RTO Insider

Your Eyes and Ears on the Organized Electric Markets

CAISO ■ ERCOT ■ ISO-NE ■ MISO ■ NYISO ■ PJM ■ SPP

ISSN 2377-8016 : Volume 2021/Issue 44 November 2, 2021

World Leaders at COP26: Climate Action Now

Previous National Commitments 'Still Condemn World to Calamitous 2.7-degree Increase'

By K Kaufmann

U.K. Prime Minister Boris Johnson called on world leaders at the United Nations Climate Conference in Glasgow to phase out gasoline-powered cars by 2035 and end the use of coal-fired power plants by 2040 in the developing world and 2030 in richer economies.

President Joe Biden | *COP26*

Brianna Fruean, a young climate activist from Samoa, reminded leaders that "climate action can be vastly different from climate justice" and challenged them to summon the "political will to do the right thing, to wield the right words and to follow it up with long overdue action."

U.S. President Joe Biden announced the launch of the Global Methane Pledge — a U.S.-European Union initiative — to cut methane emissions 30% from 2020 levels by 2030. He also pledged the U.S. to make contributions to climate finance for developing nations and called on others to do the same. "Right now, we're still falling short. There's no more time to hang back or sit on the fence or

Continued on page 7

Biden, Democrats Unveil $1.75T Build Back Better Framework (p.9)

Supreme Court to Hear Challenge on EPA Climate Authority

By Rich Heidorn Jr.

The U.S. Supreme Court said Friday it will consider challenges to EPA's authority to regulate greenhouse gas emissions under the Clean Air Act.

The court *granted certiorari* in challenges by coal mining companies and states led by West Virginia, Montana and Arizona that asked the court to examine Section 111 of the CAA, which was added in 1970 (42 U.S.C. Section 7411). The law directs EPA to regulate any new and existing stationary sources of air pollutants that contribute significantly to air pollution and endanger public health or welfare.

Section 111(d) empowers EPA to impose standards "for any existing source" based on limits "achievable through the application of the best system of emission reduction" that has been "adequately demonstrated."

In January, the D.C. Circuit Court of Appeals rejected the Trump administration's Affordable Clean Energy (ACE) rule for regulating power plants' greenhouse gas emissions. The 2-1 ruling said EPA's rulemaking under Trump and its repeal of the Obama administration's Clean Power Plan (CPP) "hinged on a fundamental misconstruction" of the CAA. The court also said the ACE rule's delayed enforcement deadlines were arbitrary and capricious, vacating the rule and remanding it to EPA for further action. (See *DC Circuit Rejects Trump ACE Rule*.)

The court consolidated four challenges and said it would hear one hour of oral arguments on the following questions:

- whether Congress gave EPA the power to issue rules "capable of reshaping the nation's electricity grids and unilaterally decarbonizing virtually any sector of the economy — without any limits on what the agency can require so long as it considers

Continued on page 7

MISO Warns of January Emergency Procedures

A lineman clears ice from transmission lines. | *MISO*

By Amanda Durish Cook

MISO said an emergency declaration is likely in January if harsh weather collides with unforeseen generation outages.

Senior Director of Operations Planning J.T. Smith said the RTO expects to use load-modifying resources (LMRs), which require a maximum generation declaration, this winter.

Continued on page 28

OMS Registers its Concern over Supply Insecurity (p.29)

Also in this issue:

10837 Deborah Drive ▣ Potomac, MD 20854 ▣ (301) 299-0375 ▣ info@rtoinsider.com

▣ rtoinsider.com ▣

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

Editorial

Editor-in-Chief / Co-Publisher
Rich Heidorn Jr. 202-577-9221

Deputy Editor / Daily
Michael Brooks
301-922-7687

Deputy Editor / Enterprise
Robert Mullin
503-715-6901

Art Director
Mitchell Parizer 718-613-9388

New York/New England Bureau Chief
Jennifer Delony 603-320-7043

MidAtlantic Bureau Chief
K Kaufmann 202-494-4386

Midwest Bureau Chief
John Funk 216-316-5413

Associate Editor
Shawn McFarland 570-856-6738

Copy Editor/Production Editor
Rebecca Santana 770-862-6004

CAISO/West Correspondent
Hudson Sangree 916-747-3595

ISO-NE Correspondent
Jason York 860-977-7830

MISO Correspondent
Amanda Durish Cook 810-288-1847

NYISO Correspondent
Michael Kuser 802-681-5581

PJM Correspondent
Michael Yoder 717-344-4989

SPP/ERCOT Correspondent
Tom Kleckner 501-590-4077

NERC/ERO Correspondent
Holden Mann 205-370-7844

Sales & Marketing

Chief Operating Officer / Co-Publisher
Merry Eisner 240-401-7399

Account Manager
Kathy Henderson 301-928-1639

Account Manager
Phaedra Welker 773-456-4353

Marketing Manager
Eau Rikhotso 317-418-5632

RTO Insider LLC
10837 Deborah Drive
Potomac, MD 20854
(301) 299-0375

2021 Annual Subscription Rates:

Plan	Price
Newsletter PDF Only	$1,520
Newsletter PDF Plus Web	$2,000

See additional details and our Subscriber Agreement at rtoinsider.com.

In this week's issue

Overheard at 73rd NECPUC Symposium

NEWPORT, R.I. — Two years in the making because of a postponement amid the COVID-19 pandemic, the 73rd New England Conference of Public Utilities Commissioners Symposium took place at Gurney's Newport Resort and Marina in Rhode Island last week.

Here is some of what we heard during the multiday event.

Extreme Weather, Energy Supply Chain Challenges

Issues in the global energy supply chain have ISO-NE CEO Gordon van Welie worried about the looming winter weather in the region.

"What's of particular concern this year is the sharp contraction in the global supply chain for [liquified natural gas] — and we know that as a region — we critically depend on imported LNG to offset the constraints that occur on the gas pipelines when things get really cold," van Welie said during the opening panel on Thursday.

While van Welie was looking ahead to this winter, he mentioned February's storm and historically low temperatures that plunged Texas into an energy crisis. A polar vortex at the end of December 2017 into early January 2018 was also on van Welie's mind because there is a similar long-range forecast for the upcoming winter in New England.

"So, with that, and the events that played out in Texas earlier this year, we're worried about what the implications of that might be," van Welie said. "In the longer run, we have to get our arms around understanding what these risks are."

A reliable power system depends on two "critical inputs," added van Welie: A robust transmission system and energy supply chain. When he looks at the transmission system in New England, van Welie sees "a healthy patient." However, the energy supply chain, particularly fuel, is a "much more difficult picture."

"It's fragile," van Welie said. "It's shared by many industries. We know that it gets jammed up in the wintertime, significant frictions and lags, and this is a system that we're going to depend on for quite a while."

U.S. Sen. Sheldon Whitehouse (D-R.I.); Ron Gerwatowski, Rhode Island Public Utilities Commission. | *© RTO Insider LLC*

What happened in Texas provided a "vivid illustration" of "tail risks" — the chances of a loss caused by a rare event, van Welie said. Unfortunately, there is no quick remedy to all of this, he added. Instead, reliability standards and regulatory authority must evolve along with market design.

"We will be proposing expanded ancillary services that will give the operators more tools to manage this variability and uncertainty, but I want to be clear about this, these ancillary services are not going to cover the tail risks, so that's the conversation we need to have," van Welie said.

The development of a sustainable marketplace that can create sufficient revenue to provide resource adequacy and reliability is vital, according to Dan Dolan, president of the New England Power Generators Association. To create a sustainable investment market, Dolan said there needs to be better integration of New England states' decarbonization and clean energy policies. Dolan said he had been a "broken record" about the need for "a multisector, meaningful price on carbon emissions.

"But there are other ways to do it too, and at a certain point, we just need to go and do it," Dolan said. "Whether that's carbon pricing, whether that's a forward clean energy market, or something else, but unless we are able to integrate those policies into the market, we're going to be stuck in the bifurcated market of essentially a cost-based program for a certain number of resources and merchant exposure on the other."

Judy Chang, undersecretary of Energy and Climate Solutions in the Massachusetts Executive Office of Energy and Environmental Affairs, said she is not "totally convinced" that there are not enough market signals for the investments.

"There are lots of enhancements that we need, but I'm not convinced that that the generators don't have enough incentives to make sure that they're ready when the prices are $900 [per kWh] or $9,000 [per kWh]," Chang said.

She added ISO-NE can consider market improvements to enhance reliability. There is also a need to understand the contribution of each resource to adequacy, she said.

73rd NECPUC Symposium

Carbon Pricing Moment

U.S. Sen. Sheldon Whitehouse (D-R.I.) held a fireside chat on Friday where he discussed the revised Build Back Better Act that includes $555 billion in clean energy funding, which he said is "intended to change the direction and trajectory of the energy industry." (See *Biden, Democrats Unveil $1.75T Build Back Better Framework*.)

The spending package has been reduced to win the support of Sen. Joe Manchin (D-W. Va.), whose vote is critical in the closely divided upper chamber. Democrats hold 50 seats, making Vice President Kamala Harris the potential tiebreaker.

"We hope that we can create an environment for Sen. Manchin in which he feels comfortable agreeing to something in the way of a carbon price," Whitehouse said.

Former FERC Chair and Commissioner and current ISO-NE Board of Directors Chair Cheryl LaFleur told Whitehouse that the reconciliation bill seems tailor-made for a pollution tax. But she asked if politics is the art of the possible, what kind of carbon pricing regime can Democrats get?

"It's a moment here," LaFleur said.

Whitehouse said 49 senators would vote yes on a carbon price, and there is one undecided in Manchin. Whitehouse said he has assembled an informal carbon price caucus of 22 senators, which according to Whitehouse, makes it "not just a Sheldon project, this is a very serious thing."

"We've developed a bill with the [Biden] administration that they will not oppose, that they will accept if we can get the votes," Whitehouse said.

From left: Dan Dolan, New England Power Generators Association; Heather Takle, Power Option; Gordon van Welie, ISO-NE; Judy Chang, Massachusetts Executive Office of Energy and Environmental Affairs; Jason Shafer, Northern Vermont University; Ron Gerwatowski, Rhode Island Public Utilities Commission. | © RTO Insider LLC

House Speaker Nancy Pelosi (D-Calif.) said that if a carbon price can pass the Senate, "she will get the votes in the House," Whitehouse said.

Glick Talks 'Hot Topic' Tx

FERC Chair Richard Glick opened the conference with a keynote speech Thursday that wasted little time hitting the "hot topic" of transmission. Glick said there is "enormous discussion" about the need for substantial amounts of additional transmission capacity to access remotely located zero-emissions resources like offshore wind.

"But even in addition to accessing zero-emissions generation, we also need to build up the transmission grid in large part to address reliability and resilience needs," Glick said.

In July, FERC issued an Advance Notice of Proposed Rulemaking to reconsider its rules on transmission planning, cost allocation and generator interconnection. Glick said FERC received 5,000 pages of comments on the ANOPR. He said that the goal is to issue a notice of proposed rulemaking early next year and the final rule, "hopefully," by yearend. (See *FERC Tx Inquiry: Consensus on Need for Change, Discord over Solutions*.)

Next Year's Symposium Set

Incoming NECPUC President Matthew Nelson, chair of the Massachusetts Department of Public Utilities, announced that the next NECPUC Symposium is scheduled for May 22-25, 2022, in Brewster, Mass. Vermont, which was supposed to host the event in 2020 before it was postponed, is slated for 2023. ■

— Jason York

73rd NECPUC Symposium

Experts Explore Grid Modernization Through Technology Upgrades

By Jason York

NEWPORT, R.I. — When a winter storm hit Texas in February, followed by devastatingly low temperatures, it set off an unmitigated catastrophe on its power grid that could have been alleviated by effective grid modernization, said Travis Kavulla, vice president of regulatory affairs for NRG Energy, one of the largest providers in Texas.

It led to a situation of haves and have nots in terms of who was in the dark when more than 20,000 MW of demand went unserved, Kavulla, a former Montana Public Service Commissioner, said during a panel Friday on grid modernization that closed the 73rd New England Conference of Public Utilities Commissioners.

"If people were able to rotate outages 12 hours at a time over the length of the event, I think it's safe to say that we would not have seen the fatalities that we did; even if it would have been an enormous inconvenience, a huge failure in the industry all the same, but it would not have had the catastrophic consequences on human life."

Texas is more advanced than New England in the deployment of smart meters, but Kavulla said they were not "operationalized at all" during the February storm. "You can use those smart meters to automatically disconnect customers; that's functionality that they are deployed for in Texas today."

Utilities, however, were not in a position to do that and turn them back on instead of "simply dropping entire circuits altogether," Kavulla added. "What happened was if you got a critical customer on a particular circuit, that circuit could not be shed, and neighboring circuits had to be shed. That led to this have-or-have-not situation."

NRG gathered 40 years of usage data on 5,000 residential customers in Texas. During the winter storm, these customers did not lose power but used double the electricity than when the temperature was higher than 90 degrees Fahrenheit.

"What happened in Texas was a huge surge in demand. If all the demand has been served in the state of Texas, it would have set an all-time peak record in the winter, but across all years and seasons in a state that often thinks of itself for a good reason as summer-peaking," Kavulla said. "This demonstrates that if you could cycle electric heat effectively through the deployment of smart thermostats, you would have been able to keep more customers online and keep their homes if not toasty then at least livable."

Angela Amos, director of market development and regulatory innovation for *Uplight*, said customers should not have an antagonistic relationship toward their utility or the deployed technology inside their home.

"The way that you can improve that process is to help people understand what options are available to them, what they can install in an affordable way, of course, so that they are pre-emptively prepared to participate before things go wrong," Amos said.

Theresa Gilbert, vice president of external affairs for software company Utilidata, said that baseline expectations need to be reframed by utilities. Gilbert said the current utility infrastructure was built predominantly using hardware.

"I think we need to look at the dynamic of now what is the combination of hardware and software solutions," Gilbert said. "There's a lot we can do in terms of using real-time data to manage that load before you get to a point where you need to upgrade a transformer."

Kavulla said New England has set up a retail market to drive competitive suppliers to build a commodity and not do a lot of innovation. In contrast, different retail market designs leverage the innovation of the competitive market, he said.

"Candidly, one of the ironies is that I talk to a lot of state regulators about wholesale market design, [but] it sometimes feels like state regulators spend more of their time talking about wholesale market design that they don't regulate, and not enough time talking about the retail market design over which they have exclusive jurisdiction," Kavulla said. ■

From left: Travis Kavulla, NRG Energy; Theresa Gilbert, Utilidata; Angela Amos, Uplight; and New Hampshire Consumer Advocate Donald Kreis. | *© RTO Insider LLC*

73rd NECPUC Symposium

Greening Gas System is an 'Enormous Task,' Researcher Says

By Jason York

NEWPORT, R.I. — Fortifying and upgrading the natural gas pipeline network could prepare existing infrastructure to transport zero-carbon fuels, but that is an "enormous task," according to Erin Blanton, a senior research scholar at Columbia University.

It "looks exceedingly likely" that a significant volume of natural gas will flow for the next couple of decades, Blanton said during a panel Thursday about the future of natural gas at the 73rd New England Conference of Public Utilities Commissioners Symposium.

Blanton co-authored a *report* this spring from Columbia's Center on Global Policy that said the U.S. must reduce the burning of coal, oil and natural gas to achieve decarbonization targets, which seems intuitive. Investing more in the natural gas pipeline network, however counterintuitive it might appear, could help the U.S. reach net-zero emission goals more quickly and cheaply, the report said.

National Grid, which has gas customers in Massachusetts, Rhode Island and New York, is trying to take innovative approaches to decarbonize its system by 2050. The utility outlined net-zero ambitions in a *10-point plan* in October, including decarbonizing its network with renewable natural gas and hydrogen, according to Sheri Givens, vice president of U.S. regulatory and customer strategy at National Grid (NYSE: NGG).

"We've actually been injecting renewable natural gas into our system since the 1980s," Givens said.

National Grid is participating in a hydrogen blending study in conjunction with Stony Brook Institute and the New York State Energy Research and Development Authority to explore the performance and use of its existing gas infrastructure to integrate and store renewable hydrogen.

National Grid, Givens said, is also thinking about different kinds of heating systems.

"Electrification is going to be a key component of future heat," she said. "We recognize air source heat pumps are going to be needed and necessary to help us meet our decarbonization goals, but there might be opportunities for dual-fuel heating as well, where you have an electric heat pump that has a gas backup to ensure you have that resilient, reliable energy heating source in your home."

Moderator Paul Roberti (left), Sheri Givens of National Grid (center) and Audrey Schulman of HEET (right) discuss the future of natural gas during a panel at the 73rd New England Conference of Public Utilities Commissioners Symposium. | © *RTO Insider LLC*

Geothermal alternatives might be part of National Grid's future solutions as well. For example, Givens said a small-scale project in New York on Long Island that connected 10 homes and a senior community center has been operating since 2017. The utility has several similar proposals pending in Massachusetts and New York.

In addition, Givens said the utility recently conducted a study with the New York City mayor's office on decarbonization that revealed that 30 to 60% of the building stock in the city could be electrified, which opens the door for alternatives.

"This gives you an idea of some of the policy levers that regulators and lawmakers can push and pull in the coming years," she said.

Gas utilities face several problems, including decarbonizing gas, which is difficult because it is a fossil fuel, according to Audrey Schulman, co-founder and co-director of the nonprofit Home Energy Efficiency Team (HEET).

"What happens to the gas system is important because millions of people rely on it," Schulman said. "What we need is a system that safely delivers decarbonized heat at the same or lower cost than gas."

HEET envisions a GeoGrid — a street-segment loop of shared water pipes with boreholes and thermal loops going to buildings.

"Like Lego blocks, they can gradually grow into a GeoGrid over time," Schulman said. "It does not take up new land; it's installed in the street."

Gas utilities, she said, are perfect for installing this type of system, adding that Eversource Energy (NYSE: ES) could pilot a GeoGrid and has been working toward an initial installation.

"They have the customers, the right-of-way in the street and the expertise of pumping energy through pipes, and they can basically socialize the cost of that energy for all of us and decades into the future," she said.

Any building connected to the GeoGrid would reduce its emissions by about 60%, according to Schulman. In addition, the installation cost, if done by incumbent utilities, would be spread across decades and deliver "renewable lower-cost energy to all and not just those with money."

"This is an equitable system," Schulman said. ■

FERC/Federal News

World Leaders at COP26: Climate Action Now

Previous National Commitments 'Still Condemn World to Calamitous 2.7-degree Increase'

Continued from page 1

argue amongst ourselves."

The voices coming out of the World Leaders Summit at the UN 26th Conference of the Participants (COP26) on Monday were uniformly urgent and compelling, raising alarms and rallying the world community to immediate action to limit the earth's warming to 1.5 degrees Celsius — the goal set by the Paris climate accords at COP21 in 2015.

"The six years since the Paris climate agreement have been the six hottest years on record," said UN Secretary-General António Guterres, speaking at the summit's opening plenary. "Recent climate action announcements might give the impression that we are on track to turn things around. This is an illusion."

The UN's most recent report on existing pledges to climate action — called "nationally determined contributions" — "still condemn the world to a calamitous 2.7-degree increase," he said. "If commitments fall short by the end of the COP, countries must revisit their national climate plans and policies not every five years, [but] every year, every moment until keeping to 1.5 degrees is assured, until subsidies to fossil fuels end and until there is a price on carbon and coal is phased out."

Other speakers at the plenary — a mix of world leaders and young climate activists — laid out major themes and pathways for action coming out of Glasgow.

Echoing Guterres, Britain's Prince Charles called for a carbon tax and "making carbon capture solutions more economical." Private sector involvement and investment would also be essential, he said.

"We need to bring together global industries to map out in very practical terms what it would take to make the transition" from coal to clean energy, he said. "Second … we need to align private investment behind these industry strategies. If we can develop a pipeline of many more sustainable, bankable projects at a sufficient scale, it will attract greater investment."

Mia Mottley, prime minister of Barbados, pushed Western, developed economies to live up to their Paris commitments to provide $100 billion annually to help developing nations transition to clean energy and split the costs of climate adaption 50/50.

British Prime Minster Boris Johnson | *COP26*

"Failing to provide the critical finance … is measured, my friends, in lives and livelihoods in our communities. This is immoral and unjust," Mottley said. "Are we really going to leave Scotland without the result and the ambition that is sorely needed to save lives and to save our planet?"

U.S. Commitments

Biden's moment on the COP26 stage came during the first plenary session in which national leaders made their new nationally determined commitments, citing the climate investments and clean energy tax credits in the still-to-be-passed budget reconciliation package and bipartisan infrastructure bill — and the jobs these measures would create.

He also talked up the U.S.-EU Global Methane Pledge, calling methane reduction a simple and "most effective strategy we have to slow global warming in the near-term." Seventy nations so far have signed on to reduce their methane emissions 30% by 2030, Biden said, while encouraging others to join.

In addition to the U.S. commitment to cutting greenhouse gas emissions 50 to 52% by 2030, Biden also pledged a new level of support for climate finance and adaptation for developing nations — a proposed $3 billion per year. Biden will work with Congress to begin the payments in 2024, according to the new *President's Emergency Plan for Adaptation and Resilience* (PREPARE), released by the White House on Monday.

Biden also announced a *new report* on U.S. long-term strategies for reaching the country's 2030 and 2050 climate goals, laying out an approach that provides multiple pathways for achieving a 100% decarbonized grid and net-zero economy. Key components range from grid decarbonization and transportation electrification, to a ramp-up of carbon-removal technologies and cutting energy waste so that new technologies can "use less energy to provide the same or better service. The report envisions a changing balance of the core strategies, depending on market and other variables.

FERC/Federal News

"We're planning for both a short-term sprint to 2030 that will keep 1.5 degrees Celsius in reach and for a marathon that will take us to the finish line and transform the largest economy in the world into a thriving, innovative, equitable and just clean energy engine," Biden said. The strategy "reinforces the absolutely critical nature of taking bold action within the decisive decade," he said.

The Republican reaction to the president's speech was swift and predictable. In an email statement, Sen. John Barrasso, ranking member of the Senate Energy and Natural Resource Committee, said the long-term plan would "kill abundant and affordable U.S. energy sources like oil, natural gas and coal that Americans depend on. The White House's plan is a recipe for disaster. It will result in skyrocketing power bills, less reliable energy and fewer jobs for the American people."

'Things Remain Unchanged or Get Worse'

The urgency of the message at COP26 was echoed in the climate communique coming out of the summit of the world's 20 largest economies in Rome on Sunday. The G20 countries agreed to limit global warming to 1.5 degrees "with immediate action and mid-term commitments," Italian Prime Minister

Barbados Prime Minster Mia Mottley | *COP26*

Prince Charles | *COP26*

Mario Draghi said during the group's closing *press conference* Sunday.

For the first time, Draghi said, the G20 countries recognized the scientific validity of a 1.5-degree target and indicated that carbon neutrality should be met by 2050. In addition, he said, the G20 agreed to phase out global public funding and support for non-abated coal-fired plants after the end of this year.

But speaking at COP26, Draghi said more is needed — "a quantum leap" in climate action, particularly in climate finance. "We must bring together the public and the private sector in new ways," he said. "We need first and foremost all multilateral development banks and especially the World Bank [to] co-share with the private sector risk that the private sector alone cannot bear."

UN Secretary-General António Guterres | *COP26*

President Juan Orlando Hernández of Honduras, however, remained skeptical that the strong words of G20 leaders would result in the kind of solid financial help his country needs. Between 2014 and 2021, drought in Honduras "generated annual economic losses of $453 million, which is 1.7% of our GDP, which has given rise to food insecurity and nutritional insecurity," Hernández said.

Still, Honduras is investing about $2 billion per year in climate action, "only 5% of which comes from loans or grants" he said. "And what is most frustrating is to come to these summits and many others and to see things remain either unchanged or get worse."

"Even with scaled-up global climate action, it will not be possible to avoid and to reduce all loss and damage from the impacts of climate change," President Uhuru Kenyatta of Kenya said. "By 2030, economic costs of loss and damage in developing countries is expected to be between $290 billion and $580 million throughout Africa as the most vulnerable continent to the impacts of climate change."

Kenyatta voiced disappointment that the "special needs and circumstance of Africa" were not included in the official COP26 agenda. "With climate impacts increasing, provisions to help the most vulnerable to adapt, including through increased financial support, should be strengthened," he said. ■

FERC/Federal News

Biden, Democrats Unveil $1.75T Build Back Better Framework

Even Without CEPP, Bill Earns Progressives' 'Enthusiastic Endorsement'

By K Kaufmann

Hours before he was set to leave the U.S. to go to the U.N.'s 26th Conference of the Parties (COP26) on climate change in Glasgow, Scotland, President Biden rolled out a new framework for a whittled-down budget reconciliation package that includes $555 billion in clean-energy funding.

Weighing in at close to 1,700 pages, the revised Build Back Better Act (*H.R. 5376*) comes with a $1.75 trillion price tag, half of the $3.5 trillion budget that House Democrats sent to the Senate in August. (See *House Democrats Reach Deal, Pass $3.5T Budget Plan*.) It is also missing some of the flagship energy provisions Biden and the Democrats had pushed for in the original, most notably the Clean Electricity Performance Program, which would have provided $150 billion in incentives to utilities that hit yearly targets for adding clean energy to the grid.

The announcement from the White House said the revised framework was the result of "input from all sides" and good-faith negotiations with Sen. Joe Manchin (D-W.Va.) and Sen. Kyrsten Sinema (D-Ariz.), the two moderate Democrats whose support will be crucial for getting the package through the Senate. On Monday, Manchin *told* reporters he was not committed to voting for the package, saying its cost was higher than advertised because of accounting gimmickry.

"President Biden is confident this is a framework that can pass both houses of Congress, and he looks forward to signing it into law," the White House said in a statement. The president also called on both houses of Congress to pass both the budget reconciliation package and the bipartisan infrastructure bill "as quickly as possible."

But a hearing on the bill before the House Rules Committee on Thursday afternoon quickly turned adversarial, as Republicans attacked it as a "tax and spend" measure and the hearing itself as a rush job. Rep. Tom Cole (R-Okla.), the committee's ranking member, said he had found out about the hearing "the same way most did: on Twitter," and he moved for the session to be adjourned, arguing that the bill had not been analyzed by the Congressional Budget Office.

The motion was quickly voted down, but other Republicans piled on, with Rep. Cathy McMorris Rodgers (R-Wash.), ranking member of the House Energy and Commerce Committee, calling provisions to increase taxes on natural gas a "heat your home tax" and electric vehicle tax credits as "handouts to the rich."

Rules Committee Chair Jim McGovern (D-Mass.) countered that congressional committees had already spent 165 hours marking up the bill. Thursday's hearing was a discussion, he said, "about the details of a very important bill. … We can talk about the good and what people have problems with, and there are still opportunities for change."

Speaking at an afternoon press conference, House Speaker Nancy Pelosi (D-Calif.) also stressed that "we won't have anything, regardless of whatever input we have in the bill, unless it is agreed to by the Senate. … The text is there for you to review, for you to complain about, for you to add to or subtract from whatever it is, and we'll see what consensus emerges from that."

As outlined in a White House *overview of the framework*, specific clean energy spending includes:

- $320 billion for 10-year, expanded tax credits for a range of clean energy technologies, including residential and utility-scale solar, storage, transmission, electric vehicles and manufacturing.
- $105 billion in resilience investments to address extreme weather — hurricanes, droughts and wildfires — and "legacy" pollution in low-income and disadvantaged communities. Part of that money here would go to a Civilian Climate Corps that would provide jobs focused on mitigating the impacts of climate change and maintaining public lands.
- $110 billion for investments and incentives to develop new clean energy technologies, manufacturing and supply chains.
- $20 billion for federal clean energy procurement, to incentivize "government to be [the] purchaser of next-gen technologies, including long-duration storage, small modular reactors and clean construction materials."

The balance of the bill covers health care, education and other social spending, such as six years of funding for universal, free pre-school for all 3- and 4-year-olds, a one-year extension of the expanded child tax credit and a new hearing benefit for Medicare.

| The White House

The International Stage

Passage of the Build Back Better Act, and the companion bipartisan infrastructure bill, is seen as critical for Biden this week at COP26, where world leaders will be presenting their carbon-reduction commitments. Biden *committed* earlier this year to reducing the nation's emissions at a minimum 50% over 2005 levels by 2030. Heading to Glasgow with at least the possibility of the two bills getting to his desk would demonstrate on the international stage that the U.S. is ready to make good on its aggressive goals.

Speaking prior to his departure, Biden fleshed out more of the clean energy spending still in the bill. Funding to replace some of the country's 480,000 diesel school buses with EVs survived the cut, as did support for a nationwide network of 500,000 EV chargers.

Looking to the global marketplace, Biden said, "We're going to get off the sidelines on manufacturing solar panels and wind farms and electric vehicles with targeted manufacturing credits. You manufacture, you get a credit for doing it. These will help grow the supply chains in communities too often left behind."

He also said the bill was "fiscally responsible" and would decrease the federal deficit and reduce inflationary pressures on the economy.

FERC/Federal News

Enthusiastic Endorsement from Progressives

The immediate response from House and Senate Democrats was mostly positive, as were statements of support from industry trade associations.

While Sen. Manchin had yet to comment late Thursday afternoon, Sen. Sinema sent a semi-positive signal via Twitter. "After months of productive, good-faith negotiations with [Biden] and the White House, we have made significant progress on the proposed budget reconciliation package," she said. "I look forward to getting this done, expanding economic opportunities and helping everyday families get ahead."

The House Progressive Caucus also looked to be getting behind the cut-down version. In a clip posted to Twitter, Rep. Pramila Jayapal (D-Wash.) said a meeting of the caucus had "enthusiastically endorsed a resolution that approves, in principle, the framework that the president laid out today. We are really proud of the president and of our Progressive Caucus and our progressive allies for getting so many of our big priorities into the framework."

Rep. Frank Pallone (D-N.J.), chair of the House Energy and Commerce Committee, highlighted the bill's "new Greenhouse Gas Reduction Fund [that] will accelerate innovation, prioritize the needs of environmental justice communities and ensure the communities we represent are better protected from the rising tide of extreme weather. Rebates for homeowners to electrify and make their houses more efficient, combined with resources to create a 21st century electric grid, will allow us to get more renewable energy online and powering our neighborhoods."

A statement from Jason Burwen, interim CEO of the Energy Storage Association, focused on the bill's "investment tax credit for standalone energy storage, [which] is critical to accelerating the pace of storage deployment on the electric grid. Combined with new manufacturing incentives available for batteries and federal procurement of next-generation long-duration storage, the Build Back Better Framework will supercharge efforts to rapidly transition to clean energy while building a robust energy storage supply chain here at home."

Abigail Ross Hopper, president and CEO of the Solar Energy Industries Association, linked the bill's clean energy tax credits to job creation. "Solar is a job-creator, and the long-term tax incentives for solar, storage and domestic manufacturing will put us on a path to decarbonize the electric grid, reach the president's 2035 clean energy target and create hundreds of thousands of quality career opportunities in every community."

Gregory Wetstone, president and CEO of the American Council on Renewable Energy, spoke to the urgency of passing substantive climate legislation but also raised concerns about the negotiations still to come. "Potential unintended consequences around last-minute additions to otherwise unrelated pieces of the legislation … may work at cross-purposes with the mission-critical climate objectives at the heart of this bill."

Ditto Cleantech

Comments from the business community were more mixed.

Echoing Republican criticisms, the U.S. Chamber of Commerce was concerned about the Democrats' push to get the bill passed before the organization had time to review its details. While continuing to support the bipartisan infrastructure bill, Neil Bradley, executive vice president and chief policy officer, said, "It is the height of irresponsibility for Congress to rush through such a large and complicated bill with no clear understanding of the real-world impact of the policies that are being proposed. Congress should slow down and make sure they get the policy right."

But cleantech businesses said the bill would support the development and commercial deployment of key technologies.

Jon Power, president of CleanCapital, a cleantech investment firm, said the bill's investments in innovation "will provide businesses, schools, nonprofits and municipalities with affordable renewable energy [and] will rapidly speed up the clean energy transition and unleash significant private sector funds."

Similarly, Tim Latimer, CEO of geothermal developer Fervo Energy, said the bill's clean energy provisions "will catalyze widespread buildout of utility-scale geothermal energy and accelerate national progress toward a fully decarbonized electricity sector."

The bill's sections on the tax credit for carbon-capture technologies, known as the 45Q credit, got high marks from the Carbon Capture Coalition, in particular its option for direct payment. If enacted with the bipartisan infrastructure bill, "this package would provide the most transformative and far-reaching policy support in the world for economywide deployment of carbon management technologies that are essential to meeting midcentury climate goals," said Madelyn Morrison, the coalition's external affairs manager. ■

FERC/Federal News

Supreme Court to Hear Challenge on EPA Climate Authority

Continued from page 1

cost, non-air impacts and energy requirements" (*West Virginia, et al. v. EPA, et al.*, 20-1530);

- whether EPA has authority to develop industry-wide systems such as cap-and-trade programs or is limited to standards based on technology and methods that can be applied to individual sources (*North American Coal Corp. v. EPA*, 20-1531);
- whether EPA can issue "regulations for existing stationary sources that require states to apply binding nationwide 'performance standards' at a generation-sector-wide level, instead of at the individual source level, and whether those regulations deprive states of all implementation and decision-making power in creating their Section 111(d) plans" (*North Dakota v. EPA*, 20-1780); and
- whether 42 U.S.C. Section 7411(d) clearly authorizes EPA to decide such matters of vast economic and political significance as whether and how to restructure the nation's energy system (*Westmoreland Mining Holdings v. EPA*, 20-1778).

The CPP sought to cut power sector carbon emissions by 32% by 2030, compared with 2005 levels, through "generation shifting": substituting coal-fired generation with natural gas and renewables. The Supreme Court stayed the plan in 2016, and the Trump administration withdrew it and replaced it with the proposed ACE rule in 2019. EPA predicted that the ACE Rule would reduce CO_2 emissions by less than 1% from baseline emission projections by 2035.

The petitioners in the West Virginia case *said* the D.C. Circuit "deviated from the text-based reading that the statute [and] purported to find grounds for EPA to dictate huge shifts in most sectors of the economy, even though nothing in the statute approaches the clear language Congress must use to assign such vast policymaking authority."

If it is not reversed, the petitioners said, the ruling would allow EPA to "set standards on a regional or even national level, forcing dramatic changes in how and where electricity is produced, as well as transforming any other sector of the economy where stationary sources emit greenhouse gases."

The D.C. Circuit said Section 111 acts as "a catch-all" to prevent gaps in regulations controlling stationary source emissions. Section 111(b)(1)(A) says the EPA administrator "shall" regulate any category of sources that, "in his judgment … causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."

The D.C. Circuit heard arguments on challenges to the CPP in 2016 but never ruled on it after Trump's EPA said it planned to withdraw it. (See *Supreme Court Blocks Clean Power Plan*.) The Trump administration said the rule violated the CAA because it endorsed generation shifting and emissions trading among permissible emission-control measures.

The Biden administration *argued* the court should reject the West Virginia challenge because the CPP "is no longer in effect and EPA does not intend to resurrect it."

"EPA instead intends to issue a new Section 7411(d) rule after taking into account all relevant considerations, including changes to the electricity sector that have occurred during the last several years," it said. "Petitioners urge this court to grant review now to help guide the upcoming rulemaking, but that is little more than a request for an impermissible advisory opinion. Any further judicial clarification of the scope of EPA's authority under Section 7411(d) would more appropriately occur at the conclusion of the upcoming rulemaking, when the courts can review a concrete and considered EPA rule, rather than speculate as to the regulatory approaches the agency might take."

Gabe Tabak, counsel for the American Clean Power Association, tweeted that the Supreme Court "would affect almost all of administrative law" if it answers no to the question raised in the Westmoreland Mining challenge: whether the CAA authorizes EPA to restructure the nation's energy system.

ClearView Energy Partners said "the court's eventual ruling will almost certainly shape any rule under" Section 111(d) because a proposed $150 billion Clean Electricity Performance Program — which would have offered incentives for utilities to reduce carbon emissions and penalize laggards — was stripped this month from legislation that Democrats hope to pass through the reconciliation process. (See related story, *Biden, Democrats Unveil $1.75T Build Back Better Framework*.)

West Virginia Attorney General Patrick Morrisey tweeted that he was "fired up" that the court took the case. "Biden's policies would destroy America's energy independence while giving China and Russia a big boost in their energy production efforts," he said.

Before the court announced it would hear the challenges, EPA Administrator Michael Regan said that the agency "has ample … statutory authority [and] legal obligations to move forward as quickly as possible to tackle the climate crisis.

"EPA will move forward with a very aggressive agenda and complement to whatever Congress eventually passes," he added during an Oct. 28 *interview* with *The Washington Post*. "I will push the envelope. I will move forward as quickly as possible, as aggressively as possible, using the authorities that Congress has given us." ■

The Supreme Court | © *RTO Insider LLC*

FERC/Federal News

Global Companies Scale Toward 24/7 Clean Energy

By Michael Kuser

U.S. companies with global operations are buying more renewable energy and partnering with international organizations to bring policymakers, regulators and supply chains into the commitment to fully decarbonize their activities by 2030.

Kanika Chawla, Sustainable Energy for All | *Verge*

Elements of a carbon-free energy system include local procurement, new installations and the creation of supply chains in different parts of the world, but it also includes creating demand, Kanika Chawla, program manager at *Sustainable Energy for All*, said Oct. 25.

Chawla made her remarks on the first day of the weeklong *Verge 21* conference hosted by GreenBiz.

Policy and regulation should create a level of certainty for new technologies and act as "a nudge" for both markets and governments, Chawla said.

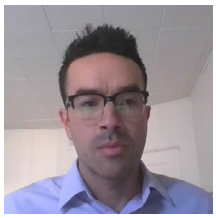
Even before the world woke up to the existential threat from climate change, "the General Assembly agreed that there needed to be a dialogue on energy ... which actually ended up happening in 2021 because of COVID," Chawla said. (See *UN Hosts Energy Dialogue During General Assembly*.)

She highlighted the 24/7 Carbon-free Energy (CFE) *compact* to match every hour of electricity consumption with carbon-free energy resources. The compact, Chawla said, is "a way for government, the private sector, financial institutions, procurers, energy companies as well as distribution companies — really the whole ecosystem — to come together and make a commitment that by 2030 we're going to have a decarbonization of the electricity system."

CFE signatories Iron Mountain, Microsoft and Google are demonstrating how to make 24/7 clean energy work, Chawla said. The compact has 20 other signatories; Chawla said Sustainable Energy for All will announce an additional 20 at the 2021 U.N. Climate Change Conference (*COP26*).

Small Steps at First

Google is advocating for effective public policies to drive decarbonization of electricity grids across the world, said Devon Swezey, the company's global energy markets and policy lead.



Devon Swezey, Google | *Verge*

"We think that policy is really essential to enabling 24/7 carbon-free energy for everyone, and that's why recently we partnered with Sustainable Energy for All and other partners, including Iron Mountain, to launch the 24/7 CFE compact," Swezey said.

Google has been carbon neutral since 2007, initially through the purchase of carbon offsets, Swezey said. In 2010, it was one of the first companies to purchase renewable energy directly through a power purchase agreement, and in 2017, it met an earlier goal to match 100% of its global annual electricity consumption with renewable energy purchases, he said.

"First, we are innovating in the way we purchase clean energy, and this includes signing a first-of-its-kind agreement with [AES' renewable energy development business] in PJM, which will combine a portfolio of different clean energy technologies to collectively guarantee that by 2024 we will be operating on 90% hourly carbon-free energy around the clock," Swezey said.

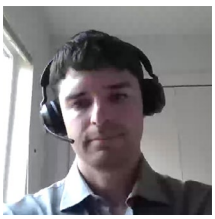
Second, Google is working to accelerate technology innovation, which includes developing a next-generation geothermal power project with clean energy startup Furbo Energy. The project will deliver around-the-clock clean electricity to the power grid that serves data centers in Nevada.

"We're also developing a carbon-aware computing platform to make our own electricity demand more flexible and better align it to times of day or places where the grid is cleanest, and we think the planned flexibility can go a long way in helping us achieve the goal," Swezey said.

Bob Keefe, E2 | *Verge*

People know the environmental and economic costs of climate change, but the business perspective may differ, said panel moderator Bob Keefe, executive director of environmental engineering cooperative E2.

"Tell us why it is important to your companies to do this, either from an efficiency standpoint or bottom-line standpoint," Keefe said. "How do you bring suppliers along, and what should they be pushing for?"

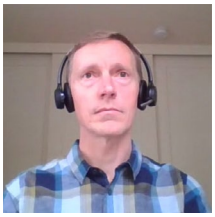


Avi Allison, Microsoft | *Verge*

An important area is the development of data that can add a very granular level to identifying where investments are going to have the greatest grid-scale, society-wide decarbonization impact, said Avi Allison, program manager for energy and sustainability at Microsoft.

"I think 24/7 commitments can be one step in the journey towards decarbonization," Allison said. "I don't view them as a sufficient step or even a strictly necessary step, but they are helpful for driving clear procurement for now, and I think we need better tools to help us better target those investments."

"To kickstart a virtuous cycle," the three priorities are tracking clean energy production on an hourly basis; identifying the grid-specific emission rate at the time when the production is happening; and developing scalable products that can help others to achieve similar commitments and drive toward grid-scale decarbonization, Allison said.



Chris Pennington, Iron Mountain | *Verge*

Business services firm Iron Mountain runs 18 large data centers around the world and sees itself as a critical piece of its clients' energy supply chain, said Chris Pennington, the company's director of energy and sustainability.

"We use that scale that we have as a large energy buyer to help make as much of a positive impact from an environmental standpoint as we can, and then pass the benefits of that through to our clients who are using the energy inside our facilities," Pennington said. "That's ... a bit of the reason why we adopted this 24/7 carbon-free energy commitment, because we think that this is the energy that our clients will be wanting to buy on their own going forward." ■

FERC/Federal News

Tx Sector Hoping for Landmark Order(s) out of FERC ANOPR

By Michael Brooks

WASHINGTON — Electric transmission providers are pinning their hopes for long-sought-after changes on FERC's Advance Notice of Proposed Rulemaking, a sweeping inquiry into the commission's rules on transmission planning, cost allocation and generator interconnection (RM21-17).

Attendees of transmission trade association WIRES' Fall Conference on Thursday peppered FERC Commissioner Allison Clements at the Willard InterContinental Washington hotel, just blocks from the White House, with questions about the ongoing proceeding, which drew hundreds of comments last month. (See *FERC Tx Inquiry: Consensus on Need for Change, Discord over Solutions*.)

The organization also drew four former FERC commissioners to the event to give advice for commission staff working on the proceeding, as well as recount their experiences working on the commission's landmark transmission orders.

There seemed to be an expectation among panelists and attendees alike that whatever comes out of the ANOPR will be significant.

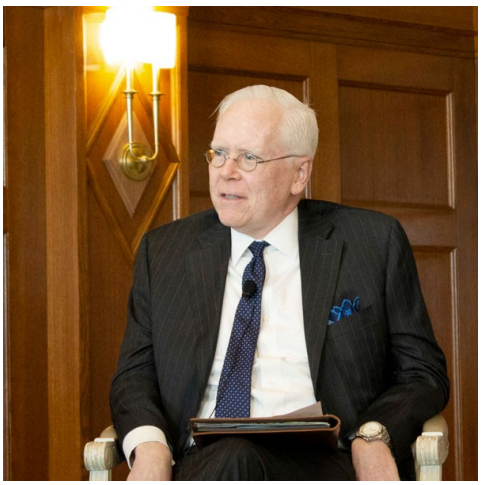
"You understand the pace of regulatory change," Clements told attendees in a keynote speech opening the conference. "You understand that this is our bite at the apple. And that's why I think we do need to go big." She cited concerns about recent extreme weather events and preventing severe climate change. "It's really an important moment to think about big ideas, creative ideas, and we're looking for those in the record. ... This is the chance to pivot the ship."

But what exactly that action is and what form it will take is still guesswork. Many speakers cautioned that it will likely take at least a year before the commission reaches any final rule, as it asked hundreds of questions and received so many comments. It's also possible that the commission issues several orders, each taking on specific issues, rather than a massive, holistic one, they said.

They also noted that while the ANOPR's issuance was unanimous among the four sitting commissioners, Republicans James Danly and Mark Christie issued separate concurrences expressing their individual concerns; Clements and Chair Richard Glick issued a joint concurrence. (See *FERC Goes Back to the Drawing Board on Tx Planning, Cost Allocation*.)

Joseph T. Kelliher, former FERC chair under President George W. Bush, said the proceeding looks more like a Notice of Inquiry at this point than the form of a preliminary proposal that an ANOPR usually takes. "The ANOPR asks [some] extremely high-level, 50,000-foot[-high] questions," he said. "There are some proposals in there, but because of the concurrences, it's hard to say that those are commission proposals. ... There is much more division among the commissioners than was true for [Order] 890, Order 1000 and Order 2003."

FERC Commissioner Allison Clements | © RTO Insider LLC


Joseph T. Kelliher, FedArb | © RTO Insider LLC

Kelliher said "the worst possible outcome would be to slap together a NOPR that's rushed and then issue a final rule that's also [rushed] under the logic of, 'Well, we'll fix it on rehearing.' That's an expression at FERC that I hate. ... I would hope that they're not driven by an arbitrary deadline because it's so much better to spend the time and sweat the details to get out a really good proposed rule, and perhaps the final rule could be issued relatively quickly."

He and the other former commissioners also advised that FERC focus any proposed rulemakings on specific, solvable problems.

"Keep it focused on concrete things that are squarely within the commission's jurisdiction and that you have a very good grasp on," said Tony Clark, a senior adviser for Wilkinson Barker Knauer. "To the degree that orders start to push the bounds of that and get into controversial or nebulous areas, you're increasing the chances of dissenting votes."

"The more focused the rulemaking is, the easier it is," said Suedeen Kelly, a partner with Jenner & Block and co-chair of its energy practice. "This is not a focused rulemaking;

FERC/Federal News

however, the less focused it is, the more important it is to go through the rulemaking process — and the harder it is. ... This one is going to be a big burden" for staff.

Marc Spitzer, partner with Steptoe & Johnson, counseled being mindful of changed circumstances and unintended consequences. He recalled that Order 1000, issued in 2011, was partially in response to the 2008 elections, in which Democrats won control over both houses of Congress and the White House.

The status quo in 2008, in which transmission was built by vertically integrated utilities within their own jurisdictions in reaction to new generation projects, "worked pretty well," he said. But Spitzer expected Democrats to pass cap-and-trade legislation, "which would radically change the transmission grid [and] fuel mix. ... So that was the problem we were trying to solve with Order 1000. And of course, circumstances change." The Waxman-Markey Bill, which would have set up such a cap-and-trade system, failed, and many new technologies, notably distributed energy resources, became more prominent as FERC worked on the rule, Spitzer said.

Spitzer, a Republican, also urged the commission to work toward consensus. He noted that he voted for Order 1000 with the majority, breaking with his Republican colleague Phil Moeller, who issued a partial dissent. Spitzer had offered amendments that the majority agreed to work into the order. A former Arizona state legislator and regulator, he said "if you're going to offer an amendment, you have to vote for the bill. Would you rather get 50% of something, or 100% of nothing?"

Addressing the audience, Kelly said, "If I were your lawyer, what I would say is that you should not only use the comments as a way to effectively advocate your position, but you should go talk to staff, because they're going to have a lot of comments to read and sift through and create a record around, and it's going to be hard to get all those into one collective mind, but even harder to decide what are the most important things."

Back in the Room

Many attendees could be overheard during coffee breaks and meals expressing wonderment over being in the same room again and their fatigue with virtual meetings. For many, it was their first time being at a gathering since the onset of the COVID-19 pandemic early last year, which led to event cancellations, restricted travel and social distancing.

All attendees were required to present either proof of vaccination or a negative COVID test with the past 72 hours. They were also required to wear masks when walking in the hotel's hallways, and all but a few continued to wear them as they listened to speakers and panelists. But during the post-event lunch, there was a sense of optimism about future in-person events.

"There is no substitute for personal interaction," Spitzer told moderator Larry Gasteiger, executive director for WIRES. "We're in an unprecedented time of polarization" in government. "I don't know if the drivers of the polarization will abate, but the tone and tenor of the discussion is better when you look people in the eye."

This optimism also led to a bit more humor among panelists than at your average energy conference, especially among the former commissioners.

Kelliher joked that early in his tenure at FERC, Kelly told him the commission needed to work on "the queue," meaning backlogged generator interconnection queues. He did not know what she was talking about, joking that perhaps she was referencing *Q*, a mysterious, mischievous alien character in "Star Trek."

Speaking about the challenges of siting interstate transmission, Spitzer recalled meeting in 2007 with the superintendent of the Gettysburg Battlefield, which lay in the Department of Energy's recently announced *Mid-Atlantic Area National Corridor*. The superintendent warned that if a transmission line were built through the battlefield, it would be worse than the carnage from the battle itself. ■

From left: Former FERC Commissioners Tony Clark, Wilkinson Barker Knauer; Suedeen Kelly, Jenner & Block; Marc Spitzer, Steptoe & Johnson; and Joseph T. Kelliher, FedArb. |

Southeast

Potential for Green Hydrogen Hub in the Carolinas

Duke, National Lab, Moniz Group Discuss What's Needed

By John Funk

The Carolinas region could become the site of the nation's first largescale effort to decarbonize industry using hydrogen, both as a fuel for gas turbines and replacing diesel in heavy trucking.

But to do that, existing natural gas pipelines will initially have to move blends of methane and hydrogen, then eventually only hydrogen, an undertaking that will require some reengineering as well as changes in industry safety codes and government regulations — no simple tasks.

The efforts needed to make this happen were the focus of a webinar Thursday organized by the Energy Futures Initiative (EFI), an organization founded by former Energy Secretary Ernest Moniz.

During the event, Moniz, Duke Energy CEO Lynn Good and Vahid Majidi, executive vice president and director of the Savannah River National Laboratory, concluded that the Carolinas' manufacturing base and high-tech industry could enable it to become a hydrogen "hub," a new concept replacing the term "cluster" that dominated earlier industrialization when similar industries would gather in a region.

Good endorsed the hub concept as "a great opportunity to get us started."

"We have a goal of achieving at least 50% carbon reduction by 2030, and net zero by 2050," Good said. "We have a clear line of sight on how to get to 2030. It's a matter of retiring existing coal assets; it's putting in place more solar and battery and wind — existing technologies.

"But as we get beyond 2030, deeper into the 2030s, and begin really tackling that net-zero goal, then we begin looking for new technologies; we began looking for what we would call 'load following zero carbon technologies.'"

And hydrogen is one of those technologies, which could be "versatile" for the needs of the electric and gas sectors, and also have applications for heavy industry, the military, long haul transportation and "a broad number of sectors that are also going after carbon reduction," Good said.

"And I think about the opportunity we have here in this decade, with supporting policy coming in place, with the [Biden] infrastructure bill, potentially tax credits as well. We could make real progress on technical feasibility and also on tackling cost competitiveness. So that as we get to the 2030s, it becomes a really valuable tool to reach net zero," she said.

The hub concept originated at the DOE as a way to convert multiple industries rather than fund just one hydrogen concept at a time.

Moniz touted that concept at the start of the discussion.

Pointing out that if the Carolinas were an independent nation, their combined economies would be the 18th largest in the world, Moniz explained the idea as a kind of organic growth stemming from where the region's industry is today.

"In the United States, a fully functioning market … begins with strategic regional investments to build out hydrogen infrastructure, connecting with existing industrial assets. The region has a history in hydrogen R&D, broad industrial capabilities, and an array of potentially amenable existing infrastructure to enable the growth and formation of a hydrogen hub," he said.

Majidi said the Carolinas have strong academic research capabilities in addition to the national lab, where 80 hydrogen researchers are working.

"For seven decades, we've been working with hydrogen, in the form of tritium. Hydrogen has been ingrained into the DNA of Savannah River National Laboratory." he said.

Majidi said of the top 100 institutions publishing on hydrogen in the U.S., six are in the Carolinas, including Savannah River National Laboratory, North Carolina State University, the University of South Carolina, Clemson, the University of North Carolina, Chapel Hill and Duke.

"With these organizations [working] together along with industry, we can really develop an ecosystem that feeds the growth of the hydrogen economy," he said.

Later in the webinar the discussion shifted to the experiences of hydrogen advocates and institutional managers already trying to move regional economies to hydrogen.

The takeaway: be sure to identify hydrogen customers before developing the technologies to make the fuel and deliver it. ■

About half of Duke Energy's power is generated by nuclear reactors, including the Oconee nuclear plant in South Carolina. Duke CEO Lynn Good this week said the concept of developing regional "hydrogen hubs," including one in the Carolinas, could be useful in switching the nation from fossil fuels to hydrogen. | *Duke Energy*

CAISO/West News

FERC Accepts Latest CAISO Storage, DER Rules

Demand Response also Part of ESDER Phase 4 Tariff Revisions

By Hudson Sangree

FERC last week approved CAISO's proposed tariff changes resulting from the fourth phase of the ISO's energy storage and distributed energy resources (*ESDER*) stakeholder initiative, a five-year effort to promote participation by storage, DERs and demand response in its markets (*ER21-2779*).

CAISO presented its ESDER Phase 4 changes to stakeholders in August 2020. Following a yearlong vetting process and approval by its Board of Governors, the ISO filed three proposed tariff revisions with FERC on Aug. 27, all of which the commission accepted on Oct. 26. (See *CAISO Finalizes ESDER Phase 4 Proposal*.)

One change applies market power mitigation to energy storage. Another creates biddable state-of-charge parameters for storage resources, and a third enables DR resources to specify maximum daily run times.

CAISO said it needs time to implement the changes as it makes "substantial software enhancements," but it expects to do so by Dec. 1.

Energy storage has been exempted from CAISO's market power mitigation rules so far, but batteries are becoming a vital part of California's resource mix as it shifts to more renewables. Storage is expected to play a growing role in providing essential power during hot summer evenings as solar wanes but demand remains high, the so-called net peak. (See *CAISO Sees 'Explosive' Growth in Storage in July*.)

CAISO "currently has over 1,000 MW of energy storage resources in its markets and anticipates close to 2,000 MW by the end of the year," FERC said. "In addition, CAISO states that energy storage resources are operating differently in CAISO markets than they have in the past: Whereas they generally provided regulation to maintain system frequency rather than energy previously, CAISO has observed that energy storage resources have increasingly been charging and discharging in response to energy prices and tend to discharge most of their energy during the net demand peak."

CAISO's ESDER Phase 4 changes apply to battery storage resources. | *Shutterstock*

FERC agreed that the situation called for new oversight. "As energy storage resources play an increasingly significant role on the CAISO system, it is imperative that CAISO ensure competitive participation by these resources and have a mechanism to mitigate any potential exercise of market power," it said.

The biddable state-of-charge parameters came from storage operators requesting additional means to manage battery participation in the real-time market.

"CAISO explains that while the day-ahead market optimizes resources across the entire operating day, the real-time market dispatches resources based on system supply-and-demand conditions and prices available in a shorter temporal horizon," FERC said. "CAISO explains that while dispatching an energy storage resource to meet real-time load may be economically efficient in the short term, it can affect the resource's ability to meet its day-ahead schedule over the remainder of the day."

DR resources need to be able to specify maximum daily run times so they're not overused, CAISO said.

"Demand response providers currently do not have any optional master file or bidding parameters that allow them to manage daily run time maximums, and they instead rely on careful bidding and scheduling strategies to avoid being dispatched outside their constraints," FERC said. "CAISO states that without a maximum daily run parameter, demand response resources may receive too many dispatches in an operating day, preventing them from providing demand response when needed."

Commenters generally supported the revisions, though CAISO's Department of Market Monitoring expressed concerns with some elements, including "that demand response resources providing resource adequacy could use the maximum daily run-time parameter to limit resource availability." It said CAISO should "monitor the effects of implementing these changes" and make changes as needed. ■

CAISO/West News

Western EIM Sees Record Benefits in Q3

Quarterly Benefits Surpassed Yearly Savings in 2019, Neared 2020 Amount

By Hudson Sangree

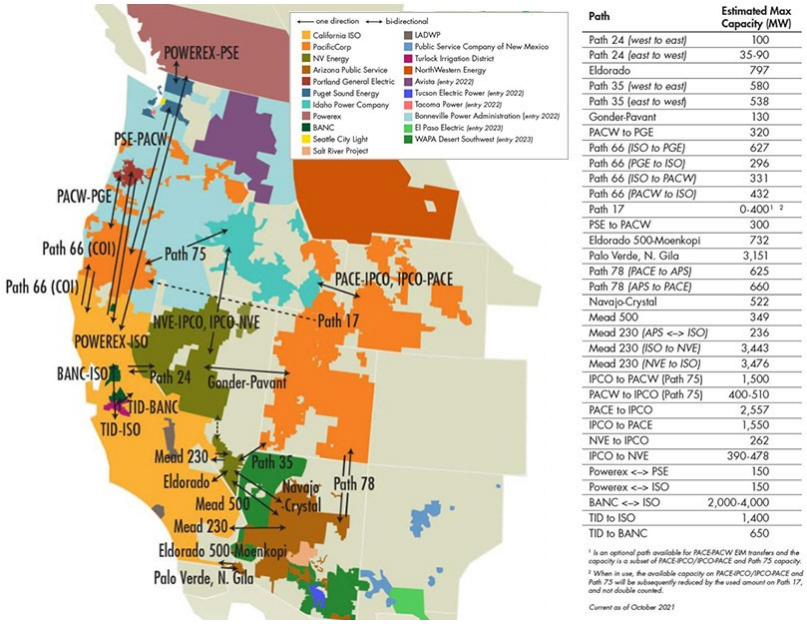
CAISO's Western Energy Imbalance Market racked up more economic benefits for its members in the third quarter of 2021 than it did in yearly benefits in 2019 and almost as much as in 2020, bringing the WEIM's cumulative savings to more than $1.7 billion since it started seven years ago, the ISO said Friday.

"The *third-quarter results*, which represent gross cost savings calculated from the optimization of market and grid efficiencies, exceeds the $297 million in cumulative benefits for all of 2019, and nearly reaches the $325 million in total benefits attained in 2020," CAISO said in a *news release*.

The unprecedented savings of $301 million for EIM participants resulted from summer heat waves in California, the Desert Southwest and the Pacific Northwest that triggered high demand amid tight supply, pushing electricity prices higher, and from four new entities joining the WEIM earlier this year, CAISO said.

Transfers between WEIM balancing areas provided access to lower-cost supply, saving some participants tens of millions of dollars.

CAISO and the Balancing Authority of Northern California, which includes the Sacramento Municipal Utility District and five other public utilities, saw the biggest savings from inter-BA transfers. BANC accumulated $72.5 million in benefits, while CAISO saved $54 million.



Path	Estimated Max Capacity (MW)
Path 24 *(west to east)*	100
Path 24 *(east to west)*	35-90
Eldorado	797
Path 35 *(west to east)*	580
Path 35 *(east to west)*	538
Gonder-Pavant	130
PACW to PGE	320
Path 66 *(ISO to PGE)*	627
Path 66 *(PGE to ISO)*	296
Path 66 *(ISO to PACW)*	331
Path 66 *(PACW to ISO)*	432
Path 17	0-400[1] [2]
PSE to PACW	300
Eldorado 500-Moenkopi	732
Palo Verde, N. Gila	3,151
Path 78 *(PACE to APS)*	625
Path 78 *(APS to PACE)*	660
Navajo-Crystal	522
Mead 500	349
Mead 230 *(APS <--> ISO)*	236
Mead 230 *(ISO to NVE)*	3,443
Mead 230 *(NVE to ISO)*	3,476
IPCO to PACW (Path 75)	1,500
PACW to IPCO (Path 75)	400-510
PACE to IPCO	2,557
IPCO to PACE	1,550
NVE to IPCO	262
IPCO to NVE	390-478
Powerex <--> PSE	150
Powerex <--> ISO	150
BANC <--> ISO	2,000-4,000
TID to ISO	1,400
TID to BANC	650

[1] Is an optional path available for PACE-PACW EIM transfers and the capacity is a subset of PACE-IPCO/IPCO-PACE and Path 75 capacity.

[2] When in use, the available capacity on PACE-IPCO/IPCO-PACE and Path 75 will be subsequently reduced by the used amount on Path 17, and not double counted.

Current as of October 2021

A map shows energy transfers in the WEIM in the third quarter. | *CAISO*

Other winners included PacifiCorp with $40 million in benefits, Arizona Public Service with $24.5 million and the Los Angeles Department of Water and Power (LADWP) with more than $23.5 million.

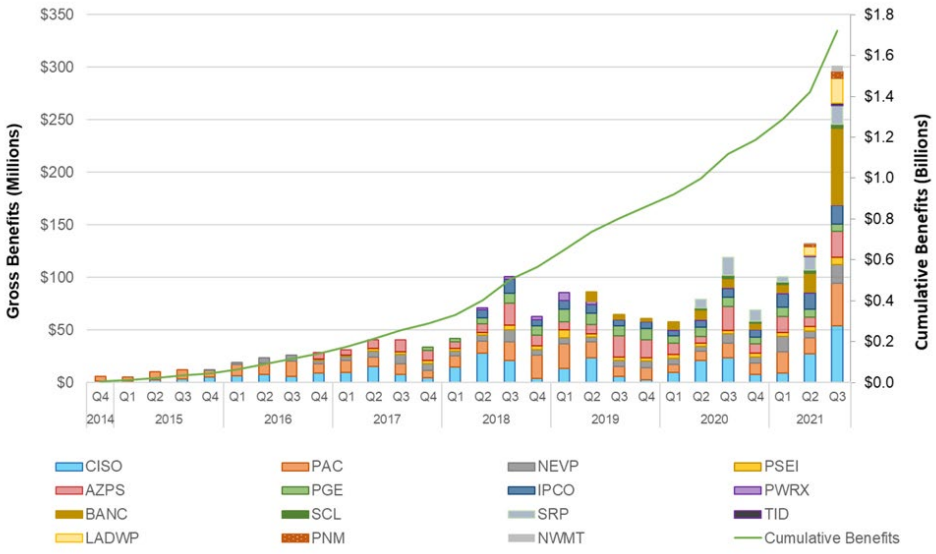
LADWP, Public Service Company of New Mexico (PNM), NorthWestern Energy and the Turlock Irrigation District (TID) joined the WEIM earlier this year. PNM saved $6.8 million; NorthWestern saved more than $5 million; and TID saved just over $2 million. Together, the four new entities boosted WEIM benefits by more than $37 million in the third quarter.

CAISO CEO Elliot Mainzer used the record-breaking results as part of his continuing effort to pitch the West on the potential benefits of expanding the WEIM from real-time to a day-ahead trading market. (See *CAISO Promotes EDAM Effort in Forum*.)

"As we embark on the development of our Enhanced Day-Ahead Market (EDAM), these EIM results are another tangible example of the value of West-wide market coordination," Mainzer said in a statement. "We look forward to working with our partners across the West to build on this foundation and create even greater economic and environmental value for the people we serve."

In addition to monetary benefits, the WEIM said its 15 participants avoided curtailing solar, wind and other renewable energy resources by 23,000 MWh and reduced carbon emissions by more than 9,800 metric tons.

"Reducing curtailments leads to lower greenhouse gas emissions because the renewable energy, rather than going unused, can be deployed by other market participants and may displace power generated using fossil fuels," the ISO said. ■



Benefits in Q3 dwarfed prior quarters in the Western EIM. | *CAISO*

CAISO/West News

PG&E Expects $1B in Costs from Dixie Fire

Subpoenaed by Federal Prosecutors over Massive Blaze

By Hudson Sangree

Pacific Gas and Electric (NYSE:PCG) said Monday it expects to incur $1.15 billion in costs from the nearly 1 million-acre Dixie Fire this summer and disclosed for the first time that federal prosecutors subpoenaed records related to the fire, the second-largest wildland blaze in state history.

The disclosures were part of PG&E's *third-quarter filing* with the U.S. Securities and Exchange Commission, in which PG&E reported a nearly $1.1 billion loss (-$0.55/share) in the third quarter because of wildfire costs and expenses related to its Chapter 11 bankruptcy reorganization that concluded last year. The company earned $83 million ($0.04/share) a year earlier.

The news pushed PG&E's already depressed stock price from a high of $11.59/share at 9:30 a.m. to a low of $11.20/share before it recovered to $11.41/share by close of trading Monday. (See *PG&E Value Lags as Dixie Fire Rages*.)

PG&E, however, said it expects to recover much of the $1.15 billion Dixie Fire loss from its insurance, ratepayers and the state's wildfire recovery fund created under Assembly Bill 1054 in 2019.

In an earnings call Monday, CEO Patti Poppe expressed optimism that the state's largest utility is on track to overcome its record of starting devastating wildfires in the past six years by improving its safety practices.

Clean up of the nearly 1 million-acre Dixie Fire could take years. | *National Forest Service*

"Every day we are more and more excited about the future we're creating here at PG&E," Poppe said. "We can see the difference that's being made and the value to be unlocked."

She cited the utility's "very sophisticated and continually improving PSPS algorithm," which predicts conditions that warrant de-energizing lines in public safety power shutoffs.

"In fact, when we back-cast our current models to the previous utility-caused fires between 2012 and 2020, we would have prevented 96% of the structure damage had the current model been in place," Poppe said.

"This year, we also implemented enhanced power line safety settings to address wildfire risks we face from extreme drought conditions," she said. "In fact, since the end of July through mid-October, we saw a 46% decrease in CPUC-reportable ignitions in high-fire threat districts and an 80% reduction in ignitions on enabled circuits. These enhanced safety settings make our system and our customers safer."

The enhanced powerline safety settings have caused controversy since PG&E started using its "fast-trip" wildfire prevention devices in late July, cutting power to customers without notice.

California Public Utilities Commission President Marybel Batjer wrote to Poppe on Oct. 25 demanding changes.

"Pacific Gas and Electric Company's execution and communication of its wildfire mitigation device setting known as Fast Trip has been extremely concerning and requires immediate action to better support customers in the event of an outage," Batjer wrote. "Since PG&E initiated the fast-trip setting practice on 11,500 miles of lines … it has caused over 500 unplanned power outages impacting over 560,000 customers. These Fast Trip-caused outages occur with no notice and can last hours or days."

"Though PG&E reports that implementation of fast-trip settings has significantly reduced reportable wildfire ignitions from contact with its power lines, this approach has also significantly increased the frequency and duration of unplanned power outages for its customers, causing confusion and frustration in communities constantly vigilant of wildfire threats."

Dixie Fire

The cause of the 963,000-acre Dixie Fire remains under investigation by the California Department of Forestry and Fire Protection, which seized PG&E equipment from the presumed ignition point in the Northern California's rugged Feather River Canyon in July.

In addition, the "Butte County, Plumas County, Shasta County, Lassen County and Tehama County District Attorneys' Offices are investigating the fire; various other entities, which may include other state and federal law enforcement agencies, may also be investigating the fire," PG&E said its SEC filing.

"On October 7, 2021, the United States Attorney's Office for the Eastern District of California served PG&E Corp. and [its utility subsidiary, Pacific Gas and Electric] with a subpoena for the production of documents," it said. "It is uncertain when any such investigations will be complete."

PG&E acknowledged in July that a tree falling on one its lines may have started the Dixie Fire northeast of Paradise, a town destroyed by the PG&E-caused Camp Fire in November 2018. (See *PG&E Says Its Line May Have Started Dixie Fire*.)

On July 13 at 7 a.m., "PG&E's outage system indicated that Cresta Dam off of Highway 70 in the Feather River Canyon lost power," the utility said in an *incident report* filed with the CPUC. "The responding PG&E troubleman observed from a distance what he thought was a blown fuse [on a 12-kV distribution line uphill from him]."

The PG&E worker could not reach the pole until later that afternoon because of a road closure and rugged terrain, PG&E said. Once there, he found two blown fuses and "what appeared to him to be a healthy green tree leaning into the Bucks Creek 1101 12-kV conductor, which was still intact and suspended on the poles. He also observed a fire on the ground near the base of the tree," PG&E told the CPUC.

The fire destroyed 1,329 structures and killed one person, according to Cal Fire. It burned for more than three months through the Plumas National Forest, Lassen National Forest, Lassen Volcanic National Park, and across five counties before it was declared 100% contained on Oct. 24. ■

CAISO/West News

CPUC Proposes Summer Reliability Measures

By Hudson Sangree

The California Public Utilities Commission on Friday proposed a spate of measures aimed at ensuring grid reliability during the next two summers, when the state faces capacity shortfalls as it transitions from fossil fuels to renewable resources.

The measures include new and expanded demand response programs and additional capacity procurement, including temporary gas generation, to meet demand from the type of extreme heatwaves that struck the West in the summers of 2020 and 2021.

"The proposals are part of the CPUC's ongoing efforts to help ensure safe and reliable electric service and to respond to Gov. Gavin Newsom's July 30, 2021 *Emergency Proclamation* urging all state energy agencies to ensure there is adequate electricity to meet demand," the commission said in a news release. "A CPUC analysis found that a range of 2,000 to 3,000 MW of new supply- and demand-side resources will help address grid reliability in the most extreme circumstances in 2022 and 2023."

Rolling blackouts in August 2020 and energy emergencies the past two summers occurred during hot summer evenings as solar ramped down but demand remained high. The CPUC, the California Energy Commission (CEC) and CAISO have been taking steps to brace for next summer under the governor's order. (See *Calif. Governor Proclaims Emergency as Blackouts Loom*.)

Part of the CPUC's plan would allow PG&E to lease more mobile generating units. | *General Electric*

The CEC issued emergency gas generation permits and sped up battery interconnections. CAISO won FERC approval for generation needed to maintain grid reliability and kept small aging gas plants from retiring by designating them as reliability must-run resources. (See *DOE Orders CAISO Emergency Reliability Measures* and *CEC to Issue Emergency Gas Generation Permits*.)

Since late 2019, the CPUC has directed the state's investor-owned utilities to collectively procure more than 17 GW of additional capacity, including a June order for 11.5 GW of new resources to come online between 2023 and 2026.

Under a plan issued Friday, the CPUC would direct utilities to procure up to 3,000 MW of demand- and supply-side resources for the next two summers, including up to 1,350 MW each for Pacific Gas and Electric and Southern California Edison and up to 300 MW for San Diego Gas & Electric.

"The proposal also expands existing authorization to procure additional supply-side resources such as storage, imports, and gas plant efficiencies," the CPUC said.

The proposed decisions fall under three *proceedings* dealing with summer reliability, energy efficiency, and microgrids and resiliency.

One plan would also allow San Diego Gas & Electric to build four new microgrid projects totaling 160 MW to serve summer demand and would authorize PG&E to install additional temporary gas generating units.

The proposals would create a new demand response program to pay residential customers $2/kWh for reducing consumption at crucial times and would double the current rate to $2/kWh under the state's Emergency Load Reduction Program.

A proposed smart thermostat program would provide $22.5 million in incentives for customers to adopt thermostats that can automatically reduce usage during peak hours. Dynamic-rate pilot programs would test consumer response to "rates that change rapidly during grid emergencies," for example by shifting agricultural pumping and electric-vehicle charging to off peak times. Another program would pay consumers based on their energy savings at the meter.

CPUC commissioners plan to consider the measures at their Dec. 2 voting meeting. ■

ERCOT News

Three More Directors Added to ERCOT Board

By Tom Kleckner

The Texas Public Utility Commission said Monday that former U.S. Rep. Bill Flores (R) and two others had been selected to be directors on ERCOT's board, leaving the governing body three members short of a full slate.

The ERCOT Board Selection Committee, appointed by the state's political leaders, also named Elaine Mendoza and Zin Smati as independent directors and designated Flores as vice chair.

The committee in October named Paul Foster and Carlos Aguilar as the first two of eight independent directors. Foster was also designated as the board's chairman. (See *2 New ERCOT Directors Named, Replacing Current Board*.)

Flores was elected to Congress during the Tea Party wave of 2010 and served five terms before deciding to step down. Before he left office, he joined 125 other Republican representatives in signing an amicus brief supporting Texas' lawsuit at the U.S. Supreme Court that contested President Biden's electoral victory over Donald Trump. The high court declined to hear the protest.

Previously involved in Texas' energy industry, Flores was CEO of Phoenix Exploration Co., an oil and natural gas company. He was awarded the Texas Public Power Association's Public Service Leadership Award for his contributions to energy policy.

Mendoza is founder and CEO of Conceptual MindWorks, a medical informatics company in San Antonio, where she has been involved in expanding educational opportunities, health care and economic growth. She serves on the Texas A&M University System's board of regents and is its former chair. She holds an aerospace engineering degree from Texas A&M.

Smati has 35 years of U.S. and international experience in the electricity and renewable energy industries. He was CEO of GDF SUEZ, now ENGIE, for 10 years and currently serves on the boards of SNC-Lavalin, a global engineering and services group, and Boralex, a renewable energy company.

"Updating the grid is an all-hands-on-deck evolution, so we're delighted to welcome experienced leadership to our board," interim ERCOT CEO Brad Jones said in a *statement*.

The board next meets Dec. 9-10.

State legislation following February's devastating winter storm replaced the five unaffiliated directors and eight market segment representatives with eight independent directors chosen by a selection committee. The ERCOT CEO, the PUC's chair and the Office of Public Utility Counsel's CEO sit on the body as non-voting members.

The law requires each board member to be a Texas resident with executive-level experience in finance, business, engineering, trading, risk management, law or electric market design. When the storm nearly brought the ERCOT system to total collapse, Texans frustrated with the ensuing long-term outages directed their ire toward the six board members who lived outside the state. (See *ERCOT Chair, 4 Directors to Resign*.) ■

ERCOT's Board of Directors, meeting here in 2018, has added three new independent directors. | © *RTO Insider LLC*

ERCOT News

Texas Regulators Boost Southern Cross Project

By Tom Kleckner

The Southern Cross Transmission (SCT) project, a merchant long-haul HVDC transmission line that would connect ERCOT with systems in the SERC Reliability region, has found new favor among Texas regulators — a development that may speed its completion.

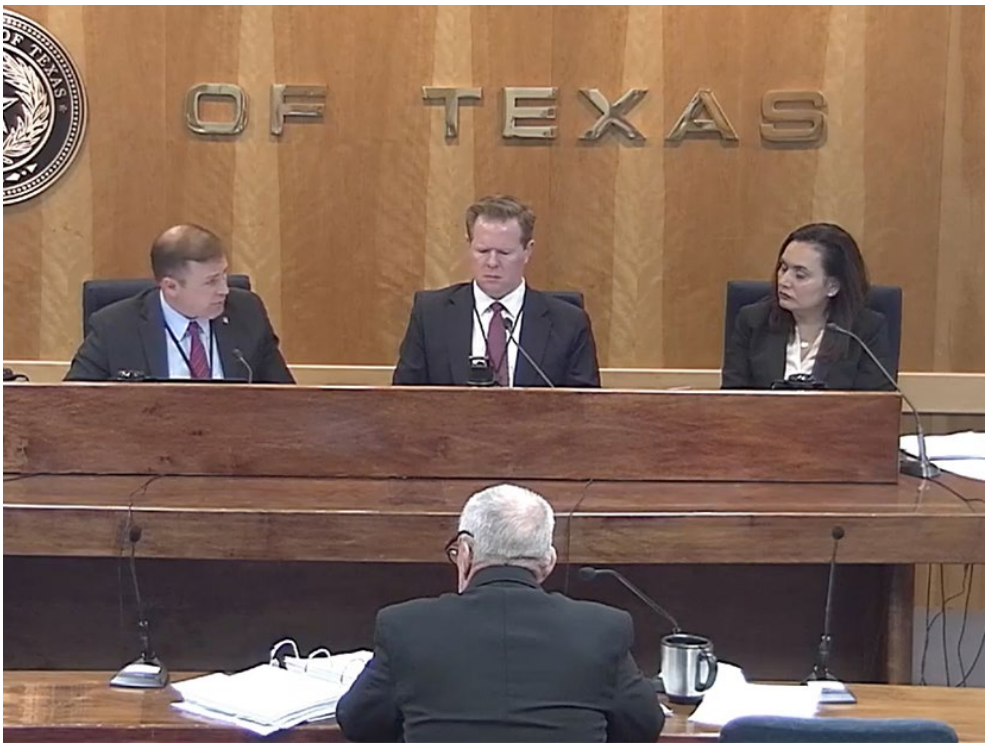
The Public Utility Commission on Thursday directed staff to file a memo asking the proceeding's parties for suggestions on accelerating the project, which has been under regulatory review for seven years (*46304*).

The SCT would be capable of carrying 2 GW of power between Texas and SERC over a 400-mile, double-circuit 345-kV line. The project has FERC approval and a waiver from the commission's jurisdiction. It also has a certificate of convenience and necessity granted by the PUC in 2017 to Garland Power & Light, which owns the project's western endpoint.

Renewable developer Pattern Energy's representatives are working with ERCOT to respond to *14 PUC directives* to determine whether DC ties should be economically dispatched or subject to a congestion-management plan. Five of the 12 directives have been completed and two others related to status reports are ongoing, the ISO said in its latest *filing* with the commission.

"We need to ensure it is crystal clear what ERCOT has to do, what the applicant has to do, what we have to do, and the time frames to get them resolved," Commissioner Jimmy Glotfelty said during the open meeting.

Mark Bruce, Cratylus Advisors | © *RTO Insider LLC*



Texas PUC Commissioners (from left) Will McAdams, Peter Lake and Lori Cobos discuss a docket during their Oct. 28 open meeting. | *Texas Admin Monitor*

Glotfelty said that if the private capital being spent is in the public interest, "we should ensure we resolve our issues so the private capital can be spent, or it will go somewhere else."

"The regulatory responsibility and the ERCOT review are things we can speed up, finalize and be done with," he said. "We need the parties to come forward and tell us the steps to take to move this forward."

Mark Bruce, whose Cratylus Advisors consults for the project, said he has been encouraged to hear the commission "raise broader issues applicable to all the ERCOT-connected DC ties, such as ensuring emergency imports are included in ERCOT's planning process. (See *Texas PUC Considers Adding Grid Interconnections*.)

The Texas grid has two DC ties with *SPP* and a third with Mexico, but they are limited to a combined 1.1 GW of capacity and are primarily used for commercial purposes. ERCOT uses the same ties to exchange power with its neighbors during emergency conditions.

"This commission is taking action on all fronts to address the weaknesses revealed by Winter Storm Uri," Bruce said in an email to *RTO Insider*. "Southern Cross is an important reliability component of the extreme weather solution package, so it was good to see the PUC commit to completing its review of the SCT project in the near term."

Prioritizing Dispatchable Generation

Glotfelty and Commissioner Will McAdams agreed to collaborate on developing grandfathering provisions for fully collateralized projects in ERCOT's generator interconnection queue with notifications to proceed.

The agreement followed a discussion over a McAdams *memo* calling for transmission service providers [TSPs] to prioritize the interconnection of dispatchable generation at transmission voltages. McAdams said a formal order is not necessary, but interconnections should be prioritized accordingly:

- non-inverter-based dispatchable resources;
- inverter-based resources (IBRs) or projects co-located with IBRs that can be dispatched for two or more hours;
- all other intermittent resources.

McAdams said his memo doesn't push a resource to the back of the queue or restart a process but calls for policy that "provides

ERCOT News

guidance to transmission service providers in the event of a real land rush in interconnection interest."

"Our [TSPs] need guidance from the commission on what is important to take up first," he said, noting a need to also allow ERCOT staff to determine how a battery in the two-hour dispatch parameter would be used.

PUC Chair Peter Lake and Commissioner Lori Cobos agreed with the need to incent more dispatchable generation in ERCOT, a need also pushed by Gov. Greg Abbott during the summer. "We need to have some signal, some mechanism, so investors will associate intermittent resources with storage," Lake said.

But as Glotfelty pointed out, "a great dispatchable resource at $12 [per MMBtu] gas is not as valuable as a zero-cost wind resource." He called for a bigger discussion than one in a memo and two meetings.

"We will need dispatchable resources, I know that, but I'm cognizant of the guy in the interconnection queue who is deploying capital," Glotfelty said.

"There has to be a line in the sand," McAdams said. "We have gigawatts of power that are bearing down on our system in the next two years that will have real reliability consequences."

The commissioners separately *granted* a good cause exception to ERCOT, allowing the grid operator to deploy emergency response service (ERS) before an energy emergency alert is declared. Current rules limit ERS' use during emergency events.

"I'd move the deployment up even more," Lake said. "I don't want to be asking Texans to turn down lights and their businesses before fully deploying ERS. We need to use the demand response and load resources we've paid for before we start asking 25 million people to change the way they run their daily lives."

Kenan Ögelman, ERCOT's vice president of commercial operations, said ERS's earlier deployment can be done quickly, but training operators could add time to its full implementation.

Ögelman also asked that the commissioners provide options for the appropriate balance in its ERS winter budget. The ISO procures $50 million of ERS over four contract periods during the program's year, which runs from December to November. Over-allocating the winter period could create a shortage in another contract period.

Stakeholders File Input on Market Design

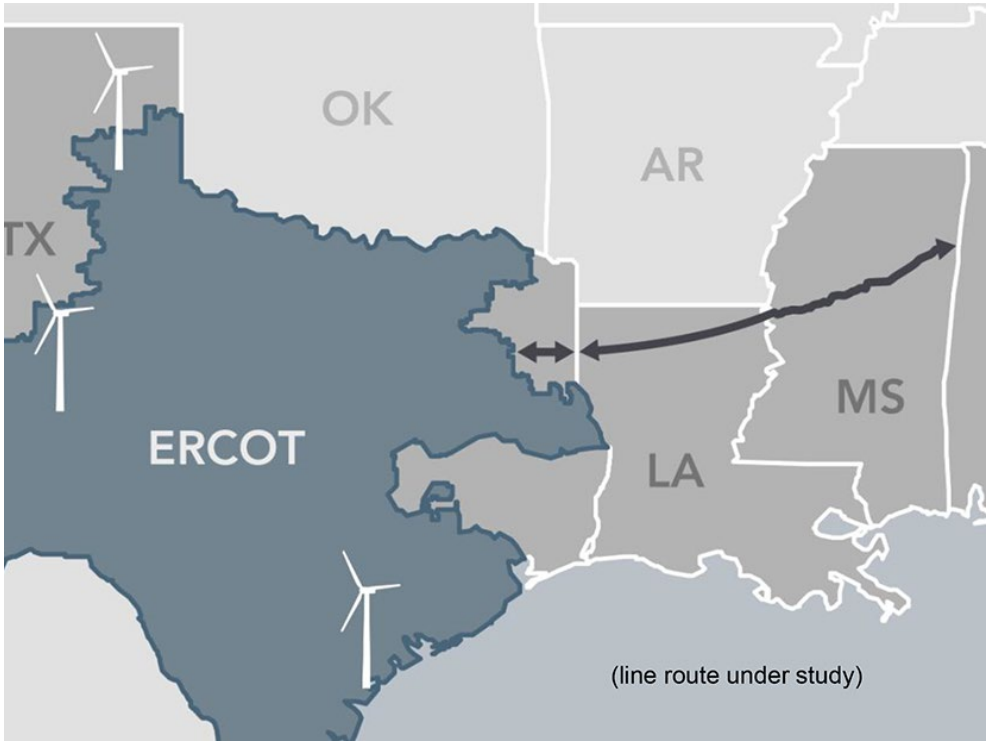
As of Monday, ERCOT stakeholders have filed 49 responses as to commission staff's Oct. 25 *memo* seeking input on the PUC's proposed market design. Stakeholders were given until Nov. 1 to file their responses and are limited to 15 pages, excluding a required executive summary (*52373*).

The commissioners appear to have landed on a load-serving entity obligation and reforming ERCOT's operating reserve demand curve (ORDC). The LSE obligation is meant to address resource adequacy concerns by introducing a formal reliability standard and a mechanism to ensure sufficient resources meet this standard. (See *Texas PUC Nears Market Redesign's Finish Line*.)

The questions focus on:

- whether to separate the ORDC's "blended curve" into seasonal curves.
- modifications that can be made to existing ancillary services to better reflect seasonal variability.
- whether ERCOT should develop a discrete fuel-specific reliability product for winter.
- alternatives to the LSE obligation that could be used to impose a firming requirement on all generation resources.

The commission will hold another work session on the market redesign Thursday.



The Southern Cross Transmission project will run more than 400 miles from East Texas into SERC. | *Pattern Energy*

PUC Opens Competition Docket

Following up on discussion during its Oct. 7 open meeting, the commission opened a docket to allow non-ERCOT customers to comment on whether they should become part of a competitive market. (See *Regulators Debate Competition in Entergy's Texas Footprint*.)

The docket only applies to Entergy Texas, Southwestern Public Service Company and Southwestern Electric Power Company (SWEPCO) customers (*52760*).

In other actions, the PUC:

- assessed a $20,000 administrative fee to SWEPCO for once again exceeding the system average interruption duration index standard for outages in the 2019 reporting year. It was the fifth straight year SWEPCO has exceeded the SAIDI standard (*52116*); and
- approved 2022 energy efficiency cost recovery factors of $63,052,922 for CenterPoint Energy (*52194*) and $26,921,197 for AEP Texas (*52199*). ■

ISO-NE News

Avangrid 'Focused on Defeating' NECEC Referendum

By Jason York

Avangrid is "focused on defeating" today's Maine *ballot referendum* designed to halt construction of the New England Clean Energy Connect (NECEC) transmission line, CEO Dennis Arriola said Wednesday.

Construction is "well underway" with more than 100 poles installed, Arriola said during a third-quarter earnings call, adding that towns in the path received the first tax payment from the project. A "grassroots campaign" is also underway to sway voters in Avangrid's direction on the referendum.

Avangrid remains encouraged by the support for NECEC over the last several months as the company attempts to combat what it calls "misinformation" spread by "companies that own fossil fuel generation in New England," he said.

"We're focused on defeating the Nov. 2 referendum related to the project, and our growing grassroots campaign is working hard every day to help voters better understand the benefits of the project to Mainers, the economy, the environment and the region," Arriola said.

NECEC supporters include current Democratic Gov. Janet Mills, former Republican Gov. Paul LePage, labor leaders including the AFL–CIO, Maine chambers of commerce and the Conservation Law Foundation, "just to name a few," Arriola said.

"There are winners and losers" in the clean energy transition, he said.

"In this case, the winners from this project are going to be the people of Maine, the environment, the local economies, climate change [opponents] in total. But the losers in this are going to be those that basically are providing the fossil fuel generation."

Energy infrastructure projects, including transmission, often face challenges, and "the challenge is that there are certain parties that may not want that because it impacts their livelihood," Arriola said.

In addition to the referendum, the Maine Department of Environmental Protection (DEP) held a hearing recently to determine whether it should revoke the permit to construct the NECEC transmission line.

There is no deadline for the decision in the DEP proceeding. Still, the agency can temporarily suspend the construction permit or revoke it entirely, forcing an application for a new one. DEP Commissioner Melanie Loyzim opened the proceeding after a Maine Superior Court ruling in August vacated a 1-mile public land lease to Avangrid subsidiary Central Maine Power. Loyzim said the court's decision represented a change in circumstance that could warrant a permit suspension. (See *Maine Regulators Hear from CMP, Residents on NECEC Permit*.)

PNM Merger, OSW Talk

Avangrid is "on track" to close its multi-billion dollar merger with PNM Resources by the end of the year, with just one approval remaining from the New Mexico Public Regulation Commission. Arriola said that 23 of the 24 filing interveners either support the merger directly or have decided not to oppose its approval.

Avangrid headquarters in Orange, Conn. | *Avangrid*

Arriola also touted Vineyard Wind I securing $2.3 billion of construction and term loan financing with nine global lending banks, becoming the first commercial-scale offshore wind project in the U.S. to reach financial close. Construction already has started for the onshore substation and export cable routes, and Arriola said offshore construction will begin in the first half of 2022. "We'll start delivering clean power to Massachusetts in 2023 and reach full commercial operation in 2024."

Earnings

Avangrid reported earnings of $111 million ($0.29/share), up $24 million from the same period in 2020 ($0.28/share). Avangrid Networks earned $116 million during the quarter, up from $94 million in September 2020. Avangrid Renewables posted earnings of $12 million during the quarter, down from $25 million in September 2020.

For the first nine months of 2021, consolidated net income was $543 million ($1.56/share), compared to $415 million ($1.34/share) for the first three quarters of 2020. ■

Call transcript courtesy of Seeking Alpha.

ISO-NE News

NJ Wind Port Draws Offshore Heavy Hitters

Global Developers and Manufacturers Vye for Port Tenancies

By Hugh R. Morley

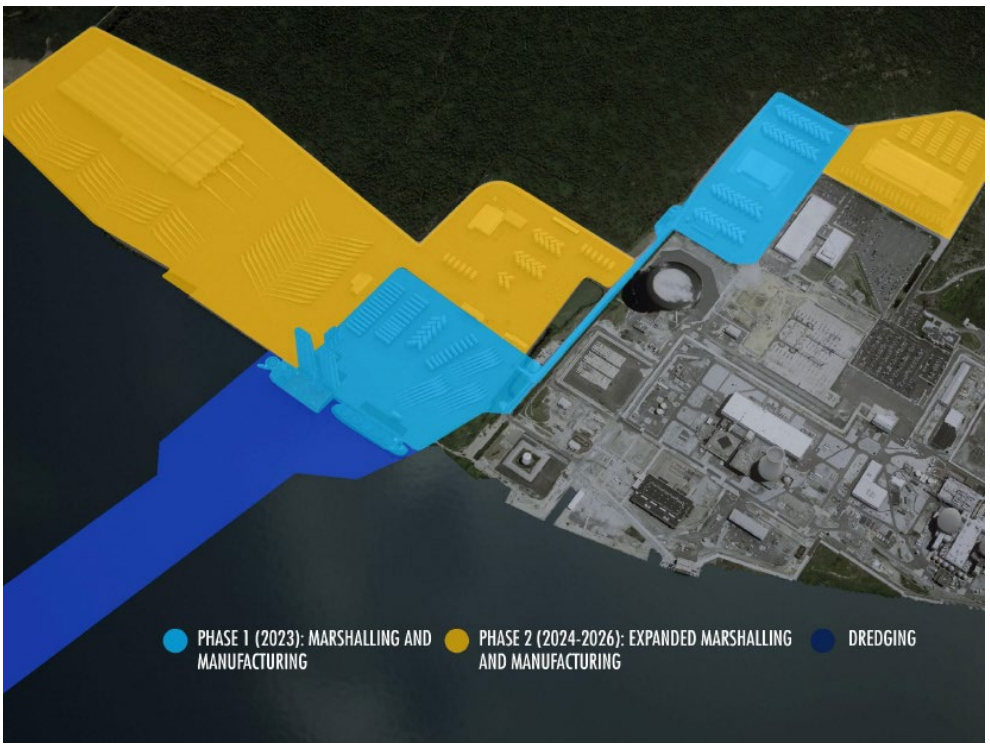
New Jersey's plan to create a wind port that will serve as a marshalling and manufacturing hub for the East Coast has gotten a boost from applications by several prominent offshore wind players seeking to rent space in the facility, among them Siemens Gamesa Renewable Energy, Vestas-American Wind Technology and Beacon Wind.

The three companies submitted some of the 16 nonbinding offers to become tenants at the New Jersey Wind Port, construction on which began Sept. 9 on the Delaware River in Lower Alloways Creek, the New Jersey Economic Development Authority (NJEDA) said. Other bidders include two developers awarded approval for offshore wind projects in June by the state Board of Public Utilities: Danish developer Ørsted and Atlantic Shores Offshore Wind, a joint venture between Shell New Energies and EDF Renewables.

GE Renewables US also was among the companies that submitted proposals for space at the wind port, some of whom submitted multiple proposals, NJEDA said in a release announcing the submissions.

NJEDA said the applications by the six companies "confirms the offshore wind industry's strong and sustained interest in partnering with the state" to create an "internationally recognized offshore wind hub that will drive economic growth and job creation in South Jersey and throughout the Garden State."

Spain-based Siemens, with annual revenue of $11 billion, has developed onshore and offshore wind projects around the world, and a *company presentation* on its website says it is in the top three companies in both onshore and offshore wind markets. Vestas says it has manufactured, installed and serviced wind turbines across the globe, and has made turbines generating more than 140 GW in 85 countries. A 50-50 joint venture between Equinor and BP is developing the 1,230-MW Beacon Wind off Long Island and the 1,260-MW Empire Wind project in the New York Bight.



Plans for New Jersey's offshore wind port include a phased build-out, with the first marshalling and manufacturing facilities opening in 2023, with further expansions possible in 2024-2026. | *NJ EDA*

Tough Competition

Yet the success of the state's wind port venture is far from assured. New Jersey faces fierce competition from other states that also see the sector as a source of investment, jobs and economic growth. Virginia, Massachusetts, Maryland and New York are all trying to position themselves as East Coast providers to the new industry.

Siemens, for example, announced last week that it would invest $200 million to establish a new plant for offshore wind blades at the Portsmouth Marine Terminal in Virginia. The plant will be a "finishing" facility, where blades manufactured elsewhere are painted and assembled prior to installation. (See *Virginia Builds out OSW Supply Chain with Turbine Blade Plant*.)

New Jersey Gov. Phil Murphy sees offshore wind generating 23% of the state's energy by 2050, by which time he wants the state to use 100% clean energy. So far, the state has awarded three offshore wind projects — Ørsted's Ocean Wind 1 and 2 and Atlantic Shores — for a total of 3,758 MW. The state plans to award a total of 7,500 MW by 2035.

State officials hope that the wind port, with an opening date of 2023-2024, will give the state a "first mover advantage" in the effort to serve not only the state's offshore wind facilities but those of other states as well. Plans for the port, for which the state has so far committed $250 million, include a 30-acre marshalling area, manufacturing space and a heavy-lift wharf. The port is scheduled to open in 2023. (See *NJ Breaks Ground On Offshore Wind Hub*.)

The four parcels for which NJEDA accepted submissions account for about 110 acres of the 200 available. The agency expects the successful bidders to be picked next year, with tenants occupying the space in 2024.

A complementary project, a factory that builds monopiles — the tubes driven into the ocean floor for the turbines — is under construction at the nearby port of Paulsboro.

"The interest we are seeing in the New Jersey Wind Port demonstrates that we do not have to choose between addressing climate change and creating jobs," said Jane Cohen, executive director of the governor's Office of Climate Action and the Green Economy. "Through this project and Gov. Murphy's other efforts to combat climate change, we can drive economic growth, strengthen our workforce and create family sustaining jobs for all New Jerseyans who want to be in involved in the green economy."

ISO-NE News

State or Regional Hub?

Ørsted and Atlantic Shores Offshore Wind each committed to using the port as part of their offshore wind application approved by the BPU. Ørsted agreed in its contract to establish a nacelle assembly facility at the port with GE. And Atlantic Shores said it would partner with Vestas on a nacelle manufacturing facility at the port. (See *New Jersey Shoots for Key East Coast Wind Role*.)

The two developers, along with Beacon Wind, submitted offers for land that is being purpose-built for offshore wind marshalling, staging and final assembly of turbines.

Paul Patterson, an energy analyst at Glenrock Associates, said it is unclear whether New Jersey will emerge as a regional leader in the offshore wind supply chain — or if any state will. Several states are essentially creating their own markets by awarding offshore wind contracts and incentivizing the participants to use state facilities created to serve the new ventures, he said.

"The question that comes to my mind is, will these hubs simply be serving the projects that are associated with that specific state policy?" Patterson said. "Or will the hub be used by other projects that are being sponsored by other states up and down the Eastern Seaboard?"

Preparing the Grid for Offshore Wind

NJEDA's announcement came as Ørsted and PSEG, which owns a 25% share of Ocean Wind 1, revealed plans to upgrade the grid in preparation for the additional energy coming from the offshore wind projects. The companies announced Thursday that they had submitted several proposals for offshore transmission, collectively named Coastal Wind Link, that are designed to deliver thousands of megawatts of offshore wind energy into New Jersey, PSEG said in a *statement*.

The companies said they submitted the proposals as part of FERC Order 1000's state agreement approach, under which the BPU requested that PJM integrate the state's OSW goals into the RTO's Regional Transmission Expansion Plan process. New Jersey was the first state do so. (See *New Jersey Seeks OSW Transmission Ideas*.)

The BPU is looking for suggestions on issues including how to upgrade the existing grid to allow for integration of wind energy, how to extend the onshore grid to bring it closer to offshore wind generators and what upgrades are needed on interconnections between offshore substations to create an offshore grid, or "backbone."

PSEG and Ørsted said their proposals "encompass individual and networked solutions and would ensure that New Jersey has a clear path to connect to the offshore wind energy coming online during the next decade while minimizing environmental impacts along New Jersey's coastline." ■

MISO News

Mich. Senate OKs Transmission ROFR for Incumbent TOs

By John Lindstrom and Rich Heidorn Jr.

LANSING, Mich. — Michigan's Senate on Oct. 26 voted 28-6 to grant incumbent transmission owners the right of first refusal (ROFR) to build and operate new transmission lines in the state — legislation that could particularly boost the fortunes of ITC Holdings and American Transmission Co.

There were no comments during the floor vote on the Transmission Infrastructure Planning Act (TIPA) (SB *103*). The bill, which was opposed by the most conservative Republican members, now goes to the House of Representatives, which under the state constitution must wait at least five days before acting.

The bill would apply to "regionally cost-shared" transmission projects, such as those resulting from MISO's Transmission Expansion Plan. It takes advantage of the exception under FERC Order 1000 that allows states to create a ROFR. The order prohibited such rights in tariffs filed with the commission in a bid to create competition, although some incumbents have recently urged FERC to reverse the prohibition in the commission's Advance Notice of Proposed Rulemaking proceeding. (See *FERC Tx Inquiry: Consensus on Need for Change, Discord over Solutions*.)

Sen. Wayne Schmidt (R), who co-sponsored the bill with Sen. Curtis Hertel (D), told *RTO Insider* that Michigan "will need more transmission, with growing electrification, especially with electric vehicles." The legislation would give the state "a more organized way" to develop additional transmission, he said.

ITC Holdings calls itself the largest independent electric transmission company in the U.S., with projects in operation or under development in Michigan, Iowa, Minnesota, Illinois, Missouri, Kansas, Oklahoma and Wisconsin. | *ITC Holdings*

Schmidt also said it could assure a more orderly system in building transmission lines, avoiding a "patchwork system." It can take five to 10 years to get transmission lines built and operating, he said.

The bill was reported from the Senate Energy and Technology Committee on an 8-2 vote Oct. 6, with all of the panel's Democrats and all but two Republicans in support. The opponents did not explain their opposition and have not responded to several requests for comment.

The minutes of the committee's Sept. 21 *meeting* show the bill was supported by the state's three biggest transmission operators: ITC, ATC and Xcel Energy. ITC CEO Linda

ITC MICHIGAN AT-A-GLANCE	ITC*Transmission*	METC
Square miles of service territory	~7,600	~28,850
Transmission circuit miles (population served)	~3,100 (population ~5.1 million)	~5,600 (population of ~4.9 million)
Transmission structures	~18,800	~37,100
Voltage levels	120 kV to 345 kV	120 kV to 345 kV
System peak load	12,745 MW	9,469 MW
Stations and substations with ITC assets	202	165
Capital investments since assets acquired	~$3.1 billion since 2003	~$2.4 billion since 2006
Reduction in average number of outages on system since acquired by ITC	Down 46%	Down 18%
Headquarters	Novi, Michigan	
Top executive	Simon Whitelocke	

| *ITC Holdings*

MISO News

Apsey and ITC Michigan President Simon Whitelocke testified on behalf of the bill.

Whitelocke told *RTO Insider* the bill was supported by "over a dozen entities across Michigan," including General Motors; Johnson Controls; the Michigan Forest Products Council; IBEW locals 876, 17 and 223; Utility Line Contractors; and the Michigan Chamber of Commerce, in addition to ATC and Xcel.

"SB 103 will ensure that utilities with a proven track record in the state are allowed to construct any future high-voltage transmission projects," Whitelocke said in a statement. "Adopting a TIPA provision preserves Michigan's right to decide who builds, owns and operates these systems and where they should be built. This provides benefits in terms of efficiency, planning, development, operation and maintenance of the grid, while protecting landowner interests and meeting the needs of energy consumers."

ITC Transmission and Michigan Electric Transmission Co. serve most of the state's Lower Peninsula with a network of about 8,700 circuit miles. The companies have made $5.5 billion in capital investments in the state since 2003. ITC is a unit of Fortis.

ATC, which provides transmission in the Upper Peninsula, and Xcel, which *has* about 110 miles of transmission line in the state serving about 9,000 electric customers, did not respond to requests for comment.

The *Michigan Chemistry Council* and the conservative *Mackinac Center for Public Policy* testified against the bill.

The Chemistry Council acknowledges "there remain barriers to transmission planning and development and particularly with the implementation of FERC Order 1000," Executive Director John Dulmes told *RTO Insider*. "But our members have long advocated for greater energy competition, and we don't believe the answer is a state ROFR law that eliminates the benefits of competitive transmission development. We are hopeful that the FERC ANOPR will yield constructive reforms for the benefit of ratepayers across Michigan and the nation."

The council said it supports House Bills *4806* and *4807*, which it said would allow any MISO-qualified transmission developer to exercise eminent domain for competitive transmission projects. "We believe it only makes sense to open up this authority for all qualified developers, as was done in 2004 when the new independent transmission companies (like ITC and ATC) were spun off of the incumbent utilities," the council said in its written testimony.

Transmission lines built and operated under the legislation would remain subject to the state Public Service Commission's rules on cost accountability. If the PSC successfully files a complaint against a line or a line owner with FERC, the bill stipulates the company will need reimburse the state commission for up to $25,000 in legal costs.

PSC spokesman Matt Helms said the commission is neutral on the bill.

At one of the first Senate committee meetings on the bill, Mike Byrne, COO of the commission, said the state would need additional generation and therefore transmission as the economy becomes more electrified. He also said more transmission would provide resilience in the grid during extreme weather events such as the massive rainstorms that caused outages in the state in August.

Several other Midwestern states, including Iowa and Minnesota, have similar legislation, Sen. Schmidt said. However, Iowa's law is the subject of a legal challenge *filed* in November 2020 by *LS Power* Midcontinent and Southwest Transmission, based in St. Louis. LS Power is challenging the law on procedural grounds, saying the ROFR provisions were improperly included in an omnibus budget bill. ITC's Iowa-based Midwest unit and Des Moines-based Mid-American Energy have filed to *intervene* to protect their ROFR rights.

In 2020, the 8th U.S. Circuit Court of Appeals upheld Minnesota's ROFR law, affirming a lower court's 2018 decision. (See *Courts Uphold Minn. ROFR, MISO Cost Allocation*.)

CMS Energy, Michigan's largest utility, is neutral on the bill, spokeswoman Katie Carey said. DTE Energy did not respond to a request for comment. The two utilities sold their transmission assets to ITC and no longer own transmission in the state.

According to the *Michigan Campaign Finance Database*, Schmidt has received $6,500 in campaign contributions from ITC Holdings PAC, and Hertel received $2,500 since 2018, the year of their last elections. Both senators are term-limited and cannot seek re-election next year. ■

ITC Holdings' ITC Transmission and Michigan Electric Transmission Co. serve most of Michigan's Lower Peninsula through a network of about 8,700 circuit miles. The companies have made $5.5 billion in capital investments in the state since 2003. | *ITC Holdings*

MISO News

MISO Warns of January Emergency Procedures

Continued from page 1

"It's not a one-out-of-50 scenarios. There's a number of scenarios that put us there," Smith told stakeholders during a virtual winter readiness workshop Oct. 26.

But MISO's Tim Bachus said the RTO should have enough capacity if the coming winter is in line with historical averages. Under normal circumstances, the grid operator predicts it will have 105 GW of capacity to cover a 94-GW peak in December; 106 GW to handle a 101-GW peak in January; and 108 GW to manage a 95-GW peak in February.

Staff estimates available capacity using average monthly generation outages during peak periods over the last five years.

However, MISO said it could find itself a gigawatt short of non-emergency resources in January if weather conditions drive load to 107 GW. If high generation outages are paired with that load, not even an emergency declaration and 11 GW of LMRs could cover demand, staff said. In a worst-case scenario, MISO could experience 107 GW of demand in January and have just 88 GW in non-emergency resources available.

The grid operator's all-time winter peak of 109 GW occurred in January 2014.

"I think January might be a little challenging," Bachus said. He added that MISO doesn't include the 3-9 GW in non-firm imports it usually can access in a pinch.

"We didn't include that because we want to be conservative," he said, adding that the RTO's neighbors are likely to experience emergency conditions when MISO does.

Bachus said MISO is entering this winter with 8 GW additional generation over last winter, mostly from renewable resources. But he said there's a "significant" 10 GW of capacity that could become trapped in the South region behind the subregional transfer limit because of power-balance challenges.

The National Oceanic and Atmospheric Administration is forecasting an unremarkable winter in terms of temperatures, with a slight increased chance for precipitation in the northern parts of the footprint and a decreased chance for precipitation in MISO South.

"We don't see any large chances for significant events, at least based on the forecast," Bachus said.

Preparations stemming from February's pervasive cold snap that forced MISO to shed load loomed large during the workshop. NERC's new cold weather standards aren't set to be effective until April 2023.

Staff said this year's winterization generation survey indicates that most generation owners are better prepared for winter than in past years.

Smith said MISO will increase efforts this winter to reach out to generation operators to understand their fuel procurement status and weatherization preparedness before harsh weather hits.

He said higher natural gas prices this year will likely force some resource owners to procure coal instead of gas.

"Spot purchases might be difficult this winter," Smith said. "It's starting to be a concern, and I think some folks are starting to take action around that."

This winter, MISO will track whether resources are available during the season's tightest hours to calculate a new availability-based resource accreditation for its capacity market. Staff plans to file for the new accreditation process, a four-season capacity auction, and a minimum capacity requirement no later than Dec. 1. (See *MISO Extends Seasonal Auction Discussions*.) ■

MISO News

OMS Registers its Concern over Supply Insecurity

By Amanda Durish Cook

From left: MISO's Clair Moeller, NERC's John Moura and ESIG's Aaron Bloom | © *RTO Insider LLC*

MINNEAPOLIS — The Organization of MISO States emphasized the footprint's deteriorating resource adequacy during its annual meeting, with President Marcus Hawkins saying MISO's increasing maximum generation warnings and emergencies can't be ignored.

"We had almost no max gen events before 2016," Hawkins said during Thursday's meeting. "I think we had one in the decade before 2016, and now I've lost track. It used to be 20 and now it's 30 or 40."

"It used to be really simple. You count up all the capacity, you build a reserve margin — about 15% — and you call it a day," John Moura, NERC's director of reliability assessment and system analysis, said during one panel.

Now, he said, intermittent resources have necessitated distinct needs for voltage, frequency response and fuel backups.

"It's not the same as it is before," Moura said, adding that there's no longer a "two-month, three-month" stash of coal sitting outside of generators.

"I can't give the thumbs up, the thumbs down, the thumbs sideways about simply a reserve margin," he said.

Moura also acknowledged that grid operators face loss-of-load risks outside of the summer months and must take action. "I worry that the stakeholder processes are a little slow and might take just small bites out of the apple instead of a big chomp," he said.

"The fleet is changing faster than the academic treatment of the risk," MISO President Clair Moeller said. He said stakeholders' agreement on resource adequacy measures is only second in difficulty to reaching consensus on cost-allocation issues.

Moeller said coal generation's share of the resource fleet has dropped from 70% to 37% share in the span of a few years. He said the risks posed by baseload generation retirements are worsened by more common extreme weather events. Regional transmission operators must do a better job of factoring weather risks into resource planning, he added.

"Winter Storm Uri was an unmitigated disaster," Moeller said. "The poorest among us don't have any resources to respond to that kind of catastrophe. They deserve our best efforts … People and their livelihoods are depending on us, so we need to bring our A-game."

Moeller said MISO may need some temporary "scaffolding" to prop up existing resources until they can safely retire as the footprint undergoes decarbonization.

"There might have to be — and don't throw me out of the room here — some price support for coal. At least until we can get to the future," he said. "Losing 53 MW of coal before its time blows a fair-sized hole into the resource stack. …The transition period is a risky period. We're maybe too focused on the endpoint versus how to get there safely."

Moeller said the RTO's most aggressive electrification estimates for the next 20 years indicate the footprint will need to add more than $400 billion in new generation and about $100 billion in new transmission to handle fresh demand and new flow patterns. Moeller said he suspected MISO will need some new ratemaking rules to recover fixed costs for new infrastructure.

"I think we need to be careful in promising low costs when talking about this transition. It's a risky proposition," North Dakota commissioner Julie Fedorchak added. She said she is "salty" over the enduring assumption that natural gas could provide a low-cost reliability bulwark during the transition; prices have recently doubled. She said when the natural gas building frenzy began, all forecasts pointed to $2-$3/MMBtu natural gas "for the next 20-40 years."

In a less-than-comforting fireside chat for attendees, FERC Commissioner James Danly said that resource insecurity is an "actuarial" reality.

"The cold, grim reality of the markets not ensuring reliability is not going to play out pleasantly," he said.

Danly said dispatchable generation needs to be compensated and markets need to make sure they aren't "lopsided against" the most dependable resources.

Arcadia Power's Max Minzner reminded attendees that any prolonged generation outages have historically given FERC more authority over electric grid reliability. He pointed to the 2003 blackout as an example.

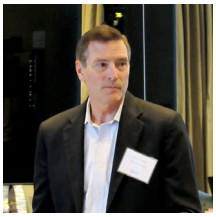
"The closer we get to having a problem, the closer we get to federal action," he warned.

Aaron Bloom, with nonprofit Energy Systems

MISO News

Integration Group, said MISO should put emphasis on linking generation in the interconnection queue to the system as quickly as possible.

MISO Makes Case for Regional Resource Assessment



MISO's Richard Doying | © RTO Insider LLC

Richard Doying, MISO's executive vice president of markets, reserved meeting time to boost support for the RTO's first regional resource assessment, due out next month.

Stakeholders have pushed back on the need, saying information contained in the report could be misused in state dockets to challenge utilities' integrated resource plans. (See *LSEs, Southern Regulators Pan MISO Resource Assessment*.)

"We have to ask that question, will the pool five years out, 10 years out, 20 years out be able to provide the services, flexibility, availability of resources to reliably serve load," Doying said.

He said MISO is currently projecting a capacity shortfall, but he said he is not "unduly" worried. Doying said not all of the footprint's resource additions have been announced and the RTO's utilities are "prudent planners."

Doying said MISO has a duty to publicly share its resource-planning expectations. "There is a paucity of public information out there."

Doying said MISO will not suggest what utilities and regulators should do with MISO's regional insights.

Outgoing OMS President Julie Fedorchak addresses attendees. | © RTO Insider LLC

"It's not to recommend anything, but hopefully it makes you ask some questions," Doying told OMS members.

He said the pace of change in the portfolios that members have laid out so far is head-spinning.

"The announcements for renewables seem to change weekly, it seems, every time we put together a spreadsheet," Doying said. "The goals are constantly changing."

The Novelty of Face-to-Face Interaction

Despite the sobering topics, the annual meeting marked the first in-person event in two years for many stakeholders. Several panelists remarked how refreshing it was to speak face-to-face.

Outgoing OMS President Fedorchak thanked the organization for being among the first to venture back into in-person meetings. She said the pandemic has given many a renewed appreciation for in-room discussions.

Hawkins said the meeting was "conveniently recycled" from its scrapped 2020 plans.

OMS members elected Indiana Utility Regulatory Commissioner Sarah Freeman as their 2022 president. Michigan regulator Dan Scripps will step in as vice president. ■

MISO News

MISO Regulators Adopt Civil Tone on Contentious Planning Issues

By Amanda Durish Cook

MINNEAPOLIS — Adopting a "Minnesota nice" mantra, MISO executives and state regulators engaged in a civil debate over the potential billions of investment in the RTO's long-range transmission plan.

The discussions during Thursday's annual meeting of the Organization of MISO States was a departure from MISO's recently thorny workshops. The grid operator plans to hold a discussion on stakeholder decorum during the December Advisory Committee meeting. (See *Tensions Boil over MISO South Attitudes on Long-range Transmission Planning*.)

Mississippi Public Service Commissioner Brent Bailey said the potential map of transmission projects is "daunting, depending on how cost allocation goes." MISO has said its system could require $30 billion worth of project approvals under the most conservative of the three 20-year planning futures. The other more aggressive planning futures could result in another $100 billion worth of transmission projects, including multistate HVDC lines.

"I certainly don't want to miss the economic opportunities that this transmission may provide," Bailey said. "But at the same time, we have to make sure we're not penalizing anyone."

Entergy and its southern regulators have been vocal about not wanting to share in transmission costs from the footprint's midwestern region. Both the Mississippi and Louisiana commissions have threatened to initiate an exodus from MISO if it burdens the South with midwestern costs. (See *La. Regulators Threaten MISO Departure over Tx Costs*; *Mississippi PSC Audit Questions MISO Membership*.)

The RTO has proposed a separate but equal postage-stamp rate to allocate costs for MISO Midwest and MISO South.

Arkansas Public Service Commissioner Kimberly O'Guinn said MISO can't assume that transmission is beneficial on a footprint-wide basis because its subregional transfer limit naturally constricts benefits.

MISO President Clair Moeller speaks on the importance of long-range transmission planning. | © *RTO Insider LLC*

The OMS annual meeting underway | © *RTO Insider LLC*

MISO President Clair Moeller said the grid operator might have been able to prevent load shedding in MISO South during February's winter storm if it had expanded transmission links between the region and the Midwest. He said the RTO must examine the reliability benefits of new or upgraded subregional transfer routes.

Wisconsin Public Service Commissioner Tyler Huebner said the economic losses Texas suffered during the storm's rolling blackouts ironically could have funded the transmission needed to prevent it.

Reed Smith partner and former FERC Commissioner Colette Honorable said transmission planning is imperative.

"We've got to scale up to move these massive amounts of wind and solar," she told attendees.

Indiana Utility Regulatory Commissioner Sarah Freeman said transmission projects, while they should be a last-resort solution after exploring all local fixes, are integral to moving renewable power and replacing "toxic" generation positioned near vulnerable communities.

O'Guinn said Arkansas must be particularly careful with transmission costs because scores of residential ratepayers are at the poverty level.

Freeman, using a pun, asked a "Clair-ifying" question of Moeller as to whether MISO runs the risk of overbuilding the system with its long-range plan.

Moeller said the $30 billion in projects proposed from MISO's first 20-year planning future are indisputable. The future accounts for utilities' integrated resource plans and an 85% probability of their publicly stated retirement announcements and decarbonization goals.

"Today's economic project is tomorrow's reliability project," he said.

Moeller said 2011's $6 billion Multi-Value Project (MVP) portfolio delivered its expected benefits and then some. He said no one within MISO envisioned that an MVP project would be able to supply SPP with hundreds of megawatts to keep the neighboring RTO from disaster during last winter's cold snap.

"The appetites that we see for the fleet transition are much faster," Moeller said of today's environment.

"Not every RTO, as I understand it, is even planning for the future," Huebner said. "How

MISO News

much worse would we be if we didn't have MISO's futures in front of us during this sea change?"

FERC NOPR Gets Unfriendly Reception

Multiple regulatory and utility staff said FERC's advanced notice of proposed rulemaking (ANOPR) to improve regional transmission planning, cost allocation, and grid operators' generator interconnection processes is a clear encroachment on states' jurisdiction. (See *FERC Goes Back to the Drawing Board on Tx Planning, Cost Allocation*.)

Xcel Energy's Terri Eaton said she was reminded of the "command and control" aspect of FERC's Order 1000 in the new NOPR.

"I think we're past an era of a bright line, and into the era — to borrow a phrase from middle school math — of the Venn diagram. And I think we all need to get comfortable with that," Acadia Power's Max Minzner said of jurisdictional issues for transmission planning and resource adequacy.

Minzer, former general counsel for FERC, said as new technologies come into fashion, the energy industry's spheres of influence over decision making grow and shrink.

"I will concede that the lines are blurred more than they have ever been, and we need to work with that," Honorable said.

Wisconsin Public Service Commissioner Tyler Huebner and Indiana Utility Regulatory Commissioner Sarah Freeman | © *RTO Insider LLC*

FERC Commissioner James Danly said that ultimate transmission-building and siting decisions should lie with the states, not federal authority. He said states should only veto projects that other states have signed on to when they believe they are totally unnecessary.

"One would hope that one would employ that sparingly if these are good projects," Danly said. ■

NYISO News

New York Writing Ending to Tale of Two Grids

By Michael Kuser

New York City is set to replace its dirty power plants with clean energy from up the Hudson River and in the ocean, with an estimated $26 billion in state-sponsored projects about evenly divided between the two.

And more projects are coming offshore, as the Bureau of Ocean Energy Management will auction new lease areas in the New York Bight in early 2022, Director Amanda Lefton said Thursday.

"Our path includes up to seven new offshore lease sales by 2025, including those in the Gulf of Maine, the New York Bight, the central Atlantic offshore the Carolinas, in California, Oregon and maybe even the Gulf of Mexico," Lefton said at the Alliance for Clean Energy New York (ACE-NY) Fall Conference.

This is the first time BOEM has released a roadmap of regions under consideration for lease as well as potential timeframes, Lefton said.

"By providing clear direction on our path, we're trying to remove the guesswork and inspire confidence among industry ocean users and other stakeholders," she said.

Transmission Focus

State agencies have approved two separate projects totaling 2,550 MW to bring solar, wind and hydropower south to the city, as well as offshore wind projects totaling 4,300 MW. (See *Two Transmission Projects Selected to Bring Low-carbon Power to NYC*.)

The one-two punch in New York is meant to solve the transmission bottlenecks limiting power flows to the city, ending the familiar tale of two grids that leaves renewable and nuclear energy predominantly serving the upstate areas where it is generated.

BOEM Director Amanda Lefton | *ACE-NY*

New York has struggled with land-based transmission planning, but "it's just super complicated" to get several different states and several different RTOs together to plan for offshore transmission, ACE-NY Executive Director Anne Reynolds said.

"What's going to be really critical is thinking about a planned approach, and we really have key challenges," Lefton said. "We have interconnection, the availability of onshore transmission ... something that's been incredibly clear is that we need a strong collaborative effort between states and the federal government." (See *NY Grid Study Pushes Meshed OSW Tx, Coordination*.)

New York is unique by its nature, but the region needs to come together to ensure that there are adequate points of interconnection, she said.

"The biggest takeaway on what states can do is to partner to really try and be proactive about solving some of these transmission issues rather than reactive," Lefton said.

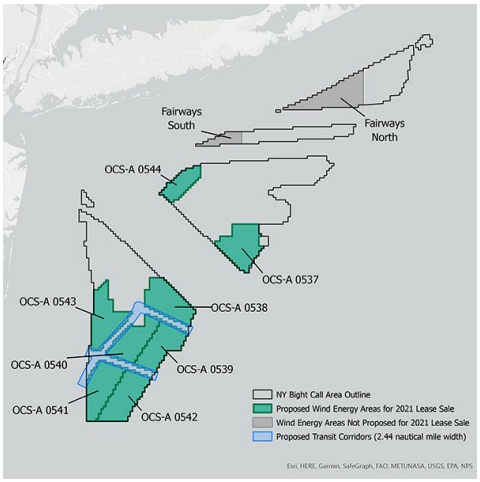
The $11 billion, 174-mile, 1,300-MW Clean Path New York project under the Hudson River would allow a greater flow of energy between upstate and downstate, said Shashank Sane, executive vice president of transmission at Invenergy, one of the project's developers. Primarily intended to deliver clean energy into New York City, the project would also help ensure reliability for the state's grid, he said.

Powering NYC with Renewables

The state is set to connect 9 GW of offshore wind into New York City by 2035, said Nathanael Greene, senior renewable energy advocate at the Natural Resources Defense Council.

"For context, the summer peak load in [the city] is about 11.5 GW, so if we connected about 6 GW of offshore wind, you can see that would make a real big contribution," Greene said.

But the solar industry faces a lot of headwinds, noted Noah Ginsburg, director of Here Comes Solar at Solar One, which works in the city. Half of a statewide community solar program was taken up by natural gas systems that essentially exploited a loophole in the program with some financing from the New York Green Bank, he said, and the Public Service Commission has approved utilities statewide to impose a new fee on net-metered solar customers starting in January.



BOEM Director Amanda Lefton announced at the ACE-NY Fall Conference that the agency would be auctioning new lease areas in the New York Bight early in 2022. | *BOEM*

"The combination of those two things is really going to impede growth in the solar industry," Ginsburg said. "It's as if New York has decided it's buying a Tesla, so [it has] stopped changing the oil on its Honda Civic."

"We have a unique situation in New York City," said Susanne DesRoches, deputy director for energy and infrastructure in the mayor's Office of Climate and Sustainability. "Not only are we constrained by existing transmission, but we also have a very old and polluting fleet that essentially we're required to have by reliability rules."

The challenge is to ensure a reliable and resilient clean energy transition while bringing on renewable energy resources and taking those old power plants offline, she said.

"We're expecting to see days over 90 degrees [Fahrenheit] triple in New York City. We've had some historic rainfall events just in the last few months tragically killing 13 New York City residents ... so we have to pivot very quickly to new and clean resources and make sure we're making those resources resilient to what's coming," DesRoches said.

The mayor's office is very concerned that about 1.5 million New York City residents spend more on energy than the state target of 6% of a person's income, she said. ■

NYISO News

NY Regulators Deny Astoria, Danskammer Gas Projects' Air Permits

By Jennifer Delony

New York regulators on Wednesday denied air permits for the Astoria and Danskammer Energy Center gas-fired generator projects, saying that the proposed facilities would not comply with the state's climate law.

The projects "would be inconsistent with or would interfere with the statewide greenhouse gas emissions limits established in the Climate Leadership and Community Protection Act (CLCPA)," New York Department of Environmental Conservation Commissioner Basil Seggos said in a statement. Both developers "failed to demonstrate the need or justification" for their projects "notwithstanding this inconsistency," he said.

The DEC issued draft air permits for both projects in July but asked for input on potential inconsistencies with the CLCPA.

Gov. Kathy Hochul applauded the decision.

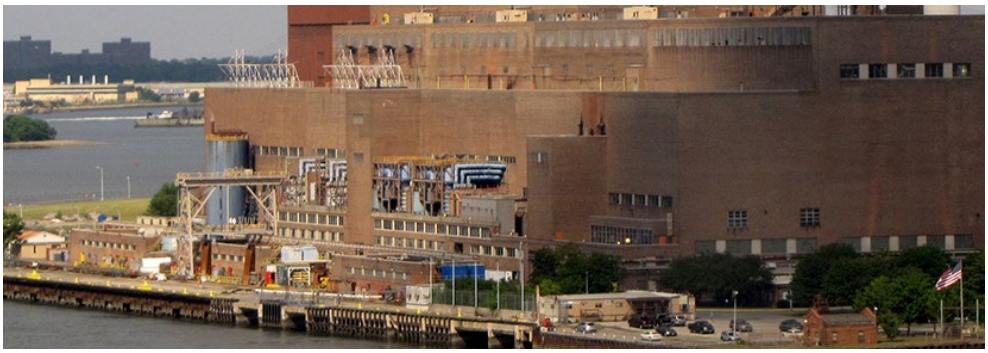
"Climate change is the greatest challenge of our time, and we owe it to future generations to meet our nation-leading climate and emissions-reduction goals," she said in a statement.

Danskammer Energy's proposal sought to build a 536-MW natural gas-fired, combined cycle generation facility at the site of the existing 532-MW Danskammer Generating Station in Newburgh, N.Y. NRG Energy's Astoria proposal included construction of a 437-MW simple cycle, dual-fuel peaking generator in Queens.

The department determined that the projects would be a new source of a "substantial amount" of direct and upstream GHG emissions, according to notices to *Danskammer* and *NRG*. In addition, the DEC said the projects would "constitute a new and long-term utilization of fossil fuels to produce electricity without a specific plan in place to comply with" the CLCPA.

As presented, the department said, the developers' plans to meet the CLCPA's requirement to be emission-free by 2040 are "uncertain and speculative in nature."

NRG "simply assumes that, prior to 2040, the project will be able to utilize hydrogen, renewable natural gas or some other fuel that is considered zero-emissions under the climate act," the DEC said, while Danskammer has not established the feasibility of using hydrogen or RNG from a supply or GHG emission perspective.



The New York Department of Environmental Conservation denied air permits for an upgrade to the Astoria Generating Station in Queens, seen here, and a new generation facility at the Danskammer Generating Station in Newburgh. | © *RTO Insider LLC*

NRG is reviewing the state's decision, according to Tom Atkins, vice president of development.

"It's unfortunate that New York is turning down an opportunity to dramatically reduce pollution and strengthen reliable power for millions of New Yorkers at such a critical time," Atkins said in a statement to *RTO Insider*.

The Astoria project would have been fully convertible to green hydrogen in the future, according to Atkins.

"New Yorkers deserve both cleaner air and reliable energy to ensure the lights stay on for our small businesses, homes, schools and hospitals when they need it most," he said. "That's what this project would have delivered, and that's what NRG had been fighting for along with labor leaders, the small business community and local Queens residents. We appreciate their support during this difficult process."

The company, he said, is "deeply disappointed" in the department's decision.

"NRG will continue to find ways to help New York achieve its emissions goals," he said. "In the meantime, our current Astoria plant will continue to operate to help ensure the lights stay on in New York City, as that remains the most important thing."

Danskammer Energy did not respond to a request for comment on the DEC's decision.

Reactions

The DEC was "right to reject" the applications, Peter Iwanowicz, executive director of Environmental Advocates NY, said in a statement.

"This is a tremendous decision by DEC and another for the growing list of the Hochul administration's actions that will provide clean air and a healthful environment for the 20 million people that call New York home," he said.

The decision to deny the air permits "tees up similar outcomes" for other projects in the permitting process, such as the Gowanus repowering project in Brooklyn, Sierra Club said in a statement.

Astoria Generating, a wholly owned subsidiary of Eastern Generation, filed a plan with the New York Department of Public Service in 2018 to replace 32 oil and gas generating units at the 640-MW Gowanus facility with eight gas-powered units (*Case 18-02956*). Gowanus is sited on four floating barges moored in Gowanus Bay in Brooklyn.

"Gov. Hochul made clear that fracked gas power plants have no place in New York's energy future, heeding the call of environmental justice and climate advocates and community members who organized tirelessly for this climate victory," said Allison Considine, New York campaign representative with Sierra Club.

Given previous remarks by Seggos on the Danskammer project, the DEC's decision was not surprising, according to a statement from State Sen. James Skoufis (D).

"I stand ready to partner with local communities, buildings trades and environmental stakeholders to put forward a project for the existing Danskammer site that both aligns with New York's climate laws and serves the needs of our area," he said. ■

NYISO News

NYISO to Resume In-person Meetings Nov. 17

By Michael Kuser

NYISO plans to bring most employees back to its headquarters building Nov. 1 and resume holding in-person stakeholder meetings on Nov. 17, CEO Rich Dewey told the ISO's Management Committee on Wednesday.

The ISO made the decision based on state and federal guidance regarding COVID-19 protocols, Dewey said.

"The ISO intends to hold the Nov. 17 Management Committee meeting in person and still provide a remote option for individuals that want to participate in that manner, but that would be our first in-person meeting since the pandemic started back in early March of 2020," he said.

All employees and visitors will be required to demonstrate proof of vaccination. Dewey recommended that stakeholders take advantage of New York's *Excelsior Pass* to gain admittance if they don't want to carry vaccination cards.

"If the situation changes with respect to the pandemic, or we take a left-hand turn in terms of health conditions and that sort of thing, we'll adjust," he said. "But at this point our plan is full speed ahead for Nov. 17."

While masks are advisable and encouraged, NYISO will not require visitors to wear them.

NYISO is taking that stance based on guidance from the CDC and the New York *Health and Essential Rights Act*, which recommends only voluntary wearing of masks if every attendee in a meeting or space is vaccinated, Dewey said.

OKs 2022 Draft Budget

The Management Committee unanimously recommended that NYISO's Board of Directors approve the ISO's draft 2022 budget Rate Schedule 1 revenue requirement totaling $169.2 million, which is allocated across a forecast of 150 million MWh for a charge of $1.128/MWh, up about 1% compared with the 2021 budget.

"NYISO kicked off a lessons learned process on the project prioritization process at yesterday's BPWG meeting with two more meetings on deck for this year, Nov. 12 and Dec. 8," said Alan Ackerman of Customized Energy Solutions, chair of the Budget and Priorities Working Group, who *presented* the budget.

"In January, we will look to work through that feedback with NYISO so any process changes can be implemented in next year's process," Ackerman said.

Comparatively, the 2021 budget was $167.4 million, allocated across 147.3 million MWh for a Rate Schedule 1 charge of $1.137/MWh.

NYISO's projected 2022 throughput represents a 2.7 million MWh increase, or up about 1.8% compared with the 2021 budget.

Dewey thanked Ackerman and stakeholders for helping make this year's budget planning "a fully collaborative, very useful and productive process."

Grid Planning Concerns

New York officials in September selected two projects — Clean Path NY and Champlain Hudson Power Express — under the Tier 4 renewable energy solicitation issued by the New York State Energy Research Development and Authority (NYSERDA). (See *Two Transmission Projects Selected to Bring Low-carbon Power to NYC*.)

One stakeholder said that it's clear that commencing service of the two Tier 4 projects would require thousands of megawatts of steam units in New York City and the lower Hudson Valley to shut down with no replacements in order for ISO markets to remain competitive for generators. He asked for assurances that the ISO will work to facilitate an efficient and appropriate exit of the steam units.

"We are committed," Dewey said. "And I can assure you that we will take all deliberate and meaningful steps to make sure that we maintain reliability."

Expressing a commitment to maintain the efficacy of the market signals, Dewey said that markets are a "very useful, powerful and necessary tool to attract and retain the kind of resources that we need to promote reliability, and also from a cost-effective standpoint for consumers, are the most efficient means to do that."

Another stakeholder asked why NYISO was not involved in the NYSERDA and E3 study to help the New York State Climate Action Council shape its scoping plan to reach the environmental goals outlined in the state's Climate Leadership and Community Protection Act (CLCPA). (See *New Analysis Sets Low-carbon Focus for NY Climate Plan*.)

"We have good communication with NYSERDA on a regular basis ... and I think that we're very open and transparent in terms of sharing the results of the studies that we have," Dewey said.

In addition, the scoping plan will be shaped into a final plan over the coming year, so NYISO and stakeholders will have plenty of opportunity to weigh in, said NYISO Executive Vice President Emilie Nelson.

CSR-related and Other Tariff Revisions

The Management Committee also recommended the Board of Directors approve tariff *revisions* related to implementation of co-located energy storage resources (CSR) injection and withdrawal scheduling limit constraints that accommodate CSR-generator specific operating parameters.

"In particular, as we were working to implement the CSR model, we recognized that there are unique situations where scheduling limits could actually be going up against other operating parameters," said Zachary Stines, manager of energy market design.

FERC in March accepted the ISO's rules allowing an energy storage resource to participate in the wholesale markets with wind or solar as a CSR, and NYISO has since been working on the market software. (See *FERC Approves NYISO Co-located Storage Model*.)

Language will be added to the applicable manuals (likely the Day-Ahead Scheduling Manual, Ancillary Services Manual and the Transmission and Dispatch Operations Manual) describing how the scheduling limits will interact with unit-specific constraints, such as ramp, upper operating limit and lower operating limit.

If approved by the board in November, NYISO will file the tariff changes with FERC and request a flexible effective date that is prior to year-end, Stines said.

The MC also approved tariff *revisions* related to implementing a revised approach to the current transmission constraint pricing logic.

The project seeks to develop enhancements to the current transmission constraint pricing logic to better align transmission demand force with the severity of transmission constraints, said Kanchan Upadhyay, energy market design specialist.

The proposal includes establishing a revised six-step transmission demand curve for facilities currently assigned a non-zero constraint reliability margin value. ■

PJM News

FERC Accepts PJM BRA Delays

By Michael Yoder

FERC on Oct. 25 approved PJM's request to delay the Base Residual Auction for the 2023/24 delivery year from Dec. 1 to Jan. 25, 2022, in response to the commission's order in September revising the RTO's market seller offer cap (MSOC) (*ER21-2877*).

The commission also granted PJM's request to delay the BRAs for 2024/25 from June 15, 2022, to Aug. 9, 2022; 2025/26 from Jan. 4, 2023, to Feb. 28, 2023; and 2026/27 from March 17, 2023, to Aug. 29, 2023. The order also delays the third Incremental Auction for delivery year 2023/24 from Feb. 27, 2023, to March 21, 2023.

PJM said in its filing that changing the dates was necessary to maintain the six-and-a-half-month gap between capacity auctions so that market participants "have sufficient time to review the results of each auction before deciding whether to continue offering a resource in the subsequent auction." (See *PJM Proposing 2-month Capacity Auction Delay*.)

"We agree with PJM that granting the requested waivers is necessary to ensure orderly auction administration and that, on balance, the benefits outweigh potential harms," the commission said.

PJM is expected to return to the normal, three-year forward schedule in May 2024 with the BRA for the 2027/28 delivery year.

Auction	AUCTION OPENING DATE Current	Proposed
2023/24 BRA	Dec. 1, 2021, Wed	Jan. 25, 2022, Tue
2022/23 Third IA	Feb.28, 2022, Mon	Feb. 28, 2022, Mon
2024/25 BRA	June 15, 2022, Wed	Aug. 9, 2022, Tue
2025/26 BRA	Jan. 4, 2023, Wed	Feb. 28, 2023, Tue
2023/24 Third IA	Feb. 27, 2023, Mon	March 21, 2023, Tue
2026/27 BRA	May 17, 2023, Wed	Aug. 29, 2023, Tue
2024/25 Second IA	July 31, 2023, Mon	July 31, 2023, Mon
2024/25 Third IA	Feb. 26, 2024, Mon	Feb. 26, 2024, Mon
2025/26 Second IA	July 15, 2024, Mon	July 15, 2024, Mon
2026/27 First IA	Sept. 9, 2024, Mon	Sept. 9, 2024, Mon
2025/26 Third IA	Feb. 24, 2025, Mon	Feb. 24, 2025, Mon
2026/27 Second IA	July 14, 2025, Mon	July, 14, 2025, Mon
2026/27 Third IA	Feb. 23, 2026, Mon	Feb. 23, 2026, Mon

Proposed date changes

PJM's updated RPM auction schedule through the 2026/27 delivery years | *PJM*

The commission is allowing PJM to use the monthly average day-ahead on-peak and off-peak energy prices that the RTO already calculated for the upcoming auction, rather than having it recalculate them to reflect the new date. PJM said the waiver was necessary to allow the pre-auction deadlines unrelated to the new offer cap rules to remain unchanged.

FERC also accepted PJM's previously proposed pre-auction deadlines impacted by the revised MSOC that relate to the 2023/24 delivery year auction: Oct. 1 for capacity market sellers to request must-offer exceptions and unit-specific offer caps, Oct. 31 for the Independent Market Monitor to review those requests and Nov. 25 for the RTO to make its final determination.

"We agree with PJM that these dates will allow sellers sufficient time to make their requests and preserve the pre-existing review timelines as much as possible," the commission said.

PJM's request was prompted by FERC's Sept. 2 order adopting the Monitor's unit-specific avoidable-cost rate proposal and requiring the RTO to revise its tariff (*EL19-47, EL19-63, ER21-2444*). The Monitor's proposal followed FERC's March order requiring PJM to revise the MSOC to prevent sellers from exercising market power in the capacity market. (See *FERC Backs PJM IMM on Market Power Claim*.)

The Public Utilities Commission of Ohio (PUCO) challenged PJM's filing, arguing that the proposed delays would harm the state's auction process for default service. Ohio's regulated electric distribution utilities "rely on a competitive bid auction process," which occurs after the BRA for the relevant delivery year, to procure generation service for non-shopping customers that "take service from their default electric service provider," it said.

FERC disagreed with PUCO's arguments, saying that the potential harm noted by the state commission was "outweighed by the benefits of ensuring the 2023/24 BRA is run under the new offer cap rules."

"We disagree with the Ohio commission that this waiver will cause additional uncertainty," FERC said. "To the contrary, granting additional time now will provide certainty to participants that they will have sufficient time to seek remedy from the commission if necessary." ■

Activity Type	Activity	Current Dates	Proposed Dates
Must Offer	Last day for Capacity Market Sellers to request must-offer exception for the reason specified under OATT Attachment M-Appendix § II.C.4.A	7/19/21, Mon	10/1/21, Fri
Sell Offer Caps	Last day for Capacity Market Sellers to submit sell offer cap data	8/3/21, Tue	10/1/21, Fri
Sell Offer Caps	IMM provides participant with determination of offer cap	9/2/21, Thu	10/31/21, Sun
Must Offer	IMM provides participant with determination on must offer exception	9/2/21, Thu	10/31/21, Sun
Sell Offer Caps	Last day for Capacity Market Sellers to notify PJM/IMM of agreement with IMM determination of offer cap	9/12/21, Sun	11/5/21, Fri
Must Offer	Last day for Capacity Market Sellers to notify PJM/IMM of agreement with IMM determination on must offer exception	9/12/21, Sun	11/5/21, Fri
Sell Offer Caps	PJM notifies participant/IMM of determination on proposed offer cap	9/27/21, Mon	11/25/21, Thu
Must Offer	PJM notifies participant/IMM of its determination on must offer exception for the reason specified under OATT Attachment M-Appendix § II.C.4.A	9/27/21, Mon	11/25/21, Thu
Must Offer	Last day for Capacity Market Sellers to notify PJM/IMM whether it intends to exclude from its Sell Offer some or all capacity from its generation resource on the basis of an identified exception to the RPM Must Offer Obligation	9/27/21, Mon	11/25/21, Thu

Current and proposed dates for the 2023/24 Base Residual Auction market seller offer cap-related pre-auction activities | *PJM*

PJM News

NJ Launches Grid Modernization Study

BPU Plans for Load Pressure in Switch to Clean Energy

By Hugh R. Morley

Rapidly growing solar and offshore wind generation will require a modernization of New Jersey's distribution interconnection process, the Board of Public Utilities (BPU) said Oct. 26 as it held the first *hearing* in a seven-month study of how best to prepare for the extra stress.

The agency said it plans to conclude the study in May with recommendations. The topics to be studied will include an assessment and modernization of the processing of interconnection requests, identifying the challenges with the current connection system and looking for ways to improve coordination with PJM, said Guidehouse, a global energy consultant hired to lead the project.

The BPU's *hearing notice* said the scope will include "the current distribution grid interconnection policies and process, and potential improvements that will enable faster grid modernization and higher levels of distributed energy resource (DER) absorption."

New Jersey law sets different review procedures for electric distribution companies: Level 1 for inverter-based customer generation of 10 kW or less; Level 2 for customer generation of 2 MW or less, and Level 3 for customer generation that doesn't qualify for Level 1 or 2.

The second hearing, on Nov. 16, will be devoted to testimony from environmentalists, energy developers, trade groups and other stakeholders on potential improvements. The BPU expects to have a draft report prepared for public review on March 1.

The initiative stems from the state's Energy Master Plan, and Gov. Phil Murphy's commitment to set the state on a path for 100% clean energy by 2050, said Jim Ferris, the BPU's bureau chief for new technology.

An 876-kW solar installation in Hopewell, N.J. As of August, almost 146,000 homes and businesses in New Jersey had installed solar power systems, according to the state Board of Public Utilities. | *Advanced Solar Products*

"To enable clean energy to be generated at an accelerated pace, and as effectively and efficiently as possible, New Jersey's interconnection rules and processes require updating," Ferris said as he opened the hearing. Modernization strategies outlined in the master-plan include "requiring utilities to establish integrated distribution plans and the modernization of interconnection standards," he said.

Clean Energy Growth

The 290-page *master plan* describes grid modernization as the "backbone on which all other efforts to transition to a clean energy economy will rely." The plan sets a goal of 32 GW of solar generated electricity, 11 GW of offshore wind and 9 GW of storage by 2050.

The state currently has about 3.65 GW of solar energy generating capacity, and the BPU has awarded offshore wind contracts totaling 3.758 GW, including 2.658 GW awarded in June. (See *NJ Awards Two Offshore Wind Projects*.) The BPU expects to make three more rounds of offshore wind awards by 2033 for a total of 7.5 GW.

Industry stakeholders, among them developers and environmentalists, welcomed the BPU's initiative in seeking stakeholder input into the modernization process.

Under the current process, a customer proposes a clean energy project and submits an interconnection application and agreement to tie the resulting project into the grid. The electric distribution company (EDC) then identifies and installs network upgrades, if needed, and the customer receives approval to install the project. After a final inspection, the developer seeks approval to operate.

Eric Miller, energy policy director in New Jersey for the Natural Resource Defense Council, encouraged the BPU to look beyond the interconnection process and consider a broader array of issues. Factors such as the charging load from electric vehicles and building electrification, energy storage, demand response, and peak load reduction should all be considered in the modernization discussion, he said, adding that "it touches on everything that's grid connected or could interact with the grid."

Steven S. Goldenberg, representing the New Jersey Large Energy Users Coalition, said one difficulty for solar developers is that while the BPU initiates a two-year timeline from the start of a project to approval, PJM operates on a timeline as long as three years. "So, the disconnect can be critical for certain project developers."

Questions over Resources, Timelines

Fred DeSanti, executive director of the New Jersey Solar Energy Coalition, said a key concern of his members is what they see as the lack of resources at EDCs to handle the growing number of solar connections that need to be made, which results in significant project delays.

"It's a huge problem because of the number of applications," he said. While the EDCs are responsible for interconnections, the resulting increase in solar energy could reduce demand for the EDC's power, he said.

"What we're asking them to do is to hire more people and to put resources in so that they can get less revenues," he said. "It's an irrational process."

DeSanti said his organization would also like the hearings to focus on "cost sharing," with an aim of creating a set of standardized per-KW fees paid by developers, with the understanding that costs not covered by that would be borne by ratepayers.

Scott Elias, senior manager of Mid-Atlantic state affairs for the Solar Energy Industries Association, said that as the number of projects arriving at the EDCs grows — especially larger and more complex developments — there is a need for the utilities to "pre-screen" them to assess the interconnection costs in advance.

"We've seen this play out in other states where this helps reduce the number of speculative applications and it also helps prioritize projects," he said. He also suggested that the state set up a uniform set of interconnection fees for solar projects based on market segment type and size.

"What we need is to provide certainty to developers of big systems, that their interconnection costs will be manageable and give them the security they need to move forward with their projects," he said. ■

PJM News

AEP to Sell Kentucky Operations to Algonquin

American Electric Power on Oct. 26 *said* it has entered into an agreement to sell its Kentucky operations to Algonquin Power & Utilities for $2.85 billion.

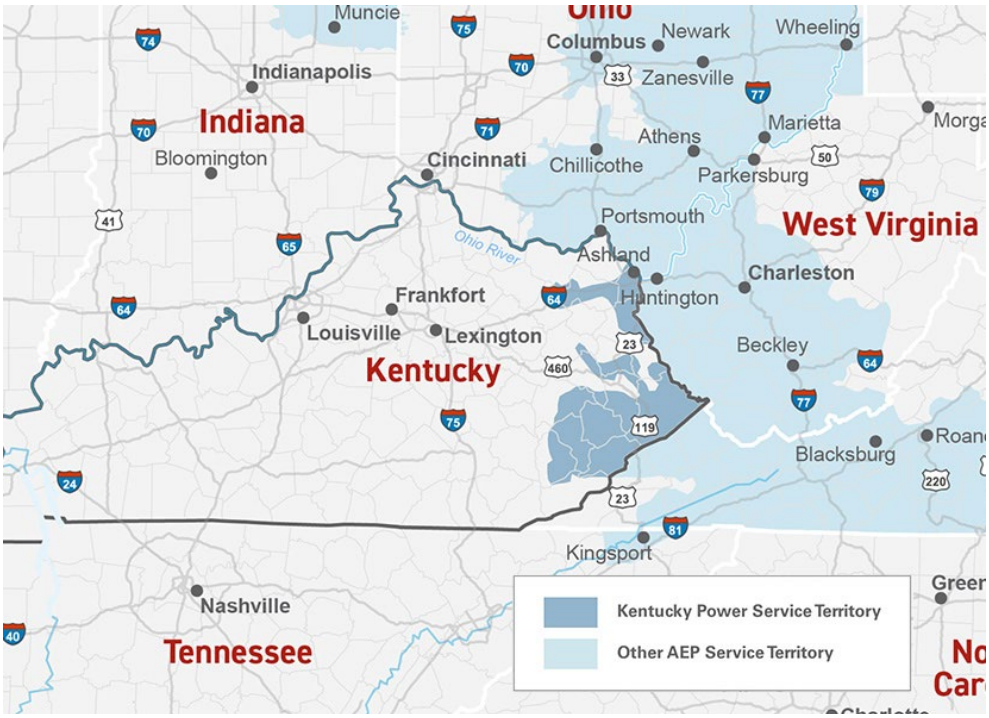
Kentucky Power serves about 165,000 customers in 20 eastern counties and is easily the smallest of AEP's seven operating companies. AEP Kentucky Transco is a regulated transmission business operating exclusively in the state.

Algonquin's regulated utility business, Liberty Utilities, will acquire both subsidiaries. The sale is expected to close in the second quarter of 2022, pending regulatory approvals.

AEP said it expects to net approximately $1.45 billion in cash after taxes and transaction fees. Its CEO, Nick Akins, said the sale strengthens the Columbus, Ohio-based company's "ability to invest in projects that will support a resilient, cleaner energy system."

The transaction's proceeds will be used to eliminate AEP's forecasted equity needs in 2022 as the company invests in regulated renewables, transmission and other projects, the company said.

Kentucky Power owns 1,075 MW of generation, including Big Sandy, a 295-MW gas-fired facility that burned coal as late as 2015. It also operates and owns 50% of the 1.56-GW coal-fired Mitchell plant.



AEP's Kentucky footprint | *AEP*

The sale must be approved by Kentucky regulators and FERC and is also subject to clearance under the Hart-Scott-Rodino Antitrust Improvements Act of 1976 and from the Committee on Foreign Investment in the United States.

AEP said in April it was conducting a strategic review of its Kentucky operations. It held a competitive process as part of the review. (See *AEP's Akins Lambasts FERC's RTO Adder Proposal in Earnings Call*.) ■

— Tom Kleckner

PJM News

FirstEnergy Close to Selling an Interest in its Transmission Co.

Sale Would Avoid Issuing New Common Equity

By John Funk

FirstEnergy is close to a deal with "quality investors" to sell a minority interest in its profitable transmission company, officials said Friday during the company's third quarter earnings call.

"Currently, we are engaged in a process to sell a minority interest in our transmission holding company, FirstEnergy Transmission," CFO Jon Taylor told analysts. FET owns American Transmission Systems Inc., Mid-Atlantic Interstate Transmission and Trans-Allegheny Interstate Line.

"The interest is very strong, and preliminary indications are very supportive of our financial plan and targets. But given where we are in the process, we can't comment any further on the details," he said.

When pressed later in the call for more detail, Taylor declined to give specifics but described the investors potential buyers as "top-notch quality firms.

"And they're very supportive of the business plan and very supportive of future transmission opportunities," he added.

Published reports since the company's second quarter earnings call in August when the sale of a minority interest came up have estimated FirstEnergy could sell nearly a 20% interest in the transmission company for as much as $2.5 billion.

The company broached the idea in April, telling analysts during the first quarter earnings call that selling a minority interest in one of its subsidiaries — as Duke Energy sold 19.9% interest in its Indiana subsidiary — was something it might consider as a way to raise cash without issuing common equity.

Rating agencies downgraded FirstEnergy credit ratings to "junk status" in November 2020 after some of its subsidiaries borrowed $2 billion from a revolving credit facility.

The company last month completed a reorganization of the credit facility, prompting an S&P rating uptick back to investment status for the corporation's 10 utilities and three transmission companies. S&P kept a "credit watch" on the companies, however.

"The 2021 credit facilities provide for aggregate commitments of $4.5 billion and are available until October of 2026," Taylor said.

"While we're glad to return to investment grade ratings for these companies with all three rating agencies, we remain committed to improving our balance sheet and the overall credit profile at the parent company," Taylor said.

Key to that is achieving a 13% ratio of funds from operations (FFO) to debt, and the company will do that, he said.

"During the fourth quarter, we expect to provide you with 2022 guidance and a detailed capital plan along with the runway of our FFO to debt target, longer term capital forecasts and targeted rate base and earnings growth rates," Taylor said.

The Perry nuclear plant in Ohio | *Nuclear Regulatory Commission*

The Numbers

FirstEnergy reported third quarter earnings of $463 million ($0.85/share) on revenue of $3.1 billion.

In the third quarter of 2020, the company earned $454 million ($0.84/share) on revenue of $3 billion.

Excluding the impact of one-time or special charges or credits, the company earned $0.82/share — exceeding the top end of the company's guidance. In the third quarter of 2020, operating earnings were $0.84/share.

FirstEnergy updated its full-year 2021 earnings forecast range to $1.17 billion to $1.22 billion ($2.14 to $2.24/share).

The company expects cash from operations for the year of about $2.8 billion. That total includes expenses such as the $230 million fine the company paid the Justice Department in a plea deal to avoid prosecution in the $61 million bribery probe, which the DOJ has continued.

FirstEnergy announced Monday after the close of business that it had agreed to settle a yearslong battle with the Ohio Consumers' Council, the Northeast Ohio Public Energy Council and eight other consumer and business groups over extra charges levied since 2013.

The company filed a negotiated stipulation settling 10 separate cases pending before the Ohio Public Utilities Commission. The agreement, which must be approved by the commission, calls for FirstEnergy to refund $306 million, some of that in immediate cash refunds.

The deal, supported by the staff analysts at the PUC, calls for FirstEnergy's Ohio utilities to refund $96 million (which includes interest) related to the utilities' 2017-2019 annual excessive earnings review.

Residential customers would receive a one-time bill credit of about $27. Commercial and industrial customers would be given a credit of about $2.60/MWh used over six months. The remaining $210 million would be refunded as bill credits from 2022 through 2025. ■

PJM News

FERC's Christie Promotes State Perspectives at OPSI Conference

By Michael Yoder

As someone who spent close to two decades as a state regulator, FERC Commissioner Mark Christie said he can't help but look at federal administrative issues through a local lens.

Christie, who joined the commission in January after 17 years with the Virginia State Corporation Commission (SCC), told attendees of the Organization of PJM States Inc.'s (OPSI) virtual annual meeting last week that his tenure as a state regulator and past OPSI president taught him "how much I do not know" about regulatory issues.

No one understands better the challenges, problems and opportunities of utility regulation on a local basis than state commissioners, Christie said, calling it a "practical perspective" that has allowed him to realize each state has different challenges on reliability issues, costs of projects and market development.

Christie said in his keynote address that it's important as a FERC commissioner to be sensitive to the differences between states and regions of the country.

"Utility regulators in each state know more than I'll ever know or anybody here at FERC will ever know," Christie said. "That's exactly how federalism works."

Federal vs. Local Control

Delaware Public Service Commissioner and current OPSI President Harold Gray asked Christie his impression of the infrastructure

Harold Gray, OPSI | *OPSI*

Mark Christie, FERC | *OPSI*

legislation pending in Congress and if any new rules and regulations in it could create bigger challenges for FERC.

Christie said the "devil's always in the details" in understanding the impact of legislation, and he still wasn't sure how the bill will ultimately pan out. He said his time in Virginia taught him to expect the unexpected when it came to legislation, but that whatever passes must be implemented regardless of whether regulators think it's a good idea or not.

One idea Christie said he's "not a fan" of is the concept of the federal bureaucracy overriding state transmission siting. He said there's been a big push lately among some lawmakers and stakeholders to give the federal government override authority because of a perceived notion that states are standing in the way of building new transmission and developing the grid of the future.

"The state regulators are not the obstacle to siting large regional transmission lines," Christie said.

As an example, Christie cited the "very controversial" Trans-Allegheny Interstate Line (TrAIL) project, a 165-mile, 500-kV transmission line that crossed Pennsylvania, West Virginia and Virginia beginning in 2008. He said TrAIL remains the largest regional line in PJM's portfolio.

Christie said he remembers sitting in meetings across Virginia as residents expressed their displeasure with the project, but the developers were ultimately able to make their case for its need.

"Need was proven in the TrAIL case, and it got built," Christie said. "If you can prove need, I'm optimistic that they will get built. But you've got to go into a state regulator and prove that need."

Christie said he hears rhetoric from Congress members and other interested stakeholders that all it takes is one state official to "kill a vitally needed power line," but he disagrees: It takes a commission to decide after having a quasi-judicial proceeding where evidence is presented.

Federal siting authority could also prove to be detrimental, creating massive political backlash to the federal government stepping in to decide local issues, he said.

The TrAIL project wasn't a greenfield line requiring eminent domain, but instead used existing rights of way, and it still created controversy. Greenfield projects approved by a federal agency could prove to be even more controversial, he said.

"You seriously think that there's not going to be a huge political blowback having a federal official just order something to be built?" Christie asked. ■

PJM News

Overheard at OPSI 2021 Annual Meeting

The future of the electrical grid, the challenges of modernizing transmission systems and the adoption of new market rules to address PJM's changing generation mix were front and center during last week's annual meeting of the Organization of PJM States Inc. (OPSI).

Held virtually for the second year in a row because of safeguards concerning the COVID-19 pandemic, the two-day conference featured panel discussions with PJM officials and stakeholders on work being done to advance the grid of the future while maintaining reliability and stable markets and meeting state decarbonization goals.

Delaware Public Service Commissioner and OPSI President Harold Gray said state regulatory commissioners are facing major challenges that need to be addressed.

"Every OPSI commissioner is going to need to reconcile their state's policies with a changing grid of the future and decarbonization drivers," Gray said.

Resilience and Reliability in Transmission Planning

Michael Richard, Md. PUC | *OPSI*

Beth Trombold, vice chair of the Public Utilities Commission of Ohio, and Maryland Public Service Commissioner Michael T. Richard served as moderators of a panel discussing possible changes to PJM's transmission planning, interconnection and cost allocation processes to better accommodate renewable generation.

Richard focused on comments made by stakeholders in the FERC Advance Notice of Proposed Rulemaking filed in October. (See *FERC Tx Inquiry: Consensus on Need for Change, Discord over Solutions*.) He said the ANOPR provided an opportunity for stakeholders to work together to "reimagine" what the grid of future may look like while discussing issues like transmission planning and oversight and wait times for projects in the development queue.

Richard asked the panelists what they hope the FERC commissioners will remember or take away from their comments filed in the ANOPR.

A major focus of PJM's comments was around the idea that resilience and reliability have to be "foundational and core to everything that we do," said Ken Seiler, vice president of planning for PJM.

Ken Seiler, PJM | *OPSI*

The RTO solicited ideas from stakeholders to find the "major areas of focus," Seiler said, with members singling out continued interconnection changes as a significant work effort. The RTO's current interconnection queue is composed of 93% renewable resources, Seiler said, and stakeholder efforts are aiming to generate better cost certainty for interconnection customers while moving projects through the queue faster and more efficiently.

"It's absolutely critical that we reform this process to generate much more cost certainty for the interconnection customers and certainly move projects through the queue much, much quicker," Seiler said.

Sharon Segner, LS Power | *OPSI*

Sharon Segner, vice president of LS Power, said the "historic link" between regional planning and regional cost allocation and competition should be "revisited," calling for a national bright-line test to be applied and for all transmission lines 100 kV and above to be regionally planned. She also suggested transmission lines below 100 kV but that have regional benefits to two or more utilities should also receive regional planning.

"The grid of the future must be regionally planned and planned by independent entities," Segner said.

Reliability in Operations

Indiana Utility Regulatory Commissioner David Ober served as moderator of a panel discussing new products that may be necessary to ensure reliability with the changing generation mix in PJM.

David Ober, IURC | *OPSI*

Emanuel Bernabeu, PJM | *OPSI*

Emanuel Bernabeu, director of PJM's applied innovation and analytics department, said the energy industry has endured multiple transitions that have all disrupted markets in the past. But the new transition to renewable resources is "special" and unique, including the physics of generation that is evolving from spinning processes to inverters and controllers. He also noted the variable behavior of renewable resources, their economics with high capital investments and zero marginal costs, and the "new balance" between centralized generation and renewable resources.

PJM is currently conducting renewable integration studies to analyze and better understand operational and market impacts of the renewable transition, Bernabeu said, as a strong foundation on simulation scenarios is "going to be critical" into the future to understand reliability issues.

"We don't have a list set in stone on what exactly are those products that we need to develop," Bernabeu said. "We think we have some idea, but as always we're going to work with stakeholders, states, academia and research institutes to really form and shape what these new products ought to be going forward in the future."

Marji Philips, LS Power | *OPSI*

Marji Philips, vice president of wholesale market policy for LS Power, said PJM will need to maintain existing generation resources if the accelerated drive to electrify different sectors of the economy continues. Philips said there's a "good chance" an even greater amount of investment will be needed to maintain grid reliability.

A need for products to support the changing grid requires a "reconsideration" of the capacity market to also ensure reliability and resource adequacy, Philips said, while products are needed that are flexible and able to respond quickly to dispatch instructions, fuel secure and can continuously operate "beyond a few hours" while providing reserves.

PJM News

"Enhancing existing market rules to incent market participants to invest in resources with needed reliability attributes will result in the right outcome for both investors and consumers," Philips said.

Paul Sotkiewicz of E-Cubed Policy Associates stressed the importance for stakeholders to understand when looking at the changing generation mix, there isn't a need to get "reliability value" out of zero-carbon-emitting resources if it's not feasible for them to reach complete reliability.

Sotkiewicz said he worries that if reliability issues aren't thought through carefully, the transition to more renewable resources could lead to serious economic and emergency events like ones seen recently in CAISO and ERCOT. He said the industry won't "get a second chance" to make a transition to renewables if the public perception about their reliability is damaged.

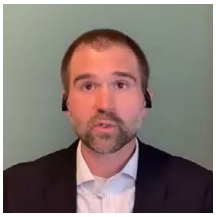
"We have to worry about costs, but we also have to be realistic about reliability," Sotkiewicz said. "If we don't get the reliability piece right, it doesn't matter what the costs are because the costs of lost load are going to be far greater."

The Evolving Markets

Joe DeLosa, NJBPU | *OPSI*

Joe DeLosa, bureau chief of federal and regional policy for the New Jersey Board of Public Utilities, moderated a panel on how capacity market rules need to be revised to accommodate renewable resources.

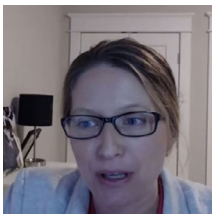
DeLosa said related issues are taking center stage in PJM with the newly created Resource Adequacy Senior Task Force endorsed at the October Markets and Reliability Committee meeting. (See "Resource Adequacy Charter Approved," *PJM MRC/MC Briefs: Oct. 20, 2021*.) He said the OPSI board recently developed its own *Competitive Policy Achievement Staff Working Group* to continue stakeholder dialogue on capacity market rules.



Adam Keech, PJM | *OPSI*

Adam Keech, PJM's vice president of market design and economics, said the decarbonization issue is "full of challenges" in the markets. Keech said that it's important to remember that the capacity market is "not the only tool" that exists to tackle the complexities of decarbonizing the energy sector.

"In continuing to think about solutions in terms of the combined effect of the capacity and energy markets, I think it's critical to make sure that we do decarbonization in the least cost and the best and most efficient sense that we can," Keech said.



Kathleen Spees, The Brattle Group | *OPSI*

Kathleen Spees, principal at The Brattle Group, spoke about options for the creation of a regional clean energy or capacity market. Spees said a "wide variety" of state clean energy policies exist in PJM, ranging from states with accelerated decarbonization goals to states with no plans for decarbonization.

A regional clean energy marketplace can "add value" to all the states and customers in the region, Spees said, harnessing competition to achieve sustainability goals. She said the value of the energy market is to amplify the capability of the competitive marketplace to "offer low-cost solutions" to customers and have a regional scope of reliability.

"It's becoming more and more clear that we need to take the regional scope and footprint into account in order to help all the states achieve their policies cost effectively," Spees said.

Pete Fuller, principal of Autumn Lane Energy Consulting, said discussions of changes to capacity market rules need to include all of PJM's markets. The decarbonization of the grid on a "very wide scale" presents new challenges for markets, and PJM and stakeholders need to think beyond winter and summer peaks and begin thinking about "minute-by-minute" situations on the grid, he said.

"When we move to that kind of a system, the old planning paradigms and the old operational paradigms no longer necessarily hold," Fuller said. ■

— Michael Yoder

| © RTO Insider LLC

PJM News

FirstEnergy Close to Selling an Interest in its Transmission Co.

Sale Would Avoid Issuing New Common Equity

By John Funk

FirstEnergy (NYSE:FE) is close to a deal with "quality investors" to sell a minority interest in its profitable transmission company, officials said Friday during the company's third quarter earnings call.

"Currently, we are engaged in a process to sell a minority interest in our transmission holding company, FirstEnergy Transmission," CFO Jon Taylor told analysts. FET owns American Transmission Systems Inc., Mid-Atlantic Interstate Transmission and Trans-Allegheny Interstate Line.

"The interest is very strong, and preliminary indications are very supportive of our financial plan and targets. But given where we are in the process, we can't comment any further on the details," he said.

When pressed later in the call for more detail, Taylor declined to give specifics but described the investors potential buyers as "top-notch quality firms.

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

"And they're very supportive of the business plan and very supportive of future transmission opportunities," he added.

Published reports since the company's second quarter earnings call in August when the sale of a minority interest came up have estimated FirstEnergy could sell nearly a 20% interest in the transmission company for as much as $2.5 billion.

The company broached the idea in April, telling analysts during the first quarter earnings call that selling a minority interest in one of its subsidiaries — as Duke Energy sold 19.9% interest in its Indiana subsidiary — was something it might consider as a way to raise cash without issuing common equity.

Rating agencies downgraded FirstEnergy credit ratings to "junk status" in November 2020 after some of its subsidiaries borrowed $2 billion from a revolving credit facility.

The company last month completed a reorganization of the credit facility, prompting an S&P rating uptick back to investment status for the corporation's 10 utilities and three transmission companies. S&P kept a "credit watch" on the companies, however.

"The 2021 credit facilities provide for aggregate commitments of $4.5 billion and are available until October of 2026," Taylor said.

"While we're glad to return to investment grade ratings for these companies with all three rating agencies, we remain committed to improving our balance sheet and the overall credit profile at the parent company," Taylor said.

Key to that is achieving a 13% ratio of funds from operations (FFO) to debt, and the company will do that, he said.

"During the fourth quarter, we expect to provide you with 2022 guidance and a detailed capital plan along with the runway of our FFO to debt target, longer term capital forecasts and targeted rate base and earnings growth rates," Taylor said.

The Numbers

FirstEnergy reported third quarter earnings of $463 million ($0.85/share) on revenue of $3.1 billion.

In the third quarter of 2020, the company earned $454 million ($0.84/share) on revenue of $3 billion.

Excluding the impact of one-time or special charges or credits, the company earned $0.82/share — exceeding the top end of the company's guidance. In the third quarter of 2020, operating earnings were $0.84/share.

FirstEnergy updated its full-year 2021 earnings forecast range to $1.17 billion to $1.22 billion ($2.14 to $2.24/share).

The company expects cash from operations for the year of about $2.8 billion. That total includes expenses such as the $230 million fine the company paid the Justice Department in a plea deal to avoid prosecution in the $61 million bribery probe, which the DOJ has continued.

The company is also facing four separate investigations at the Ohio Public Utilities Commission that could result in refund judgements.

CEO Steven Strah said the company is taking a collaborative approach in dealing with regulators. "We're engaged in settlement discussions with a broad range of parties to resolve several of our pending cases before the PUCO.

"Our meetings continue to be productive, and we're making good progress. We are also making progress on the Ohio corporate separation, DMR (distribution modernization rider) and DCR (delivery capital recovery) audits," he said.

"The corporate separation audit report was filed on Sept. 13 and showed no findings of major noncompliance," he said.

The initial DCR audit recommended the company reimburse Ohio customers more than $6 million. The audit was then expanded.

"The expanded DCR audit report is due by Nov. 19. And we continue to work through the DMR audit, which is now due on Dec. 16," Strah said.

Pointing to a new top management team and expanded scrutiny by the board of directors, Strah said the company is rebuilding itself. "Together, we are building positive, sustainable momentum, and creating a new FirstEnergy that is a forward thinking and industry-leading company." ■

PJM News

MOPR Rehearing Requests Set Stage for Appellate Review

Danly Calls PJM Rule `Irredeemably Inconsistent' with Federal Power Act

By Michael Yoder

PJM's narrowed minimum offer price rule (MOPR), which took effect Sept. 29 after a 2-2 FERC deadlock, is likely headed for an appellate court review.

Vistra, Old Dominion Electric Cooperative, the Electric Power Supply Association and regulators from Ohio and Pennsylvania filed rehearing requests challenging PJM's "focused" MOPR last week, after FERC Commissioner James Danly issued a statement explaining his opposition to it (ER21-2582).

Danly and fellow Republican Mark Christie opposed the RTO's proposal, with Danly calling it "irredeemably inconsistent" with the just and reasonable requirement under Section 205 of the Federal Power Act.

FERC Chair Richard Glick and Commissioner Allison Clements, both Democrats, supported PJM's filing, which limited the MOPR to resources connected to the exercise of buyer-side market power or those receiving state subsidies conditioned on clearing PJM's capacity auction.

PJM had expanded the MOPR in response to a December 2019 FERC ruling saying it should apply to all new state-subsidized resources to combat price suppression (EL16-49, EL18-178). Then-Chair Neil Chatterjee and fellow Republican Bernard McNamee formed the 2-1 majority. Glick, who dissented, asked PJM to undo the rule after he was named chairman by President Biden in January.

If the 2-2 deadlock on the focused MOPR persists, FERC would be unable to order rehearing. But by requesting a second look, the filing parties have preserved their ability to challenge the rule in federal appellate court.

D.C. Public Service Commissioner Willie L. Phillips, who has been nominated for FERC's vacant fifth seat, is scheduled for a confirmation vote by the Senate Energy and Natural Resources Committee Nov. 2. But even if Phillips is confirmed in time to vote on the issue, he might be forced to recuse himself because the PSC filed comments supporting PJM's proposal.

Danly said PJM's proposal should have been rejected because it eliminated "all mitigation of the price-suppressive effects of state subsidies." The proposal, filed by the PJM Board of Managers on July 30, became effective "by operation of law" under Section 205 when the commission failed to act on it within 60 days. (See FERC Deadlock Allows Revised PJM MOPR.)

Artist's conception of the northern edge of Ørsted's 1,100-MW Ocean Wind project, which won the New Jersey Board of Public Utilities' first offshore wind power solicitation in 2019. Opponents of PJM's narrowed MOPR say state-supported generation will suppress capacity prices | *Ørsted, PSEG*

"By allowing this filing to be accepted by operation of law, the commission has abandoned its responsibility to mitigate price suppression by state subsidies, which PJM's filing characterizes as not involving 'actual' market power," Danly said.

Glick and Clements filed a joint statement on Oct. 19 in support of PJM's MOPR proposal, saying the commission's past decision on PJM's expanded MOPR "created a Byzantine system of administrative pricing — unprecedented in both scope and complexity — that would have imposed on consumers billions of dollars in unjustified costs." (See 'Good Riddance' to Old PJM MOPR, Glick Says.)

Commissioner Mark Christie issued his own statement on the MOPR proposal, saying the expanded MOPR needed "to be replaced or significantly modified" because it was "simply unsustainable" but that the resulting PJM proposal was a "flawed and rushed result of an 'expedited' stakeholder process."

In his comments, Danly said because the scope of the commission's inquiry is "narrow" when evaluating proposed tariff revisions under Section 205, it is "unnecessary to respond to all of the arguments set forth in my colleagues' statements.

"My decision not to respond to a particular argument should not be read as acquiescence," Danly said. "Similarly, litigants seeking rehearing also need not feel compelled to reply to specific arguments presented in the commissioners' statements. Though required by law, the statements are legally irrelevant. Because there is no commission determination or reasoning in an actual commission order, the arguments that litigants must 'urge before the commission' on rehearing to ensure preservation should probably be rooted in first principles, case law, and reference to the contents of PJM's filing."

Danly's Arguments

Danly said he believed the current case was not about whether PJM's expanded MOPR was just and reasonable, but whether the RTO demonstrated that the focused MOPR was just and reasonable.

Danly also argued that the expanded MOPR was not the "only acceptable means by which to establish the necessary safeguards against the price-suppressive effects of state subsidies that are required to ensure a just and reasonable capacity market." He said the commission in the past has found various approaches to address price suppression on RTO capacity markets, and the decisions were

PJM News

upheld by the federal courts, citing the 2018 D.C. Circuit Court of Appeals denial of NextEra Energy's petition to review FERC orders allowing *ISO-NE* to exempt a limited volume of state-sponsored renewable resources from its MOPR. (See *DC Circuit Upholds ISO-NE MOPR Exemption*.)

"Those approaches were upheld, in part, because the commission balanced competing interests when evaluating those proposals and determined that the exemptions afforded to state subsidies would not have had a sufficiently significant effect on capacity market prices to require mitigation," Danly said. "… I am unaware of the commission ever finding it appropriate to grant a blanket exemption to state-supported resources from the buyer-side market power mitigation provisions applied to RTO capacity markets."

Because PJM's member states have varying policies regarding their favored generation mix, the focused MOPR "could cause different states to consider leaving PJM," Danly said.

"The bottom line is this: the focused MOPR will allow state subsidies to suppress capacity prices, depriving needed dispatchable generation of the revenue required to remain in service," Danly said. "PJM will be unable to discharge its responsibility to ensure resource adequacy as those generators leave the market — reliability will suffer as a result. This cannot be just and reasonable."

Rehearing Requests

In their joint rehearing *request* the Pennsylvania Public Utility Commission and the Public Utilities Commission of Ohio said that the "failure" of FERC commissioners to issue "timely statements explaining their positions as to the lawfulness of PJM's proposal substantially diminishes the rehearing and appeal rights of parties." The state commissions noted that parties are only given 30 days to file rehearing requests, and any issues not raised in the rehearing requests are waived and cannot be raised on appeal.

The state commissions cited Christie's statement that the PJM proposal did not create a "market based on the central principle of non-discriminatory competition on a level-playing field," but instead it created "a rent-seekers' paradise in which consumers lose" because "the winners and losers are determined by which interest groups' lobbyists can obtain the biggest subsidies from politicians."

"Pennsylvania and Ohio do not simply rely on a well-functioning and competitive capacity market in PJM to assist them in meeting their individual resource adequacy obligations — they are entirely dependent on it, having spent the last two decades restructuring the electric industry in their respective states and building a vibrant retail electricity market," the commissions said.

The Electric Power Supply Association (EPSA) said in its rehearing *request* that the "one-sided approach taken by PJM" and "embraced" in the joint statement of Glick and Clements was "contrary to law in that it does not reflect the statutorily and constitutionally required 'balancing of the investor and the consumer interests.'"

EPSA said Glick's and Clements' analysis in their comments was "contrary to law" because the Federal Power Act requires the commission to "protect the integrity of the wholesale capacity market and thereby to ensure that this market does not allow subsidizing states to shift the costs of their policy choices onto other states."

Old Dominion Electric Cooperative *argued* that PJM's tariff revisions to accommodate public power in the buyer-side market power provision could be interpreted to cover only some electric cooperatives. ODEC said PJM proposed an accommodation for public power as a self-supply seller, a "new definition" requiring the subject resource be "demonstrated as consistent with or included in the self-supply seller's long-range resource plan" that is approved by a relevant electric retail regulatory authority (RERRA).

"This provision could be interpreted to exclude certain electric cooperatives, such as those subject to regulation by FERC as opposed to the states," ODEC said.

Vistra (NYSE:VST) said in its rehearing *request* that the commission's acceptance of PJM's proposal "eliminates any meaningful protections" addressing the exercise of buyer-side market power by the states. Vistra said PJM's proposal also "fails to provide a minimum degree of clarity" about when the MOPR will be applied to address buyer-side market power.

The commission must act on rehearing to address the fatal infirmities of the revised MOPR," Vistra said.

The PJM Power Providers Group, which filed a rehearing request on Oct. 5, filed comments last week saying the Glick-Clements statement "is riddled with inaccurate and internally inconsistent claims that fall far short of reasoned decision-making under the Administrative Procedure Act." ■

FERC Commissioner James Danly | © *RTO Insider LLC*

SPP News

SPP, Members Begin Response to February's Winter Storm

Stakeholders Again Call for Greater Coordination, Collaboration with Gas Industry

By Tom Kleckner

SPP staff and stakeholders agreed last week on the need for greater collaboration and coordination between the electric and gas industries as they begin the work of addressing the root causes that led to the first load sheds in the RTO's 80-year history during February's winter storm.

The discussion picked up where the Markets and Operations Policy Committee left off earlier last month, when Texas-based stakeholders complained they had firm contracts for fuel deliveries that were negated by *force majeure*. (See *SPP Markets and Operations Policy Committee: Oct. 11-12, 2021*.)

"This happened in 2011, and it will happen again," Southwestern Public Service President David Hudson said during a joint quarterly stakeholder meeting Oct. 25, referring to a less severe winter storm that also led to rolling blackouts in Texas. "That's one of the biggest things hiding in the tall grass that's not being addressed."

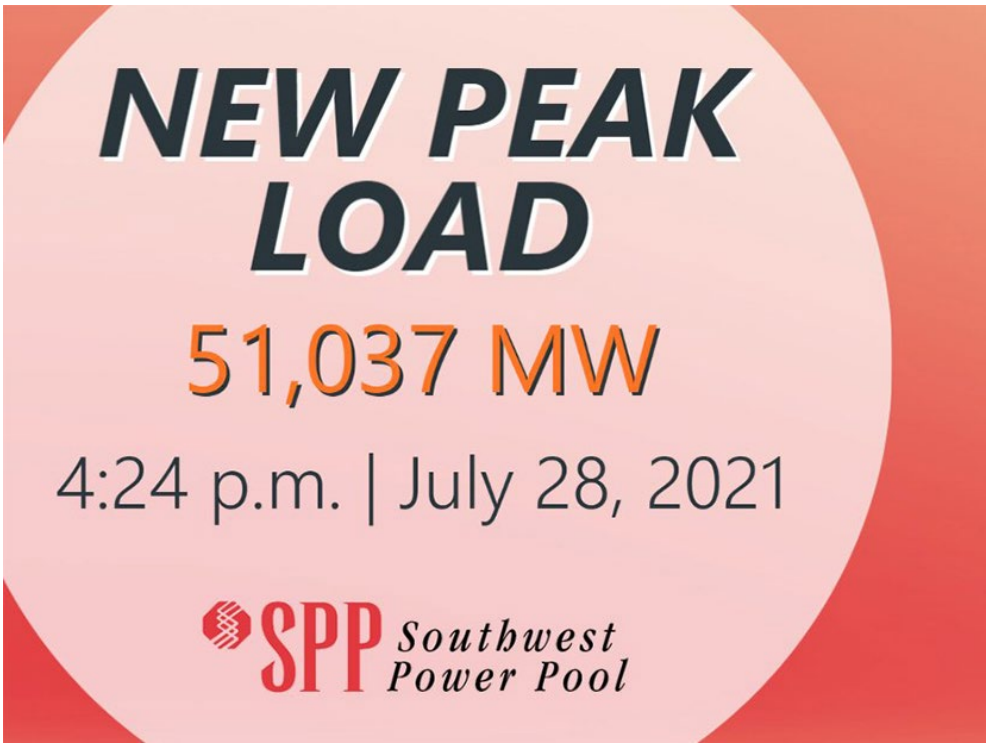
"We can do everything we can to promote coordination between the industries, but better coordination only gets us so far," Kansas Corporation Commissioner Andrew French said. "The winterization and the lack of production is the bigger issue."

French said FERC's and NERC's preliminary report on the storm contained numerous "aspirational goals" that individual states begin winterizing all their equipment. The agencies' joint inquiry placed much of the blame on the natural gas industry's failure to perform. (See *FERC, NERC Share Findings on February Winter Storm*.)

"No state is going to step forward and place costs on their producers absent an act of Congress, and I don't think we can rely on it," French said.

North Dakota Public Service Commissioner Randy Christmann pointed out that northern energy facilities have been weatherizing for years, but that it doesn't make sense to do so in southern states "because of the costs of winterization … for those few days when it's needed."

"We almost seem to be resigning ourselves that we can't do much about gas weatherization," said Dave Osburn, Oklahoma Municipal Power Authority's general manager. "I just hope we as an industry don't let the issue go. We have to continue to push this issue, because we certainly don't want to live through another event like this."



SPP set a new demand peak this summer. | *SPP*

To that end, SPP COO Lanny Nickell said staff and stakeholders have begun developing recommendations addressing the February outages' root causes. The Board of Directors ordered the work begin immediately when they accepted SPP's report on the winter storm in July. (See "Grid Operator Releases Report on Performance During Winter Storm," *SPP Board of Directors/Members Committee Briefs: July 26-27*.)

Arkansas Public Service Commission Chair Ted Thomas is leading a *task force* working on issues related to fuel assurance and resource planning and availability, which the report identified as a Tier 1 issue. The Improved Resource Availability Task Force (IRATF) will report to the board and the Regional State Committee and publish monthly status reports on its work. The group will review staff's potential solutions and recommendations, provide direction and coordinate with other stakeholder groups as necessary.

"It's like Thanksgiving when all the food hits the table at the same time," Thomas said. "You keep the wet stuff wet, the hot stuff hot and the cold stuff cold."

He said the IRATF's first efforts could include identifying crucial gas infrastructure that is connected to the electric system, similar to Texas' attempt to map critical infrastructure.

Nickell said the report's 81 Tier 2 and Tier 3 initiatives are all in progress, except for those related to transmission planning. The work will be prioritized, tracked and reported through SPP's *comprehensive roadmap* process, which sets the grid operator's initiatives over the next two to five years.

"We don't want to wait on FERC and NERC," Nickell said, noting that SPP's effort "aligns pretty well" with the agencies' final report.

Completing all the initiatives is expected to last several years, Nickell said.

"As we go forward with the initiatives, we're going to have to be clear about what SPP can do and cannot do and who has authority over the gas system," Nebraska Power Review Board Member Dennis Grennan said. "We're going to have to be very, very clear about how far SPP can go with its solutions."

SPP News

SPP Sets New Summer Peak

Bruce Rew, SPP's senior vice president of operations, told stakeholders that the RTO set a new summer peak load of just over 51 GW on July 28, surpassing the previous record of 50.7 GW set in August 2019.

SPP called for conservative operations July 29-30 as summer heat continued to bake the Great Plains. Wind energy reached a high output of 20.7 GW on Aug. 8, accounting for 52.2% of SPP's load at the time. Wind penetration reached 65.3% of the RTO's generation mix on Sept. 26, when wind produced 14.8 GW of the total load of 22.7 GW.

Rew said 30.5 GW of wind generation is registered in the market, although only 25.8 GW was available as of Oct. 1. He said SPP currently has 283 market participants, with financial-only players outnumbering asset-owning participants, 181-102.

The Western Energy Imbalance Service market's second quarter saw average hourly load trended slightly downward by 0.2 GWh. The WEIS market is consistently settling an average of 4 to 5 GWh of net energy imbalance generation per day, Rew said.

Sugg: In-person Meetings Soon

SPP CEO Barbara Sugg teased a potential return of in-person meetings in January in acknowledging that "we all have Zoom fatigue."

Sugg said the MOPC and Strategic Planning Committee will meet Jan. 10-12 in Oklahoma City, and the board and Members Committee will meet Jan. 24-25 in Little Rock, Ark.

"We hope to see you there," Sugg told stakeholders.

SPP is once again in a return-to-office mode after a previous attempt was scuttled by the COVID-19 Delta variant's emergence. Staff have begun a hybrid workplace format that allows more flexibility to work from home while still coming to the office. Employees must spend 50% of the time in the office and managers 75% in the voluntary program. Chief People Officer Kelly Carney said an average of 70 staffers can be found daily on the SPP campus.

Sugg also said SPP has begun preparing to claw back and refund $138 million in transmission-upgrade credits, dating as far back as 2008, as it waits on a response to its rehearing request of the D.C. Circuit Court of Appeals' August ruling that FERC was correct in reversing a retroactive waiver it had granted the RTO over collecting transmission upgrade costs under the tariff's Attachment Z2. (See "SPP Asks for Z2 Rehearing," *SPP Markets and Operations Policy Committee: Oct. 11-12, 2021*.)

"Our favorite topic from years gone by that we can't get rid of … the gift that keeps on giving," she said. "This will be a major undertaking for SPP and our stakeholders."

RSC Elects New Leadership

The RSC met briefly before the quarterly stakeholder reports and elected its leadership for 2022.

SPP's state regulators approved North Dakota Commissioner Christmann as their president. He succeeds South Dakota Public Service Commissioner Kristie Fiegen, who will remain on the committee.

KCC Commissioner French will serve as vice president, and Iowa Utilities Board Member Geri Huser will remain treasurer. The committee will lose Grennan, who was honored with a resolution for his six years of service. Grennan was the RSC president in 2020 and also served on several high-level SPP stakeholder groups.

"The last six years on the RSC have gone by so fast it's really unbelievable," Grennan said.

Grennan is term-limited, and his tenure on the NPRB will end Jan. 1. He is expected to be replaced on the RSC by NPRB Vice Chair Chuck Hutchison.

Oklahoma Corporation Commissioner Dana Murphy said the Seams Liaison Committee's rate-pancaking subgroup has sent surveys to 100 MISO and SPP stakeholders and the RTOs themselves as it attempts to resolve rate issues on the RTOs' seam. The SLC meets again Nov. 18 to discuss the survey's results.

Murphy volunteered to represent SPP on the SLC subgroup when former Texas Public Utility Commission Chair DeAnn Murphy resigned from the commission earlier this year. ■

SPP News

SPP MMU Releases Summer Market Reports

Monitor Expresses Concern with WEIS' Early Performance

By Tom Kleckner

SPP's Market Monitoring Unit (MMU) last week released its quarterly reports for its RTO and Western Energy Imbalance Service markets, saying it is evaluating rule changes in the latter to address limited ramp offerings.

The MMU said in its WEIS *report* that the lack of offered ramp "presents a significant problem," and it expressed concern with the fledgling market's outcomes that resulted in volatile price spikes, including a 174% jump from May to June. WEIS only began operations in February.

While prices scaled back down the following two months, the Monitor said that was not unusual in an energy imbalance-only market. Market participants are not required to offer capacity, few resources are in the market, and limited ramp and capacity is made available. That results in higher-priced resources setting price.

"It is typical for most energy markets to see an increase in prices when demand increases, especially during summer months," the MMU said. "Price volatility also means that many market participants are hesitant to offer incremental megawatts due to fear of unrecovered costs."

Demand was up 16% in June and 14% in July. The market has 6.2 GW of capacity from full participation resources and an additional 1.7 GW from partial participation resources.

Resource Type	Full participation	Partial participation
Coal	2,203	841
Fuel Oil	254	-
Hydro	3,025	147
Natural Gas	133	486
Solar	-	56
Wind	596	161
Other	-	3
Total	6,211	1,694

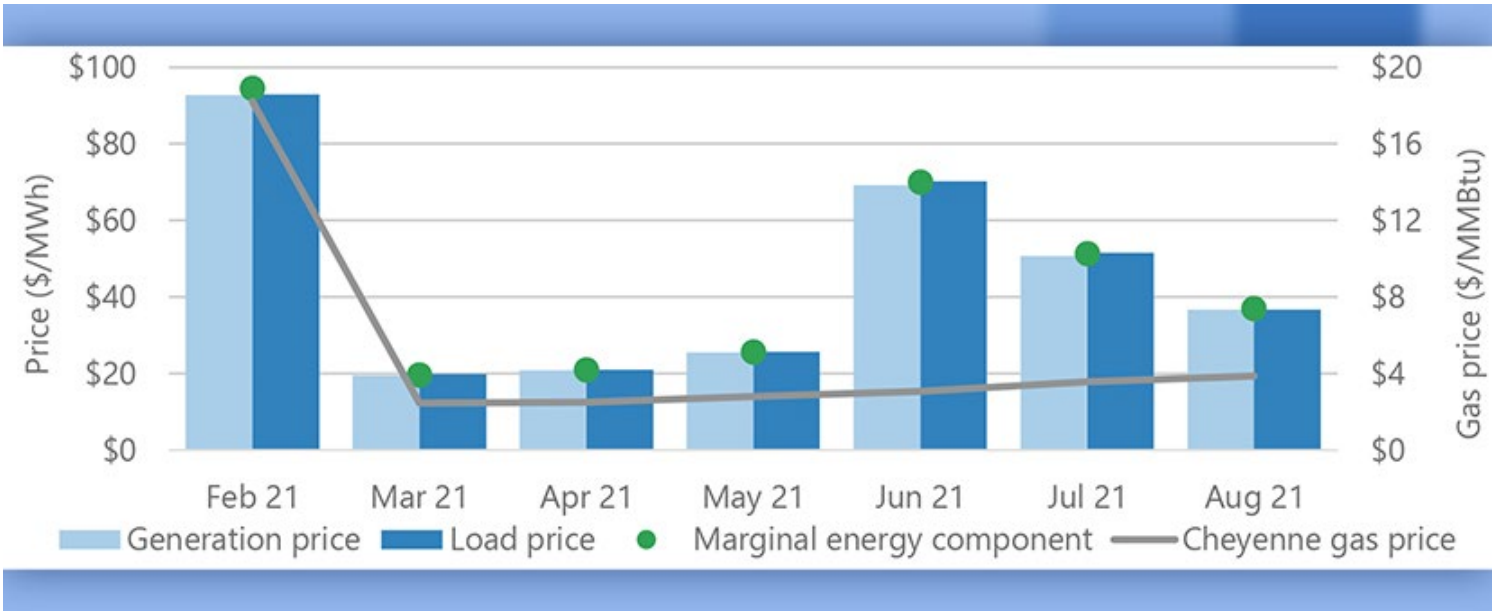
The WEIS market's registered resource capacity | *SPP MMU*

The Monitor's RTO market *report* revealed average day-ahead prices were up 64% when compared to summer 2021, $33.30/MWh from $20.32/MWh. Average real-time prices were $30.68 this summer, a 56% increase from last summer's $19.69/MWh.

The price increase was driven by natural gas prices, which reached $3.77/MMBtu at the Panhandle Eastern hub. The hub's prices haven't been that high since November 2014, with the exception of February during the winter storm. Gas prices were at $1.65/MMBtu during 2020's summer months.

The MMU said generation outages this summer were comparable to 2019's, following a one-year decrease in 2020 "due to the lingering effects of deferred maintenance" because of the COVID-19 pandemic.

The Monitor's staff will hold a webinar Nov. 9 to discuss the RTO report. ■



The WEIS market's energy prices since it began operations in February | *SPP MMU*

SPP News

SPP Board of Directors/Members Committee Briefs

Expert Panel Awards Competitive Project to NextEra Energy Transmission

SPP's Board of Directors last week approved the RTO's third competitive transmission project under FERC Order 1000, awarding construction of a 94-mile, 345-kV line to NextEra Energy Transmission Southwest.

An industry expert panel (IEP) recommended the competitive transmission company be designated the Wolf Creek-Blackberry project's transmission owner. The line, from southeast Kansas to the Blackberry substation in Missouri, has an estimated $85 million cost and a 2025 completion date.

Michael Jacobs, UCS | *SPP*

Michael Jacobs, a senior energy analyst for the Union of Concerned Scientists, who chaired the IEP, said NextEra's proposal was "clearly competitive" and "tens of millions of dollars" lower than other bids.

NextEra's estimated cost was $31 million lower than the next closest proposal of $116 million. SPP received six other proposals from four different entities, with the highest being $151 million.

Jacobs said the bid's designs and materials were not offered in other proposals and its conductors had the highest thermal ratings. NextEra also offered an earlier service date by a year and a guaranteed schedule, he said.

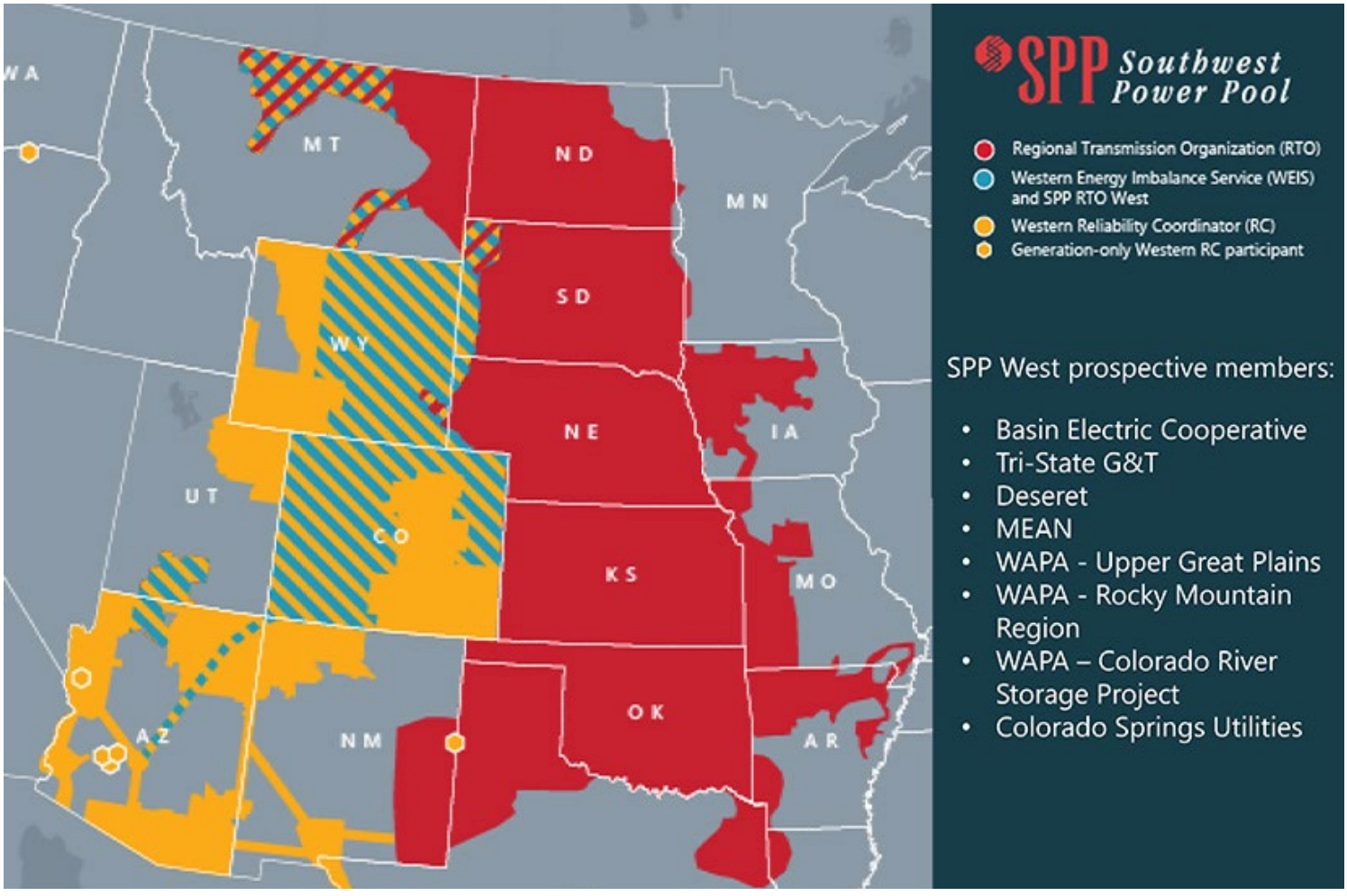
"We looked at how [NextEra's financial strategies] might be reasonable as opposed to a cost-cutting measure," Jacobs said. "They took care where they could to both limit the cost to themselves, but also to the consumer."

The IEP panel gave NextEra's bid a 1,034.38 score on an 1,100-point scale after analyzing the seven proposals in engineering design, project management and construction, operations, rate analysis, and finance categories.

Xcel Energy's Southwest Transmission affiliate was approved as the alternate builder. It scored 1,013.92 points with its $121 million proposal, edging out the third-place bid, which scored 1,013.50.

Evergy, Nebraska Public Power District, Oklahoma Gas & Electric and Public Service Co. of Oklahoma abstained from the Members Committee's votes on the lead and alternate proposals. Evergy said the *final report* was heavily redacted, making it difficult to support or oppose the IEP's decision.

SPP issued a request for proposals in September 2020 and the five-person IEP panel was seated shortly thereafter.



SPP's western footprint. | *SPP*

SPP News

The grid operator previously has approved two competitive projects, the first of which was subsequently withdrawn over changing load projections. (See *SPP Cancels First Competitive Tx Project, Citing Falling Demand Projections*.)

A third potential project was withdrawn shortly after it went out for bids earlier this year. (See *SPP Board/Members Committee Briefs: April 28, 2021*.)

Board Approves SCRIPT Recommendations

The board approved the *final report* from the Strategic and Creative Reengineering of Integrated Planning Team (SCRIPT) and creation of a task force to coordinate implementation of the report's recommendations.

The endorsement caps a year-long effort to develop recommendations that improve SPP's transmission planning and applicable cost-allocation processes, including the RTO's delayed generator interconnection study process.

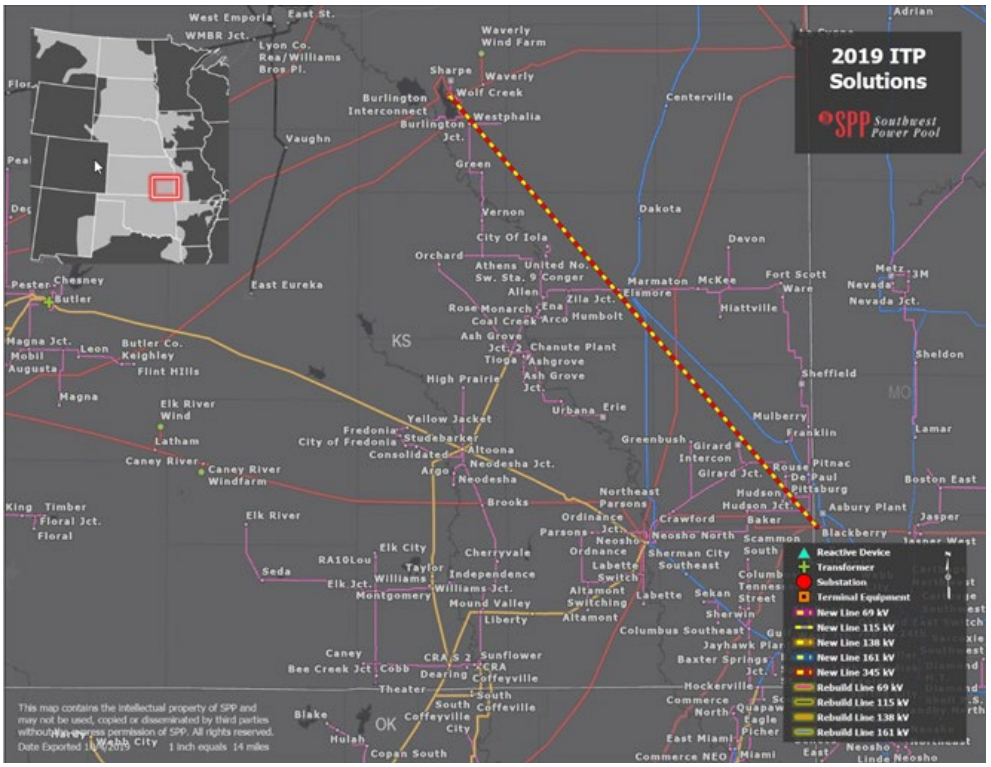
The SCRIPT report included 35 recommendations and 11 sub-recommendations. Staff has said the consolidated planning process will save $3 million to $4 million annually in administrative costs once it is in place. SPP currently incurs about $28.5 million in annual costs for its planning processes. (See *SPP: Consolidating Tx Planning Could Yield Big Savings*.)

SPP expects the policies, to be developed and implemented by 2024, to reduce administrative costs, create more equitable cost sharing, increase transmission investment value, facilitate access to new energy markets, create more timely processes, and strengthen reliability and grid resiliency.

The Markets and Operations Policy Committee approved the report but not the recommendations during its meeting earlier in October, citing concerns over project oversight and demands on staff. (See "MOPC Approves SCRIPT Report," *SPP Markets and Operations Policy Committee: Oct. 11-12, 2021*.)

SCRIPT's leadership recommended a Consolidated Planning Process Task Force comprised of members from the stakeholder groups most affected by the consolidated planning process, primarily the Transmission and Economic Studies working groups. The team will include a regulatory liaison from the Regional State Committee to help manage the engineering and cost-allocation work.

The task force will report up to the board and receive guidance from MOPC, the RSC and the Strategic Planning Committee (SPC).



The Wolf Creek-Blackberry 345-kV project. | *SPP*

Slight Delay in RTO West Commitment Date

The Western Area Power Administration's Colorado River Storage Project (CRSP) region has told parties interested in *SPP's RTO West* that it needs additional time to update its analysis, Bruce Rew, senior vice president of operations, told directors and stakeholders.

With Colorado Springs Utilities' late addition to the parties interested in joining SPP West, the CRSP region said it needed more time to complete its Federal Register notice and associated public process. That pushes the initial financial commitment target date of April 15, 2022, back two weeks to April 30, Rew said.

SPP plans to file tariff modifications with FERC in October 2022. It expects approval in early 2023, allowing it to extend its RTO into the West on March 1, 2024.

The board also approved the DC Ties Task Force's recommended framework to manage DC tie revenue-requirement recovery as part of RTO West. The market efficiency use (MEU) mechanism will compensate DC ties for their market use and be applied to DC-tie market dispatch beyond network and point-to-point use. The group said that would ensure their market use is properly compensated for and does not adversely affect the DC tie's host zone. (See *SPP Strategic Planning Committee Briefs: Oct. 13, 2021*.)

Basin Electric Power Cooperative's Tom Christensen opposed the Members Committee vote, as he did during the SPC meeting, over concerns that the framework doesn't resolve congestion issues and may hamper full recovery of the annual transmission revenue requirement. OG&E, Oklahoma Municipal Power Authority and Southwestern Public Service Co. abstained from the vote.

"If we go down [MEU's] path and find it's not workable, we'll look for other alternatives," Rew said, addressing the concerns. "We've got to have a product that's workable. We'll make adjustments if we run into issues."

The task force will continue its engagement with RTO West's interested parties to fully develop the MEU rate. A stakeholder group comprised of market interests and DC tie owners will also be formed to take up the congestion-hedging effort.

Budget Increase Passes

The members (unanimously) and directors approved SPP's 2022 operating budget of $231.2 million, a 17.7% increase over this year's budget, driven by an increase in outside services that raised the net revenue requirement from $149.9 million to $176.3 million.

SPP News

The outside services are primarily related to engineering study costs and for anticipated ongoing litigation associated with the zonal placement process, Attachment Z2 credits, and February's winter weather event. One winter-related complaint has been filed at FERC with claims totaling $79 million, SPP said.

Travel expenses are also expected to rise with a return to normal operations following the COVID-19 pandemic.

Responding to a question as to whether SPP has enough staff resources at its disposal to process the generator interconnection backlog and handle transmission-planning pieces, CEO Barbara Sugg said the budget is "very well-thought-out, but the landscape changes."

"We're moving people around; we're looking at consultants. We do what we can with what we've got," she said. "If we have to make another ask, we'll follow the process to do that."

The board also approved the Diversity, Equity and Inclusion (DEI) Task Force's 10 recommendations, which included reinforcing talent pipelines through historically Black colleges and universities; community programs and business resource groups; evaluating community giving and volunteer efforts; and designating oversight of a formal DEI program. The RTO was recently named by Arkansas Business magazine as one of the Best Places to Work in Arkansas because of its strong corporate culture and benefits.

3 Directors Ending their Terms

Members re-elected Susan Certoma to the board during their annual meeting but said good-bye to three other directors leaving at the end of the year.

Julian Brix, Graham Edwards and Darcy Ortiz will take with them a combined 21 years of experience on the board, 13 by Brix. His departure leaves Josh Martin (elected in 2003) and Chairman Larry Altenbaumer (2005) as the longest-serving directors.

"This may well be the most important job I've done, since I started in the industry 40-plus years ago," said Brix, who has led a transmission company and two cooperatives. "At some point in time, God comes along and says, 'Stop,' and he did this past year. It's time for me to step down and let others do the work."

Board vice-chair Edwards, who pre-dated John Bear as MISO's CEO, had originally intended to seek re-election, but withdrew his nomination after the meeting materials went out. The Advanced Power Alliance's Steve Gaw credited Edwards with thawing the MISO-SPP relationships and turning it "completely on its head."

Ortiz is leaving the board after one term of three years, two of which were conducted virtually. As Intel's vice president of corporate services, she was recently assigned global responsibilities, making it difficult to "do justice to her [dual] responsibilities," Sugg said.

"They've definitely made an imprint on us and made SPP a better place," Sugg said. A search for new directors is ongoing and will be brought forward as soon as possible, she said.

Members also elected Evergy's Denise Buffington to the Members Committee, where she will replace former co-worker Kevin Noblet in representing the investor-owned utilities (IOUs). Re-elected to the committee are:

- Usha-Maria Turner (Oklahoma Gas & Electric) and Tim Wilson (Liberty Utilities), representing IOUs.
- Zac Perkins (Tri-County Electric) and Mike Wise (Golden Spread) for the cooperative segment;
- Kevin Smith (Tenaska Power Services) for independent power producers and markets; and
- Tom Kent (Nebraska Public Power District) in the state agency segment.

Standalone ESR Accreditation

Renewable energy representatives withdrew from the consent agenda a revision request that would place the first SPP accreditation policy on standalone energy storage resources (ESRs) to ensure further discussion. Recommended by the Supply Adequacy Working Group, *RR462* implements a process that includes a methodology for prioritizing and allocating available effective load carrying capability (ELCC) for standalone ESRs that qualify as capacity in SPP's balancing authority.

Gaw said the changes to the current methodology affect rates, terms and conditions, necessitating their inclusion in SPP's tariff rather than its business practices or criteria. His written comments also expressed concern about the calculation methodology and how conventional resources are accredited.

"We have continued concern that there is a diminution of the value on renewable resources, storage and hybrid resources, but we're still not acknowledging traditional resources' forced outages," he said. "We're giving them 100% accreditation while evaluating and scrutinizing other resources. That starts to grant a preference to certain resources inappropriately."

Enel Green Power's Betsy Beck said that while she supports the ELCC approach, she wanted the board to recognize there wasn't full consensus on the measure.

"Some of the underlying assumptions … led to some results that, at best, didn't make sense and, at worse, weren't well supported. The results don't support what we're seeing in the market for the value of standalone storage," she said.

Dogwood Energy's Rob Janssen advocated for moving forward with the measure, given that load-serving entities and the storage developer community have been "pleading with SPP for several years for a clear method" in accrediting capacity. However, he agreed the accreditation methodology will likely need refinement because it deviates from SPP's ELCC study results for shorter-duration storage facilities and will not adequately compensate developers and LSEs for the resource adequacy value they should provide to the system.

The Members Committee approved the measure as part of the consent agenda. It was opposed by Beck and Gaw, with Janssen and ITC Great Plains' Brett Leopold abstaining.

The consent agenda listed one other revision request in *RR467*, a Holistic Integrated Tariff Team recommendation that revises the tariff's Attachment AQ by reducing the waiting period for preliminary study results of new load additions. The measure adds a rolling submission and response window and directs delivery point network studies be posted once the new or modified load is confirmed.

The consent agenda also included Corporate Governance Committee nominations to the Finance (OG&E's Brad Cochran) and Human Resource committees (Sunflower Electric's Stuart Lowry); the Finance Committee's approval of a change to the virtual reference price's calculation and extending to 2027 the maturity date of an $80 million credit facility; SPP's 2020-2021 annual violation relaxation limits (VRLs) analysis and the Western Energy Imbalance Service market's 2021 VRL analysis; and withdrawals of three construction notifications for 161-kV breakers. ■

— Tom Kleckner

Company News

Xcel Continues Focus on Carbon Reductions

By Tom Kleckner

Xcel Energy CEO Bob Frenzel revealed Thursday that there is little space between he and his predecessor when it comes to the clean energy transition.

Speaking with financial analysts during the company's third-quarter earnings conference call, Frenzel noted Xcel's leadership position in clean energy under Ben Fowke, who retired earlier this year, and promised more to come.

"We expect, over the next decade, to close the majority of the coal plants on our systems across the country. We'll be out of coal in the Upper Midwest by the end of this decade," he said. "We have plans and approved plans to close a coal plant almost every single year this decade."

Asked how Xcel's plan to be carbon-free by 2050 could be accelerated, Frenzel said the Democrats' proposed budget reconciliation bill includes production tax credits for renewable energy that offer a 10-year window to manage the transition.

The company's integrated resource plan recently filed with Minnesota regulators envisions a full exit from coal by 2030, balanced by the addition of 3.2 GW of universal-scale solar and 2.7 GW of wind. Xcel has targeted an 85% carbon-reduction in Colorado, its other major market, by 2030 with a similar plan.

"Come 2024, we'd have another bite at the apple to think about the remaining assets on our fleet in those transitions," Frenzel said. "I think what we need is another type of emissions-free generation."

He said legislation pending on Capitol Hill would expand the U.S. Department of Energy's funding for research and development. "I think that's critical for the industry to progress past where we expect to be," Frenzel said.

Xcel *reported* earnings of $609 million ($1.13/share) for the quarter, compared to $603 million ($1.14/share) for the same period in 2020.

The results missed analysts' average expectations of $1.18/share. Xcel said higher electric and natural gas margins and lower operations and maintenance expenses offset additional depreciation and lower allowance for funds used during construction.

The Minneapolis-based company narrowing its 2021 earnings guidance to $2.94 to $2.98/share and issued 2022 guidance of $3.10 to $3.20/share.

Xcel's share price gained 94 cents Thursday, closing at $64.33.

AEP Earnings up over 2020

American Electric Power also released its third-quarter results Thursday, *reporting* earnings of $796 million ($1.59/share), above last year's third quarter of $748.6 million ($1.51/share).

AEP CEO Nick Akins highlighted the energizing of the 287-MW Maverick Wind Energy Center, the second of three proposed *North Central Energy Facilities*. The three wind farms will eventually provide 1,485 MW of clean energy. (See *AEP a Go with $2B North Central Wind Project*.)

The company also announced Oct. 26 that it has entered into an agreement to sell its Kentucky operations to Algonquin Power & Utilities for $2.85 billion. (See related story, *AEP to Sell Kentucky Operations to Algonquin*.)

"Transforming the way energy is generated, delivered and consumed is necessary to support the needs of a clean energy economy, and AEP continues to drive that transformation for the benefit of our customers and communities," Akins said.

The company's share price was trading at $84.77 in after hours Thursday, a gain of 47 cents on the day. ■

Xcel Energy's Sherco facility is on the utility's endangered list of coal plants. | *Xcel Energy*

Company Briefs

GM to Install 40,000 EV Charging Stations in US, Canada

General Motors last week said it will install up to 40,000 electric vehicle charging stations in the United States and Canada as part of a $750 million commitment to bolster its presence in the growing sector.

The charging stations will be available to all EV customers, not just those who purchase vehicles from GM.

The announcement comes months after GM said it had signed agreements with companies to offer its customers access to nearly 60,000 charging points across the same regions.

More: *Reuters*

Hertz Orders 100,000 Teslas

Rental car company Hertz last week announced it has ordered 100,000 Teslas as part of its plan to electrify its fleet.

The Model 3 sedans will be available to rent in major U.S. and European markets in early November, the company said in a statement. The announcement comes just months after Hertz escaped bankruptcy. Hertz said it plans to electrify nearly all its roughly 500,000 cars and vans.

According to Bloomberg, the deal is the single largest order ever for electric vehicles and is worth $4.2 billion in revenue to Tesla.

More: *The Verge*

Navistar to Pay $52M, Reduce Air Pollution as Part of Settlement

Truck maker Navistar, a subsidiary of Volkswagen, agreed to pay $52 million and attempt to reduce future air pollution by 10,000 tons as part of a government settlement over alleged illegal emissions from its diesel engines.

Under the agreement, Navistar will replace older, dirtier diesel engines with cleaner-burning versions to reduce nitrogen oxide emissions by 10,000 tons over four years. The EPA must approve any programs the company proposes for air-pollution reduction. It will also pay a civil penalty of $52 million.

U.S. prosecutors filed suit in 2015 alleging that Navistar violated the Clean Air Act when it sold heavy-duty engines in 2010 that did not meet emissions standards and were not certified by the EPA.

More: *Chicago Sun-Times*

Federal Briefs

Dem Senators Sound Alarm Over 'Dirty' Hydrogen Provision in Climate Deal

Sens. Jeff Merkley (D-Ore.), **Elizabeth Warren** (D-Mass.) and Ed Markey (D-Mass.) last week wrote a letter to Democratic leaders sounding an alarm over what they feel is an effort to add language to the budget reconciliation bill that would create incentives for hydrogen produced from fossil fuels, which they fear would undercut the broader goals of climate legislation.

The trio said that while hydrogen has been touted as a "zero-emission" alternative energy source, "recent peer reviewed science has found that fossil fuel-based hydrogen might have greater greenhouse gas impacts than traditional fossil fuels." They also warned that hydrogen collected from steam methane reformation emits nitrogen oxides, particulates and carbon monoxide, which have all been linked to negative health effects.

A group of House progressives also signed the letter, including Reps. Jamie Raskin (D-Md.), Alexandria Ocasio-Cortez (D-N.Y.), Jan Schakowsky (D-Ill.), Mondaire Jones (D-N.Y.) and Jerry Nadler (D-N.Y.).

More: *The Hill*

Interior Dept. to Begin Leasing Process for Wilmington OSW Farm

The Department of the Interior last week announced it is moving ahead with the lease of a nearly 200-square mile portion of the Atlantic Ocean off the North Carolina coastline for the development of offshore wind.

The department on Nov. 1 will publish a notice in the Federal Register proposing the lease sale of a large portion of the Wilmington East Wind Energy Area, starting a 60-day public comment period that will last until Jan. 3. When completed, the Wilmington East area could generate more than 1.5 GW of electricity.

President Biden has announced a national target of 30 GW of offshore wind built by 2030, while North Carolina Gov. Roy Cooper has announced state targets of 2.8 GW of offshore wind by 2030 and 8 GW by 2040.

More: *The News & Observer*

Mayflower Wind Project Beginning Environmental Review

The proposed Mayflower Wind project will begin a two-year environmental review process this week in which regulators and others will scrutinize the plan for 147 turbines in a lease area capable of supporting multiple projects.

The Department of the Interior's Bureau of Ocean Energy Management (BOEM) will publish a notice of intent to prepare an environmental impact statement in the Federal Register on Nov. 1 and will hold public comment meetings on Nov. 10, 15 and 18 to accept input on what BOEM should focus on when reviewing construction and operations plan. That comment period will end Dec. 1.

Mayflower Wind, the Shell and Ocean Winds North America joint venture, was selected unanimously in 2019 to build and operate an 804-MW wind farm about 20 nautical miles south of the western end of Nantucket, Mass.

More: *The Herald News*

State Briefs

CALIFORNIA

Goleta Planning Commission Approves Energy Storage Facility

The Goleta Planning Commission last week approved the development plan and conditional use permit for a new 60-MW lithium-ion storage facility.

The facility will hold 62 pre-manufactured energy storage "cabinets" called Megapacks, which contain 17 Tesla battery modules each. The project also will include an underground tie-in and infrastructure to connect to the Southern California Edison Isla Vista substation.

The facility is expected to come online in April.

More: *Noozhawk*

Long Beach to Reduce Reliance on Oil Revenue by 2035

According to a report from city staff, the city of Long Beach plans to phase out its reliance on revenue from oil by 2035, 10 years before the state wants to end all petroleum production.

The staff said it will cost at least $81 million and up to $146 million to abandon the oil fields. The city has $43 million set aside, and at its current rate, will have at least $81 million by 2035.

While revenue from oil will fund the eventual closure of the fields, it also funds part of the city's budget. In the fiscal year 2020, revenue from oil production provided $18.9 million. However, the city already has taken a decrease in revenue into account for future budgets.

More: *Press-Telegram*

San Diego Aims for 'Net Zero' Carbon Emissions by 2035

San Diego Mayor **Todd Gloria** last week announced an update to the city's Climate Action Plan that will feature a target of net zero greenhouse gas emissions by 2035, although he did not say how the city would go about achieving its goal.

The updated plan also includes new targets for building electrification.

Gloria said the goal will be legally enforceable, meaning the city can be sued and forced into compliance if it misses its mark.

More: *KPBS*

CONNECTICUT

PURA, Eversource Reach Settlement over Isaias Handling

The Public Utilities Regulatory Authority reached a settlement agreement with Eversource Energy last week over the utility's handing and response to Tropical Storm Isaias in August 2020.

The authority and utility agreed to a $103 million settlement, but not before PURA Chair Marissa Gillett criticized the agency's past practices and said an average refund of $35 could leave consumers "underwhelmed."

In the agreement, Eversource will not appeal a $28.4 million penalty and will set aside $10 million to help customers who are unable to pay their bills.

More: *Hartford Courant*

INDIANA

AES Wants Customers to Pay Extra as Eagle Valley Plant Sits Offline

AES last week asked the Utility Regulatory Commission to pass $1.2 million in costs to customers, who would have to pay an extra $1 per month for six months.

The company's Eagle Valley natural gas plant went offline nearly six months ago as the result of human and technical error. While the plant remains offline, the utility had to buy roughly $1.2 million worth of power from the grid. The utility claims it "took appropriate steps to mitigate the duration and costs of the outage" and therefore, the regulators should allow the costs incurred from the incident to land on customers' bills.

The URC has scheduled an evidentiary hearing for Nov. 12, to help the commission better understand the situation and the information in support and opposition of the request. A decision is expected later this month.

More: *Indianapolis Star*

CenterPoint to get 400 MW of Solar Power from Posey, Warrick Counties

The Utility Regulatory Commission last week gave its approval to CenterPoint Energy to acquire 400 MW of proposed solar energy.

The URC approved the company's acquisition of a 300-MW solar project that will be built in Posey County, as well as 100 MW of solar planned in Warrick County.

CenterPoint has committed to achieving a goal of zero net carbon emissions by 2035.

More: *Evansville Courier & Press*

LOUISIANA

Dolet Hills Coal Plant to Close Before End of Year

The 650-MW coal-fired Dolet Hills Power Station is slated to close on Dec. 31.

The plant, which was built in 1986 and is jointly owned by Cleco Power and Southwestern Electric Power Company, was originally supposed to close in 2026 as part of a settlement with the Arkansas Public Service Commission and the Sierra Club over concerns about air pollution.

More: *The New Orleans Advocate*

MINNESOTA

Xcel Asks PUC for 20% Residential Hike

Xcel Energy last week asked the Public Utilities Commission for an electricity rate increase of 21.2% ($677.4 million) over three years.

With the rate hike, the company's average residential customers would see a 19% increase ($15 to $21 per month) on their electricity bills from 2022 through 2024. The company said a big portion of the increase would go toward building transmission lines to connect to renewable power sources.

While it waits for the case to be resolved by the PUC, Xcel is asking the commission to approve an interim rate increase of 9.4% ($288.3 million) that would start Jan. 1.

More: *Star Tribune*

NEBRASKA

PSC Implements Cold Weather Rule Starting Nov. 1

A cold weather rule implemented by the Public Service Commission went into effect Nov. 1 and will give some leniency to natural gas customers who face difficulties paying their bills.

From Nov. 1 to March 31, 2022, Black Hills Energy and NorthWestern Energy will not be allowed to shut off service to customers without allowing an additional 30 days to pay beyond the normal bill due date.

More: *The North Platte Telegraph*

OHIO

Sammis Coal Plant Set to Close in 2028

Energy Harbor last week said it will close its coal-fired Sammis power plant at the end of 2028.

A letter sent to the state's Environmental Protection Agency didn't explicitly say why the plant was shutting down, however it did note new wastewater pollution discharge limits that go into effect in 2025.

Energy Harbor closed four of the plant's seven units last year.

More: *Cleveland.com*

TENNESSEE

Gov. Lee Names Megasite Authority of West Tennessee CEO

Gov. **Bill Lee** last week named Clay Bright the CEO of the Megasite Authority of West Tennessee.

Bright, the commissioner of the Department of Transportation, will provide operation and development services at the Memphis Regional Megasite. Ford invested $5.6 billion in the site in September for an industrial campus to create electric vehicle batteries.

More: *Memphis Commercial Appeal*

WEST VIRGINIA

Metallurgical Coal Mine Reopening in Mingo County

United Kingdom-based holding company Bens Creek Group last week said it is reopening the metallurgical Glen Alum coal mine. The company raised $9.6 million from investors to finance mining operations that are expected to begin before the end of the year.

Metallurgical coal is used in steel production.

Research and Markets, a market research firm, projected the global market for steel to reach 2.2 billion metric tons by 2026 — up nearly 30% from its 2020 estimate of 1.7 billion metric tons. The firm cited an expected rise in construction activity and subsequent rise in the demand for, and production of, a range of machinery production and metal goods fabrication.

More: *Charleston Gazette-Mail*