeline metals. Noting that the question is being studied here and globally, she said the current consensus is that hydrogen can be mixed with natural gas at a ratio between 5 and 15%.

"There are now over 40 companies along with our other consortium to look exactly at what types of materials should be used. The flame is hotter with hydrogen," Satyapal said. "In terms of looking at our safety codes and standards, our R&D is really helping to inform the right codes and standards, [and] having the right injection standard, both in terms of the pipelines [and burner tips]. We're working with [the Department of Transportation], the pipeline and hazardous materials safety authority that regulates safety of pipelines."

Other experts testifying said pipelines carrying pure hydrogen use different metals than those used in gas pipelines. ■

National/Federal news from our other channels

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	<p>States to Get \$615 Million for EV Charging from IIJA Funds</p>	
	<p>Federal Officials Urge States to Prep for Millions in Infrastructure Funds</p>	
	<p>States Outline Energy Challenges, Infrastructure Opportunities</p>	
	<p>NARUC Panelists Call for Solidarity on Cybersecurity</p>	
	<p>NERC Board of Trustees/MRC Briefs: Feb. 10, 2022</p>	

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FERC/Federal News

Moniz Touts Nuclear Innovation, DOE Reorganization

Former Energy Chief also Calls for 'Regional Innovation Hubs'

By Rich Heidorn Jr.

WASHINGTON — Former U.S. Energy Secretary Ernest J. Moniz on Friday called for policy changes to increase private capital for advanced nuclear reactors and “regional” climate solutions driven by innovations in hydrogen production and carbon capture.

Moniz, now CEO of the [Energy Futures Initiative](#), made the remarks during a wide-ranging interview with Patrick Woodcock, commissioner of the Massachusetts Department of Energy Resources, at the National Association of State Energy Officials' (NASEO) Energy Policy Outlook conference.



Former Energy Secretary Ernest J. Moniz is CEO of the Energy Futures Initiative, a think tank. | © RTO Insider LLC

coordination across the full commercialization spectrum,” DOE said.

The deployment efforts will be helmed by the undersecretary for infrastructure (formerly undersecretary for energy), with teams specializing in infrastructure financing and project development and management. It will include DOE's Loan Programs Office, as well as the Office of Indian Energy; Office of Clean Energy Demonstration; Office of Cybersecurity, Energy Security and Emergency Response (CESER); and the Federal Energy Management Program. It will also house three new offices: the Grid Infrastructure Office to modernize and upgrade the electric grid and deploy cheaper, cleaner power; the State and Community Energy Program, to work with states and localities on decarbonization solutions; and the Office of Manufacturing and Energy Supply Chains, to ensure “a clean, resilient, domestic supply chain.” (See [Industry Welcomes DOE's Better Grid Initiative](#).)

NASEO General Counsel Jeff Genzer told the conference that Geraldine L. Richmond, who was undersecretary of science and energy, will be the undersecretary for science and innovation. “We assume Kathleen Hogan [principal deputy undersecretary for infrastructure] will be the principal undersecretary for [the infrastructure] office and possibly nominated for permanent undersecretary, but we do not know,” he said.

The reorganization follows DOE's January [launch](#) of the [Clean Energy Corps](#), to be staffed by existing staff from a dozen offices and 1,000 new workers.

Reorganization is 'Essential'

Moniz said the reorganization was “essential,” noting that his own reshuffling in response to the American Recovery and Reinvestment Act involved less than half as much funding as the IJJA. “The infrastructure spending itself is going to require just an enormous lift to get that funding out there,” he said.

As for the new hires, Moniz said “there has to be a sufficient cadre in this 1,000 people who understand how government works. You can bring in 1,000 project managers; if they don't have at least sufficient government experience in that group, it's not going to work. So it's a big, big job. I admire the idea of trying to move on where they can quickly, like EV charging, for example. But some of it's going to take a while.”

(See [States to Get \\$615 Million for EV Charging from IJJA Funds](#).)

'All of the Above' for Carbon Reduction

Moniz said he favors an “all of the above approach” to carbon reductions. “We cannot afford to put aside, for emotional or ideological reasons, any tool that can ... help us reach our goals,” he said.

But he said different technologies will be used in different regions. “The fundamental principle in how we approach climate is that solutions are regional. They are regional globally, and they are regional within our country,” he said.

For example, he said, hydrogen from natural gas with carbon capture and sequestration, known as “blue” hydrogen, “is going to be part of the solution” in areas with the right geology.

“Take a place like the Ohio River Valley — West Virginia, southwestern Pennsylvania and eastern Ohio — the tools are there for blue hydrogen, at least for quite a while. Whereas other places, the Carolinas, for example ... that's a pure green hydrogen [location],” referring to hydrogen produced with renewable energy.

Getting Advanced Nuclear 'Over the Finish Line'

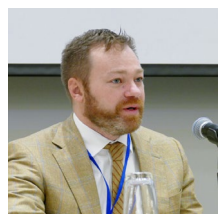
Moniz said policymakers need to address barriers to getting large amounts of private capital into carbon-free energy such as advanced nuclear. Despite having bipartisan support, Moniz said advanced nuclear power is an example of “a mismatch between the private sector funds that are available for investment and investable projects with ... conventional returns.”

Investors are spooked by the “very unsettled” policy and regulatory world around the energy transition, Moniz said.

“I think what we've seen — and we saw it in Glasgow — there's been a dramatic shift among many of the environmental groups in terms of supporting nuclear for its carbon-free characteristics. However, if you listen carefully, what you hear is that commitment being applied to existing nuclear plants, and not necessarily to building a new generation of nuclear plants.”

Yet, he said, “we have never seen the amount of innovation in the nuclear space that we have seen these last years,” citing small modular

DOE Reorganizes to Maximize Infrastructure Spending



Patrick Woodcock, commissioner of the Massachusetts Department of Energy Resources | © RTO Insider LLC

Woodcock began by asking Moniz's opinion of the DOE reorganization [announced](#) Wednesday, which the department said was needed to implement the clean energy investments in the Infrastructure Investment and Jobs Act (IIJA) and the Energy Act of 2020. The legislation will fund \$62 billion in clean energy demonstration and

deployment programs and more than triples DOE's annual funding for energy programs.

The new [organizational chart](#) creates two undersecretaries, one responsible for fundamental science and clean energy innovation and the other focused on deploying clean energy infrastructure.

The department said the realignment reflected the [recommendations](#) made in January by the American Energy Innovation Council, a group of CEOs and technology and labor leaders, who suggested DOE unify the leadership of its deployment programs. “The structure also encourages cross-program collaboration and

FERC/Federal News



reactors and molten salt reactors.

“We’re never going to get there without the investment that puts some of these over the finish line and demonstrates [both] their economic performance and scheduled performance — cost performance. So it’s a chicken-and-egg” situation, he said.

“A major part of the economic proposition” for SMRs, Moniz noted, is that the nuclear part of the reactor “can be built in a factory environment, with all the quality assurance and the economic learning that goes on in a factory environment, versus the in-field construction that we know has led to tremendous ... schedule problems. But you can’t ... pay for the tooling for a factory unless you have an order book. And building one [reactor] isn’t enough.”

‘Stranded’ Workers, Innovation Hubs

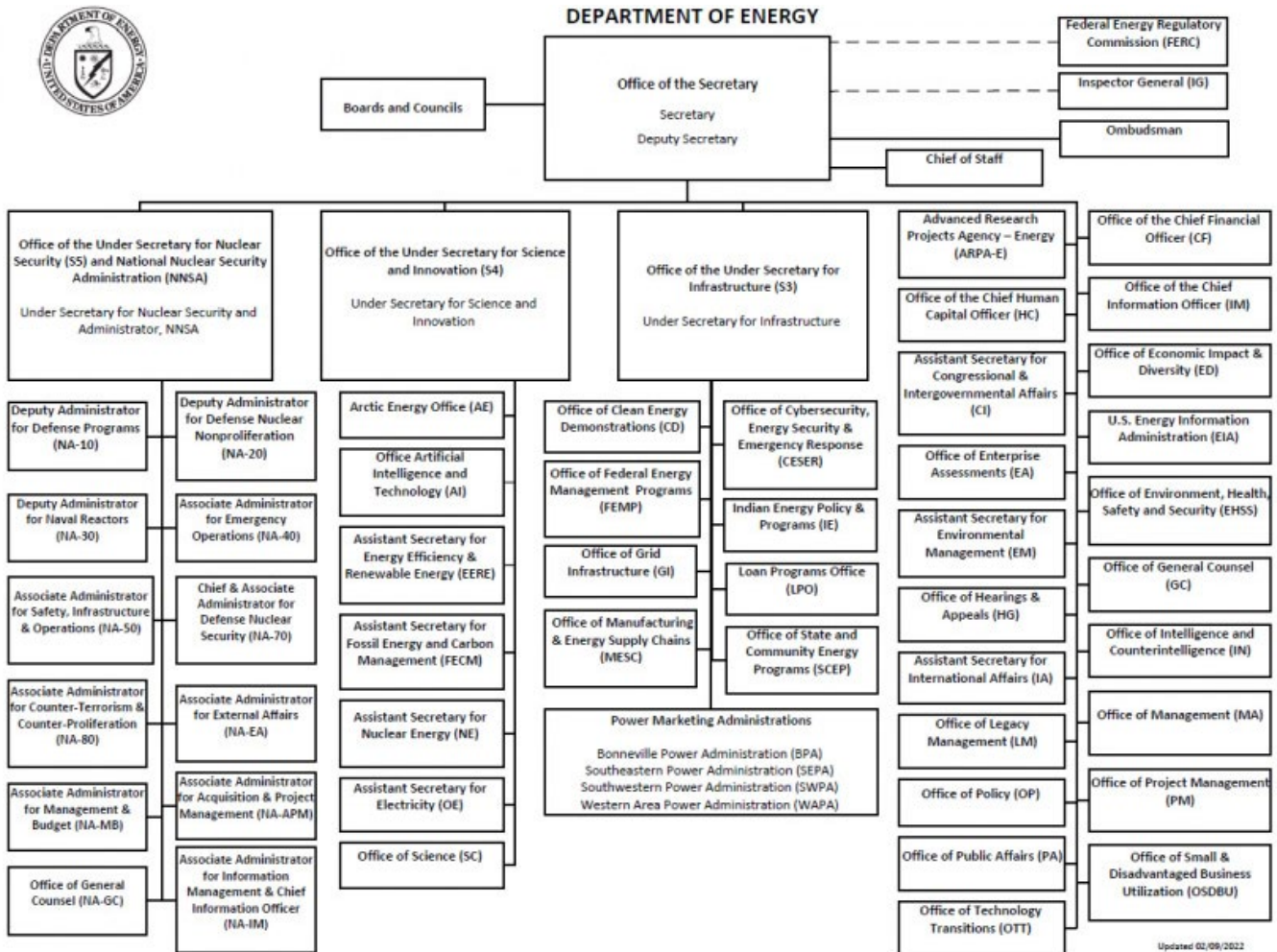
Moniz also had observations on other issues, including:

Stranded Workers: Avoiding “stranded workers and stranded communities” is critical to political support for addressing climate change, Moniz said. “If we don’t do all that we can to avoid stranded workers and communities, all we’re going to have is more and more political headwinds.”

LNG and Resilient Supply Chains: “We have not done a very good job of [ensuring resilient supply chains] as global trade has developed. We have not put reserves in supply chains of many things, including metals and minerals.” One bright spot, he said, is LNG. “Because you don’t have a pipe that goes from point A to point B, you have more flexibility for spot market formation,” he said. While the U.S. is near full capacity for export given current infrastructure (about 10 Bcfd), “there is a new wave of construction going on ... and I think we will get to at least 15, if not 20 Bcfd of export. And that will be an enormous contribution in the global gas market,” he said.

Innovation Hubs: In addition to supporting regional hydrogen hubs, Moniz said the government could promote regional innovation hubs. “I’ve always felt that that is a very important direction to pursue. Because ... it’s regionally where the focus is on needs. And every part of the country has got some integration resources but has very, very different needs. And I think that having a substantial part of federal funding go through these regional infrastructure hubs would be a big plus.”

Carbon Dioxide Removal: “For a long time, there were those who opposed carbon dioxide removal. ... Now, my concern is a number of people are going overboard; they’re saying, ‘we’re going to need about 20% of the solution to come from removing CO₂ from the atmosphere and the oceans.’ Twenty percent is a huge number; that is an incredibly massive business that would be created. We’re going to need a lot; can we make that much? It’s going to be tough. We’re going to need a lot of innovation to get there.” ■



Updated 02/09/2022

The Department of Energy is creating two undersecretaries, one focused on fundamental science and clean energy innovation and the other focused on deploying clean infrastructure, to direct \$62 billion in spending under the bipartisan infrastructure law. | *Department of Energy*

FERC/Federal News



Former Commissioners Preview Year Ahead for FERC

By Michael Brooks

FERC has undertaken an ambitious agenda for this year that will face numerous headwinds from administrative challenges, not least of which remains the ongoing COVID-19 pandemic.

A panel of former FERC commissioners provided their insight into those challenges during a webinar hosted by the Energy Bar Association's Northeast Chapter and moderated by *RTO Insider* co-publisher Rich Heidorn Jr.

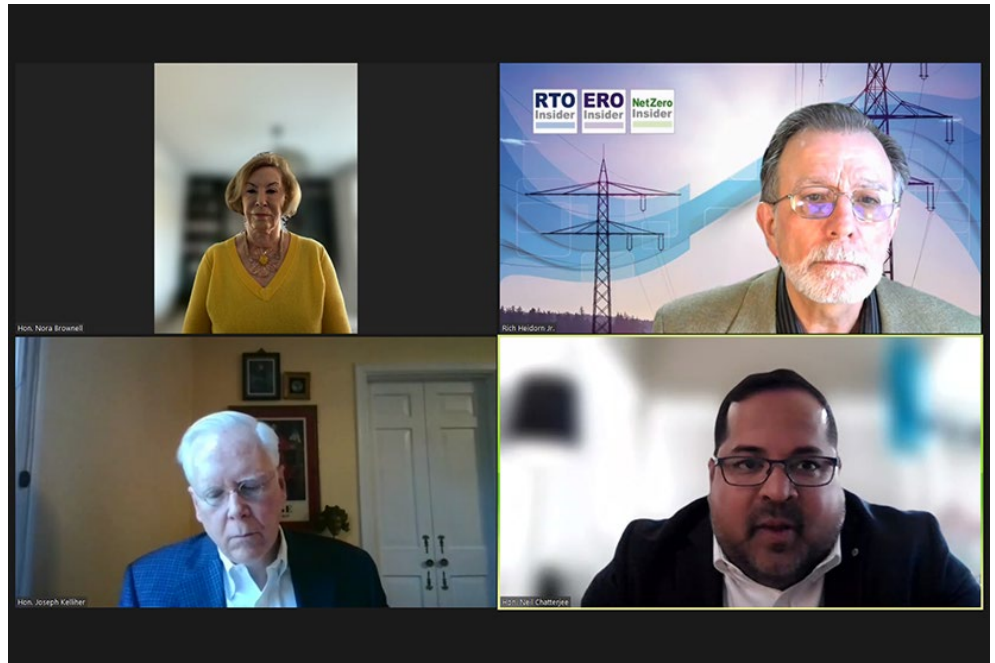
At the top of FERC's agenda is its Advanced Notice of Proposed Rulemaking on transmission planning and cost allocation. Chair Richard Glick said last week that he hopes to have a final rule out of the proceeding by the end of the year, but former Chair Joseph T. Kelliher, now an arbitrator with dispute resolution firm FedArb, was doubtful that could be achieved because of the scope of the docket. (See related story, [Glick Aiming for Final Transmission Rule by End of Year.](#))

But former Commissioner Nora Mead Brownell, co-founder of consulting firm ESPY Energy Solutions, said that "given the current set of circumstances that we face ... it's time to be bold. ... We are not really getting the environmental, economic or equity outcomes that meet the threshold that we've learned to expect. We have a transmission grid that is old; that is vulnerable; that is not achieving what we need to do to deliver a grid for the future."

Among the practical challenges to reaching any final rule is a staffing shortage, she said. "There's been an enormous amount of staff turnover; there's lots of open positions. I think we all need to be arguing for increasing hiring. We need to be supporting the efforts to recruit people. And we need to give them the tools that they need in order to do the job."

Another challenge remains the COVID-19 pandemic, which has kept commissioners and their staffs working remotely. Former Chair Neil Chatterjee, now senior adviser at Hogan Lovells, noted that Commissioner James Danly was confirmed by the Senate in early March 2020, just before Chatterjee transitioned the commission to telework as the pandemic began. Thus, Chatterjee had never held an open meeting in-person with Danly as a commissioner, nor did he with current commissioners Allison Clements and Mark Christie.

This week's open meeting will mark two years



Clockwise from top left: Nora Mead Brownell, ESPY Energy Solutions; Rich Heidorn Jr., RTO Insider LLC; Neil Chatterjee, Hogan Lovells; and Joseph T. Kelliher, FedArb. | EBA

since the commission last held an in-person open meeting. Chatterjee said that makes it difficult for commissioners and their staffs to get to know each other personally and, therefore, work toward consensus on controversial dockets. Glick had intended to resume limited in-person meetings, with only staff and members of the press in attendance, last year, but the surge in COVID cases from the Omicron variant of the virus delayed that plan.

On Wednesday, after his keynote speech at the National Association of State Energy Officials' annual Energy Policy Outlook Conference, Glick told *RTO Insider* that, though he would like to resume in-person meetings "as soon as possible," the case rate in D.C. is still too high.

According to the Centers for Disease Control and Prevention, *D.C.'s case rate* per 100,000 residents as of Monday was 180.94; any rate above 100 is considered "high." The district has reported an average of 182.4 cases a day over the past week.

"We're all sort of adept at virtual communication these days, but so much is lost in that process," Chatterjee said. "And when you're trying to negotiate something as complex as reforming transmission policy, it's hard to do it virtually."

Finally, since the beginning of the Trump era of U.S. politics, the commission has seen a parti-

san divide in its decisions and debates that has alarmed many observers.

Chatterjee said that working virtually does not help heal that divide. Kelliher agreed, saying that filings constitute 85% of the commission's workload, leaving the remainder of time for discretionary work, such as initiatives. But the commission has become less efficient processing filings, leaving less time to work on big issues, he said.

"When I was chairman, we'd meet every week, one on one, no staff, and we would talk about big things that are what I thought the commission had to act on in the next three months," Kelliher said. "We wouldn't do something big unless we knew, 'What's the center of gravity? And is this a productive exercise?' And then once we knew, then the order would be written up, versus writing up an order, flinging it down the hallway virtually, and then seeing what the reaction is. It's just much more efficient."

Brownell said that partisanship may be the new normal, as "it's a reflection of what's happening in the larger world."

Regarding the transmission ANOPR, she said, "I think it would be great if they could get to unanimity, but when you have people who may believe it's their job just to disagree, maybe that's just not possible in today's world." ■

Southeast

TVA Defends Rates, CO₂ Reduction Plans in House Inquiry

By Amanda Durish Cook

TVA stood behind its emissions goals, renewable plans and rates in responding to questions from the U.S. House of Representatives' Committee on Energy and Commerce.

The federal utility earlier this month responded to a January letter from the committee that posed several questions regarding TVA's electricity affordability and investment in renewables and energy efficiency. The committee suggested the agency's current business practices might be at odds with its statutory requirement to provide low-cost power to Tennessee Valley residents. (See [TVA Comes Under Congressional Spotlight](#).)

"Unlike investor-owned utilities, we do not seek to make a profit each quarter or year," CEO Jeff Lyash wrote in the agency's Feb. 2 response to the committee. "TVA's business model is based on generating the revenue needed to manage our system costs while keeping rates low for our customers — all without receiving federal appropriations."

Lyash said plans to cut carbon 70% from 2005 levels by 2030 and 80% by 2035 won't affect energy costs, reliability or resiliency.

"Beyond 2035, we aspire to achieve net-zero emissions by 2050 and are actively pursuing and researching the technologies needed to get there," he wrote.

TVA said it plans to add 10 GW of solar generation by 2035. It also said it would "review and consider" wind generation opportunities. Lyash said the utility will continue growing renewable energy "regardless of our inability to take advantage of renewable energy credits."

Currently, wind and solar generation account for 3% of TVA's generation mix, "significantly less than comparable utilities," the committee said.

But Lyash said TVA's transformation to clean energy must be carefully planned, given many of its 10 million customers subsist on low incomes and live in old, energy-inefficient homes. He also said the seven-state footprint deals with harsh summers and winters and severe weather.

The utility said it's discussing ways it can accelerate carbon reductions "while maintaining safe, reliable and low-cost power."

Lyash said residential rates remain lower than 80% of the nation's large utilities and he said

TVA will keep base rates flat until 2030. He also said the agency has shrunk its debt to its lowest level in 30 years.

During TVA's Thursday Board of Directors meeting, Lyash repeated his congressional response's talking points. He also announced the addition of a GE Hitachi small modular reactor by 2032 at the Clinch River Nuclear site.

TVA's response letter backed the grid access charge it rolled out in 2018, calling it "modest" and necessary so that local power companies with distributed energy resources didn't leave other power companies with higher rates. It said the charge "mitigate[d] the effects of uneconomic development in DER."

The utility said the charge has had "essentially no or very limited impact on the adoption of distributed solar installations."

TVA also defended its energy efficiency efforts and the pace of its coal fleet's retirement.

From 2014 to 2021, TVA reported annual energy needs served by energy efficiency programs grew from 0.9% to 1.4%. It said all its local power companies participate in at least one of its four energy efficiency programs.

TVA said new building codes and more efficient appliances and products have impacted energy consumption more than "market-driven efforts." It also said results from a study on energy programs potential, due out later this year, will help determine how it modifies or fashions new programs for energy efficiency, demand response and electrification.

The utility's response stood behind its 2035 timetable to retire all its coal units. It pointed out that it will have retired 60% of its coal capacity when it shuts down its Bull Run coal plant near Knoxville, Tenn., next year. TVA said it is weighing future retirement announcements for its Cumberland and Kingston coal plants and might replace them with onsite gas units or offsite solar and storage assets.

In response to a question about how it plans to reduce its reliance on natural gas, TVA said that natural gas "currently remains the best available resource that allows TVA to backstop the intermittency of solar generation."

The authority said it had no ill intentions when it participated in the now-dissolved Utility Air Regulatory Group (UARG), a lobbying organization that fought environmental standards. (See [TVA Sued Over Contributions to Trade Groups; FERC Questions Ratepayer Funding of Trade Association Dues](#).)



TVA CEO Jeff Lyash | TVA

It also explained that when it hired former UARG attorneys after the lobbying group disbanded in 2020, it intended that they would keep TVA apprised of Clean Air Act regulatory developments, not to engage in litigation.

"TVA contractually restricts its external membership organizations from using TVA funds for lobbying and litigation, unless specifically authorized by TVA," the utility said.

SACE: Purposefully Misleading Replies

The Southern Alliance for Clean Energy (SACE) lambasted TVA's response and said the answers "dodge some of the committee members' key concerns and provide misleading information on several issues."

SACE said TVA skirted details on reducing its energy efficiency programs and was intentionally vague on its plans to reduce reliance on fossil fuels.

"TVA attempts to dismiss the committee's concerns about its pullback of energy efficiency by claiming utility energy efficiency programs are no longer needed because building codes and appliance standards have taken over as energy efficiency tools. This argument is problematic on many levels," SACE Research Director Maggie Shober said. "Better codes and standards do not reduce the customer benefits of the utility incentivizing customers to be more efficient than that baseline."

Shober said other utilities face the same stepped-up codes and standards yet still create energy savings programs "that put TVA's to shame." She said it's "beyond obvious" that the authority could be doing more for energy efficiency.

Southeast

Using information obtained under a Freedom of Information Act request, SACE put TVA's cumulative energy savings from a peak of 0.31% in 2014 down to 0.02% in 2019; TVA claims a 0.9-1.5% range since 2014.

The clean energy advocate said TVA's savings performance was among the worst in the nation. "There's a lot of room to increase from

near zero," Shober said.

She said TVA is engaging in "some seriously Orwellian math" when it paints its carbon reduction plans as in sync with President Biden's call for 100% carbon reductions by 2035.

SACE said by its count, TVA's target of 10 GW of solar by 2035 needs to at least double to achieve completely clean energy.

The organization also said the utility wasn't upfront about its grid-access charge being a means to suppress distributed solar adoption. "TVA brings up the old boogeyman myth that distributed solar on homes and businesses shifts costs to customers without solar, and yet it doesn't present any evidence of such a cost shift," Shober said. ■



TVA's Bull Run Fossil Plant | Rich LaSalle / TVA

Southeast

Environmental Groups Appeal SEEM in DC Circuit

Filing Seeks Overturn of Multiple Decisions

By Holden Mann

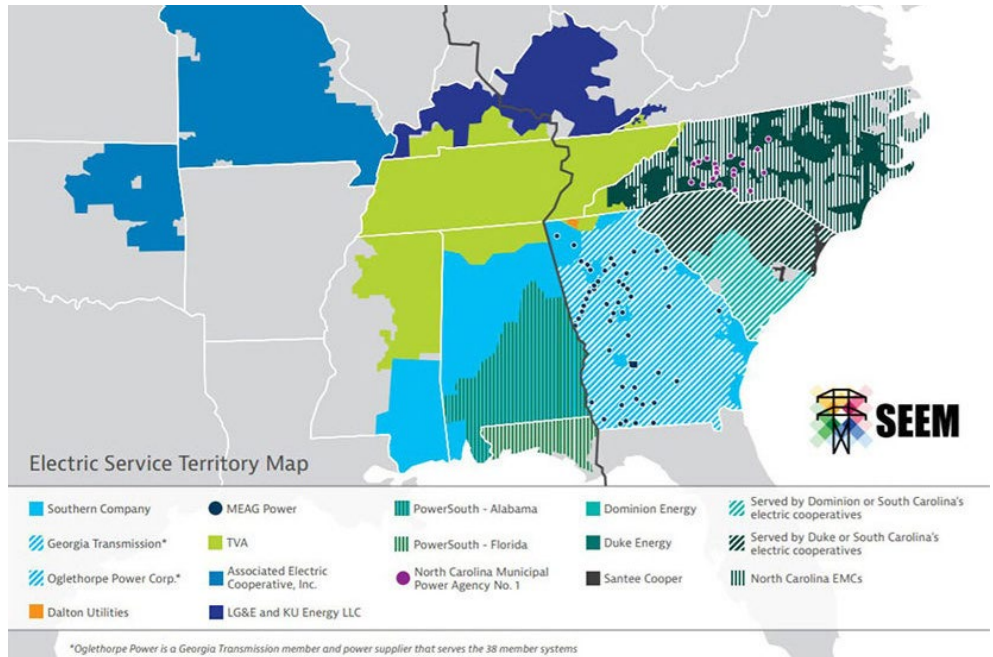
Continuing their bid to block the Southeast Energy Exchange Market (SEEM), a collection of environmental, clean energy and community groups filed an appeal of FERC's decision to approve the market with the D.C. Circuit Court of Appeals on Feb. 8.

The Southern Environmental Law Center (SELC) filed the appeal on behalf of the Sierra Club, the Southern Alliance for Clean Energy, the North Carolina Sustainable Energy Association, and others. Advanced Energy Economy, Clean Energy Buyers Association, Solar Energy Industries Association and the Natural Resources Defense Council joined as well. The plaintiffs hope to persuade the court to set aside FERC's approval of the market from October, along with subsequent orders stemming from the commission's decision (*ER21-1111, et al.*).

AEE General Counsel Jeff Dennis said in a [statement](#) that the SEEM agreement "threatens to erode foundational principles of open access to the transmission system that have been in place for decades, and to cement monopoly control of generation markets in the [Southeast]." He called for the market to be revised "to ensure fair competition among generating resources and open access to the transmission system in the region."

SEEM's sponsors — a group of utilities including Southern Co., Dominion Energy South Carolina, LG&E and KU, the Tennessee Valley Authority and Duke Energy — proposed the market last year, saying that the expansion of bilateral trading would reduce trading friction while promoting the integration of renewable resources. But the proposal attracted considerable opposition from environmental groups, including many of the plaintiffs in last week's appeal.

The SEEM agreement took effect Oct. 12, after FERC — at the time short a commissioner and evenly split with two Republicans and two Democrats — failed to form a majority for or against it. Under Section 205 of the Federal



Map of Southeast Energy Exchange Market's footprint | SEEM

Power Act, the agreement became effective "by operation of law." (See [SEEM to Move Ahead, Minus FERC Approval](#).)

The FPA allows any parties "aggrieved" by a FERC order to apply for rehearing within 30 days of its issuance, and because FERC did not issue a formal order in the proceeding, SELC and other opponents filed rehearing requests Nov. 12 — 30 days after Oct. 13, the date FERC announced that the agreement had taken effect. But FERC denied these requests, reasoning that Oct. 11 was the deadline for the commission to issue an order and therefore the beginning of the clock for filing rehearing requests. As a result, any requests filed after Nov. 10 were out of time. (See [FERC Rejects SEEM Opponents' Rehearing Requests](#).)

The SEEM opponents responded by asking for a rehearing of this decision as well, which FERC again denied. In their filing Feb. 8, the plaintiffs called for the court to overturn all three decisions, in addition to:

- FERC's order of Nov. 8 approving revisions

to four of the SEEM utilities' tariffs implementing the special transmission service used to deliver the market's energy transactions (See [FERC Accepts Key Tariff Revisions to SEEM](#)); and

- the commission's rejection of the plaintiffs' rehearing request for this order.

"This case is about the fundamental principle of open access and the commission's obligation to enforce that principle to protect market participants and consumers," SELC Staff Attorney Maia Hutt said in a separate statement. "Should SEEM be allowed to move forward, it must include open-access to transmission and accountability mechanisms that ensure that SEEM does not benefit utilities at the expense of customers."

In an email to *RTO Insider*, a spokesperson for Southern said SEEM members would "provide the court the information necessary regarding the FERC proceedings and the benefits of SEEM for our customers." ■

West news from our other channels



[Clean Energy, Equity Goals to Reshape Oregon IRP Process](#)

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RTO Insider subscribers have access to two stories each monthly from NetZero and ERO Insider.

CAISO/West News

CPUC Adopts Stricter GHG Reduction Plan

40 GW of New Renewable and Storage Resources Required by 2032

By Hudson Sangree

The California Public Utilities Commission on Thursday ordered a steep reduction in greenhouse gas emissions by the electricity sector over the next decade and adopted a plan to add 40 GW of new resources, at an estimated cost of \$49 billion, to get there.

The [decision](#) adopting the new preferred system plan completed the second half of the commission's multiyear integrated resource planning process, which began in 2019.

It called for the electricity sector to meet a new goal of limiting greenhouse gas emissions to 38 million metric tons in 2030 and 35 MMT in 2032. The new 2032 target is 23% lower than the 46-MMT goal that the CPUC set in the two prior years to its current IRP cycle. (See [CPUC Triples Resource Projections for CAISO Tx Plan.](#))

Commissioner Clifford Rechtschaffen, the lead commissioner in the IRP proceeding, said the new target represented a major step forward in the state's effort to combat climate change.

If California can meet the goal, "it means in 2032, our grid will be 86% greenhouse gas free," and that 73% of resources in the state portfolio will be renewables, Rechtschaffen said.

"We have been doing extremely well in reducing greenhouse gas emissions in the electricity sector," he said. "Emissions from that sector have declined by close to 50% over the last decade. This decision ensures that we'll continue that trend into the next decade."

The electricity sector, including in-state generation and out-of-state imports, accounts for about 15% of GHG emissions in California. Transportation (40%) and industry (about 20%) are the two biggest polluters.

The state has a legislative mandate to reduce overall GHG emissions, including from transportation and industry, by 40% below 1990 levels through 2030. The state emitted a total of 418.2 MMT in 2019, the latest year for which accurate data are available.

Transmission Planning

The decision also asked CPUC staff to explore, in cooperation with CAISO and the California Energy Commission, what it would take to

reach an even lower 30-MMT target.

"Through the study of this case, we hope to learn more about the transmission buildout and cost implications of the lower GHG target, which we may consider for adoption for the years after 2030," Administrative Law Judge Julie Fitch wrote.

For now, "an important reason that we develop this resource portfolio is to have it considered by the CAISO for transmission planning purposes," Fitch said. "Adopting the 38-MMT portfolio while continuing to analyze deeper GHG emissions-reduction scenarios allows us to proceed in an orderly, step-to-step fashion to build out the grid infrastructure needed to support future generation and storage projects."

A preliminary analysis by commission staff showed "there is sufficient space for all of these new resources on the existing transmission system, with only limited transmission upgrades needed by 2032," the CPUC said in a news release. "This finding will be validated at a more granular level by [CAISO] in its 2022-2023 transmission planning process."

Rechtschaffen praised CAISO for having identified two storage projects in last year's transmission planning process that could eliminate the need for new transmission.

"It's a creative solution, and it's a cost-effective solution," he said.

Resource Procurement

California will need a vast increase in generation and storage resources to meet the new GHG target and the state's goal of serving retail customers with 60% clean energy by 2030 and 100% by 2045, as required by 2018's Senate Bill 100.

"The 38-MMT target represents a major resource buildout that requires approximately a 40% increase in net qualifying capacity [NQC] of the electric system in the state within less than a decade," Fitch wrote. "To achieve this portfolio, an average of approximately 4,000 MW of new capacity in NQC will need to be added each and every year through 2032."

In her decision Fitch estimated the cost of adding 40 GW of new resources at nearly \$49 billion.

In adopting the decision, the CPUC approved

a resource portfolio that includes 25.5 GW of new renewable resources and 15 GW of new storage and demand response resources by 2032 — "enough clean energy to power approximately 11.5 million homes," the commission said.

The figures include 11.5 GW of new resources that the CPUC ordered load-serving entities, including the state's three big investor-owned utilities and its community choice aggregators, to procure by 2026 last June. (See [CPUC Orders Additional 11.5 GW but No Gas.](#))

The commission's forecasts of resources needed to meet the state's climate goals have increased significantly in recent years.

In 2020, the CPUC adopted a reference system portfolio in its IRP proceeding that called for 25 GW of renewable energy and storage by 2030. Last year it said the state will need 28 GW of generation and storage by 2031 under the previous 46-MMT target.

The new plan calling for 40 GW accounts for the new 38-MMT target and anticipates a high penetration of electric vehicles by 2032. It includes additional solar power, totaling 17.5 GW, and more battery storage, reaching 13.5 GW. It also incorporates 1 GW of long-duration storage, 1.2 GW of geothermal energy, 1.7 GW of offshore wind and 1.5 GW of out-of-state wind.

Unlike the first phase of the CPUC's 2019-21 IRP, the second phase took the current and planned resource portfolios of more than 50 LSEs into account to forecast procurement needs through 2032.

"The first half of this IRP cycle analyzed and adopted an optimal portfolio of electricity resources as a guide for LSEs to use for meeting their GHG, reliability and cost objectives," the commission said. "The second half of the IRP cycle ... is designed to consider the portfolios and actions that each LSE proposes for meeting these goals — to allow the CPUC to review each LSE plan and aggregate LSE portfolios to develop a preferred system plan portfolio, and to consider whether further action by the LSEs, such as additional procurement, is needed to meet state goals." ■

CAISO/West News

NV Energy's Greenlink North Gets Go-ahead

PUCN also OKs Utility's Solar Projects

By Elaine Goodman

Nevada regulators have approved NV Energy's \$901 million Greenlink North project, a 235-mile power line across northern Nevada that will complete a transmission triangle around the state.

Greenlink North is one piece of NV Energy's Transmission Infrastructure for a Clean Energy Economy Plan, which was included in Phase IV of the utility's triennial integrated resource plan for 2022 to 2041. The Public Utilities Commission of Nevada (PUCN) voted 3-0 on Jan. 24 to approve Phase IV of the IRP.

Greenlink North will run from Robinson Summit, near Ely in eastern Nevada, to Fort Churchill near Yerington.

The 525-kV transmission line will connect NV Energy's existing One Nevada line along the east side of the state to Greenlink West, a yet-to-be-built line that will run down the west side of the state. Greenlink West and One Nevada will meet in the Las Vegas region.

PUCN approved Greenlink West in March 2021 and the project is scheduled for completion in December 2026. (See [Regulators Greenlight NV Energy's Greenlink West](#).) NV Energy expects to complete Greenlink North by December 2028.

An NV Energy spokesperson said engineering and permitting work are now underway for both Greenlink West and Greenlink North.

The Bureau of Land Management's Nevada State Office will lead the National Environmental Policy Act environmental review process for the projects, the spokesperson said. The BLM plans to issue a notice of intent in April to start the process.

Legislative Requirement

NV Energy was required to file a Transmission Infrastructure for a Clean Energy Economy Plan (TICEEP) as part of [Senate Bill 448](#), a wide-ranging energy bill approved during the 2021 state legislative session.

NV Energy filed an application for TICEEP on Sept. 1, as an amendment to its IRP application filed in June.

In addition to Greenlink North, TICEEP includes a 32-mile, 525-kV line just north of Las Vegas.



With Nevada regulators' approval of the 235-mile Greenlink North line, NV Energy can complete a high-voltage network designed to connect much of the state. | NV Energy

The \$143 million project will run from the Harry Allen substation to the Northwest substation.

One goal of TICEEP is to expand transmission access to renewable energy zones and promote development of renewable energy resources in the state.

The plan is also intended to assure a reliable and resilient transmission network in the state and support the development of regional transmission interconnections.

In its application for the plan, NV Energy said an interconnected Western grid would give the state access to a wider variety of renewable energy resources. While Nevada's location gives it a chance to be a key player in that grid, the state has thus far lacked transmission infrastructure, the utility said.

The new infrastructure included in TICEEP "continues to build a foundation for the state to access diverse renewable energy resources for use within Nevada while increasing the transfer of energy between Nevada and the developing western grid."

Solar Projects Approved

The approval of Greenlink North comes after PUCN recently approved another part of NV Energy's IRP, which includes two new solar-plus-storage projects in Humboldt County.

The Iron Point solar project will combine a 250-MW solar photovoltaic system and 200 MW of battery storage. The Hot Pot solar project will include a 350-MW solar system and 280 MW of battery storage.

Both projects are being developed and built by Primergy Solar. NV Energy expects Iron Point to be in service in December 2023, with Hot Pot in service a year later.

The projects will replace NV Energy's only remaining coal fired power plant, the North Valmy Generating Station, the utility said in a [release](#).

NV Energy said the two new solar projects will join its renewable portfolio of 55 geothermal, solar, solar-plus-storage, hydro, wind, biomass and supported rooftop solar projects either in service or under development. ■

CAISO/West News

PG&E Plans to Spend \$25B to Bury Lines

Proposal to Underground 10,000 Miles Still Needs Approval

By Hudson Sangree

Pacific Gas and Electric’s plan to underground 10,000 miles of power lines in high fire-threat areas would cost more than \$25 billion, even assuming costs per mile decline over time, the company said Thursday.

It was the first time the utility has put a price tag on its proposal, which CEO Patti Poppe announced in July. (See *PG&E Proposes Undergrounding 10K Miles of Distribution*.)

“Today we’re providing the first look at the next five years of our undergrounding plan,” Poppe said during PG&E’s fourth-quarter earnings call. “It’s big and it’s bold. We’re moving on our commitment to underground 10,000 miles of power lines in our high fire-risk areas. Undergrounding is a strong long-term solution for PG&E to reduce wildfire risk in certain parts of our service area.”

California’s largest utility (NYSE:PCG) expects to spend \$3.75 million per mile to bury 175 miles of lines this year, but Poppe said it could bring the cost down to \$2.5 million per mile by 2026 through efficiencies of scale and technical advances.

PG&E equipment has been blamed for a series of catastrophic wildfires starting in 2015 and extending through last year’s Dixie Fire, which burned close to 1 million acres. The fires included the 2018 Camp Fire, which leveled the town of Paradise, killed 84 people and drove PG&E to file for bankruptcy reorganization in January 2019.

As part of its plan to prevent future fires, PG&E intends to underground 3,600 miles of line by 2026, with sizable increases year over year, including 400 miles in 2023, 800 miles in 2024 and 1,000 miles in 2025.

The full plan has not been considered by PG&E’s regulator, the California Public Utilities Commission. Asked about that by an analyst, Poppe said the CPUC had approved some of PG&E’s undergrounding work under prior wildfire mitigation plans. (The utility buried 70 miles of line last year.)

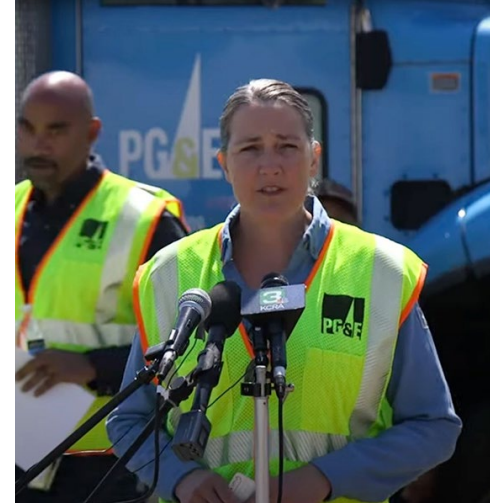
PG&E will seek additional approval for its “game-changing investment” in its 2022 wildfire mitigation plan, due Feb. 25, and as part of its 2023 general rate case, she said.

If approved by the CPUC, PG&E’s capital expenditures would increase over the next four years, but long-term cost savings “will reflect a minimal impact to customers relative to our previous filings,” Poppe said.

“Undergrounding is a great example of our simple and affordable model in action,” she said. “We invest in really high value capital infrastructure and reduce our spend on temporary repairs and annual recurring expenses.”

“We will protect our customers from energy bills they cannot afford with a cost discipline that many of you would expect,” she said.

CPUC commissioners have expressed concern about PG&E rate increases, driven by infrastructure upgrades and high natural gas prices.

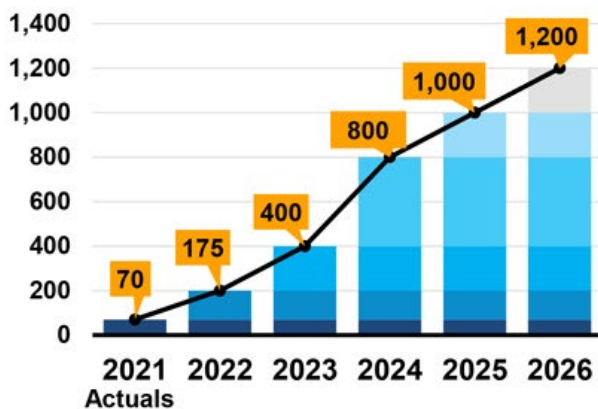


PG&E CEO Patti Poppe announced in July a plan to underground 10,000 miles of line. | PG&E

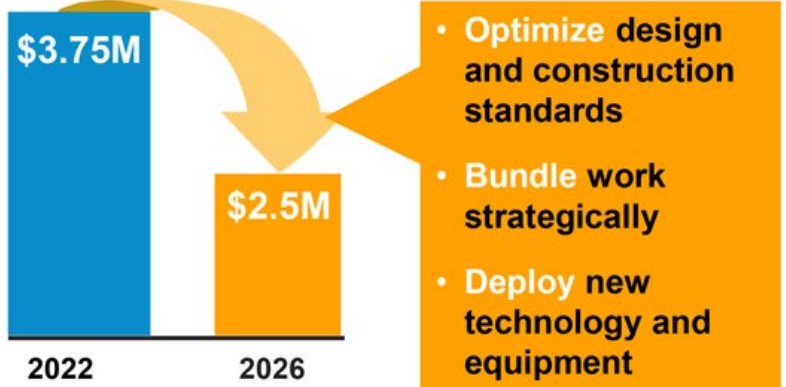
During the call, PG&E reported GAAP fourth-quarter income of \$472 million, or \$.22/share, and full-year losses for 2021 of \$102 million, or \$.05/share. In comparison, PG&E reported full-year losses of \$1.3 billion, or \$1.05/share, and Q4 earnings of \$200 million, or \$.09/share, in 2020.

After Thursday’s earnings call, PG&E’s beleaguered stock price dropped from \$12.08 at 9:45 a.m. ET to \$11.20/share by midafternoon, then rebounded to \$11.38/share just before trading closed for the day. In August 2017, before the worst of the fires ignited by its equipment began, PG&E’s stock traded for more than \$70/share. ■

Target Miles Per Year



Target Cost Per Mile



PG&E hopes to bury 3,600 miles of lines through 2026 while cutting costs by a third. | PG&E

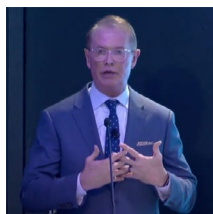
CAISO/West News

EEI Urges Passage of Renewable Tax Credits

By Hudson Sangree

Edison Electric Institute laid out its 2022 legislative priorities in its annual Wall Street *briefing* last week, saying the investor-owned utilities it represents are key to building clean energy infrastructure but need enhanced federal tax credits to meet the nation's climate goals.

"It's really about a robust clean energy tax package," Brian Wolff, executive vice president for public policy and external affairs, said Wednesday from the Nasdaq MarketSite at Times Square in New York. "Whatever package that the Congress comes up with next, that's something that we hope will take place in the next quarter of this year."



Brian Wolff, EEI | EEI

The production tax credit (PTC) and investment tax credit (ITC) for renewable energy development need to be extended and expanded, Wolff said. The PTC expired at the end of 2021. The ITC, a solar-only credit, is phasing out, with reduced benefits over time. The benefit rate, previously 30%, is 26% in 2022, 22% in 2023 and 10% thereafter.

Ten-year extensions of the credits are part of the Build Back Better Act (BBB), the \$1.75 trillion economic and climate package stalled in the Senate because of opposition from Sen. Joe Manchin (D-W.Va.), chair of the Senate Energy and Natural Resources Committee. (See *Build Back Better and Beyond: Insights for the Year Ahead.*)

EEI's main lobbying efforts include passage of the credits, possibly in a reworked BBB or in a separate bill. The trade group is seeking "optionality in choosing between the PTC and the ITC for solar" so that "everyone is going to be out there deploying solar on a level playing field," Wolff said.

It wants a 100% direct-pay option to recoup benefits in a cash tax refund versus tax credits.

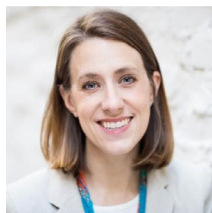
EEI also is pursuing new credits for transmission, storage and hydrogen and a nuclear PTC for existing facilities.

"I can't emphasize the importance it means for our industry ... not to take these zero-carbon facilities offline," Wolff said, referring to the nuclear credit. "That's only going to take us backwards."



EEI held this year's Wall Street briefing at Nasdaq's MarketSite in Times Square. | Nasdaq

Natural gas also needs to remain a part of the resource mix for the foreseeable future, he said.



Emily Sanford Fisher, EEI | EEI

these into the grid [and] zero-carbon fuels, such as hydrogen and ammonia, that could be produced from a variety of sources."

"As Brian mentioned, nuclear is incredibly important to our industry and to maintaining our zero-emissions goals, and we are also focused on advancing technologies: carbon capture, utilization and storage — particularly for our natural gas generation — and advanced demand-efficiency and long duration storage."

In its *prepared remarks* EEI said, "establishing alternative cost-sharing formulas and providing financial incentives for investing in deployment of these technologies, including technology-neutral production or investment tax credits,

loan guarantees, grants, secure loans and other innovative means, can help to expedite commercialization of the next generation of 24/7 carbon-free technologies."

After the briefing Wednesday, EEI President Thomas Kuhn met with President Joe Biden, Energy Secretary Jennifer Granholm and top energy advisers at the White House as part of a roundtable discussion with utility CEOs, who lobbied the president to make sure the tax credits are extended.

"They're back there talking about what this really means for our companies, but more importantly, what those tax credits will mean for our customers," Wolff said.

In a *letter* sent Wednesday to House Speaker Nancy Pelosi and Senate Majority Leader Chuck Schumer, utilities and other companies urged Congress to pass the tax credits along with other provisions of the Build Back Better Act.

"The climate and clean energy provisions in Build Back Better, including tax credits for innovation as well as grants and other funding to support communities in transition, would harness market forces and help spur private sector investment at the scale needed to meet our long-term climate goals," the companies wrote. ■

CAISO/West News

CAISO, WEIM Adopt Resource Sufficiency Changes

By Hudson Sangree

Exercising their new joint authority, the CAISO Board of Governors and the Western Energy Imbalance Market Governing Body last week adopted a new set of revisions to the resource sufficiency evaluation for WEIM participants.

The RSE test is meant to ensure that each WEIM participant enters a trading hour with enough capacity and ramping capability to supply its own needs and to prevent participants from “leaning” on the market to meet internal demand.

CAISO adopted RSE changes last year in its Market Enhancements for Summer 2021 initiative, which was intended to ensure resource adequacy after the prior summer’s rolling blackouts. Some WEIM participants, however, criticized several provisions affecting the ISO’s interstate market.

CAISO agreed to revisit the matter in a stakeholder initiative that culminated with the changes adopted Wednesday.

The *enhancements*, scheduled to take effect this summer, include provisions to measure a participant’s available supply and ramping capability more accurately. They also modify import-counting rules and allow demand response programs to be considered in the RSE.

“The newly adopted enhancements will increase transparency by providing the WEIM participants with more of the data used in the resource sufficiency evaluation, which will help each balancing authority understand how their schedules and bids performed and improve

their ability to be successful in future evaluations,” CAISO said in a news release.

Uncertainty

Last year, participants raised objections to an “uncertainty” adder meant to account for the unpredictability of weather-dependent resources such as solar and wind generation, transmission outages and other variables. Some contended it skewed results and led to test failures, including by CAISO last summer.

CAISO suspended the uncertainty component effective Feb. 12.

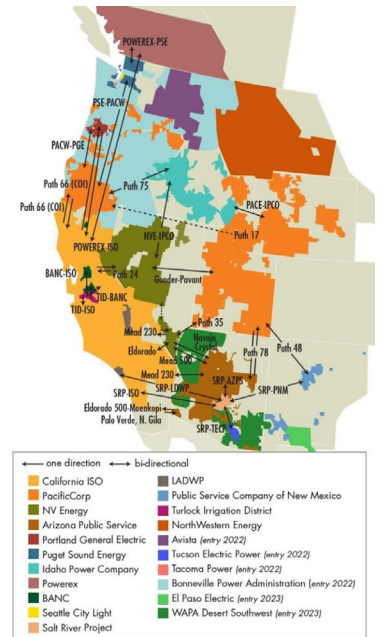
“Concerns were raised regarding the existing methodology for calculating uncertainty,” CAISO said in a Feb. 8 update. “These concerns remain unresolved.”

Therefore, “the ISO is moving under its existing authority to suspend this provision from the capacity test in a future phase of the [RSE] enhancements initiative.”

CAISO plans to work with stakeholders to assess additional changes, including the consequences if a WEIM member fails to pass the resource sufficiency evaluation — another contentious topic raised last year.

Cooperation

CAISO and WEIM approved a new power-sharing agreement last August and held their first meeting under the new relationship in December to discuss the RSE enhancements. (See *CAISO Reevaluating WEIM Resource Sufficiency Test.*)



A map shows transfers in the Western Energy Imbalance Market in Q4 2021. | CAISO

Last week’s RSE decision was among their first joint actions under the new rules.

“I want to recognize the thoughtful collaboration and engagement with our market partners and stakeholders to improve and evolve the performance of the WEIM,” CAISO CEO Elliot Mainzer said in the news release.

“We also recognize that there is more work to be done on this topic to meet the goals of reliability, accountability, transparency and equity that must underlie a truly effective resource sufficiency evaluation and well-functioning WEIM.” ■

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ISO-NE News

ISO-NE Asks FERC to Expedite Killingly Rehearing Decision

New England is still awaiting results of last week's capacity auction, and the wait could go on longer than usual as ISO-NE has to wait for federal action to announce them (ER22-355-001).

The grid operator on Wednesday asked FERC to take expedited action on a rehearing request from NTE Energy in regards to the Killingly Energy Center. A court ruling on Feb. 4 ordering ISO-NE to allow the under-development Connecticut gas-fired power plant into Forward Capacity Auction 16 has added a large amount of uncertainty to the process.

The RTO moved to terminate Killingly's capacity supply obligation in November, a decision that was upheld by FERC in January. But the D.C. Circuit Court of Appeals ruled that FERC must answer NTE's request for rehearing before the termination can be enforced. (See [Killingly Stays Alive After DC Circuit Halts FERC's Termination Order](#).)

"Expedited action is necessary so that ISO-NE may provide to New England stakeholders and file with the commission the results of Forward Capacity Auction 16," the RTO said in a filing to FERC on Feb. 8. "Prompt resolution of the continuing uncertainty regarding the status of Killingly will also enable the ISO and market participants to conduct qualification activities related to FCA 17, which is scheduled to be conducted in February 2023."

The RTO asked FERC to issue an order responding to NTE's rehearing request by Thursday. ■



— Sam Mintz

ISO-NE is asking FERC to rule quickly on NTE Energy's rehearing request. | © RTO Insider LLC

ISO-NE News

NEPOOL Markets Committee Briefs

Committee Declines to Recommend Additional FA Changes

The NEPOOL Markets Committee on Feb. 8 voted against recommending two pieces of a proposal from Competitive Power Ventures to change ISO-NE's financial assurance rules.

The meat of the *proposal*, aimed at increasing the consequences for projects that don't meet development milestones required for participation in the Forward Capacity Market, is under consideration by NEPOOL's Budget and Finance Subcommittee. It would create new financial assurance requirements for projects that fail to meet certain milestones and add penalties for projects that fail to deliver physically by their commitment date.

But a new *addition* to the proposal voted on by the MC — to allocate forfeited financial assurance to all buyers and sellers in the market (rather than just sellers) — failed to get the support required for a committee recommendation. Also rejected were changes to the critical path schedule provisions in the proposal.

It was an especially timely conversation last week as a late court ruling on the *Killingly* Energy Center, which has challenged an RTO de-

termination that it failed to meet development milestones, threw Forward Capacity Auction 16 on Feb. 7 into chaos. (See *Killingly Stays Alive After DC Circuit Halts FERC's Termination Order.*)

Committee Discusses 'Mothball' Option

The MC also continued work on a proposal by Sigma Consultants to make changes to the resource retirement process.

The discussion at last week's meeting was specifically around whether ISO-NE needs a mechanic for resources to "mothball," or exit service in a way that would later allow them to return from retirement. Sigma's *idea* is to remove the "repowering rule," which requires a minimum investment to re-enter service.

But Sigma's Bill Fowler acknowledged in his presentation that major questions remain around the plan, including whether it should apply to permanent delists as well as retirements, and how retirement bids should be restructured.

The committee ultimately did not vote on the proposal. Fowler expressed frustration with a lack of responsiveness from ISO-NE.

"At the January MC, the ISO made clear that

they are unable to support new stakeholder-driven proposals that are not in the work plan — at least for the foreseeable future," his presentation said. "To resolve the bidding question, as well as ensure that the overall rule does not raise other concerns, we need ISO support."

IMM Presents Fall Markets Report

Donal O'Sullivan of the ISO-NE Internal Market Monitor presented *highlights* from the IMM's Fall Quarterly Markets Report to the committee.

Fall 2021 saw large increases in wholesale market and energy costs over the same period in 2020, driven by higher gas prices and slightly higher loads.

A big increase in gas generation over fall 2020 offset a decline in net imports and nuclear generation in 2021.

Real-time reserve payments were up substantially last year over 2020, and uplift payments increased slightly but remained relatively low. ■

— Sam Mintz



Inside the ISO-NE control room | ISO-NE

ISO-NE News

Overheard: NECA Asks Experts ‘What to Do with All This CO₂’

By Jennifer Delony

In the global effort to reduce greenhouse gases, companies are advancing technologies that capture and store carbon dioxide emissions as a viable way to decarbonize energy.

On Wednesday, the Northeast Energy and Commerce Association’s Fuels Committee invited experts to explore the current carbon capture and sequestration (CCS) market and its place in the global decarbonization effort.

Here’s a look at some of the experts’ insights from that panel discussion.

CCS vs. Alternatives

Understanding the current role of CCS for climate and energy requires looking at the technological alternatives, according to panel moderator Michael Stern, a chemical engineer at consulting firm Exponent.

Renewable energy, he said, is an “obvious” alternative that has its “merits” and “limitations.”

The reliability of clean generation resources could become uncertain as the effects of climate change worsen, Stern said. Energy

storage as a means of balancing uncertain renewable output also has limitations, he added.

There are mature programs that allow companies to compensate for emissions through the purchase of offsets, but they are “not without significant challenges,” Stern said. Some people are concerned that such programs, which include forest carbon offsets, for example, overestimate the amount of CO₂ that is stored and the lifetime of that storage.

Direct air capture (DAC), which pulls CO₂ from the air, has a measure of flexibility that is not available with CCS, Stern said. CCS grabs CO₂ at the source of the emission, so it must be transported, potentially over long distances, to a storage location or secondary market.

A DAC developer, on the other hand, can site a plant near a renewable energy facility to access clean power or near a geological formation for storage. But Stern said that air is a “very dilute source of CO₂” compared with point-source emissions, making the economics of DAC more challenging.

Advanced Tech

Cryogenic carbon capture (CCC) is at the lead-

ing edge of CCS, providing a path forward for the market that improves cost and efficiency, according to Sustainable Energy Solutions cofounder Larry Baxter.

Sustainable Energy started out commercializing CCC a decade ago, and Chart Industries purchased the company last year. The company is demonstrating the technology around the world with a variety of CO₂ sources, Baxter said.

CCC has many applications, such as energy storage and hydrogen production, but Baxter said it is “a game-changing carbon-capture technology.”

The CCC system takes flue gas from any source to produce a liquid CO₂ product for sequestration or use downstream. In the cryogenic process, CO₂ cools down and forms a solid.

“We separate the solid from the gas and warm everything back up again,” Baxter said. The solid, he added, is pressurized before it warms up so it can form a liquid CO₂ as it melts.

That process is not like traditional refrigeration that results in a cold product. “We just use



The Northeast Energy and Commerce Association gathered experts to discuss carbon capture and storage technology and its use in decarbonizing industries, such as cement production. | Shutterstock

ISO-NE News

the cold as part of the separation technology,” Baxter said.

One benefit of the CCC system is that it does not require any modification at the point source, Baxter said.

“We think it’s probably the easiest retrofit carbon capture technology we know of, as it requires literally no change of systems upstream,” he said.

It also produces high-purity CO₂, potentially meeting beverage-grade standards, which Baxter said are the highest for CO₂ purity.

Large-scale CCS

Enbridge (NYSE: ENB), one of the largest pipeline infrastructure companies in North America, is collaborating with companies to develop integrated solutions for CO₂ capture, transportation and storage.

Enbridge is working with Capital Power and Lehigh Cement on the Wabamun Carbon Hub Project in Alberta, Canada. That project, according to Enbridge, will be one of the largest integrated CCS projects in the world, potentially avoiding 4 million metric tons of CO₂ emissions.

Alberta has good geology for CO₂ storage, according to Freddy Sanches, technical manager of market innovation at Enbridge. Having nearby underground pore space where CO₂ can be injected “helps with the economics,” he said.

Enbridge is studying geological formations for CO₂ storage capacity in Ontario, Canada, and in the U.S. Gulf Coast and Midwest.

“We’re trying to de-risk the geology and learn more about it to see if it’s suitable for CO₂ storage because that’s one of the biggest unknowns,” he said.

On the storage front, Enbridge is also studying its gas storage facilities to see if they are suitable for conversion to CO₂ storage.

“We’re not converting any of those storage facilities yet, as we still need them for natural gas production, but that is something that we are looking into,” he said.

CCS in Canada

The International CCS Knowledge Center in Canada has reported that the Western Canadian sedimentary basin, which is the epicenter of oil and gas supply in Western Canada, has the largest potential for storage, according to

Mark Demchuk, national director of strategy and stakeholder relations for the center.

Canada has almost 400 gigatons of storage capacity, primarily centered in that Western basin, Demchuk said. The Northeast U.S., he added, has similar geologic characteristics for large-scale storage capacity, primarily in the Appalachian and Michigan basins.

De-risking large CCS projects and improving the business case for projects to move forward is a “hot topic” in Canada, Demchuk said. A large-scale project that stores a million metric tons of CO₂ per year might cost in the range of \$1 billion, depending on the site or industry. For Canada to meet its 2030 CO₂ emission reduction target, he said, the country would need a minimum of 15 projects at that scale and cost.

There is no positive investment case for those projects at this time, Demchuk said.

“All levels of government ... and all the companies involved recognize that we need to develop the components to support an investable business case if those projects are actually going to happen in the time frame we’re talking about,” he said. ■



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ISO-NE News

ISO-NE Lists New Projects for 2022 in Budget Report

ISO-NE's plans for new capital projects this year include infrastructure upgrades for the Next Generation Markets (NEM) platform, enhancements to its weather forecasts and a switch away from the nearly obsolete Internet Explorer browser.

The grid operator laid out changes in its plan for 2022 in a [budget report](#) filed with FERC on Thursday.

It spent \$27.5 million on capital projects in 2021, \$500,000 under budget in part because of FERC's rejection of the Energy Security Improvements plan and a deferred cybersecurity improvement project.

Its biggest new capital expense for 2022, about \$4.5 million, is Phase II of a project designed to prepare the RTO's hardware and software for the new market clearing engine that General Electric is developing as part of the NEM project. The RTO is also purchasing a cloud-based cybersecurity package for protecting enterprise applications and resources.

Also added to the budget for this year is enhancements to ISO-NE's weather forecast-



ISO-NE released a budget update on Thursday. | ISO-NE

ing. The project will expand its forecasts from eight to 23 cities in New England and add new weather concepts to try to improve its load forecasts, the document says.

Some of the other new budget items include improvements to the RTO's Solar Do-Not-Exceed dispatch processes; a new physical security system to replace obsolete cameras at control centers; and a move to cut down the number of internet browsers ISO-NE uses

from four to two, timed to coincide with Microsoft cutting off support for Internet Explorer this June.

In other changes to the 2022, budget ISO-NE will save \$1.5 million because of its decision to delay elimination of the minimum offer price rule and \$400,000 because of a delayed project to migrate its public website from internal servers to the cloud. ■

— Sam Mintz

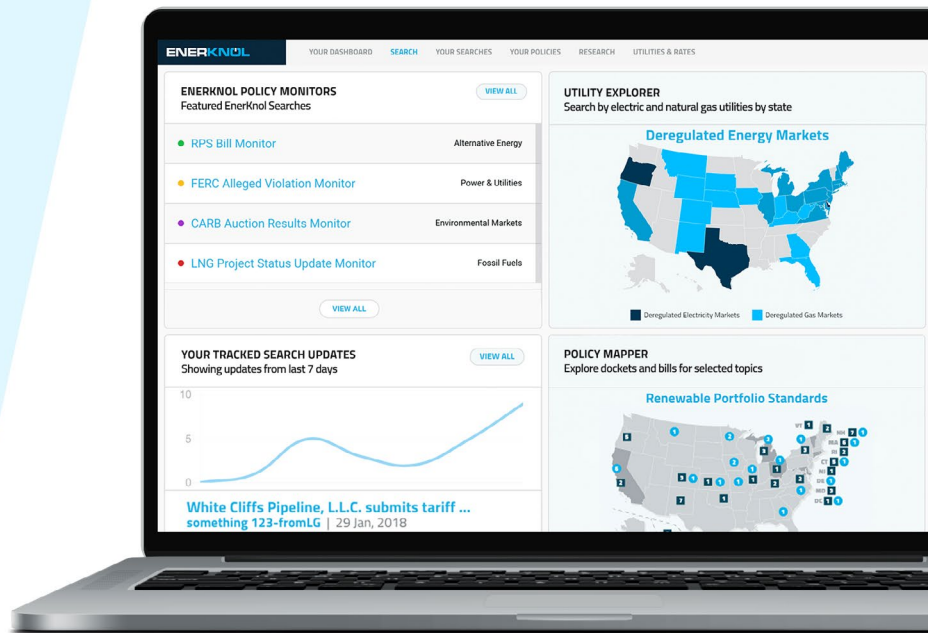
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MISO News

MISO: DER Aggregations Must Wait Until 2030 for Market Participation

By Amanda Durish Cook

MISO on Thursday said that aggregations of distributed energy resources lining up for its wholesale markets must wait until the end of the decade before gaining entry.

The announcement at a Distributed Energy Resources Task Force meeting left some stakeholders in disbelief.

The RTO said its systems won't be ready for full FERC Order 2222 compliance until 2030. It said several software changes are needed before it can register and settle DER aggregations. It also said it faces an uphill battle to create market systems dynamic enough to "accommodate dynamic changes and communications."

"MISO anticipates completing all improvements by 2029, enabling a 2030 launch of market functions," the grid operator said.

The RTO said aggregator registration won't likely become available until late 2029, with a launch of aggregator participation in the energy and ancillary services near the end of the first quarter of 2030.

DER Program Manager Kristin Swenson acknowledged that MISO "is thinking about an implementation date well into the future."

MISO plans to file its compliance plan with FERC on April 18. Swenson said it hopes to have "pencils down" by mid-March and only make minor edits after that.

Director of Settlements Laura Rauch said full Order 2222 compliance requires MISO to shift from a "static to a dynamic paradigm." She said its current processes for registration and market participation generally assume that

resources' output remains about the same over time.

Rauch said MISO envisions work to accommodate the registration and settlements of DER aggregations stretching into 2026. She said that work will provide a "solid foundation" for more dynamic future markets.

She also said Order 2222 will require building extensive communication channels with new parties that must be "safe, secure and confidential."

"That's something that factored heavily into our design here," she said.

Stakeholders said MISO's proposed postponement will throw sand in the gears of states and regions that want to develop robust DER participation programs.

"Obviously, 2030 is too far out," Voltus consultant Rao Konidena said. He urged MISO to trade off some of the "bells and whistles" initially to at least get some aggregators phased into the markets before the next decade begins.

Other stakeholders also called for a "light" rollout of aggregation participation that would be less time-consuming.

But Rauch said MISO wants to avoid "putting out a market product with unintended consequences."

"You want to do each piece well so it builds on itself and makes a cohesive whole," she said.

"We're looking at an eight-year implementation. How does that square with FERC telling RTOs to implement it in a reasonable time frame?" asked the Coalition of Midwest Power Producers' Travis Stewart.

Rauch said MISO has communicated its proposed timeline with FERC staff.

Ameren's Justin Stewart asked if MISO might complete work before its 2030 finish date.

"These are the estimates we believe we can commit to. If we go faster than that, fantastic," Rauch responded.

MISO similarly asked for a yearslong compliance delay with FERC Order 841, claiming that it needed to embark on lengthy software improvements first. Last year, FERC twice denied MISO's request to give it until 2025 to fully bring storage into its markets. (See [MISO: No Choice but to Double Up on 841 Compliance](#).)

The RTO's envisioned Order 2222 deferral is several years after its goal to have its new market platform fully operational by 2024. Staff have repeatedly touted the new platform as able to host more complex market offerings.

MISO plans to rely on its electric storage resource commitment statuses to let DER aggregations participate in the wholesale market. The RTO will leave it up to distribution companies or regulatory authorities to conduct interconnection analyses. MISO also decided that aggregations must be limited to a single pricing node and must self-commit. It will not provide output forecasts for aggregations. (See [MISO Draws on Storage Model for DER Aggregations](#).)

In late 2021, MISO's Richard Doying said that when staff began reaching out to distribution companies to begin collaboration on Order 2222 compliance, some had just a vague inkling of the RTO's role in the power grid.

During a Jan. 18 workshop on MISO's Order 2222 filing, Swenson said there was probably going to be a persistent "time horizon disconnect" over how quickly aggregators can update offers to MISO after a DER is unable to respond to dispatch instructions.

Swenson also said it's up to distribution utilities to define the scope of their technical reviews on aggregations' reliability impacts, which will be submitted to MISO. The RTO plans to model aggregations as generation at the transmission level and will require telemetry.

MISO's Michael Robinson said that just like with its generation, the RTO must trust the values that distribution utilities and aggregators provide to it. He said there are tariff mechanisms in place if an entity is furnishing inaccurate numbers. ■



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MISO News

MISO Planning Subcommittee Briefs

RTO Forms Task Team for Tx Reconfigurations

MISO has formed a special task team to explore rerouting transmission flows during heavy congestion periods.

The Reconfiguration for Congestion Cost Task Team's meetings are being held behind closed doors, as transmission reconfiguration discussions contain confidential and market-sensitive information.

Speaking during the Planning Subcommittee's meeting Feb. 8, Chair Ray McCausland said the group will review past real-world examples of the system's congestion, necessitating privacy. The group first met in January and will meet again this Thursday.

The team reports to the Reliable Operations Working Group, which also holds nonpublic meetings.

MISO's Independent Market Monitor has recommended members use reconfiguration plans along with ambient adjusted transmission ratings to ease constraints. The Monitor reported that the RTO's real-time congestion costs more than doubled from late 2020 to late 2021 as more transmission elements began binding year-over-year. Record wind output and high natural gas prices increased the cost of re-dispatching the system to manage constraints, the IMM said.

MISO Ponders Generation as Non-Tx Alternatives

MISO is considering opportunities to convert retired generators to synchronous condensers and serve as non-transmission alternatives.

Some stakeholders have said the grid operator's increased reliance on renewables may force preserving some generators so they can provide inverter services.

Staff's Jeanna Furnish said generation assets served as temporary solutions in other RTOs while long-term transmission solutions were built.

Generation owners interested in making the conversion would need to be evaluated under MISO's annual transmission expansion planning process' (MTEP) transmission alternatives selection process.

Furnish said staff also believes its existing Tariff Attachment Y process can help govern decisions on converting retiring generators to into synchronous condensers. Under Attachment Y, the RTO analyzes whether a retiring generator must keep operating under a system support resource agreement for reliability reasons.

Furnish said MISO must still develop written agreements, operating procedures, and compensation for generators.

MISO Debuts '22 Cost Estimates

MISO also introduced its 2022 draft cost estimates for transmission structures, substation equipment construction, and other elements.

The MTEP 22 cost-estimation guide *contains* updates that reflect higher prices of materials. The RTO has also added costs for aluminum conductor composite core and 765-kV transmission that is interchangeable to about 640 kV.



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The grid operator uses the guide to evaluate transmission alternatives in its annual system planning work. Stakeholders have until March 11 to review the draft and submit revisions. ■

— Amanda Durish Cook

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MISO News

Stakeholders Call for MISO to Rethink Pared-down Meeting Schedule

By Amanda Durish Cook

Weeks into its new scaled-back stakeholder meeting schedule, MISO will re-examine its effectiveness by holding a stakeholder workshop later this month.

The Feb. 22 workshop on MISO's stakeholder process and engagement comes as several committee chairs have spoken out against the new schedule.

"I hear your concerns. I am taking notes," Bob Kuzman, the RTO's head of stakeholder relations, said during an Advisory Committee teleconference Wednesday. "We understand there are hiccups, and there are going to be more hiccups."

Kuzman said he was collecting opinions during the meeting to take back to MISO leadership.

The grid operator announced late last year a reduced meeting schedule consisting of eight meetings apiece per year for its main stakeholder committees. The committees include the Market Subcommittee, Resource Adequacy Subcommittee, Reliability Subcommittee, Planning Advisory Committee and Regional Expansion Criteria and Benefits Working Group, which makes cost-allocation decisions. (See *MISO Modifies Stakeholder Meeting Schedule.*)

Client relations staff framed the new meeting schedule as giving its subject-matter experts a meaningful pause between meetings in the transition to in-person meetings after two years of pandemic-induced isolation. The RTO eventually committed to only scheduling meetings through May and held its first series of face-to-face meetings last month. (See *MISO Hosts First In-person Meetings amid Pandemic.*)

Clean Grid Alliance's Natalie McIntire suggested MISO use the Feb. 22 workshop to work together with stakeholders, rather than to impose changes.

"This really needs to shift to a collaborative effort with stakeholders instead of dictating changes, hearing complaints and then making adjustments," she said.

"Stakeholders feel much better when they're



Socially distanced seating at the December Advisory Committee meeting in Orlando | © RTO Insider LLC

involved in the decision-making process," Resource Adequacy Subcommittee Chair Chris Plante agreed.

"There are concerns about how the stakeholder process is evolving," Market Subcommittee Chair Megan Wisersky said. "MISO now controls the stakeholder process without stakeholder discussion or consent. ... The concern is the stakeholder process no longer belongs to the stakeholders."

Wisersky said the lighter meeting frequency has nudged some agenda items into a "post-only" format, where information is posted on the MISO website but not discussed with stake-

holders.

Multiple stakeholders also cast doubt that the RTO can accomplish its 2022 goals — finalizing participation models for storage and distributed resources; establishing dynamic line ratings; recommending long-range transmission projects; and possibly creating a seasonal capacity auction — with fewer meetings.

Planning Advisory Committee Chair Cynthia Crane said she noticed that meetings are shorter and "cursory," with staff making fewer feedback requests of its stakeholders.

"I would encourage MISO to act very swiftly in making improvements," she said. ■

South news from our other channels



Texas RE: Malware, Ransomware Attacks 'Here to Stay'

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MISO News

MISO Members to Consider Federal Infrastructure Bill

By Amanda Durish Cook

MISO's Advisory Committee has set aside time next month for a roundtable discussion on the federal government's Infrastructure Investment and Jobs Act's effect on the RTO's footprint.

The Organization of MISO States requested the time when the committee, comprising member companies, meets March 23 during MISO's upcoming Spring Board Week in Memphis, Tenn.

OMS Executive Director Marcus Hawkins asked MISO sectors to prepare discussion points on how they plan to address the bill.

"The focus will be on what different sectors are doing in response to the legislation, what their hopes are, and identifying areas where coordination could be useful," Hawkins said during Wednesday's Advisory Committee meeting.

He said sectors should come prepared to answer questions on how the bill could impact the MISO footprint and its processes, whether their organizations plan to pursue funding, and how the RTO should participate in the bill.

The \$1.2 trillion bipartisan legislation passed Congress in November and was quickly signed into law by President Joe Biden. The bill provides \$11 billion in grants for states, tribes and utilities to improve electric infrastructure's resilience against extreme weather, cyberattacks and other disruptive events. (See [Biden Signs \\$1.2 Trillion Infrastructure Bill](#).)

It also establishes a \$2.5 billion Department of Energy transmission facilitation program to



| © RTO Insider LLC

help develop nationally significant transmission lines, increase resilience by connecting regions and improve access to cheaper clean energy sources.

Hawkins said the bill is certain to affect the MISO region with its funds for new transmission, energy efficiency, electric vehicle charging stations, carbon-capture technologies and nuclear fleet preservation.

Stakeholders asked that RTO leadership also come prepared to speak on the grid operator's

preferred role in the bill's investments and how they envision it could alter the MISO landscape.

"Are MISO's tariff and business practice manuals ready to handle this?" the Union of Concerned Scientists' Sam Gomberg asked. He urged MISO to examine its rules to see if they are innovative enough to handle an unprecedented grid refresh.

Registration for the March 21-24 Board Week is now [open](#). ■



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NYISO News



NY Stakeholders, Residents Split on HVDC Tx Projects

Enviros, Generators Favor In-state Line but Say Canadian Hydro Hurts Economy

By Michael Kuser

New York's plan to buy power from two new transmission lines being built to bring over 2.5 GW of renewable energy into New York City drew more than 17,000 comments by Feb. 7, with opinions generally in favor of the entirely in-state project but divided on the project that would import electricity from Hydro-Québec in Canada (15-E-0302).

The state in September selected two transmission projects as Tier 4 renewable resources under its Clean Energy Standard. The 1,300-MW Clean Path New York (CPNY) project, developed by the New York Power Authority (NYPA) and Forward Power, a joint venture of Invenergy and energyRe, would bring upstate solar and onshore wind into the city. The 1,250-MW Champlain Hudson Power Express, developed by Transmission Developers Inc. and Hydro-Québec's U.S.-based subsidiary HQUS, would run from the state's border with Canada to Queens, with portions of the line running underneath the Hudson River.

Regional development entities, county legislatures and labor union members supported both projects for creating an estimated 10,000 jobs statewide with \$8.2 billion in in-state economic development investments. Others touted the new lines' environmental benefits.

Julie Tighe, president of the New York League of Conservation Voters, said that CPNY is projected to reduce the state's greenhouse gas emissions by 2.4 million metric tons annually, reducing overall emissions from the state's electricity sector by 22%. CHPE would reduce GHG emissions by 37 MMT through 2040 and establish a \$117 million environmental trust fund to improve water quality across the Hudson, Harlem and East rivers, as well as



The CPNY project includes a new 174-mile, 1,300 MW HVDC transmission line to the Rainey station in Queens, while the CHPE would run 339 miles from the Canada-US border to the Astoria substation in Queens. | NYSERDA

Lake Champlain, she said.

The projects are expected to deliver 18 million MWh of renewable energy per year to New York City, representing more than a third the

city's annual electricity consumption.

CPNY has a planned June 30, 2027, commercial operation date, while CHPE has an estimated COD of Dec. 15, 2025.

Counterparty	Clean Path New York LLC
New Transmission	Clean Path New York project
Transmission Capacity	1,300 MW
Proposal Attributes	With UDRs and energy storage
Bid Quantity	7,870,865 MWh/year
COD	June 30, 2027
Contract Tenor	25 years
Nominal Strike Price	\$129.75/MWh, constant

CPNY Contracting Summary | NYSERDA

Winter Peak

The Independent Power Producers of New York (IPPNY) reiterated their longstanding opposition to CHPE. (See *Enviros, Generators Oppose Canadian Hydro Line to NYC.*)

"It is entirely possible that the [state's] 2040 zero-emissions goal can be met at a lower cost with greater net benefits with the CPNY project, along with other zero-emission technology that does not require expensive new transmission lines," IPPNY CEO Gavin Donohue said.

NYISO News



Not only would the CHPE project bypass both existing and new upstate renewable generation, it will not be able to meet the city’s power needs during winter months because Quebec load would take priority, IPPNY said.

With the state’s electric system projected to become a winter-peaking system by 2041, “it is concerning that the HQUS project was selected despite being only able to provide capacity during nearly half the life of the proposed 25-year contract, raising serious questions regarding the reliability benefits of the project,” Donohue said.

IPPNY cited New York State Energy Research and Development Authority’s own benefit-cost [analysis](#) as showing CPNY would produce 34% greater net benefits than those yielded by CPHE, and the combined awards producing lower net benefits than if NYSERDA contracted CPNY alone.

Environmental, First Nations Concerns

The Sierra Club asserted that hydropower from mega-dams like the ones in Quebec is not renewable energy. The dams’ reservoirs can flood and destroy thousands of trees of the

boreal forests that absorb tons of CO₂ out of the atmosphere, and submerged vegetation causes more methane and CO₂ to be released, said Catherine Skopic of the Sierra Club NYC Group and Atlantic Chapter.

In addition, dredging to lay the cables would stir up toxic polychlorinated biphenyls on the riverbed and further contaminate the waters of the Hudson River, Skopic said.

“The Hudson River is a fragile and important ecosystem, and under no circumstances should we be dredging up 100 years of buried toxins to build this pipeline,” Sierra Club volunteer Tara Noble added.

Some Bronx and Queens residents said they were more concerned about the air they breathe than about potential dangers from churning up riverbeds.

Since 2001 NYPA has operated four natural gas-fired peaker plants in the Mott Haven and Port Morris neighborhoods, promised at the time to be temporary, which neighborhood advocacy group South Bronx Unite [said](#) “have instead become permanent fixtures, burdening our community with additional air pollution.”

The group said those two neighborhoods have asthma hospitalization rates eight times higher than the national average and 21 times higher than any other neighborhood in the city.

Both transmission projects are essential to meeting decarbonization goals in New York City and improving public health, Queens resident Gianna Lum said.

“A just transition from fossil fuels is not only a priority to protect future generations,” Lum said. “The current peaker plant in Western Astoria is polluting nearby [public] housing and putting the health of vulnerable community members at risk.”

The Mohawk Council of Kahnawake, Quebec, said it [supports](#) CHPE and has agreed with Hydro-Québec on terms to host the new Hertel substation and the new 36-mile transmission line to be built through its territory.

While reparation claims by other indigenous groups for past harms by Hydro-Québec “must clearly be addressed with the relevant authorities, it is important to point out that the hydropower installations in question were not built as a part of the CHPE project,” the council said. ■

Counterparty	H.Q. Energy Services (U.S.) Inc.
New Transmission	Champlain Hudson Power Express project
Transmission Capacity	1,250 MW
Proposal Attributes	With Summer-only UDRs, without Supplier Energy Baseline, without New York Converter Station
Bid Quantity	10,402,500 MWh/year
COD	December 15, 2025
Contract Tenor	25 years
Nominal Strike Price	\$97.50/MWh, escalating at 2.5% per year

HQUS/CHPE Contracting Summary | NYSERDA

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PJM News



FERC Rejects PJM Redefinition of 'Designated Entity' Under Order 1000

By Michael Yoder

FERC on Feb. 8 rejected a filing by PJM in its Order 1000 compliance docket that would have updated the definition of "designated entity," agreeing with a coalition of stakeholders that it infringed on their due process rights (ER13-198-008).

The commission not only disagreed with the RTO's arguments for why the update was necessary; it also said that "PJM improperly filed revisions to its Operating Agreement as a compliance filing in response to an order that was final and required no compliance."

In its September filing, PJM said the term "designated entity" was added to the OA at the time it submitted its Order 1000 compliance filing to refer to either an incumbent transmission owner or non-incumbent developer designated by the RTO to "construct, own, operate, maintain and finance immediate-need reliability projects, short-term projects, long-lead projects or economic-based enhancements to expansions projects that are selected through PJM's competitive proposal window process."

But the RTO said it identified "imprecise and inconsistent usage" of the term in Schedule 6, resulting in conflicting interpretations as to how the RTO should use the Designated Entity Agreement. It argued that the definition was too broad and was "intended to apply only to transmission projects sponsored by an incumbent transmission owner or non-incumbent transmission developer through the competitive proposal window process."

While references to short-term projects, long-lead projects or economic-based enhancements to expansions "clearly applied to those projects submitted through PJM's competitive proposal window process," the RTO failed to differentiate between immediate-need reliability projects selected through the competitive proposal window process and those exempted from the competitive proposal process. It said the term "designated entity" was "not intended to apply to those unsponsored immediate-need reliability projects exempted from the competitive proposal process that are identified and selected by PJM and designated to the incumbent transmission owner in the zone in which the project will be located."

PJM proposed revising the term to only apply to those immediate-need reliability projects, short-term projects, long-lead projects or

economic-based enhancements selected in a competitive proposal window pursuant to the OA. The RTO said the "limited proposed updates" to the earlier Order 1000 compliance filing "will avoid potential confusion and eliminate any conflicting interpretations as to how PJM originally intended to use the Designated Entity Agreement."

Stakeholder Protest

Several PJM stakeholders jointly protested the filing, including LS Power, American Municipal Power, the Public Power Association of New Jersey, the PJM Industrial Customer Coalition, the Indiana Office of Utility Consumer Counselor and the D.C. Office of the People's Counsel.

The protesters argued that PJM violated the Federal Power Act by making the filing without approval from stakeholders, saying the RTO was taking an "unprecedented step" and that it was "attempting to avoid a vote from the Members Committee and meeting its burden under Section 206." They argued that the term "designated entity" explicitly includes immediate-need reliability projects, short-term projects, long-lead projects and economic-based enhancements, and that PJM offered no proof of confusion about this definition.

They also argued that PJM's "piecemeal, after-the-fact compliance filing approach" was inconsistent with due process principles that indicate parties should have the opportunity to protest the full compliance filing at the outset and that the commission should review the entire compliance filing "holistically."

PJM countered that the protesters cited no precedent to support the claim that an updated compliance was prohibited or improper and that they "misstate the law" when claiming the commission lacks authority to consider the filing.

"When in 2015, the commission accepted PJM's proposed tariff revisions implementing the requirements of Order 1000 in the PJM fourth compliance order with no further compliance directives, the accepted tariff revisions, including the definition of designated entity, became the rate in effect," FERC said. "If PJM thinks that revisions to the definition of 'designated entity' and certain provisions of Schedule 6 would also be consistent with Order 1000, it should proceed by following its tariff procedures for submitting a Section 205 filing. Alternatively, if PJM believes its current tariff is unjust and unreasonable, it may file under Section 206." ■



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PJM News



Duke Energy Touts Clean Energy Gains

Utility Predicts Exit from Coal Sector by 2035

By Hugh R. Morley

Duke Energy executives touted the company's clean energy plans during the company's fourth-quarter earnings call Thursday, saying the North Carolina-based utility expects to meet its goal of cutting carbon emissions 50% by 2030 through initiatives that include coal plant retirements in Indiana and 750 MW of new solar in Florida.

The utility, which has facilities in seven states, said that having cut emissions by 40% over 2006 levels, it expects that several projects likely to unfold over 2022 will help the company toward its 2030 goal and reaching zero emissions by 2050.

The company's fourth-quarter performance

"capped off a strong finish to a very productive 2021," CEO Lynn Good told analysts on the call.

"We continue to make progress and are strongly positioned to achieve our clean energy vision," she said. "We delivered on our commitments while also strategically positioning the company for the future."

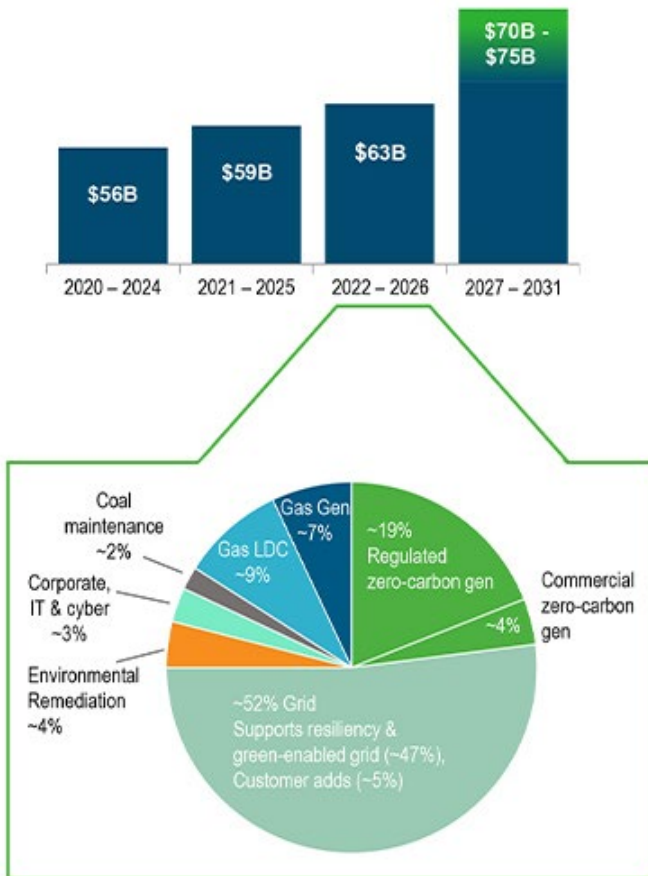
The utility's future plan includes cutting its share of energy from coal to 5% by 2030 and a complete exit from the sector by 2035, she said. The coal share at present is 22%, a company spokeswoman said. The utility, which at present owns 10 MW of solar and wind energy, expects to increase that figure to 16,000 MW by 2025 and to 24,000 MW by 2030, Good said.

That growth would be driven in part by expenditures of \$63 billion in capital expenditures over the next five years, of which 80% will be spent on clean energy investments, she said.

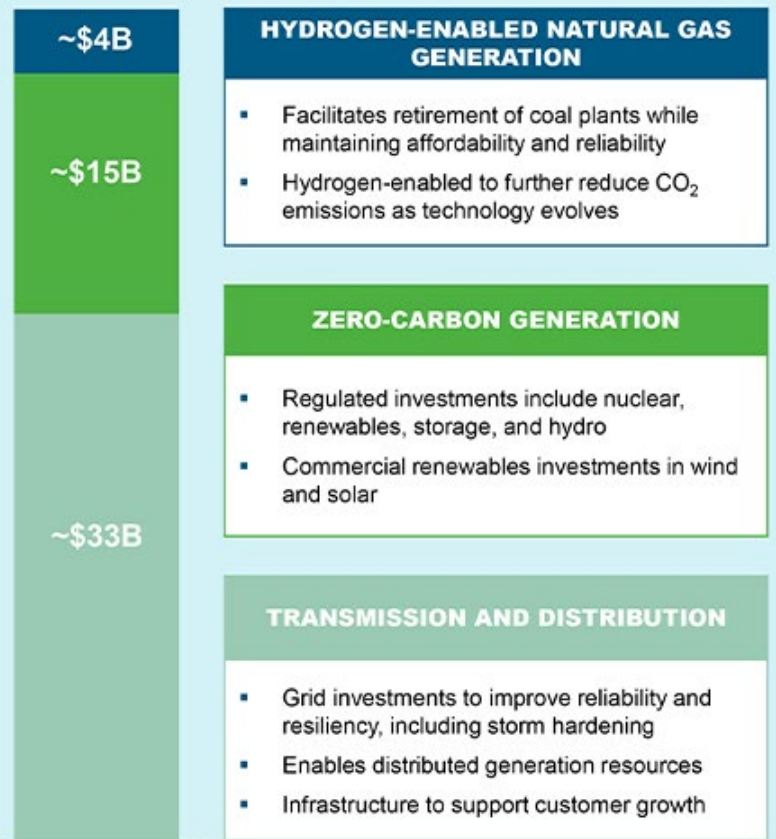
New Emissions Regulations

The company is awaiting the impact of a North Carolina law, *H951*, that is expected to reshape the state's energy sector. It requires a 70% reduction in carbon emissions by 2030, a larger cut than Duke's targeted 50%. The law authorizes the state Utilities Commission to establish performance-based regulation (PBR) that would link utility profits to specific, measurable performance goals, while also decoupling profits from power consumption by residential customers. (See *NC Compromise Energy Bill Passes Senate, Heads Back to House.*) The

\$63B 5-YEAR PLAN...



... WITH \$52 BILLION FUNDING FLEET TRANSITION AND GRID MODERNIZATION



Duke Energy is planning to invest \$63 billion in clean energy over the next five years. | Duke Energy

PJM News



bill was signed into law Oct. 13.

Good said the utility is confident that the state “will adopt a balanced set of rules that provide flexibility to implement performance-based rates in a way that achieves policy goals and aligns with customer interests.” She said the company expects to file its carbon-reduction plan in May “after gathering stakeholder input over the next several months,” with a state ruling on the plan by the end of the year. The company in June said the bill would mean the closure of seven coal-fired plants in North Carolina by 2030 and replacing them with energy storage and a 900-MW simple cycle natural gas plant.

“The plan we submit will have multiple portfolios that weigh the costs and benefits, including reliability and affordability of various resource types,” she said. “We will also evaluate with stakeholders and our regulators the full range of potential risks and opportunities related to new clean energy technologies. We expect an order on the carbon plan by the end of this year.”

The coming year will see the start of a three-year program to add 750 MW of solar power in Florida after the state’s Public Service Commission *approved* a stipulated agreement to the Clean Energy Connection (CEC) program crafted by subsidiary Duke Energy Florida.

The program allows customers to subscribe to blocks of solar power, each equal to 1 kW, from the CEC program and in return receive credits against their energy bill.

Yet the company’s solar sector also is facing challenges, in the form of modest supply chain disruptions that have forced it to consider using alternative suppliers of solar panels and other equipment.

“Certain suppliers have said, ‘We can’t meet the time frame,’” said Good. Faced with that scenario, which can extend the procurement time and make equipment more expensive, the utility opted to delay a few projects from starting in 2022 to beginning in 2023, totaling about 400 to 500 MW, the company said.

Coal Plant Closures

The solar sector growth comes as the company’s drive to cut coal plants is expected to continue unfolding in 2022, the company said. In December, the company submitted an *integrated resource plan* to the Indiana Utility Regulatory Commission that said the company would close its six coal generating plants in the state four years earlier than outlined in the previous IRP, in 2018. Duke has said it will reduce its Indiana carbon emissions by 63% from 2005 levels by 2030 and 88% by 2040, and triple renewable energy levels to about

7,200 MW. Good said the company expects to issue a request for proposals for companies interested in developing the renewable energy facilities this month.

The company’s *slideshow presentation* also noted that that in 2021 it submitted an *IRP* to Kentucky regulators that moved the date for closure of its East Bend plant to 2035, from the previous date of 2041. The IRP attributed the accelerated closure to expected operations and maintenance cost increases from increased regulation, an increased fuel supply risk and the declining costs of renewables.

The company reported full-year GAAP earnings of \$4.94/share, compared to \$1.72 in 2020. Adjusted earnings for the year were \$5.24/share, compared to \$5.12 a year ago. It reported fourth-quarter GAAP earnings of 93 cents/share, compared to a loss of 12 cents/share a year ago.

Adjusted earnings exclude the impact of certain items that are included in reported earnings, the company said in a *press release*. The main difference stemmed from an impairment charge related to the South Carolina Supreme Court decision on coal ash and insurance proceeds, as well as workplace and workforce realignment costs, the release said. ■

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PJM News



Dominion Commits to Net-zero Supply Chain Emissions by 2050

Q4 Earnings Call Touts Renewable Energy Investments

By K Kaufmann

Dominion Energy expects to invest \$73 billion in clean energy by 2035, “nearly all of which will qualify for regulated cost of service recovery,” CEO Robert Blue said during the utility’s fourth-quarter 2021 earnings call Friday. “It is, as far as we can tell, the largest regulated decarbonization investment opportunity in the industry.”

Green investments made within regulated markets, ensuring a 9% return on equity and stable profits for shareholders, were among the top-line takeaways from the call. The company reported fourth-quarter net income of \$1.3 billion (\$1.63/share) — nearly double that of the same quarter in 2020 — off revenues just short of \$3.9 billion. It also reported a \$3.3

billion profit for 2021, compared to a \$401 million loss in 2020.

The call’s other major bullet point was *the announcement* that Dominion was expanding its net-zero goals, going beyond its own emissions to push reductions by its suppliers and customers.

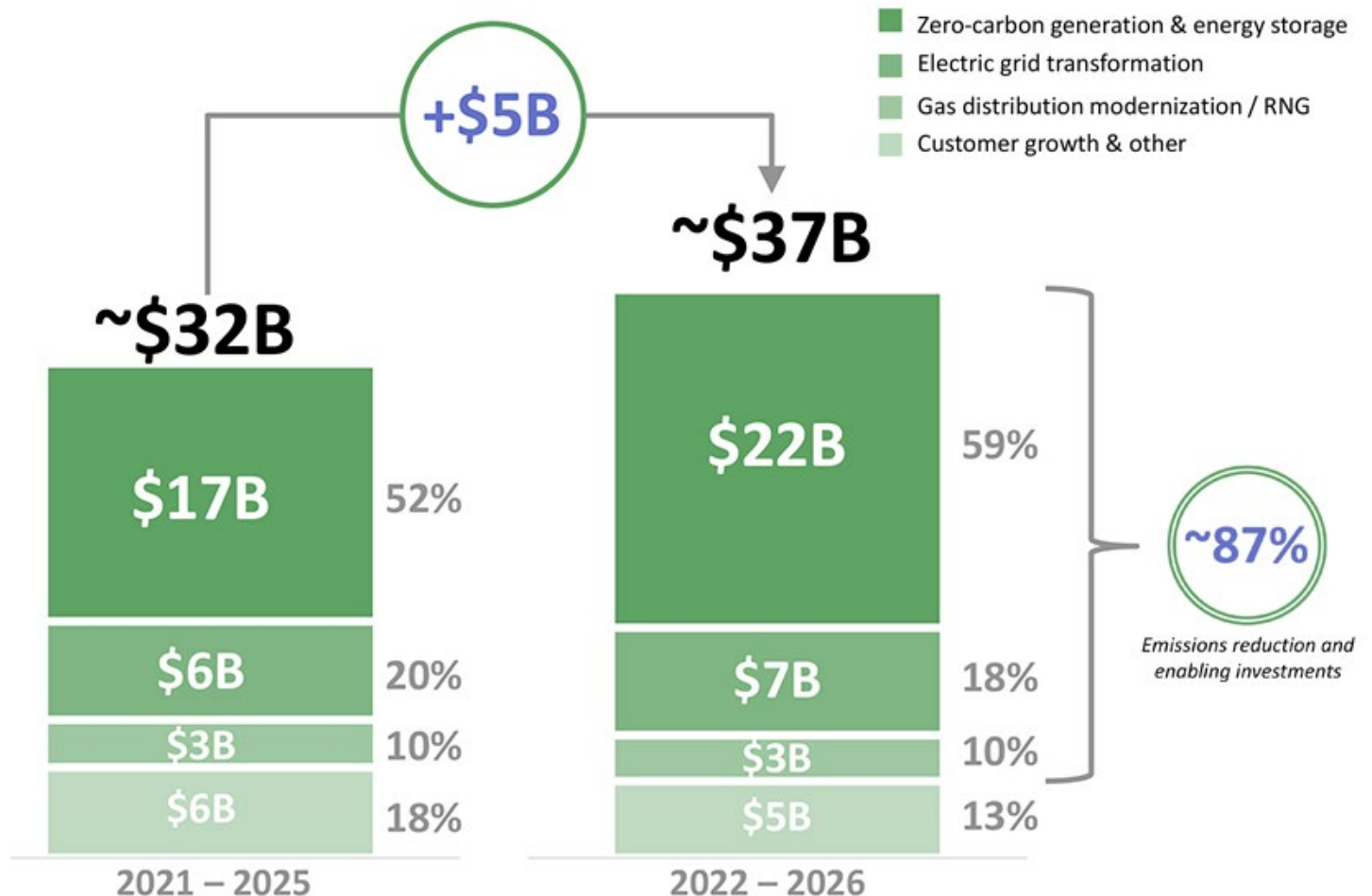
The company has previously committed to net-zero emissions by 2050, but “we now aim to achieve net zero by 2050 for all Scope 2 and for Scope 3 emissions associated with three major sources,” Blue said. Scope 2 emissions come from the electricity Dominion uses for its own operations but does not generate itself. For Scope 3 emissions, Dominion will target its local natural gas distribution companies (LDCs), Blue said, as well as fuel and other power suppliers.

The utility has LDCs in South Carolina, Ohio and Utah, and a pipeline company, Dominion Energy Questar Pipeline. According to Dominion’s website, it has a total of 22,770 miles of pipeline in North and South Carolina and 2,500 miles serving Utah, Wyoming and Colorado.

In another Friday *press release*, Dominion announced it has signed an agreement to sell its West Virginia LDC, Dominion Energy West Virginia (also called Hope Gas), to *Ullico Inc.*, a labor-owned insurance and investment company.

Dominion has already cut its emissions 42% over 2005 levels and is targeting a 70 to 80% reduction by 2035, Blue said.

“In 2005, more than half of our company’s



Dominion plans to spend \$37 billion on carbon-free power through 2026, an increase of \$5 billion from its previous five-year plan. | Dominion Energy

PJM News



power was from coal-fired generation; by 2035, we project that to be less than 1%," he said. By 2030, the utility's generation in South Carolina will be coal-free, while it will "have only two remaining facilities in Virginia," Blue said.

As part of its efforts to tackle Scope 2 and 3 emissions, Blue said, Dominion supports federal regulation of methane emissions. "We're working towards procurement practices that encourage and enhance disclosures by upstream counterparties on their emissions and methane-reduction programs," he said. "Further, we encourage suppliers to adopt a net-zero commitment, and we have started to receive quotes for responsibly sourced gas."

Blue did not provide further details on the company's plans, but spokesperson Aaron Ruby said Friday's "announcement provided the vision and goals we need to advance toward net zero. In the coming months, we'll continue gathering information, refining our goals and analyzing potential pathways to achieve them."

Further details will be provided in Dominion's 2022 Climate Report, Ruby said.

Recoverable Investments

Under the Virginia Clean Economy Act, Dominion is required to generate 100% of its power from carbon-free sources by 2045. According to its earnings presentation, the company projects that by 2035, 76% of its power will be carbon free.

Currently solar accounts for 2% of Dominion's generation mix, with nuclear, hydropower and biomass adding another 31% of low- or no-carbon power, according to company figures.

Blue touted the company's aggressive solar and wind investments and Virginia's "common sense approach to energy policy and regulation" as the main drivers for grid decarbonization in the state. Under state law, the State Corporation Commission reviews Dominion's base rates every three years, while ongoing capital investments for new construction and other generation are recovered through rate adjustment clauses, often referred to as riders.

About 75% of Dominion's \$37 billion in planned investments over the next five years will be recoverable through riders, with an average 9% return on investment, according to company figures. The utility's capital investments will increase to \$73 billion by 2035.

For example, Blue reported that the utility had submitted its application for a rider for its 2.6-GW Coastal Virginia Offshore Wind project in November and expects a decision from the SCC by August. During Dominion's third-quarter earnings call, Blue had said the cost for the project had increased from about \$8 billion to close to \$10 billion.

During Friday's call, he said the project is on schedule to be completed by late 2026. In response to analysts' questions about potential supply chain delays or price increases, he said the company had already contracted for materials with "experienced" suppliers.

Similarly, Dominion has about 400 MW of solar currently online and another 980 MW under contract. CFO James Chapman reported that all 2022 projects "remain on track."

Dominion is also putting serious money into renewable natural gas (RNG), about \$2 billion, COO Diane Leopold said. "We now have 10 projects under construction and one in service," she said, with two that total coming online "in the coming days and weeks."

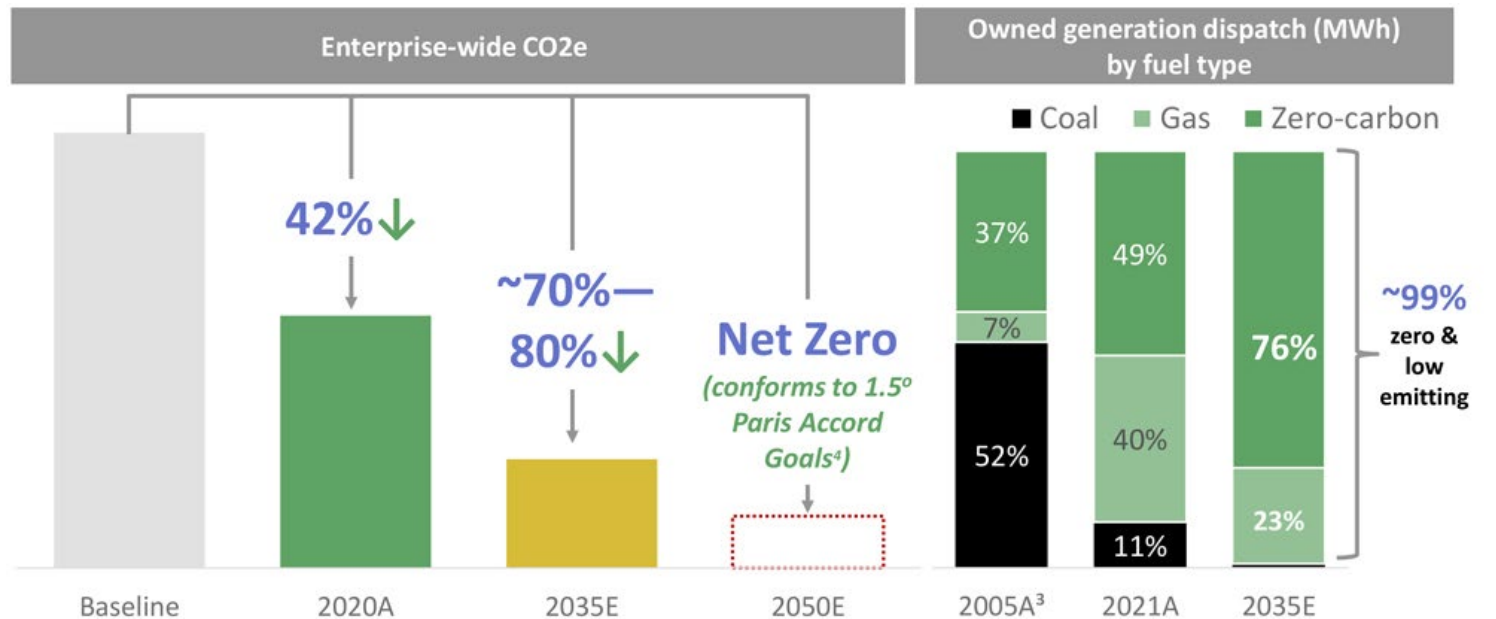
Dominion is partnering with Smithfield Foods to produce RNG from hog farm waste and with Vanguard Renewables for RNG projects on dairy farms.

The company is also testing combining hydrogen with natural gas on its distribution system, with one pilot using 5% hydrogen successfully completed, three more under way and one in development, according to the earnings presentation.

Analysts also queried Blue on Dominion's relationship with Virginia's new governor, Glenn Youngkin (R), and the General Assembly, with a Republican majority in the House of Delegates.

Youngkin has been pushing to take Virginia out of the Regional Greenhouse Gas Initiative, but Blue said that energy has not been a major focus in the legislative session so far. (See [Youngkin Takes 1st Steps Toward Va. RGGI Withdrawal.](#))

"The [2021] campaign was focused on education and taxes, and that's what the General Assembly has been focused on," he said, noting that the utility continues to work with both Democrats and Republicans. ■



By 2035, Dominion projects that 76% of its generation will be carbon-free, with a corresponding cut in emissions over 2005 levels of 70% to 80%. | Dominion Energy

PJM News



FirstEnergy Shareholder Settlement: 6 of 16 Board Members Must Leave New Board Committee Would Review Performance of Current Executive Team

By John Funk

The consequences of FirstEnergy bribing a top Ohio lawmaker over several years to assure passage of a \$1.1 billion state bailout of two Ohio nuclear plants continued last week, with the company agreeing to jettison six long-time members of its board of directors and subject the current top management team to new scrutiny.

Under a settlement with shareholders, six members of the company's *16-member board of directors* who have served at least five years would not seek re-election at the company's annual meeting in May.

Their departure would not include two board members appointed last year who are employees of Icahn Capital. (See *FERC Authorizes Icahn Employees for FE Board*.) Icahn purchased 3.3% of the company's shares in September 2021.

Nor would the purge affect a third new member expected to join the board this spring representing Blackstone Infrastructure Partners, which purchased \$1 billion in FirstEnergy common stock in December. A Blackstone observer currently attends board meetings. (See *FirstEnergy Announces \$3.4 Billion in*

New Equity Financing.)

The company's board announced the measures last week, just minutes before releasing full-year 2021 and fourth-quarter earnings, eclipsing the positive results that had been set as the focus of an analyst call Friday.

The shakeup is part of a package of changes the board accepted in order to resolve multiple shareholder derivative lawsuits filed by pension funds, unions and others in federal and state courts in Ohio.

The suits alleged that the bribery scheme — to which the company pleaded guilty in a deferred prosecution agreement with the U.S. Department of Justice — was not in the best interest of shareholders.

The company fired its former CEO, Charles Jones, and a handful of other top executives in October 2020. Current CEO Steven Strah was appointed in March 2021. The federal bribery probe is ongoing.

In addition to subjecting the company's current executive team to a "review process" by a new board committee comprising "at least three recently appointed independent directors" and preventing six veteran board

members from seeking re-election this May, the settlement would require:

- the board to oversee the company's future lobbying and political activities, including periodically reviewing and approving lobbying plans;
- the board to "form a committee of recently appointed independent directors to oversee the implementation and third-party audits of board-approved action plans;
- the company to issue "enhanced disclosure" to shareholders about political and lobbying efforts; and
- the company to "further align" executive bonuses with "proactive compliance with legal and ethical obligations."

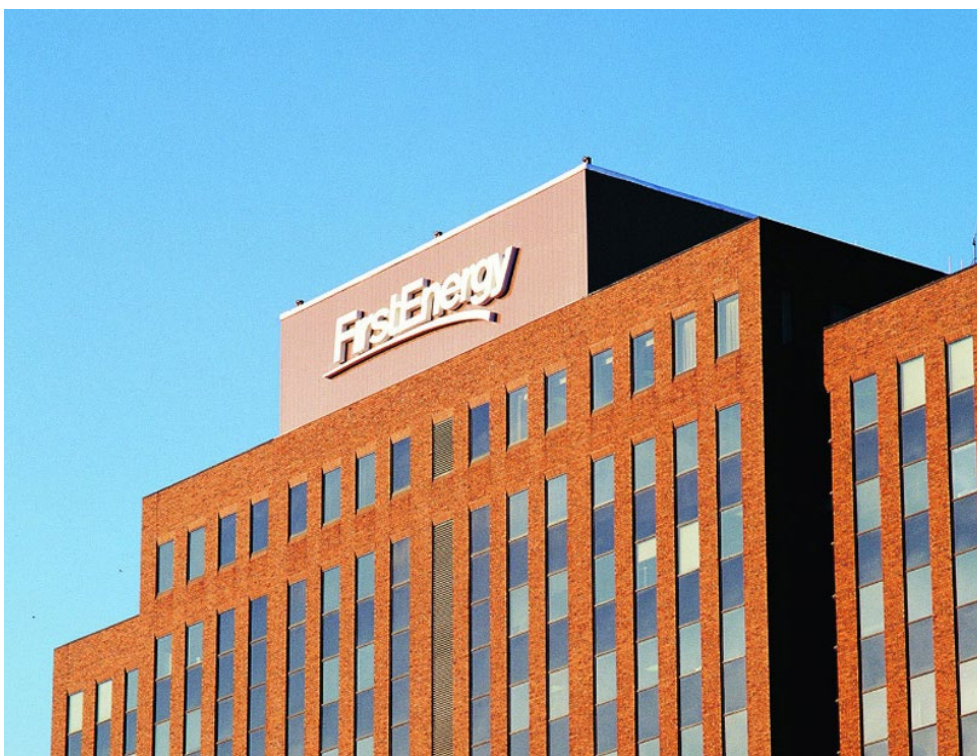
Once approved by the courts, the settlement would also include a payment of \$180 million to the company by insurance, minus any court-ordered attorney's fees awarded to the multiple plaintiffs.

The settlement announcement came just days after FERC released an audit report of the company's accounting practices. The report noted that its examiners were concerned about "significant shortcomings in FirstEnergy and its subsidiary companies' controls over financial reporting, including controls over accounting for the costs of civic, political and related activities, such as lobbying activities, performed by and on behalf of FirstEnergy and its subsidiaries." (See related story, *FERC Auditors Find FirstEnergy Accounting Irregularities*.)

In remarks to analysts during the earnings conference on Friday, Strah called the settlement one of the "important milestones" the company has achieved in the last year but stressed that "most of our significant work done over the past year involves the cultural changes at our company."

The company said it earned \$1.3 billion (\$2.35/share) on revenues of \$11.1 billion in 2021. That compares to earnings of \$1.1 billion (\$1.99/share) on revenue of \$10.8 billion in 2020.

For the fourth quarter, the company reported earnings of \$427 million (\$0.77 cents/share) on revenue of \$2.7 billion. That compares to earnings of \$242 million (\$0.45 cents/share) on revenue of \$2.5 billion in the fourth quarter of 2020. ■



FirstEnergy's Akron, Ohio, headquarters | FirstEnergy

PJM News

PJM PC/TEAC Briefs

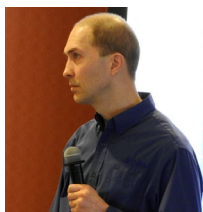
By Michael Yoder

Planning Committee

Generator Deliverability Update

PJM is preparing to present stakeholders with study results that seek to explain any potential upgrade requirements stemming from the RTO's generator deliverability proposal.

Jonathan Kern of PJM's transmission planning department *provided* an update on the timeline for the development of a proposal to change the generator deliverability test at last week's Planning Committee meeting.



Jonathan Kern, PJM |
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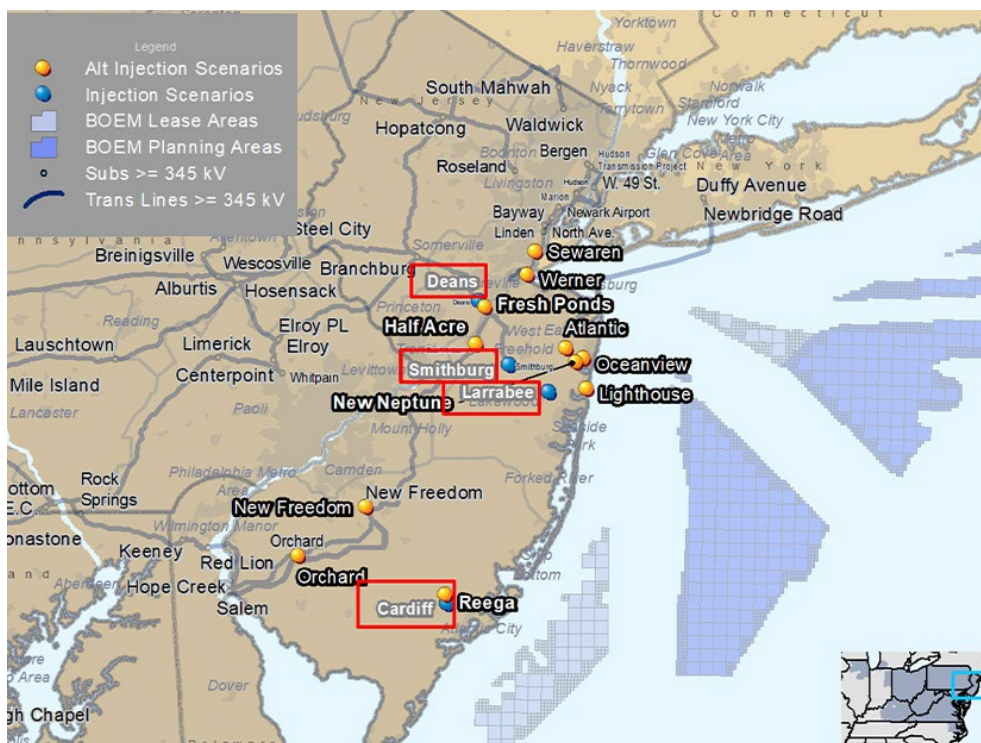
Kern said PJM agreed to conduct two sets of studies on potential upgrade requirements. The first is on the baseline in the 2026 Regional Transmission Expansion Plan summer, winter and light-load assumptions; the second is on a hypothetical interconnection queue scenario using commercial probabilities to get an idea of the long-term implications of new rules.

PJM is performing some sensitivity analyses on the studies to distinguish between upgrades driven by higher wind and solar deliverability levels versus the other changes being proposed for the test. Besides the generator deliverability changes, Kern said, PJM has also discussed conducting several new tests that include a high wind and solar zonal test, an individual plant deliverability test and an extreme interchange variation test.

PJM's work to provide transmission results and complete the studies is "customized," Kern said, with staff developing power flow models and completing an "extensive" revision to the in-house generator deliverability code.

The RTO originally planned to provide a first read of the proposed generator deliverability changes at the February PC meeting, Kern said, but the work being done internally resulted in delays in the completion of the generator deliverability testing.

Kern said it will present additional information at a special PC session on capacity interconnection rights (CIR) for effective load-carrying capability (ELCC) resources on Feb. 15, including an educational workshop on the proposed



Default and alternate injection locations being studied by PJM | PJM

generator deliverability changes.

PJM will hold a final special PC session on CIRs for ELCC resources on Feb. 23, Kern said, with the RTO targeting the meeting to provide stakeholders with a summary of the generator deliverability results and a discussion of the final proposals. Kern said PJM is expecting to complete the generator deliverability tests by the middle of the month.

Kern said PJM will conduct a first read of the generator deliverability proposal at the March 8 PC meeting.

Deactivation Process Timing

David Egan, manager of PJM's system planning modeling and support department, *reviewed* the proposed generator deactivation process timing update, presenting a *problem statement*, *issue charge* and revisions to *Manual 14D* and the *tariff*.

Egan said the current tariff language providing 30 days to complete deactivation studies is acceptable when only a single deactivation notice is made in a period. But when multiple deactivation requests are received, the 30-day window is "insufficient" to determine any adverse impacts on reliability and can be "very challenging" to complete.

"We're narrowly focused on targeting the cur-

rent tariff timing for deactivations," Egan said.

The current industry trends and state energy policies will increase the volume of deactivation notices in the future, Egan said, putting more pressure on PJM staff to complete deactivation studies. He said the short window puts "undue burden" on PJM's planning and operations staff, along with the staff of transmission owners making deactivation requests, to make reliability evaluations and mitigation determinations.

PJM is an "outlier" in its deactivation process when compared to other RTOs and ISOs, Kern said, with a current advance notice of 90 days and 30 days to conduct a study.

MISO requires advanced notice of 26 weeks for a deactivation, and the studies include 75 days to identify issues and 26 weeks to complete the deactivation study. NYISO has an advanced notice of 365 days for deactivation, and studies are conducted in the subsequent quarter.

PJM's proposed issue charge calls for tariff and manual changes that "provide more time to complete analyses, allow additional and improved studies and provide the ability for more efficient work control and consistency regarding timing of deactivation studies," Egan said.

PJM News

The proposed deactivation process includes quarterly study times for requests, with study periods beginning Jan. 1, April 1, July 1 and Oct. 1. PJM staff will study deactivations as a batch; the Jan. 1 study period would result in a reliability

notifications at the end of February, for example.

To request a deactivation, a generation owner must submit a notice:

- between Jan. 1 and March 31 to deactivate July 1 or later;
- between April 1 and June 30 to deactivate Oct. 1 or later;
- between July 1 and Sept. 30 to deactivate Jan. 1 of the subsequent year or later; or
- between Oct. 1 and Dec. 31 to deactivate April 1 of the subsequent year or later.

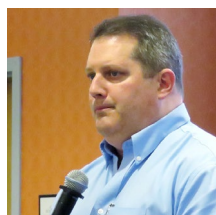
Egan said the quarterly schedule will allow sufficient time for additional required seasonal, interim year and short-circuit analyses, scheduling upgrades and cost estimates. He said the new schedule would also allow PJM operations to identify additional needed operational measures.

PJM will seek endorsement of the issue charge at the March PC meeting.

Transmission Expansion Advisory Committee

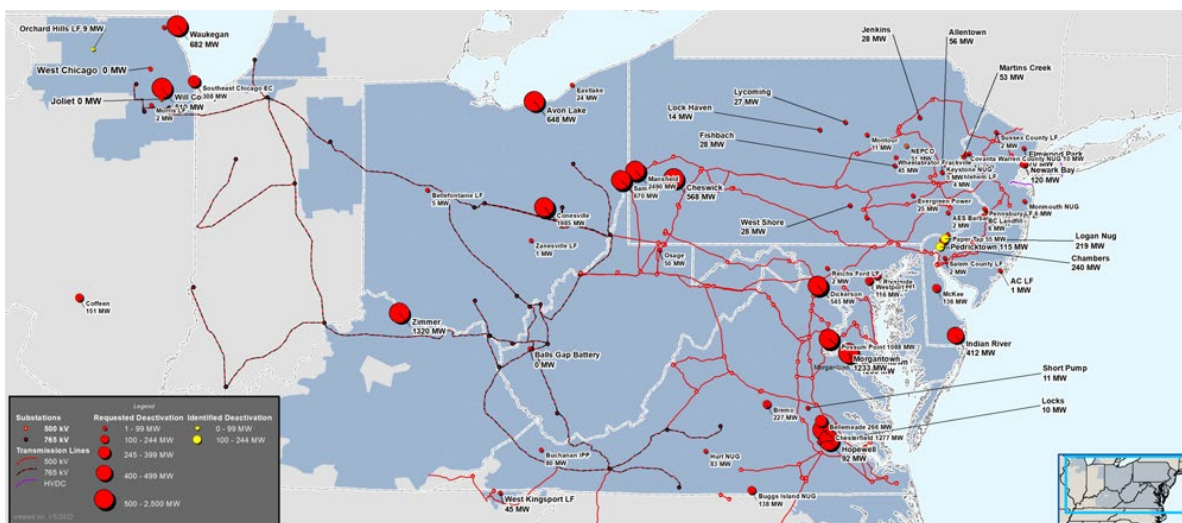
NJ Offshore Wind

Aaron Berner, PJM manager of transmission planning, provided an update on the New Jersey offshore wind “state agreement approach” (SAA) proposal window at last week’s Transmission Expansion Advisory Committee meeting.



Aaron Berner, PJM | © RTO Insider LLC

PJM and the New Jersey Board of Public Utilities asked FERC last month to approve the SAA plan to build the transmission necessary to deliver the state’s planned 7,500 MW of offshore wind. (See [PJM, NJ Seek FERC OK for OSW Tx Process.](#))



Generation deactivations in PJM from 2018-2021 | PJM

Berner said PJM staff is currently conducting system reliability tests to determine how the different proposals may impact grid performance. The RTO has also performed internal reviews on the necessary construction of transmission, Berner said, while engaging with external consultants to look at the “viability” of the construction and potential cost and permitting issues.

“This is a much more complex set of projects than we have looked at in the past,” Berner said.

PJM is working with the New Jersey Department of Environmental Protection to “better understand” some of the environmental issues that need to be considered when building the new transmission, he said.

The RTO has completed a “good amount” of summer, light-load and winter deliverability testing associated with several proposals, Berner said, and has seen “small magnitude” violations with some of the proposals.

Berner said PJM has reviewed proposals for the options of upgrades on existing onshore transmission connection facilities and new facilities. In consultation with NJBPU, PJM identified an initial set of 6,400 MW of combinations to evaluate for offshore wind generation solicitations 2 through 5.

The NJBPU conducted its second offshore wind solicitation last June with a combined capacity of 2,658 MW. (See [NJ Awards Two Offshore Wind Projects.](#)) The fifth and final solicitation window is scheduled for the first quarter of 2027.

Berner said PJM is working with a consultant to analyze the cost of the proposals over the entire service life of the projects under differ-

ent scenarios, including project cost increases and schedule delays. He said the RTO will also evaluate the cost containment provisions for the proposals.

Sharon Segner, vice president of LS Power, asked when the analytical and evaluation work being done by PJM staff and the consultant will be presented to stakeholders.

Berner said some of the work should be completed and presented at the TEAC by March, and more is expected within three months. He said it’s difficult to issue the analysis in a piecemeal fashion because of the complexity of the work to be completed.

“We need to come to a point where we have a more holistic view of some of the projects, which means rounding out more of the analysis,” Berner said.

Generation Deactivation

Phil Yum of PJM *provided* an update on recent generation deactivation notifications.

Yum highlighted the deactivation notifications of New Jersey’s last two remaining coal plants: the 219-MW Logan Generating Plant and the 240-MW Chambers Cogeneration, both owned by Starwood Energy and located in the Atlantic City Electric transmission zone. Starwood requested a deactivation date of April 1. PJM completed a reliability analysis of both plants and no reliability violations were identified.

The 9.3-MW Orchard Hills Landfill in the ComEd transmission zone in Illinois requested a deactivation date of March 31. Yum said a reliability analysis was completed and no reliability violations were identified. ■

PJM News



PJM Operating Committee Briefs

By Michael Yoder

Illinois CEJA Reliability Guidance Update

PJM last week provided the Operating Committee an update on the [Illinois Climate and Equitable Jobs Act](#) (CEJA) and its impact on the RTO.

Chris Pilong, director of PJM's operations planning department, presented a draft reliability guidance [document](#) that the RTO will send to Illinois regarding the new clean energy legislation. Signed into law on Sept. 15 by Gov. J.B. Pritzker, the legislation requires all investor-owned baseload coal-fired power plants and remaining oil peaker turbines to shut down by 2030. (See [Illinois Senate Passes Landmark Energy Transition Act](#).)

Gas turbine plants, including ones currently under construction, must also close by 2045 under the terms of the bill, although the state has the option to retain plants that are critically needed.

Pilong said PJM has been working with the Illinois Environmental Protection Agency and the governor's office to develop a guidance document to clarify the legislation for generation owners and other impacted stakeholders. The law's broad scope and impact creates a need for generation owners and state entities to discuss and resolve issues, he said.

"This guidance document is very much written from the PJM and member stakeholder perspective," Pilong said.

PJM received feedback from stakeholders on the RTO's procedures for excepted generators in Illinois. In a section of the document on scheduling large greenhouse gas-emitting units for reliability, PJM is proposing language that says a unit will need to bid into the day-

ahead and real-time markets as "unavailable" if it does not have any remaining run hours left as a result of the CEJA legislation.

Pilong said a unit will also need to enter an "unplanned" outage ticket with a cause code of "emissions – CEJA" in the PJM eDART system. He said a unit entered with this outage type and cause code will not be expected to enter Generating Availability Data System outages and will not have an equivalent forced outage rate demand impact calculated.

"What we found is the legislation creates a new scenario for us," Pilong said. "We've never had a unit that's available for a reliability need but not available for potential economic scheduling."

Marji Philips, LS Power vice president of wholesale market policy, praised the work being done by PJM staff to draft the guidance document. Philips said one of her company's biggest concerns is to have the Illinois government put in writing that generators will not be penalized for running as reliability resources and be protected from private lawsuits for exceeding emissions limits.

"We don't want to get into litigation," Philips said.

Philips also encouraged PJM to complete impact studies from the legislation as soon as possible. She said other states are currently looking at similar legislation, and there are "significant reliability concerns" with the deactivation of generators.

"It would be helpful to give some guidance to other states that are looking at similar legislation and some of the issues they can expect to possibly occur," Philips said.

TO/TOP Matrix Review Approved

Stakeholders unanimously voted to recommend that the Transmission Owners Agreement – Administrative Committee (TOA-AC) approve the latest version of the Transmission Owner/Transmission Operator (TO/TOP) Matrix.

Gizella Mali, chair of the PJM TO/TOP Matrix Subcommittee (TTMS), [reviewed](#) version 16 of the [TO/TOP Matrix](#). Mali said the subcommittee has been working on changes since June and finalized the matrix in November.

The TO/TOP Matrix is an index between the PJM manuals and governing documents and NERC reliability standards applicable to the

RTO as the TOP. The matrix delineates the assigned and shared tasks for member TOs where PJM relies on its TOs to perform certain tasks.

Changes in version 16 of the matrix included several revised tasks with updated language and administrative changes to update reference documents, spelling and grammar and align abbreviations. Mali said there were no changes with new NERC reliability standards or other standards in the existing matrix.

Members also unanimously recommended approval of the matrix in a vote at last week's Planning Committee meeting. The matrix will now go to the TOA-AC for final approval at the March meeting.

Manual 40 Endorsed

Members unanimously endorsed a minor change to Manual 40 as part of the periodic review.

Benjamin Miller, PJM's senior training technology coordinator, [reviewed](#) the change to [Manual 40: Training and Certification Requirements](#). Miller said Maureen Curley was added as manager of PJM's state and member training department. Curley replaced Michael Sitarchyk who retired as manager earlier this year.

The manual change will now go to the Feb. 24 Markets and Reliability Committee meeting for final endorsement.

Manual First Reads

Several manual changes resulting from the periodic review were presented for first reads by Donnie Bielak, manager of reliability engineering for PJM. The manuals were:

- [Manual 12: Balancing Operations](#) with a [review](#) of the language that included changes to attachment references and other minor revisions.
- [Manual 13: Emergency Operations](#) with a [review](#) of the language that added columns with winter values for estimated peak load and estimated load reduction in the voltage reduction summary table.
- [Manual 37: Reliability Coordination](#) with a [review](#) of the language that corrected Silver Run Electric to properly show as a transmission owner in Attachment A of the manual.

Stakeholders will vote on the changes at the March OC meeting. ■



J-Power's Elwood Energy Center, a 1,350-MW natural gas turbine in Illinois | J-Power

PJM News



PJM Planning Committee Endorses 'Fast Lane' Criteria for Gen Projects

Proposal Would Close Queue for 2 Years During Transition

By Michael Yoder

Stakeholders strongly endorsed PJM's plan for transitioning into a new interconnection process at last week's Planning Committee meeting.

The *proposal*, developed in the Interconnection Process Reform Task Force, received 218 votes in support (91%), with 22 members voting against it. It now goes to the Markets and Reliability Committee meeting for endorsement.

Jack Thomas of PJM's Knowledge Management Center *said* the proposal would establish an expedited interconnection process with "fast lane criteria" for projects with any cost allocations for transmission upgrades of \$5 million or less, amounting to about 450 impacted projects with a completion date of 18 months. The \$5 million cutoff covers the bulk of substation and terminal equipment upgrades and, as a result, shorten durations for facilities to study the work needed to be done.

While PJM processes these projects, along with the remaining projects that have been "re-queued," no new project applications would be accepted for two years.

Ken Seiler, PJM's vice president of system planning, thanked stakeholders and PJM staff for the work done in the effort, calling it a "long journey." Seiler said members were able to come together and find "collective solutions" to improve the interconnection process.

"We've worked very hard to hear everybody's concerns and examine any number of ways to improve the process," Seiler said. "And I think this is really going to help us long-term to prepare us for the grid of the future."

He also said PJM recognizes that the proposal doesn't satisfy all stakeholders, but it will help the RTO better interconnect generation resources in the queue. He called it PJM's "best faith proposal" to deal with the growing backlog in the queue.

There is currently more than 220 GW of



An 876-kW solar installation in Hopewell, N.J. | *Advanced Solar Products*

capacity in the queue, Seiler said, 95% of which are made up of renewable resources.

At the same time that the interconnection queue continues to grow, Seiler said PJM is facing staffing concerns to be able to handle the interconnection requests. The RTO has continued to hire staff over the last two years and plans to add more through 2023.

PJM staff have also taken a "hard look" at its capital budget for tools and automation efforts to increase efficiencies, Seiler said, increasing money set aside.

"I think we are going to find a better, faster, more efficient way to get these new projects integrated into the system and enable our states to meet their renewable portfolio goals," Seiler said.

Seiler said he wanted to emphasize that PJM is "not closing the door" on new projects entering the interconnection queue and that the RTO has heard stakeholder concerns that the queue will be closed with the transition proposal.

"We're prioritizing more than 1,200 projects that we have in our backlog; most of them are renewables, and they represent well over 100,000 MW of nameplate capacity," Seiler

said. "That's half the capacity we have in our system today, and we're focused on moving these through the system and streamlining the process as much as possible, and getting real projects interconnected to the queue."

Stakeholders originally endorsed an issue charge for work to be completed on the interconnection issue at the April PC meeting, with task force meetings starting later that month. (See "Interconnection Process Reform Endorsed," *PJM PC/TEAC Briefs: April 6, 2021*.) Thomas said that while PJM and stakeholders were working through the issues in the task force, they realized a transition process also needed to be discussed.

The proposal would also preserve the ability for backlogged projects that would have received an interconnection service agreement under the existing process if not for delays to remain in the queue, Thomas said, and it would also reduce the time that the queue is closed for the transition.

If the proposal is endorsed by the MRC and MC in April, PJM expects to file the necessary changes with FERC by May. Based on the current work plan, the effective date of the transition would be the last quarter of 2022 or the first quarter of 2023. ■

Mid-Atlantic news from our other channels



NJ Plans Autonomous EV Transit Project

NetZero
Insider

RTO Insider subscribers have access to two stories each monthly from NetZero and ERO Insider.

PJM News



FERC Clarifies Order on PJM Reserve Market Changes

Danly Blasts Decision

By Michael Yoder

FERC on Friday clarified that its Dec. 22 order on remand partially reversing a May 2020 decision on PJM's proposed energy price formation revisions did not remove the RTO's reserve price caps (EL19-58).

On remand from the D.C. Circuit Court of Appeals in December, the commission 3-1 reaffirmed its previous decision directing PJM to consolidate its tier 1 and tier 2 reserve products, but it said it had erred in its approval of changes to the shape of the RTO's operating reserve demand curve (ORDC), requiring tariff and Operating Agreement revisions within 60 days. (See *FERC Reverses Itself on PJM Reserve Market Changes*.)

PJM uses an ORDC and transmission constraint penalty factors to establish LMPs. Under its current rules, the maximum price the energy component of an LMP can reach is \$3,750/MWh. But the "downward sloping" ORDC, approved by FERC in May 2020, allowed the RTO's LMPs to reach or exceed \$12,050/MWh in cases of extreme reserve shortages.

PJM Request

PJM requested FERC action by Feb. 11 so that it could reflect the commission's clarification regarding how it should address the reserve price caps in its scheduled Feb. 22 compliance filing. It specifically requested clarification as to whether the remand order retained the May 2020 order's acceptance of the removal of price caps in the reserve markets, or that it should maintain the price caps.

The RTO said in its filing that it would include tariff provisions removing the reserve price caps if the commission didn't make a clarification. It said it would include capping provisions in its compliance filing that are "consistent with its existing reserve capping provisions but reflect the addition of a new 30-minute reserve requirement."

It also said that its footprint will have five reserve requirements with the proposed reserve market changes. Without the price capping provisions, PJM said, the maximum energy component of the LMP could reach approximately \$6,250/MWh, a price equal to the sum of the \$2,000/MWh energy offer cap and five \$850/MWh reserve penalty factors.

"PJM states that the removal or continuation of the price capping provisions has implications on the reserve market clearing prices and energy prices," the commission said in its order last week. "PJM explains that when a reserve zone or sub-zone is short on reserves, the reserve and energy market clearing prices will reflect the need for additional reserves, where the maximum willingness to pay to meet any reserve requirement in any location, independent of the other reserve requirements, is the reserve penalty factor."

The commission said that while its December remand order didn't "explicitly address" the current reserve price caps, it directed the RTO to maintain its currently effective reserve penalty factors. FERC said PJM didn't specifically allege that the reserve price caps are unjust and unreasonable, but rather "proposed only to remove the reserve price caps as part of PJM's replacement rate."

"While the May 2020 order accepted PJM's proposed replacement reserve penalty factors and PJM's proposal to remove the price caps by extension, it did not find the reserve price caps unjust and unreasonable under the currently effective ORDCs and reserve penalty factors," FERC said. "Because the remand order reversed the determinations regarding the ORDCs and reserve penalty factors, the underlying predicate for removing the price caps no longer exists. Moreover, PJM did not present any evidence that the reserve price caps are unjust and unreasonable under its currently effective ORDC and reserve penalty factors. Accordingly, we clarify that the remand order did not remove the reserve price caps."

Stakeholder Input

In response to PJM's request for clarification, the PJM Load Coalition and the Independent Market Monitor both argued that FERC's December remand order directed the RTO to maintain the current reserve price caps.

The coalition requested that the commission confirm that PJM must submit a compliance filing maintaining the current approach to the reserve penalty factors and the cap on the energy component of LMP at \$3,750/MWh.

FERC said PJM's governing documents don't specify the latter, only the caps on prices for synchronized and non-synchronized reserves.

"Because the remand order maintained the

May 2020 order's directive that PJM adopt a new 30-minute reserve requirement and secondary reserve product, PJM may propose revised reserve price caps to reflect the addition of this new product, but we note that the commission will review PJM's proposal with the benefit of parties' comments submitted as part of the compliance proceeding," FERC said.

The Monitor argued that while the overall energy and reserve price cap is not explicitly in the PJM tariff, the commission's approval of the \$850/MWh penalty factors and an overall \$2,700/MWh combined energy and reserves price cap make it "clear that the cap is included in PJM's market design."

It also argued that the remand order did not direct PJM to increase the synchronized and primary reserve prices or the LMP to reflect the new 30-minute reserve requirement, even though it directed the RTO to implement a reserve penalty factor for the requirement.

"The IMM's analysis of price formation during instances of reserve price capping underscores the complexity of the issue at hand and the need to develop a further record," FERC said.

Danly Dissents

Commissioner James Danly rebuked the decision, saying the remand order had "profound and unforeseen consequences" on PJM's market design. Danly said the "majority rushed to issue" in the remand order, discounting objections from PJM and other litigants.

"Through a tortured reading of the voluntary remand order, the majority 'clarifies' that the reserve price caps were not removed and admits that mere reinstatement of the reserve price caps fails to account for PJM's new reserve product," Danly said. "This is quite a significant 'clarification.'" ■



FERC Commissioner James Danly | © RTO Insider LLC

PJM News

PJM MIC Briefs

Vote on Minimum Run Time Guidance Delayed

PJM delayed a vote at last week’s Market Implementation Committee meeting on a proposal addressing pseudo-modeled combined cycle minimum run time guidance after stakeholders asked for more time to review the changes.

Tom Hauske, principal engineer in PJM’s performance compliance department, reviewed the proposal that included adding language to Manual 11: Energy and Ancillary Services Market Operations. The issue charge for the proposal was endorsed at the January MIC meeting, and stakeholders immediately began working on a solution. (See “Minimum Run Time Guidance Endorsed,” PJM MIC Briefs: Jan. 12, 2022.)

Market sellers can model a combined cycle unit as multiple pseudo units composed of a single combustion turbine and a portion of a steam turbine. Hauske said the potential exists for one or more of the pseudo-modeled units to operate for a period beyond the minimum run time parameter limit for an identical non-pseudo-modeled combined cycle unit if the market units of a pseudo-modeled combined cycle unit are dispatched at different times on parameter-limited schedules (PLS).

The proposed solution calls for adding language to Manual 11 to require market sellers to update the minimum run time of any second and subsequent pseudo-modeled block to remove the associated steam turbine start-up time that is included in the parameter limit when it’s dispatched.

Hauske said PJM removed language calling

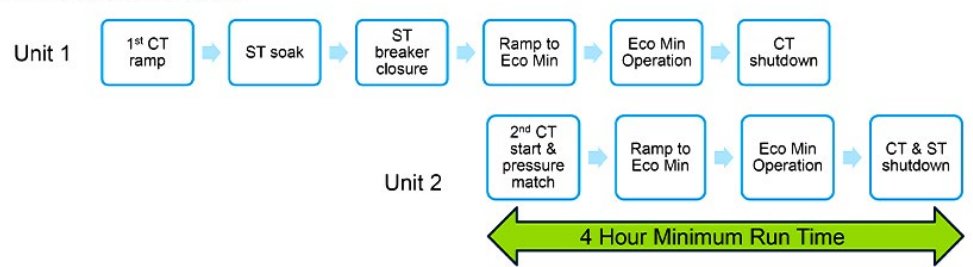


David "Scarp" Scarpignato, Calpine | © RTO Insider LLC

2x1 Non-Pseudo Modeled CC



2x1 Pseudo Modeled CC



Comparison of a 2x1 combined cycle unit with a pseudo-modeled 2x1 combined cycle unit when dispatched on a parameter-limited schedule | PJM

for “hourly” updates of the minimum run time parameter in order to avoid creating a “compliance trap” for market sellers who have several pseudo-modeled combined cycle units.

Adrien Ford of Old Dominion Electric Cooperative said she would appreciate the opportunity to circulate the updated manual language with ODEC staff before a vote to see what potential impact removing the “hourly” language could have on operations.

“ODEC’s wholly supportive of not creating compliance traps,” Ford said.

Calpine’s David “Scarp” Scarpignato said he agreed with taking more time to circulate the manual language internally.

“It’s very different than last month’s language, so I would recommend a delay,” Scarp said.

Hauske said PJM wants to have final endorsements by the March 23 Markets and Reliability Committee meeting because the RTO’s unit-specific parameter adjustment process starts Feb. 28. PJM must provide a determination on the requests by April 15.

PJM staff agreed to delay the vote on the proposal but will proceed with conducting a first read of the language at the Feb. 24 MRC meeting.

Manual 27 Revisions Endorsed

Stakeholders unanimously endorsed manual

revisions related to a recent FERC order in response to industrial customers’ protest of PJM’s proposed revisions to its administrative rates.

While FERC accepted it for filing, the commission in December ordered hearing and settlement judge procedures for PJM’s proposed tariff revisions changing its administrative cost recovery to monthly rates based on that month’s costs and that month’s billing determinations. (See *FERC Sets Hearing on Industrials’ Challenge to PJM Administrative Rates*.) The PJM Industrial Customer Coalition had protested the proposal.

Rebecca Stadelmeyer of PJM’s market settlement development department reviewed the revisions to Manual 27: Open Access Transmission Tariff Accounting, which include reorganized wording to distinguish between administrative rates and pass-through rates, and a new section to only be reconciliation for transmission owner scheduling system control and dispatch service.

The manual changes will now go to the Feb. 24 MRC meeting for final endorsement.

Manual 18 Revisions

Jeff Bastian, senior consultant in PJM’s market operations department, provided a first read of revisions to Manual 18: PJM Capacity Market to conform with several recent FERC orders

PJM News



regarding:

- PJM's revisions to the application of the minimum offer price rule (MOPR), which became effective by operation of law in September when the commission deadlocked (ER21-2582);
- PJM's October compliance filing to amend several sections of Attachment DD of the tariff establishing a replacement market seller offer cap (EL19-47);
- restored tariff provisions related to the prior backward-looking energy and ancillary services (E&AS) offset for the 2023/24 Base Residual Auction and beyond (EL19-58); and
- the removal of the 10% cost adder for the reference resource used to establish the variable resource requirement curve (ER19-105).

Bastian said language in section 3.3.2 was updated to reflect that the net E&AS of the reference resource combustion turbine will be calculated using the forward-looking methodology with application of the 10% adder for only the 2022/23 delivery year. The net E&AS will be determined using the historical approach and without application of the 10% adder for all other delivery years.

The revisions also delete language in section 5.4.5.2 describing the consequences of accepting a state subsidy after electing the competitive exemption or certifying that a resource is not state-subsidized.

Stakeholders will vote on the changes at the March MIC meeting, with a final vote planned for the March 23 MRC meeting.

Critical Gas Infrastructure

Jack O'Neill of PJM's demand response department provided a first read of a [problem statement](#) and [issue charge](#) addressing the recommendation for demand response participation in a FERC and NERC [report](#) on last February's winter storm in Texas and other parts of the South.

The report included a key recommendation "to require balancing authorities' operating plans (for contingency reserves and to mitigate capacity and energy emergencies) to prohibit use of critical natural gas infrastructure loads for demand response."

PJM began discussions with curtailment service providers (CSPs) through the Demand Response Subcommittee to identify impacted loads for the 2021/22 winter season, O'Neill

said, and it developed a preliminary definition of critical gas infrastructure loads.

O'Neill said CSPs have cooperated with PJM to identify impacted loads in the RTO's DR Hub application so dispatchers have "operational awareness." PJM estimates there are about 20 facilities of critical gas infrastructure load that participate as DR in the RTO's wholesale markets, amounting to around 95 MW of winter capability and 190 MW of summer capability.

The key work activities of the issue charge include defining critical gas infrastructure loads and PJM market participation rules in compliance with FERC/NERC recommendations and developing a transition mechanism if new participation rules impact member's capacity commitment.

PJM wants to assign the work to the Demand Response Subcommittee. Work on the issue is expected to last 12 months, and the goal is to file any necessary tariff changes with FERC in the first quarter of 2023.

"It's not a huge issue for PJM considering our demand response fleet is roughly 6,500 MW," O'Neill said. "But it's still something that needs to be addressed."

Stakeholders will vote on the issue charge at the March MIC meeting.

Operating Reserve Clarification

Phil D'Antonio of PJM's energy market operations department provided a first read of a [problem statement](#) and [issue charge](#) addressing clarifications and potential enhancements to the rules for paying operating reserve credits to resources operating when requested by the RTO.

D'Antonio said PJM pays energy uplift to market participants under specified conditions to ensure that competitive market outcomes "do not require efficient resources to operate for the PJM system at a loss." He said the uplift payments are intended to act as one of the incentives for generation owners to offer energy for dispatch based on short-run marginal costs and to operate units as directed by the RTO's operators.

PJM wants to clarify the definition of "operating as requested by PJM" in both the tariff and manuals because it "lacks the type of systematic approach" found in the definition of "following dispatch," D'Antonio said, which is used in assessing balancing operating reserve deviation charges. He said PJM and the Independent Market Monitor have had debates over the meaning of the definition.



PJM Monitor Joe Bowring | © RTO Insider LLC

"We feel the current definition isn't as specific as we would want it to be and leads to different interpretations as we apply operating reserve credits and uplift payments," D'Antonio said.

The key work activities in the issue charge include determining a definition of "operating as requested by PJM" as it relates to payment of operating reserve credits. It also seeks to establish alternative rules addressing the megawatt level to which balancing operating reserve credits should be paid to resources found not to be closely following PJM's commitment and dispatch instructions.

The issue will be worked on at the MIC, D'Antonio said, with the potential for special MIC meetings to be scheduled as needed. Work is expected to last around nine months.

Calpine's Scarp said he would like to see discussions include how renewable resources will get credits and an "explicit piece of the issue charge" on what renewable resource output is compared to determining credits or deviations.

Monitor Joe Bowring said he has been bringing up this issue for at least four years and was glad to see PJM and stakeholders deciding to tackle it. He also appreciated the opportunity to work with PJM in developing the issue charge and problem statement.

Bowring added, however, that they did not agree about the current rules or the appropriate solution. Bowring said the Monitor will continue to pursue parallel paths to address the issues associated with paying uplift to units not following dispatch, including making referrals to FERC's Office of Enforcement.

"It's essential to get these issues clarified," Bowring said. ■

— Michael Yoder

SPP News



NextEra Transmission Subsidiary Gains Abandonment Approval

Commission also Approves SPP Hybrid Storage Model

By Tom Kleckner

FERC last week granted NextEra Energy Transmission (NEET) Southwest's request to recover 100% of all prudently incurred costs associated with an \$85.2 million competitive project in SPP's Kansas and Missouri footprint, should the project be abandoned or canceled for reasons beyond the company's control (ER22-576).

The commission Feb. 7 agreed with NEET Southwest's contention that the project faces "significant regulatory and siting risks" that could lead to its abandonment. It said the company's total package of incentives, including previously granted incentives, is reasonable because it addresses the risks and challenges associated with the project's development.

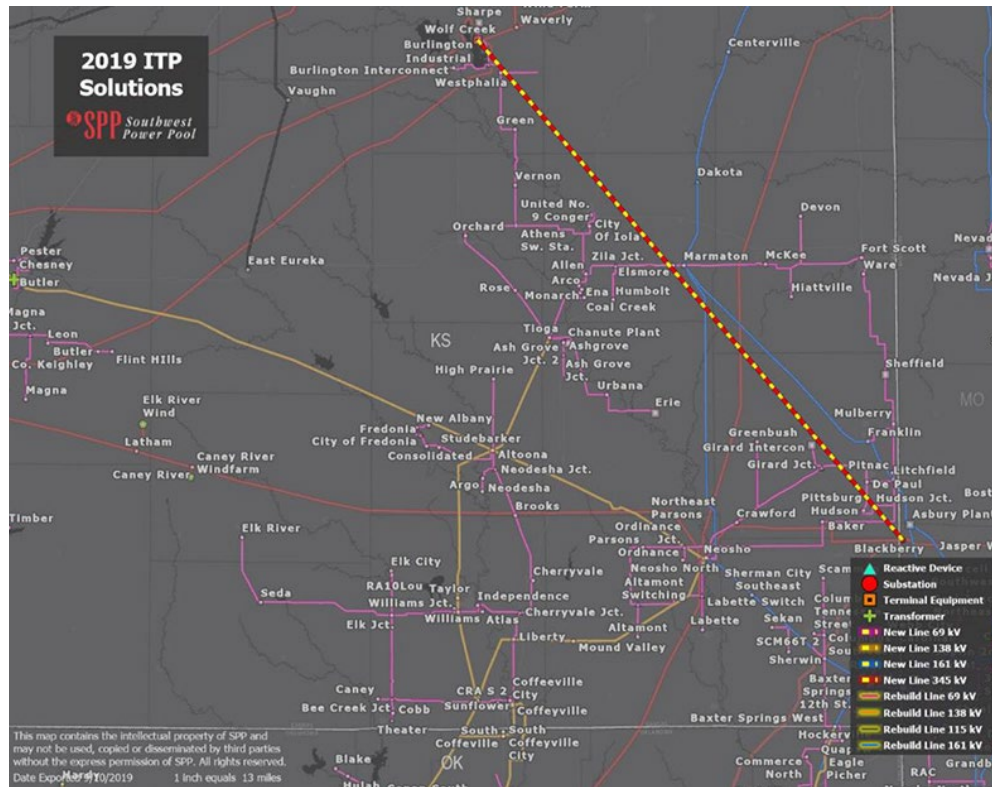
The NEET subsidiary said more than \$20 million is at risk, calling out other planning region-approved transmission projects that were not completed for reasons outside the developer's control. It said it doesn't have a rate base or revenue stream against which unrecovered development costs for an abandoned project could be offset and said the abandoned plant incentive will help attract financing for the project.

NEET Southwest is attempting to build a 94-mile, 345-kV transmission line from Wolf Creek in southeast Kansas to the Blackberry substation in Missouri. The project has a January 2025 in-service date, a full year ahead of the request for proposal's need date.

SPP's Board of Directors approved the project last October following an industry expert panel's unanimous recommendation that NEET Southwest be designated the project's transmission owner. The RTO issued a notice to construct in December. (See [SPP Board of Directors/Members Committee Briefs: Oct. 26, 2021](#).)

The transmission provider must obtain certificates of convenience and necessity from the Kansas Corporation Commission and Missouri Public Service Commission in addition to other regulatory reviews involving federal and local agencies. It said it needs a siting permit from the KCC, which would lead to an administrative evidentiary hearing that could potentially subject the project to "significant" delays or possible abandonment if the in-service date is endangered.

The company also said it faces the risk that



The Wolf Creek-Blackberry 345-kV transmission project in Kansas and Missouri | SPP

Missouri or Kansas state laws could create a right of first refusal or impose other limitations on nonincumbent transmission developers, such as NEET Southwest, to obtain necessary permits or to otherwise develop or own transmission assets in those states.

In Missouri, [legislation has been pre-filed](#) for consideration this month that gives incumbent TOs the right to construct, own and maintain a transmission line that has been approved by "the entity with authority for transmission planning" in a FERC-recognized planning region.

KCC staff said Friday that NEET Southwest has yet to begin the process of securing utility status so that it can then apply for a CCN and siting order.

NEET did not respond to a request for comment.

FERC Commissioner Mark Christie concurred with the decision in a separate statement, saying the commission needs to revisit "the array of incentives offered to transmission developers ... for projects that never serve consumers."

"It is imperative that incentives like the abandoned plant and [construction work in progress] incentive are revisited to ensure that all the risks associated with transmission construction are not channeled to consumers while transmission developers and owners stand to gain all the financial reward," Christie wrote.

FERC Approves Hybrid Storage Model

FERC also approved in a letter order SPP's request to add the definition of "hybrid storage market resources" and the provisions for their registration to the RTO's tariff. The order is effective Feb. 19 (ER22-684).

The rule change specifies that an electric storage resource co-located or integrated with a generating resource may register the resources as a single resource in the market and may use the market storage resource model.

The hybrid model was one of 21 recommendations from the Holistic Integrated Tariff Team in 2019, intended to integrate increased renewable energy, boost reliability and improve transmission planning. (See [SPP Board Approves HITT's Recommendations](#).) ■

Company Briefs

AGA Report Says Natgas System Can Become Netzero

American Gas Association President Karen Harbert last week said the natural gas system can grow by 24% over the next 30 years while also becoming cleaner and eventually not contribute to climate change at all.

Harbert cited the AGA's new "Net-Zero Emissions Opportunities for Gas Utilities" report, which outlines four potential pathways that gas utilities could follow to zero out their emissions by 2050. All four would require a radical transformation of the industry, with the amount of energy supplied by fossil natural gas dropping from 12 quadrillion Btus today down to 1 quadrillion or less by mid-century.

The AGA is proposing that utilities reduce their energy demand through energy efficiency programs; repurpose the existing pipeline system to deliver alternative gases that have a lower (but not zero) carbon footprint; build new pipelines in select areas that can carry pure hydrogen; and ramp up leak detection and pipe replacement programs to reduce methane emissions.

More: [Grist](#)

California Accuses Tesla of Alleged Discrimination at Plant

The California Department of Fair Employment and Housing last week sued Tesla alleging the electric car maker has been discriminating against Black employees who have been likened to monkeys and slaves



TESLA

at a San Francisco Bay area factory. The 39-page lawsuit frames Tesla's recent move to Texas as an attempt to evade accountability for turning "a blind eye to years of complaints from Black workers who protest commonplace use of racial slurs on the assembly line." Tesla has said the agency has been asked on nearly 50 occasions during the past five years to look into allegations of discrimination and harassment and closed each investigation without finding any evidence of misconduct.

The allegations resulted from a 32-month investigation into the company's discriminatory practices, the lawsuit said.

More: [The Associated Press](#)

Energy Bar Association Names New CEO

The Energy Bar Association last week announced that Jack Hannan had become its CEO, effective Feb. 14.

Hannan has more than 25 years of experience working with membership organizations in marketing, communications and membership roles. He was most recently deputy executive director of the Bar Association of San Francisco.

More: [Energy Bar Association](#)

GM Plans 6-Fold Increase in Electric Truck, SUV Production

General Motors last week revealed plans



to increase production of electric trucks and Cadillac sport utility vehicles by more than six times the previously planned output, according to information shared with suppliers.

CEO Mary Barra told investors the automaker intended to accelerate production of electric vehicles, aiming to deliver 400,000 EVs in North America during 2022 and 2023. The company intends to increase production of its electric trucks and a new battery-powered Cadillac SUV to a total of 46,000 vehicles this year, up from a previous plan to build just 7,000.

GM is also expected to re-start production of its Chevrolet Bolt.

More: [Reuters](#)

TotalEnergies to Buy SunPower's Commercial Business for \$250M

European oil company TotalEnergies last week said it would acquire the commercial business of solar tech company SunPower Corp. for \$250 million.

TotalEnergies said the deal for SunPower's commercial and industrial solutions business would help it build out its distributed generation business, which operates about 500 MW of power across the globe.

The acquisition has been approved by both companies and is expected to close early in the second quarter.

More: [Houston Chronicle](#)

Federal Briefs

US Army Climate Strategy Calls for Emission Cuts, Base Protections

The U.S. Army last week released its first climate strategy designed to help protect bases against damage from global warming and improve readiness by training soldiers.

The Army's climate strategy calls for the service to halve greenhouse gas emissions from 2005 levels by 2030 and bring them to net-zero by 2050. The Army will also aim to slash emissions from buildings, develop an all-electric, non-tactical vehicle fleet by 2035, and place a microgrid at every installation by 2035.

The strategy also calls for leadership and workforce training to include climate change topics no later than 2028 and to publish lessons learned about climate change and best practices starting in 2024.

More: [Reuters](#)

US to Spend \$725M on Abandoned Coal Mine Cleanup

The Biden administration last week said \$725 million in federal funds would be available for states to clean up abandoned coal mines.

The money represents a portion of the \$11.3 billion allocated to mine reclamation



in the infrastructure law that Congress passed last year. The Interior Department said it will distribute \$725 million every year for the next 15 years to states and tribes based on need. For fiscal year 2022, the funding is available to 22 states and the Navajo Nation.

More: [Reuters](#)

State Briefs

CALIFORNIA

Bill to Help Stop Coal Train Passes Full Senate

The Senate last week voted 33-2 to pass a bill that will halt all state funding for a train that would carry coal through the northern part of the state.

The bill will prevent state funding from initiating improvements on the now defunct North Coast rail line. It also bans state money from being spent on the buildout of any new potential bulk coal terminal facilities at the Port of Humboldt.

The bill will be sent to the Assembly for its committee process.

More: [Del Norte Triplicate](#)

Plug-in Car Sales Up 79% in 2021



Plug-in vehicle registrations in 2021 increased by about 79% year-over-year to 237,618, which is 12.8% of the total market (compared to 8.1% in 2020), said a California New Car Dealers Association report.

Battery electric vehicles made up 176,357 of the sales, while plug-in hybrid models accounted for 61,261. The two were up 74% and 97%, respectively, from last year.

More: [Inside EVs](#)

Prosecutors Up Felony Charges Against PG&E in Kincade Fire Case



® Sonoma County prosecutors last week added three felony charges against Pacific Gas & Electric in regard to its role in the 2019 Kincadee fire.

The new felonies include three counts of recklessly and unlawfully starting a fire that caused “great bodily injury” to six firefighters and burned structures and forested land.

The Kincadee fire, which began Oct. 23,

2019, and grew to 77,758 acres, burned for two weeks and triggered the largest mass evacuation in county history, more than 190,000 people. The blaze destroyed 174 homes and a total of 370 structures, including winery and farm buildings.

More: [The Press Democrat](#)

FLORIDA

Net Metering Bill Gets First House Panel OK

The House Tourism, Infrastructure & Energy Subcommittee last week voted 13-3 to advance a bill that would require future rooftop solar panel customers to pay higher rates.

Under current law, solar panel owners who generate excess energy can sell it back to the utilities at the retail rate the utilities charge other customers. The bill would require a cheaper wholesale price be charged to the utilities. The bill was amended to increase the time current owners are grandfathered in and exempted from the rate change from 10 years to 20 years. Homeowners with working solar panels as of Jan. 1, 2023, would qualify for the exemption.

The bill has two more committee hearings in the House before it can head to the floor; the Senate version has two more committee hurdles as well.

More: [Florida Politics](#)

ILLINOIS

MetroLINK to Receive Grant for Electric Charging Systems



METROLINK.

Transportation.

The funds will be used for on-street, overhead vehicle charging equipment at Metro passenger terminals and for the expansion of charging systems at Metro's Operations and Maintenance Center to support the growing fleet of battery electric buses.

Rebuild Illinois is the state's capital improvement plan, which will provide up to \$33.2 billion in funding for infrastructure improvements throughout the state.

More: [Quad-City Times](#)

MetroLINK last week was awarded a \$5 million Rebuild Illinois grant from the Department of

IOWA

Linn County Votes Down Moratorium on Rezoning for Utility-scale Solar

The Linn County Board of Supervisors last week voted 2-1 against a proposed ordinance that would have established a 6-month moratorium on rezoning the Renewable Energy Overlay zoning district for utility-scale solar projects.

The ordinance would have prohibited all utility-scale solar applications to allow for code amendments to be made to address conditions discussed during another application process.

More: [KCRG](#)

MICHIGAN

Marshall Township Solar Farm Moves Forward

The Marshall Township Planning Commission last week approved a special use permit and site plan for the 100-MW Cereal City Solar Project.

The 500-to-900-acre project is being developed by NextEra Energy and has an agreement in place with Consumers Energy, which will buy electricity from the facility for at least the next 25 years.

Construction is expected to begin in June.

More: [Battle Creek Enquirer](#)

MINNESOTA

PUC Approves Xcel's Plan to Shift from Coal to Nuclear, Renewable Energy



The Public Utilities Commission last

week unanimously approved Xcel Energy's long-term plans for power generation, which are aimed at reducing greenhouse gas emissions while maintaining reliable and affordable electricity.

The plan calls for the utility to close its coal plants by 2030, extend the life of its Monticello nuclear reactor to 2040, and add a fleet of new solar and wind farms. The PUC also approved Xcel's plans to build two new transmission lines but deferred a decision over whether it should build two new gas-fired power plants. Both power lines will have to go through extensive PUC proceedings despite being approved as part

of a master plan.

The PUC also directed the utility to procure 2.5 GW of new solar by 2030.

More: [Star Tribune](#)

NEW YORK

Bethlehem Approves Plug Power Project



The Bethlehem Planning Board last week approved Plug Power's plans to build a

350,000-square-foot fuel-cell factory in the towns of Bethlehem and New Scotland.

The factory, which will be built at the Vista Technology Campus, will be used to make only GenDrive fuel cells that are used in forklift trucks in warehouses. Plug Power's fuel cells run on hydrogen, which emit only water vapor and warm air when they are running.

If approved by New Scotland, the company will likely break ground within the next month with plans to complete the project by the summer.

More: [Times Union](#)

OHIO

Bill Would Prevent HOAs from Banning Solar

A bill that passed the Senate by a 32-1 vote last month and was introduced in the House on Feb. 1 could prevent homeowners associations from enforcing some rules that often prevent homeowners from installing solar panels.

As passed by the Senate, the bill would let owners subject to condo or homeowner association rules install rooftop solar generation if the unit includes the roof. Owners would be responsible for the cost of maintaining, repairing and insuring their roofs, and their homes couldn't be directly above or below other units. However, it would still allow associations to "establish reasonable restrictions" on solar panels' size, place and manner of placement.

More: [Energy News Network](#)

DeWine Re-appoints Former Utility Lawyer to PUC

Gov. Mike DeWine last week named attorney and incumbent utility regulator Dan Conway to renew his five-year term on the Public Utilities Commission.

Conway's selection undercuts DeWine's pledge in January that he wouldn't appoint anyone with ties to the energy and utility industry to serve as a regulator. Court records show Conway frequently represented utility companies such as Columbia Gas, American Electric Power and Monongahela Power Company as an attorney before Gov. John Kasich appointed him in 2017.

More: [Ohio Capital Journal](#)

OKLAHOMA

OCC OKs \$675M in Fuel Recovery Costs for PSO From 2021 Cold Snap

The Corporation Commission last week approved a plan that will enable the Public Service Company of Oklahoma (PSO) to recover \$675 million in fuel costs from the extended cold snap of February 2021.

The securitization measure requires PSO to apply any other proceeds it receives for the storm directly to consumers' bills to lower the fuel charge, and mandates the company take steps to improve fuel supply plans to protect customers in the future. Securitization spreads the cost over 20 years, resulting in a monthly charge of \$4.06.

More: [Tulsa World](#)

Tulsa Voters Approve Franchise Agreement with PSO

Tulsa voters last week overwhelmingly supported the city's franchise agreement with the Public Service Company of Oklahoma in its municipal election.

The 15-year deal between the city and PSO passed with 8,578 voters (75.82%) in favor of the agreement, which will go into effect after the existing 25-year agreement ends in July.

The new agreement adds a 1% charge to help fund maintenance and repair of public streets, highways and rights of way. The fee is expected to raise an estimated \$4.5 million a year or \$76 million by the end of the agreement.

More: [Tulsa World](#)

VIRGINIA

IW Planners Favor Solar Farm

The Isle of Wight County Planning Commission last week voted 4-3 in favor of allowing a 20-acre solar farm.

Nuby Run Solar, a subsidiary of Charlottesville-based Hexagon Energy, has applied for a conditional use permit for a proposed



2-MW facility.

Should the county board of supervisors also vote in favor of granting the requested permit, Nuby Run would become the sixth utility-scale solar farm to be approved in the county.

More: [The Smithfield Times](#)

Senate Rejects Wheeler as Secretary of Natural Resources

The Senate last week voted 21-19 to reject Gov. Glenn Youngkin's nomination of Andrew Wheeler as secretary of natural resources.

The Senate voted along party lines to back a committee amendment removing Wheeler, who served as EPA administrator under President Donald Trump.

Wheeler would be the first Cabinet nominee in 16 years to be rejected by the legislature.

More: [Richmond Times-Dispatch](#)

WEST VIRGINIA

Gov. Justice Signs Repeal of Nuclear Power Prohibition



Gov. **Jim Justice** last week signed a bill repealing the prohibition on nuclear power plant construction in the state.

Senate Bill 4 passed the House of Delegates and state Senate in January by wide bipartisan

margins and removes two sections of code adopted in 1996 banning the construction of new nuclear power plants except under certain circumstances.

Justice expressed his pleasure in signing the bill, but he urged lawmakers to continue to study the issue of nuclear power going forward.

More: [The Parkersburg News and Sentinel](#)