

FirstEnergy, AEP CEOs Deny Wrongdoing

Jones: Company 'Acted Properly'

By Rich Heidorn Jr.

American Electric Power CEO Nick Akins said Monday that his company is innocent of wrongdoing in the alleged bribery scheme that resulted in the passage of Ohio House Bill 6, echoing a similar protestation by FirstEnergy CEO Charles Jones on Friday.

Jones said FirstEnergy, its political action committee and FirstEnergy Service Co. were subpoenaed July 21 after federal officials arrested Ohio House Speaker Larry Householder and four others on racketeering charges for allegedly accepting almost \$61 million in bribes and "dark money" campaign contributions.

"I believe FirstEnergy acted properly in this matter, and we intend to cooperate fully with the investigation to, among other things, ensure our company and our role in supporting House Bill 6 is understood as accurately as possible," Jones said during the company's



Charles Jones gives a shareholder address in 2018 | FERC

second-quarter earnings call.

"This is a serious and disturbing situation. Ethical behavior and upholding the highest

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Feds: FE Paid \$61M in Bribes to Win Nuke Subsidy (p.30)

Ohio Gov. Calls for Repeal of Nuke Bailout (p.32)

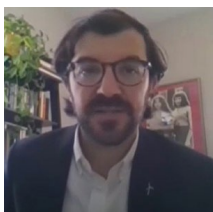
Hybrid Resource Developers Ask for Uniform Rules

'Tsunami Wave' of Co-located Resources on the Horizon

By Tom Kleckner and Robert Mullin

RTOs will need uniform interconnection processes if hybrid and co-located resources are to provide the flexible, cost-effective service its proponents say they will.

That was the consensus among developers during one of four virtual panels FERC staff facilitated last week as part of a *technical conference* on such resources (AD20-9).



Adam Stern, AWEA | FERC

"The types of supply resources that participate in wholesale electricity markets in the U.S., and the technologies they use, are evolving dramatically," Adam Stern, research and analytics manager for the American Wind

Energy Association, said during Thursday's panels. "As technology evolves, so too must the policies and procedures of wholesale electricity market operators to effectively integrate new resource technologies and fully realize the benefits they provide."

According to a Lawrence Berkeley National Laboratory study, 125 hybrid or co-located projects of various configurations — wind and storage, solar and storage, fossil and storage, wind and fossil among wind and solar, wind and fossil, solar and fossil — were providing 13.4 GW of generating capacity and almost 1 GW of

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Trump to Nominate Clements, Christie to FERC (p.12)

CAISO Adopts Co-located Resources Plan (p.15)

NY Announces 4 GW in Clean Energy RFPs

By Michael Kuser

New York last week announced its largest-ever package of renewable energy solicitations, seeking a combined 4 GW of offshore wind, onshore wind and solar power.

The New York State Energy Research and Development Authority seeks up to 2,500 MW of offshore wind energy this year in a *solicitation* authorized three months ago but the issuance of which was delayed by the COVID-19 pandemic (18-E-0071). (See *NYPSC Greenlights 2,500-MW Offshore Wind RFP*.)

The request for proposals includes a requirement that developers partner with any of the 11 prequalified state ports "to stage, construct, manufacture key components or coordinate operations and maintenance activities."

The agency also is coordinating with the New York Power Authority on two separate RFPs to procure more than 1,500 MW of

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ISO, RTO Officials Debate Role of Natural Gas Resources (p.4)



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NJ Releases Draft Offshore Wind Plan (p.27)

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NARUC Summer Policy Summit

NARUC Panel: 'Green' Hydrogen Could Lower GHGs

Provides Solution for Long-term Solar Storage, Advocates Say

By Hudson Sangree

The most abundant element in the universe could reduce greenhouse gas emissions and solve the problem of storing wind and solar energy if the cost of producing it comes down, advocates told NARUC's Summer Policy Summit last week.

Hydrogen is getting a lot of attention these days for its potential to store energy from intermittent resources and generate megawatts when the sun doesn't shine or the wind doesn't blow. But its cost remains prohibitively high.

The National Fuel Cell Research Center estimates that the expense of producing power from hydrogen fuel cells, now about \$4,000/kW, needs to fall by more than 60% for it to become a competitive market player. (See [Calif. Rushing Microgrids for Fire Season Shutoffs.](#))

Panelists on July 21 said cost reduction is already underway.

Neva Espionza, generation director with the industry nonprofit Electric Power Research Institute, pointed to billions of dollars of investments in hydrogen technology in Western Europe, Saudi Arabia and Australia as developments that could spur less-expensive hydrogen production.

Kristine Wiley — director of the Hydrogen Technology Center at GTI, an Illinois-based research group founded by the natural gas industry — asked those listening to name the “top barrier to enabling the hydrogen economy.” More than half of those voting via cell phone app said “cost.” Wiley said GTI was using its well-funded research and development programs to bring costs down.

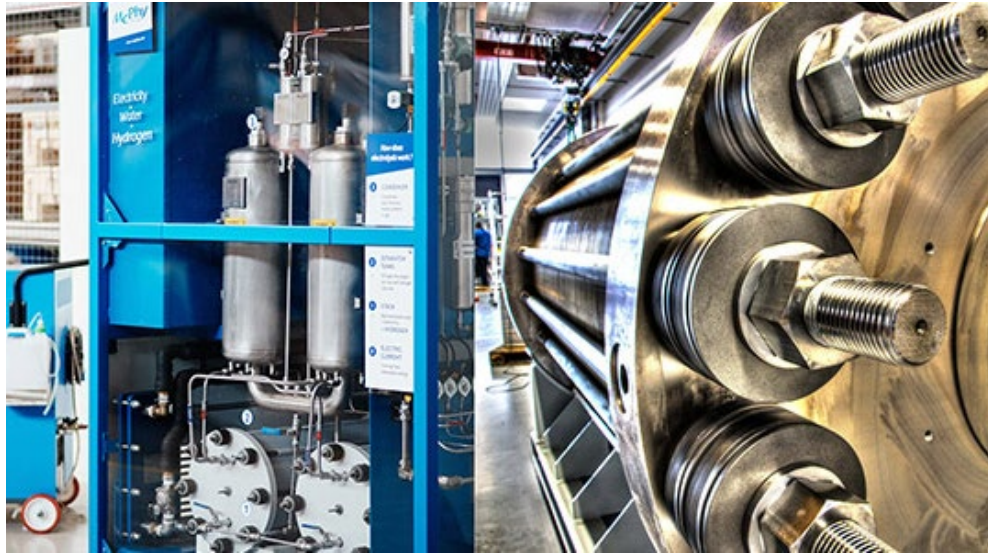
Laura Nelson, executive director of the Green Hydrogen Coalition, assured listeners that costs are “falling fast” and will keep going down as production increases.

“From our perspective, it's not really a technology problem,” she said. “It's a matter of scale and market design.”

“Green hydrogen is a super game changer,” Nelson continued. “We can attain a 100% renewable energy system that's affordable, reliable and, I would also say, flexible and resilient.”

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Advocates say solar-powered electrolyzers that produce hydrogen could help solve the West's need for long-term storage of wind and solar energy. | [McPhy Energy SA](#)

sions, excess wind and solar energy are used to power an electrolyzer that splits water molecules into hydrogen and oxygen. The electrolysis consumes large amounts of electricity, but the hydrogen can be stored for months — meaning ample summer solar power can make hydrogen for winter heating.

Hydrogen can also be used for storage in place of lithium-ion batteries, which currently have a maximum discharge time of about four hours. With lifespans of thousands of hours, hydrogen fuel cells can run indefinitely, important during extended outages.

Some industry advocates — including the panelists July 21 — are promoting a controversial plan to use green hydrogen as a partial substitute for natural gas, making use of existing gas pipelines and other infrastructure.

Nelson, who until recently served as energy adviser to the Utah governor's office, said one big plan is already in the works.

The Intermountain Power Plant, a coal-fired facility in central Utah, is being repurposed to burn 30% green hydrogen combined with natural gas. The 1,800-MW plant, owned by the Intermountain Power Agency and operated by the Los Angeles Department of Power and Water, sends electricity to Southern California.

Nelson said the plant — which is scheduled to undergo a \$500 million, yearslong refit — is an ideal test case for combining methane and hydrogen.

“You have a big production capacity. You've got big offtake, and you've got all of the infrastructure to deliver a clean energy resource,” she said.

The plant is “strategically located near some salt formations,” where hydrogen can be stored in caverns large enough to hold the Empire State Building, with plenty of room to spare, Nelson said. There's enough room near the power plant for 100 salt caverns.

Opponents have repeatedly argued, however, that mixing hydrogen with methane won't help California achieve its goal of using zero-carbon energy by 2045 and will only extend the use of natural gas as a primary energy resource in the West. Owners of gas infrastructure are pushing the plans as a way to keep their assets from becoming “stranded” and worthless, they contend.

During the Q&A session, an unnamed participant questioned the planned ratio of hydrogen and methane at the Intermountain plant. (The written query was read aloud by Minnesota Public Utilities Commissioner Valerie Means, who co-moderated the panel with fellow Minnesota Commissioner Matt Schuerger.)

Nelson responded that the mix would lower greenhouse gas emissions from the plant by up to 75% when it comes online by 2030 and that LADWP was hoping to eventually eliminate all GHGs. ■

NARUC Summer Policy Summit

ISO, RTO Officials Debate Role of Natural Gas Resources

By Tom Kleckner

A panel discussion last week on natural gas's role in a clean-energy grid during the National Association of Regulatory Utility Commissioners' virtual Summer Policy Summit revealed a divide between single-state ISOs and multi-state RTOs.

NYISO and CAISO representatives reveled in their environmental targets and progress on decarbonization. NYISO CEO Richard Dewey mentioned New York's combined solicitations for 4 GW of renewable energy, the largest ever by a state, and said that, moving forward with planning, the grid operator was "assuming we'll hit" the state's goal of a 100% carbon-free system by 2040. (See related story, *NY Announces 4 GW in Clean Energy RFPs*.)



Officials from CAISO, MISO, NYISO and PJM discussed the importance of gas plants during a NARUC Summer Summit session July 21. | *Panda Power Funds*

Mark Rothleder, CAISO's vice president of market policy and performance, said his ISO is driven by California legislation to reach a 50% renewable energy target by 2026 and a 100% clean-energy system by 2045.

"We've had as high as 80% renewables, and almost 100% carbon-free energy, for a few hours," he said. "Now we need to know how to do this over a longer period of time."

"It's interesting to listen to people running ISOs that have single state. Policy direction is clear to them. They're much more strongly putting forward their point of view," PJM CEO Manu Asthana said. "PJM is unique. PJM has a diverse footprint. We have some states very dedicated to decarbonizing and others that are dependent on fossil fuels. Others have done well with shale and have cheap natural gas."

Within PJM's footprint, gas has grown to 37% of the fuel mix, Asthana said. Coal-fired resources have dropped from nearly 60% of the fuel mix 15 years ago to about 23%, resulting in a 34% drop in carbon emissions.

"Our fuel mix has been shifting to a significantly more decarbonized system. We see that just continuing," he said.

MISO CEO John Bear said the fuel mix in the RTO's 15-state footprint is also seeing a "significant" reduction in coal usage, nearly halved from 76% of the fuel mix in 2005 to 39% last year. It expects that to fall further to 27% by 2030, when gas will account for 28% of the mix.

That is emblematic of natural gas's role as a transition fuel, providing reliability as intermittent renewable resources take the place of

coal-fired generation. Nowhere is that more evident perhaps than in MISO, which Bear said has more than 50% of the U.S.' gas storage resources.

"There are a lot of tools for us to use when things get challenging," he said. "As we get to higher levels of renewable-energy penetration and have frequency- and voltage-stability needs, understanding the transmission system and how we can move those [gas-fired] attributes around is really critical to keeping reliability high and costs low."

"We see a role in the near term for gas," Rothleder said. "It provides local reliability in constrained areas. It provides a fuel source when we have evening peaks and the sun is going down, but we still have high load. It provides resiliency to meet those times when solar production is down. Lastly, the gas fleet has attributes that provide essential reliability service."

Dewey said that to meet NYISO's goal of 100% carbon-free electricity system by 2040, "that's where you start to look at the value of the attributes of the gas resources."

"Even when we're hitting renewable targets, there'll still be hours when we need that dispatchable resource," he said. "Storage will be critically important. It will offset a lot of those instances ... but it's still a long way to meet reliability needs. As a bridge mechanism, natural gas will be critical to achieve those goals."

And the future?

"The future is finding replacement resources that can match that dispatchability," Dewey said. ■

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NARUC Summer Policy Summit

NARUC Grapples with COVID-19 Fallout, Racial Inequities

By Amanda Durish Cook

Regulators and utility experts last week did not shy away from discussing 2020's pandemic and racial justice zeitgeist.

Panels and keynote addresses on marginalized communities and pandemic-related economic pressures dominated the opening day of the National Association of Regulatory Utility Commissioners' virtual Summer Policy Summit on July 20.

Edison Electric Institute President Tom Kuhn applauded NARUC for forming a *task force* last month on emergency preparedness, recovery and resilience. The task force will examine mounting extreme weather events and natural disasters and share best practices, funding opportunities, resources and collaborative efforts. The group includes a special subcommittee to examine the national response to COVID-19.

"It's going to be so very important to look at the lessons from this pandemic and apply them to the next one," Kuhn said during the summit's first panel.

Several panelists congratulated utilities and regulators on maintaining reliable electric service as normal use patterns were thrown out the window when people confined themselves to their homes.

"Our homes are our offices, schools, gymnasiums, everything," American Gas Association CEO Karen Harbert said.

But four months into the pandemic, uncertainty still abounds. Multiple panelists predicted hardships ahead.

"We've never seen anything like this," National Association of State Utility Consumer Advocates Executive Director David Springe said. Whole industries are on pause and countless consumers are already unable to pay utility bills.



NASUCA Executive Director David Springe | NARUC



Melanie Santiago-Mosier, Vote Solar | NARUC

"It's a sea change, I think, in how we operate," he said.

Springe recommended new protections for low-income customers for water and broadband services, in addition to existing electricity protections.

"I feel like we survived the initial volley, but the big battles are in the months ahead," Springe said, noting that the weekly \$600 federal boost in unemployment benefits and moratoriums on utility shutoffs will soon be expiring. "There are just simply going to be customers who struggle, customers who aren't going to be there anymore."

Springe said regulators should keep costs as low as possible to "best manage the acrimony that is surely in our future."

"Customers are not an endless font of wealth," he said. "It's not in anyone's interests to go through a period where we turn people off." Springe said utilities must introduce new rate structures, grace periods and income-based payment programs for residential and some commercial customers.

Springe also told regulatory staff that utilities themselves may require some funding to "minimize the gap between prudently incurred costs and level of revenue."

Above all, the focus should be on keeping people in their homes while the pandemic runs its course, Springe said. He said high unpaid utility bills in the middle of a pandemic are a psychological drain, especially on communities of color.

Despite that, NARUC President and Mississippi Public Service Commissioner Brandon Presley said a federal moratorium on utility shutoffs remains unnecessary and a state-by-state approach is best.

"States have been a great laboratory in this," Presley said, adding that several states have struck a good balance between protecting



NAACP CEO Derrick Johnson | NARUC

consumers and keeping services reliable.

"When we look ahead to when these moratoriums end, our research indicates that the [energy bill] burdens could reach tens of billions of dollars and affect tens of millions of customers," Melanie Santiago-Mosier, director of Vote Solar's access and equity program, said in a separate panel on ratepayer-funded clean energy programs.

Santiago-Mosier said she believes it's possible to continue into the future of clean and renewable resources while shoring up the faltering economy.

"We know we need to be responsive to the economic challenges that COVID-19 is presenting," she said.

Nicor/Southern Co. Gas Vice President of External Affairs Lewis Binswanger said some clean energy programs are simply going to have to be subsidized by the ratepayers who can afford them.

"The wealthier customers have taken advantage of lower-cost energy for years. And the low-income customers feel like they've been abandoned," he said.

NAACP CEO Derrick Johnson, delivering a keynote address, said regulators are more important than ever in the pandemic. But he also said regulatory bodies, utilities and co-ops often lack diversity and said ratepayers need an industry that is "truly representative of constituents."

"There is no economic development where there is no power," Johnson said. "Who will speak for those that cannot speak for themselves? That's the role of the regulators."

He cautioned regulators to not just "carry messages" for companies whose chief purpose is maximizing profits. "Who will speak for the regular consumer who lacks the institutional knowledge?" ■

NARUC Summer Policy Summit

Optimism About Renewables Abounds amid Pandemic

By Michael Brooks

Despite a severe spike in unemployment and some project delays amid the COVID-19 pandemic, industry stakeholders remain upbeat about the long-term prospects of renewable energy, as indicated by a panel during the National Association of Regulatory Utility Commissioners' Summer Policy Summit on July 21.



ACORE CEO Gregory Wetstone | NARUC

Gregory Wetstone, CEO of the American Council on Renewable Energy, opened the panel with some sobering unemployment figures: 514,200 people in the clean energy sector are out of work as of this month. But most of this is on the residential solar side.

"The bigger issues from the standpoint of utility-scale have been availability of tax equity and finance," Wetstone said, though these have been mitigated somewhat by the U.S. Treasury Department's deadline extensions in May for projects to qualify for federal tax credits.

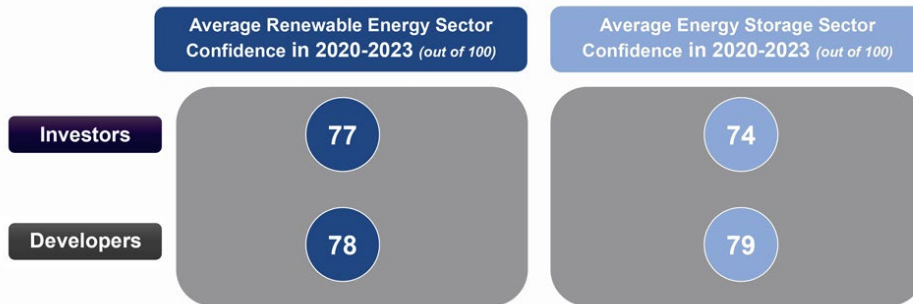
There's also been "a big uptick in a focus on sustainability investing," which has been helpful, Wetstone said. He noted BloombergNEF data suggesting that though 2020 will not see as much renewable development as expected before the pandemic hit, it will still be mostly on par with that of 2019 and more than rebound next year. (See [Renewable Investors See Light at End of COVID Tunnel](#).)

Wetstone cited "key drivers" for continued investor confidence, including decreasing costs; increased demand from residents, companies and utilities; increasing state and local renewable and emission goals; and climate change as an ever more resonant political priority for residents.



Xcel CEO and EEI Chair Ben Fowke | NARUC

Xcel Energy CEO Ben Fowke, who serves as chairman of Edison Electric Institute, also expressed confidence. "I happen to be of the mindset that we can do more with clean energy to jumpstart the economy and overcome some of the economic



ACORE said that confidence in midterm sector growth remains strong, consistent with its 2018 and 2019 surveys. | ACORE

impacts of COVID-19," he said.

"We have seen some delays with some of our wind farms [because of] the supply chain disruption. Fortunately, we still qualify for the 100% production tax credits for our customers because of the safe harbor extension. ... So things are going OK at Xcel, and we're looking forward to being able to be part of the solution to get the economy rolling again."

Fowke's company, which has set a goal to be 100% carbon-free by 2050, expects 80% of its power to come from renewables. He is not so concerned about reaching that renewable milestone as in securing the last 20% of zero-carbon resources – the unknown on which he urged investors to focus.

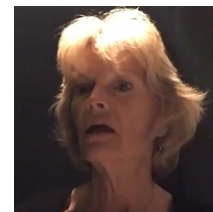
"I think it's really important we get started today in nurturing those resources so we can all meet those zero-carbon goals by midcentury," Fowke said. "I don't know what those resources will be." He listed advanced nuclear, carbon capture, geothermal and hydrogen as candidates. "The important thing is we need to get started today. And we need to recognize the fact that we can't do it with 100% renewables. It defies the laws of the grid."

Federal Aid Unlikely

The discussion occurred amid a surge in coronavirus cases in the U.S., an increase in deaths from the virus and an uptick in unemployment claims, just as federal unemployment benefits and eviction moratorium are about to expire. Congress and the White House are in the middle of negotiations on what to do next to address the crisis.

Both Fowke and Wetstone expressed a desire

for aid to the renewable sector in the form of tax credit extensions or refunds, or a measure to make it easier to site interregional transmission.



Sen. Lisa Murkowski (R-Alaska) joined the webinar from a phone booth in the Senate Press Gallery. | NARUC

But in comments before the panel, Sen. Lisa Murkowski (R-Alaska), chair of the Senate Energy and Natural Resources Committee, said energy-specific measures are likely going to be left out of any forthcoming stimulus legislation. She listed some measures she said there has been discussion on: extension

of the tax credits; a short-term waiver of Nuclear Regulatory Commission fees for "challenged" nuclear plants; and a program to provide personal protective equipment for nonprofit utilities.

"I am hoping we can find common ground in some of these areas," she said. "Now I can't tell you which of these items will make it into a final package; only that, in my view, they make good sense and I think that they would enhance it."

Murkowski also used her time to plug her American Energy Innovation Act, which faltered on the floor of the Senate in March. "If anybody has an opportunity to raise these issues with the folks on the [Environment and Public Works] Committee to separate [hydrofluorocarbons] from our energy bill, I'd appreciate it," she said. (See [FERC Targeted in Energy Bill Amendments](#).) ■

FERC/Federal News



Hybrid Resource Developers Ask for Uniform Rules

'Tsunami Wave' of Co-located Resources on the Horizon

Continued from page 1

storage capacity by the end of 2019.

Grid operators' interconnection queues included another 50 GW of standalone storage and 113 GW of storage paired with wind and solar at the end of last year. Much of that proposed capacity can be found in the West, thanks to state renewable portfolio standards and clean-energy legislation.



CAISO's Deb LeVine, director of infrastructure contracts and management, said grid operators are facing a "tsunami wave" of storage.

Deb LeVine, CAISO | FERC

The ISO has determined storage can use existing processes to interconnect to the grid," LeVine said. "It can apply through the existing interconnection process, or by pairing the energy storage with an existing resource and using [our] modification process."

Thanks to that process, existing resources in

CAISO can add storage in some circumstances and avoid being sent back to the end of the queue or restudied. LeVine said the ISO's interconnection study process generally takes two years, but a modification can be done in about three months.

"CAISO been working on this for many years. Some are just catching up," said Patrick Tan, senior director of transmission and interconnection for 8minute Solar Energy. "Demand [for hybrid resources] has been increasing over the last two years, faster than we can get through the interconnection process. [That's] the bottleneck. Developers wish we could get our generation agreement in a couple of months and change anything we want to maximize customer demands."

Stern pointed out that FERC Order 845, designed to increase the interconnection process's transparency and timeliness, allowed for the addition of "permissible technological advancements" to an interconnection customer's requested service. (See [FERC Order Seeks to Reduce Time, Uncertainty on Interconnections](#).)

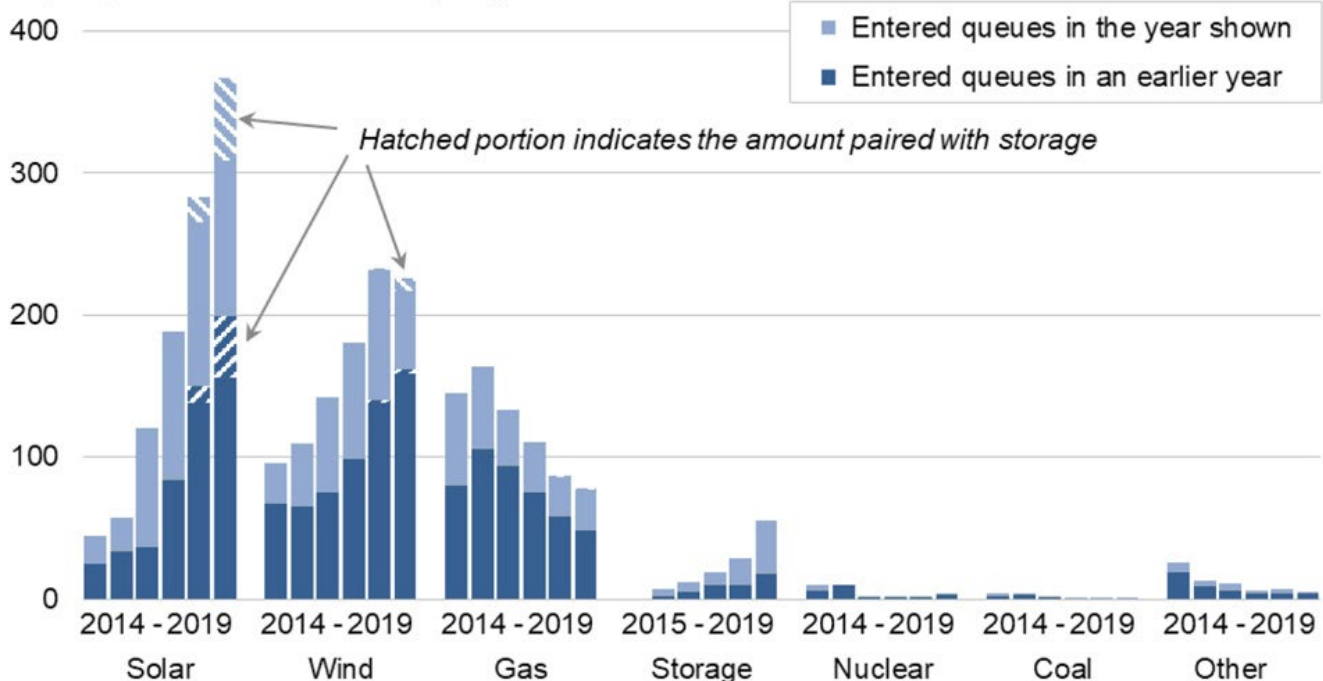
"However, it is not clear whether the addition of energy storage to an existing renewable

interconnection request would constitute a 'permissible technological advancement' or a 'material modification,'" he said. "This uncertainty may prevent the potential increase in dispatchability and flexibility in projects [that] are already enqueued."

The modification process was one of five suggested areas of focus for FERC, Stern said. He urged the commission to explore four other issues regarding interconnecting hybrid and co-located resources, all of which align with Order 845's reforms:

- Interconnection agreements: Direct all RTOs to allow all of the hybrid resources' components to execute a single interconnection agreement. Not all grid operators allow single agreements even if the resource will be operated, bid and dispatched as a single resource.
- Study requirements: Because RTOs have "widely varying methods" for studying hybrid resources, particular interconnection study assumptions "directly affect the need for network upgrades" and can "significantly affect" hybrid projects' viability.
- Injection points: RTOs have not adopted a

Capacity in Queues at Year-End (GW)



Interconnection queues are dominated by renewable energy and, now, hybridization. | Berkeley Lab

FERC/Federal News



consistent methodology for considering the capacity of hybrid resource components or how a storage component could serve to limit a particular resource’s maximum injection.

- Surplus capacity: Use Order 845’s “surplus interconnection service,” the portion of interconnection capacity not being fully used, to add energy storage resources to existing renewable projects. That would create a pathway for new hybrid and co-located resources without requiring new upgrades, Stern said.

LeVine threw a note of caution into the discussion.

“We need to get some more operations under our belt before we start changing the rules,” she said.

Panelists: Technology’s Changes will Continue

The technical conference began with FERC Chairman Neil Chatterjee encouraging participants to “get down into the weeds” — they did — and Commissioner Richard Glick asking whether grid operators’ market rules are acting as barriers and how they can be eliminated.

“This is the most important step the commission can take to ensure a smooth transition to a clean-energy future,” Chatterjee said. “What can we do to accommodate the next wave of resources?”

Panelists suggested addressing market mitigation and ensuring the correct participation model. There are two primary configurations for hybrids: a 1R configuration, in which storage and generation are co-controlled and share a resource ID, and 2R, in which storage and generation are co-located as two independent resource IDs.

“All RTOs should allow hybrid resources, if they wish to do so, to use an existing market participation model,” Mark Ahlstrom, president of the Energy Systems Integration Group and vice president of renewable energy policy for NextEra Energy Resources, said in his *written testimony*. “Just as a conventional plant provides its parameters for start-up time and minimum run time, a hybrid



Mark Ahlstrom, NextEra | FERC

could provide its own parameters. This may not be the optimal way to extract the full value from a hybrid resource, but I see no logical reason why we would prevent a hybrid that can emulate a gas plant (but with no start-up cost, no start-up time, no minimum run time and a faster ramp rate) from participating in this way.”

Jason Burwen, vice president of policy for the Energy Storage Association, said one of the keys will be the “extent of response for the efficient use of hybrid resources” as the world continues to change around the grid.



Jason Burwen, ESA | FERC

“It’s worth considering [that] we are focusing on today’s technology and today’s offers,” he said. “The future will continue to come at us. We would do well to keep other technologies in mind. Removing barriers is going to be a continuing game of making sure [the grid] is keeping up with the technologies.”

Berkeley Lab researcher Will Gorman said hy-

berkeley Lab researcher Will Gorman said hy-

125 projects, 13.4 GW of generating capacity, 0.9 GW storage capacity

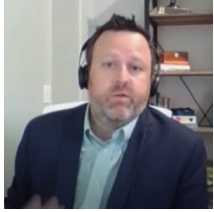
Installed at end of 2019	# projects	Gen 1 (MW)	Gen 2 (MW)	Gen 3 (MW)	Total Gen (MW)	Storage capacity (MW)	Storage energy (MWh)	Storage: generator ratio	Duration (hrs)
Wind+Storage	13	1,290	0	0	1,290	184	109	14%	0.6
Wind+PV+Storage	2	216	21	0	237	34	15	15%	0.4
Wind+Fossil+Storage	1	5	12	0	17	1	1	7%	0.8
Wind+PV+Fossil+Storage	1	0.1	0.1	1	1	0	1	25%	1.7
Wind+PV	6	535	212	0	747	0	0	0%	n/a
Wind+PV+Fossil	3	6	2	98	106	0	0	0%	n/a
Wind+Fossil	8	27	79	0	106	0	0	0%	n/a
PV+Storage	40	882	0	0	882	169	446	19%	2.6
PV+Fossil	26	77	6,876	0	6,953	0	0	0%	n/a
PV+Fossil+Storage	3	9	10	0	20	5	9	24%	1.9
PV+Biomass	3	4	15	0	19	0	0	0%	n/a
PV+Geothermal	2	18	85	0	103	0	0	0%	n/a
PV+Geothermal+CSP	1	22	47	2	71	0	0	0%	n/a
CSP+Storage	2	390	0	0	390	390	2,780	100%	7.1
Fossil+Storage	10	2,414	0	0	2,414	91	84	4%	0.9
Hydro+Storage	4	71	0	0	71	12	11	17%	0.9

Hybrid and co-located projects accounted for 13.4 GW of capacity last year, but the market remains limited. | Berkeley Lab

FERC/Federal News



brid technology costs' "dramatic decline" have led to the resources' popularity. He said costs fell from \$40 to \$70/MWh in 2017 to \$20 to \$30/MWh last year.



John Sterling, First Solar | FERC

"Solar is now seen as the cheapest form of generation in many parts of the country. We're seeing that many utilities are asking for hybrids," said John Sterling, First Solar's director of market and policy affairs.

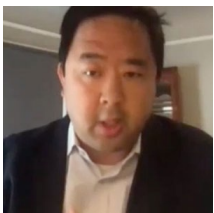
He said two "interesting things" are happening. "We're hearing a lot of questions about renewables needing to be dispatchable, so how do we encourage that activity? The other thing we're getting is how storage can be coupled with solar projects ... and shift [its energy] to more valuable times of the day."

Sterling encouraged FERC not to limit itself to think about just hybrid resources.

"All inverter-based resources have the capability to provide [flexibility]," he said. "We should be thinking about in 10 years, when the grid is fully hybridized, about what we want to be asking these resources to do."

Increasing Complexity

A panel discussion in the afternoon revealed that needed market rule changes will be even more complex than those developed in response to FERC Order 841, the commission's landmark rulemaking to remove market barriers for energy storage resources.



Ted Ko, Stem | FERC

Ted Ko, vice president of policy and regulatory affairs at storage systems developer Stem, said Order 841's "problem space" was "relatively small" compared with integrating hybrids because it dealt

only with standalone storage resources in the three "domains" of transmission, distribution and behind-the-meter, resulting in just three "major configurations" that RTO market models had to accommodate.

Hybrids add new dimensions to that problem space through a larger number of potential resource configurations within the same three domains, Ko said.

"Now you have one resource versus two resources in the wholesale market — what I'm going to call '1R' versus '2R' — and then you

have AC- versus DC-coupled in the solar-storage space."

That leaves market designers to consider four different options for storage hybrids — "1R AC, 1R DC, 2R AC, 2R DC" — across each of the three domains, he said.

"Of those 12 different configurations, which one of them does the market design need to accommodate to provide a participation path for all of them? And then in each of those configurations, which of the market services ... do those configurations need to be able to access?" Ko asked. "In the [Order] 841 case, the answers to those questions were 'everything' ... For hybrid, it should be the same ultimate answer, but because of the constraints of the technologies of the different wholesale markets and the software ... it may take time to enable all of those."

Rachel McMahon, senior manager of public policy at Sunrun, said her comments during the panel would focus "entirely" on enabling aggregations of BTM residential solar-plus-storage hybrids to provide local resource adequacy capacity and other services, particularly for the CAISO grid.

"The challenge before us is several-fold," she said. "First, we need a consistent and equitable capacity valuation methodology ... that accounts for the full value of the resources.

"Second, clear and consistent workable rules are necessary to ensure participation ... of many, many small systems. So, from the perspective of providing wholesale services, such as energy, capacity and reliability services, it requires a different perspective than ISOs and public utilities typically have," McMahon said.

She said Sunrun's resource aggregations do not have a "clear, easy or economically viable path to provide" capacity or energy services in CAISO but do currently participate in the market under demand response rules, which prevent those aggregations from injecting power back into the system.

No Time to Wait

"As an industry, we can't wait to develop new rules to facilitate hybrid and co-located resources ... onto our grid," said Gabe Murtagh, senior infrastructure and regulatory policy developer at CAISO. "In California, these resources are coming very quickly, and they'll be on our grid very

soon, and we need to have the right tools in place to be able to accommodate them when they get onto our market."

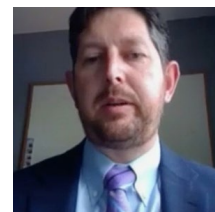
Some of the urgency stems from the fact that state environmental regulations will force a large number of gas-fired generators to retire over the next three years.

"This means that we need the proper tools and infrastructure in order to manage and operate these [new] resources efficiently and effectively," Murtagh said.

CAISO's approach distinguishes between market models for co-located and hybrid resources. Co-located resources will consist of multiple resources modeled behind a single interconnection point, each subject to its own bid curves and market awards. True hybrids would have a single resource ID, bid curve and a single market award.

"The ISO would be seeing one resource behind one constraint, and we would be giving it one set of dispatch instructions," Murtagh said.

RTOs and ISOs should implement both models and adapt rules as needed as technologies evolve, he said. CAISO's Board of Governors last week approved Tariff revisions that would accommodate market participation of co-located resources. A similar proposal for hybrid resources is pending next year. (See related story, [CAISO Adopts Co-located Resources Plan.](#))



Mike DeSocio, NYISO | FERC

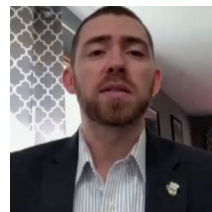
NYISO Director of Market Design Mike DeSocio said about 700 MW of solar, wind and storage resources in the ISO's queue could qualify as co-located resources and that his team is currently developing a proposal to accommodate such

resources, with plans to develop an aggregated resources option next year.

But DeSocio cautioned that reliability must be a key factor in model design.

"We see ranges of storage-generation ratios ranging from 5 to 50%, and this difference in storage capability among co-located projects creates different operational scenarios where reliability implications of those scenarios must be considered," DeSocio said.

"NYISO believes that it is important that the participation models account for the operational capabilities of the resource and enforce the reliability rules," he said. "The NYISO, for example, must comply with reliability rules from three reliability organizations: NERC,



Gabe Murtagh, CAISO | FERC

FERC/Federal News



Northeast Power Coordinating Council and New York State Reliability Council. This means that rules that may work in other regions may not adequately address rules that the NYISO is responsible to enforce.”

‘Wide Open’

From PJM’s perspective, the markets are already “wide open” to hybrid participation, said Andrew Levitt, the RTO’s senior business solution architect.



Andrew Levitt, PJM | FERC

“Hybrids we see in the queue are different from the types of hybrids we’ve seen in the past,” which were located at the same point but typically configured to work independently from each other, he said.

New hybrids use storage to firm up the output of wind or solar during down times and charge during periods of surplus generation. That creates a “significant interaction” between the resources that is best managed by the plant operator — including managing state-of-charge, Levitt said.

“And it’s clear to us that the most straightforward way to do that is to model all those units as a single entity in the market so that it’s totally opaque to the grid operator,” he said.

PJM sees “a lot of potential benefits” from hybrid configurations because the storage component “can increase the resource adequacy of the variable energy component and it can actually support that resource adequacy value, which might decline in time as you see greater deployment of renewables in PJM.”

From a market perspective, “it really facilitates the flexibility that [a] resource needs [in order] to offer significant amounts of reserves to the system and also offers value in giving that resource the ability to produce more output at times of higher value when prices are higher,” Levitt said. Hybrid configurations also enable variable resources to relieve local reliability issues in ways they cannot without the addition of storage, he noted.

Levitt acknowledged McMahon’s concerns regarding market access for BTM aggregations, saying the treatment of wholesale distributed energy resources is still “a tough nut to crack.” But he expressed confidence that the sector is doing a “great job” addressing the problem, including ongoing DER efforts in CAISO and NYISO along with FERC’s outstanding Notice of Proposed Rulemaking on the issue.

FERC’s Matt McWhorter asked whether hybrid resources should be able to participate in markets as each of their technology types or just as a single resource.

“I think we need robust hybrid participation models [that] can simultaneously allow these resources to either be participating in the market as a separate resource or as a single resource, and I do believe that right now we don’t have such robust hybrid participation models throughout the nation,” said Mike Tabrizi, vice president and principal engineer at DNV GL.

Tabrizi advocated for a market framework that “relies on the pricing node to be able to direct asset owners and asset operators to make the decisions” about how to offer into the market.

“At the end of the day, asset owners and operators have better visibility on their assets, and so I think they’re in the best position to make financial decisions on how they want to operate their assets; but at the same time, we need to have some sort of improved centralized strategies to be able to kind of intervene when needed to [ensure] grid reliability,” Tabrizi said.

“We tend to agree there needs to be some option in models and having that capability,” DeSocio said, cautioning that markets must avoid providing too much flexibility for hybrids.

“When you think about capacity, capacity’s a future call on energy, so you need to be able to provide energy in order to provide capacity; the same is true for reserves. So, there are some linkages that we need to be careful and acknowledge before we just allow the *a la carte* [idea of] picking what service I want to provide at which time,” DeSocio said.

‘All Theoretical’

In a final panel on calculating the capacity value of hybrid resources in organized markets, Rob Gramlich, president of Grid Strategies, called for RTOs to decrease their reliance on capacity markets.

“The whole way of thinking about capacity markets may have to change, especially for these incredibly and highly controllable resources,” Gramlich said. “What really matters is not the crude estimate one makes in a capacity valuation three years ahead of time, but the accuracy of the real-time price signals by time, location and reliability service that are strictly necessary to achieve efficient and reliable operation when you get to real time. There’s no replacement for those efficient price signals.

“If you’re going to have a capacity market,” Gramlich said, the “most appropriate” methodology for estimating capacity valuations for

hybrids is the effective load-carrying capability (ELCC) methodology, where capacity credits are awarded based on the ability of a resource to consistently deliver energy during periods of high demand.

Kelli Joseph, director of markets and regulatory policy for Clearway Energy Group, pointed to the challenge of pondering capacity valuations for hybrid resources when “we don’t even know yet what the full participation models are.”



Kelli Joseph, Clearway Energy Group | FERC

Joseph questioned whether existing reliability metrics for measuring capacity — such as ELCC and loss-of-load expectation (LOLE) — will remain relevant in a system with increasing renewables. Peak periods are becoming much narrower, reliability events are shorter but coming more often, and peak periods — as measured by net load — are shifting from the daytime to morning and evening, she said.

NERC “has started to say that we really ought to be considering flexibility metrics in our planning models, but they did point out that if you actually try to incorporate these flexibility metrics, it’s going to be a really significant challenge,” Joseph said.

Erik Ela, senior technical leader with the Electric Power Research Institute, said the peak load period is no longer necessarily the most critical period for assessing capacity value.

“In reality, the real time where we have situations where there might be load shedding or large frequency deviations or other emergency criteria are happening because of other conditions, whether that’s outages or massive forecast errors,” Ela said.

Some resources may be better equipped to respond to those events than others, but that’s not currently captured in capacity valuation, he said.

“That’s very hard to quantify because it’s different from where we typically do our calculations for capacity and resource adequacy. ... Extending that to standalone storage and hybrids just emphasizes that because the flexibility could be something that could avoid the potential situations that you might be planning for,” Ela said.

He offered another key point specific to estimating valuations for hybrid resources: “There’s not really any data. We don’t know how hybrid resources contribute, so it’s all theoretical.” ■

FERC/Federal News



FERC Gets More Time on Tolling Orders

The D.C. Circuit Court of Appeals on Thursday granted FERC’s request for a delay in responding to the court’s June 30 order barring the commission’s use of tolling orders to delay judicial review of its rulings under the Natural Gas Act.

The court ordered its clerk to withhold issuance of the mandate through Oct. 5 to give the commission time to decide whether to seek a Supreme Court review. If the commission does seek a writ of *certiorari* from the high court, the mandate will not be issued until the court rules on the request.

FERC’s *motion* said it needed time to consider its response to the order overturning “the commission’s decades-old, judicially sanctioned rehearing process.” The commission routinely issues tolling orders to buy itself more time to consider rehearing requests because both the NGA and the Federal Power Act deem such requests denied if it does not act on them within 30 days.

The D.C. Circuit’s 10-1 *ruling* concluded that FERC’s use of tolling orders to stop the 30-day clock for acting on rehearing requests improp-



E. Barrett Prettyman Federal Courthouse, home of the D.C. Circuit Court of Appeals. | HSU Builders

erly prevents litigants from appealing commission rulings even as it allows gas pipeline companies to seize property under eminent domain and begin construction (*Allegheny Defense Project, et al. v. FERC*, 17-1098).

The D.C. Circuit said it had erred since 1969 when it first ruled that issuing a tolling order

meant that FERC had “acted upon” the request under the language of the NGA and that parties must wait until the commission’s review of the request is complete before seeking judicial relief. (See *D.C. Circuit Rejects FERC on Tolling Orders.*) ■

— Rich Heidorn Jr.

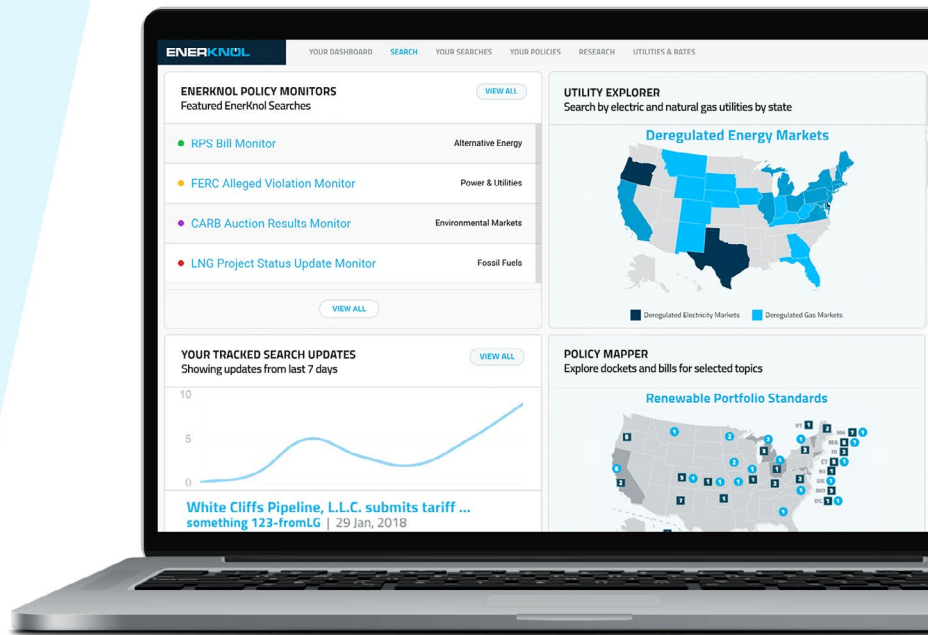
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FERC/Federal News



Trump to Nominate Clements, Christie to FERC



President Trump will nominate clean energy activist Allison Clements (left) and Virginia State Corporation Commission Chair Mark Christie to FERC. | © RTO Insider

By Rich Heidom Jr.

President Trump [announced](#) Monday he will nominate Virginia State Corporation Commission Chair Mark Christie and clean energy activist Allison Clements to FERC.

Democrats have been pushing Clements' appointment to a Democratic vacancy on the commission since last year, but Trump had refused to name her. (See [Senate Confirms Daily to FERC](#).) The [commission](#) is currently controlled 3-1 by Republicans.

Christie presumably would replace Republican Commissioner Bernard McNamee, whose term expired on June 30. McNamee announced in January he would not seek a second term but agreed to remain on the commission pending a replacement. He is allowed to remain on the commission until the end of the current Congress at the end of the year. (See [McNamee Declines to Seek Reappointment](#).)

Christie was elected to the SCC by the General Assembly in 2004 and re-elected in 2010 and 2016. He was president of the Organization of PJM States Inc. when it pressed FERC to protect the independence of the PJM Independent Market Monitor.

He also is a former president of the Mid-Atlantic Conference of Regulatory Commissioners and served in the Marine Corps. A Phi Beta Kappa graduate of Wake Forest Univer-

sity, he received his law degree from Georgetown University. He has taught regulatory law at the University of Virginia School of Law and constitutional law and public policy in a doctoral program at Virginia Commonwealth University.

Clements is an adviser to the [Energy Foundation](#), which seeks to accelerate "the transition to a clean energy economy by supporting policy solutions that create robust, competitive markets." Clements was until recently the director of the foundation's Clean Energy Markets program. She switched to consultant status and returned to D.C. after several years in Salt Lake City.

She joined the foundation in 2018, after a year running a clean energy policy and strategy consulting firm, Goodgrid. That followed nine years with the Natural Resources Defense Council, including almost six as senior attorney and director of its Sustainable FERC Project, in which she worked on transmission planning, markets development and small generator interconnections.

Earlier, she was a member of the energy regulatory group at Troutman Sanders (now Troutman Pepper) and the project finance and infrastructure group at Chadbourne & Parke (now Norton Rose Fulbright).

She has a bachelor's from the University of Michigan and got her law degree from George

Washington University.

The announcement was cheered by clean-energy advocates.

"This is a welcome announcement, and we congratulate both Ms. Clements and Mr. Christie on their nominations," said Gregory Wetstone, CEO of the American Council on Renewable Energy. "ACORE has long called for a full, bipartisan complement of five FERC commissioners. We hope the Senate can swiftly confirm these two strong candidates, so FERC can be best positioned to achieve its mission of ensuring reliable, efficient and sustainable energy."

"We think they will help the commission a great deal and hope they receive speedy confirmation from the Senate," said Rob Gramlich, executive director of Americans for a Clean Energy Grid.

"A great FERC pairing with two well-regarded folks," tweeted Tyson Slocum, director of Public Citizen's energy program. "Both will do a great job."

Todd Snitchler, CEO of the Electric Power Supply Association, also hailed the news. "A full commission benefits everyone. There are many important questions before FERC surrounding how our nation's competitive power markets can continue to benefit Americans with cost savings, reliability and innovation." ■

CAISO/West News

CAISO Proposal Sets Course for EIM Day-ahead

By Robert Mullin

CAISO last week issued a proposal outlining the leading edge of its plan to bring day-ahead trading to the Western Energy Imbalance Market.

The extended day-ahead market (EDAM) straw *proposal* represents the culmination of an effort set out two-and-a-half years ago in CAISO's 2018 Policy Roadmap after a second attempt to regionalize the ISO's market failed in the California legislature and the grid operator faced new competitive efforts from other potential market providers, including PJM and SPP. (See [CAISO Plan Extends Day-Ahead Market to EIM.](#))

The proposal released July 20 addresses only the first "bundle" of topics in CAISO's EDAM initiative: resource sufficiency rules; use of transmission; and the distribution of congestion and "transfer" revenues — the last being a new concept introduced in the plan to accommodate flows across balancing authority areas in the West.

CAISO says the second bundle of the EDAM initiative will deal with greenhouse gas accounting, ancillary services, implementation of phase two of the extension of the ISO's full network model and the administration fee. The third, and final, bundle will deal with price formation, convergence bidding, external resource participation, market power mitigation improvements and "any additional topics identified through the consideration of the first two bundles."

Last week's proposal also offered an important assurance to potential market participants — and state regulators — still wary of enlisting in an organized market, particularly one dominated by California. (See [Tx Summit Explores California's Link to Rest of West.](#))

"The approach contemplated in this effort does not require full integration into the CAISO balancing authority area as participating transmission owners (PTO), nor does it require formation of or participation in [a] regional transmission organization," CAISO said in the executive summary of the plan.

The proposal makes explicit the promise of flexibility around the EDAM for EIM members, who would still retain their own balancing authority and planning functions — unlike entities participating in an RTO/ISO.

"The EDAM will incorporate the same principles of the Western EIM: voluntary participation, low-entry cost, no exit fees and retention of balancing authorities' operational control over their resources and transmission," CAISO said. "Participation in EDAM will be optional for EIM entities. Therefore, the proposed design must contemplate that some EIM entities may still elect to participate only in the CAISO's real-time market and not EDAM. However, participating in the EDAM requires participation in the EIM."

The proposal touted the expected benefits of EDAM, including using CAISO's existing day-ahead market capabilities "for more efficient hourly shaped economic transactions across the West," lower renewable integration costs because of increased geographic and resource diversity and reduced renewable curtailments.

It also cited improved reliability through better coordination among Western BAs, a conclusion that aligns with the preliminary findings of a WECC study released early this year showing that the reliability benefits of EDAM will likely outweigh any risks. (See [Study Gauges Reliability Benefits of EIM Day-ahead.](#))

No Leaning

The EDAM straw proposal makes clear that

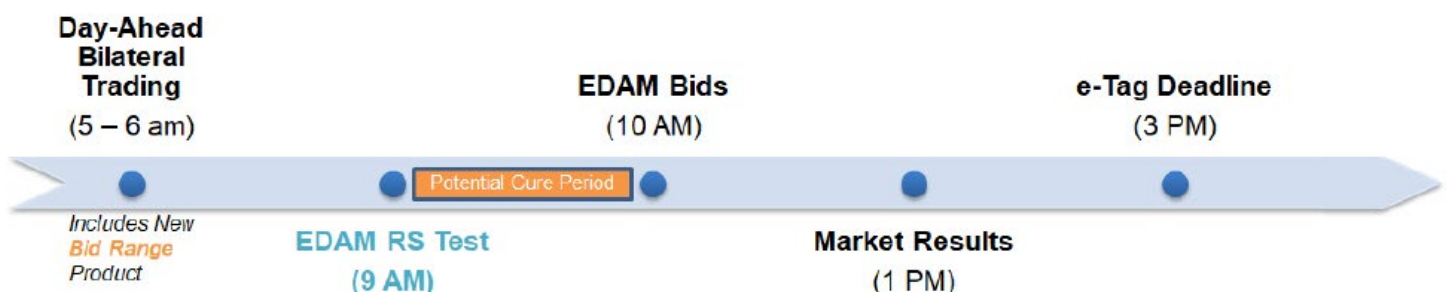
participating load-serving entities — and their state or local regulators — retain responsibility for resource adequacy. But CAISO envisions EDAM will rely on a day-ahead resource sufficiency evaluation similar to the one currently in place for the real-time EIM to ensure that no participating BA leans on other BAs to meet its RA requirements.

Western stakeholders "expressed explicit concerns that leaning can enable balancing authority areas to systematically avoid self-sufficient forward procurement practices, which would erode the regional diversity benefits that can be obtained through the EDAM," CAISO said. "Given the potential incentive to avoid forward procurement to serve their load, several stakeholders suggested the resource sufficiency evaluation should serve in a preventative mitigation function rather than a retroactive financial penalty as it would be difficult to determine the appropriate level of financial penalty."

CAISO's proposal calls for the resource sufficiency evaluation to require that all participating BAs "offer sufficient resources to meet their bid-in demand, reliability capacity to meet forecasted net load ... [and] ramp capability to meet their 24-hour net demand variation and their forecasted ancillary service and imbalance reserve requirements." Any BA that fails the evaluation will not be permitted to engage in transfers within the EDAM "beyond the amount of contracted capacity and transfer capability" demonstrated by the evaluation.

The ISO plans to run the resource sufficiency evaluation at 9 a.m. of each trading day, three hours after the conclusion of the region's bilateral trading and one hour before the deadline for receiving EDAM bids. Market results would be published at 1 p.m.

The resource sufficiency aspect of the plan



CAISO's proposed resource sufficiency evaluation timeline for the EIM extended day-ahead market | CAISO

CAISO/West News

could also entail implementation of a “diversity benefit” that allows EDAM participants to share obligations for flexible ramping resources needed to cover load forecast error for the EDAM footprint. Under the program, the ISO would calculate the imbalance requirement for each BAA independently, then for the EDAM footprint as a whole based on the pooling of resources, then credit back to each BAA a prorated share of the savings derived from the pooling in order to reduce its resource sufficiency requirement.

“The CAISO views the diversity benefit as foundational to the benefit of EDAM and believes, if correctly applied, it will not result in unequitable leaning by any single participant,” the ISO said.

Transmission an Open Question

The straw proposal’s plan for transmission provision under EDAM is less developed than that for resource sufficiency.

Currently in the EIM, participants make transmission available to support real-time energy transfers by donating interchange rights or available transmission capacity. The latter category represents “residual” capacity unused after the T-20 e-tagging deadline, with the EIM given the lowest priority. If any portion of that capacity is used for a bilateral trade, the EIM redispatches the real-time market to ensure its transfers stay within the unused portion.

“EDAM will require a different approach than EIM,” the proposal explains. “Transmission customers can use transmission in real time up until just prior to the operating hour; however, the EDAM design cannot assume all transmission available in the day-ahead time frame will remain unused by real time. At the same time, transmission for EDAM day-ahead schedules for energy, ancillary services, reliability

capacity and imbalance reserves must [be] available with high confidence, since each balancing authority area remains responsible for meeting its balancing authority area reliability requirements.”

CAISO is proposing a system in which EDAM BAs provide the ISO with limits for the use of their transmission systems ahead of the day-ahead market process.

“The EDAM balancing authority area may elect not to release all transmission to the day-ahead market, since transmission customers can elect to use transmission, for example, to support bilateral trades, up until 20 minutes prior to the operating hour (T-20),” CAISO said. “If the transmission is used to support day-ahead schedules, and subsequently if a transmission customer elects to use transmission after the day-ahead market, the real-time market will need to redispatch EDAM participating resources.”

The cost of that redispatch would be included in the EIM’s real-time congestion offset, which is calculated individually for each BAA to avoid cost-shifting among them.

But the ISO cautioned that day-ahead congestion could occur when transmission capacity is not included in the day-ahead market but a transmission customer chooses not to use it in real time: “The cost of this inefficiency may sometimes be greater than the potential for redispatch resulting in real-time congestion offset charges.”

A New Concept

The EDAM proposal presents a new concept of “transfer revenue” — similar to congestion revenue — that CAISO plans to introduce into both the EIM day-ahead and real-time markets as part of the EDAM effort. The ISO created the concept in response to stakeholder

concerns that the voluntary nature of transmission provision in the EDAM could impede procurement of transmission rights while also incentivizing participants to withhold those right to maximize their congestion revenues.

Under the ISO’s plan, a transmission provider would be allowed to make transfer capability available in the day-ahead market at a usage fee. That fee would be included in the market optimization, generating transfer revenue to be collected by the provider.

“The CAISO believes that this approach will encourage transmission providers to offer additional unsold transmission into EDAM,” the ISO said.

CAISO also envisions allowing EDAM participants to adopt the ISO’s congestion revenue rights (CRRs) approach within their own BAAs. “An EDAM balancing authority area may choose to utilize the CAISO’s congestion revenue rights design to distribute congestion revenue to its transmission customers that are participating in the EDAM, in which case the CRR holder will be compensated directly by the CAISO. Remaining congestion revenue payments to the EDAM entity scheduling coordinator will be further allocated to its transmission customer based upon its [tariff],” it wrote.

EDAM participants choosing not to adopt CRRs will need to develop another method to settle congestion costs with transmission customer, the ISO said.

CAISO scheduled stakeholder meetings for yesterday and Wednesday to discuss the EDAM proposal. Stakeholder comments on the plan are due Sept. 10. It expects to seek approval from its Board of Governors and the EIM Governing Body in late 2021 or early 2022. ■

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CAISO/West News

CAISO Adopts Co-located Resources Plan

Hybrid Resources Proposal to Follow in November

By Hudson Sangree

The CAISO Board of Governors unanimously adopted the first of two proposals Wednesday intended to allow co-located and hybrid resources, such as solar panels coupled with battery storage, to connect to the grid more seamlessly.

The proposals, part of the ISO's hybrid resources *initiative*, were fast-tracked to speed the addition of storage at existing interconnection points. CAISO needs the new capacity to help head off a projected shortfall next summer caused by the retirement of aging natural gas plants and the inability of solar to meet evening peak demand without storage. (See *CAISO Briefs Western EIM on Hybrid Resources*.)

In response to the anticipated shortfall, the California Public Utilities Commission required load-serving entities under its jurisdiction to procure 3,300 MW of capacity by 2023. Some LSEs proposed integrating co-located resources into the market as soon as this fall, and CAISO moved quickly to adopt its co-located connection plan by the end of this month to allow FERC 90 days to approve Tariff changes before the resources go live.

"There is an urgency around getting [policy to support] these co-located resources ... because we start to see these resources coming on and interconnecting late this year," Mark Rothleder, CAISO's vice president for market policy and performance, told the board. "We need to get started with some minimum features around the point of interconnection ... [and] we will continue to work on additional features that have been requested in future phases."

The starting point includes new Tariff language governing resources that share a single point of interconnection but have separate resource IDs, allowing CAISO to dispatch them individually.

CAISO executives decided to implement the co-located plan first because it involves more familiar procedures. The hybrid resources plan — allowing solar and storage to be dispatched as a single unit — could prove trickier, they said.

"The co-located model allows for the underlying resources to be modeled in a manner similar to existing resources today but requires the ISO market to manage a constraint at the point of interconnection to ensure that the combi-



| 174 Power Global

nation of resources does not receive market instructions beyond the interconnection limit," Rothleder wrote in his *memo* to the board.

The board will take up the hybrid resources plan this fall. CAISO needs additional time to develop a proposal that will let it deal with situations in which intermittent resources such as wind and solar are offline because of weather conditions, while the storage component keeps operating, Rothleder said.

"Enabling hybrid resources requires several new features for the resource operator to communicate to the ISO when portions of the generating facility are unavailable because of deviations in the variable output component of the hybrid resource," he wrote.

The co-located resources plan is slated to take effect this fall. The hybrid resources component is scheduled to be brought before the board in November and implemented one year later.

Some stakeholders have expressed concern that CAISO is moving too fast to bring new storage online, but others have said the speed is warranted by the impending shortfall and the number of projects lined up.

CAISO's interconnection queue contains

about 24 GW of mixed-generation projects, including 20 GW of storage projects. Much of the storage is proposed for sites where solar arrays and wind farms already operate.

"Developers are adding storage to existing sites because adding resources at these locations can be done more quickly and at a lower cost than establishing new interconnections," Rothleder said. "Lower costs are achieved due to the existing infrastructure, such as step-up transformer equipment that is already a part of the existing facility."

In addition, he said, "siting at existing facilities takes less time to go through the ISO's interconnection process because the capacity addition can be considered through the material-modification process, rather than the process of siting a new facility, which includes additional analysis and approvals."

The integration of hybrid resources is expected to be a major issue for CAISO and other organized markets, as battery storage paired with renewables plays an ever greater role.

FERC held a *technical conference* Thursday to discuss the issue. (See *FERC, RTOs Need to Set Hybrid Rules, Experts Say* and *FERC Sets Tech Conference on Hybrid Resources*.) ■

ERCOT News



FERC OKs El Paso Electric Mitigation

By Rich Heidom Jr.

FERC on Wednesday approved a market power mitigation plan for an investment fund's \$4.3 billion purchase of El Paso Electric and rejected rehearing requests challenging the commission's approval of the deal (*EC19-120*).

The commission's March 30 order approving the transaction directed the companies to file a mitigation plan to address market power concerns that could arise from a premature termination of power purchase agreements for Mesquite Power, part owner of the 595-MW Mesquite Generating Station in Arizona. Mesquite Power is owned by EPE's purchaser, the Infrastructure Investments Fund (IIF). (See *FERC Conditionally OKs Purchase of EPE*.)

The applicants offered two options to reduce their controlled capacity if the "surplus output contracts" for Mesquite are terminated before their scheduled expiration on May 1, 2021.

Under the first option, EPE would sell a 14-

MW block of firm energy during peak periods. The energy would be supplied by an EPE generation facility that would be economic during the seasons and load periods with market power screen failures and backed by system power if the designated unit is unavailable.

Under the second option, EPE would sell a 14-MW block of firm energy from its share of the Palo Verde nuclear plant during peak periods to a nonaffiliated third party at the Four Corners trading hub. EPE would pay liquidated damages if it is unable to deliver.

"Either option would be sufficient to mitigate the competitive harms identified by applicants' sensitivity analysis," FERC said in approving the proposal. It required the applicants to notify it if the contracts are terminated and which mitigation proposal will be enacted within 60 days of Mesquite receiving notice of early termination.

The commission rejected a request to rehear the March order by Public Citizen, which

contends JPMorgan Chase should be considered an affiliate of IIF in FERC's analysis of the merger. J.P. Morgan Investment Management has acknowledged it is an investment adviser of IIF, but FERC ruled that its market power analysis showed the transaction would have no adverse effect on rates even if J.P. Morgan were considered an affiliate.

"The commission did not, as Public Citizen argues, ignore the information it provided in its various pleadings. Indeed, it was partly in response to Public Citizen's various pleadings, and applicants' responses to them, that commission staff took the extra step of requesting additional information and explanation from applicants," FERC said.

The commission also rejected a rehearing request on similar grounds from U.S. Sens. Jeff Merkley (D-Ore.), Ed Markey (D-Mass.) and Bernie Sanders (I-Vt.), saying they lacked standing because they did not file motions to intervene in the proceeding and were not otherwise made parties to it. ■



EPE's Rio Grande Plant in Sunland Park, N.M. | *El Paso Electric*

ISO-NE News

NE Women Push for Racial, Environmental Justice

By Michael Kuser

A panel of women discussed promoting equitable access to clean energy and a sustainable environment Thursday at the annual summer meeting of New England Women in Energy and the Environment (NEWIEE). More than 200 women gathered in cyberspace for the event.

“Of course, I regret that we can’t meet in person as in prior years, but it’s wonderful to have so many participants at today’s discussion of an important topic,” said NEWIEE President Jacquie Ashmore, director of Boston University’s *Institute for Sustainable Energy*.

“A year ago, the NEWIEE board of directors chose increasing racial diversity in the NEWIEE community, and ultimately in the New England energy and environment industries more broadly, as our top priority,” Ashmore said. “Today, almost two months after the murder of George Floyd, NEWIEE has redoubled its commitment to addressing systemic racism and its impacts in our community.”

Following is some of what we heard at the event.

Turning Point

“I actually think the last several months will prove to be a turning point in our efforts around climate justice and environmental justice, and indeed, in the overall thrust and trajectory of the climate and clean-energy movement,” said FirstLight Power CEO Alicia Barton, who previously served as CEO of the New York State Energy Research and Development Authority and the Massachusetts



Jacquie Ashmore, Boston University | NEWIEE

Clean Energy Center.

The intersection of the COVID-19 pandemic, calls for racial justice and the ongoing climate crisis have laid bare the inequalities that result and continue to result in unfair and unjust outcomes for many people, Barton said.

“Now is the time to say that enough is enough,” she said.

Besides reforming the criminal justice system, Barton recommended that the region reconsider its approach to energy and environmental policy.

“Environmental justice, racial justice and equitable access to clean energy are topics that have been ancillary to the overall conversation rather than a driver of the conversation, but I do think that with recent events and because

of conversations like the one we’re having today, that is changing and will change going forward,” Barton said.

What’s at stake in this conversation? she asked.

“First, we have known for a long time that pollution is not equitably distributed in the United States,” Barton said. “African-Americans, although they’re a minority of the U.S. population, are 75% more likely than white Americans to live in a community that’s adjacent to sources of pollution.”

Second, air pollution directly increases a person’s likelihood of getting severely sick or dying from COVID-19, she said.

“A recent *study* out of Harvard found that someone who lived in an area of high particulate matter pollution is 15% more likely to die from COVID-19 than an individual who has not been exposed historically to that pollution,” Barton said. “Our energy choices are creating lethally unfair outcomes for many Americans, and we have to do better moving forward.”

Barton noted that New York’s Climate Leadership and Community Protection Act (CLCPA) passed last July “was the first major climate bill in the country to put climate, justice and environmental justice front and center. It requires under the law that at least 35% of the benefits of state investments in climate solutions go directly to disadvantaged communities.”

She said she was pleased to see her former colleagues at NYSERDA issue the biggest clean energy solicitation in U.S. history on July 21.

“If you didn’t notice, [as] part of that effort, the request for proposals specifically requires



Mariella Puerto, Barr Foundation | NEWIEE

ISO-NE News

bidders to prioritize job-creation opportunities for disadvantaged populations. That's really transformative and something that should be replicated elsewhere," Barton said. (See related story, [NY Announces 4 GW in Clean Energy RFPs](#).)

She also said that NYSEERDA for several years has been including local content and labor provisions in the state's renewable energy contracts, such as requiring developers to pay workers the prevailing wage. (See [New York Plans for Wind Energy, Related Jobs](#).)

The CLCPA set a target of 6,000 MW of solar by 2025, "and earlier this year, the Public Service Commission approved NYSEERDA's request to increase funding for low-income access to solar and disadvantaged community access to solar 20-fold from what we had done historically," Barton said.

The NY-Sun initiative was part of the Clean Energy Fund created by the commission in 2016, which established utility collections from ratepayers to support the overall \$960 million funding requirement. (See [NYPSC Launches Grid Study, Extends Solar Funding](#).)

Environmental Warriors

Nancy Seidman, senior adviser at the [Regulatory Assistance Project](#), introduced and moderated the panel. Seidman was a co-author of a [study](#) released in April, "Energy Infrastructure: Sources of Inequities and Policy Solutions for Improving Community Health and Wellbeing."

"The report documents current inequities in our energy infrastructure: processes, structures and policies that affect low-income and communities of color, including tribes, with a focus on rural areas," Seidman said.

For example, the report looks at arrearage-management programs to prevent cutoffs in utility service, which is especially important because of job losses from the coronavirus pandemic, she said.

"The timing for releasing our report was good in some respects," Seidman said. "With COVID and the social unrest of the past few months, I and likely you have all been confronting how inequitable the U.S. really is."

Mariella Puerto is co-director for climate at the [Barr Foundation](#) in Boston, which grants \$95 million per year to programs in the arts, climate and education.

"The choices I've made have been grounded in equity and justice from the beginning, which was a combination of my love of nature and the environment while I was growing up in Malaysia," Puerto said.



Shalanda Baker, Northeastern University | [NEWEE](#)

Training as a police cadet in the rainforests of Malaysia left her awestruck at the jungle's intense beauty. And a childhood friend's death from exposure to pesticides pushed her to protect the environment, she said.

"This really opened my eyes to the dangers of toxic chemicals and environmental injustices," Puerto said. "I knew early on that I wanted to be an environmental warrior, fighting for people and the planet."

Shalanda Baker, professor of law, public policy and urban affairs at the Northeastern University School of Law and co-director of the [Initiative for Energy Justice](#), is author of "Revolutionary Power: An Activist's Guide to the Energy Transition," to be published in January by [Island Press](#).

Baker works with other people of color to make sure that energy policy honors equity and social justice.

"In many ways, we are beginning to repeat the mistakes of the fossil fuel system in transitioning to clean energy," Baker said.

In Oaxaca, Mexico, for example, Baker met indigenous peoples fighting against large-scale wind energy. The more she learned about those struggles, the more she realized that people were facing displacement, unfair contracts and unemployment from renewable energy development.

Later, while teaching law at the University of Hawai'i at Manoa, "I had a front-row seat to that state's energy transition. The state had just adopted a 100% renewable portfolio standard [and] was experimenting with community solar. We had maxed out rooftop solar in the state with the highest penetration rates in the country at 17%, and whenever I raised the

question of equity or including voices of folks in the community in the energy policy conversation, I got looked at like I had two heads," Baker said.

She brought the conversation back home by referring to New England having a number of leaders on the American Council for an Energy Efficient Economy [scorecard](#) for states.

"Massachusetts [is] No. 1 on energy efficiency, but I guess the dirty little secret about the Massachusetts efficiency programs is that there's a lot of room for improvement on serving low- and moderate-income renters, as well as people who are not English speakers," Baker said. "There's a whole swath of the population that we are not serving."

Shubhada Kambli, sustainability coordinator at the city of Hartford's [Office of Sustainability](#), agreed with Baker, saying, "Our community is majority black and brown, with about 30% of residents in poverty. We have energy burdens in some households of about 33%, which means, basically, that some of our residents are paying up to a third of their household income towards energy bills. ... For reference, you may know that above 12% is considered high."

The Hartford city government looks at climate action in terms of social benefits, Kambli said.

She cited the Connecticut Green Bank as a leader in innovation. She also touted [PosiGen Solar](#), which operates in Connecticut, New Jersey and Louisiana. "They are specifically focused on increasing access to solar in low- and moderate-income communities, and they have eliminated the credit score as a gatekeeping tool to determine what types of participants should be partnered with in solar development," Kambli said. ■

ISO-NE News

NEPOOL Reliability Committee Briefs

Changes to Load Forecast Methodology

The New England Power Pool Reliability Committee last week narrowly approved changes to ISO-NE’s gross load forecast reconstitution methodology, recommending Participant Committee approval next month in order for Tariff changes to be filed with FERC with a request-effective date of Oct. 5.

The committee voted 60.62% in favor of the motion, just over the required 60% threshold. If approved by the PC and the commission, the RTO anticipates starting to use the methodology in the fourth quarter for its 2021 Capacity, Energy, Loads and Transmission (CELT) forecast.

A primary objective of the gross load forecast is to ensure that passive demand resources (PDRs) are not double-counted in the Forward Capacity Auction. PDRs receive compensation as a supply-side resource and reduce demand;

thus, their demand-reducing impact becomes embedded in historical load data.

As presented by ISO-NE Load Forecasting Manager Jon Black, the proposed methodology ensures that PDRs are appropriately embedded in the gross load forecast by creating a smooth historical reconstitution time series.

“The smoothing enables us to include recent auction outcomes that extend beyond the historical period,” Black said. By calibrating the amount of PDRs being reconstituted to the capacity supply obligations (CSOs) from the most recently completed FCA, there are a couple of associated improvements, he said.

[Note: Although NEPOOL rules prohibit quoting speakers at meetings, those quoted in this article approved their remarks afterward to clarify their presentations.]

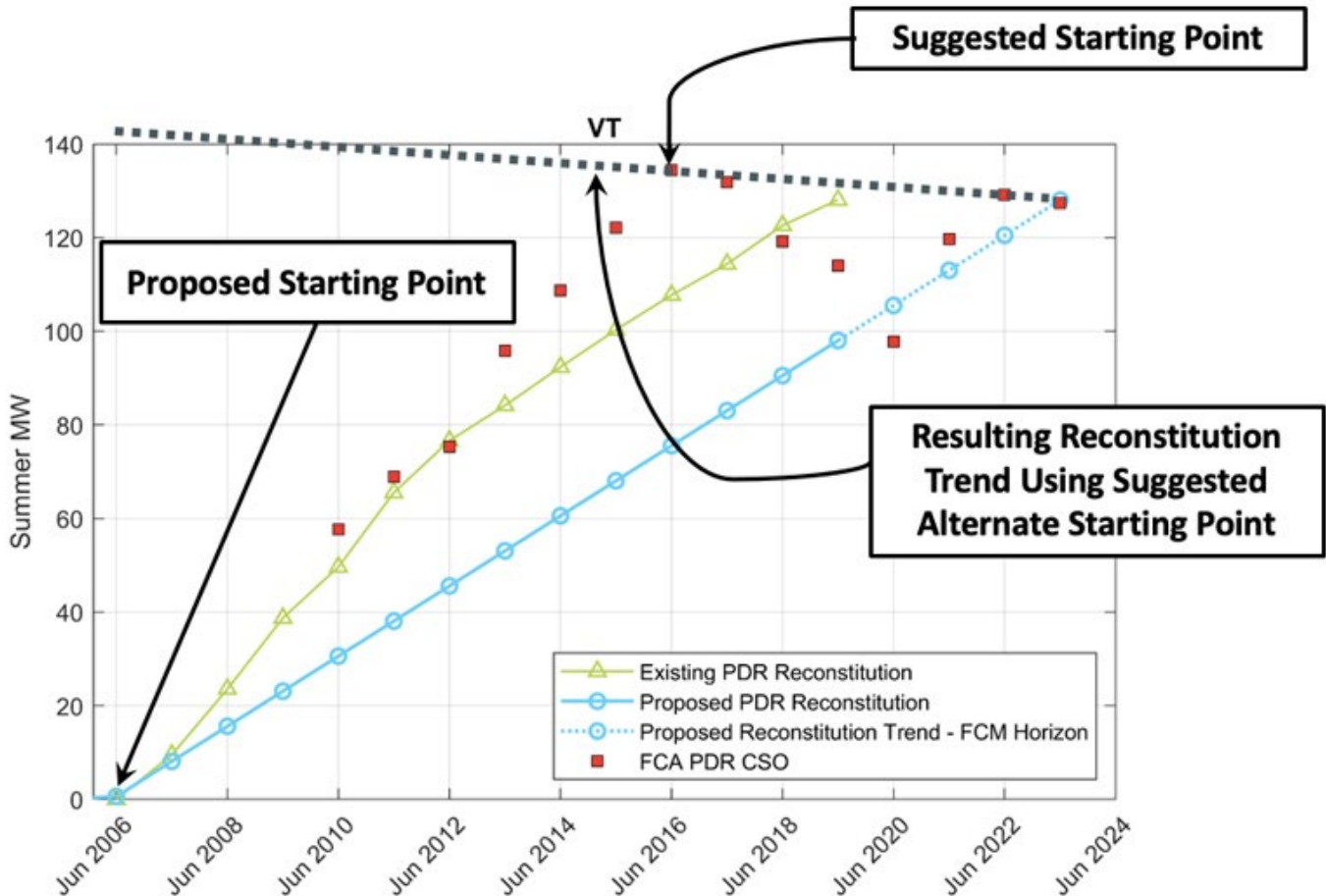
“No. 1 is what we originally set out to improve

upon, which is we shall not be reconstituting energy efficiency installations that are in excess of their CSO, so the accounting would no longer reflect the overperformance,” Black said.

Second, smoothing in conjunction with using the most recently completed primary auction outcomes enables the capture of more recent trends, especially expiring EE measures that are no longer participating as supply in the Forward Capacity Market, he said. The new methodology provides a framework to adjust the gross load forecast to reflect differences in FCA CSOs and those of annual reconfiguration auctions.

“I see these as very significant improvements that I believe are needed in the current forecasting environment in New England,” Black said.

At the June RC meeting, a stakeholder asked



Application of the proposed methodology to the state of Vermont (summer) is illustrated as it would have applied to CELT 2020. Using June 2016 as a starting point results in a reconstitution trend line with a negative slope (i.e., it suggests a decreasing amount of PDR over time), which does not reflect the longer-term CSO trend. | ISO-NE

ISO-NE News

whether 2016 — a decade after 2006, the year ISO-NE began using reconstitution — would serve as a better starting point for the development of the reconstitution history.

Black said that using 2016 as a starting point would result in a reconstitution trend line with a negative slope, suggesting a decreasing amount of PDR over time, which does not reflect the longer-term CSO trend.

“Using all of history is better, right out of the gate,” Black said. “Picking sub-trends within the overall history of all the FCA outcomes is probably ill-advised.”

The revised reconstitution methodology needs to be implemented for all long-term gross forecast modeling, which is performed for the region and all states separately, and for both summer and winter months, Black said.

Changes to Operating Procedures

The RC discussed proposed changes to several operating procedures, starting with a redline review of changes to *OP-17*, which describes

how ISO-NE monitors and performs analyses to determine allowed load power factor — the ratio of a generator’s real power measured in megawatts to its apparent power (real and reactive power, measured in megavolt-amperes).

If approved by the RC next month and in September by the PC, the changes would be effective Sept. 3.

ISO-NE would use SCADA system information to perform a survey that would allow it to examine points for every hour of the year instead of the current six selected annually for monitoring, said Dean LaForest, the RTO’s manager of real-time studies.

It would also determine noncompliance based upon adverse impacts to reliability or unit commitment, and would relieve market participants from having to submit annual load power factor survey data, except in cases of noncompliance to determine responsible parties.

The RC also accepted revisions to *OP-12 Appendix B* to support data change updates in a revision last month to *OP-12* related to voltage and

reactive control, effective July 20. The changes allow more frequent updates to *OP-12B* data by using a new format and notifying the RC of changes by email instead of their inclusion on the monthly agenda.

Lastly, the RC discussed changes to *OP-21* regarding energy forecasting and actions during an energy emergency, with a proposed effective date of Oct. 18 if approved by the committee in September and the PC in October. The revisions leave existing processes substantively unchanged but would incorporate the annual Generator Winter Readiness Survey process in order to enhance ISO-NE’s situational awareness of generator pre-winter preparations.

The revisions also would incorporate the annual Natural Gas Critical Infrastructure Survey process in order to ensure critical infrastructure of the interstate natural gas system is not on electrical circuits subject to automatic or manual load-shedding schemes. ■

— Michael Kuser

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ISO-NE News

FERC Accepts New England Billing Changes

By Michael Kuser

FERC on Friday accepted Tariff revisions filed in May by ISO-NE and the New England Power Pool Participants Committee, effective Monday, to make clean-up changes and enhancements to the RTO's billing policy (ER20-1862).

The changes to the RTO's Financial Assurance Policy:

- revise the definition of "non-hourly charges" to explicitly include any pass-through charges for which ISO-NE acts as agent;
- change the timing of when the monthly non-hourly charges bill is issued from the first Monday after the 10th of each month to the first Monday after the ninth of each month;
- replace a number of references from "sending" remittance advice or invoices to "issuing" the same to reflect electronic, rather than physical, transmission; and
- moving forward the deadline for instructions for alternate payments.

The commission found the updated definition of "non-hourly charges" improves transparency for all stakeholders.

But it said it was "not persuaded" by the arguments of a Canadian-owned entity, *Plant-E Corp.*, which contested the revision to limit of prepayments to five in any rolling 365-day period.

Plant-E said it was told that Canadian covered entities are not allowed to have shareholder collateral accounts under the FAP because investment management firm BlackRock does



Hydro-Quebec's La Grande 1 dam near James Bay

not offer such accounts to Canadians.

NEPOOL opposed Plant-E's comments on process grounds because the corporation proposed revisions to the filing for the first time in the proceeding without the benefit of any prior stakeholder consideration or review.


ISO-NE argued that Plant-E's request for special flexibility to manage its collateral through the prepayment mechanism ignores the reason its proposal limits the number of times that a participant may prepay an invoice, i.e., to maintain adequate financial assurance.

The commission ruled that "although Plant-E, as a Canadian entity, does not have access to

the collateral accounts that are available to U.S. entities, it does have access to letters of credit, which are used by other market participants to meet financial assurance obligations."

In addition, the commission found Plant-E's concern that ISO-NE does not enable Canadian covered entities to have a shareholder collateral account pursuant to the FAP to be "outside the scope of this proceeding."

In 2015, the commission accepted Tariff revisions that put this limitation in place, and "Plant-E's concern is therefore an impermissible collateral attack on that commission order," it said. ■



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ISO-NE News

ISO-NE Planning Advisory Committee Briefs

Draft Scope of 2020 Economic Study

Richard Kornitsky, ISO-NE assistant engineer for system planning, on Wednesday presented the Planning Advisory Committee with revised study scenarios and threshold prices, as well as other high-level assumptions, for the 2020 Economic Study requested by National Grid.

The utility asked for a study focusing on 2035 to provide stakeholders analyses of the best ways to meet state clean-energy goals cost-effectively, leveraging transmission and storage as needed.

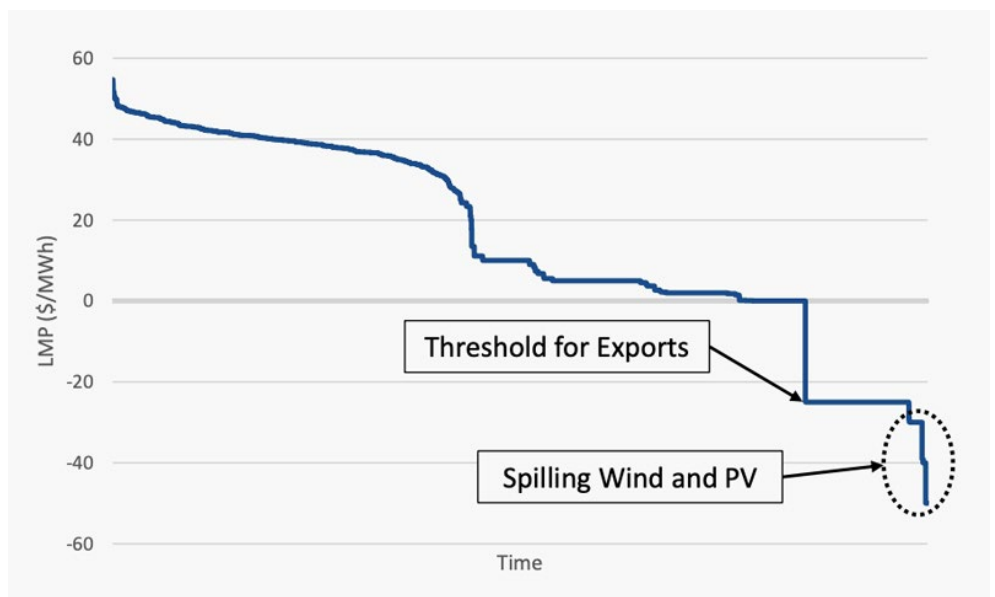
A set of incremental resource scenarios will model two different amounts of offshore wind interconnections, but the substantial focus is on bidirectional use of existing and proposed external tie lines, as well the use of Hydro-Québec as virtual storage, Kornitsky said. Hydro-Québec could provide virtual storage by curtailing its hydro production when New England renewables are overproducing and making resources available when ISO-NE needs them.

In response to a stakeholder question, Kornitsky said that the RTO implemented bidirectionality by incorporating renewable energy credits, recognizing that RECs can allow resources to be profitable even when LMPs are negative.

The study will use bidirectional threshold prices reflecting REC values to first curtail



Structure geometry on towers adjacent to the Thames River in Montville, Conn., creates small phase-ground clearances and an increased probability of faults from lightning strikes, according to Eversource. | Eversource



Conceptual LMPs with negative threshold prices | ISO-NE

imports, then trigger exports, with renewables curtailed once export capability is exhausted. The prices range from $-\$100/\text{MWh}$ for behind-the-meter PV to $-\$30/\text{MWh}$ for onshore wind. The trigger for exports is assumed at $-\$25/\text{MWh}$.

Storage Opportunities

Batteries will be a “central focus” of the 2020 Economic Study, Kornitsky said. They will be modeled with a round-trip efficiency of 86% and presumed to respond to LMPs and provide “system capacity,” regulation and reserves.

While ISO-NE Economic Studies do not consider capital costs and fixed operating and maintenance expenses, one stakeholder said such costs and expenses should be “baked in” to the analysis of utility-scale energy storage facilities.

In the third quarter, the RTO will present draft production simulation results, identify sensitivity scenarios and assumptions, and present assumptions for ancillary services analysis. In the fourth quarter, it will present sensitivity scenarios, simulation results and draft ancillary services results before issuing the draft and final reports in the first quarter of 2021.

Two Eversource Projects in Conn.

Eversource Energy engineer Christopher Soderman *presented* a \$13 million project involving circuit separation, structure replacement and reconductoring with optical ground wire

(OPGW) of approximately 1 mile of four 115-kV transmission lines crossing Horton Cove in Montville, Conn.

“Reliability is the main driver here,” Soderman said.

Quad-circuit lattice towers and adjacent structures create the potential for disturbances on multiple circuits, while the structure geometry creates small phase-to-ground clearances and an increased probability of faults because of lightning strikes. Soderman said Eversource had 19 disturbances since 2010 caused by lightning strikes or shield wire failures, including three in the last four years in which a single event caused multiple transmission line outages.

The projected in-service date is in the third quarter of 2021.

Soderman also presented a \$23 million project to replace 96-year-old double-circuit steel lattice towers between East Granby, Conn., and Agawam, Mass., and to replace old shield wire with OPGW on 7.5 miles, nearly half of the line’s total length.

The project involves replacing 70 decrepit towers with 63 direct-embed, weathering steel monopoles and seven engineered weathering steel monopoles on concrete foundations. Eversource will also install 62 lightning arrestors. The project is estimated to go in service in the fourth quarter of next year. ■

— Michael Kuser

MISO News

MISO Anticipates High Energy Prices at 50% Renewables

By Amanda Durish Cook

MISO staff last week reiterated that they can likely reliably operate the grid with a 50% renewable energy mix but warned that variables like generation retirements, fuel prices and solar siting could send energy prices soaring at certain times.

The findings were the latest in the grid operator's ongoing, multiphase Renewable Integration Impact Assessment (RIIA). Staff's findings focused on MISO's ability to provide energy during all operating hours throughout the year as renewable penetration increases.

During a virtual workshop Friday, MISO Senior Policy Studies Planner Chen-Hao Tsai said that for the most part, the RTO can operate the system reliably with 50% renewable penetration, but only if it has the dramatic transmission expansion it identified earlier in the study. (See [MISO Renewable Study Shows More Tx, Tech Needed.](#))

Tsai said escalating fuel prices, increases in solar generation and the pace of generation retirements play pivotal roles and could stand in the way of a 50% systemwide renewable portfolio. Any of those variables alone could set off a rise in LMPs, MISO said.

At a 50% penetration, MISO said prices predictably spike in the evening, when peaking units — mostly combined cycle gas units — step in to fill ramping needs. However, Tsai said that if natural gas prices more than double from about \$2.50/MMBtu to about \$5.60/MMBtu, more coal units will be used for ramping needs, driving up LMPs.

Multiple stakeholders observed that steady, lumbering coal units aren't designed to provide quick on-and-off daily ramping. Some said the cycling MISO contemplated in the study would cause wear and tear on coal plants and possibly lead to more forced outages.

Other stakeholders pointed out that MISO is still leaving storage out of the study equation, ignoring the technology's capability to dull ramping needs. Tsai said the RTO plans to reveal new study results with storage considerations in late August or early September.

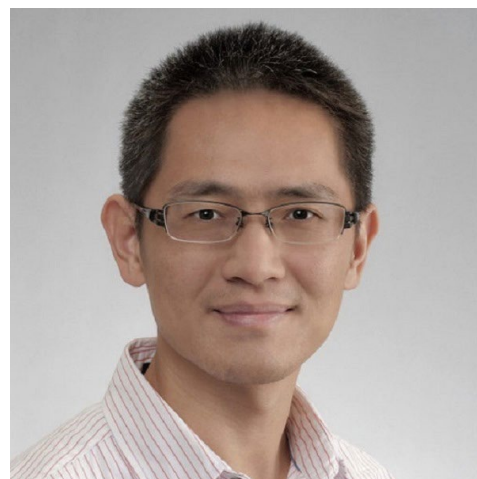
A spate of thermal unit retirements might also threaten the reliability of a 50% renewable fleet, Tsai said. High retirements paired with a 50% renewable fleet also produce high prices in the evening, he said, with July evening hours yielding systemwide prices as high as \$300/MWh.

"In many cases, many peaker units received over \$1,000/MWh," Tsai said. "We still make the penetration target, but we pay high system prices."

On the other hand, the study indicates that increased solar capacity expected in MISO South would drop LMPs by midday and make the region an exporter to the rest of the RTO's footprint during those hours. The trend also leads to significant middle-of-the-day solar curtailment during spring and fall months.

Tsai said the solar buildout "creates a new stressed operating point during the shoulder load periods, which may need further review."

MISO's earlier RIIA results, released in June,



Chen-Hao Tsai, MISO | University of Texas at Austin

predicted dramatic solar generation expansion. (See [Study Foresees MISO Solar Eclipsing Wind.](#))

The RTO is also accounting for hundreds of gigawatts of renewable energy in its 20-year transmission planning. It foresees as much as 137 GW of renewables added and up to 114.5 GW in generation retirements by 2040. (See [MISO Foresees Massive Shift to Renewables by 2040.](#))

Again, stakeholders said MISO should investigate how storage devices could soak up excess solar capacity. Some also asked the RTO to revisit the transmission needs it identified late last year to accommodate a 50% renewable mix. Tsai said the study's transmission expansion portion is too involved and time-consuming to redo.

MISO plans to wrap up the RIIA study by the end of the year. ■

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MISO News

MISO Members Make 1st Rules on Sectors

Advisory Committee Debates Drafting Tx Planning Principles

By Amanda Durish Cook

MISO's Advisory Committee members last week adopted the first set of standards for creating and joining stakeholder sectors.

During a virtual meeting Wednesday, committee members adopted new *rules* that make MISO or its Board of Directors the mediator and final arbiter when a new entity is refused entry to a sector.

"This will effectively eliminate a sector's ability to 'veto' an organization's request to join that sector," the AC said.

The rules also mean that sectors must establish their criteria for joining and post them on the public MISO website.

"Sectors are encouraged to be as inclusive as possible, which ideally ensures a new entity can find a fit within the existing set of sectors except in the rarest of circumstances," the AC wrote.

The committee this spring created a miscellaneous Affiliate sector to serve as a catch-all for new, hard-to-pin-down members. The move prompted the board to charge the committee with making rules on how new members join sectors and how new sectors are created. (See [Board OKs 11th MISO Sector, Orders Redesign.](#))

In its new rules, the AC called new sector creation a "last resort" and said that a group of organizations wishing to form a new sector must make their case in writing and boast documented participation in MISO's stakeholder committees. While the committee can recommend a new sector's creation, the board will have the final say.

The AC also said that if a band of stakeholders wants to create a new sector, it should be at least 10 organizations strong. If not, the organizations may have to join the Affiliate sector.

North Dakota Public Service Commissioner Julie Fedorchak said the 10-organization threshold seems a little high, considering that most stakeholders would probably find a home in MISO's existing 11 sectors.

"It seems that having that minimum threshold there is a little restricting," Fedorchak said. In response, the committee added language giving the board the ability to override the 10-organization requirement.



North Dakota PSC Commissioner Julie Fedorchak | © RTO Insider

The AC isn't finished on sector restructuring. The committee will next discuss divvying up voting rights and how to consolidate like-minded sectors.

Advisory Tx Planning Principles?

Meanwhile, some AC members want to have a say in MISO's effort to better coordinate its transmission planning processes.

The RTO currently uses separate planning processes to study transmission buildout for its generator interconnection queue and the reliability and economic projects under its annual Transmission Expansion Plan. Several committees are coming up with ideas to better link the planning studies and identify more cost-effective network upgrades that can meet multiple transmission needs. (See [MISO Unveils 1st Proposal to Consolidate Tx Planning.](#))

The AC is debating whether it should draft principles to guide the committees' discussions. Members of the Municipals Cooperatives and Transmission-Dependent Utilities sector asked the committee to draft coordinated transmission planning principles.

"We're looking for something more than meet-

ing notes," DTE Energy's Nick Griffin said.

Several committee members, however, are opposed to the idea, saying transmission planning isn't in the committee's bailiwick.

Environmental and Other Stakeholder Groups sector representative Natalie McIntire, of Clean Grid Alliance, said a set of transmission planning principles would constrain the committees' work and "confuse the stakeholder process." She also said it isn't the AC's place to shape MISO planning policy.

ITC Holdings' Cynthia Crane, chair of the Planning Advisory Committee, also said a set of AC principles might muzzle some committee discussions.

Fedorchak said it would be a "pretty heavy lift" for sectors to reach consensus on consolidated planning.

Xcel Energy's Carolyn Wetterlin, who also chairs MISO's cost allocation stakeholder group, questioned what purpose the principles would serve and agreed that consensus would be hard to come by.

The AC will again discuss the principles during its August teleconference. ■

MISO News

MISO Consultant: Microcities are Wave of the Future

By Amanda Durish Cook

If one business consultant's vision proves correct, MISO stakeholders learned last week, future neighborhoods will be self-contained developments with their own power sources.

Speaking at MISO's monthly Informational Forum on July 21, Josh Hodge, CFO of Peoria, Ill.-based Dukes Business Consulting, said zero-carbon-footprint microcities independent of the grid are a possibility. He said the future could lead to vertical gardens on city blocks and parking garages with solar canopies and car-charging stations.

Hodge said microcities offer a sustainable model that can tackle the affordable housing crisis and cities' "food deserts": urban areas that lack easy access to fresh and nutritious food.

He said the developments would include hybrid, solar-and-storage resources. The net-zero electricity use could mean residents won't have electricity bills.

"Massachusetts and California already require solar installations to be coupled with storage, and we expect to see this trend to spread," Hodge said.

EverForce Energy's new *Magnetic Transducer Generator* stands to be a gamechanger for



EverForce Energy's Magnetic Transducer Generator | EverForce Energy

microcities, he said. Hodge said the technology can produce continuous energy without a fuel source, with one 5-MW generator providing uninterrupted, clean energy for roughly 1,000 homes for more than 20 years.

"And this is all with minimal maintenance and minimal impact on the environment," he said.

Hodge said microcities can "supply and manage their own energy needs, and only connect to the grid to sell excess energy."

"During emergencies, they could disconnect

from the grid to protect themselves or the larger grid," he said.

Hodge acknowledged microgrids will also cut the need for new generation and transmission and could draw customers away from utilities. While that may be bad news for utilities, he said some could make lemonade from lemons and embrace the increased reactive power and frequency and voltage regulation.

He also said new monitoring technologies on distribution systems could allow utilities to use microgrids' stored supply when necessary. ■

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NYISO News

NY Announces 4 GW in Clean Energy RFPs

Continued from page 1

land-based renewable energy projects, with those selected to be fast-tracked for construction under the recently enacted Accelerated Renewable Energy Growth and Community Protection Act, which provides for expedited transmission upgrades.

NYSERDA's *solicitation* calls for procuring about 1.6 million Tier 1 renewable energy certificates, while NYPA's calls for projects that will produce an annual output of up to 2 million MWh or more. NYPA can elect to purchase a percentage of NYSERDA's acquired RECs to fulfill its own requirements.

NYSERDA also issued a request for information so that stakeholders can nominate sites for the new Build-Ready Program, initiated as part of the new siting law. The agency will prioritize areas such as dormant power plants, former industrial sites and existing or abandoned commercial sites.

Other notable provisions in the solicitations include requiring that workers be paid the applicable prevailing wage; encouraging near-

term economic recovery activities in communities hosting projects; requiring that developers demonstrate a commitment to community engagement; and encouraging developers to pair renewable energy with advanced energy storage technologies to help meet the state's commitment to deploy 3,000 MW of storage resources by 2030.

They also give priority to hiring in *environmental justice areas* and benefits to disadvantaged communities.

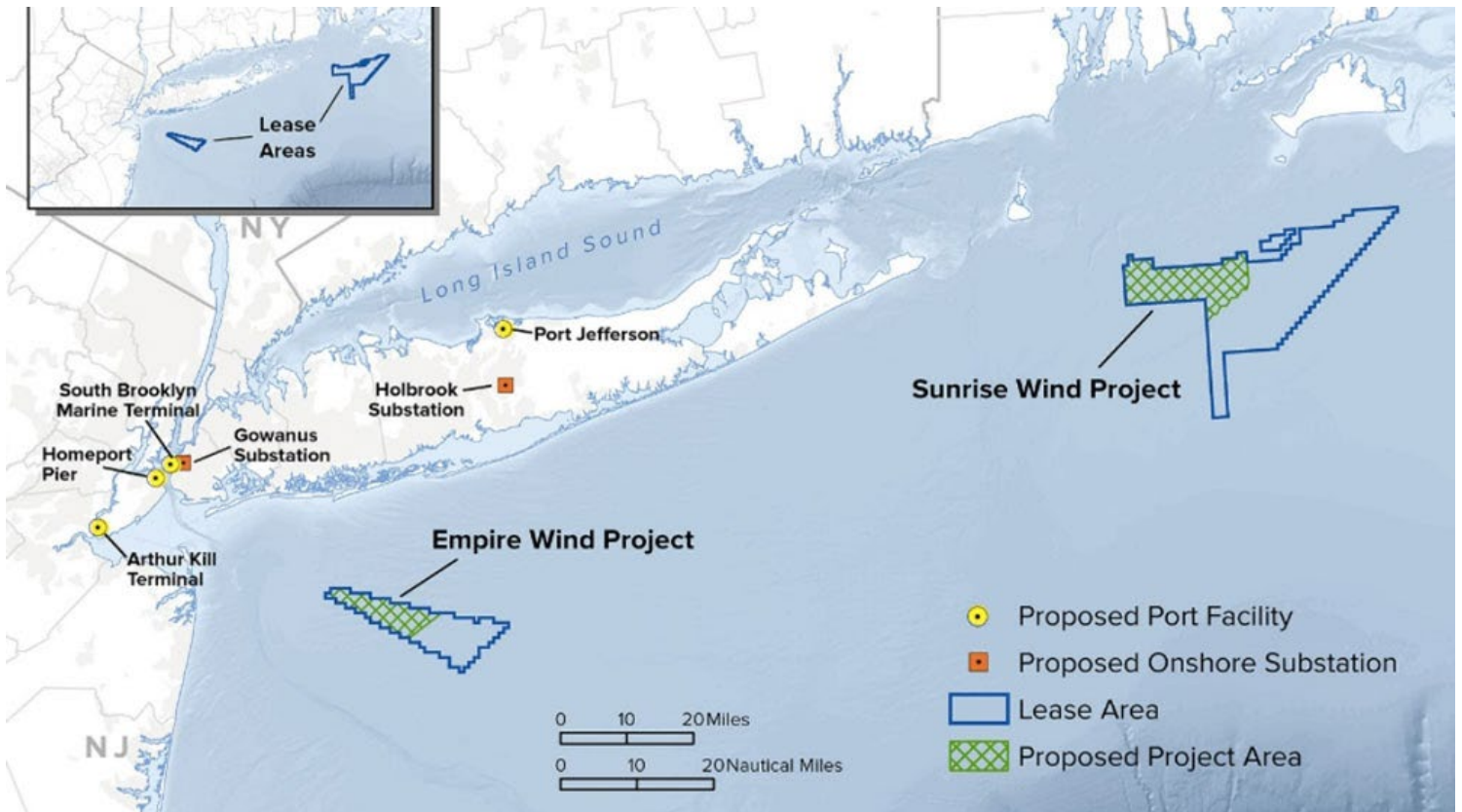
"During one of the most challenging years New York has ever faced, we remain laser-focused on implementing our nation-leading climate plan and growing our clean energy economy, not only to bring significant economic benefits and jobs to the state but to quickly attack climate change at its source by reducing our emissions," Gov. Andrew Cuomo said in a *statement*.

"Together, taking into account the value of avoided carbon emissions, these solicitations are expected to deliver a combined \$3 billion in net benefits over the 20- to 25-year life of the projects," the governor's office said.

Initial submissions for NYSERDA's RFP are due Aug. 27; bids for NYPA's solicitation are due Sept. 14; and those for the combined offshore wind and ports solicitation are due Oct. 20. Winners for all solicitations are expected to be announced in the fourth quarter.

"This enormous solicitation will not only jumpstart the state's transition toward reducing climate pollution and meeting the goals of the nation-leading climate law passed last year, but it will also help boost the state's economic recovery from the COVID-19 crisis," said Lisa Dix, state director of the Sierra Club. "These projects will create family-supporting jobs for New Yorkers and specifically [target] low-income communities to benefit from the investments."

Anne Reynolds, executive director of the Alliance for Clean Energy New York, said the organization "will be examining all of these RFPs in great detail in the coming days, but based on a cursory review, we note that the NYSERDA Tier 1 RFP ... is the first to offer index REC contracts and has new requirements with respect to community engagement and agriculture mitigation." ■



NYSERDA 2019 OSW contract awards, lease and project areas, and proposed points of interconnection | NYSERDA

PJM News



NJ Releases Draft Offshore Wind Plan

By Michael Yoder

New Jersey has released a plan detailing how it will procure 7,500 MW in offshore wind resources in the next 15 years as part of its goal to reach 100% clean energy by 2050.

The 82-page *draft* of the New Jersey Offshore Wind Strategic Plan and its 428 pages of *appendices*, released earlier this month, calls for the development of the resources while protecting the environment, as well as commercial and recreational fishing areas. The plan anticipates that by 2050, offshore wind will provide 23% of electricity to customers statewide.

A public meeting to discuss the plan originally scheduled for July 20 was *rescheduled* for Aug. 3.

The recommendations contained in the plan are supported by analyses of environmental and natural resources, ports to support the needed infrastructure, supply chains and the leveled cost of energy.

“The development of New Jersey’s offshore wind infrastructure will create thousands of high-quality jobs, bring millions of investment dollars to our state, and make our state a global leader in offshore wind development and deployment,” Gov. Phil Murphy said in the preamble of the report.

Murphy first introduced the 7,500-MW goal



Rendering of proposed New Jersey Wind Port located at Lower Alloways Creek | *New Jersey Board of Public Utilities*

last November when he signed *Executive Order 92* at the Liberty Science Center in Jersey City, where he was joined by former Vice President Al Gore. (See *New Jersey Doubles OSW Target*.)

In June 2019, the New Jersey Board of Public Utilities selected Ørsted as the winner of its first 1,100-MW solicitation. (See *Orsted Wins Record OSW Bid in NJ*.) On Wednesday, the BPU issued the *draft* for its second solicitation, requesting between 1,200 to 2,400 MW. A virtual public *meeting* to accept public input on the document is scheduled for Aug. 5.

The plan includes using public and private financing to encourage investment in the New Jersey Wind Port, a proposed 200-plus acre

manufacturing facility set to be built in Lower Alloways Creek in 2021, as the region’s first major offshore wind construction and marshaling port.

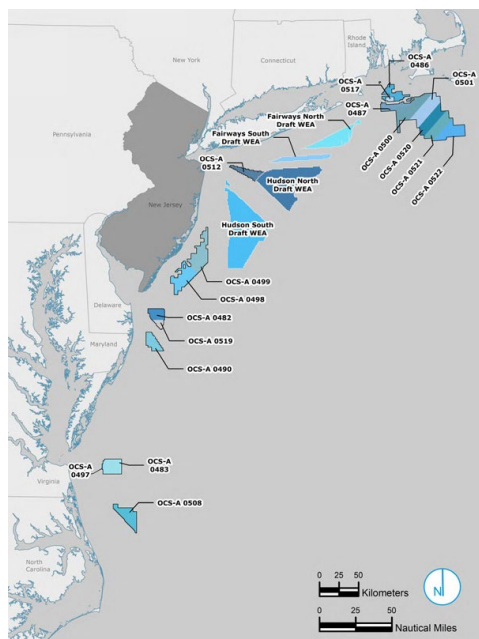
It also includes ideas for working with equipment manufacturers, developers and potential ports on the development of manufacturing facilities in New Jersey to meet the projected building demands by the 2024-2026 time frame. It also incorporates utilizing the state’s WIND Institute to support research, innovation, stakeholder engagement and training.

Officials also cited continuing collaborations with PJM on offshore wind interconnection and finding the most efficient transmission expansion to accommodate future projects. The plan calls for the evaluation and incorporation of energy storage and smart grid technology.

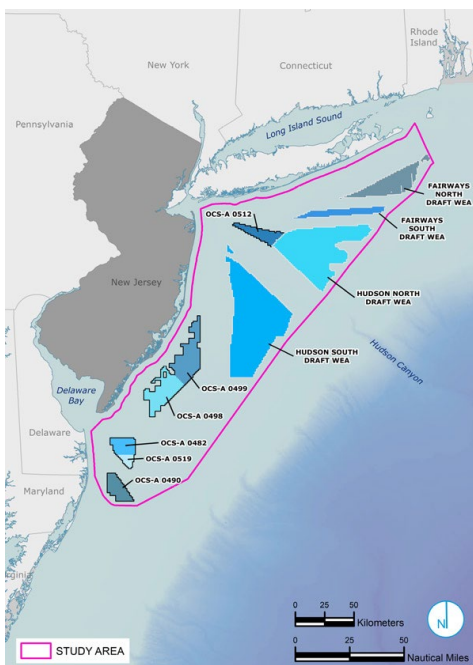
“We are fortunate to live in a state with abundant coastline and some of the best wind resources in the world, so it is natural for New Jersey to expand this reliable, renewable, cost-effective energy source,” said Robert Asaro-Angelo, commissioner of the Department of Labor and Workforce Development. “This industry has the potential for exponential growth, with tens of thousands of good-paying, family-sustaining jobs.”

While the draft does not detail the potential costs of the plan, it acknowledges that the upgrade of port facilities and the New Jersey Wind Port will require hundreds of millions of dollars in investment.

“Offshore wind represents a once-in-a-generation opportunity for New Jersey,” BPU President Joseph Fiordaliso said. “By investing in this renewable resource, we can provide jobs, clean energy and millions of dollars in economic activity for our state.” ■



East Coast offshore wind areas and leases | *New Jersey Board of Public Utilities*



Map of study area | *New Jersey Board of Public Utilities*

PJM News



FirstEnergy, AEP CEOs Deny Wrongdoing

Jones: Company 'Acted Properly'

Continued from page 1

standards of conduct are foundational values for the entire FirstEnergy family and me personally. ... We strive to apply these standards in all business dealings including our participation in the political process.

"We let the merits of our arguments carry the day when we're operating in the political environment," he added.

Akins issued a statement Monday in response to a report by *The Columbus Dispatch* that AEP paid a dark-money group \$350,000 in funds that were used to elect Householder and win passage of H.B. 6, which authorized subsidies to two former FirstEnergy nuclear plants and two coal-fired plants in which AEP has an interest.

The Dispatch *reported* that Empowering Ohio's Economy, a nonprofit funded solely by AEP, gave \$150,000 to Generation Now, another dark-money group that received \$60 million from FirstEnergy-related interests. Empowering Ohio also gave \$200,000 to the Coalition for Opportunity & Growth, which it said is related to a political action committee that spent \$1 million in the 2018 campaigns of Householder and his Republican allies.

Akins responded Monday: "I want to be clear that as the investigation of the activities surrounding House Bill 6 continues, none of



American Electric Power CEO Nick Akins | © RTO Insider



Ohio Speaker Larry Householder declined to comment as he left federal court in Columbus, Ohio, after his arraignment July 21. | WKYC

the alleged wrongful conduct in the criminal complaint involves AEP or its subsidiaries," Akins *said*. "We engaged and participated in the legislative process surrounding H.B. 6 legally and ethically. To date, we have not been contacted by the authorities conducting the investigation, but if at any point we are, we will cooperate fully and transparently.

"Neither AEP nor any of its subsidiaries made any contributions to Generation Now," Akins continued. "AEP has made contributions to Empowering Ohio's Economy to support its mission of promoting economic and business development and educational programs in Ohio. These contributions were done appropriately, and we have every reason to believe that the organizations we support have acted in a lawful and ethical manner."

H.B. 6 included a six-year-plus extension of a ratepayer surcharge that subsidizes the Kyger Creek and Clifty Creek generating plants. AEP owns 43% of the plants.

Not a 'Single Dollar'

Jones said FirstEnergy supported H.B. 6 to save the jobs of workers at the Perry and Davis-Besse nuclear plants and the carbon-free power they provide. The plants are owned by Energy Harbor, the company that emerged from the bankruptcy and spinoff of FirstEnergy Solutions' (FES), FirstEnergy's competitive generation unit.

"We gave our support because FirstEnergy has the obligation to serve 2 million customers

in the state of Ohio, including looking out for their long-term energy supply, even though we are no longer in the competitive generation business and would not get a single dollar of the House Bill 6 funding for those plants," Jones said.

After making a statement about the scandal, Jones opened the question-and-answer period with stock analysts with a request to focus on "the great quarter we just reported on." FirstEnergy reported second-quarter earnings of \$309 million (\$0.57/share) on revenue of \$2.5 billion, compared with \$308 million (\$0.58/share) on \$2.5 billion in revenue a year earlier.

But questions from the first six analysts were about the fallout from the scandal.

Although FES didn't emerge from bankruptcy until February 2020, Jones said his control over the unit ended in November 2016, when FirstEnergy declared it "non-core" and FES "separated fiduciarily, financially and operationally from being a part of FirstEnergy. They put in place an independent board, and from November of '16, I've had no input into any of the decisions that they've made," Jones said.

FES filed for Chapter 11 bankruptcy reorganization in March 2018. Although FE continued providing FES some services such as human resources, financial services and IT during the bankruptcy proceedings, Jones said FES began running its own external affairs shortly after the 2016 separation, hiring its own lawyers and lobbyists.

PJM News



“We created corporate separation for a reason. We had to get about negotiating a plan of separation with FES, its bondholders, its creditors. There’s no way we could have done that by operating on both sides. We severed those ties. We were not involved in any way in the decisions made by FES.”

Although the 81-page *affidavit* that accompanied the criminal complaint shows most of the alleged bribes were paid by FirstEnergy Service Co., Jones said that the parent company contributed only one-quarter of the \$61 million that federal investigators said were used to elect Householder and allies who supported H.B. 6 and to defeat a referendum drive to allow voters to reject the law. Much of the money was funneled through Generation Now, a 501(c)(4) nonprofit.

“Are these payments being made on behalf of FE or FES/[Energy Harbor]?” chartered financial analyst Robert Howard said in an article Friday. “We can’t tell.”

Jones declined to answer a question about the utility’s vetting process for payments to 501(c)(4) organizations, saying only, “We do make prudent decisions to spend corporate funds on issues that we believe are important to our customers and shareholders.”

“I’ve bracketed the amount of money that we spent on House Bill 6. I’m not going to get into the details of how we spent it,” he said.

Jones also said opponents of H.B. 6 also used 501(c)(4) organizations.

“I don’t know the amount that was spent on the

other side. Clearly this was a provocative, difficult issue in the state of Ohio. A lot of money was spent on both sides of this issue, particularly after House Bill 6 was passed and it got into the referendum process. The process of gathering signatures, the media ads — there was a lot of money spent on both sides, and 501(c)(4)s were used on both sides.”

Jones also declined to discuss when he learned of the investigation or his phone conversations with Householder. The affidavit, which referred to FirstEnergy as “Company A,” said the company’s CEO had 87 phone contacts with Householder from February 2017 until July 2019, when H.B. 6 was signed into law, including 30 contacts between January to July 2019.

“I talk to a lot of people; I text with a lot of people,” he said. “I can tell you this: In every meeting, every phone call, every text message that I participate in, I talked about our obligations to conduct our business transparently, ethically, professionally. I have no worries that I did anything that wasn’t that way.”

In May, FirstEnergy announced that Jones would be relinquishing his title as president to Steven Strah as part of a succession plan. Jones remained CEO and a member of the board. But the scandal won’t hasten his retirement, he said.

“I think I’ve said that I have made no definitive retirement plans, and it certainly won’t be this year,” he said, adding that he will “do my part to restore the reputation of this company to what it duly deserves.”

Credit Downgrade

FirstEnergy stock price has taken a drubbing since news of the scandal broke, falling about \$11/share since the investigation became public. Shares closed Friday at \$29.48, up \$2.08 (8%) on the day, but down more than \$12 (29%) from its July 20 close. With about 540 million shares outstanding, the losses cost the company about \$6.5 billion in market capitalization.

Nevertheless, Jones said the company has “plenty of liquidity” and is not concerned by S&P’s decision to place FirstEnergy on a 90-day credit watch for a potential downgrade.

Jones said that after the arrests, he met with analysts for S&P Global Ratings and Moody’s Investors Service. “I told them they should not put the ... integrity of their ratings on the line for FirstEnergy,” Jones said. “But I also told them that we’re the same underlying company that existed before Tuesday [July 21]. We’ve

“Are these payments being made on behalf of FE or FES/[Energy Harbor]? We can’t tell.”

—Financial analyst Robert Howard

got an improving balance sheet, FFO [funds from operations] to debt that’s moving into the 12 to 13% range. Strong earnings CAGR [compound annual growth rate].

“It’s our job to get this news behind us, and when that happens, I would expect them to restore the rating that’s appropriate,” he added.

Potential Repeal

On Thursday, Ohio Gov. Mike DeWine said the state legislature should repeal H.B. 6 in light of the allegations. (See related story, *Ohio Gov. Calls for Repeal of Nuke Bailout.*)

Jones said a repeal of H.B. 6’s nuclear subsidies would have no significant impact on FirstEnergy’s finances. Nor, he said, would the company face any liabilities for nuclear decommissioning or coal ash cleanups if Energy Harbor fell into financial trouble. FirstEnergy has a surety bond to cover any coal ash costs, he said.

“There’s no change in our settlement with FES. The plan of reorganization was not contingent on House Bill 6 or any other support for the nuclear plants. There’s no true-ups, any other financial obligations from FE to FES other than what was in our agreement that was approved by the court.

“Last I [heard],” he added “they [Energy Harbor] were sitting on \$900 million of cash. ... I’m not sitting here at all worried about that part of what used to be part of our company.” ■



FirstEnergy’s Akron, Ohio, headquarters

PJM News



Feds: FE Paid \$61M in Bribes to Win Nuke Subsidy

Ohio Speaker, 4 Others Named in 'Dark Money' Campaign

By Michael Yoder and Rich Heidorn Jr.

FirstEnergy spent \$61 million in bribes and “dark money” campaign contributions and advertising to elect the speaker of the Ohio House of Representatives and allies, who won \$1.5 billion in subsidies for the company’s struggling nuclear plants, federal officials charged July 21.

House Speaker Larry Householder (R), FirstEnergy lobbyist Juan Cespedes, lobbyist Neil Clark, former state Republican Party Chair Matt Borges and Householder political strategist Jeff Longstreth were arrested on racketeering charges in a three-year scheme that resulted in the passage of House Bill 6, which authorized zero-emission credits for FirstEnergy Solutions’ (FES) money-losing Perry and Davis-Besse nuclear plants.

FirstEnergy no longer owns the nuclear plants: FES emerged from bankruptcy in February as Energy Harbor. But the utility’s CEO, Charles Jones, and others may face legal jeopardy, based on the 81-page *affidavit* that accompanied the complaint, which said the CEO of “Company A” — as FirstEnergy was referred to in the document — was in regular contact with Householder.

In an afternoon press conference July 21, U.S. Attorney David M. DeVillers of the Southern District of Ohio smiled when asked whether FirstEnergy officials might face charges. He said investigators would pursue evidence “wherever it leads, whoever they work for.”

While not naming “Company A” cited in the affidavit, DeVillers said that “everyone in this room knows who Company A is,” alluding to the main beneficiary of H.B. 6.

He said it was vital to the conspiracy that no one knew Company A’s \$61 million would be used to “further the affairs of the enterprise” with Householder, so a 501(c)(4) nonprofit or organization called Generation Now was created to filter much of the money.

The money was used first to elect Householder and other legislators who backed him for speaker. It also funded television advertisements and mailers supporting the bill. Finally, money was used to defeat a ballot referendum that sought to overturn the law — including bribes to those working for the referendum.

DeVillers called the case “likely the largest



Perry nuclear plant | Nuclear Regulatory Commission

bribery money laundering scheme ever perpetrated within the state of Ohio.”

FirstEnergy issued a statement July 21 saying it had “received subpoenas in connection with the investigation surrounding Ohio House Bill 6. We are reviewing the details of the investigation, and we intend to fully cooperate.”

“We are reviewing the complaint and will cooperate fully with the government’s investigation,” said a spokesman for Energy Harbor, which was not directly implicated in the case.

“Make no mistake, these allegations are bribery, pure and simple,” DeVillers said. “This was a *quid pro quo*. This was pay-to-play. And I use the term ‘pay-to-play’ because that’s the term they used.”

Private Flight to Inauguration

The affidavit sets the stage at FirstEnergy’s first-quarter earnings call in 2016, when Jones told analysts the company’s “top priority is the preservation of our two nuclear plants in the state, and legislation for a zero-emission nuclear program is expected to be introduced soon.”

The government said the conspiracy began two months after Householder flew to President Trump’s inauguration on FirstEnergy’s private jet in January 2017. Beginning in March, the government said, Householder began receiving quarterly \$250,000 payments through Generation Now.

Householder had served as House speaker from 2001 to 2004, leaving office because of term limits. The FBI launched an investiga-

tion in 2004 into allegations that he and his aides took kickbacks from vendors and traded legislation for campaign contributions, but the investigation ended in 2006 with no charges filed.

By 2017, Householder was plotting a comeback — with FirstEnergy’s help.

In 2017 and 2018, Generation Now received \$2.9 million from FirstEnergy, which was used to support the campaigns of Householder and 14 allies in the primary election and six additional candidates in the general election. All who won voted for Householder as speaker, and all but two supported H.B. 6.

H.B. 6 was introduced three months after Householder was elected speaker in January 2019. FirstEnergy’s payments to Generation Now increased after the bill was introduced, with \$9.5 million being wired into its accounts in April and May.

Generation Now used the funds in part for mailers and media ads to pressure legislators to support the bill, which passed the House on May 29, 2019, and the Senate about two months later.

But shortly after the bill was signed into law, opponents announced a petition drive to put a question on the November ballot overturning the legislation. From late July through October, FirstEnergy wired another \$38 million to Generation Now to defeat the initiative.

The affidavit said Borges used \$15,000 of the cash to bribe a worker at the company conducting the petition drive to provide the

PJM News



Householder team inside information on the company's efforts. Borges was unaware that the worker agreed to go along with the scheme after contacting the FBI.

Householder's group also spent \$450,000 to hire other leading signature collection companies so they would have conflicts of interest and could not take part in the referendum drive.

Generation Now also wired \$23 million to a group called Ohioans for Energy Security — which the affidavit called “Front Company” — for expenses, including advertising opposing the referendum.

The referendum campaign failed on Oct. 21, 2019, and H.B. 6 became law. (See [Ohio Nuke Petition Misses Signature Deadline](#).)

In addition to funding Householder's campaign and bankrolling the efforts behind H.B. 6, FirstEnergy's spending also personally benefited Householder, the government said, citing almost \$102,000 spent on his Florida residence and \$300,000 to pay off a lawsuit and legal fees.

Regular Contacts with Jones

The affidavit said Company A's CEO had 87 phone contacts with Householder from February 2017 until July 2019, when H.B. 6 was signed into law, including 30 contacts between January to July 2019. Householder also had 188 contacts with FirstEnergy's Ohio director of state affairs, and Longstreth was in regular phone contact with FirstEnergy's vice president of external affairs and FES' [identified as Company A-1] vice president of government affairs.

In May, FirstEnergy [announced](#) that Jones would

be relinquishing his title as president to Steven E. Strah as part of a succession plan. Jones remained CEO and a member of the board.

As a 501(c)(4), DeVillers said, Generation Now did not have to disclose its donors. But under IRS rules, it is a “social welfare” entity that cannot financially benefit a shareholder or individual and cannot intervene in political campaigns.

“Not a dime of the money of the \$61 million that was filtered to Generation Now by Company A went to any social program,” DeVillers said. “There were no members that donated to this 501(c)(4) — \$61 million was completely donated by Company A. ... Make no mistake, this is Larry Householder's 501(c)(4).”

DeVillers said the investigation began more than a year ago after being brought forward by a whistleblower. He called it a “covert investigation” that was critical to fully investigate without individuals knowing what was happening.

He said it was an “extremely complicated, extremely complex” investigation that has already involved thousands of hours of manpower combing through “millions of pages” of documents, including bank records and financial transactions.

“It took me months to really get a grasp of what we're dealing with,” DeVillers said. “And we're still learning more information every day on this case.”

DeVillers wouldn't comment on any future charges for individuals or entities involved in the case, saying only that no one from Company A has “as of yet” been charged and that there are “a lot of FBI agents knocking on a lot of doors” after that day's arrests.

“We are not done with this case,” he said. “There are things we couldn't do before; people we couldn't interview; people we couldn't subpoena; documents we couldn't subpoena; search warrants we couldn't execute — because if it got back to the enterprise, everything would have shut down.”

Chris Hoffman, the Cincinnati-based FBI special agent in charge of the investigation, said public corruption is the top criminal priority for the bureau.

Hoffman said the case is the first time a racketeering charge has been used on a public official in the Southern District of Ohio and that RICO cases are reserved for the most “egregious” instances.

“Public corruption erodes public confidence and undermines the strength of our great democracy,” Hoffman said. “The federal complaint charging those arrested today details a shameful betrayal of public trust. ... Our state deserves to have an honest system of government that isn't hijacked by greed or corruption.”

DeVillers was asked about the “unprecedented” nature of the case and how it has personally affected him. He said what has made him “angry” is the limited resources among investigators who could be working on other cases having to be diverted to public officials elected to be responsible to the voters.

“We have cases with real victims, and we have to take our resources away from those real victim cases and investigate and prosecute some politicians who just won't do their damn job,” DeVillers said. “That's what makes me angry. And everything begins and ends with rule of law. And if we have legislatures or leaders passing laws that they themselves are corrupt in, those laws themselves are corrupt.”

Former Ohio Public Utilities Commission Chair Todd Snitchler, now CEO of the Electric Power Supply Association, called on the legislature to repeal H.B. 6, noting it was the second utility bribery scandal in less than a week. (See [How ComEd Got its Way with Ill. Legislature](#).)

“When politically powerful interests can pay to have their favored policies passed into law or ensure that specific resources are preselected to profit, we undermine energy and environmental progress,” he said in a statement. “These kinds of situations have played out in multiple states just this week, and we urge voters, legislators and regulators to keep a close watch and protect transparency and competition. When policymakers do the bidding of special interests, consumers lose.” ■



Sheriff's vehicle outside the farm of Ohio House Speaker Larry Householder after his arrest Tuesday | [WBNS 10](#)

PJM News



Ohio Gov. Calls for Repeal of Nuke Bailout

DeWine Reverses Position

By Rich Heidorn Jr.

Reversing position, Ohio Gov. Mike DeWine (R) said Thursday the state should repeal House Bill 6 in light of the federal bribery charges against House Speaker Larry Householder (R), who pushed the bill through the legislature last year.

DeWine called for Householder's resignation July 21 after the speaker and four others were accused of taking \$61 million in bribes from FirstEnergy to win passage of the legislation, which included subsidies for the Perry and Davis-Besse nuclear plants. (See related story,

Feds: FE Paid \$61M in Bribes to Win Nuke Subsidy.) But DeWine had said Wednesday that the law, which he signed last July, should remain intact to save the nuclear plants' jobs and carbon-free power.

During his televised coronavirus briefing Thursday, however, he said the legislation should be reversed. "While the policy in my opinion is good, the process by which it was created stinks. It's terrible; it's not acceptable," DeWine said, calling for the bill to be "repealed and replaced through an open process."

Republican state Reps. Mark Romanchuk and Laura Lanese and Democratic Reps. Mike Skin-

dell and Michael J. O'Brien have announced plans to introduce repeal bills. All four had opposed H.B. 6 last year. Environmental groups also called for its repeal.

But with DeWine continuing to support the bill, chances of a repeal had appeared slim. Republicans control both the House of Representatives and Senate by a supermajority. H.B. 6 passed the House 51-38, with 10 Democrats joining 41 Republicans.

The law will charge all Ohio electricity customers a monthly fee ranging from 85 cents for residential customers to \$2,400 for large industrial plants from 2021 until 2027. Although Perry and Davis-Besse are the main beneficiaries, the law also subsidized coal plants in Ohio and Indiana.

In an 81-page *affidavit*, federal officials accused FirstEnergy of paying \$61 million in bribes and "dark money" campaign contributions to elect Householder and allies who pushed the \$1.5 billion in subsidies into law.

FirstEnergy's merchant unit, FirstEnergy Solutions, the owner of the nuclear plants, emerged from bankruptcy in February as a new company, Energy Harbor. But the utility's CEO, Charles Jones, and others could face legal jeopardy for their alleged roles in the scheme. The government said the CEO of "Company A" — as FirstEnergy was referred to in the document — was in regular contact with Householder during the time the company was making secret payments.

DeWine opened his press conference Thursday saying he had been "struggling to process" news of the scandal. "It takes a while to really get it," he said. "The most important thing is that the public has confidence in the process."

According to Cleveland.com, FirstEnergy's political action committee donated more than \$25,000 to DeWine's 2018 campaign for governor and \$20,000 to his transition fund after he was elected. FirstEnergy executives individually gave DeWine's gubernatorial campaign at least \$27,000, it said.

Although FirstEnergy no longer owns the nuclear plants, its stockholders have been punished in the three days since the scandal broke. FirstEnergy shares closed Thursday at \$27.40, a 34% drop since opening trading July 21. Energy Harbor, which trades over the counter, closed at \$22.50/share, a drop of 31% since July 21. ■



Ohio Gov. Mike DeWine | Ohio Governor's Office

PJM News



FERC OKs Negotiated Rates for Merchant Tx Line

By Rich Heidom Jr.

FERC on Thursday approved SOO Green HVDC Link's request to charge negotiated rates on its proposed 350-mile, 2,100-MW transmission line, which the developers hope to use to deliver renewable energy from upper MISO to Illinois and the PJM grid ([ER20-1665](#)).

In June, PJM stakeholders agreed to consider integrating HVDC converters as a new type of capacity resource in the RTO at SOO Green's request. (See [HVDC Initiative Endorsed by PJM Stakeholders](#).)

The SOO Green line is planned to run underground, primarily along existing rail rights of way from Mason City, Iowa, to Plano, Ill. Construction is expected to begin in early 2022 and be completed by 2024.

SOO Green is owned 80% by Copenhagen Infrastructure III, 10% by Jingoli Power Transmission and 10% by Siemens Energy. None of the owners or their affiliates owns any other transmission facilities, except for generation interconnection facilities, the developers said. (A Jingoli affiliate owns less than 10% of a

small cogeneration facility in Michigan, and Siemens holds a minority interest in a combined cycle generation facility near Cleveland.)

The developer has hired London Economics International to design an open solicitation process and serve as its independent evaluator.

SOO Green hopes to attract generators, marketers, load-serving entities and end-users to obtaining transmission capacity rights, either as "anchor shippers" or later through an auction. The "registered participants" can seek commercial arrangements on their own or ask to be matched with others by the independent evaluator.

FERC evaluates negotiated rate applications based on four factors: the justness and reasonableness of the rates; the potential for undue discrimination; the potential for undue preference, including affiliate preference; and regional reliability and operational efficiency requirements. The commission said its review takes into account its open-access requirements, the Federal Power Act and the "financing realities faced by merchant transmission

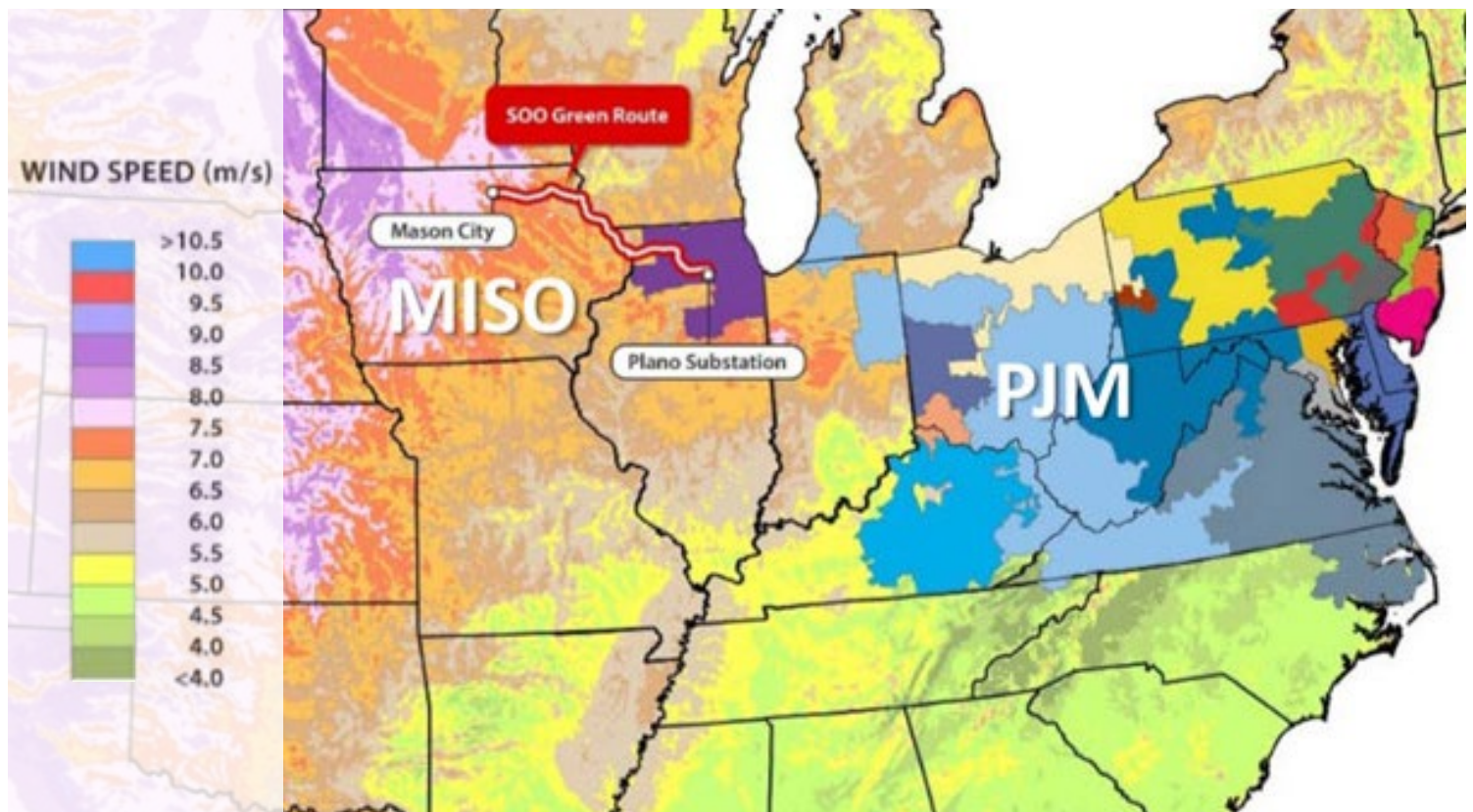
developers."

No one filed interventions or protests in response to SOO Green's application.

The commission concluded that the developers will bear the full market risk of the project and have no ability to erect barriers to entry or incentive to withhold capacity because they will turn over operational control of the line to either MISO or PJM, which will operate it under its Tariff.

"SOO Green states that while it is currently in discussions with both MISO and PJM about the many operational issues involving the project, it is unclear at this juncture which RTO will ultimately have operational control of the project," FERC said.

The commission conditioned its approval on SOO Green's submission of a compliance filing after the open solicitation demonstrating that the allocation process was fair and transparent and consistent with the commission's 2013 policy statement on allocation of capacity on new merchant transmission projects ([AD12-9](#), [AD11-11](#)). ■



| SOO Green

PJM News



PJM Stakeholders OK 5-Minute Dispatch Proposal

By Michael Yoder

After several months of debate, stakeholders gave a final endorsement of PJM's short-term *proposal* to resolve *five-minute dispatch and pricing* issues at Thursday's Markets and Reliability and Members committee meetings.

The MRC endorsed the proposed solution and corresponding language *revisions* in a unanimous sector-weighted vote, with 69 members voting in favor — an outcome so unusual that PJM officials paused the meeting to double-check the results. In an acclamation vote held during the MC, three members voted against the PJM solution.

PJM's proposed short-term fixes align the locational price calculator (LPC) to use the reference real-time security-constrained economic dispatch (RT SCED) case for the same target time. The LPC would calculate prices for the interval from 11:55 a.m. to 12 p.m. using the RT SCED solution for a 12 p.m. target time.

Resource offers, parameters and ancillary service assignments would be inputs to the RT SCED cases. Offers for 11 a.m. to 12 p.m. would be effective through 12, with offers for 12 to 1 p.m. used for the dispatch target 12:05.

The Market Implementation Committee endorsed the PJM plan in June, with many encouraging the RTO to continue to pursue both intermediate and long-term changes. (See [PJM 5-Minute Dispatch Proposal Endorsed.](#))

Tim Horger of PJM provided an updated *presentation* on the package. He also highlighted some of the intermediate changes that have already been implemented by PJM, including moving to the five-minute auto case execution for RT SCED cases, which began June 23. Horger said the tests proved successful, and the RTO plans to keep the procedure in place permanently.

As an example, Horger said dispatchers had a 76% rate of approved RT SCED cases priced



Greg Poulos, CAPS | © RTO Insider

from Jan. 1 until June 22. But from June 23, when the five-minute auto case execution was implemented, up until July 13, Horger said the approved RT SCED cases priced went to 90%, calling it an "incredible improvement."

Adrien Ford of Old Dominion Electric Cooperative had spoken at the MIC in support of a proposal presented by the Independent Market Monitor that included *changes* to dispatch and SCED calculations in addition to the settlements changes in the PJM package. But Ford said Thursday that ODEC had come to support the PJM package because of the work done by the RTO to improve the proposal.

"We were always supportive of [PJM's] short-term changes, but we just wanted more," Ford said. "We think these are very positive steps forward for PJM in aligning dispatch and pricing."

The RTO has said it expects to continue evaluating long-term solutions into 2021, with a quantitative analysis of the pros and cons of different approaches.

Susan Bruce of the PJM Industrial Customer Coalition said the RTO was responsive to stakeholders' concerns, with it "moving in the right direction."

Bruce said one of her concerns was PJM maintaining proper documentation on the intermediate changes if the five-minute auto case execution doesn't continue to work as planned. She said it would be helpful for market participants to have the RTO describe its documentation process in its filing letter to FERC.

Horger said PJM has committed to continue the auto execution started on June 23. He said if the RTO determines the process to not be effective in the long term, it will engage with stakeholders to see if there is another process or method that could be beneficial.

Voting Concerns

Despite the broad support for PJM's plan, Thursday's votes were not without some contention.

Greg Poulos, executive director of the Consumer Advocates of the PJM States, said the advocates opposed having the MC endorsement vote on the same day as the MRC's.

PJM rules allow any stakeholder to object to a same-day vote to have the vote moved to the next MC meeting. Postponing the MC vote would have delayed a FERC filing because



Susan Bruce, PJM ICC | © RTO Insider

there is no MC meeting in August.

But 70% of MC members supported Exelon's motion to suspend the rules to allow the vote, above the two-thirds threshold required.

Exelon's Jason Barker said it was "curious" why the advocates would object to a same-day vote if they didn't oppose the PJM proposal.

"The only purpose to the objection of the same day vote would be for delay, and to Exelon that seems to squander stakeholder time and lead to unnecessary delay," Barker said.

Poulos said it was a "tricky situation" because the advocates still want to see a long-term solution implemented along with the short-term solution. Poulos said some of the advocates also objected to the PJM's FERC filing on fast-start pricing, set for the end of July, and were concerned that the short-term proposal would be included in the filing.

FERC ordered PJM and NYISO a year ago to revise their tariffs to allow fast-start resources to set clearing prices. (See [FERC Orders Fast-start Rules for NYISO, PJM.](#)) In January, the commission voted to hold the RTO's fast-start pricing compliance filing in abeyance until July 31, agreeing with the Monitor and others who said resources' compensation don't correspond to their dispatch instructions because PJM uses different market intervals to calculate prices and dispatch. (See [FERC Stalls PJM Fast-start Compliance Filing.](#))

Poulos also said the advocates have been vocal in the past that same-day votes should not be held unless there is an immediate need.

"I can appreciate that from some people's perspectives that there is a need to have the vote today, but we are not part of that group," Poulos said.

PJM is looking to implement the five-minute dispatch and pricing rules in November pending FERC approval. ■

PJM News

PJM MRC/MC Briefs



From left, Lisa McAlister of American Municipal Power (Electric Distributors); Susan Bruce of the PJM Industrial Customer Coalition (End-Use Customers); Jeff Whitehead of Eastern Generation (Generation Owners); Betty Watson of Affirmed Energy (Other Suppliers); and Alex Stern of PSEG Services (Transmission Owners). | © RTO Insider

Nominating Committee Members Endorsed

PJM stakeholders unanimously elected five new members to serve one-year terms on the Nominating Committee during the Members Committee meeting Thursday.

The Nominating Committee *class* of 2020-2021 is responsible for identifying candidates to serve on the PJM Board of Managers and reports to the MC. It includes one representative from each of the five PJM sectors.

Elected were Lisa McAlister of American Municipal Power (Electric Distributors); Susan Bruce of the PJM Industrial Customer Coalition (End-Use Customers); Jeff Whitehead of Eastern Generation (Generation Owners); Betty Watson of Affirmed Energy (Other Suppliers); and Alex Stern of PSEG Services (Transmission Owners).

First Reads

Several first reads of issues were held during the Markets and Reliability Committee meeting.

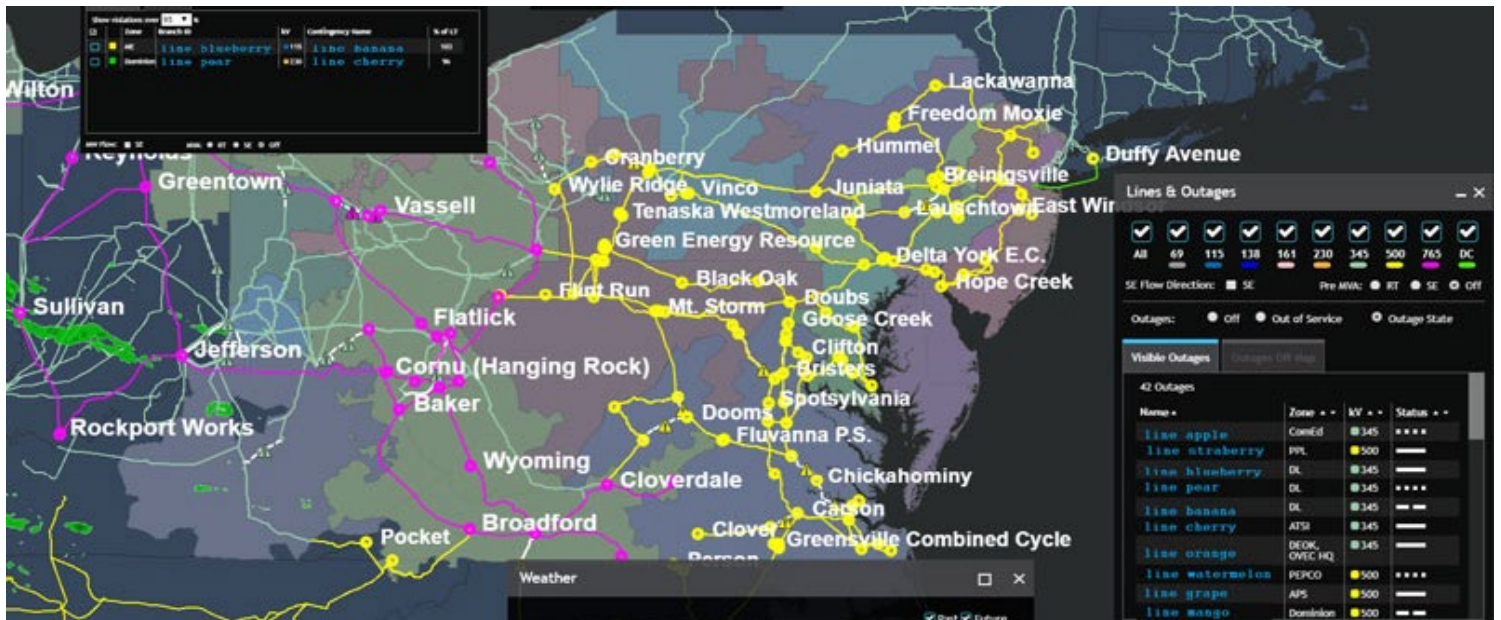
Ed Kovler, PJM's senior lead business solutions architect, *reviewed* proposed Operating Agreement language *revisions* to support improving situational awareness with the *Dispatch Interactive Map Application* (DIMA), a geospatial situational awareness program that allows operators to see the location of problems on the grid in real time. The language revisions will give transmission owners access to DIMA, which PJM dispatchers have used since 2014. The Operating Committee unanimously endorsed a "quick fix" solution at its June 4 meeting. (See "Dispatch Interactive Map Application," *PJM Operating Committee Briefs: June 4, 2020*.)

Jen Tribulski of PJM provided an *update* on a proposal to rename the Credit Subcommit-

tee as the Risk Management Committee and expand its role to incorporate risk. The new committee, which was first previewed at the April 30 MRC meeting, was originally contemplated to be a subcommittee of the MRC. But based on stakeholder feedback, Tribulski said, it will be a standing committee reporting to the MRC. If it wins endorsement at the August MRC, the new committee will hold its first meeting in the fall. (See "'Credit' Subcommittee Proposed to Change to 'Risk Management,'" *PJM MRC Briefs: April 30, 2020*.)

Onyinye Caven of PJM *reviewed* proposed revisions to Manuals 14A, 14B and 14G, which incorporate Tariff changes from the RTO's second Order 845 compliance filing. The changes were first presented at the July 7 Planning Committee meeting. (See "Manual 14 Changes," *PJM PC/TEAC Briefs: July 7, 2020*.) ■

— Michael Yoder



DIMA goespatial overview | PJM

PJM News



PJM Stakeholders Debate Market Efficiency Proposals

By Michael Yoder

PJM stakeholders continued debating changes to processes used to plan market efficiency transmission projects, including the creation of a new regional targeted market efficiency project (RTMEP) process that transmission owners say targets small projects addressing persistent congestion not identified in the forward-looking planning model and other members categorize as excluding competition.

In addition to the RTMEP proposal discussed at Thursday's Market and Reliability Committee meeting, two additional changes are proposed to edit the way benefits are calculated for traditional market efficiency projects. The new processes were first endorsed at the May Planning Committee meeting. (See "Market Efficiency Process Packages Move to MRC," [PJM PC/TEAC Briefs: May 12, 2020](#).)

LS Power's Sharon Segner said the current uncertainty over capacity market rules makes it difficult to move forward with the proposals, citing her company's "strong concerns" about the proposal.

"We don't feel this is the appropriate time to be tinkering with the market efficiency rules given the market upheaval that's underway right now," Segner said.

Jack Thomas of PJM provided an [update](#) of the phase 3 work completed at the Market Efficiency Process Enhancement Task Force (MEPETF), presenting the proposed solution [package](#) during a first read at the MRC.

Thomas said phase 3 work focused on creating the new RTMEP process while also looking at the benefit-to-cost calculations and the separation of energy and capacity benefits in calculations.

Stakeholders at the May 12 PC meeting endorsed a combined proposal by American Electric Power and FirstEnergy on the RTMEP process with 56% support. The package, which would exempt RTMEPs from competition, edged out PJM's proposal (55% support), which called for 30-day competitive windows to select the developer.

The two packages are otherwise identical. Benefits are calculated based on the average of the past two years of day-ahead and balancing congestion, adjusted for outage impacts. To be approved, a project would have to recover its capital cost within four years.

The AEP-FirstEnergy proposal for the benefit calculation metric also was preferred, winning 54% to PJM's 52%. AEP and FirstEnergy proposed averaging multiple Monte Carlo results and running them on Regional Transmission Expansion Plan (RTEP), RTEP+3 and RTEP+6 years. PJM's proposal employed a single-draw Monte Carlo simulation, with simulations for both Reliability Pricing Model and RTEP years. Projects would be required to have a capital cost under \$20 million and be in service within three years.

Robert Taylor of Exelon said that as more investigation has been done on the endorsed benefit calculation metric, "significant concerns" have arisen, and he requested that PJM take a deeper look at the issue. Without a cap on the number of Monte Carlo runs, the RTO could face a "never-ending series of analysis," he said.

"We just don't think the benefits outweigh what is going to be a massive increase in staff, servers and resources to go into that," Taylor said.

PJM's proposed window for capacity drivers won 52% support among stakeholders and 63% support over maintaining the status quo. The RTO proposed a 24-month cycle for energy drivers and a 12-month cycle for capacity following the Base Residual Auction.

The PC's May 12 endorsement was the culmination of 18 months of work by the MEPETF. PJM is looking for endorsement at the Aug. 20 MRC meeting and a final vote at the Sept. 17 Members Committee meeting.

Segner said the task force has had more than 40 meetings over several years, with many of the proposals up for endorsement previously failing to receive enough votes to clear the PC. Generation and non-transmission alternatives can address congestion, she said, and the proposals shouldn't discredit "market-driven alternatives."

She said the proposals introduce a new idea of ordering transmission solely based on historical congestion, which differs from current practices in PJM markets that are designed to be forward-looking in the way generation and merchant transmission is developed.

"The grid is always evolving and changing so much in PJM," Segner said.

Carl Johnson of the PJM Public Power Coalition said he has not been convinced that transmission is the solution to historical congestion

that can't be replicated in forward-looking models.

Catherine Tyler, a member of the Independent Market Monitor team, said congestion is "not inherently bad" and that the calculations used to evaluate the benefit-to-cost analysis ignore congestion increases, making the calculations flawed and not reflective of the actual benefit-to-cost. Tyler said transmission and generation don't have the opportunity to compete with each other in the proposals, giving an advantage to transmission.

Tyler said PJM's goal shouldn't be to "copper plate" the system through unnecessary building projects when congestion could be resolved through generation or other means.

"Transmission should be built [based] on reliability, not cost and benefits," Tyler said.

Taylor said he disagreed with the concept of congestion not being "inherently bad" and that the work done by the task force focused on cases where the market hasn't responded in removing congestion and that would bring benefits to ratepayers. There's value at looking at historical congestion, he argued.

"These are small, quick-hit projects and investments that have a significant and quick payoff for ratepayers," Taylor said.

Paul Sotkiewicz of E-Cubed Policy Associates said the proposals are an attempt to guess where congestion will be in the near future without taking into account changes that can occur quickly.

Sotkiewicz also issued "caution" with moving forward with the proposals, pointing to actions in the early 2000s by the Alberta Electric System Operator (AESO), which conducted a transmission buildout in anticipation of load growth, with a goal of eliminating congestion in the system. He said AESO's transmission costs now average about \$30/MWh, driving customers to find ways to get off the system to avoid the charges.

He said that if PJM goes forward with current thinking in the proposals, it could be pushed into the same situation, with large customers looking for ways to shave off peak loads and get away from transmission costs.

"It looks like we're driving up the cost of transmission with really no additional benefits," Sotkiewicz said. ■

SPP News

SPP Briefs

WEIS Market 'At Risk,' Waiting on FERC Approval

SPP said Wednesday that its Western Energy Imbalance Service (WEIS) market is at risk of falling behind schedule because it is still waiting on FERC approval of the market's standalone Tariff.

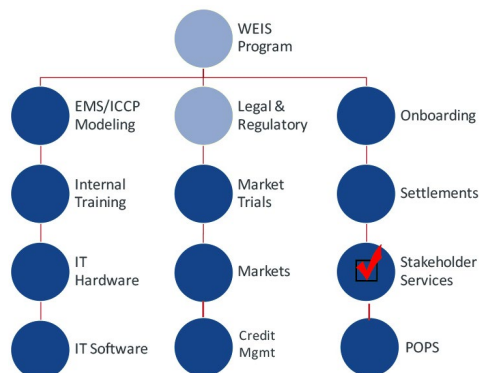
The RTO had asked for a July 21 effective date, but that deadline passed the day before the Western Markets Executive Committee met virtually. FERC in April issued a *deficiency letter*, asking for more information on 14 issues. SPP filed a *response* in May.

"Without having any sort of regulatory certainty, we have to recognize that that is a risk to the program," David Kelley, SPP's director of seams and market design, told the committee. "There are a number of things waiting to move forward, pending receipt of the FERC order. There's still a lot hinging on us getting that order."

Kelley said the rest of SPP's work to stand up its WEIS market by February 2021 is on schedule and "going according to plan." Market trials are scheduled to start in August.

The WEIS market is modeled on the Energy Imbalance Market that it operated from 2007 to 2014. It has attracted eight participants. (See *SPP Board OKs \$9.5M to Build Western EIS Market*.)

SPP has proposed a 22-cent/MWh net energy-for-load rate for the first year of market operations, based on annual \$5 million operating costs, and said initial implementation costs will total \$9.5 million. The commission asked the RTO to describe what costs are included in the implementation costs and to



All signs are go for SPP WEIS market, except for regulatory approval. | SPP

explain the ongoing administrative costs that it intends to recover through the WEIS rate (ER20-1059, ER20-1060).

Colorado utilities Xcel Energy-Colorado, Colorado Springs Utilities, Platte River Power Authority and Black Hills Energy have protested the WEIS filings. They contend an existing and neighboring joint dispatch agreement could be impaired by the WEIS market dispatch and that its market flows may harm the Western Interconnection Unscheduled Flow Mitigation Plan. They also contend SPP's proposal disregards the Northwest Power Pool's activities and could island Xcel's balancing authority area from the NWPP reserve sharing group.

The Colorado utilities have all signed up for CAISO's Western Energy Imbalance Market.

Advance Power Alliance Now an SPP Member

SPP said last week that the *Advanced Power Alliance* has become its first alternative power/public interest member, raising its membership count to 102. The group is an industry trade association supporting renewable generation and energy storage in SPP and ERCOT.

APA joined SPP following FERC-directed changes to the RTO's exit fee after a Federal Power Act Section 206 filing by the group and the American Wind Energy Association in 2018. The commission ordered the RTO to eliminate its exit fee for its non-transmission-owning and non-load-serving members. SPP members pay an annual \$6,000 membership fee, but exit fees for non-load-serving entities could cost \$600,000 under the old format. (See *FERC Tells SPP to End Exit Fee for Non-TOs*.)

APA CEO Jeff Clark said the organization is "excited" about the opportunity to have "a more significant impact on the policies discussed and adopted in the RTO." As a member, APA can now vote and join stakeholder groups.

"The SPP is home to some of the best renewable resources in the world. ... The growth of clean, renewable generation in the region has been rapid," Clark said in a statement.

MMU Releases Spring Quarterly Report

SPP's average hourly load this spring was down 6% from last year, according to the Market Monitoring Unit's spring *State of the Market report*.

The report, which covers March through May, attributed the decrease to a drop in demand

because of the COVID-19 pandemic and to fewer heating and cooling days.

The average day-ahead price was \$14.03/MWh, and the average real-time price was \$12.58/MWh, down 41% and 44%, respectively, from last spring. The April day-ahead price of \$14.03/MWh and real-time price of \$10.43/MWh were the lowest monthly average prices since the Integrated Marketplace went online in 2014.

Coal-fired generation's share of the fuel mix again fell, down from 32% last spring to 24% this year. Gas-fired generation and wind energy picked up the slack.

The report's special issues section discusses the impact of a 2018 FERC order that resulted in a major-maintenance cost component for mitigated offers, addressing market participants' concerns about recovering costs associated with mitigated resources (ER18-1632). (See *FERC Accepts SPP Proposal on Maintenance Costs in Offers*.)

Of the 491 thermal units eligible for major-maintenance adders, 113 have been approved, the report says.

The MMU will host a *webinar* Friday to discuss the report and answer questions.

New Wind Mark of 18,343 MW

SPP said it upped its wind-peak record to 18,343 MW on July 17, breaking the previous mark of 18,259 MW established Jan. 8. The record came at 11:13 p.m.

October Board, MOPC Meetings Now Virtual

SPP's October quarterly governance meetings will be virtual only. The meetings were originally scheduled to be held at its corporate headquarters in Little Rock, Ark., during the weeks of Oct. 12 and Oct. 26.

The Board of Directors, Members Committee, Markets and Operations Policy Committee, Regional State Committee, Strategic Planning Committee and most other governance groups have not met in person since January.

SPP has discussed a mix of in-person and virtual meetings in 2021. Under that format, the MOPC would meet in person and the board virtually during one quarter, and then switch for the following quarter. ■

— Tom Kleckner

SPP News

FERC Accepts SPP, NIPCO Settlement

FERC on Wednesday accepted an uncontested settlement agreement between SPP and Northwest Iowa Power Cooperative (NIPCO) over the latter’s annual transmission revenue requirement, formula rate template and formula rate implementation protocols as a transmission-owning member of the RTO (FER15-2115).

The commission last year rejected a settlement filed by SPP, saying that, because it was contested, it couldn’t be approved under its guidelines and precedent set by a 1999 case. FERC in February then denied NIPCO’s rehearing request. (See “Co-ops Rebuffed in Settlement Rehearing Requests,” *FERC Denies Rehearing in Z2 Remand Order*.)

NIPCO had argued that when TOs join regional grids, even indirect modifications to grandfathered agreements can trigger a threshold analysis under the *Mobile-Sierra* doctrine, which holds that negotiated, fixed-rate contracts are to be presumed just and reasonable under the Federal Power Act and cannot be revised by FERC without a finding that the public interest requires modification.



Northwest Iowa Power Cooperative has agreed to an annual transmission revenue requirement with SPP. | NIPCO

The commission said the *Mobile-Sierra* “public interest” presumption applies to an agreement only if the agreement has certain characteristics that justify the presumption.

In its latest order, FERC clarified the framework that would apply if it was required to

determine the standard of review in a later challenge to the settlement by a third party or by the commission acting on its own authority.

SPP was given 30 days to file a compliance filing. ■

— Tom Kleckner

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Company News

NextEra Dips its Toe in Hydrogen Energy

By Tom Kleckner

NextEra Energy continues to stake out a position as a clean-energy leader. Already the self-proclaimed “world’s largest generator of renewable energy” with more than 17 GW of wind and solar generation in North America, the company is now dabbling in hydrogen energy.

During the company’s second-quarter earnings call with financial analysts Friday, senior executives said that they are taking a “toe-in-the-water” approach, as they did with solar and battery storage, to green hydrogen. NextEra’s Florida Power & Light plans to propose a \$65 million pilot project that will use “clipped,” or unneeded, solar energy to produce 100% green hydrogen through a 20-MW electrolysis system.

The hydrogen can be used to replace some

natural gas consumed at one of the three turbines at the Okeechobee Clean Energy Center. The project is expected to be online in 2023.

“We remain confident as ever that wind, solar and battery storage will be hugely disruptive to the country’s existing generation fleet,” NextEra CFO Rebecca Kujawa said. “However, to achieve an emissions-free future, we believe that other technologies will be necessary, and we are particularly excited about the long-term potential of hydrogen.”

Kujawa said the Juno Beach, Fla.-based company will continue to evaluate other potential hydrogen opportunities across its businesses, though she said the near-term investments will be small when compared with NextEra’s overall capital program.

The company says it has already invested more than \$20 billion in renewable technologies. Its



NextEra CEO Jim Robo | © RTO Insider

NextEra Energy Resources subsidiary has a backlog of 14.4 GW of renewables projects — more, it said, than the operating wind and solar portfolios of all but two other companies in the world.

“There’s clearly an opportunity ... to displace the last 10% of the carbon emissions out of the electric sector by manufacturing hydrogen with renewables [in five to 10 years],” CEO Jim Robo said. “This is going to drive gigawatts and gigawatts and gigawatts and gigawatts of renewable demand in this country. There is no one better positioned than us to take advantage of that. This is a big strategic initiative for us, and we’re going to drive it, and it’s going to be very important for this company.”

Robo also told analysts NextEra remains very interested in Santee Cooper, South Carolina’s troubled utility. (See [NextEra Plans to Combine FPL, Gulf Power Utilities.](#))

“We continue to be focused on trying to make that happen,” he said. “I continue to believe that there’s not a utility in the country that we couldn’t run more efficiently and better for customers.”

NextEra [reported](#) second-quarter net income of \$1.275 billion (\$2.59/share), up from \$1.234 billion (\$2.56/share) a year ago. The company’s adjusted earnings came in \$2.61/share, exceeding the Zacks Investment Research consensus estimate of \$2.50/share.

The company’s share price gained \$2.32 after opening at \$282.88 on Friday, but it slid along with the rest of the market during the day. It closed at \$280.25, a 79-cent drop from the previous close. ■



Florida Power & Light’s Okeechobee Clean Energy Center is expected to host NextEra’s green hydrogen pilot project. | FPL

Company News

NRG Announces \$3.6B Cash Deal to Acquire Direct Energy

By Amanda Durish Cook

NRG Energy said Friday it will acquire competitive retailer Direct Energy from U.K.-based Centrica for \$3.63 billion in an all-cash transaction.

Texas-based NRG expects the *acquisition* will result in \$300 million in annual cost savings across the two companies “by leveraging our scalable operating platform,” CEO Mauricio Gutierrez said.

The deal will net NRG an additional 3 million retail customers throughout the U.S. and Canada on top of the 3.7 million the company already serves, concentrated mostly in Texas and the Northeast.

Direct Energy is the third-largest seller of electricity in Texas through its fixed-price electricity and gas *plans*. Centrica, which also owns British Gas, has been pummeled by the coronavirus pandemic’s oil price collapse and hopes the sale will *reduce* its mounting debts.

Speaking during NRG’s second-quarter earnings call Friday, Gutierrez called the Direct Energy acquisition “highly complementary.”

“This is a compelling transaction that will greatly expand our retail footprint across North America and further diversify our product offerings and earnings,” Gutierrez said. “This is the right transaction at the right time.”

He said the acquisition will be funded through a mix of debt, equity-linked securities and cash on hand. The move creates a more balanced NRG generation portfolio “particularly in the Northeast, where we can expand the capital-light renewable [power purchase agreement] strategy that we have deployed in ERCOT.”

The takeover will also help NRG continue to lower its dependence on coal and reach long-term emissions reductions targets, Gutierrez said.

NRG targets the end of 2020 for closing the deal, which requires approvals from the Federal Trade Commission, FERC and the Commissioner of Competition under the Canada Competition Act. Centrica will hold a shareholder vote on the acquisition next month.

Gutierrez said the transaction will provide NRG with “the strongest collection of competitive power brands.”

“Since I became CEO four-and-a-half years

ago, we have transformed our business from a highly leveraged [independent power producer] to a more stable and predictable integrated power company,” Gutierrez said. “Today’s announcement is consistent with our plan to rebalance our portfolio, reorganize around the customer and continuously improve our business and cost structure while maintaining financial discipline.”

Since emerging from bankruptcy in 2003, the company has been on a buying spree, picking up 11 energy companies, including Texas Genco, Reliant Energy and Green Mountain Energy. Today, NRG generates about 23 GW of capacity from more than 30 power plants. Natural gas and coal dominate the portfolio

at 41% and 34%, respectively. Renewables account for 2%.

Houston-based Direct Energy currently purchases electricity from natural gas, coal and nuclear plants.

Gutierrez said NRG leadership is confident in the acquisition despite the near-term impacts of the COVID-19 pandemic. He said NRG has a “proven model of integration” and predicted it would spend about \$220 million to consolidate Direct Energy’s systems, processes and personnel with its own.

NRG stock traded higher at \$35.50/share early Monday but ended the session at \$33.74, down from the previous close of \$34.79. ■



NRG CEO Mauricio Gutierrez | NRG Energy

Company Briefs

Alliant Aims for Carbon Neutrality



Alliant Energy last week announced a goal of net-zero carbon dioxide emissions from its

electricity generation, along with plans to eliminate all its coal-powered generation, by 2040. The date is a decade earlier than the company's previous target.

The goal applies only to Alliant's electricity generation, as it has no plans to stop distributing natural gas, and its net-zero pledge means it could use some form of carbon capture or purchase carbon credits to offset continuing emissions.

Alliant recently told regulators it could save customers up to \$6.5 billion over the next 35 years by adding more than 1,600 MW of renewable generation, closing one of its two remaining Wisconsin coal plants and taking other actions.

More: [Wisconsin State Journal](#)

Amazon to Launch Venture Capital Fund



Amazon announced last week that it will launch a \$2 billion internal venture capital

fund focused on technology investments to reduce the impact of climate change.

The Climate Pledge Fund will invest in companies across a number of industries, including transportation, energy generation, battery storage, manufacturing, food and agriculture, and aims to help Amazon and other companies reach a goal of net-zero carbon emissions by 2040.

The company, whose emissions rose 15% in 2019 compared with 2018, did not provide a time horizon for the funding.

More: [The Wall Street Journal](#)

Apple Devices to be Carbon Neutral by 2030



Apple last week promised that every device sold will have a net-zero climate impact by 2030.

The company said it aims to reduce emissions by 75% in its manufacturing chain by recycling more components and nudging its suppliers to use renewable energy. The remaining 25% of emissions will come from funding reforesta-

tion projects and improving its operational efficiency.

More: [The New York Times](#)

Enel to Add 1 GW of Storage by 2022



Enel announced last week that it will add 1 GW of storage capacity to its U.S. renewables fleet by 2022.

That's a big jump from 2019, when the company pledged to build another 14.1 GW of renewable power capacity globally by 2022 through its Enel Green Power arm, along with 300 MW of storage from its Enel X unit.

The first entry in the battery buildout has already begun construction in Texas and is slated to be operational by the summer of 2021. The Lily project includes 146 MW of solar panels and 50 to 75 MWh of storage.

More: [GreenTech Media](#)

Goldman Sachs Unit Buys Solar Project from First Solar



Goldman Sachs Renewable Power last week announced it has purchased the 123-MW American Kings solar project in California from First Solar. No financials

were disclosed.

The project, which is expected to become operational by the end of this year, has a 15-year power purchase agreement with Southern California Edison.

More: [Renewables Now](#)

Home Depot Targets More than 300 MW of Renewable Energy

Home Depot last week said it will be looking to produce or procure 335 MW of energy from renewable and alternative energy plants by 2025.

The goal is included in the company's 2020 Responsibility Report, which has an objective of cutting carbon dioxide emissions by 50% by 2035. Last year, the company lowered its emissions by 10%.

More: [Renewables Now](#)

Microsoft Makes 1st Climate Fund Investment

Microsoft last week confirmed its first investment for its \$1 billion climate fund

will be in venture capital firm Energy Impact Partners. The company's \$50 million investment will bolster the firm's backing of new technologies for greener energy and transportation systems.

The company announced in January that it plans to be carbon negative by 2030 and allocated \$1 billion to a climate-innovation fund to invest in ways to reduce and remove carbon emissions. By 2050, it plans to remove the equivalent of all of its emissions since its founding in 1975.

Microsoft also joined Nike, Starbucks, Unilever and Danone in a new consortium devoted to sharing resources and tactics for slashing carbon emissions.

More: [Bloomberg](#)

Morgan Stanley Commits to Tallying Climate Impact

Morgan Stanley

Morgan Stanley last week said it will publicly

disclose how much its loans and investments contribute to climate change, becoming the first major U.S. bank to do so.

The bank is joining the Partnership for Carbon Accounting Financials, a global body with 66 financial company members managing \$5.3 trillion of assets, which will count the greenhouse gas emissions from projects and investments that are financed by asset managers, banks and other institutions. Morgan Stanley will sit on the group's steering committee to help deliver a final methodology for financial institutions to follow this fall.

Since 2016, 35 banks have poured \$2.7 trillion into fossil fuel projects, according to environmental group Rainforest Action Network. Morgan Stanley has accounted for nearly \$92 billion of that, according to the group.

More: [POLITICO](#)

Stepoe Continues Expansion of Energy Group



Stepoe & Johnson last week announced the arrival of William Keyser as a partner to the firm's

D.C. office as the company continues its expansion of its Energy Group.

Keyser focuses his practice on federal electric regulation and litigation and transac-

tions involving the electricity and capacity markets. He represents clients before FERC, the Department of Energy, federal and state courts, and public utility commissions. His clients include electric utilities, transmission providers, independent power providers and energy storage developers.

He received his bachelor's from Pennsylvania State University and his J.D. from the University of North Carolina at Chapel Hill School of Law.

More: [Steptoe & Johnson](#)

Tesla Selects Austin for New Factory, Reports Quarterly Profit



TESLA

upcoming Cybertruck electric pickup, as well as be a second site to build its Model Y SUV.

Tesla CEO Elon Musk last week announced that his company has selected Austin, Texas, for the site of its new \$1.1 billion assembly plant. The plant will produce the electric vehicle maker's

Company officials said they intend to break ground on the factory by the third quarter of this year, but Musk said initial work at the site began two weeks ago.

The news came the same day the company released its second-quarter report in which it showed a 4.4% (\$104 million) profit between April and June. It is the first time the company has posted a profit for four straight quarters.

More: [Austin American-Statesman](#); [Reuters](#)

Federal Briefs

Climate Study Narrows Global Warming Forecast

Rising carbon dioxide emissions are likely to increase Earth's temperature between 4.1 and 8.1 degrees Fahrenheit (2.3 and 4.5 degrees Celsius), according to a new study that researchers said narrows uncertainty about the planet's "climate sensitivity."

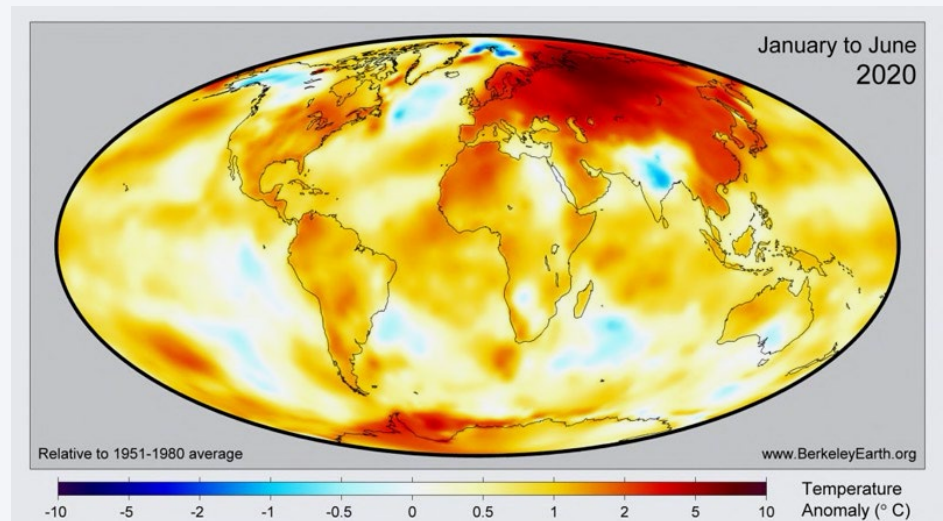
A four-year effort by 25 researchers from around the world, the study looks at the impact of doubling the amount of CO₂ in the atmosphere since the Industrial Revolution. A landmark 1979 [study](#) estimated the impact would range from 2.7 to 8.1 F (1.5 to 4.5 C).

"We find that a large volume of consistent evidence now points to a more confident view of a climate sensitivity near the middle or upper part of this range [from the 1979 study]. In particular, it now appears extremely unlikely that the climate sensitivity could be low enough to avoid substantial climate change (well in excess of 2 degrees C warming) under a high-emissions future scenario," the researchers wrote. "We remain unable to rule out that the sensitivity could be above 4.5 degrees C per doubling of carbon dioxide levels, although this is not likely."

The study found there is less than a 5% chance that temperatures will rise less than 2 F, with a 6 to 18% chance of an increase more than 8.1 F.

Earth has already warmed by at least 1.8 F (1 C) above preindustrial temperatures as atmospheric concentrations of CO₂ have risen to 415 parts per million from a preindustrial level of 280 ppm.

"Climate change was always going to be a roll of the dice given the enormous complexity of the earth's climate and the challenge of predicting precisely how it will change due to human activity," said Zeke Hausfather, a



climate researcher at the University of California, Berkeley, who was one of the paper's authors. "What we've done in this new study is find that rolling either a 1 or a 6 is a lot less likely than we previously thought."

The study, [published](#) in the journal *Reviews of Geophysics*, tapped three sources of climate data: temperature records since industrialization; evidence of prehistoric temperatures found in sediment samples and tree rings; and satellite observations and computer models of the climate system.

"We don't expect these three lines of evidence to agree completely," said another author, University of Edinburgh professor Gabriele Hegerl. But the findings overlapped, she said, so "our research is more robust than I initially expected."

Andrew Dessler, a climate researcher at Texas A&M University, who was one of the paper's outside reviewers, called it "probably the most important paper I've

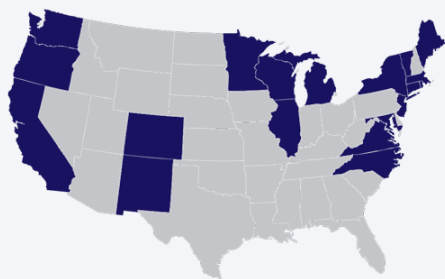
read in years."

The study said it found no evidence of factors that could counteract the warming trend significantly. Some climate change doubters have said that as the planet warms, clouds could reflect more sunlight from Earth, providing some cooling. "We find that a negative total cloud feedback is very unlikely," the study said.

"The uncertainty is really asymmetric here," co-author Kate Marvel, a physicist at NASA's Goddard Institute of Space Studies and Columbia University, told *The Washington Post*. "We can be very confident in ruling out sensitivities on the low end. So basically what we're saying here is that there is really no evidence for any sort of natural response, any sort of big, stabilizing feedback, that in the absence of human actions, is going to save us from climate change."

More: [The Washington Post](#); [The New York Times](#); [The Sydney Morning Herald](#)

21 Attorneys General Sue over New Water Rule



Attorneys general in 20 states and D.C. last week sued the Trump administration for new federal rules that they say undermine their ability to protect rivers, lakes and streams.

The lawsuit claims the regulation changes violate the Clean Water Act and decades of legal decisions and administrative precedent. The suit was filed in federal court in San Francisco and alleges EPA did not follow proper procedures in changing the regulations.

The changes reduce the amount of time states have to review natural gas and oil pipelines, hydroelectric projects, housing and commercial land development, and wastewater treatment plants. EPA said it acted because its water quality certification regulations were nearly 50 years old.

More: [The Associated Press](#)

McDonald's, Pepsi Want Renewables Added in COVID-19 Relief



More than 30 companies, including McDonald's and PepsiCo, last week called on Congress to include green energy in the next COVID-19 relief package, arguing the coronavirus recession poses long-term damage to the renewable energy industry.

The companies cited a recent BW Research Partnership analysis that found 18% of clean energy workers filed for unemployment in recent months. To help mitigate that, the companies want Congress to create a direct-pay option for the production and investment tax credits. The companies said that with a likely reduction in the supply of tax equity, direct pay would better provide immediate cash flow to developers and encourage financiers to keep spending on renewable energy projects.

The Environmental Defense Fund endorsed the letter, saying "businesses are using their voices to advocate for policies consistent

with their environmental goals. They're also setting an example for others to follow."

More: [The Hill](#)

Republicans Ask McConnell for 'Clean Energy' Help



In a letter to Senate Majority Leader **Mitch McConnell** (R-Ky.) last week, seven Republican senators said the coronavirus pandemic has decimated jobs in the clean energy sector and helping the industry would make financial sense.

"As we focus on getting the country back to work, we must include an industry that had already been putting Americans to work faster, and in more places, than the overall economy, before the COVID pandemic hit," they said.

Sens. Richard Burr (N.C.), Susan Collins (Maine), Cory Gardner (Colo.), Lindsey Graham (S.C.), Martha McSally (Ariz.) Lisa Murkowski (Alaska) and Thom Tillis (N.C.) signed the letter. All but Burr and Murkowski are defending their seats, with Collins, Gardner, McSally and Tillis in highly competitive campaigns.

More: [Roll Call](#)

States, Groups Sue to Block Coal Leasing Program



Attorneys general from California, New Mexico, New York and Washington, along with a coalition of environmental groups and the Northern Cheyenne Tribe, filed a lawsuit in federal court last week saying the Trump administration's environmental review of leasing federal lands to coal companies was "inadequate" and "overly narrow."

The plaintiffs take issue with the government reviewing four newer coal leases, saying more of the approximately 300 existing leases should have been examined. They also say the government's final environmental assessment, issued by the Bureau of Land Management, did not look at the four leases thoroughly enough.

The administration tried to end an Obama-era ban on new coal leasing on public lands in 2017, but a judge said it did not take the required steps to comply with environmental laws. However, the judge ruled in May that the government had corrected the

violation following a completed assessment by the BLM.

More: [The Hill](#)

States Sue EPA over Weakened Power Plant Regulation

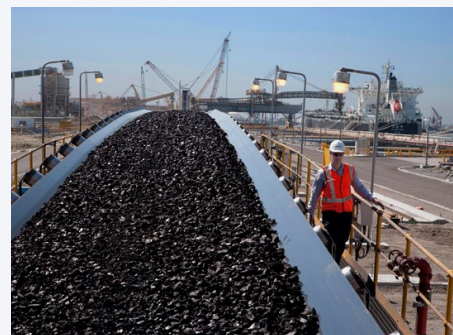


A coalition of 20 states, cities and a county are suing EPA over changes to the Mercury and Air Toxics Standards and took umbrage with the agency's determination that it is not "appropriate and necessary" to regulate the emissions of mercury and other pollutants.

EPA's conclusion does not undo the MATS rule, but it does weaken the legal justification for it. The "appropriate and necessary" determination follows changes the agency made to the rule's cost-benefit analysis that prevent it from weighing certain "co-benefits" in its justification for the standards.

More: [The Hill](#)

US Coal Exports down 29% Through May



U.S. coal exports have fallen 29% (27.6 million tons) between January and May compared to the same period last year, according to S&P Global Market Intelligence data.

Among the 20 largest destinations for coal exports year-to-date, 15 showed year-to-year declines. Shipments to India, where the U.S. shipped the most tons through May, fell by 14% from the same period a year ago. Meanwhile, other countries such as South Korea, China, Turkey, Singapore and the Dominican Republic saw year-to-year increases.

U.S. metallurgical coal exports for 2020 are expected to drop by about 10 million tons from 2019 levels, according to Jim Truman, Wood Mackenzie's director for global metallurgical coal markets.

More: [S&P Global Market Intelligence](#)

State Briefs

ARKANSAS

Entergy Refunds Set for August



Entergy Arkansas customers will receive a billing credit next month after the company said it will comply with the Public Service Commission's latest ruling to issue refunds during the August billing cycle. The average residential customer will receive about \$8 as a credit.

The ruling was a double blow for Entergy, which initially approached the PSC about a \$135 million rate increase in May. Earlier this month, the PSC found that accounting errors resulted in Entergy overcharging its customers \$13.7 million. The commission ordered the company to refund the amount with interest, which brought the total to about \$15 million. Entergy asked for a rehearing of the case and more time to issue the refund, but the commission rejected the request.

More: [Northwest Arkansas Democrat-Gazette](#)

CALIFORNIA

Watchdog Asks PUC to Fine SoCalGas over Subpoena

The Public Advocates Office (PAO) is asking that Southern California Gas be fined \$100,000/day for failing to comply with a subpoena to give regulators full access to its financial records. The watchdog is also investigating the company for allegedly inappropriately using customer money to fight climate change policies.

SoCalGas can spend shareholder money however it wants, but as a state-sanctioned monopoly, it is required to spend ratepayer money strictly on programs that benefit ratepayers. The PAO, the consumer watchdog branch of the Public Utilities Commission, first grew suspicious when it discovered SoCalGas had used customer funds to try to block a federal efficiency standard for gas furnaces years ago. The watchdog also found evidence the utility used ratepayer funds to help create the pro-gas advocacy group, although the company later agreed to bill the work to shareholders instead.

PUC spokeswoman Terrie Prosper said the agency "will hold SoCalGas accountable if wrongdoing is found."

More: [Los Angeles Times](#)

CONNECTICUT

Torrington Council Approves Landfill Lease to US Solar

The Torrington City Council last week agreed to lease its 15-acre municipal landfill to US Solar for about \$30,000, plus about \$8,000 in property taxes, each year.

Once US Solar is finished with the leased property, it is obligated to restore the site. The company will also offer a shared clean energy program, which allows anyone living in the area to benefit with reduced energy bills.

The agreement must be approved by the state Siting Council.

More: [The Register Citizen](#)

MASSACHUSETTS

AG Rejects Brookline's Oil, Gas Pipe Ban in New Buildings



Attorney General **Maura Healey** last week rejected a bylaw passed last year by Brookline residents that banned the installation of oil and gas pipes in new and renovated buildings. The nearly unanimous town vote would have

required homeowners and developers to install electric heat, hot water and appliances.

Healey said that while she supports efforts to reduce greenhouse gases, she had no choice but to reject the bylaw because it conflicted with state statutes that pre-empt local regulations, such as state building and gas codes. It also violated a section of law that requires uniform utility services to the public.

Brookline's town attorneys said they would review the decision "for purposes of determining next steps when the opportunity arises."

More: [The Boston Globe](#)

NEBRASKA

Monolith Reverses Course on Hydrogen Plant Conversion

The Nebraska Public Power District and private customer Monolith Materials last week agreed to abandon plans to partially

convert an aging 120-MW boiler to run on hydrogen. The two said a better suitor had been found to purchase the hydrogen, which will result from manufacturing carbon black from natural gas.

Monolith, which did not identify the other buyer, said it determined there were alternative uses for the hydrogen that will yield greater economic benefit for the state and the company. NPPD spokesperson Mark Becker said clean energy resources to power the Monolith plant "have not been determined at this time."

More: [Energy News Network](#)

NEW HAMPSHIRE

Sununu Blocks Bill to Expand Required Renewable Energy Use



Gov. **Chris Sununu** last week rejected a bill that would have expanded the state's renewable portfolio standard and increase how much solar power utilities must use.

Currently, the state caps utility solar requirement at 0.7% from this year on. The vetoed bill would have increased that to nearly 19% by 2040. The bill also would have increased the RPS to make clean energy cover nearly 57% of the state's fuel mix by the same time. The current standard levels top out at about 25% in 2025.

Sununu said the bill represented a handout to the state's fledgling solar industry.

More: [New Hampshire Public Radio](#)

NEW MEXICO

Draft Rules Would Cut Methane Venting, Flaring

Under draft rules released last week by environmental regulators, the oil and gas industry would have to slash methane venting and flaring by a total of 98% by the end of 2026.

Gov. Michelle Lujan Grisham signed an executive order last year compelling regulators to craft a rule that would rein in methane emissions with the goal of reducing the amount of ozone ejected into the atmosphere. If enacted as written, the regulations would incorporate ideas from other oil and gas states while adding new requirements.

Tom Singer, an attorney with the Western Environmental Law Center who was part of the state's Methane Advisory Panel, is still reviewing the regulations but has found them "much stronger than any other state." Environment Secretary James Kenney said analysts estimate the rules would reduce volatile organic compounds by 77,000 tons and nitrous oxides by 21,000 tons.

More: [Santa Fe New Mexican](#)

Supreme Court Says Regulators Can't Compel Coal Closures

The Supreme Court last week opined that the Public Regulation Commission does not have the authority to compel a company to begin the legal process of shutting down a coal-powered plant. While the ruling does not affect the Public Service Company of New Mexico's pending abandonment of the San Juan Generating Station, it sets a precedent that the commission cannot require a utility to apply for approval to abandon a coal plant.

Companies may do it voluntarily, or the PRC may ask the Attorney General's Office to compel such an application, according to the opinion. The commission also does not have the authority to decide whether a law applies to a plant closure.

That issue was central in politics when PRC hearing examiners had proceedings weighing whether the Energy Transition Act applied to the San Juan case.

More: [Santa Fe New Mexican](#)

SOUTH CAROLINA

Former SCANA Exec. Pleads Guilty to Fraud Charges

Steve Byrne, the former vice president of SCANA, pleaded guilty last week in federal court to defrauding customers and lying about construction progress as the com-

pany tried to build two nuclear reactors at the V.C. Summer Nuclear Station. The guilty plea requires Byrne to cooperate with federal prosecutors, who have spent three years investigating the project's sudden abandonment.

Byrne admitted to falsely telling regulators, investors and the public the project was on track in order to win rate hikes on customers and keep the venture going while failing to raise alarms about critical flaws that were dooming the expansion.

The charges he pleaded guilty to can carry up to five years in prison, a \$250,000 fine and three years of supervised release. He could also be required to forfeit up to \$1 million in pay and bonuses tied to his performance when he oversaw the venture.

More: [The Post and Courier](#)

Judge Approves Santee Cooper Ratepayer Settlement

Former Supreme Court Chief Justice Jean Toal last week approved Santee Cooper's \$520 million legal settlement with customers over its failure to complete an expansion of the V.C. Summer nuclear plant. The deal is said to diminish the chance the company could be sold by lawmakers after the \$9 billion nuclear debacle.

The deal requires Santee Cooper to freeze its rates for four years and pay \$200 million to its ratepayers, including members of the state's 20 electric cooperatives who purchase the utility's power indirectly. The freeze could be worth up to \$510 million to customers on its own. Another \$320 million would be supplied by Dominion Energy, which last year purchased SCE&G, Santee Cooper's partner on the project.

Attorneys are set to earn about \$78 million in fees from the case, which will be taken out of the \$520 million settlement, leaving about \$442 million for customers.

More: [The Post and Courier](#)

WASHINGTON

PacifiCorp to Remove Colstrip from Bills by 2023



PacifiCorp last week agreed to remove the

costs of the Colstrip coal-fired plant from customer bills in the state by 2023, two years ahead of the state's 2025 coal power ban.

The company reached a settlement agreement in which it would finish up its investment in Colstrip Unit 4 by the end of 2023, after which its state customers wouldn't be billed for costs. Additionally, it will stop billing customers for the Jim Bridger Power Plant by the end of 2023.

More: [Billings Gazette](#)

WISCONSIN

PSC Extends Utility Shutoff Moratorium

The Public Service Commission last week voted 2-1 to extend the suspension of service disconnection for residential customers until Sept. 1. The previous shutoff moratorium had been scheduled to expire July 24.

Chairwoman Rebecca Valcq cited the 44,847 confirmed cases of COVID-19 reported by the Department of Health Services, which is more than double the number on June 11 when the PSC voted to lift a moratorium put in place at the outset of the pandemic. According to data compiled by the commission, more than 71,000 households were at risk of losing electricity, gas or water service beginning July 25.

The commissioners agreed to take up the matter again on Aug. 20.

More: [Wisconsin State Journal](#)

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