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 3 January 19, 2021

States, RTOs Resume Climate Work as Biden Era Dawns

Biden Urged to Avoid Obama's Climate Mistakes

No to Clean Power Plan 2.0

By Rich Heidorn Jr.

President-elect Joe Biden should avoid the mistakes President Barack Obama made in attempting to reduce greenhouse gas emissions, a panel of environmental law experts said last week.

Lisa Heinzerling, Georgetown University | *C. Boyden Gray Center*

Georgetown University law professor Lisa Heinzerling said Biden should reconsider the White House's role in reviewing regulations by the EPA and others.

"In my view, the Obama administration lost precious time … by delaying, weakening and stopping agency rules," Heinzerling, a former EPA adviser, said during a *panel discussion* Thursday by the C. Boyden Gray Center for the Study of the Administrative State at George Mason University.

If the Office of Management and Budget's Office of Information and Regulatory Affairs (OIRA) does review agency rules, it should do so quickly and provide the agencies clear rules for appealing its decisions, Heinzerling said.

"Let the head of the EPA actually be the head of the EPA, not the aides in the White House. Not the OIRA head. Not the economic advisers; not the new climate czar. … I think that will

Continued on page 3

State AGs Highlight Action Against Trump Admin (p.5)

Massachusetts Governor Vetoes Mass. Climate Bill

By Jason York

Massachusetts Gov. Charlie Baker (R) vetoed a wide-ranging climate *bill* Thursday, saying he needed more time to scrutinize the details of the legislation and recommend changes.

"While I support the bill's goals and am largely in agreement with many of its proposals, 35 hours was not enough time to review and suggest amendments to such complex legislation," he wrote in a *letter* to lawmakers explaining his decision.

The bill, which overwhelming passed both the state House and Senate, was sent to Baker's desk just before the end of the two-year legislative session and would have provided the state another path to reach net-zero carbon emissions by 2050.

The law would have required Massachusetts to reduce emissions to 50% below 1990 levels by 2030, 75% by 2040 and 85% by 2050. It also called for utilities to procure an additional 2,400 MW of offshore wind power, raising the state's total to 5,600 MW. (See *Mass. Lawmakers Pass Sweeping Climate Law*.)

Baker recently released his own legally binding *plan* to achieve net-zero emissions in the same time frame, and additionally joined with Connecticut, Rhode Island and D.C. in launching the Transportation and Climate Initiative Program (TCI-P), which aims to cut greenhouse gases from vehicles and invest in cleaner transportation choices and public health improvements. (See *NE States, DC Sign MOU to Cut Transportation Pollution*.)

Among the specific reasons Baker cited in his veto was the climate bill working against recently enacted Housing Choice legislation.

Continued on page 14

Cap-and-trade Bill Emerges in Wash. Senate (p.6)

NY Awards 2.5-GW Offshore Deal to Equinor

New York Gov. Andrew Cuomo delivers the energy portion of his State of the State address on Jan. 13. (p.18) | *New York DPS*

Also in this issue:

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

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

Subscriptions

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

Account Executive
Kathy Henderson 301-928-1639

Account Manager
Phaedra Welker 773-456-4353

Marketing Director
Margo Thomas 480-694-9341

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

2020 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

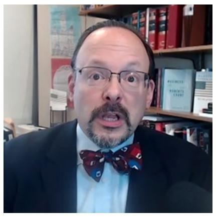
FERC/Federal News

Biden Urged to Avoid Obama's Climate Mistakes

No to Clean Power Plan 2.0

Continued from page 1

be the key to getting work done quickly," she said. "It can seem right now in the beginning of the administration that four years is a long time. It's not."



Jonathan Adler, Case Western Reserve University | *C. Boyden Gray Center*

But Jonathan Adler, professor at the Case Western Reserve University School of Law, said OIRA can help ensure EPA's regulations are written in a way to withstand court challenges.

As an example, he said tightening National Ambient Air Quality Standards (NAAQS) on ozone and particulate matter could produce large reductions in carbon emissions.

"One value of having OIRA involved in the process, if the right people are there, is to make sure that when EPA is tightening the NAAQS standards, even if carbon reductions are part of the reason why EPA's really doing it, EPA is sure to give a justification that [uses] the traditional rationales for NAAQS standards setting — because that's what the courts are going to want to see — even if we all know there's some great carbon gains here too."

"There is some legal risk" in seeking to capitalize on the co-benefits, Adler acknowledged. "But it's less legal risk than going straight at greenhouse gas emissions."

Clean Energy Standard vs. Clean Power Plan, Carbon Price

Adler and Heinzerling agreed, however, that the new administration should not attempt to revive the Obama EPA's Clean Power Plan, which was stayed by the Supreme Court before it was formally abandoned by the Trump administration. The CPP would have set state targets to reduce carbon emissions from electricity generation by 32% from 2005 levels.

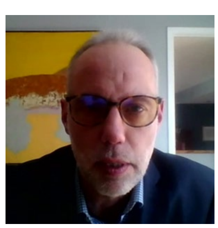
With the U.S. Senate split 50-50 between Democrats and Republicans, Vice President-elect Kamala Harris can cast the tiebreaking vote to pass a budget reconciliation bill. But the Democrats are short of the 60-vote majority needed to prevent other legislation from falling to filibusters. That means Biden will need to rely largely on his executive powers to try and meet his campaign proposal to eliminate power sector carbon emissions by 2035, panelists said. (See *Dems' Senate Gains Raise Hopes for Biden Agenda*.)

"I think a Clean Power Plan 2.0 is incredibly high risk," Adler said. "The Supreme Court before did not seem too enamored of the Clean Power Plan. It's likely to be even more hostile today."

Heinzerling noted that the Supreme Court did not issue an opinion on the CPP, which some critics said was illegal for going "beyond the fence line" in forcing carbon reductions at generating plants. Harvard Law School professor Laurence Tribe has *said* the rule violated the "non-delegation doctrine" — that EPA lacked authority to regulate those sources at all.

"So we don't know why it went down, and I think it would be risky to try it again," said Heinzerling, the lead author of the winning briefs in the Supreme Court's *Massachusetts v. EPA* ruling, which held that the Clean Air Act gives EPA the authority to regulate GHGs. "As to what do you have to lose? You have to lose all that time in an administration committed to doing something about climate change. You just can't spend that amount of time, resources, political capital and everything else on something that's going to be a loser."

The filibuster is not the only obstacle to Biden's climate ambitions. "I think even getting 50 votes so that the vice president can cast the tie-breaking vote will be a challenge in some of these areas because I'm not sure that senators like Joe Manchin [(D-W.Va.), the incoming chair of the Energy and Natural Resources Committee,] are always going to be on board," Adler said. "I think this administration is going to spend a lot of time focusing on the use of fiscal instruments, use of spending authority as a way of advancing environmental policy especially in the climate area."



Gene Grace, American Clean Power Association | *C. Boyden Gray Center*

Adler said Biden has an opportunity to build a coalition "where you're spending on infrastructure that a lot of folks on the right want, but you're also doing it in a way that deals with some of the equity and justice concerns … and also focused on lower-carbon, lower environmental impact infrastructure and facilitating transitions away from carbon-emitting fuels."

Gene Grace, general counsel for the American Clean Power Association (formerly the American Wind Energy Association), said that while Biden is unlikely to win legislation enacting a carbon tax, "things like a *Clean Energy Standard* do seem to be building bipartisan support and something that more Democrats like Manchin and others might be able to get behind — and Republicans as well. You need to probably get over the 60[-vote] threshold if you're going to do that."

Biden's *climate plan* pledges to "scale up best practices from state-level clean energy standards," which require that a certain percentage of retail electricity sales come from non- or low-emitting sources. He is expected to announce the U.S. will rejoin the Paris Agreement on climate change on Inauguration Day.

Adler said he believes a carbon tax could be adopted through budget reconciliation, without needing a 60-vote majority.

"I think if it's pitched right and phrased right, there is more potential support for that among at least some Republicans than people sometimes think," he said. "And if the choice is that or giving EPA more authority to pressure states to regulate [and] more authority to go sector by sector and impose regulatory standards, I think there are a lot of folks who view the use of fairly straightforward fiscal tools … as less intrusive to liberty [and] less bureaucratic. And I think [it is] of particular significance in the context of climate change in particular, the sort of things that can actually be adopted and implemented far more rapidly than the regulatory alternatives."

Reversing Regulations, Rebuilding EPA

The new administration needs to rebuild the morale and expertise at EPA following the departures of many staffers under President Trump, Heinzerling said, noting the agency's budget is more than $1 billion less than it was 10 years ago.

She cited Trump's appointment of those with industry ties to scientific advisory panels and EPA's rule on scientific transparency, which she said was intended to discourage the agency "from relying on foundational scientific studies showing a link between particulate matter pollution and human health."

FERC/Federal News

Heinzerling also criticized a rule excluding "co-benefits" from cost-benefit analyses and a final rule *published* Wednesday that creates barriers to regulating GHG emissions from sources such as oil refineries or steel plants. The rules say an industrial sector that contributes less than 3% of total U.S. emissions is not a "significant" contributor under the Clean Air Act.

"The outgoing leadership in EPA has broken a lot of things and left quite a mess, and they're running through the tape; they're issuing rules without the 30-day waiting period that normally accompanies rulemaking. They're issuing final rules … without proposed rules," Heinzerling said.

The good news, she said, is that many of the Trump rules can be reversed because of the administration's "'cavalier-ness' toward law; toward science; toward legal process."

Adler said it will take a long time to reverse Trump administration regulations regarding the National Environmental Policy Act. "But it would not take very long, necessarily, to adopt guidances on how to interpret those regulations, particularly as they apply to climate change."

Congressional Democrats also are expected to use the Congressional Review Act (CRA) to reverse some regulations that were finalized in the final weeks of the Trump administration. "But there will have to be some choices about how to use it because it takes up floor time in the House and Senate, and that floor time will be a precious commodity for the budget; perhaps for an impeachment trial; perhaps for other matters," Adler said.

He cited an analysis by George Washington University's Regulatory Studies Center that found more than 1,300 final regulations that could be subject to the CRA, including about 200 on environmental policy.

FERC's Role

Grace said FERC "will be critical for fast tracking the time in which clean energy can be deployed to meet the 2035 Biden climate targets."

"Even under the Trump administration, work has already been done at [FERC] to drive carbon pricing in wholesale energy markets and ensure that transmission can deliver the amount of clean energy needed to meet climate goals," Grace said. (See *Wide Support for FERC Carbon Pricing Statement*.)

"Incorporating carbon pricing into the energy markets really can go a long way to help facilitate something like the Clean Energy Standard at the federal level [and make it] more cost effective. It really [should not] be underestimated how much FERC can play a role in this process."

He added a hope that under Democratic control, FERC will reverse its policy imposing price floors for state-subsidized renewables, such as the minimum offer price rule in PJM and buyer-side mitigation in NYISO. (See related story, *NYISO Explores Improving BSM Processes*.)

Grace said future infrastructure and economic recovery legislation "could offer opportunities to enact modest clean energy programs."

Adler noted that the Justice Department's Office of Legal Counsel recently issued a memorandum positing that the White House may impose regulatory review requirements on independent agencies such as FERC.

Citing a *commentary* by Sally Katzen, who served as OIRA administrator under President Bill Clinton, Adler said that the Biden administration "should embrace this and use this as a way of forcing agencies like FERC, the [Securities and Exchange Commission] [and] the [Commodity Futures Trading Commission] to incorporate climate change and environmental justice … into their policy development process." ■

Clockwise from top left: Gene Grace, American Clean Power Association; Adam White, C. Boyden Gray Center; Jonathan Adler, Case Western Reserve University School of Law; and Lisa Heinzerling, Georgetown University Law Center | *C. Boyden Gray Center*

FERC/Federal News

State AGs Highlight Action Against Trump Admin

By Jason York

New York University's *State Energy and Environmental Impact Center* released a new *report* on Thursday that recounts actions that state attorneys general took to mitigate the Trump administration's weakening of regulations on energy, climate and the environment.

The report details measures by state AGs on clean energy, environmental justice and addressing per- and polyfluoroalkyl substance (PFAS) contamination. It also focuses on maneuvers in federal agency rulemaking processes and in court that prevented the administration from cementing its climate and energy policies and reversing regulatory protections for air, waters, wildlife, public lands and public health.

'Strong Defense'

According to the report, state AGs worked together to prevent political appointees to EPA and the departments of Energy and the Interior from freely shunning rulemakings, delaying compliance deadlines and ignoring statutory directives from Congress.

"Putting up a strong defense has always been the focus of our work during this reckless administration," Massachusetts AG Maura Healey said.

The AGs said they worked to uphold obligations to address power sector carbon emissions and keep auto emissions reductions on track. They sought to prevent unlimited methane emissions from the oil and gas industry and defeat the Department of Energy's push for a bailout of the coal industry.

"The Trump administration has spent the last four years doing the bidding of the fossil fuel industry, from rolling back limits on greenhouse gas emissions that undermine clean car standards to opening up protected areas to oil and gas drilling," Healey said.

Oregon AG Ellen Rosenblum said that when the Trump administration took aim at California's carbon cap-and-trade market with Quebec in 2019 with a lawsuit, her state joined more than a dozen others to defend the agreement. The Department of Justice alleged that California's voluntary agreement with Quebec violated two rarely invoked constitutional provisions, the Treaty and Compact Clauses. In two opinions in March and July 2020, a federal district court rejected DOJ's claims, noting that the California-Quebec agreement did not represent a "treaty" within the Constitution, nor did it rise to the level of a "compact."

"The court saw right through the administration's claims and rejected them outright," Rosenblum said.

Maryland AG Brian Frosh said the Trump administration's "zeal to prop up the fossil fuel industry caused them to embark upon a climate destruction program."

"They refused to enforce and attempted to overturn dozens of rules that protect our climate and, not incidentally, our air and water," Frosh said. The administration "tried to lift pollution caps on cars, trucks, industries, utilities, landfills [and] oil drilling. They have overridden the findings of scientists; they've ignored the opinions of experts."

'Collective Action'

In 2018, Connecticut AG William Tong and New York AG Letitia James sued EPA for its failure to meet its obligations under the Clean Air Act's "Good Neighbor" provision, which requires action against upwind pollution sources that prevent downwind states from meeting required air quality standards under the National Ambient Air Quality Standards.

"Unfortunately, under the Trump administration, we've seen an aggressive, systematic effort to dismantle these basic protections," Tong said.

The suit successfully found that EPA missed its deadline to promulgate federal plans to address upwind pollution and ordered the agency to do so by early December 2018.

When EPA responded with a rule that fell short of its CAA obligations, state AGs took the agency to the D.C. Circuit Court of Appeals and won. Tong, Healey and three other state AGs sued EPA again for dragging its feet and won again in July 2020, as the court cited the agency for its "failure to take immediate action." The court gave EPA a March deadline to promulgate plans to reduce ozone emissions from upwind states. The AGs said the final rule will help protect millions of residents of downwind states from exposure to smog and other pollutants that cause asthma, lung damage and other respiratory harms.

Tong said the state AGs actions are "vindicated by core constitutional principles."

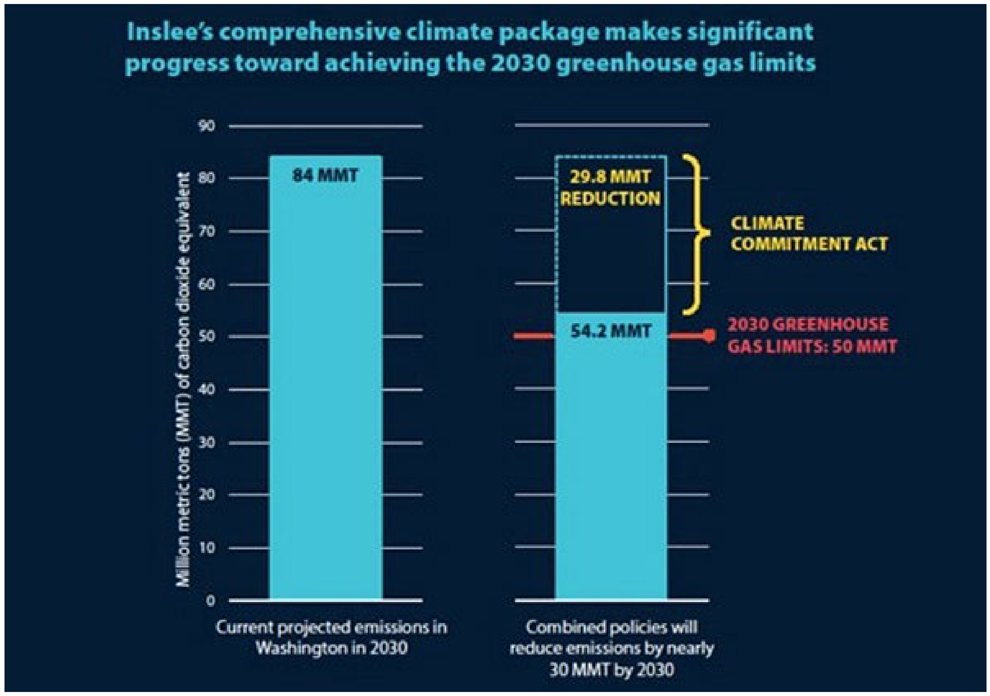
"The environment, and our collective action on the environment and protecting the climate is in large part why we have a federal government because the federal government is there to help us accomplish the things as states that we cannot effectively do by ourselves," Tong said. ■

Clockwise from top left: Stephen Read, State Energy and Environmental Impact Center; Maryland Attorney General Brian Frosh; Connecticut Attorney General William Tong; Massachusetts Attorney General Maura Healey; and Oregon Attorney General Ellen Rosenblum. | *State Energy and Environmental Impact Center*

CAISO/West News

Cap-and-trade Bill Emerges in Wash. Senate

By Robert Mullin



Washington's proposed cap-and-trade program is expected to sharply accelerate reduction of the state's carbon emissions leading up to its 2050 goal. | *Washington State Governor's Office*

Washington state senators last week introduced a bill to establish a cap-and-trade program that would gradually limit the state's greenhouse gas emissions while funding decarbonization efforts.

Sponsored by Sen. Reuven Carlyle (D), the Climate Commitment Act (*Senate Bill 5126*) would implement the *vision* outlined by Gov. Jay Inslee last month to cap statewide GHG emissions and direct state spending into clean energy resources, transportation electrification, building retrofits and climate resilience programs.

Under SB 5126, any climate-related investments would be subject to review by a newly created Environmental Justice and Equity Advisory Panel. The bill would also allocate cap-and-trade revenues to partially fund Washington's Working Families Tax Credit, the state's version of the federal earned income tax credit.

"As our state begins to break out of the grip of the pandemic, I believe courageous climate action that invests in clean energy jobs, embeds equity at every level and reduces emissions to Paris Accord levels is central to rebuilding our quality of life," Carlyle said last month when the governor released his plan.

The bill would also grant the Washington Department of Ecology the authority needed to adopt emissions standards to help the state meet GHG limits and implement a climate program. Bill sponsors included the provision after the state Supreme Court last year found the department lacked the statutory authority to set standards that held producers and distributors of fossil fuels accountable for their indirect emissions.

The cap-and-trade program is designed to put teeth into the GHG reduction targets the legislature upgraded last year without enacting any supporting legislation (*RCW 70A.45.020*). Those targets require the state to reduce GHGs to 45% below 1990 levels by 2030, 70% by 2040 and 95% by 2050.

"The greenhouse gas emissions limits established in RCW 70A.45.020 are not merely aspirational. Rather, they are intended to guide the implementation of all other state laws and policies that have an impact on greenhouse gas emissions in the state," the bill says.

Cap-and-trade would cover any entity within the state responsible for emitting at least 25,000 metric tons of GHGs annually, including electricity generators, importers and utilities; industrial facilities; and natural gas and other fossil fuel suppliers. Other entities can opt to participate in the program on a voluntary basis.

Potential Linkage

Central to SB 5126 is the development of carbon allowance auctions overseen by the Department of Ecology but managed by an independent contractor.

Auctions would be held no more than four times each year. The bill directs the department to design the auctions to allow — "to the maximum extent possible" — integration with other GHG trading programs, such as the Western Climate Initiative, which includes California and the Canadian province of Quebec.

"The department may conduct auctions jointly with other jurisdictions with which it has a linkage agreement," the bill states.

The bill calls for the cap-and-trade program compliance obligations to begin Jan. 1, 2023, with the first compliance period running through the end of 2026. The Ecology Department would need to adopt a budget of allowances for the first compliance period by Oct. 1, 2022. Emissions data reported to the department for 2017 through 2021 would be "deemed sufficient" for adopting annual emissions budgets and demonstrating compliance, according to the bill.

To minimize the impact of cap-and-trade costs on electricity customers, the program would allocate free allowances to consumer- and investor-owned utilities for the first compliance period starting in January 2023. Any allowances allocated at no cost would be consigned to the next auction with proceeds rebated back to ratepayers. Before the second compliance period commences in the January 2027, the department would need to adopt rules for allocating no-cost allowances to only consumer-owned utilities with an approved clean energy implementation plan.

Natural gas utilities would be allocated free allowances for the first compliance period in amounts proportional to their provision of service to low-income customers, measured by the number of customers who receive bill or rate assistance from the utility. Those allowances would be consigned to the auction for the benefit of low-income customers.

The bill also calls for free allocations during the first compliance period for "emissions-intensive, trade-exposed" industries. The

CAISO/West News

category covers a wide swathe of sectors, such as primary and secondary metal manufacturing, paper manufacturing, aerospace, wood products, mineral manufacturing, chemical producers, computers and electronics, food production and cement.

Industrial users would be allocated 90% of their compliance obligation for the 2023, declining by 5 percentage points each year through 2026.

"By Jan. 1, 2024, the department must adopt by rule objective criteria for both emissions' intensity and trade exposure for the purpose of identifying emissions-intensive, trade-exposed manufacturing businesses during the second compliance period of the program and subsequent compliance periods," the bill says.

Funding Source

The bill would also require the department to complete an evaluation of the program's performance in reducing GHGs statewide and criteria pollutants in overburdened communities by the end of 2035. It would allow the department to adjust emissions budgets if the evaluation shows the program is coming up short of meeting the 2040 goal.

Auction revenues would be deposited into a climate investment account created in the state treasury. Funds could be spent on clean transportation programs; programs to improve the climate resilience of the state's waters, forests and vital ecosystems; clean energy transition programs that assist affected workers and low-income individuals; and emission-reduction programs.

"Projects or activities funded from the account must meet high labor standards, including family-sustaining wages, providing benefits including health care and pensions, career development opportunities, and maximize access to economic benefits from such projects for local workers and diverse businesses," the bill says.

The bill would require the governor's office to convene a climate commitment task force consisting of state agencies, other governments and stakeholders by July 1. The task force would be charged with hammering out the details of the legislation and preparing for rollout of the program. ■

CAISO/West News

Western RA Effort Could Wrest Some Control from States

Northwest Power Pool Proposal Would Require Deference to Regional Program, Study Says

By Hudson Sangree

A Western resource adequacy program proposed by the Northwest Power Pool could require state regulators and utilities to relinquish some control over their integrated resource planning (IRP) processes, according to a report discussed in a webinar Friday hosted by the Western Interstate Energy Board.

The biggest impacts would be on RA targets and resource capacity credits, while load forecasts and transmission expansion would also be affected, researchers at the Lawrence Berkeley National Laboratory, the University of Texas and WIEB concluded.

Resource capacity credits allocate values to categories of generation. If a regional RA entity and its members were to assign different values to wind and solar power, for example, the conflicting assessments could undermine Western RA efforts, researchers said. Local planners would have to defer to the regional entity in the case of disagreements.

"There should be a regional resource capacity accreditation process that would create capacity credits for different variable resources or, in general, all the resources," Juan Pablo Carvallo, the report's lead author and senior scientific engineering associate at Lawrence Berkeley.

States would also have to defer to a regional entity to establish RA planning targets, he said.

If states wanted to be "super adequate" and have stricter RA criteria than a regional body "that would be perfectly fine … [but] it would be particularly problematic if it was the other way around; if some state, for some reason, had a lower reliability target than the regional level, that would create numerous problems," Carvallo said.

The *report,* titled "Implications of a regional resource adequacy program on utility integrated resource planning: Study for the Western United States," elaborated on the conclusion.

"States have historically assigned different capacity credit factors for similar resources — especially for wind, solar and demand response — which may create friction among members if some states recognize higher or lower capacity than others for similar resources," it said.

"This report finds that for an efficient and effective operation of a regional RA program, states in the footprint will need to defer to the program's definitions of resource adequacy targets … and resource capacity accreditation. States would effectively surrender control over those two assumptions and let the regional program define them," it stated. Members of a regional RA program would also have to find ways to coordinate load forecasts and transmission planning instead of going it alone.

"These elements could continue to be developed by the [load-serving entities] under state IRP mandates, but coordination of input data, modeling assumptions and outcomes will be needed with the regional RA program," the report said.

A regional entity could establish transmission plans from the top down or compile a larger plan from local planning efforts, Carvallo said.

NWPP launched its *RA effort* in 2019 after studies showed the Pacific Northwest could start to see resource shortfalls as soon as 2020 or 2021. As designed, the program would be voluntary but could impose mandatory RA requirements on entities that join to avoid LSEs "leaning" on the program to meet their own RA requirements.

NWPP's sprawling footprint covers eight Western states and two Canadian provinces, meaning the RA program could potentially govern much of the Western Interconnection except for Arizona, California and New Mexico. (See *Western Resource Adequacy Program in the Works*, *NWPP Details Proposed Reliability Program* and *NWPP RA Effort Quickly Ramping Up*.)

The Northwest, California and other parts of the West face tightening supply caused by the retirement of coal plants and a greater dependence on wind and solar resources. Those conditions contributed to California's energy emergencies last summer including rolling blackouts in August, and CAISO is urgently advancing its own RA efforts to head off shortages this summer. (See *CAISO to Focus on Resource Adequacy in 2021*.)

"Monitoring and maintaining RA is becoming increasingly complex and challenging due to plant retirements, higher penetration of variable renewable energy resources and COVID-related load fluctuations that translate to higher uncertainty on the amount of

Pacific DC Intertie at The Dalles | © *RTO Insider*

CAISO/West News

generation that will be available during periods of peak demand," the report, funded by the U.S. Department of Energy, said.

"This paper is primarily aimed at state regulators, public utility commission staff and resource planners from states in the NWPP footprint that are pondering how their IRP guidelines and regulations may need to adjust to operate jointly with a regional RA program," it said.

SPP as Role Model

The study examined the experience of the Southwest Power Pool, which partly served as a role model for NWPP's effort. SPP and NWPP agreed in August to work together on NWPP's development of the RA program, with SPP acting as program director. (See *SPP to Develop NWPP Resource Adequacy Program*.)

"SPP is an interesting case study for this paper, because many LSEs in its footprint are required to conduct IRP while also complying with SPP RA requirements," the report said. SPP and its members generally have been able to communicate and reach agreement on the types of issues that will likely arise in NWPP's program.

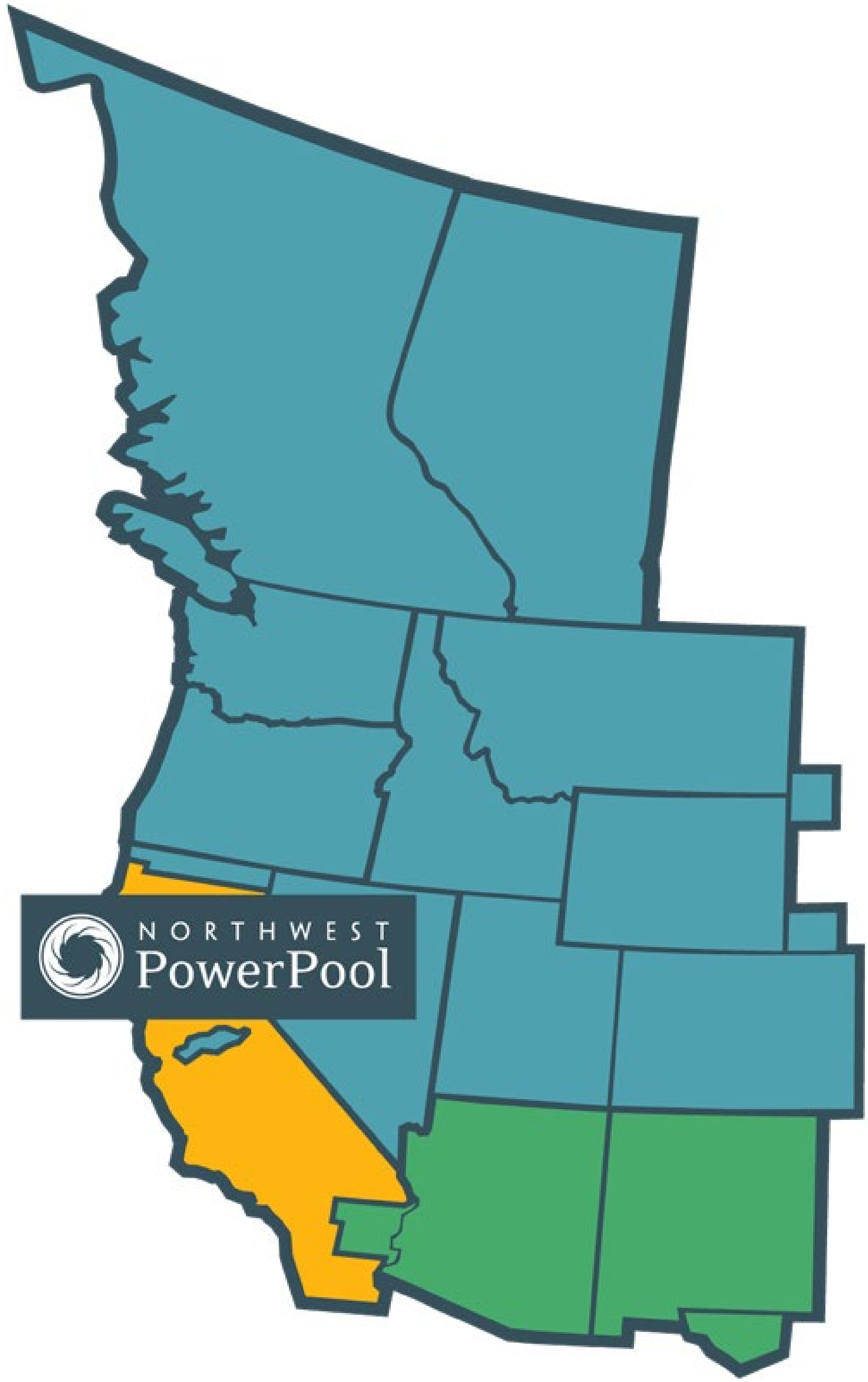
"Ongoing work among states lead to consensus even when there were initial disagreements on a range of topics," the report said. "This relationship has made [local] IRP and SPP guidelines naturally follow each other as evidenced from IRP reports and statutes."

LSEs, for instance, tend to defer to SPP on transmission planning because they "do not want to be redundant, and they inherit in their IRPs many of the assumptions coming out of the transmission planning process from the Southwest Power Pool," Carvallo said.

The report said the "SPP experience shows that load forecasting can be left to the member entities in the regional program provided that they develop and share forecasts with standardized statistical characteristics."

"Ultimately, interviewees from public utility commission staff from SPP states indicated that LSEs have an incentive to develop IRP assumptions that are consistent with SPP's in order to fulfill their membership duties," it said.

In the NWPP RA program, the report said, "LSEs should be able to develop NWPP-aligned forecasts as part of their IRP processes and benefit from the public stakeholder engagement as long as IRP regulations in the NWPP states are based on a broad and flexible set of principles." ■



The footprint of Northwest Power Pool, in blue, covers eight states and two Canadian provinces. | *NWPP*

Calif. PUC Orders $200M Microgrid Incentive Program

Commission Hopes to Help Communities Most Vulnerable to PSPS

By Hudson Sangree

The California Public Utilities Commission ordered the state's investor-owned utilities to take steps to hasten the creation of microgrids Thursday, including establishing a $200 million incentive program for communities most at risk from public safety power shutoffs (PSPS).

It was the latest in a series of measures the commission pushed through in the past year in an effort to mitigate impacts when utilities intentionally shut off power to prevent electrical equipment from igniting wildfires. (See *Calif. Rushing Microgrids for Fire Season Shutoffs*.)

"This decision is the culmination of a whirlwind year … for microgrids and the resiliency team," CPUC President Marybel Batjer said. The commission issued two major decisions in one year when a single decision generally takes 18 months, she said. "This has been nothing short of a whole lot of hard work done very quickly."

The commission unanimously approved a proposed decision on Track 2 of their microgrid *rulemaking* to facilitate local generation and distribution that can operate independently of the larger grid in emergencies. It ordered the state's three large IOUs — Pacific Gas and Electric, Southern California Edison and San Diego Gas & Electric — to each adopt new microgrid tariffs and to collectively create a $200 million program to incentivize microgrids in underprivileged communities that are most vulnerable to PSPS.

"This decision builds on our efforts to reduce barriers for the commercialization of microgrids while keeping an eye to ratepayer equity and supporting vulnerable and low-income communities," Commissioner Genevieve Shiroma, who led the effort, said in a statement.

The adoption of microgrids was fast-tracked by Senate Bill 1339, passed in 2018. The bill requires the CPUC to implement microgrid standards, rates and tariffs, and reduce barriers to microgrid deployment.

The commission retooled its rulemaking to focus on microgrids and resilience ahead of the 2020 fire season. It established a new section in its Energy Division devoted to the matter and opened the rulemaking in September 2019.

In Track 1 of the rulemaking, the commission ordered IOUs to streamline and expedite interconnection processes for microgrid resilience projects and to work with local and tribal governments to bring the projects online by late summer 2020. The plan called for utilities to standardize application processes for microgrids, to expedite signoffs on installed projects and to increase staffing to accelerate interconnections. (See *CPUC Proposal Would Promote Microgrids*.)

The Blue Lake Rancheria in Humboldt County installed a microgrid to provide power during PSPS. | *Siemens*

The CPUC also approved controversial plans by PG&E to deploy hundreds of diesel generators to power substations and key facilities for the 2020 fire season. It expressed dismay at the idea of using diesel fuel amid the state's push for clean energy but said it was the only immediate solution to widescale power outages.

Track 2

Dozens of parties commented on the Track 2 decision. Some argued it placed the development of microgrids in the hands of the large IOUs responsible for starting wildfires instead of letting affected communities have more input.

"We urge the commission to reject the current proposed decision and to include the voices of Black, indigenous and people of color in making revision to the proposed decision that will include control and ownership in development of these resources in those communities," said Barbara Stebbins, a member of San Francisco Bay Area advocacy group Local Clean Energy Alliance's steering committee. "The current proposed decision gives almost complete control over microgrid development to the investor-owned utilities," which runs contrary to the intent of SB 1339, she argued.

The commission shared those concerns but praised the decision's incentive program, which it said would lessen the likelihood that wealthier communities would have their own backup power while poorer communities would not.

"I appreciate the caution that's taken in looking at how these rule changes and potential tariff changes will impact the entire rate base," Commissioner Martha Guzman Aceves said. "I actually appreciate the incentive approach in order to guard from leaving the customers behind who probably need it the most, certainly in the scenario of a PSPS event."

The commission also told utilities to find clean energy approaches to backup power by 2022 to replace the diesel generators.

"This decision addresses resiliency to keep customers energized for the upcoming 2021 fire season, including a transition plan to clean backup generation for 2022 and beyond," Shiroma said. "We will continue to actively engage with stakeholders to make the grid more resilient for all." ■

CAISO/West News

CAISO Issues Final Report on August Blackouts

Efforts Underway to Ensure Summer Reliability

By Hudson Sangree

CAISO and its sister state agencies released a final, more detailed analysis Wednesday of the mid-August blackouts and steps they are taking to prevent capacity shortfalls this summer and beyond.

"We recognize our shared responsibility for the power outages many Californians unnecessarily endured," stated a cover letter to Gov. Gavin Newsom signed jointly by the heads of CAISO, the California Public Utilities Commission and the state's Energy Commission. "The findings of the final analysis underscore this shared responsibility and give greater definition to actions that can be taken to avoid or minimize the impacts to those we serve."

Requested by Newsom, the report incorporates data that was not yet available during the preparation of a preliminary root-cause analysis issued in October. (See *CAISO Says Constrained Tx Contributed to Blackouts*.)

The *final report* mainly confirms the preliminary conclusion that the rolling blackouts CAISO ordered Aug. 14-15 resulted from a combination of severe heat across the West, inadequate resource planning and market practices that undermined procurement. But it elaborates on those findings with more specific evidence and recommendations gleaned from months of investigation.

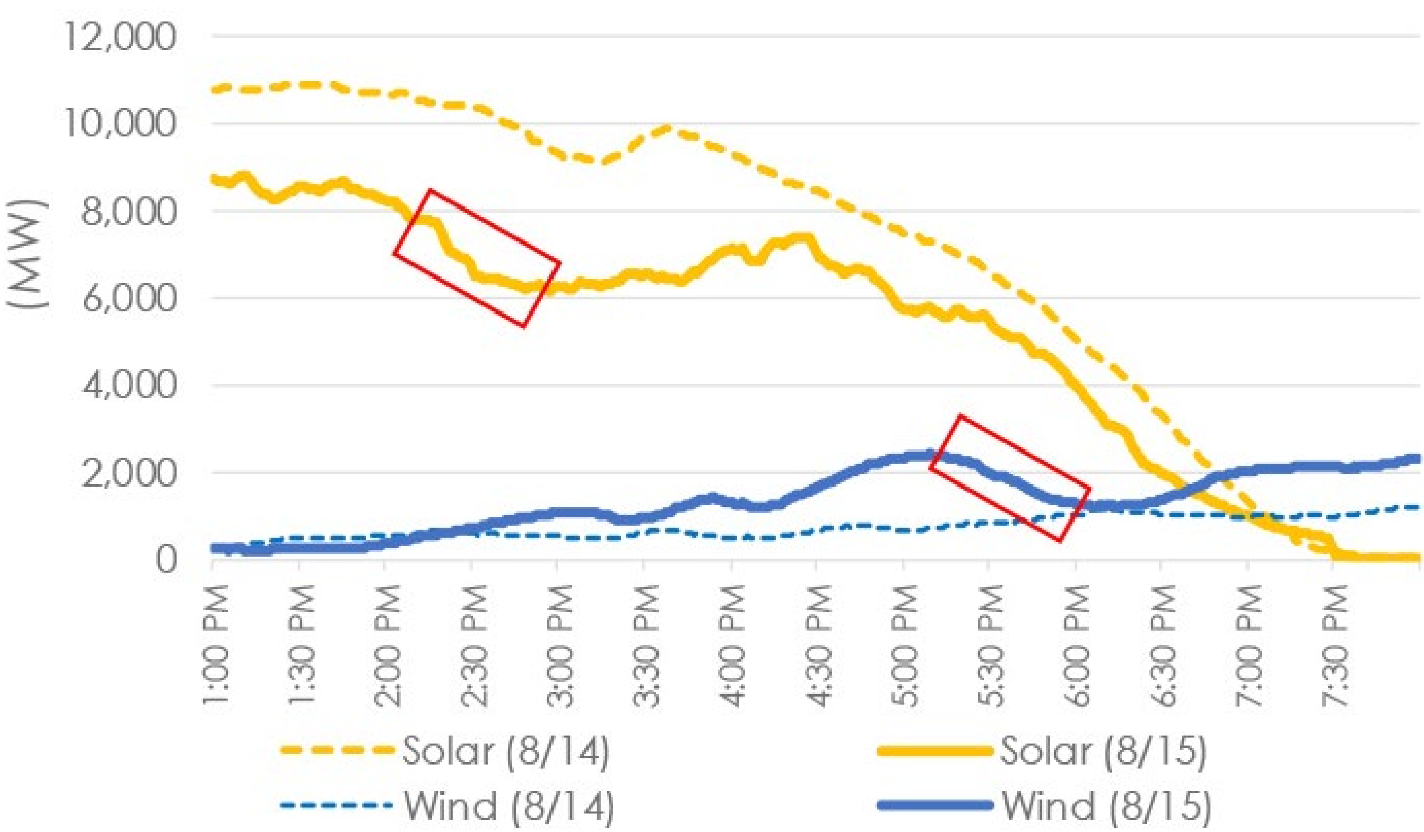
"This Final Root Cause Analysis provides important insights and lessons learned about the factors that contributed to the rotating power outages of last summer," CAISO CEO Elliot Mainzer said in a statement. "As we prepare for summer 2021 and beyond, I look forward to working closely with the CPUC, CEC, policymakers and regional stakeholders to bring our planning, procurement and operational practices together into a modernized and well-integrated resource adequacy framework for California."

CAISO previously said that import bids in the day-ahead market were 40 to 50% higher during the energy emergencies of August than typical resource adequacy requirements at that time of year, but transmission constraints limited the transfers into CAISO's footprint. A major transmission line from the Pacific Northwest had been derated because of the weather, the preliminary analysis reported.

The final analysis newly reported that the line in question had experienced a forced outage because of a storm in May 2020 that damaged the line and derated the California-Oregon Intertie (COI) into August.

"The derate reduced the CAISO's transfer capability by nearly 650 MW and caused congestion on usual import transmission paths across the COI and Nevada-Oregon Border," the final report said. "In other words, more energy was available in the north than could be physically delivered, and the total import level was less than the amount the CAISO typically receives."

One of CAISO's current efforts — part of its



Blackouts on Aug.14-15 occurred around 6:30 p.m. as solar ramped down. | *CAISO*

CAISO/West News

Resource Adequacy Enhancements stakeholder initiative — is a controversial proposal to contract for the highest level of firm transmission into CAISO from the Northwest, guaranteeing delivery of essential hydropower resources. (See *CAISO Seeks 'Firm' Tx for Resource Adequacy*.)

Another RA effort involves more accurately accounting for the capacity of intermittent resources such as wind and solar, which can be unpredictable.

Updated figures in the final report showed combined RA values for solar and wind fell by 1,300 MW Aug. 14-15. Solar generation was reduced because of high cloud cover and smoke from wildfires raging at the time. Wind generation dropped without warning by 1,200 MW on Aug. 15 caused by tropical storm influences from the south.

When wind plummeted during the so-called net peak, as solar waned and demand remained high in the early evening, CAISO was unable to maintain its safety reserves to prevent larger grid failure.

The report recommends that the state update it estimations of wind and solar capacity.

"The CPUC has improved the methods for estimating the reliability megawatt value of solar and wind over the years, but the reliability value of intermittent resources is still over-estimated during the net peak hour," it said. "Improvements to the RA program should account for time-dependent capabilities of intermittent resources."

More RA, Batteries

The report noted other efforts underway to avoid future shortfalls. They include an emergency reliability rulemaking by the CPUC to procure additional resources to meet demand this summer.

"Through this proceeding, the CPUC has already directed the state's three large investor-owned utilities to seek contracts for additional supply-side capacity and has requested proposals for additional demand-side resources that can be available during the net demand peak period (i.e., the hours past the gross peak when solar production is very low or zero) for summer 2021 and summer 2022," the report said.

CAISO is performing an analysis to increase the CPUC's RA procurement targets.

"Based on the analysis to date, CAISO recommends that the targets apply to both the gross peak and the critical hour of the net demand peak period during the months of June through October 2021," it said.

The ISO is expediting a stakeholder process to consider market rule changes by June to "ensure the CAISO's market mechanisms accurately reflect the actual balance of supply and demand during stressed operating conditions." (See *Summer Readiness Sought by CAISO, CPUC*.)

CAISO is also working to integrate hundreds of megawatts of battery storage into its grid by summer to store excess solar and wind power for use during the evening net peak. The CPUC said it is trying to remove regulatory obstacles to battery and generation resources coming online by this summer.

"It is our top priority to ensure we have the demand- and supply-side resources needed to maintain reliability."

—Marybel Batjer, CPUC President

"The acceleration of climate change demands we enhance our planning efforts and market practices at a faster pace and with broader anticipation for what is possible," CPUC President Marybel Batjer said in a statement. "It is our top priority to ensure we have the demand- and supply-side resources needed to maintain reliability, and this [final root-cause] analysis demonstrates how we will do it and continue to decarbonize the grid." ■

| Ready.gov

ERCOT News

Texas PUC Overturns ALJ on Price Corrections

Commissioners Deny ERCOT Market Participants' Complaints

By Tom Kleckner

Texas regulators last week denied complaints by two ERCOT market participants and rejected an administrative law judge's preliminary decision related to the ISO's price-correction practices (*50871*).

DC Energy Texas and Monterey TX, both qualified scheduling entities in ERCOT, alleged last year that the ISO improperly charged them for point-to-point obligations in the day-ahead market at prices exceeding their not-to-exceed bid prices. The ALJ in October *ruled* ERCOT violated its Protocols when it issued resettlement statements and found that DC Energy and Monterey were entitled to a remedy.

Texas' Public Utility Commission disagreed. After hearing arguments from both sides during its open meeting on Thursday, it granted ERCOT's motion for a summary decision.

Monterey's legal counsel, Valerie Green, argued that maximum prices are the only way market participants can limit their liability in auctions and that they are a fundamental component of the bid. She said DC Energy had committed to pay less than $261/MWh but wound up ultimately being charged more than $44,000/MWh for the same contract path.

ERCOT Senior Corporate Counsel Erika Kane responded that the grid operator followed its Protocols in making the price corrections and that all market participants are aware of the process.

"Just because ERCOT has done it this one way, that doesn't mean it's necessarily correct in the Protocols," Green countered.

The ISO has been forced to make a number of price corrections in recent years because of software or human errors. Most recently, the Board of Directors in October approved price corrections for 25 operating days during 2020. (See "Board Approves 2 Sets of Price Corrections," *ERCOT Board of Directors Briefs: Oct. 13, 2020*.)

"I think DAM price corrections is a very apt phrase here," Commissioner Arthur D'Andrea said.

PUC Chair DeAnn Walker noted ERCOT had attempted to revise its process for price corrections with a nodal protocol revision request but failed to successfully complete the stakeholder process.

Texas PUC Chair DeAnn Walker | *Texas PUC*

"We may have to address it here because the industry can't do it out there," she said. "I really have a problem with this being uplifted to ratepayers who had nothing to do with this. … Every ratepayer in ERCOT is going to have to pay for this mistake, and I don't think that's the right answer."

D'Andrea and Commissioner Shelly Botkin agreed with Walker, with D'Andrea saying the case "raises questions [that] need to be answered at the commission."

"Efforts to resolve this issue at ERCOT have stalled out," Botkin said. "It may be time for us to make some policy decisions about how to do these things. Nobody likes price corrections."

No Approval for Entergy, ETEC Swap

The commissioners decided not to sign off for the time being on a request by Entergy Texas and East Texas Electric Cooperative (ETEC) for approval of two mutually dependent transactions until they can gather more information from the parties (*50790*).

The utilities want to transfer ETEC's ownership of the Hardin County Peaking Facility to Entergy in exchange for a minority interest in the latter's new Montgomery County Power Station that equates to 75 MW of capacity. Montgomery County, a 993-MW natural-gas facility, was energized on Jan. 1.

If approved, Entergy would pay a little over $36 million for the 11-year-old Hardin facility, which consists of two 75-MW combustion turbines. ETEC would nearly double that by paying $71.1 million for its minority share in Entergy's unit.

"We have a company giving up ownership in a very efficient, new project to get a less efficient, older project," Walker said. "I can see what's in East Texas' best interest, but I'm not sure how it's [beneficial] to Entergy."

The commissioners also expressed their unease with what they said were "side deals" between some of the parties involved. The joint applicants, PUC staff, the Office of Public Utility Counsel and Texas Industrial Energy Consumers filed an unopposed settlement agreement last year.

"This looks more like a straightforward transfer of money," D'Andrea said. "It's hard to know. Ultimately, money is flowing from Entergy to ETEC. Entergy has a rebuttal that says, 'No, this is mutually beneficial exchange.'

"We have to make a public interest finding, and I'm not sure I'm ready to do that," he said.

The PUC did approve on an interim basis Entergy's request to update the power plant's generation cost-recovery rider to reflect the sale of its partial interest. The commissioners agreed to abate the proceeding until either the transaction closes or the utility tells the commissioner it won't close (*51381*).

The commission signed off on two other orders involving Entergy. It approved Entergy's request to establish regulatory accounting treatment for a mark-to-market tax accounting method (*51095*) and to establish the tax effects of the method's regulatory accounting treatment (*50540*) in its existing purchase power agreements.

In other actions, the PUC:

- Approved East Texas Electric Cooperative's request to change its wholesale transmission service rates, setting its recoverable annual cost-of-service revenue requirement at $244,902 (*50295*).
- Allowed Texas-New Mexico Power Co. to upgrade its advanced meter technology for 170,000 meters after its service provider announced it would no longer support the third-generation network (*51387*).
- Granted good-cause waivers of rate-filing requirements to Cross Texas Transmission (*51534*) and Electric Transmission Texas (*51583*).

Close COVID-19 Call for D'Andrea

Walker was the only commissioner present in the hearing room for the open meeting, though both D'Andrea and Botkin called in from self-isolation.

D'Andrea quarantined himself "out of an abundance of caution" after being told a family member had symptoms similar to those of COVID-19. The family member has since tested negative for COVID-19. ■

ISO-NE News

Massachusetts Governor Vetoes Mass. Climate Bill

Continued from page 1

He added there is "nothing in this bill to adapt to the ongoing and future impacts of climate change.

"If we intend to comprehensively address climate change, we must give ourselves and our colleagues in local government the tools necessary to create a Commonwealth that is more resilient to the destructive weather events and natural disasters we continue to face because of ongoing climate change," Baker said.

The governor said that while his administration "wholeheartedly supports the environmental justice goals of this bill, intent without the tools to address those issues are empty promises."

The Union of Concerned Scientists (UCS) said Baker's veto was an "unnecessary and disappointing move." It said the legislation would have strengthened the state's carbon emissions goals.

"A lot of really good thinking from a whole lot of perspectives went into shaping this bill, and it has so many important pieces," said Paula García, senior bilingual energy analyst at UCS.

"The governor said he vetoed the bill in part because it would slow housing production. This is a false choice," she said. "We can address climate change and housing needs simultaneously."

According to a UCS study, about 7,000 residential properties, currently home to roughly 14,000 people in Massachusetts, are at risk because of rising sea levels by 2045. The total number of at-risk residential properties jumps to more than 89,000 — 178,000 people — by 2100.

"While Massachusetts has a network of shoreline stabilization structures along its coast, few of these are designed to keep out higher tides," García said. "And we know that people of color suffer disproportionately from climate impacts."

She said Baker's action "is a horrible lost opportunity to stop perpetuating environmental injustices."

"Being a whole lot bolder about our climate trajectory is something we need now," García said. "Faster clean energy progress is incredibly important — for addressing our enormous public health challenges, getting the economy back on track and making sure that we're bringing every tool to bear to dismantle systemic injustices."

Massachusetts Gov. Charlie Baker | © *RTO Insider*

Dan Dolan, president of the New England Power Generators Association (NEPGA), said his organization "strongly supports the need for collective, economy-wide action to meet the climate challenge."

"A reliable, cost-competitive and clean electricity grid is vital to driving deep decarbonization across the economy, and New England's competitive electricity generators stand ready to power that future," Dolan said. "Now is an opportunity to revisit a bill passed in the waning hours of an unprecedented legislative session."

He added that "to most efficiently drive carbon reductions, the legislature should enact a meaningful, multi sector price on carbon emissions."

"This focus on the actual cause of climate change can create a sustainable and durable marketplace to meet our climate responsibilities," Dolan said. "NEPGA urges the legislature to focus on this approach and not continue its reliance on decades-long contracts that undermine the innovation, competition and consumer benefits of the New England-wide electricity market."

'Clarion Call'

Baker told the legislature his administration does not want to choose "clean energy winners and losers" and should "let resources compete in a manner that delivers the most benefit at the least cost to Massachusetts ratepayers."

In October, Baker, along with governors from Connecticut, Maine, Rhode Island and Vermont, jointly released a statement arguing that ISO-NE was frustrating regional and state efforts to reduce economy-wide GHG emissions. The governors called for reforms to the RTO's market designs, transmission planning and governance. (See *New England Governors Call for RTO Reform*.)

Baker told legislators that he wants to "allow this process to reform our regional energy system to mature over the coming months, at which point we will better understand whether further state procurements are necessary, or if opportunities for regional procurements and coordination emerge as a more effective approach to secure clean energy resources while protecting Massachusetts ratepayers."

Dolan said that portion of Baker's letter goes directly to the broader point NEPGA has been raising regarding the impact of long-term contracts.

"NEPGA applauds Gov. Baker's clarion call to drive the next evolution of the regional electricity market to meet the clean energy and climate needs of New England while preserving reliability through competitive markets," he said.

Dolan said NEPGA is committed "to engaging with the states to shape the future of the electricity market," and it urges Massachusetts lawmakers to do the same with their regional counterparts.

"The efficiency and cost gains by pursuing this regional vision is consistent with scores of reports and analysis from academic and industry experts — and the states themselves," he said.

Concluded García: "Massachusetts can and should do more, and we need to be as bold as we can be. With the speaker of the House and the Senate president committed to reintroducing the legislation, we're not back at square one on this legislation. But at this point, we should be across the finish line." ■

MISO News

MISO, SPP Regulators Call for Pancaking Fix, Smaller Tx Projects

By Amanda Durish Cook

Regulators hailing from SPP's and MISO's footprint would like to see the grid operators improve seams relations by resolving rate pancaking and adding a smaller interregional project category.

The MISO-SPP Seams Liaison Committee (SLC), comprised of regulators from the Organization of MISO States (OMS) and SPP's Regional State Committee (RSC), agreed last week that the RTOs would best be served by addressing multiple transmission charges at their seam and creating a class of smaller cross-border projects similar to the Targeted Market Efficiency Projects (TMEPs) used by MISO and PJM.

The two items top the regulators' draft list of seams *recommendations*. The regulators also designated current interconnection queue processes and interregional transmission planning efforts as medium priority.

The SLC relegated market-to-market improvements, developing an interface pricing process, and coordinated transaction scheduling to low priority status.

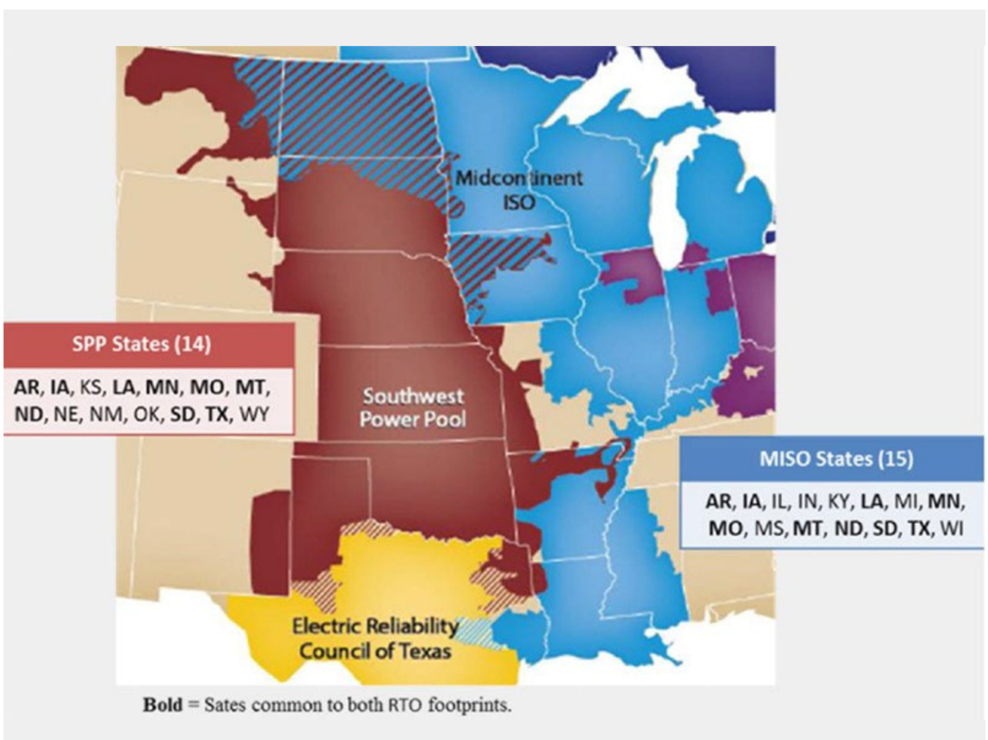
Texas Public Utility Commission Chair DeAnn Walker will share the draft list of recommendations with the RSC when it next meets on Monday. She cautioned her fellow regulators that the draft document "could come out of the RSC looking much different," as the committee has not been as involved as the OMS the last few months.

"I would like to get more concrete direction from the RSC as a whole," she said during the committee's call on Jan. 12. "Maybe [RSC's members] will provide a little bit more insight and clarity on this."

"I would prefer Chairman Walker go to our RSC first," RSC's newly elected president Kristie Fiegen said. "We haven't been able to discuss anything because we haven't had a publicly noticed meeting [lately]."

Walker acknowledged that MISO and SPP are already working to address many of the topics, giving partial credit to the SLC. "We've done a lot in getting MISO and SPP to work together where there was probably a little bit of a roadblock before," she said.

Missouri Public Service Commissioner Ryan Silvey said that while the OMS and RSC have agreed on the majority of the recommendations, differences on issue prioritization are because the RTOs already have plans in place to make improvements.



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

Walker said tackling transmission rate pancaking between MISO and SPP is the most "controversial" recommendation because it would require significant member agreement and stakeholder votes to come to a solution.

"I think there are a lot of members who would like to see this move forward, but there are just as many who wouldn't," she said. A pancaking solution could potentially result in "years of drawn-out litigation," she said, noting multiple Texas utilities have litigious histories.

"I don't see them being docile," Walker warned.

The SLC may put together a working group to address rate pancaking between MISO and SPP.

"What I hope this will turn into is a negotiation that turns into an agreement first with the [transmission owners] and spreads to other members," Arkansas Public Service Commission Chairman Ted Thomas said late last year.

OMS and RSC also recommended the grid operators use the TMEPs study category, which MISO and PJM use to identify smaller transmission projects that ease historical congestion along the seams.

Last year, regulators appeared split over whether MISO and SPP should embark on their own TMEP process. Some MISO South regulators have maintained that the seam isn't mature enough to benefit from congestion-relieving TMEPs.

Others said a similar process — not an exact replica — could work.

"I don't know that we need to get tangled up in exactly the same specific study process, but that we have one that accomplishes the same study objectives," North Dakota Commissioner Julie Fedorchak said last year.

MISO and SPP have never approved a major interregional transmission project. Some in the MISO stakeholder community have suggested TMEPs as a route to alleviate some cross-border congestion.

Having finalized its recommendations, the committee may now transition to a monitoring role on MISO-SPP seams issues and hold less frequent meetings. Commissioners noted that the OMS is advisory in nature while the RSC has specific oversight bylaws. Some said the difference could limit how the committee issues guidance going forward. ■

MISO News

MISO Begins Long-term Tx Modeling

By Amanda Durish Cook

MISO will draw on its new planning futures to build the first set of models that could result in the long-term transmission plan's first projects.

The RTO's senior manager of system planning coordination, Jarred Miland, said staff is building reliability and economic models similar to those used in MISO's annual Transmission Expansion Plan (MTEP). He said the long-term assessment's first models will be ready for member review during 2021's first quarter.

The models will be based on three MTEP futures designed for use in the 2021 planning cycle and beyond.

Late last year, MISO launched its first long-term planning effort in a decade to connect fast-growing renewable sources with load centers. (See *MISO Prepares Members for Pricey Transmission Expansion*.)

Miland said during Thursday's Planning Advisory Committee that staff will use the more conservative Future I to build seven base reliability models each for 2030 and 2040. The future assumes 85% of utilities' carbon-cutting plans are met and carbon is reduced 40% from 2005 levels by 2040. MISO currently operates at a 22% carbon reduction from 2005 levels.

"If you think about it, there are over 100 models we could build and we could spend months and months building models and never get to the analysis," he said. "That's not to say we won't build more models. In fact, I expect we will build more models. But we needed something to begin analysis with. … These 14 models certainly won't be the end-all."

Miland said Future I modeling simply kicks off work that will take place in 2021. He emphasized that the long-term planning will take place over several transmission cycles and said that MISO will also likely build seven models apiece for the more aggressive Futures II and III.

"This a long-term plan to see how we're going to stay ahead of the game for the next 40 years," Miland said. "We do anticipate that at end of this year, we may have some projects with ripe business cases that we can bring forward for board approval."

While MISO focuses on model builds, the Organization of MISO States is concentrating on how the long-range projects' cost might be shared in the footprint.

The OMS convened a special cost-allocation committee late last year to draw up principles on how MISO should approach long-term projects' cost sharing.

Up until approval, OMS members were *wrestling* over whether states with more aggressive clean-energy policies should bear a greater share of the costs for transmission that enables renewable energy.

Some commission staff pointed out that several states with renewable portfolio standards have already exceeded their targets. Others said it remains to be seen whether MISO will consider public policy requirements as a benefit metric. The staffers also debated whether some transmission costs should be allocated on a postage stamp basis and whether some long-term transmission projects should be packaged into portfolios.

MISO has said projects will likely face approval independently in annual timelines, rather than being approved en masse in a portfolio.

Speaking at an OMS cost-allocation principles meeting Jan. 11, Minnesota Public Utilities Commissioner Matt Schuerger said bundling transmission projects that have "synergies" can sometimes make sense. He said it's not as if planners would lump together transmission projects "from opposite ends of the footprint."

But New Orleans City Council attorney David Shaffer said each transmission project should be able to stand on its own under scrutiny. ■

| © RTO Insider

MISO Pledges Work on Affected System Studies

By Amanda Durish Cook

MISO said last week that it will approach SPP about improving the processes underpinning affected system studies in response to stakeholders' persistent calls for change.

Stakeholders participating in an Interconnection Process Working Group teleconference on Jan. 12 again questioned why SPP affected system studies include such strict deliverability requirements for MISO generation seeking to interconnect within MISO's footprint. (See *MISO West Risks Becoming 'Dead Zone,' Stakeholders Warn*.)

The MISO and SPP affected system studies processes often produce prohibitively expensive transmission upgrades for prospective generation projects near the seams and interfere with developers' ability to judge the commercial viability of proposed generation.

"I think we've all seen the FERC proceedings and the issues, but these problems aren't going away. And I don't say this is MISO's problem. We're all in this together," EDF Renewables' Arash Ghodsian said.

Coordination between the affected system studies needs another look, Apex Clean Energy's Richard Seide said.

"We're definitely here to see how we can improve. We're all ears," MISO Principal Resource Interconnection Planning Engineer Sumit Mundade said.

"Why does SPP study a MISO resource as if it's a SPP resource at all?" Michigan Public Service Commission staff member Bonnie Janssen asked.

Mundade said the idea is to figure out whether generators in the MISO footprint could harm SPP system performance.

Apex Clean Energy's Deepesh Rana asked if MISO could give interconnection customers earlier notification on what projects will face additional upgrade costs in light of SPP's study findings.

"Is there something that could be done to give more frequent communication on where the analysis stands, in a non-binding way?"

Mundade said SPP recently changed its process to use a screening analysis to identify the specific projects it will study "instead of the old process of studying the whole cluster."

He said MISO can speak with SPP about providing earlier notice on the generation projects selected for affected system studies, but it's unlikely to able to provide earlier cost estimates for the network upgrades SPP identified.

The two RTOs could discuss the possibility of earlier notification and other affected system study process improvements during their monthly nonpublic interregional staff meetings.

Stakeholders also asked MISO to discuss study improvements in the context of its new interregional transmission study, which aims to alleviate the RTOs' respective queue bottlenecks. (See *MISO, SPP to Conduct Targeted Transmission Study*.)

"If MISO doesn't discuss in joint meetings how this can be addressed in the joint study, then I think that's an opportunity missed," Customized Energy Solutions' Ginger Hodge said.

Shortened Queue Still MISO's Goal

Meanwhile, MISO plans to file a proposal to reduce the timeline for a key portion of its interconnection queue — from the definitive planning phase to the signing of an interconnection agreement — to a single year. (See "Queue Timeline Cutbacks Still in the Works," *MISO Winds down MTEP 20 Planning, Focuses on 2021*.)

"The goal is to cut almost 140 calendar days from the current process," interconnection study engineer Miles Larson said.

Larson said the truncated timeline is set to begin with the 2022 cycle of prospective generation. MISO will achieve the reductions by cutting the days allotted for interconnection agreement negotiations and study, performing some study aspects simultaneously.

"Before, the process was very sequential. A lot of these tasks can now be done in parallel," he said at a meeting in November of the Interconnection Process Working Group. He added that study assumptions and modeling will remain unchanged.

But by the end of last year stakeholders were skeptical MISO could achieve those efficiency gains without speedier processing of affected system studies with neighboring RTOs.

"The focus is how do we build these models faster? How do we run these studies more efficiently? How can we be more transparent?" Larson said during the interconnection meeting in January. "Without challenging our timeline, we're not going to get more efficient processes or an alignment" between studying network upgrades and annual transmission planning. (See *MISO Begins Bid to Merge Tx, Queue Planning*.)

At the Planning Advisory Committee meeting Jan. 13, MISO Senior Manager of Economic Planning Neil Shah said it would be nearly impossible to evaluate generator interconnection upgrades for wider economic benefits "within the current definitive planning process framework and timeline."

Larson said stakeholder feedback from the 2022 cycle of projects will be used to make further revisions to the timeline if necessary.

But some said affected system studies remain the real stumbling block to achieving a swifter interconnection process.

"I think affected studies are always going to hold this process back," Ghodsian said. "I would encourage you to work with your neighbors. … I think you can share your ideas with SPP and PJM as they're in the early stages of addressing their queue backlogs."

MISO counsel Mike Blackwell agreed that affected system studies remain a "big concern."

The RTO's interconnection queue currently contains 628 projects totaling 93 GW, enough to cover about three quarters of total load on a peak summer day. ■

"The focus is how do we build these models faster? How do we run these studies more efficiently? How can we be more transparent?"

— Miles Larson, MISO interconnection study engineer

NYISO News

NY Awards 2.5-GW Offshore Deal to Equinor

State Announces Numerous Other Clean Energy Initiatives

By Michael Kuser

New York on Wednesday *announced* that it is awarding 2,490 MW in offshore wind contracts to Equinor Wind US, the largest such procurement ever in the U.S.

Equinor and its partner, BP, will develop two separate projects: an additional 1,260 MW for the companies' Empire Wind in the New York Bight, and the 1,230-MW Beacon Wind, to be located more than 60 miles east of Montauk. State officials had already selected the initial 816-MW phase for Empire Wind, and Beacon Wind could add up to 1,170 MW in the future.

"These projects will deliver homegrown, renewable electricity to New York and play a major role in the state's ambitions of becoming a global offshore wind hub," Equinor CEO Anders Opedal said in a statement.

The new contracts bring the state's total OSW procurement to about 4.4 GW, nearly half the 9 GW targeted by 2035. Along with Empire Wind 1, New York in 2018 selected the 816-MW Sunrise Wind project and the 130-MW South Fork Wind Farm.

The terms for the latest deals have not been announced, but officials estimate the projects will bring $8.9 billion in investment and create more than 5,200 jobs, an economic stimulus sweetened by commitments from companies to manufacture wind turbine components in New York. For example, the country's first OSW tower-manufacturing plant will be built at the Port of Albany; a turbine-staging facility and operations and maintenance hub will be set up at the South Brooklyn Marine Terminal; and other support activities will take place at the ports of Coeymans, Jefferson and Montauk Harbor in Long Island.

Other Projects

New York also made several other announcements related to renewable and clean energy as part of the third segment of Gov. Andrew Cuomo's State of the State address, which began Jan11. (See *Cuomo Outlines Green Path for New York in 2021*.)

The state issued a *solicitation* for transmission projects to bring renewable energy from upstate and Canada to New York City as part of Tier 4 of its Clean Energy Standard. The state is hoping these transmission "arteries" will feed a 250-mile, $2 billion green "superhighway" project

"Supercharging the new transmission superhighway will be vital to completing New York's nation-leading green economic recovery and accelerating renewable energy development programs," it said.

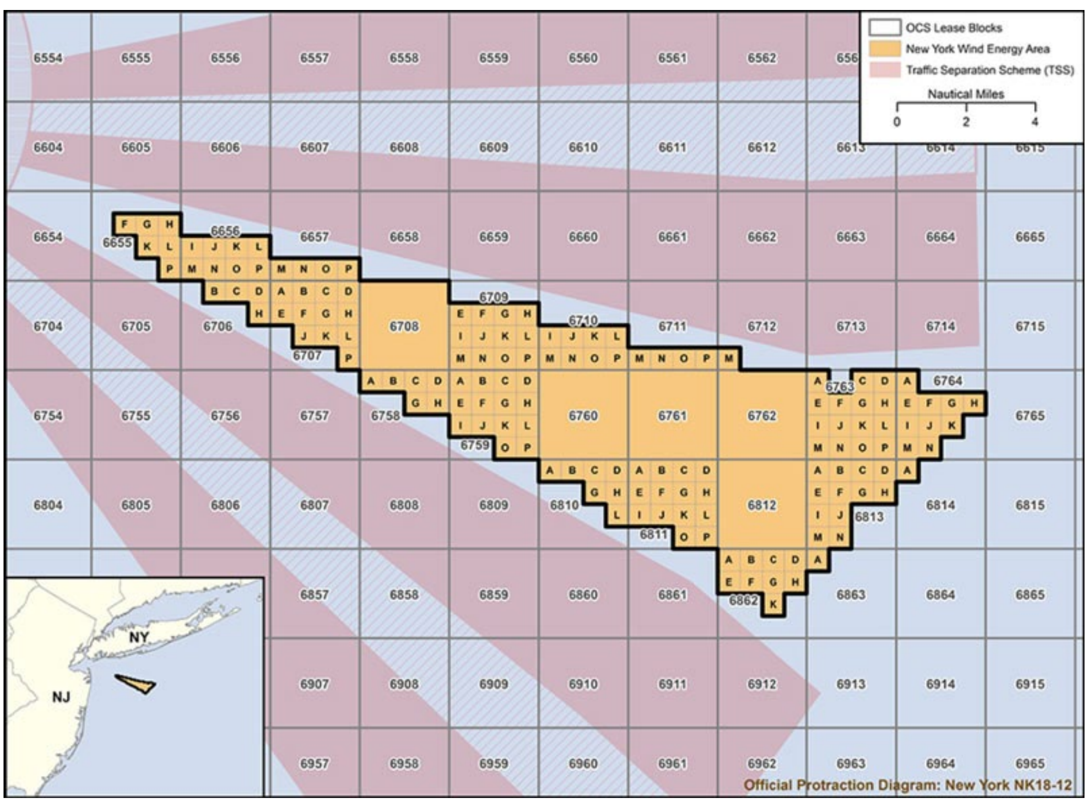
Transmission congestion around New York City could increase after the first 6,000 MW of offshore wind is interconnected without coordinated planning, NYISO told state officials in October. (See *OSW Growth to Test New York's Transmission Grid*.)

In addition, the state announced it will this year contract for 23 solar farms and one hydroelectric facility worth more than 2,200 MW.

It is also investing $20 million in a new OSW Training Institute based at the State University of New York at Stony Brook and Farmingdale State College to train at least 2,500 people for jobs in renewable energy. New York State Energy Research and Development Authority and SUNY issued the first *solicitation* for advanced technology training partners to train the first group of workers beginning this summer.

Anne Reynolds, executive director of the Alliance for Clean Energy New York, lauded the news but *said*, "There is some unfinished business in helping renewables get built, and that is providing some guidance to towns on how to properly value and tax wind and solar projects. ACE NY is calling on the governor and legislature to devise a pathway to standardized taxation for renewable energy."

"The governor's focus on transmission upgrades will ensure that the clean power generated by offshore wind projects is brought to the grid in an efficient and cost-effective manner," Joseph Martens, director of the New York Offshore Wind Alliance, said in a *statement*. ■



Empire Wind is located 15 to 30 miles southeast of Long Island and spans 80,000 acres, with water depths between 65 and 131 feet. The lease was acquired in 2017 and is being developed in two phases (Empire Wind 1 and 2) with a total installed capacity of more than 2 GW (816 and 1,260 MW). | *BOEM*

NYISO News

NYISO Explores Improving BSM Processes

By Michael Kuser

The 2-MW Lewis County Solar Project in Lowville, N.Y. NYISO is seeing a surge of renewables seeking to interconnect, potentially overwhelming its BSM study processes. | *Lewis County, N.Y.*

NYISO last week proposed updating its buyer-side mitigation (BSM) processes in order to compensate for the growing disconnect between the original design, intended to cover a few new resources in any given class year, and the up to 50 such resources to be evaluated currently.

The ISO's BSM rules are designed to prevent uneconomic entry of subsidized resources into its markets. It expects the number of resources needing to be studied under the rules to increase by five to 10 times the historical norm, while the two-year period formerly allowed for these evaluations has halved, Shaun Johnson, director of market mitigation and analysis, *told* the Installed Capacity Working Group (ICAPWG) on Jan. 12.

"We're adding several other BSM evaluations, which could result in at least four to six BSM studies per year, certainly for 2021," Johnson said. "We're in the process of wrapping up the studies for Class Year 19, hopefully very soon. ... So, just in the next six months, we could be looking at an additional four to six studies."

Until recently, staff usually performed the BSM process on about five resources over the course of a class year. CY17 had about seven resources evaluated for BSM, Johnson said. CY19 had more than 50 resources at the start of the study.

"The current processes were not designed to be able to be administered effectively under this expected work load," Johnson said.

Input Assumptions

"This initiative will not discuss new BSM designs or exemptions to BSM; there is a separate process underway with the ISO, the Comprehensive Mitigation Review," Johnson said. "We're all really uncomfortable right now about the risks that the BSM process in particular can add to the delays of the class year timeline."

Those delays could stem from determining the assumptions that go into energy and capacity price forecasts, which determine whether new market entrants are subject to certain exemptions. Part A exempts a new resource from BSM if the forecast of capacity prices in its first year of operation is higher than the default offer floor. Part B permits exemptions if the forecast of capacity prices in the first three years is higher than the resource's net cost of new entry.

NYISO has appealed FERC's rejection of its proposal to put public policy resources ahead of others in the Part A study process with the D.C. Circuit Court of Appeals. (See *NYISO Appeals FERC Rejection of BSM Proposal*.)

"When you have four or five resources that you're looking at, you can iterate and say, 'if this one's out, this is the effect it's going to have'" on prices. "But when you have 30, 40, 50 resources, you just can't iterate like that," Johnson said. "The time it would take to do that is inconceivable, particularly when we get down to the [installed reserve margin] and [locational capacity requirement] values."

NYISO wants stakeholders to consider the timing and lockdown of input assumptions, such as whether it should allow for discussion of the inputs with stakeholders, or post rough assumptions well in advance, Johnson said.

One stakeholder urged the ISO to balance the need for market fairness with the desire for administrative efficiency, urging staff not to avoid extra calculations if they are needed.

Tariff Clarity

NYISO also wants to add language to clarify how the limit on exemptions for renewables is calculated, as the tariff often can be unclear, Johnson said. The ISO had wanted to limit renewable exemptions in a class year to 1,000 MW of installed capacity, but FERC rejected that. It later accepted a proposal to use an unforced capacity reserve margin impact component in the renewable exemption limit formula. (See *NYISO BSM Mitigation Ruling Sparks Glick Rebuke*.)

"This was the first time we applied the renewable exemption limit that we just filed and got approved ... and we realized as we're administering the provisions that were written that some of them we didn't write well," Johnson said. "Others are not consistent with what we presented to stakeholders; they are consistent with what we described in the filing, but we do want to circle back on those components and discuss with stakeholders whether we want to update and clarify this or not."

The ISO also wants to revise language addressing the inclusion of units, supply stack inclusion rules and inflation rate terminology, he said.

NYISO is requesting feedback by Jan. 27 in order for stakeholder comments to be included in any specific enhancement proposals Johnson plans to make, ideally, at the Feb. 9 and Feb. 25 ICAPWG meetings.

Regardless of changes in the composition of FERC under the incoming Biden administration, the next steps are to develop a proposal in time for the Business Issues and Management Committees to consider at their April meetings, Johnson said. ■

NYISO News

NYC's Largest Generator Has New Name, New Aim

Rise Light & Power Proposes 1,200-MW Tx Line from Catskills to NYC

By Michael Kuser

LS Power subsidiary Ravenswood Generating, which runs the largest power plant in New York City, announced on Thursday that it will change its name to Rise Light & Power and expand to develop large-scale clean energy projects.

The company will continue to operate the 2,480-MW Ravenswood Generating Station, the steam energy power plant in service since 1963 on the East River waterfront in Queens. The plant represents over 20% of installed capacity in NYISO's Zone J.

The company's first new large-scale project is the Catskills Renewable Connector, a 1,200-MW submarine and underground transmission line to connect its site in New York City with Greene County on the western side of the Hudson River and just south of the capital region.

"We'll be able to unlock shut-in wind and solar across upstate that previously hasn't been able to reach customers in New York City," Rise Light & Power CEO Clint Plummer told *RTO Insider*. "Obviously it's got to be done in locations where there's community support for development, and we think there's a lot of that."

The state the previous day issued a *solicitation* for transmission projects to bring renewable energy from upstate and Canada to New York City as part of Tier 4 of its Clean Energy Standard, with planners hoping the transmission "arteries" will feed a 250-mile, $2 billion green "superhighway" project. (See "Other Projects," *NY Awards 2.5-GW Offshore Deal to Equinor*.)

The company has filed a NYISO interconnection request (No. 1120) but has not yet committed to a path for financing and regulatory approval of its new transmission line.

Roads to Reality

"We think there are a number of different ways we could get the revenue support that we need," Plummer said.

New York has quickened its permitting processes for both renewable siting and so-called priority transmission projects. Does Plummer think the company can get this new project under construction faster than the 10 years typically needed?

"Possibly, and I say possibly because some transmission lines have taken a long time, others take less time," he said. "For any type of big infrastructure project, it needs to be planned in close coordination with the communities, and we need to be engaging and listening to the thoughts and concerns of those communities and developing routes that work best for them. New York has a very efficient process for evaluating and granting permits to large-scale transmission projects under Article VII, [the state law governing project siting], but that same process also allows for a great deal of stakeholder input, and that's a good thing."

The company also has potential to redevelop Ravenswood's 28-acre site without adversely affecting the existing generation, Plummer said. Since acquiring the plant in 2017, LS Power has invested more than $160 million in modernization and resiliency upgrades for the facilities and removed more than 300 MW of fossil-fired peakers from service.

The state's Public Service Commission in 2019 approved construction of a 316-MW battery storage facility in three phases on the site. The first phase was scheduled to come online this year, but the company on Jan. 12 filed a request to extend the Phase I completion date from April 2021 to June 2024 (*19-E-0122*). (See "Largest Storage Project in New York," *NYPSC Projects Lower Winter Energy Prices*.)

The PSC on Sept. 17 modified dynamic load management implementation plans for the state's six investor-owned utilities, all related to storage, saying the initial plans "resulted in a bias towards short-term, low-capital investment solutions" because of their yearly performance structure (*18-E-0130*). (See *NY Utilities, Developers Tweak Storage Procurement Terms*.)

The commission's December 2018 storage *order* required Consolidated Edison to procure at least 300 MW of storage capacity and each of the other utilities to procure at least 10 MW each, with assets to be operational by Dec. 31, 2022, on contracts up to seven years.

"While LS Power has an impressive track record developing merchant energy storage in California, the New York market does not currently support that kind of development, so the economic viability of this storage project depends upon us obtaining a contract with a customer like Con Edison or NYSERDA," Plummer said. "We participated in Con Edison's 2019 solicitation, and at the end of this past year we found out that we lost."

Con Edison will run another solicitation in 2021 and Plummer said his company looks forward to participating and hopes to win.

Plummer served on the planning team at Deepwater Wind that developed the Block Island offshore wind farm and takes hope from that experience.

"We proposed the project in 2008, and it took us until 2016 until it was built, and of that eight-year period, six of it was getting all the permits, approvals and public support in place," he said. ■

The Ravenswood Generating Station, run by Rise Light & Power, as seen from a neighboring street in Roosevelt Island

NYISO News

NYISO Business Issues Committee Briefs

OKs Meter-related Manual Revisions

NYISO's Business Issues Committee on Wednesday approved manual revisions related to tariff revisions submitted to FERC last month.

Michelle McLaughlin, senior settlements analyst, *presented* the revisions to the Revenue Metering Requirements Manual (RM2) and Meter Services Entity Manual. They reflect changes that allow market participants representing day-ahead demand response and demand-side ancillary services program resources to use meter services entities (MSEs) until those programs are eliminated in 2022.

NYISO's distributed energy resources participation model permits an MSE to provide meter services and meter data services to responsible interface parties (RIPs), curtailment service providers (CSPs) and aggregators. (See *NYISO OKs Changes on Hybrid, Fast Start Resources, TCCs*.)

FERC in January 2020 approved tariff changes permitting RIPs and CSPs to utilize MSEs for demand-side resources.

"In December we filed the tariff modifications with FERC and we're hoping to implement this in February as soon as the tariff modifications become effective," McLaughlin said.

Updating 2019 CARIS Database

NYISO must update and extend the 2019 Congestion Assessment and Resource Integration Study (CARIS) Phase 1 database for specific project evaluations under 2020 CARIS Phase 2 studies. It *presented* related material to stakeholders for discussion.

"The database itself will not differ much at all between what we have here and what we'll have for the 2021 System Resource and Outlook study pursuant to the recent stakeholder-approved enhancements to the economic planning process," Manager of Economic Planning Jason Frasier said. "The real change is more in the process, not so much in the underlying data."

The ISO will soon file tariff *revisions* to streamline its economic transmission planning and expand its scope to capture the grid's ability to deliver energy from the future generation resource mix to the forecasted load. The changes rename the CARIS Phase 1 study to the System and Resource Outlook and double the assessment periods to 20 years. (See "OKs Economic Planning Changes," *NYISO Business Issues Committee Briefs: Dec. 9, 2020*.)

"The changes expand the original 10-year timeframe of 2019 to 2028 to cover the next 10 years out to 2038," Frasier said.

The 2020 CARIS Phase 2 base case will be used for evaluating specific Regulated Economic Transmission Projects (RETP) as required under the tariff.

Senior planning engineer Chen Yang said key updates to New York Control Area (NYCA) generation status reflect the compliance plans generators submitted in response to the state's Department of Environmental Conservation "peaker rule," new NOx regulations that go into effect May 1, 2023. (See *NY DEC Kicks off Peaker Emissions Limits Hearings*.)

"It's worth mentioning that the service pattern in the last two columns [on the right] — basically May 2025 to September 2025 and October 2025 to April 2026 — are repeated for the subsequent years in the CARIS study period," Yang said.

NYCA network model assumptions include:

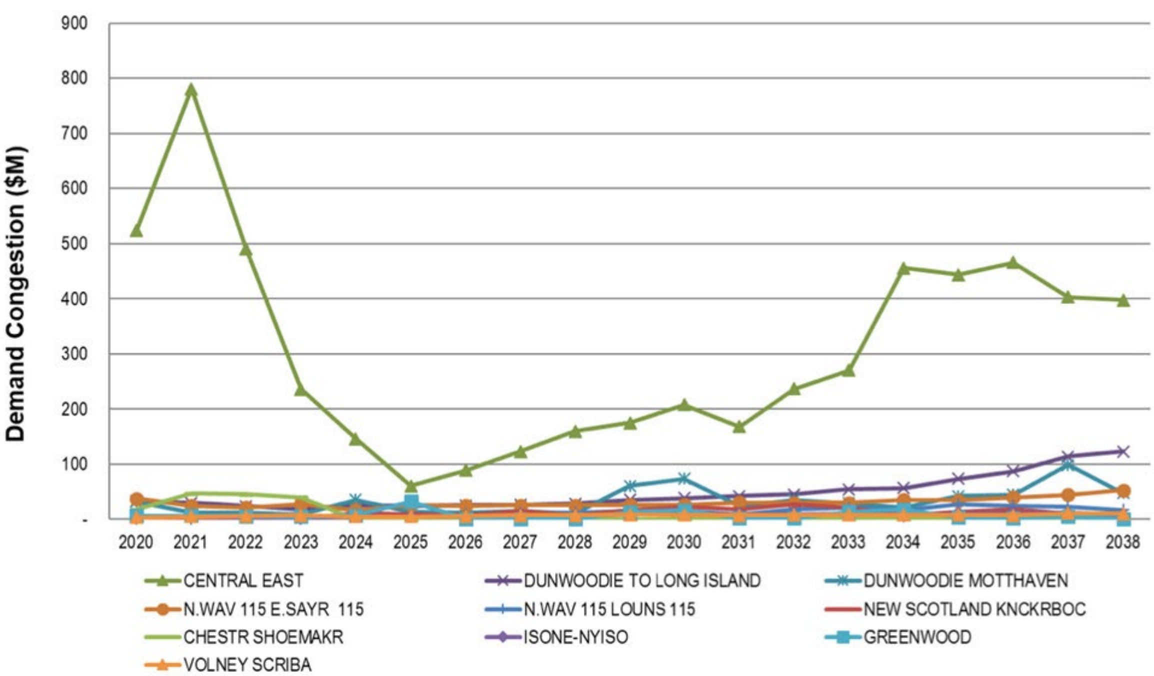
- Leeds Hurley system deliverability upgrade in-service in summer 2021;
- Cedar Rapids transmission upgrade in October 2021;
- L33P (Ontario PAR) out of service until January 2022, and then modeled back in service;
- Empire State Line Project/ Western New York Public Policy Need project in-service in January 2022; and
- AC Tx Public Policy projects in service in January 2024.

Planners adjusted some dates because of software limitation, so the dates used for the study may not reflect actual, expected in-service dates.

Demand congestion would be reduced by the introduction of the AC transmission projects and associated upgrades starting in 2024, Yang said.

Any subsequent updates to the 2020 CARIS Phase 2 Base Case would be brought back to stakeholders for further review. ■

— Michael Kuser



Projected demand congestion by constraint ($M) | *NYISO*

PJM Operating Committee Briefs

SRCS Sunset, SOS Updated

PJM stakeholders unanimously endorsed a proposal to sunset the System Restoration Coordinators Subcommittee (SRCS), which was originally created in 2012 but has not met since February 2019.

Brian Lynn, PJM senior trainer, *reviewed* the proposal to sunset the SRCS during last week's Operating Committee meeting. Stakeholders first discussed the proposal last month at the OC and adopted it by an acclamation vote. (See "SRCS Sunset Proposal, SOS Charter Review," *PJM Operating Committee Briefs: Dec. 3, 2020*.)

Lynn said PJM acknowledges that all SRCS responsibilities are important and will continue to be supported by other groups in the RTO. He said the sunset of the SRCS will reduce duplicative work and meetings as the subcommittee has become less efficient since it was first created.

"We're not asking the SRCS to be sunset due to its responsibilities somehow becoming obsolete or unimportant," Lynn said.

The SRCS previously uniquely addressed responsibilities in PJM including administering, coordinating and debriefing restoration drills conducted within the RTO's footprint. The subcommittee also served as a focal point for system restoration related issues like recommendations for changes to Manual 36 and the overseeing of the annual review of each member company's restoration manual.

Lynn said the Dispatcher Training Subcommittee now handles the coordination of drills. SRCS communications related to COVID-19 drills were directed to the DTS because the group was "more effective" at handling them, he said.

The System Operations Subcommittee (SOS) currently handles system restoration related issues, Lynn said, including Manual 36 changes. And the PJM transmission operations department conducts the annual restoration manual review with members.

PJM received no feedback from stakeholders after the first read of the SRCS sunset proposal in December. Lynn said PJM will add a bullet point to the DTS charter clarifying that it will assume drill organization. He said the charter change will be introduced at the OC in February.

Members also unanimously endorsed minor changes to the SOS charter. Paul Dajewski, senior lead reliability engineer for PJM, *reviewed* the proposed charter *update*.

Dajewski said PJM removed the reference to the SRCS because of the sunset proposal. The changes also include referring to "user groups" as "forums" and the addition of the eDART XML Forum as a group established to assist the SOS in carrying out its responsibilities and make monthly reports to the subcommittee.

Manual Endorsements

Three manual updates resulting from the periodic review were unanimously endorsed by stakeholders.

Kevin Hatch of PJM *reviewed* Manual 12: Balancing Operations *changes*. The changes included updating the out-of-date two settlement terminology to day-ahead market terminology in the markets database application and adding references to the Dispatch Interactive Map Application and reliability assessment and commitment tool in Section 2.1.2: PC Applications.

Hatch also *reviewed* Manual 13: Emergency Operations *changes*. Those changes included an updated note in Section 2.2: Reserve Requirements increasing the proportion of contingency reserves that can consist of interruptible load from 25% to 33%. In Section 5.4: Post-Contingency Local Load Relief Warning, detail was added to the members action section requiring transmission owner dispatchers to check the PCLLRW application to ensure that no PCLLRW statuses are deficient.

"We wanted to make sure our procedures align with what the expectations are," Hatch said. "Our operators coordinate back-and-forth together as more load needs to be selected."

Liem Hoang of PJM *reviewed* Manual 38: Operations Planning *changes*. Hoang said minor grammatical changes were made throughout the manual, and references were added to Manual 3B: Transmission Operating Procedures to replace the Manual 3 references. (See "Manual 3 Update Prompts Questions," *PJM Operating Committee Briefs: March 12, 2020*.)

Manual 40 First Read

Michael Hoke of PJM *reviewed* Manual 40: Training and Certification Requirements *updates* during a first read. Hoke said the update is part of the periodic review, and only one change was identified.

In Section 3.2.1: Transmission Owner Operators, a reference was added to the annual training requirements referenced in NERC standards. A second reference was added regarding using the PJM Learning Management System to track the annual task training requirement.

Paul McGlynn, PJM | © *RTO Insider*

Hoke said the change was based on feedback from ReliabilityFirst on the *TO/TOP matrix*, which expressed a desire to "see a more explicit connection" between Manual 40 and standard requirements in the matrix for TOs.

The OC will be asked to endorse the updates at its meeting on Feb. 11.

COVID-19 Update

Paul McGlynn of PJM provided an update on the RTO's operations plan responding to the evolving COVID-19 pandemic.

McGlynn said PJM had its first group of dispatchers move back into sequestration on campus shortly after the December OC meeting. Several factors were considered in the decision, including rising infection rates in Pennsylvania and a concern for an even greater surge in cases around the Thanksgiving and Christmas holidays.

PJM's plan for sequestering staff includes keeping dispatchers on campus for one month at a time and then rotating a new group of dispatchers into sequestration. McGlynn said staff are tested for the virus and then must isolate themselves in their homes before coming onto the campus for the sequestration.

McGlynn said when dispatchers were sequestered in the spring, the entire control room staff were kept on campus for two months instead of rotating in new staff after a month. The current staff in sequestration will remain there until early February, McGlynn said.

"There were a lot of details we needed to think through to rotate staff this time, but all of that has proceeded smoothly," he said. ■

— Michael Yoder

PJM News

PJM MIC Briefs

Challenge on CRF Quick Fix

Stakeholders last week challenged PJM over use of a "quick fix process" to deal with incorrect capital recovery factor (CRF) values in the tariff that resulted from federal tax code changes.

Jeff Bastian, PJM | © RTO Insider

At the Market Implementation Committee meeting Jan. 12, Jeff Bastian, PJM senior consultant in market operations, provided a first read of the problem statement and issue charge addressing the value of CRFs used to calculate the avoidable project investment rate (APIR), a component of the net avoidable cost rate (ACR) of a resource.

The net ACR sets a resource's market seller offer cap as well as the minimum offer price rule (MOPR) floor price, depending on which is applicable to the resource. Attachment DD of the tariff includes tables of CRF values that resources can use to calculate either figure. The tables were established in 2007 as part of the tariff.

The Independent Market Monitor notified PJM in a letter Dec. 4 that the CRF values do not reflect current federal tax law. The Monitor said the tables should have been updated in 2018 and must be changed before the next capacity market auction takes place in May. (See PJM Sets BRA for May 2021.)

PJM issued a statement Dec. 7 to members saying it understood the Monitor's concerns but also appreciated the need for stakeholder input before making tariff changes. Stakeholders were updated on the issue at the Markets and Reliability Committee meeting on Dec. 17. (See "Capital Recovery Factors," PJM MRC/MC Briefs: Dec. 17, 2020.)

The RTO has proposed to address the CRF issue as part of a quick fix process in which the MIC simultaneously approves the issue charge and the proposed tariff revisions at the meeting Feb. 10. It is proposing to update the values of the CRF table in Attachment DD to reflect the tax rates and depreciation provisions of current federal tax law.

The proposed CRF values would become effective with the 2023/24 Base Residual Auction (BRA) scheduled for December, Bastian said. PJM had concerns that seeking an earlier effective date could lead to further delays of the already postponed 2022/23 BRA, with deadlines related to that auction looming this month.

Bastian said PJM is proposing to review CRF values on a schedule consistent with the quadrennial review of key auction parameters.

Paul Sotkiewicz, E-Cubed Policy Associates | © RTO Insider

Paul Sotkiewicz of E-Cubed Policy Associates offered an objection to using the quick fix process to deal with the CRF issue. Sotkiewicz said he didn't see a need for a "fast-track solution" since PJM is not looking to use the new values in the 2022/23 BRA.

He added that the CRF value calculations lack transparency and that PJM is going from one stated set of values to another "under the guise of changing tax laws." He said the RTO should provide the formulas and all the inputs used in determining the values.

"I think we need to have a more thoughtful and considered discussion between the members, PJM and the IMM just to provide clarity and transparency," Sotkiewicz said.

Erik Heinle of the D.C. Office of the People's Counsel said he shared Sotkiewicz's concerns about fast-tracking the CRF issue and that the concerns were "very reasonable."

Heinle also expressed concerned about such a delayed response to a tax law that was passed three years ago, calling it a "collective failure" among PJM and stakeholders.

"I feel like we're a little bit behind the ball of where the tax code is," he said.

Bastian said Heinle made "fair points" and added that the CRF value update would have been caught earlier had it been part of the quadrennial review.

PJM Monitor Joe Bowring | © RTO Insider

Monitor Joe Bowring said the table changes should be fast-tracked — and that the process doesn't actually require a stakeholder process at all.

"The tariff is wrong; we've known it's wrong for quite some time, and there's no reason to leave it wrong," Bowring said.

He also disagreed with the notion that leaving the table wrong will reduce confusion in the 2022/23 BRA, which he said should also use the updated values. He added that not making the change is likely to increase uncertainty

Age of Unit	Remaining Life of Plant	Delivery Years Up to and Including 2022/23	2023/24 Delivery Year	2024/25 Delivery Year	2025/26 Delivery Year
1 to 5	30	0.107	0.087	0.091	0.095
6 to 10	25	0.114	0.092	0.096	0.100
11 to 15	20	0.125	0.101	0.105	0.110
16 to 20	15	0.146	0.116	0.121	0.126
21 to 25	10	0.198	0.151	0.158	0.165
25 Plus	5	0.363	0.259	0.273	0.286
Mandatory CapEx	4	0.450	0.314	0.331	0.349
40 Plus Alternative	1	1.1	1.1	1.1	1.1

Table in Attachment DD of the tariff of CRF values for resources to calculate the market seller offer cap or the MOPR floor offer price | *PJM*

PJM News

of the outcome of the BRA and could lead to challenges at FERC because the tariff is "demonstrably wrong."

MOPR Changes Endorsed

Members unanimously endorsed manual revisions to conform with recent FERC-ordered rule changes in the minimum offer price rule (MOPR) and forward-looking net energy and ancillary services (E&AS) offset calculation.

Bastian *reviewed* updates to *Manual 18: PJM Capacity Market*, including two recent changes to the redline language resulting from stakeholder discussions.

The first change is a previously unmapped region of the Ohio Valley Electric Corp. (OVEC) Zone, which is now mapped to the Columbia-Appalachia TCO fuel pricing point for the purpose of establishing the net E&AS offset for the zone. The OVEC Zone was also mapped to the AEP-Dayton Hub for determining the forward hourly locational marginal pricing.

The second change includes new language in section 5.4.5.5(A) that clarifies that a seller's financial accounting statements should serve as the primary form of evidence for use of an asset life more than 20 years.

Bowring said the redline language in Manual 18 did not appear to be consistent with PJM's statement on the financial accounting statements and added more confusion than clarity on the issue. The FERC order was "a bit ambiguous" about the accounting issue, and it's unclear how financing could be used in the definition of the life of the asset that hasn't been financed by a third party (*ER20-2046*). (See *FERC Rejects PJM Stakeholder EOL Proposal*.)

Bastian said PJM believes the language is consistent with the FERC order.

"What we're trying to clarify is that the financial documents are the primary source of evidence, but there are other forms that can be provided," he said.

The manual revisions now go to the MRC for endorsement at its meeting on Jan. 27.

PRD Credits Disposition

Stakeholders unanimously endorsed a proposed solution package addressing the disposition of price-responsive demand (PRD) credits. In a follow-up non-binding poll, the package received 91% support over maintaining the status quo.

Pete Langbein, PJM | *© RTO Insider*

Pete Langbein, manager of demand side response operations, *reviewed* the Baltimore Gas and Electric proposal addressing the PRD credits disposition issue.

PJM's settlement rules call for revenues associated with PRD to be credited to the load-serving entity for an area and do not address the roles of electric distribution companies (EDCs) or curtailment service providers (CSPs). Meaning some LSEs are paid for PRD service supplied by EDCs and CSPs. PRD providers represent retail customers that have the capability to reduce load in response to prices. (See "PRD Credits Disposition," *PJM MRC/MC Briefs: Dec. 17, 2020*.)

Langbein said an increasing share of PJM's load is responsive to changing wholesale prices because of the implementation of dynamic and time-differentiated retail rates and utility investment in advanced metering infrastructure. Several EDCs cleared PRD as a capacity resource for the first time for the 2020/21 delivery year.

"At the end of the day, this is all about having the PRD provider actually receive the PRD bill credit," he said.

Langbein went over the redline changes in the *Operating Agreement*, *Manual 11* and *Manual 18*. He also addressed the *matrix* for PRD credits disposition.

PJM plans to submit a filing to FERC by early March and have a response by early May. The RTO intends to settle the issue before it receives PRD registrations. Langbein said the changes will simplify how those registrations are done. ■

— Michael Yoder

Zone	Fuel Pricing Point
AE, BGE, DPL, & JCPL	Transco-Z6 (non-NY)
COMED	Chicago Citygates
DUQ, METED, PECO, & PPL	TETCO M3
PEPCO & DOM	Transco Z5 DIv
AEP, OVEC	Columbia-Appalachia TCO
DAY, DEOK, ATSI	Mich Con
APS & PENELEC	Dominion South
PSEG & RECO	Transco Z6 (NY)
EKPC	Tenn LA 500 Leg

Table showing the fuel pricing point used for the purpose of establishing the net E&AS offset for each zone | *PJM*

PJM News

PJM Planning Committee Briefs

CIP-014 Update

PJM stakeholders last week heard another first read of the RTO's proposals for mitigating and avoiding critical infrastructure designations under NERC rules, with some members questioning the stakeholder processes that led to the language in them.

Mike Herman, PJM | © RTO Insider

Mike Herman of PJM *presented* a proposal on avoidance at last week's Planning Committee meeting. PJM had postponed a vote on the proposal at the committee's December meeting, saying it needed more time to consider language changes in response to a FERC order in November (*ER20-841*). (See "Critical Infrastructure Stakeholder Update," *PJM PC/TEAC Briefs: Dec. 1, 2020*.)

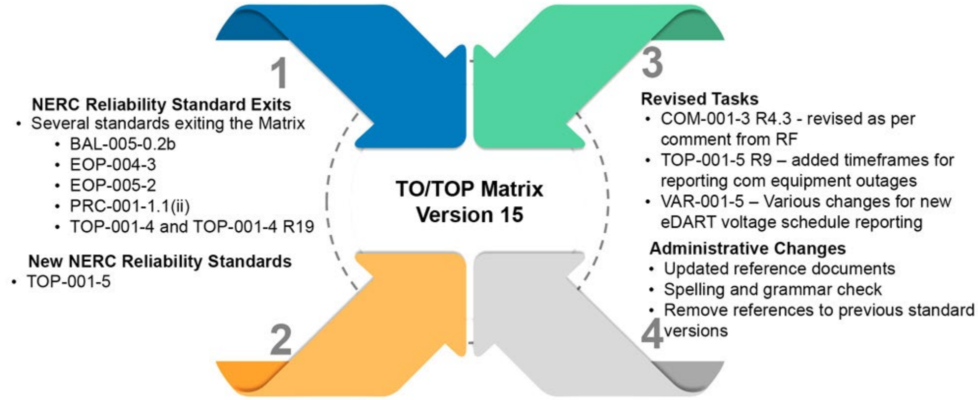
The commission rejected rehearing requests of its approval in March of planning procedures for transmission projects that mitigate the risk associated with critical infrastructure, as defined by NERC Critical Infrastructure Protection standard CIP-014. Such projects would also allow transmission owners' existing infrastructure to avoid being designated by NERC as critical.

Herman went through a summary of the proposed changes to *Manual 14B* and *Manual 14F* that came out of the *Critical Infrastructure Stakeholder Oversight* (CISO) special sessions beginning in November 2019. He said that based upon stakeholder feedback, PJM made "slight tweaks" to the redline language.

The changes to Manual 14B include the addition of a new subsection describing the process related to maintaining reliability. It also added "avoidance" to the list of transmission planning activities. PJM also plans to add text to Manual 14F detailing the process by which it may modify a proposal submitted through the competitive planning process. It would also add resilience to the list of reliability criteria evaluated in a proposal window in both manuals.

Sharon Segner, LS Power | © RTO Insider

Sharon Segner, vice president of LS Power, said the Manual 14F language in appears to create resilience criteria without specifically defining it. Segner said the proposal seems like an "end run around" to creating resilience criteria without making changes to PJM's Operating Agreement, which she said FERC had directed in November.



Proposed changes incorporated in version 15 of the TO/TOP Matrix | *PJM*

"The rehearing order from FERC was very explicit that the planning criteria needs to be in the Operating Agreement," Segner said. "You're calling this resilience analysis, but at the end of the day, it's creating standards, and that needs to be in the OA."

Segner also said she was concerned about the stakeholder process regarding discussion of the package and PJM putting it on the agenda as a first read, when a PC special session scheduled for the week before and designed to examine the proposal language more closely was canceled. Segner said LS Power had materials and edits of the proposal language that she was planning to present at the meeting.

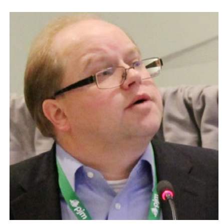
Dave Souder, PJM | t© RTO Insider

Dave Souder, director of operations planning for PJM, said that if Segner felt the issue required OA language, the RTO would take that into consideration and see if more stakeholder discussion is needed. PJM's Aaron Berner noted that the OA does not define all the aspects of reliability criteria and that the information is normally detailed in the manuals.

Alex Stern, director of RTO strategy for PSEG Services, disagreed with Segner's interpretation of FERC's directive. The commission said, according to Stern, that TOs have not transferred the authority to plan CIP-014 mitigation projects to PJM and that it should not be in the OA for that reason.

Alex Stern, PSEG | © RTO Insider

But Stern also said he would like to see LS Power's proposed OA language so that it can be reviewed in advance and considered. "I wouldn't mind seeing this Operating Agreement language so that we have some time to process it within the stakeholder process," he said.



Erik Heinle, D.C. OPC | © RTO Insider

Erik Heinle of the D.C. Office of the People's Counsel said he was confused with the process going forward on the PJM proposal, with the first read being held at the PC. Heinle noted another CISO special session scheduled for Friday and asked if a second "first read" would be held at the committee's February meeting if there were additional changes or edits to the manual language.

"I just hoped we weren't getting too far ahead of ourselves with the first read," Heinle said.

Souder said PJM's intention is to move forward with the second read and endorsement at the PC's February meeting. The RTO will take stakeholder feedback on the need for a second first read into consideration, he said.

"We want to make sure whatever product is coming out of the Planning Committee is ready

PJM News

as we bring it to the" Markets and Reliability Committee, Souder said.

After the presentation on avoidance, Herman discussed the mitigation issue with a *package* of proposals coming out of the CISO. He said OA language is currently under development by PJM for the mitigation portion of the package.

Herman pointed out some of the changes to the language since it was last reviewed at the November PC meeting. (See "Critical Infrastructure Stakeholder Update," *PJM PC/TEAC Briefs: Nov. 4, 2020*.)

The major change was the addition of a definition for substation contingency resilience planning criteria: "analyses performed to ensure system resilience based on a study of select substation contingencies, which are based upon *TPL-001-4 Extreme Contingency Analysis*. The analysis evaluates the loss of load and potential cascade events which may result from power flow analysis. Due to the sensitive nature of the analysis, identified substations and results require confidentiality consistent with established processes and good utility practice."

"A lot of the meat of this package hinges upon this definition," Herman said.

Heinle asked if the definition will be included in the final OA language.

Herman said the definition would have to be included for documentation.

Heinle said he would like to see the avoidance and mitigation issues tied more closely together. He said he is concerned that the two "interrelated issues" are going on different rails, with avoidance language in the manual and mitigation language in the OA, which could lead to issues at FERC in the future.

"You can't really have avoidance and not have a mitigation option as well," Heinle said. "And you can't really have mitigation if you don't first try to avoid the issue."

On Monday, Segner told *RTO Insider* that LS Power had provided PJM its proposed OA language and that it will be available for review before Friday's special CISO session.

TO/TOP Matrix

Mark Kuras, chairman of the Transmission Owners/Transmission Operator (TO/TOP) Matrix Subcommittee, *presented* proposed changes to version 15 of the *TO/TOP Matrix*.

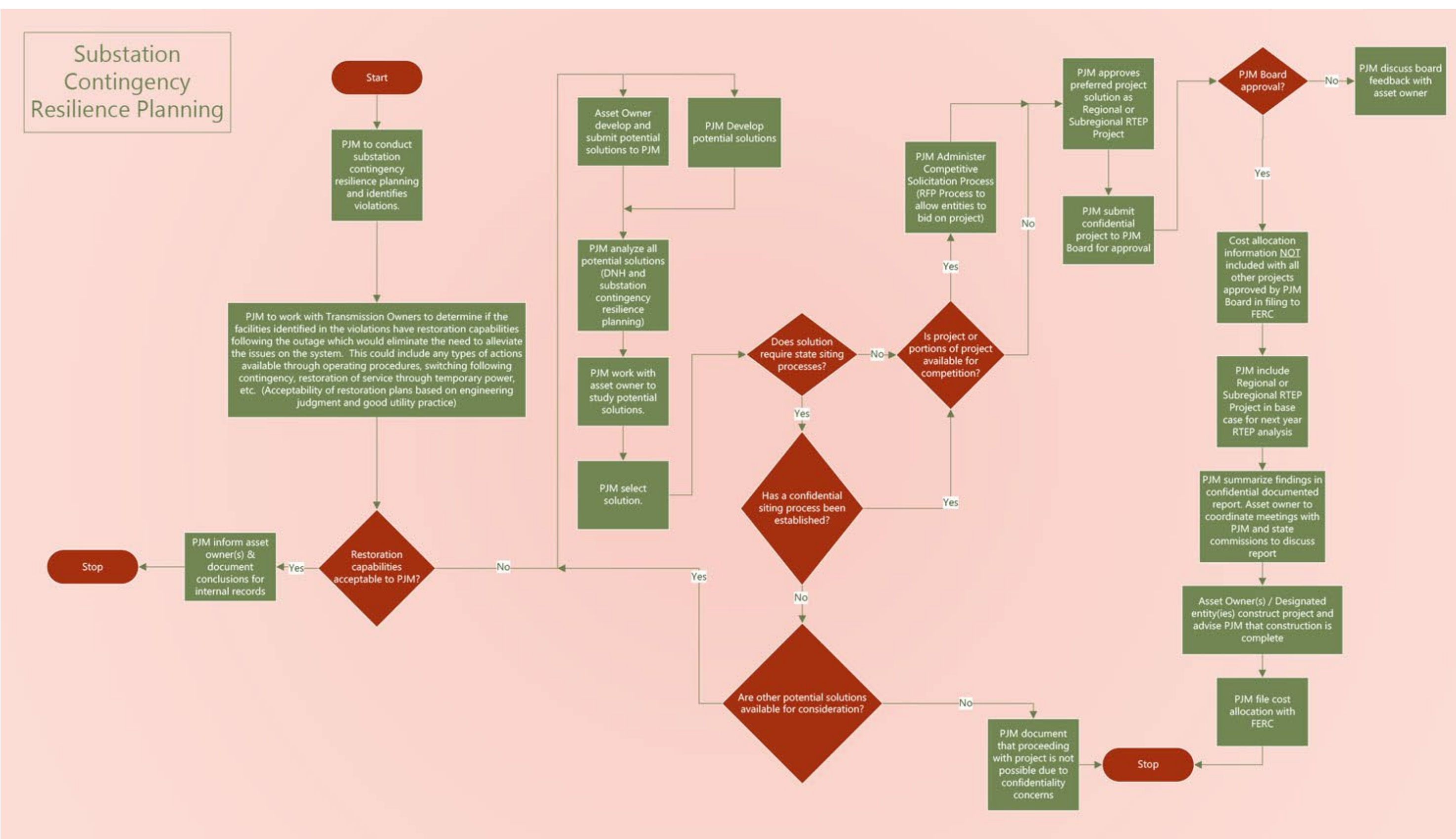
The matrix is an index between the PJM manuals and governing documents and NERC reliability standards that are applicable to the RTO as the TOP. It includes a column of "tasks" required by PJM under the documents. Kuras said version 15 of the matrix adds references for reliability standards, including TOP-001-5.

Some of the revised tasks include:

- COM-001-3 R4.3, which was revised from a comment received from ReliabilityFirst;
- TOP-001-5 R9, which added time frames for reporting com equipment outages; and
- VAR-001-5 with changes for new eDART voltage schedule reporting.

Kuras said stakeholders will be requested to provide a recommendation to the Transmission Owners Agreement Administrative Committee (TOA-AC) to approve the draft TO/TOP Matrix at the February PC meeting, and the endorsed changes will then head back to the TOA-AC for final approval. He said PJM would like to have the new matrix in place by April. ■

— Michael Yoder



Flow chart for "Substation Contingency Resilience Planning" within mitigation efforts for the PJM proposal on future CIP-014 facilities | *PJM*

SPP News

SPP Wind Output Rises to Record 19.9 GW

It took all of two weeks into the new year before SPP set new peak records for wind and renewable energy output.

The RTO on Thursday upped its historical highs for wind and renewable energy to 19.9 GW and 21.2 GW, respectively. Those marks broke records set late last year of 19.7 GW and 20.9 GW, respectively.

"An incredible amount of wind generation in our region, all without sacrificing reliability of the grid," SPP CEO Barbara Sugg *tweeted*.

Maybe not that incredible, given that wind served 31.3% of SPP's load last year. The grid operator said that made it the first U.S. RTO or ISO with wind as its No. 1 fuel source.

ERCOT, SPP's primary competitor in the wind race, saw wind energy meet 22.8% of its load last year, second only to natural gas (45.5%). The ISO, which meets about 50% more demand than SPP during summer months, also set a record Thursday with 22.9 GW of wind generation.

SPP set six records for wind production in 2020 and four records for renewables. In April, the RTO established a record when wind served 73.2% of load for one interval. (ERCOT's record for a single interval is 59.3%).

Xcel Energy's newly energized Sagamore Wind Project in New Mexico has added 522 MW of capacity to SPP's fuel mix. | *Xcel Energy*

The grid operator has 26 GW of installed wind capacity on its system, and another 39.9 GW of proposed projects are under some form of study in its generation interconnection queue.

ERCOT has 31.7 GW of installed wind capacity. ■

— Tom Kleckner

FERC Accepts Tri-State GI Procedures

By Tom Kleckner

FERC last week accepted Tri-State Generation and Transmission Association's tariff modifications to its large generator and small generation interconnection procedures (LGIP, SGIP) and its proposed queue reform, effective Jan. 13 (*ER21-410*).

The commission directed Tri-State to make a compliance filing aligning its reform proposal with the requirements of Order 845. FERC ruled in December that Tri-State was in partial compliance with the order, designed to increase the GI process' transparency and speed. (See "Tri-State Order 845 Compliance Lacking," *SPP FERC Order Briefs*.)

In October, the commission rejected Tri-State's proposal to transition to a clustered first-ready, first-served interconnection process, saying the approach would help address the G&T's queue backlog, but that the proposed revisions were not consistent with or superior to the *pro forma* LGIP.

This time, FERC said in its Jan. 12 order that Tri-State had "sufficiently justified" its proposal. The commission said a transition from a serial first-come, first-served approach to a clustered first-ready, first-served approach "should allow ready projects to proceed on a more accelerated basis while allowing less developed projects access to early information."

Tri-State said it worked with stakeholders to implement FERC's guidance in its October order. It said that with only a few exceptions, its proposal was identical to queue-reform provisions the commission previously accepted for Tri-State's neighbors Public Service Company of New Mexico, Public Service Company of Colorado and PacifiCorp.

The association's proposal established two distinct study processes: an informational interconnection study and a definitive interconnection study. Tri-State said the informational study will decrease the likelihood that early-stage projects will enter the definitive process to assess their viability, while also improving the chances that viable projects will enter the process.

FERC found unpersuasive Invenergy's argument that interconnection customers' ability to sink outside of Tri-State's system negates its justification for improving the queue process' efficiency.

The commission determined that Tri-State's proposal to allocate network upgrade costs using a distribution factor analysis is consistent with or superior to the *pro forma* LGIP. It noted the analysis was developed in consultation with stakeholders and that Tri-State had shown the proposal will allocate upgrade costs to the interconnection customers responsible for triggering the upgrades.

Commissioners Richard Glick and Allison Clements concurred with the decision but expressed separately their concern whether Tri-State's revised 60-day timeline to meet the transitional procedure's commercial readiness requirements provide "sufficient time for interconnection customers to meet the requirements."

They noted that two of the three readiness requirements involve interconnection customers finding a buyer of either resource supply or the entire project within 60 days of the order.

"This window of time could prove to be challenging because Tri-State and its members have been wrapped up in Tri-State's jurisdictional change for more than a year, with several related proceedings still pending before the Commission," they wrote. "It is possible Tri-State's window for readiness demonstration may not fully accommodate the current situation created by Tri-State's pursuit of commission jurisdiction."

Tri-State applied for FERC jurisdiction in 2019, saying that it would allow the company to advance member flexibility for more self-supply and local renewable energy development. The commission approved and affirmed the request last year. (See *FERC Affirms its Jurisdiction over Tri-State G&T*.) ■

Tri-State's headquarters in Westminster, Colo. | *Tri-State G&T*

SPP News

SPP MOPC Briefs

Staff Taking on GI Queue's Four-year Backlog

SPP staff last week unveiled a proposed mitigation plan to reduce the four-year backlog in the RTO's generation interconnection queue, a result of legacy study processes that can take as long as 485 days to complete — and longer if restudies are required.

David Kelley, SPP's director of seams and tariff services, told the Markets and Operations Policy Committee that staff are currently working on their first cluster of GI requests from 2017 and are soon scheduled to tackle a second set.

"That's just indicative of where we are," he said during the Jan. 11-12 virtual meeting.

Kelley said that SPP's new, streamlined three-stage study process, approved by FERC in 2019 when the queue exceeded 81 GW of proposed projects, was put in place "to allow us to stay on schedule." (See *FERC OKs New SPP Interconnection Process*.)

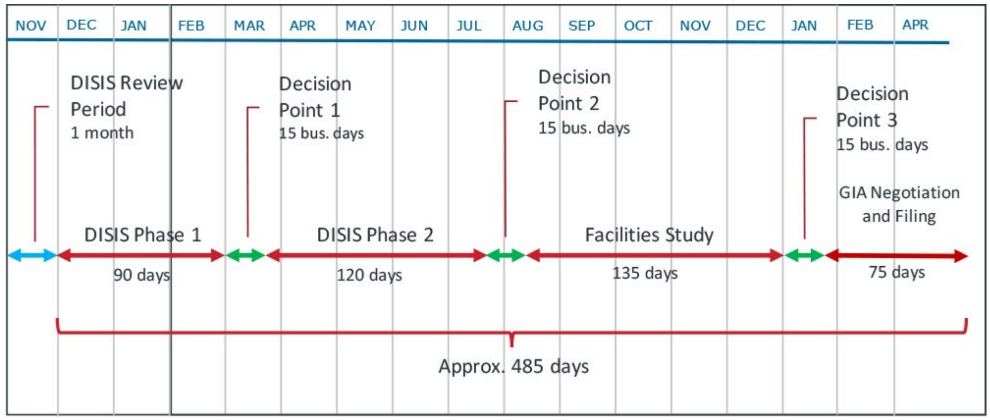
"The three-stage process was not designed to get us out of the backlog we're in," he said. "We had a four-year backlog when we implemented the three-stage process, and we have it today. We still think the process will take too long to get to that point where we clear the backlog."

Staff said the problem is that the queue has been formed by interconnection customers with different business purposes: some with a definitive proposal, and others that are simply speculating. Low financial commitments keep speculative customers in the queue, and the uncertainty triggers restudies that extend timelines.

"Left alone, the three-phase process will take too long to eliminate the DISIS backlog," SPP's Juliano Freitas said, referring to the definitive interconnection system impact study the RTO uses to cluster GI requests.

The three-stage process involves a thermal and voltage analysis, stability analysis and facilities study. It eliminates feasibility and preliminary queues, changes the amount and timing of security deposits, publishes study models earlier in the process, and allows penalty-free withdrawals when costs increase above certain thresholds.

Under the mitigation plan, Freitas said staff will remove the redundant facility study report for SPP and transmission owners and begin the first phase of a DISIS study in parallel with the preceding cluster's second phase. Staff will also provide better cost estimates for each phase's first decision point and implement a nonrefundable payment on the TOs' interconnection facilities cost estimates for the first two decision points.



SPP's current generation-interconnection process timeline | *SPP*

Freitas said these steps will save about 205 days for each DISIS cycle, beginning with the first 2018 cluster. Assuming a restudy for each cluster, including the two 2017 DISIS groups, he projected SPP would catch up by the end of 2024.

"I like the concept," Southwestern Public Service's Bill Grant said. "These queues are so saturated and don't reflect the actual results of the queue studies."

Stakeholder discussions have revealed "vastly differing views" as to what success looks like, staff said. Much of the developer community believes the three-phase process should be allowed to work before pursuing additional major overhauls of the GI process, they said, while a number of load-serving members have expressed significant concern with increased generator retirements and the ability to interconnect new generation to meet their service obligations.

Juliano Freitas, SPP | *SPP*

"Staff is of the opinion that relying on the three-phase process alone won't get us out of the hole anytime soon," Kelley said. "We think success is measured when we reduce and eliminate the study backlog and we're interconnecting new resources on a timeline that customers expect. It took us many years to get into [the hole], and it'll certainly take us a while to get out of it. It's going to take some pretty fundamental changes to the process."

Omaha Public Power District's Luke Haner said he was supportive of SPP's proposals and urged the RTO to take steps to accelerate the process. "We would like to see serious requests sped up," he said.

Al Tamimi of Sunflower Electric Power argued against a suggestion that cluster sizes be reduced to speed up the process. "I'm concerned we're focusing on efficiencies and reducing the backlog, but we would be losing the quality of the studies," he said. "I feel the quality of the studies need to be measured as you make those changes."

"If your intention today was to get robust discussion, you got that," Grant said. "I also heard people say, 'The status quo is good; let's work our way through it.' The status quo is not good. Taking four to five years to get a [GI agreement] when you have load to serve is not acceptable, but I do think we're on the right track."

SPP COO Lanny Nickell admitted staff still have some work to do in generating consensus about the mitigation proposals. "For far too long, a majority of our members and stakeholders haven't understood all the things happening behind the scene," he said.

Nickell said staff need to further develop the proposal and share it further with stakeholder

SPP News

groups and the Board of Directors before it can begin drafting revision requests and tariff language.

SPP on 'Cutting Edge' with ESR Initiatives

SPP continues to grapple with how best to integrate electric storage resources (ESRs), belying at times its traditional "*evolutionary, not revolutionary*" approach to gaining stakeholder consensus.

The Strategic Planning Committee on Wednesday approved the Electric Storage Resource Task Force's recommendation to continue developing rules to allow ESRs to participate in the markets as generation resources and transmission-only assets. The idea is to create a foundation for ESRs to eventually perform as multiuse transmission assets.

The task force said stakeholders and staff should complete rules and policies governing ESRs as transmission assets before evaluating their use in providing energy, capacity and ancillary services. Staff should continue to monitor rules being developed by other grid operators and regulatory efforts, it said.

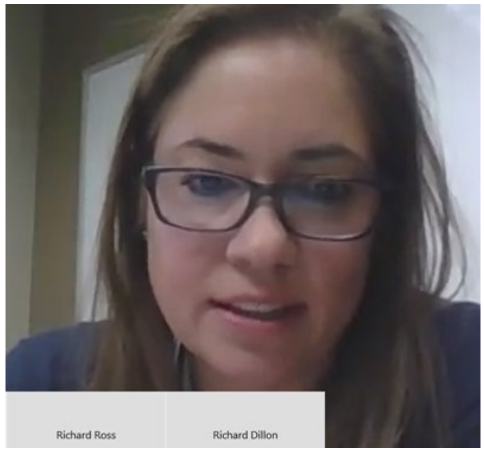
"No RTO has it worked out. In some cases, we're more on the cutting edge than normal," Richard Dillon, SPP's director of market policy, told the MOPC.

He said SPP now has a greater understanding of ESRs' complexity. "By the same token," Dillon said, "we don't want an extremely complicated filing at FERC that gets rejected. We need to take smaller bites, so if revisions are necessary after FERC has seen [the proposal], we don't take the ship down with one massive filing."

Dillon serves as staff secretary on the Electric Storage Resources Steering Committee (ESRSC), which reports to the MOPC and is led by its chair, Evergy's Denise Buffington. The group is responsible for coordinating and overseeing the stakeholder groups working on 37 different ESR-related initiatives spread over six issue categories.

Ten of those initiatives are focused on transmission, energy and capacity issues, work that had been on hold pending the task force's recommendations. The initiatives encompass how to use ESRs for transmission only, energy and related services, and meeting resource-adequacy requirements. The ESRSC has determined that planning items, reliable-response items (capacity, fast start) and hybrid resources are high priorities.

Dillon said ESRs' role as a distributed energy resource is out of scope. That issue will be taken up by another task force working on FERC Order 2222.



MOPC Chair Denise Buffington, Evergy | *SPP*

"If you look through all of the items, what I believe needs to be resolved first is the hybrid resource," Dillon said. "Those are on our doorstep. We already have hybrid units we're working around. We already have storage as transmission."

The committee has engaged SPP's Project Management Office to help with bundling the initiatives into a comprehensive project. It has also increased its membership to expand its experience and geographic representation, including a yet-to-be named representative from the Dakotas. Among the new members are Southern Co.'s Chase Smith, who chaired the ESR Task Force; Greg Rislov, an adviser to the South Dakota Public Utilities Commission; NextEra Energy Resources' Matt Pawlowski; and attorney Heather Starnes.

EDP Renewables' David Mindham complimented SPP on the governance structure, saying it would "bring clarity to the issues."

"Clarity around these installations is really important for these developers," he said.

Asked to endorse an ESR-related white paper, MOPC members instead agreed to send the *document* to the ESRSC and task force for their consideration. The Operating Reliability Working Group (ORWG) drafted the paper, which recommends that SPP manage the charging and discharging of transmission-only ESRs and coordinate any transmission operators' reliability actions.

"I'm concerned about the arguments of the resources being treated differently without due cause," the Advanced Power Alliance's Steve Gaw said.

The committee separately approved two other white papers related to the ESR initiative:

- the ORWG's *recommendation* that SPP require ESR data for all unregistered behind-the-meter sites so it can determine their overall effect on the grid. The paper also suggests developing minimum ramp-rate requirements and determining the ESRs' minimum and maximum limits for charging and discharging.
- the Transmission Working Group's (TWG) *paper* that included a recommendation to use a load-curve analysis to determine the ESRs' required duration in the planning processes.

PTP Tx Revenue Service Tweaked

Members approved a Regional tariff Working Group's (RTWG) recommendation to modify SPP's point-to-point (PTP) transmission service revenue allocation that essentially leaves the process in place.

Stakeholders have generally agreed that the current process is complex, prone to inaccuracies and lacks transparency. SPP currently splits its distribution of PTP service revenues to TOs 50/50, with half determined by the ratio of the annual transmission revenue requirement and half allocated by a megawatt-mile process.

When some megawatt-mile modeling effects forced the RTO to resettle revenues, engineering staff conducted a review in 2018 that found the process was developed 11 years ago using a source-sink methodology that current staff were unfamiliar with and resulted in more than 1 million combinations in the calculations.

Following a staff presentation on the issue last July, the MOPC directed the RTWG to simplify the process with the TWG's technical input. (See "Point-to-point Revenue Allocation Sent Back," *SPP MOPC Briefs: July 15-16, 2020*.)

However, the group was unable to reach consensus, settling for minor tweaks to the process that leave the status quo in place. The RTWG looked at 10 different options, but all shifted revenue between various TOs.

"So it's up to staff to simply make it less burdensome?" American Electric Power's Richard Ross asked.

"That's fair," SPP's Charles Hendrix responded.

"The way I read the literal language, the only mechanism we would be given … would be simply to reduce the number of needed or requested reruns. Revenue shifts would be off the table," SPP's Nickell said.

The measure cleared the MOPC's 67% approval threshold at 74%. Twelve of the 17 TOs and 28 of 36 transmission users voted

SPP News

for the motion.

Order 2222 Task Force Underway

Michael Desselle, SPP's chief compliance and administrative officer, said the RTO has created a task force to take on compliance with FERC Order 2222, which directs grid operators to allow DER aggregators to compete in their markets. (See *FERC Opens RTO Markets to DER Aggregation*.)

The 16-person Order 2222 Task Force, comprising a cross-section of stakeholders and two regulators (Arkansas' Ted Thomas and Missouri's Scott Rupp), will be responsible for developing and approving policies and governing document changes to comply with the order. Evergy's Grant Wilkerson will chair the committee, Desselle said.

The group has an ambitious schedule of 14 meetings over the next six months in order to meet FERC's July 19 compliance deadline. SPP will propose a "reasonable implementation date" in its filing.

The task force will evaluate 10 policy issues, which include establishing minimum size requirements for DER aggregations that don't exceed 100 kW.

Coming Soon: Order 1000 Task Force

MOPC Chair Buffington and Nickell, the committee's staff secretary, are working to provide a "game plan" for yet another task force, this one charged with improving SPP's Order 1000 selection process.

SPP followed a similar process after approving its first competitive project in 2016. In October, the RTO's Board of Directors approved an industry expert panel's (IEP) recommendation to grant SPP's second competitive project, the 75-mile, 345-kV Sooner-Wekiwa project in Oklahoma, to Transource Missouri. (See *Transource Tapped for SPP's 2nd Competitive Tx Project*.)

Staff in December reviewed with stakeholders initial suggestions to improve how it awards competitive transmission projects. The suggestions focused on the continued use of incentive points for future projects; whether to share with project bidders how the IEP will score proposals; and developing and publishing standardized scoring guidelines. (See *SPP Out to Improve Competitive Tx Selection*.)

"Those will be the conversations we have going forward," SPP's Ben Bright said. He noted that SPP has begun *accepting applications* for the pool of experts from which the IEP is formed to review competitive construction proposals in 2021. "We always need new experts."

Buffington Lays out Goals

Buffington marked her first meeting as chair by outlining her goals, which include increasing stakeholder engagement in a committee that has grown to 104 members representing 10 sectors across 14 states.

"We're excited there's growth in SPP, but we're interested in hearing new voices and ideas in our discussions," she said. "We want to encourage new ideas to challenge traditional thoughts."

Board Chair Larry Altenbaumer applauded the MOPC's "diversity initiative," saying he is "looking forward to hearing what comes out of that."

Name	Company	Org. Group	Sector
Grant Wilkerson (Chair)	Evergy	BPWG	IOU
Michael Desselle (Staff Secretary)	Southwest Power Pool	NA	NA
Betsy Beck	Enel Green Power	MOPC	IPP
Bill Grant	Xcel	MOPC/SPC	IOU
David Mindham	EDP Renewables	MOPC	IPP
Holly Smith	Walmart	MOPC	LRC
Jessica Meyer	LES	RTWG	Municipal
Mary Ann Zehr	Tri-State	MOPC	Cooperative
Melie Vincent	OMPA	MOPC/SPC	Municipal
Natasha Henderson	Golden Spread	MOPC	Cooperative
Richard Ross	AEP	SPC/MOPC/MWG	IOU
Ron Gunderson	NPPD	ORWG	State Agency
Scott Rupp	MPSC	RSC	NA
Steve Gaw	APA	MC/MOPC	AP/PI
Steve Sanders	WAPA	RTWG	Fed Agency
Ted Thomas	APSC	RSC	NA

Staff project they can eliminate the GI queue's backlog by October 2024. | *SPP*

2 HITT White Papers on Consent Agenda

The MOPC unanimously approved a consent agenda that included a pair of white papers stemming from the Holistic Integrated tariff Team's work.

The Market Working Group recommended approval of its *white paper* on offer requirements for variable energy resources in the day-ahead market. The study found wind resources' effect on price divergence are largely dependent upon the offer behaviors … exhibited in the [day-ahead market] from both a financial and physical offer perspective."

The MWG also combined with the ORWG and TWG on a second *white paper* that urged SPP continue supporting dynamic line ratings' implementation and use, as they remain voluntary at the TO's discretion.

The agenda also included the Project Cost Working Group's recommendation for a $25.6 million cost reduction to SPS' Multi-Hobbs-Yoakum 345/230-kV project in West Texas and a $5.1 million cost increase to an 230/115-kV SPS network upgrade north of Amarillo; withdrawal of *RTWG RR334*, which included the 20-year Integrated Transmission Planning assessment (ITP20) as an eligible study for determining competitive upgrades; and six revision requests:

- *MWG RR429*: corrects and/or clarifies existing Market Monitoring Unit language in the Integrated Marketplace protocols. The changes do not change functionality or policy and do not require tariff adjustments.
- *MWG RR433*: updates tariff and protocol language by replacing references to the jointly owned combined resource option that no longer exists under *MRR266*.
- *RTWG RR417*: clarifies that no projects can be approved for construction from ITP20.
- *RTWG RR436*: removes all facilities associated with an interconnection study preceding the Integrated System's 2015 membership in SPP. Following the system's integration, SPP completed a study that resulted in different network upgrades.
- *Staff RR424*: removes duplicate language currently located in the system operating limit methodology.
- *TWG RR434*: modifies outdated tariff language that is not consistent with current processes, including clarification that aggregate transmission service studies are now a six-month process ■

— Tom Kleckner

SPP News

SPP Stakeholders Facing Time Crunch

Multiple Initiatives Necessary to Keep up with Continual Changes

By Tom Kleckner

How many committees, working groups, task forces and strike teams are too many?

SPP is about to find out as it balances staff and stakeholder time spent on analysis and studies with the need to adapt to a business environment that won't stand still.

"The industry we're a part of is changing so dramatically and quickly that solutions that looked good when you take a snapshot in time … don't fit as well if it takes two years to implement," SPP Board Chair Larry Altenbaumer told the Strategic Planning Committee last week.

"We have to deal with ongoing change," Altenbaumer, also the SPC chair, said during a conference call Jan. 13. "That's a key consideration when it relates to these kinds of activities."

Still, the situation has resulted in stakeholders being involved in as many as seven different teams, in addition to their day jobs.

"Richard, I don't know how you do it," SPP COO Lanny Nickell said, addressing American Electric Power's Richard Ross.

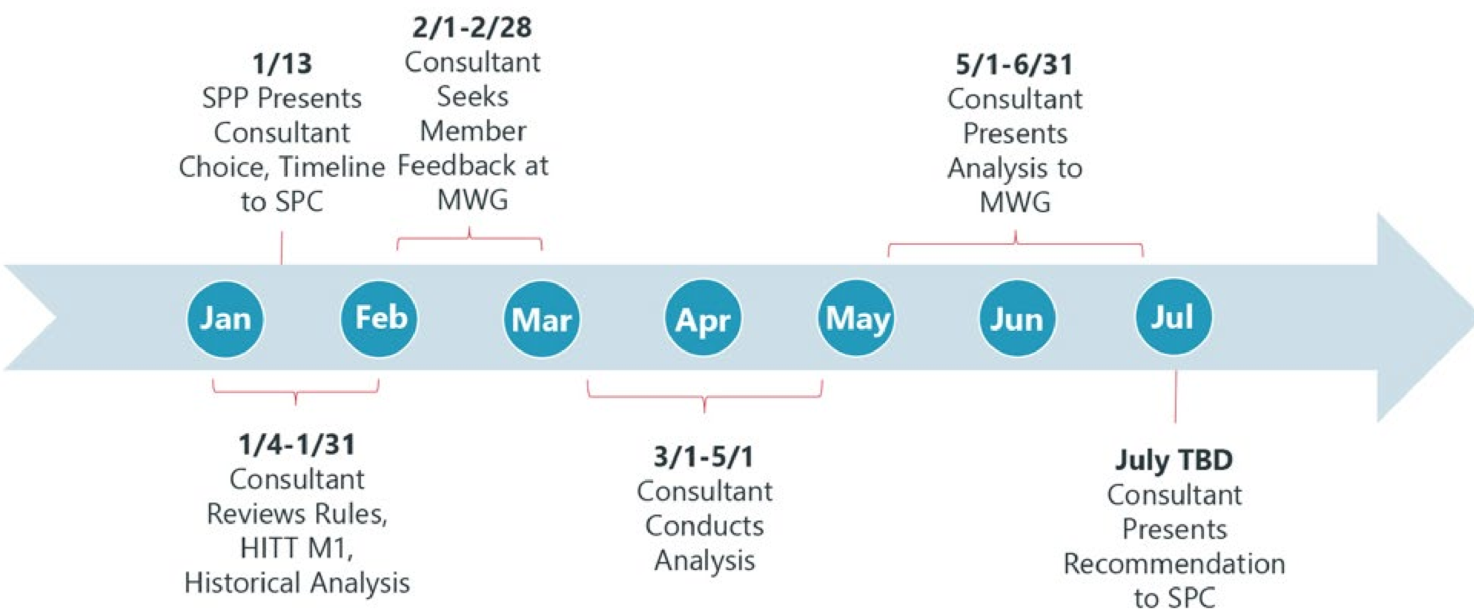
"If you don't look to the future, at some point, you're never going to get out of the mess you're in," Ross responded.

Having wrapped up the Holistic Integrated Tariff Team's (HITT) year-long study of the footprint's many challenges, which begat initiatives on energy storage, transmission-cost allocation and congestion hedging, among others, SPP has now embarked on an in-depth evaluation of its transmission planning and applicable cost-allocation processes.

The Strategic and Creative Re-engineering of Integrated Planning Team (SCRIPT) is comprised of 16 stakeholder representatives from the board, Members Committee, SPC, Markets and Operations Policy Committee and the Regional State Committee. The team reports to the board and plans to provide updates during the April and July governance meetings. A high-level review of its work is expected to be shared in October. (See "SPC Takes Look at Tx Planning," *SPP Briefs: Week of Aug. 31, 2020*).

"We have to consider the burnout factor here. We're asking people to do an awful lot by October and evaluate where we are."

—Mark Crisson, Director, SCRIPT



The timeline for Nexant's analysis of congestion | *SPP*

SPP News

Director Mark Crisson, who chairs the SCRIPT, has divided its members, many of whom are involved in other stakeholder groups, into sub-teams focused on six key areas: consolidation, services, decision quality, transfers (exports/imports), optimization and cost-sharing. Each representative was assigned to two sub-teams, which are scheduled to meet twice a month through at least March. The SCRIPT itself will meet monthly.

"It's a pretty busy schedule and our teams are busy with many other things," Crisson said, noting the SCRIPT will meet Feb. 2 to decide whether all the meetings are necessary. "We have to consider the burnout factor here. We're asking people to do an awful lot by October and evaluate where we are."

"It's a lot of meetings and a lot of different ideas," SCRIPT member Bill Grant of Southwestern Public Service said. "We are tackling a broad spectrum of issues here in a very tight timeframe. I'm concerned whether we get into the details. I hope we can meet [the very aggressive schedule], especially with all the other initiatives going on."

"The quality of this is so much more important than hitting the deadline," SPP CEO Barbara Sugg said. "We've really got to focus on the quality. This is solving many of the challenges we have."

Altenbaumer said he hopes the SCRIPT's members will be able to get their arms around "everything that's been addressed come October."

Otherwise, he said, "it opens up a whole stream of things that need to be done. My hopes are the team working on this will come up with a game plan to help us address that moving forward."

Nexant to Take Crack at Congestion Hedging

SPP has hired the Nexant consulting and software firm to perform a root-cause analysis of discrepancies in the grid operator's congestion-hedging rules and policy, an issue stakeholders have been unable to reach consensus on.

The analysis will determine the reasons behind the difference between the total value of an entity's congestion hedge and its day-ahead market position. Nexant is expected to recommend a solution to the SPC that incorporates new or existing measures — or any combination thereof.

"We're looking at creating a clean slate," said director Graham Edwards, who headed a strike team looking for a path forward on hedging issues.

"Why Nexant? They perform the analysis that is out there to solve this issue," he said. "They're the ones that are experts in this particular area of congestion hedging. They're working with other RTOs and ISOs. They're familiar with our rules."

The SPC took up the cause when the Market Working Group was unable to coalesce around 11 different proposals after the HITT recommended adding counterflow optimization (CFO), limited to excess auction revenues, to the RTO's hedging market mechanism. (See *SPP SPC Takes on Congestion Hedging Issues*.)

Nexant will work with the MWG and is expected to present its final recommendation to the SPC in July.

"Hopefully, we'll be successful in drawing conclusions we can all gather around," Altenbaumer said.

Separately, staff has begun a 2025 future study "to show the strategic importance of having [CFO] in SPP's congestion-hedging markets." The study will consider incremental long-term transmission congestion rights' use in the markets, the NRIS/ERIS Deliverability Task Force's *white paper policy*, and the effects of auction revenue rights awards.

SPC Welcomes New Members

The SPC began its first meeting of the year with several personnel changes, including Crisson stepping into the vice-chair's role. Crisson replaces Golden Spread Electric Cooperative's Mike Wise, who remains on the committee.

The new members are EDP Renewables' David Mindham, Evergy's Kevin Noblet and Oklahoma Municipal Power Authority's Melie Vincent. ■

Consolidation	Services	Decision Quality	Transfers (Exports/Imports)	Optimization	Cost-sharing
Chris Jones	Bill Grant	Bill Grant	Andrew French	Chris Jones	Andrew French
David Mindham	Bronwen Bastone	Bronwen Bastone	Brett Leopold	Dennis Florom	Brett Leopold
Denise Buffington	David Mindham	Dennis Grennan	Joe Lang	Dennis Grennan	Mike Wise
Dennis Florom	Richard Ross	Mike Wise	Richard Ross	Denise Buffington	Tom Christensen
Joe Lang	Steve Gaw	Steve Gaw	Usha Turner	Tom Christensen	Usha Turner

The Strategic and Creative Re-engineering of Integrated Planning Team's six sub-teams | *SPP*

Company Briefs

BMW Announces EV Sales Targets for 2021

BMW last week said it hopes to double its sales of fully electric vehicles in 2021 as the carmaker and rivals race to release new models to comply with carbon dioxide emission targets.

The company also said that it aims for a 50% increase in sales of all EVs, including plug-in hybrids, as compared to 2020.

BMW's global EV sales rose 31.8% in 2020.

More: *Reuters*

GE Alleges Siemens Used Stolen Trade Secrets to Rig Bids with Dominion

General Electric filed a lawsuit against Siemens Energy in U.S. district court in Virginia last week for allegedly using stolen trade secrets to rig bids for lucrative contracts supplying gas turbines to public utilities and covering up improper business gains that totaled more than $1 billion.

The suit comes in the wake of Siemens spinning off its energy business to create Siemens Energy. GE alleges that the subsidiary used trade secrets improperly received from a Dominion Energy employee in part to win contracts that would boost the price of its initial public offering that took place in September. GE claims the theft traces back to May 2019, when the two companies bid to provide equipment and servicing to Dominion.

The suit says during the course of GE's bid, a senior Dominion employee sent business information GE had submitted to a Siemens account manager. The information included Dominion's analysis of all bids, giving Siemens a "blueprint" to win contracts worth up to $340 million with the utility for the business.

More: *Reuters*

Siemens Partnership to Develop Offshore Wind-to-hydrogen Prototype

Siemens Gamesa Renewable Energy and Siemens Energy last week said they plan to spend $146 million to research how to generate hydrogen from wind farms in the middle of the ocean.

The companies said they aim to build a prototype with one of Siemens Gamesa's new wind turbines with blades that stretch 728 feet. It is the latest effort by clean energy companies to get an edge in the market to produce hydrogen from renewable energy. Hydrogen made from a wind farm could be used to cut emissions from heavy industries or chemical producers.

More: *Bloomberg Green*

Federal Briefs

Clean Energy Sector Ends 2020 down 429K Jobs

Despite the addition of 16,900 jobs in December, last year marked the first time the clean energy industry saw a decline in jobs compared to the previous year, according to an analysis by BW Research Partnership of unemployment filings prepared for E2, E4TheFuture and the American Council on Renewable Energy.

So far, 70% of the jobs lost over the last 10 months have yet to be recovered, with a total of 429,000 people still unemployed. At the current rate of job recovery, it would take about two and a half years for the sector to reach pre-pandemic employment levels.

More than 40 states continue to suffer double-digit percentage job losses in clean energy, with four states facing 20% or greater unemployment. Georgia has been hit by 30% unemployment, while California has lost the most positions (71,615).

More: *PV-Tech*

EPRI Names New VP of Nuclear, Chief Nuclear Officer

The Electric Power Research Institute last week announced Rita Baranwal as its new vice president of nuclear energy and chief nuclear officer. Baranwal succeeds Neil Wilmshurst, who was promoted to senior vice president of energy system resources.

Baranwal most recently served as assistant secretary for the Energy Department's Office of Nuclear Energy, where she managed the department's portfolio of nuclear research for existing and advanced reactors and new designs.

More: *EPRI*

Forest Service Allows Pipeline to Pass Through Jefferson National Forest

The Forest Service last week approved, for the second time, Mountain Valley Pipeline's pathway through the Jefferson National Forest in Virginia.

Undersecretary James Hubbard's decision came more than two years after the 4th Circuit Court of Appeals vacated the pipeline's permit, ruling that USFS did not take into account the amount of erosion and sedimentation that would be caused by running the natural gas pipeline along steep slopes. Nonetheless, the agency issued a new permit that mirrors the 2017 approval for the buried pipeline's route through two sections of the forest that totals 3.5 miles.

No construction can start in the forest until Mountain Valley, a joint venture of five energy companies, has obtained all state and federal authorizations. It must still obtain a right of way from the Bureau of Land Management, whose original approval was struck down in the same 2018 decision that invalidated USFS' permit. The 4th Circuit has stayed another permit by the Army Corps of Engineers that governs nearly 1,000 stream crossings. Also pending is a third lawsuit that seeks to overturn a decision by the Fish and Wildlife Service, which ruled that the pipeline is not likely to jeopardize protected species of fish and bats.

More: *The Roanoke Times*

Energy Industry GHGs Dropped by Double Digits in 2020

National greenhouse gas emissions from the energy industry dropped by more than 10% in 2020, reaching their lowest levels in the last 30 years as the COVID-19 pandemic halted the economy, according to an estimate published last week by the Rhodium Group.

Transportation, the nation's largest source of greenhouse gases, saw a 14.7% decline in emissions. Emissions plunged by 10.3% in the electricity sector, while emissions from heavy industry, such as steel and cement, dropped 7%.

Despite the recession, emissions are expected to bounce back once the pandemic ebbs and the economy comes back to life.

More: *The New York Times*

EIA: Renewables to Account for Most New US Capacity in 2021

Developers and power plant owners are planning for 39.7 GW of new generating capacity to begin commercial operation in 2021, with solar accounting for 39% of the capacity, followed by wind at 31%, according to the Energy Information Administration's latest inventory of electricity generators.

Utility-scale solar capacity is expected to set a record by adding 15.4 GW of capacity to the grid in 2021. Meanwhile, wind is expected to add 12.2 GW. Furthermore, EIA expects the capacity of utility-scale battery storage to more than quadruple, with 4.3 GW of battery capacity additions slated to come online by the end of 2021.

More: *EIA*

Trump EPA Aims to Hinder Biden's Climate Ambitions

EPA last week unveiled a final rule that will effectively prohibit the future regulation of greenhouse gases from any stationary industry other than power plants.

Under the rule, any stationary source whose industry-wide emissions make up less than 3% of national GHG pollution will be deemed "necessarily insignificant without consideration of any other factors." That means the source would not qualify for regulation under Clean Air Act Section 111b, which was the primary statute the Obama administration intended to use to regulate GHG from power plants and other sources.

The 3% threshold would appear to exclude every stationary polluter in the U.S. aside from power plants. The rule does not apply to mobile sources like cars and trucks that are regulated under a separate part of the law.

More: *POLITICO*

Utah to Sue California City over Coal Ban

Utah and state coal producer Wolverine Fuels last week said they plan to sue Richmond, Calif., over an ordinance passed last year phasing out the shipping of coal and petcoke via its Levin-Richmond Terminal on the San Francisco Bay.

Wolverine claims the move will effectively choke off its export pathway to Japan, whose utilities buy about 3 million tons of Utah coal a year. Officials say the restriction violates interstate commerce rights. Meanwhile, Richmond officials justified the ban as needed to protect residents from coal dust wafting into the city.

U.S. District Judge Yvonne Gonzalez Rogers rejected Richmond's motion to dismiss the suits and granted Utah's and the Sierra Club's petitions to intervene. He concluded most of industry's claims hold merit and should be fully litigated.

More: *The Salt Lake Tribune*

State Briefs

REGIONAL

Slater Fire Victims Sue PacifiCorp for Negligence

Victims of the Slater Fire have filed a lawsuit against PacifiCorp in a California Superior Court alleging the utility was negligent by failing to maintain its transmission lines and de-energize them in advance of the blaze that burned more than 157,000 acres, destroyed 700 structures and killed one person in September.

Gerald Singleton, the lead lawyer for the plaintiffs, said the suit includes a few homeowners in Oregon, though they are primarily Californian. He said California law allows victims to recover a much larger extent of their losses, including noneconomic damages, than Oregon, which places various caps on recovery.

The cause of the fire is still officially under investigation by the U.S. Forest Service, although PacifiCorp operates a high-voltage transmission line and local distribution lines in the area.

More: *The Oregonian*

COLORADO

Polis Releases Final Plan to Reduce Emissions by 90%

Gov. **Jared Polis** and his climate change team last week released a final version of their "Greenhouse Gas Pollution Reduction Roadmap," which is meant to map out the role of state departments and commissions in achieving a 90% reduction in 2005 emissions levels by 2050.

Polis said the state has already achieved a 40% reduction but needs to accelerate carbon dioxide reduction in the areas of electric generation, oil and gas production, and transportation. Separate from the roadmap's targets, Polis set a goal of 100% renewable energy within 20 years.

The plan calls on the Public Utilities Commission to make the target of 80% reduction in electric power emissions by 2030 a "floor" rather than the ceiling, and that rapid reductions in the cost of utility-scale solar and wind energy make further reductions attainable.

More: *The Colorado Sun*

ILLINOIS

Pritzker Admin Hires Firm to Verify Exelon's Nuke Hardship Claims

The Pritzker administration has hired Synapse Energy Economics to scrutinize Exelon's claims that some of its nuclear plants are losing money. The move comes after Exelon said it would close the plants unless they are subsidized by the state.

The state Environmental Protection Agency finalized a $215,000 emergency contract with the firm earlier this month. The firm, which will audit Exelon's plants and assess costs and revenues now and over the next five years, will report back on their financial condition by April 1. After the report is submitted, the governor and lawmakers will have a few months to decide whether to subsidize the power plants for a second time.

More: *Crain's Chicago Business*

IOWA

Des Moines Sets Goal of All Carbon-free Power by 2035

The Des Moines City Council last week passed a resolution to move toward 100% carbon-free electricity by 2035.

The resolution also aims to cut greenhouse gas emissions by 45% over the next decade and to be net-zero by 2050.

More: *Radio Iowa*

MINNESOTA

Minnesota Power to Close Final Coal Plants by 2035

Minnesota Power last week announced it will shutter and convert its last two coal-power plants, Units 3 and 4 at the Boswell Energy Center, by 2035 as it moves toward a 100% carbon-free energy mix by 2050.

The company said it plans to close the 335-MW Unit 3 by the end of the decade while adding 400 MW of wind and solar energy to replace it. It then hopes to transition the 468-MW Unit 4 off coal by 2035 and switch to natural gas, biomass or another source.

Minnesota Power has retired or converted seven of its nine coal-fired units since 2013.

More: *Star Tribune*

NEBRASKA

Gage County Extends Ban on New Wind, Solar Permits

The Gage County Board last week voted 5-2 to extend a moratorium on wind and solar energy project permit applications through July 15. The moratorium was set to expire Jan. 15.

The extension gives the county's planning and zoning commission more time to discuss potential wind energy regulation changes. Last year, the board approved increasing the setback for turbines from homes, to 1 mile, after feedback from residents. Among the issues the commission would look at is setback distance from structures other than homes, whether it should be from the structure or property line, and any potential adjustments to rules regarding turbine noise.

More: *News Channel Nebraska*

Bill Would Make it Harder for Power Districts to Build Tx Lines

State Sen. **Tom Brewer** last week introduced a bill that would block public power districts from building long transmission lines for two years.

Legislative Bill 409, which would also set up a special committee to study transmission line issues, reflects a yearslong dispute over Nebraska Public Power District's currently mothballed $417.3 million R-Project. If passed, the bill would forbid "a public power district, public irrigation district or public power and irrigation district" from starting or continuing construction on transmission lines at least 200 miles long through Jan. 1, 2023. That would include the 225-mile R-Project, on which construction was slated to start before a federal judge rescinded a necessary federal permit last June.

Brewer's District 43 covers much of the R-Project's route, where many residents fear the project would encourage more wind turbines in the area.

More: *The North Platte Telegraph*

NEW MEXICO

PNM Files to Transfer Part Ownership in Four Corners Plant to NTEC

The Public Service Company of New Mexico filed an application with the Public Regulation Commission on Jan. 8 to sell its 13% interest (200 MW) in the coal-fired Four Corners Power Plant to the Navajo Transitional Energy Co. for $1.

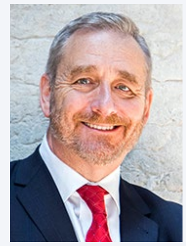
The deal would mean NTEC, which already acquired a 7% share from El Paso Electric, would take over PNM's ownership interest in 2024. PNM shareholders have also agreed to pay NTEC $75 million.

The move is part of PNM's bid to become coal-free by 2024. The company said it would save customers $30 million to $300 million.

More: *Farmington Daily Times*

OHIO

State Suspends HB6 Fees as AG Yost Seeks to Block 'Decoupling'



The Air Quality Development Authority last week announced it will suspend the $170 million in annual fees created through House Bill 6 following a judge's recent ruling in a lawsuit brought by Attorney General **Dave Yost** and officials in Cincinnati and Columbus. As part of the same official process, the Public Utilities Commission on Dec. 30 acted to prevent the fee from going into effect while the legal challenge continues.

The fees, worth more than $1 billion, were to appear on Ohioans' bills starting Jan. 1. Federal investigators have alleged the law was the product of an elaborate corruption scheme financed by FirstEnergy.

Yost has also asked a judge to block the law's lesser-known "decoupling" provision that effectively guarantees FirstEnergy's revenues at 2018 levels, a record year for the company. It is expected to bring more than $102 million this year to FirstEnergy. Yost cited the Akron-based company's role in getting the tainted legislation passed. The filing also questions former PUCO Chairman Sam Randazzo's role in shaping the bill.

More: *Cleveland.com*; *Cleveland.com*

TEXAS

Houston to Lease Landfill for Solar Farm

The Houston City Council last week unanimously voted to lease the closed Sunnyside landfill for $1/year to become a solar farm.

The agreement allows companies to seek approval from the state environmental agency and power grid managers to build on and sell energy from the 240-acre spot. It covers at least 20 years of operation, with construction slated for 2022.

The council will vote later on a specific development plan.

More: *Houston Chronicle*

VIRGINIA

Pulaski Planning Commission Recommends Approval of Solar Farm

The Pulaski County Planning Commission last week voted 4-2 to recommend the county Board of Supervisors approve a special use permit for Hecate Energy to build a 2,700-acre solar farm. The permit would allow landowners to lease several pieces of land for Hecate to build the 280-MW solar farm.

Multiple residents spoke to the commission in favor of the project, with many saying it was a life-changing opportunity that would allow farmers to keep their land for generations to come. The company said it already has around 20 landowners interested in signing 35-year leases.

Supervisors will meet on Jan. 25 for another public hearing and to likely vote on the permit.

More: *The Roanoke Times*