

## Biden Infrastructure Plan Would Boost Clean Energy

*Seeks High-voltage Grid Deployment Authority, 24/7 Clean Power for Federal Buildings*

By K Kaufmann

President Biden's \$2 trillion infrastructure plan has plenty for clean energy advocates of all stripes to like. For transmission advocates, the plan includes an investment tax credit aimed at building 20 GW of high voltage lines; for the solar industry, a 10-year extension of a direct-pay ITC for solar and storage; and for the carbon-capture contingent, "pioneer facilities" to demonstrate large-scale carbon capture for steel, cement and chemical production.

Biden's framing of the infrastructure package as the American Jobs Plan — and its repeated references to good-paying, union jobs — reflect the White House strategy to build support for the plan across a broad spectrum of voters.

"My American jobs plan would put hundreds of thousands of people to work," Biden said on



President Joe Biden | The White House

Wednesday, speaking about the plan in Pittsburgh. "Line workers, electricians, laborers, laying thousands of miles of transmission lines, building a modern, resilient, fully clean grid and capping hundreds of thousands of orphaned oil and gas wells that need to be cleaned up

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## Expansion Takes EIM into LA, New Mexico

By Robert Mullin

CAISO's Western Energy Imbalance Market notched another milestone last week as it welcomed the country's largest municipal utility and extended its eastern border to include much of New Mexico.

The Los Angeles Department of Water and Power (LADWP) and Public Service Company of New Mexico (PNM) both commenced trading in the EIM on April 1, coming a week after four publicly owned utilities became participants, including Turlock Irrigation District (TID) and Balancing Area of Northern California members Modesto Irrigation District (MID), City of Redding and Western

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## Southeast Utilities Defend SEEM Proposal

*Members Say Opponents' Complaints Inaccurate, Out of Scope*

By Rich Heidom Jr.

Sponsors of the Southeast Energy Exchange Market (SEEM) told FERC last week that the commission should approve the proposal as is, saying critics' objections are flawed or irrelevant.

More than a dozen utilities and cooperatives, including the Tennessee Valley Authority, Southern Co. and Duke Energy, proposed SEEM to reduce the "friction" in bilateral trading by introducing automation, eliminating transmission rate pancaking and allowing 15-minute energy transactions.

In filings earlier in March, numerous intervenors told FERC the proposal doesn't go far enough to increase competition and asked the commission to require more transparency, broader governance and increased consumer protections. Several also requested a technical conference to consider more ambitious market development. (See *Opposition Emerges to Southeast Energy Exchange Market*.)

In a joint *filing* March 30, SEEM's sponsors

reiterated their position that FERC could only determine whether their Federal Power Act Section 205 filings were just and reasonable, insisting the commission lacks authority to require substantive changes (ER21-1111, *et al.*). They have asked FERC to approve the proposal effective May 13.

They said the intervenors had not identified any flaws in the proposal and that 80% of the 67 pleadings submitted supported the proposal in whole or part. None of the six state regulatory commissions that intervened registered opposition, they said.

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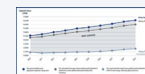
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**FERC Approves Eliminating ISO-NE Capacity Performance Payments for EE**  
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**Blowin' in the Wind: SPP Sets New Renewable Marks**  
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# RTO Insider

Your Eyes and Ears on the Organized Electric Markets  
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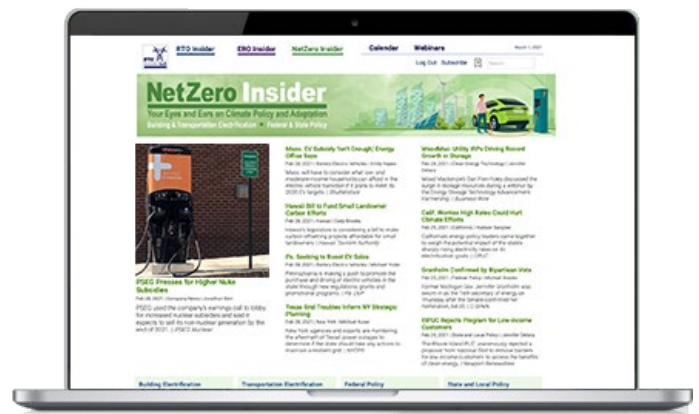
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# Counterflow

By Steve Huntoon

## Beware Those Bearing Gifts

By Steve Huntoon

In case you missed the headlines, Berkshire Hathaway Energy wants to give Texas 10 GW of new emergency generation to be fueled by liquefied natural gas, at a cost of \$8.3 billion, in exchange for a guaranteed return on that \$8.3 billion. Got it?

BH bills this as a "TOTAL SOLUTION" to the tragedy this winter in Texas.

### Spearing Fish in the Barrel

Let's look at this tragedy with the ERCOT data in this graphic.<sup>1</sup> Looking at the load shed line you can see that from about 5 a.m. on Feb. 15 to about 8 p.m. on Feb. 17, BH's 10 GW would not have alleviated load shed. So the energy price in ERCOT would have been \$9,000/MWh for those 63 hours at a cost of \$28.35 billion.<sup>2</sup> How is that a "TOTAL SOLUTION?" Or any solution?

Wait, there's more. BH's *slide deck* claims that its \$8.3 billion proposal has a "Lifetime Cost of Solution" of \$3.55 billion. How can a project costing \$8.3 billion have a lifetime cost of \$3.55 billion?

Another of my favorites: BH says it will provide "a \$4 billion performance guarantee." Hmm. Let's say I give you \$8.3 billion for an insurance package and if you fail to meet your obligation you give me \$4 billion. Such a deal.



The South Texas nuclear plant suffered an outage from Feb. 15 to 17 because of a frozen pressure sensor line, which caused water pumps to trip. | NRG

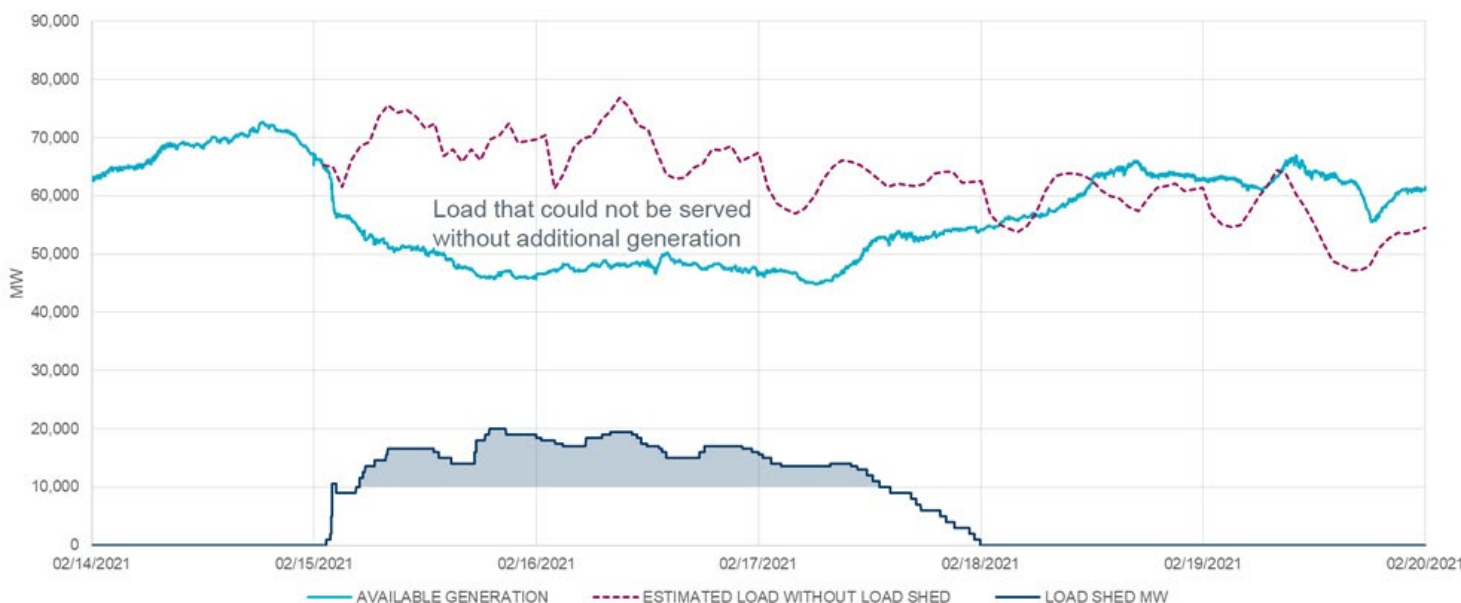
BH claims that its proposal costs less than winterizing existing assets. But think about that. The BH assets presumably would need to be winterized — otherwise what are we doing here? Would the incremental winterizing cost for 10 GW of existing facilities cost many billions more than the incremental winterizing cost for 10 GW of new facilities? If not, why spend \$8.3 billion on new facilities?

Let's take an example of South Texas Nuclear Unit 1, which tripped off the early morning of Feb. 15 and didn't start to return to service

until late Feb. 17. The cause of the outage was reported to be freezing of a pressure sensor line that caused water pumps to trip.<sup>3</sup> Winterizing such equipment, as is done elsewhere, would have cost a pittance and would have provided equivalent capacity value to 1.3 GW of BH's proposal — for which BH proposes to charge \$1.1 billion.<sup>4</sup>

### Low-hanging Fruit

Texas should pick some low-hanging fruit before ever throwing \$8.3 billion at BH. Some



Berkshire Hathaway Energy's proposal to supply 10 GW of emergency generation to ERCOT would not have been enough to prevent load shedding on Feb. 15-18, when unserved load approached 20 GW. (See area shaded gray.) | ERCOT

# Counterflow

By Steve Huntoon

modest proposals:

1. Make sure electric utilities don't curtail critical gas infrastructure.<sup>5</sup>
2. Don't allow maintenance outages during the peak winter season.
3. Make utility curtailment more granular so that empty office buildings aren't blazing because there's a fire station on the same distribution circuit.
4. Use effective, broad communication to

customers, like the Emergency Broadcast System, to request voluntary conservation and to let customers know what to expect.<sup>6</sup>

5. Require appropriate winterization of gas and electric facilities. I gave above the example of South Texas Nuclear Unit 1 tripping, which cost NRG, operator and 44% owner of the plant, about \$374 million of foregone revenue.<sup>7</sup> But somehow that kind of money wasn't sufficient incentive for NRG to winterize such equipment. Perhaps that's because foregone revenue doesn't appear in

financial reporting.<sup>8</sup> But whatever the explanation, this can't be allowed to happen again.

Where dual-fuel capability (like diesel or LNG) makes sense, add it to *existing* generation. That saves the entire cost of new generation. If Texas decides it wants to fund, say, 10 GW of that, it could have generators bid in a descending clock auction to add it. Not rocket science.<sup>9</sup>

Again, I wish the best to Texas in recovering from this tragedy and in avoiding another one. ■

<sup>1</sup> [http://www.ercot.com/content/wcm/key\\_documents\\_lists/225373/2.2\\_REVISIED\\_ERCOT\\_Presentation.pdf](http://www.ercot.com/content/wcm/key_documents_lists/225373/2.2_REVISIED_ERCOT_Presentation.pdf) (slide 15).

<sup>2</sup> The math is \$9,000/MWh paid to about 50,000 MW for 63 hours.

<sup>3</sup> <https://atomicinsights.com/south-texas-project-unit-1-tripped-at-0537-on-feb-15-2021/>

<sup>4</sup> The math is \$8.3 billion divided by 10 GW times the 1.312 GW of South Texas Nuclear Unit 1.

<sup>5</sup> Since I first wrote about this, an excellent story on the subject has appeared in the Texas Tribune. <https://www.texastribune.org/2021/03/18/texas-winter-storm-blackouts-paperwork/>.

<sup>6</sup> This system is reported to be able to reach 225 million Americans. <https://www.washingtonpost.com/technology/2018/10/03/millions-cellphone-users-are-about-get-presidential-alert-heres-what-know/>. BTW, don't use Twitter — less than 1% of Texas consumers follow ERCOT or their electric utility on Twitter.

<sup>7</sup> NRG owns 44% of Unit 1, so the math on foregone revenue is the unit's 1,312 MW times 44% times \$9,000/MWh times the 72 hours the unit was out.

<sup>8</sup> Interestingly, NRG has had two Wall Street conference calls since the tragedy and got exactly zero questions about the nuclear plant outage and the foregone revenue involved.

<sup>9</sup> <https://optimalauctions.com/power-auctions.jsp>.



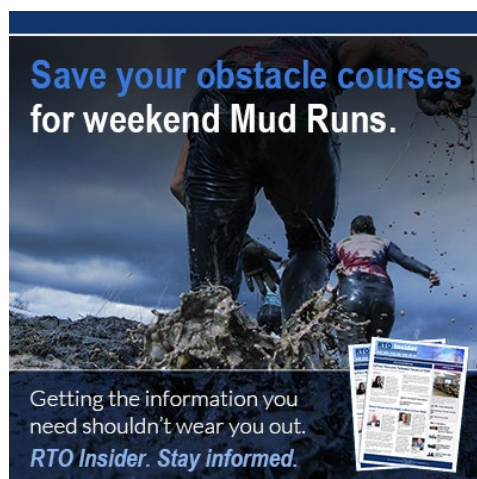
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## FERC/Federal News



# Biden Infrastructure Plan Would Boost Clean Energy

## Seeks High-voltage Grid Deployment Authority, 24/7 Clean Power for Federal Buildings

*Continued from page 1*

because they're abandoned, paying the same exact rate that a union man or woman would get having dug that well in the first place."

At the same time, the plan's energy provisions bear the stamp of policy recommendations clean energy groups have been advancing in reports and webinars since the election.

As outlined in a White House *fact sheet*, key energy provisions in the American Jobs Plan include:

- a federal Clean Energy Standard. The plan envisions an expanded energy efficiency and CES to help move the U.S. to carbon-free power by 2035, with an ongoing role for both hydropower and nuclear.
- streamlined permitting. The White House said it "will use smart, coordinated infrastructure permitting to expedite federal decisions, while prioritizing community consultation, and maximizing equity, health and environmental benefits."
- transportation electrification. The plan includes \$174 billion for point-of-sale rebates and tax incentives for consumers buying American-made EVs, as well as money to replace 50,000 diesel transit vehicles and electrify 20% of school buses.
- federal procurement. The plan would make the federal government a major clean energy offtaker by purchasing "24/7 clean power for federal buildings."
- grid siting and finance. A new Grid Deployment Authority at the Department of Energy would "leverage existing rights of way — along roads and railways — and [support] creative financing tools to spur additional high-priority, high-voltage transmission lines."
- direct-pay 45Q. The plan would modify and expand the bipartisan Section 45Q tax credit "to accelerate responsible carbon capture deployment and ensure permanent storage." The program would be direct pay, making it easier to use for hard-to-decarbonize industrial applications, direct air capture and retrofits of existing power plants.
- equity. The plan reiterates Biden's pledge to ensure 40% of the benefits of federal

investments will target low-income and disadvantaged communities. "By pairing an investment in 15 decarbonized hydrogen demonstration projects in distressed communities with a new production tax credit, we can spur capital-project retrofits and installations that bolster and decarbonize our industry," the White House said.

"Too often economic growth and recovery is concentrated on the coasts," Biden said in Pittsburgh. "Too often investments have failed to meet the needs of marginalized communities left behind. There's talent, innovation, everywhere."

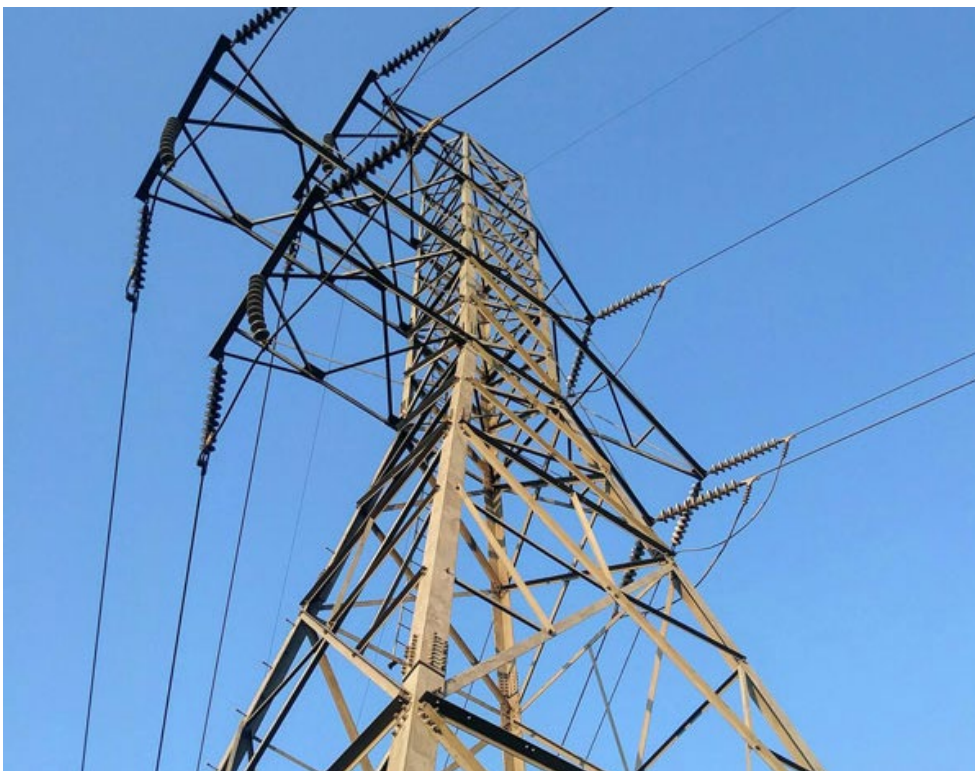
### An End to Stopgap Incentives

While Biden's plan makes repeated references to its bipartisan components, like 45Q, initial reactions from Republicans have been negative. Speaking on Fox News on March 30, Sen. John Barrasso (R-Wyo.), ranking member on the Senate Energy and Natural Resources Committee, called the plan's funding source — increasing the corporate income tax from 21% to 28% — a "Trojan horse" aimed at "wealth redistribution."

Any infrastructure package should be more narrowly focused on "things that people really need in terms of the infrastructure of the nation — the roads, the bridges, the highways, the ports, the dams," he said.

But clean energy advocates were quick to support the plan. In an emailed statement, American Council on Renewable Energy CEO Gregory Wetstone said Biden's plan "will move the clean energy sector beyond the endless cycles of temporary stopgap incentives toward a stable, long-term tax platform that will put millions of Americans back to work, upgrading our outdated grid and building a 21st century renewable energy economy. The direct pay option for renewable generation credits will go a long way toward accelerating the deployment needed to decarbonize the power sector by 2035, and new incentives for transmission and energy storage will be key to securing a more reliable, efficient and cleaner electric power grid."

Abigail Ross Hopper, CEO of the Solar Energy Industries Association, applauded the plan while focusing her comments on job creation and equity. "An upcoming jobs study will show





# FERC/Federal News



## Southeast Utilities Defend SEEM Proposal

*Members Say Opponents' Complaints Inaccurate, Out of Scope*

*Continued from page 1*

They said the opponents are improperly trying to broaden the scope of the proceeding to consider alternatives such as an RTO or energy imbalance market.

"The Southeast EEM proposal offers two small but significant enhancements to the existing bilateral market in the Southeast, without changing the fundamental nature of the existing market," they said, referring to the addition of an algorithm for matching buyers and sellers and use of excess zero-cost transmission.

"Most regional transactions will still be conducted through existing bilateral market mechanisms that will not be impacted by the Southeast EEM proposal," they wrote.

### 'Fully Realized Proposal'

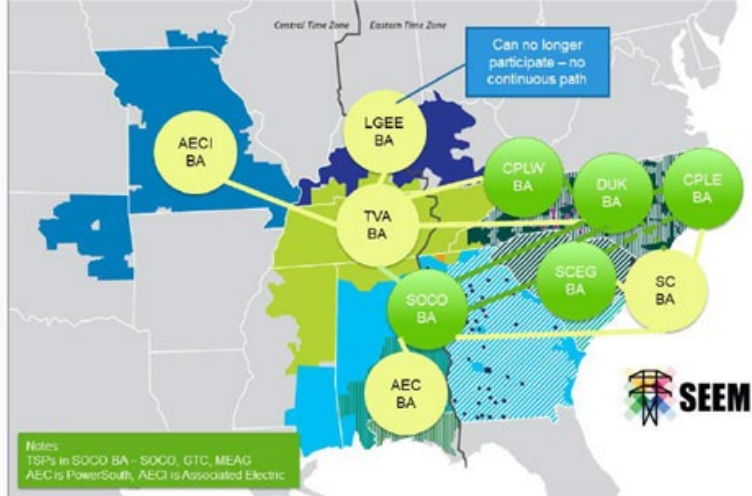
SEEM members said they were taking no position on a technical conference to consider a broad restructuring of the Southeast but said it should not occur in the dockets opened by the sponsors.

"It is worth reiterating here the delicate balance represented by the proposal before the commission, and that previous attempts to develop an RTO in the Southeast have not been successful," they said. "The benefits of the fully realized proposal actually before the commission in this proceeding should not be delayed to pursue other aspirations."

They also rejected arguments that approval of SEEM would prevent the eventual development of an RTO.

"Should lawmakers and stakeholders in the Southeast determine that some other structure or market design is appropriate, nothing about the Southeast EEM prevents such changes," they said. "Indeed, should the commission approve the Southeast EEM and allow it to operate for some time, data from its operations may better inform discussion about future market evolution. However, the Southeast EEM must be allowed to move forward to enable such an evaluation."

They rejected a call by public interest organizations (PIOs) to impose RTO-like requirements on SEEM members. "The Southeast EEM members have not voluntarily elected to join an RTO, nor have they sought the incentive [return on equity] reward for doing so. So, they have not opted in to RTO rules, and the PIOs



Member/Prospective Member	NEL	Percentage of Total
AECI	23,474,005	4%
Dalton Utilities	2,067,319	0%
Dominion Energy SC	23,120,146	4%
Duke Energy Carolinas	86,663,827	14%
Duke Energy Progress	46,402,556	8%
GSOC, GTC, OPC	41,261,927	7%
LG&E & KU	33,165,655	5%
MEAG	11,326,212	2%
NC Municipal Power Agency 1 (Electricities)	4,921,479	1%
NCEMC	13,323,038	2%
PowerSouth	9,228,988	1%
Santee Cooper	8,728,235	1%
Southern Companies	153,910,118	25%
TVA	159,328,344	26%
<b>Total</b>	<b>616,921,849</b>	<b>100%</b>
<b>Southeast EEM if Non-jurisdictional Members &amp; utilities that connect through non-jurisdictional Members are removed</b>	<b>310,096,647</b>	<b>50%</b>

SEEM members said it would be impractical for FERC to mandate an RTO in the Southeast because much of the transmission grid needed for regional integration is controlled by non-jurisdictional entities like TVA. | Southeast Energy Exchange Market

have no basis for forcing them to do so." Mandating an RTO in the region would be

impractical because much of the transmission grid needed for regional integration is controlled by non-jurisdictional entities like

## FERC/Federal News



TVA, they said. “Half the expected net energy for load in the footprint is either non-jurisdictional, or not able to connect to the rest of the region without using non-jurisdictional transmission,” they said.

SEEM also dismissed market power concerns and disputed the PIOs’ contention that limited competition in the region had saddled consumers with high rates. They said the monthly bill data the groups cited were misleading because of the Southeast’s heavy air conditioning demand.

“When examined instead using the metric of average price in cents per kilowatt-hour — a metric that is not dependent on usage and instead is isolated to cost — the Southeast fares better than the national average, including most states with RTOs.”

### One Concession

SEEM members offered one concession to intervenors who requested that meetings of the Membership Board be open to the public.

State	Average Monthly Bill (Dollar and cents)	National Ranking for Monthly Bill [1 Being Most Expensive]	Average Price (cents/kWh)	National Ranking for Average Price [1 Being Most Expensive]
Alabama	150.45	3	12.53	23
South Carolina	144.73	4	12.99	18
Mississippi	135.87	5	11.27	36
Virginia	135.46	6	12.07	29
Tennessee	132.33	8	10.87	42
Georgia	131.84	9	11.76	31
North Carolina	123.25	15	11.42	35
Missouri	117.82	24	11.14	39
All Southeast EEM*	133.97	9.2	11.75	31.75
Nationwide	115.49	-	13.01	-

Based on average price in cents per kilowatt-hour, the Southeast is lower than the national average, including most states with RTOs, SEEM members say. | *Energy Information Administration*

“The Southeast EEM members do not believe these measures to be necessary for the commission to find the Southeast EEM proposal just and reasonable but are amenable to those specific requests and commit to allow for

public observation of board meetings, sometimes limited in attendance for confidentiality purposes, and to make meeting minutes public.” ■

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that solar has a unionization rate of 10.3%, which is substantially more than previously estimated and higher than the economy-wide average. These union jobs, along with numerous other career-sustaining jobs in solar, offer another moment to prioritize equity and create opportunities in every community, regardless of zip code, including for fossil fuel workers who are looking to continue their careers in the energy sector.”

### Congressional Prospects

Hopper also acknowledged that getting any clean energy legislation through Congress will be a challenge. “The release of these critical infrastructure priorities is just the beginning of a long policymaking process over the coming weeks and months that will require continued focus and determination on the part of elected officials,” she said.

There is considerable overlap between the Biden plan and energy and infrastructure bills House Democrats have rolled out in recent weeks, albeit with less ambitious spending.

The Climate Leadership and Environmental Action for our Nation’s (CLEAN) Future Act, introduced March 2, would authorize \$565 billion over 10 years to get the nation to net zero by 2050. The bill would provide \$500 million to boost the deployment of electric vehicle chargers versus Biden’s goal of building out a national network of 500,000 chargers by 2030, exact price tag unspecified.

The Leading Infrastructure For Tomorrow’s (LIFT) America Act, introduced March 11, calls for a \$312 billion investment in energy, water, broadband and health care infrastructure — the same sectors targeted for upgrades and modernization in the Biden plan. LIFT proposes \$500 million for energy-efficient retrofits at public schools, while Biden is asking for \$100 billion for retrofits and for new schools that are “cutting-edge, energy-efficient and electrified.” (See *LIFT Act Could Pour \$312B into Infrastructure.*)

Recent hearings on both bills underlined the considerable divide between Democrats and Republicans. While House Democrats have championed the CLEAN Future Act as an innovation and job generator, Republicans have

countered that it is a roadmap for implementing the Green New Deal.

The bill and its goal of decarbonizing the U.S. energy system would “destroy our livelihoods, disrupt families, decimate communities, increase utility bills [and] threaten the stability our grid,” said Rep. David McKinley (R-W.Va.) at a March 18 hearing before the House Energy and Commerce Subcommittee on the Environment and Climate Change. (See *Battle Lines Drawn over CLEAN Future Act.*)

A few hours before Biden’s speech, Jeffrey Sachs, president of the *Sustainable Development Solutions Network*, predicted that, like the president’s COVID-19 package, the American Jobs Plan would have to be passed via a reconciliation process. Speaking at a webinar on the SDSN’s *Zero Carbon Action Plan*, Sachs said, “There will be 10 Republican senators that say, ‘Look, we want the country to move forward; we’ll work with the administration.’ Otherwise, they’re going to pass this on a reconciliation, or the filibuster is going to be ended because we’re really coming to a showdown on this issue.” ■



## FERC/Federal News



# Clean Energy Groups Press for Carbon-free TVA by 2030

By Amanda Durish Cook

A leading advocate for green power in the Southeast is calling on the Tennessee Valley Authority to operate a carbon-free grid by the end of this decade.

Evoking TVA's roots as part of the 1930s New Deal effort to lift the mid-South out of poverty, Southern Alliance for Clean Energy (SACE) Executive Director Stephen Smith said Wednesday that TVA could become a "leader in the national effort to reduce carbon."

Speaking at a press conference, Smith said while TVA has yielded "a lot a positive change" over nearly 90 years, the agency is now "without a clear mission."

He said TVA's federal corporation status could make it integral to President Biden's plans to slash carbon emissions and shore up the country's infrastructure.

In addition to its existing hydroelectric assets and pumped storage facility, TVA is "blessed" with solar potential and positioned near transmission networks, Smith said.

"We think that all of these together make TVA uniquely poised to be a utility leader," he said. "We believe TVA has enormous untapped potential in energy efficiency and demand-side management."

The 2030 plan "is broad and ambitious, but also achievable," SACE Director of Utility Reform Maggie Shober said.

Smith said TVA could become a key player in delivering wind energy from the Great Plains to load centers in the East. He said that while TVA has been retiring its aging coal *fleet*, it is largely replacing it with natural gas generation.

"They still have one of the oldest operating coal fleets in the country," Shober said. "Several of these [coal] plants are 1950s vintage."

Shober said the transition to zero-carbon sources could bring sorely needed jobs to the mid-South.

"It could make the region that much more attractive to businesses and workforces," she said.

### 'These Jobs Versus Those Jobs'

Smith said the perception that the region is losing coal industry jobs to the clean energy transition is largely an illusion.

"There is not a robust coal industry in this re-



TVA's Cumberland coal plant | TVA

gion. ... And the coal industry is largely dead in Tennessee," he said, noting that much of TVA's coal supply comes from the Powder River Basin in the West.

Shober said that much of TVA's natural gas supply is delivered from Texas.

"We've got through energy transitions in the past, and there are displacements," Smith said. "You know, there were people who used to make buggy whips. ...

"I think there are things we need to do generationally, so we don't leave generational environmental debt," he said. "Change can be difficult, but it's necessary, especially when we have the technology."

Coal workers can be retrained in some instances, he said. "I'm not saying be insensitive to folks, but the benefits will far outweigh the costs.

"You do have to look at it from a broader view and just not 'these jobs' versus 'those jobs,'" Shober said.

Shober said that while SACE was not prescribing a pathway to zero-carbon energy, any such effort would not involve building "new fossil generation in the 2020s."

Gas-fired generation is not a guaranteed low-cost option, Smith said. The Biden administration could enact carbon pricing that would increase the cost of TVA's power supply, forcing the agency to see "the writing on the wall."

"It's our thought that innovation and incentives will do the majority of this. But I do believe that for those who resist innovation, there will be penalties involved," Smith said. "We're hoping that as an extension of the administration, the TVA is tasked with a mission to move forward."

# FERC/Federal News



Shober said potential federal tax benefits could help reduce TVA's costs for going zero-carbon.

Smith said a federal clean energy standard would correct the "market failure" of not recognizing the societal benefits of clean energy.

"It's absolutely critical that we get on with the task of decarbonizing the grid," Smith said.

## Opposition to TVA's Proposed Gas Plants

Meanwhile, TVA has proposed more gas-fired plants to replace its shuttered coal units. The agency in February released an environmental assessment outlining plans for 1.5 GW of new gas generation. That includes the addition of three new combustion turbines totaling 750 MW apiece at the Paradise combined cycle plant in Kentucky and the Colbert combustion turbine plant in Alabama.

Clean energy groups are uniting in opposition to the moves.

In public comments issued last month, SACE, Sierra Club, Energy Alabama and others called TVA's plant proposals incompatible with Biden's goal for net-zero emissions in the

power sector by 2035.

The groups *said* TVA failed to analyze alternatives, including energy efficiency, demand response programs or renewable energy, at a time when it should be winding down use of fossil fuels. They said that by proposing more thermal generation and exacerbating the climate crisis, TVA "shirks its obligation to rapidly decarbonize and achieve environmental justice, flouting a presidential mandate."

"The decision by TVA to replace one fossil fuel with another locks the utility into gas for decades," the Southern Environmental Law Center's Keith Johnston said in a release. "TVA did not properly consider other energy resources, such as energy efficiency, renewables and demand response programs, that could alleviate this need for more fossil fuels."

Energy Alabama COO Daniel Tait said TVA is "home to some of the highest energy burdens — measured by the proportion of income spent on energy — in the country."

"TVA's failure to even consider energy efficiency, renewable resources or demand response will exacerbate the problem rather than solve it," he said.

Shober said TVA "must get serious about modernizing its infrastructure rather than doubling down on the infrastructure of the last century."

TVA spokesperson Malinda Hunter countered that TVA is already an "industry leader in carbon reduction" and said the agency has so far reduced its emissions 60% from 2005 levels.

She said that while TVA aspires to reach net-zero emissions, it's focused on a 70% reduction by 2030 and "and a path to [an] 80% reduction or more" on an indeterminate timeline.

"As we make progress towards achieving these goals, it's important that we continue to balance high reliability and low energy costs. ... Continued progress towards net-zero emissions will require continued investment in technologies in addition to nuclear, solar, wind and hydro," Hunter said in an email to *NetZero Insider*. "We see gas as a bridging strategy — a way to continue to add renewables and support the needs of the system while new technologies are developed. As one of the nation's largest electricity providers, we are committed to being part of the solution and to working with others to solve this important challenge." ■

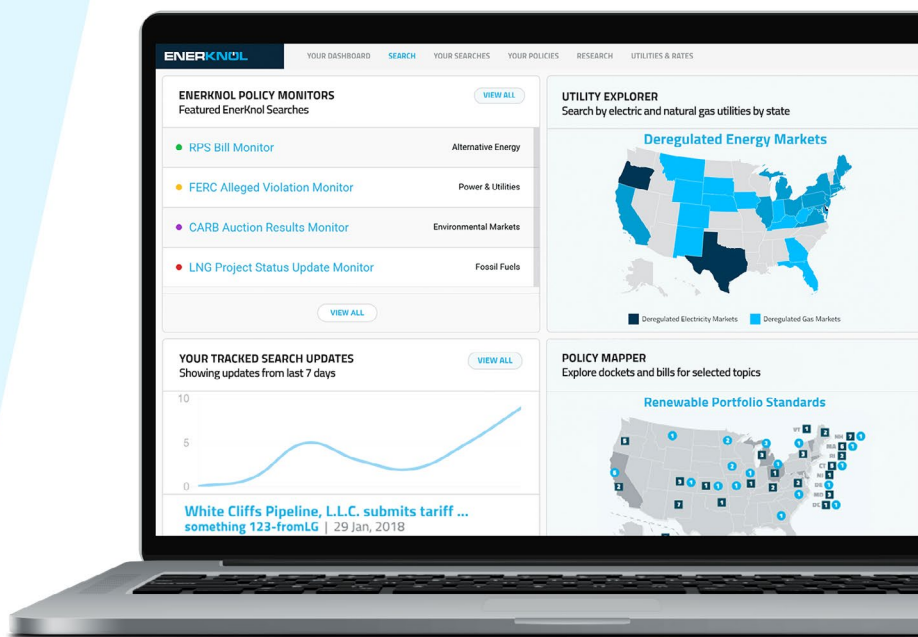
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## FERC/Federal News



# How Geothermal Can Support 24/7 Carbon-free Targets

By Jennifer Delony

The U.S. Department of Energy last week advanced a group of technologies in a manufacturing competition that could help geothermal grow quickly as a ubiquitous, baseload power.

“If we crack the nut on being able to drill for geothermal anywhere, we’ll have a global clean energy source that can be located near population centers, is baseload and has a small footprint,” said Jamie Beard, executive director of the Geothermal Entrepreneurship Organization (GEO).

Three teams with a focus on drilling technologies were named semifinalists in DOE’s geothermal manufacturing competition during the *NextGen Geo* event Thursday. The Morgantown, W.Va.-based team behind project “Hot Hammer” designed an air hammer bit that could stay intact up to 600 degrees Celsius, which the team said in its submission would “drastically” speed up the drilling process. In addition, Ozark Integrated Circuits from Fayetteville,

Ark., and Team AC from Cambridge, Mass., addressed vibration issues that affect sensors and generators during drilling.

GEO is also looking to the oil and gas industry to support rapid expansion of the geothermal industry.

Doing so, Beard said during the event, will allow geothermal to help the clean energy sector fulfill an interest from corporations to truly decarbonize their energy purchases.

More than 100 private corporations have set 100% renewable energy targets over the last decade, but those targets are most often fulfilled through a balance of renewable purchases and fossil fuel energy use. A growing number of private industry climate goals are making 24/7, carbon-free energy the gold standard for power purchases, according to Tim Latimer, CEO of Fervo Energy.

“For the first time, organizations like Google and Los Angeles [Department of Water and Power] are contemplating having clean energy

that matches their load profiles 24 hours a day, seven days a week, 365 days a year, which is an entirely different problem than the accounting exercise that’s done for 100% renewable energy,” Latimer said during the event.

Those 24/7, carbon-free energy targets are doable, according to Latimer.

“Study after study ... have shown that wind and solar along with batteries are very important parts of this puzzle, and they’re going carry us a long way, but we need a resource to complement them that works 24/7,” he said.

Geothermal energy could be that resource if it can make a giant leap forward to being affordable and available where needed. Beard believes that bringing oil and gas together with geothermal can put the deep history of oil and gas drilling to work for clean power.

“The geothermal industry and the oil and gas industry are essentially the same business,” she said. “They both characterize and explore for an energy asset that’s in the subsurface, and they drill for an energy asset that’s in the subsurface.”

The two sectors have overlapping workforces and methodologies, and oil and gas has existing equipment that could be deployed immediately to start producing clean energy projects, she said. And the oil and gas industry has shown an interest in geothermal already.

“We’re finding a lot of willing partners in oil and gas companies that are trying to chart their new course in the energy transition,” he said. “Companies like Schlumberger, Shell and Chevron that have become experts in drilling over the last 150 years are now applying their expertise quite rigorously to the geothermal sector.”

### Semifinalists

DOE named four geothermal manufacturing competition semifinalists, all based in Texas, focused on improving technologies that will keep fluids from mixing during drilling:

Baker Hughes; Welltec; Downhole Emerging Technologies; and Huilin Tu, project manager and principal engineer at Schlumberger.

In addition, DOE named three semifinalists focused on logging and production:

- PLUGS from Morgantown, W.Va.;
- Ultra-High Temperature Logging Tool from Houston; and
- Multiscale Systems from Worcester, Mass. ■



Improving geothermal drilling techniques through innovation investment and collaboration with the oil and gas sector could rapidly expand geothermal to fulfill a growing interest in 24/7 carbon-free power. | Lindsey G, CC-BY-2.0 via Wikimedia Commons



## CAISO/West News

# Conflict over Power Shutoffs Grows in California

## Federal Judge Could Order More PSPS, but State Wants to Limit Blackouts

By Hudson Sangree

The debate over using large-scale blackouts to prevent wildfires in California has become more urgent as the state heads into another fire season after a dry winter, with some urging restraint and others recommending more public safety power shutoffs (PSPS).

Federal Judge William Alsup, who oversees Pacific Gas and Electric's criminal probation from the 2010 San Bruno gas explosion, is weighing new probation conditions that would require PG&E to expand its criteria for de-energizing lines when nearby trees pose a threat.

The state's largest utility was blamed for catastrophic wildfires from 2017 to 2020 caused by its equipment contacting vegetation. The blazes include last year's Zogg Fire, which began when a leaning gray pine tree struck a PG&E transmission line, the California Department of Forestry and Fire Protection concluded in March. (See [PG&E Equipment Started Zogg Fire, Investigation Finds](#).) The fire killed four residents of Shasta County and burned 56,000 acres.

The Zogg Fire prompted Alsup's proposed probation conditions, requiring the utility to consider hazard trees, like the gray pine, outside its usual clearance zone when determining which lines to shut down in high winds.

The California Public Utilities Commission has opposed Alsup's proposal, arguing it could double the number of PSPS events and put residents and emergency responders in jeopardy.

"The potential doubling of public safety power shutoff events in PG&E's service territory under these modified proposed conditions could translate into a corresponding or even greater increase in the public safety perils flowing directly from the use of PSPS," the CPUC said in a March 19 letter to Alsup.

"PSPS is a vital wildfire prevention and mitigation tool that electric utilities can use, but PSPS itself raises serious public safety consequences by potentially impairing emergency services, water pumping capability and communications infrastructure," the commission said in a subsequent court filing on March 29.

The CPUC urged Alsup to let it handle PSPS oversight, saying it is already "years into an ongoing and iterative public process — through several formal proceedings and informal processes — of improving PSPS as a tool of last resort, while mitigating the safety hazards that flow directly from the use of PSPS."

### Effectiveness Versus Harm

In a hearing last week, the CPUC focused on the harmful impacts of PSPS on disabled residents and those with medical needs. Shutting off power to customers who rely on electrical equip-

ment is a major concern for commissioners, who have criticized the slowness of PG&E and Southern California Edison (SCE), the state's second largest utility, to supply battery backup power to vulnerable residents. (See [PG&E Working to Improve Safety Blackouts](#).)

A recent study commissioned by the CPUC, however, found that devastating fires could have occurred without PSPS.

The study by wildfire consulting firm Technosylva concluded that PG&E's controversial power shutoffs in 2019 may have prevented the burning of more than 3.4 million acres and nearly 283,000 structures. High winds caused hundreds of damage incidents on the utility's lines that may have sparked fires, including one massive conflagration of more than 3 million acres, Technosylva said. The analysis considered weather and fuel conditions, among other factors.

PG&E's PSPS events in October 2019 left 2.4 million residents in the dark and led to public outrage and harsh criticism from lawmakers and the CPUC. (See [California Officials Hammer PG&E over Power Shutoffs](#).)

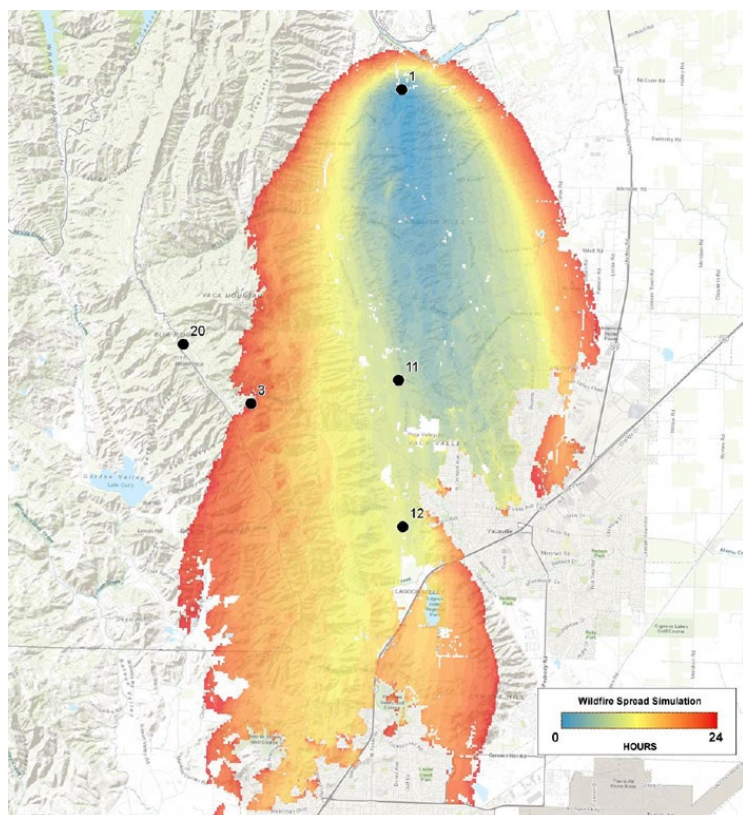
Public anger over PSPS rose again last year when PG&E and SCE made unprecedented use of power shutoffs, blacking out residents through the holidays and into January. CPUC President Marybel Batjer said SCE's failure to notify customers that a PSPS would be activated on Thanksgiving morning was especially egregious because it disrupted family gatherings.

"These missteps cannot be repeated," Batjer told the utility during a January hearing. (See [CPUC Slams SCE Over Power Shutoffs](#).)

During a hearing in early March, Assembly Utilities and Energy Committee Chair Chris Holden said PSPS was used 30 times between 2013 and 2019.

"It's safe to say that we're all frustrated by the use of public safety power shutoffs by our state's electric utilities," Holden said.

Anger over intentional blackouts is expected to play a role in the likely recall election of Gov. Gavin Newsom this fall, during the height of fire season. Proponents of the recall say they have gathered sufficient signatures, though the results have not been certified yet. Newsom's handling of the COVID pandemic is at the heart of the recall effort. ■



An analysis by wildfire firm Technosylva showed the spread of a potential fire if PG&E had not de-energized its lines in October 2019. | [Technosylva](#)

## CAISO/West News

# Expansion Takes EIM into LA, New Mexico

*Continued from page 1*

Area Power Administration-Sierra Nevada Region.

The EIM will grow to 15 members next month with the addition of Montana-based North-Western Energy. This spring's expansion represents the largest ever for the market, which began operations in November 2014 with PacifiCorp as its first member.

"We are very pleased to welcome LADWP and PNM as new participants in the Western EIM," CAISO CEO Elliot Mainzer said in a statement. "We look forward to working with both utilities to bring additional economic and environmental benefits to their customers as we further expand the geographical scope of the real-time energy market."

LADWP brings significant and wide-ranging transmission assets into the EIM. The utility owns and operates more than 3,600 miles of transmission lines crossing five states, including half of the 3,100-MW Pacific DC Intertie linking the L.A. metro area with the Bonneville Power Administration territory in the Pacific Northwest.

Other transmission assets include 60% of the contract capacity rights on the Southern Transmission System line connecting Southern California with the Intermountain Power

Plant (IPP) in Utah, a 36% ownership stake in the Mead-Adelanto Transmission Project connected to Nevada, and co-ownership of the Navajo-McCullough Transmission Line between the now-retired Navajo Generating Station in Arizona and the McCullough substation in Nevada.

LADWP also controls about 8,000 MW of generating capacity, including the 1,900 MW coal-fired IPP (slated for conversion to an 840-MW gas-fired plant in 2025), 15% of the output from the 2,080-MW Hoover Dam in Nevada, and 5.7% of output from the 3,300-MW Palo Verde nuclear generating station in Arizona.

The utility's participation in the EIM will be "a win-win proposition for the City of Los Angeles and the Western Grid in terms of fostering the integration of renewable energy while maintaining power reliability, as the City of Los Angeles moves ahead with our goal of 100% renewables as well as assisting all California utilities in meeting the state target of 60% renewables by 2030," said Reiko Kerr, LADWP senior assistant general manager of power system engineering, planning and technical services.

### PNM, BANC, TID

PNM operates 3,189 miles of transmission, including a 500-kV segment from the Palo Verde

plant (of which it controls 402 MW of output) and a 345-kV backbone spanning New Mexico and capable of delivering power from the wind-rich eastern reaches of the state to the Four Corners delivery point in the northwest. A portion of the 345-kV line extends into SPP.

The utility owns 2,865 MW of generating capacity, including the coal-fired San Juan Generating Station (847 MW) and Four Corners plant (200 MW). It also has more than 300 MW of wind assets and nearly 120 MW of solar.

PNM's participation in the EIM will also include the loads of 11 members of wholesale power cooperative Tri-State Generation and Transmission Association, which in February transitioned a number of its Colorado, Nebraska and Wyoming members to join SPP's newly launched Western Energy Imbalance Service. (See [WEIS Market 'First Step' to Full RTO Membership](#).)

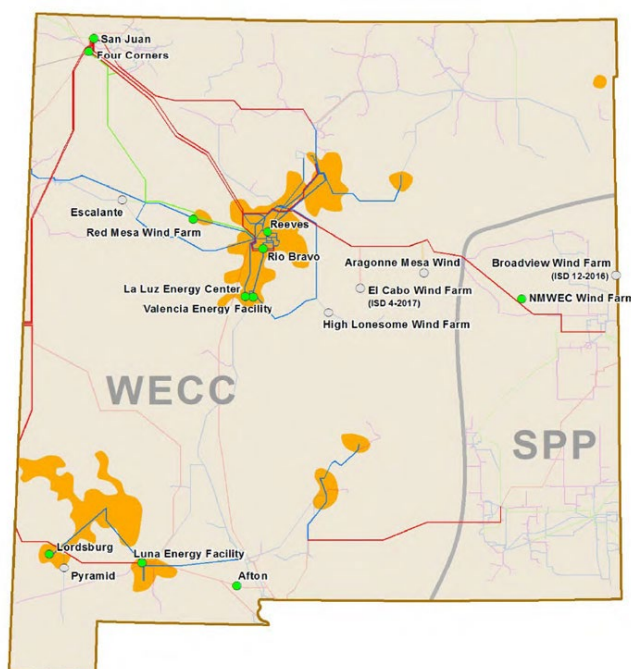
"PNM, CAISO and Tri-State's close collaboration enabled us to have a smooth entry into the [EIM]," Tri-State CEO Duane Highley said in a statement. "We greatly appreciate the professionalism of the PNM and CAISO staff, who we worked with over many months to enter the market."

The engagement of MID, Redding and WAPA-Sierra Nevada boosts the roster of BANC participants in the EIM. The group's largest member, Sacramento Municipal Utility District, joined in April 2016. (See [SMUD Goes Live in Western EIM](#).) BANC members Roseville Electric Utility, City of Shasta Lake and Trinity Public Utilities District have not yet committed.

Like BANC, TID owns a share of the California-Oregon Intertie (COI), the other major transmission line that allows California to tap the Northwest's hydroelectric resources. TID's transmission network also links to CAISO at two locations and to the SMUD and WAPA systems at the Tracy substation, the tie-in for the COI.

TID's generation portfolio includes a 136-MW share of the output from the Don Pedro Dam, the 136-MW Tuolumne Wind Project, nearly 100 MW of gas-fired generation and a 6.8-MW geothermal plant.

"As participants in the EIM, we have the opportunity to further capitalize on the generation infrastructure TID has developed over the years," TID General Manager Michelle Reimers said. ■



PNM operates an extensive transmission network across New Mexico. | PNM



## CAISO/West News

# NARUC Report Examines California RA Problems

*More Advanced Reliability Metrics Needed in Age of Renewables, Study Says*

By Hudson Sangree

A report released Wednesday by the National Association of Regulatory Utility Commissioners' research arm says California and other states with decarbonization goals will need to use more advanced planning methods to ensure they have adequate resources while relying increasingly on wind and solar energy.

CAISO's load-shedding orders on Aug. 14-15, which blacked out roughly 2.4 million residents during an extreme Western heat wave, prompted the report by the National Regulatory Research Institute (NRRI), titled "The Intersection of Decarbonization Policy Goals and Resource Adequacy Needs: A California Case Study."

"The August events highlight the need for continued improvement to resource adequacy constructs, along with developing and implementing enhanced metrics to accurately assess an electric system that continues to be transformed by ambitious state decarbonization policies," it says.

NRRI Principal Researcher Elliott Nethercutt and Chris Devon, director of market intelligence for Customized Energy Solutions, wrote the report. It largely addresses problems identified in the final root-cause analysis of the August blackouts issued jointly by CAISO, the California Public Utilities Commission (CPUC) and the California Energy Commission in January. (See [CAISO Issues Final Report on August Blackouts](#).)

"According to the root-cause analysis, two of the three primary causal factors were related to resource planning targets that 'have not kept pace' with the changing resource mix,



Transmission congestion could limit imports and impact battery storage, researchers said. | © RTO Insider

leading to insufficient resources available to meet demand during the early evening hours," the NRRI report says.

California leads the nation in adopting renewable resources; wind and solar can meet more than 80% of demand on some days, the report notes. The growth in renewables has corresponded with the rapid retirement of natural gas generation, which CAISO operators dispatch to meet the steep evening ramp when solar drops offline, it says.

The August blackouts occurred around 6:30 p.m., during the net-peak hour, when demand remained high while solar waned. The evening ramps have grown steeper as dispatchable resources declined in recent years. CAISO previously projected that the three-hour ramp would grow to 13 GW by 2020, but it hit 15.6 GW on Jan. 1, 2019, the report says.

"Despite these alarming trends, an additional 1.9 GW of dispatchable capacity was taken offline between June 2019 and June 2020," it says.

CAISO and the CPUC are hoping thousands of megawatts of battery storage now in the connection queue, including 1,200 MW set to come online by this summer, will help. (See [CAISO to Focus on Resource Adequacy in 2021](#).) The report contends, however, that using batteries as a dispatchable resource is still relatively untested and poses reliability risks.

"While the CAISO has demonstrated the ability to incorporate new technologies, operators still have limited experience with dispatching batteries on the system," it says. "Operators must contend with a learning curve associated with the deployment of a novel technology to develop an understanding of the behavioral characteristics and potential challenges associated with large-scale battery storage."

In addition, "CAISO has identified that the performance and effectiveness of battery storage systems are highly dependent on their location," the report says. "Battery systems located near load centers can face challenges in accessing available transmission to ensure they are able to be charged and available when called upon. Alternatively, batteries located long distances from load centers may face transmission congestion when attempting to inject power where needed."

Congestion on transmission lines into California from Oregon and Nevada limited imports

and played a role in the August shortfalls. (See [CAISO Says Constrained Tx Contributed to Blackouts](#).)

### Approach Used in Texas, Germany

The report makes recommendations to help meet the challenges in California and elsewhere, including mothballing but not decommissioning gas plants that may still be needed to meet demand.

"Similar approaches have been introduced in Texas, where NRG Energy restarted a 385-MW natural gas-fired combined-cycle plant that had been mothballed since 2016, for the 2020 summer season, partly to address tight supply conditions in ERCOT," it says. "Germany, a country with decarbonization goals similar to California's, used a similar approach to return approximately 1.4 GW of mothballed gas plants to service in 2020."

"Introducing market mechanisms to keep certain capacity idle but operable could help California meet carbon emission reduction goals, while still maintaining enough standby capacity for periods when system reliability is threatened," the authors wrote.

Another main recommendation is that CAISO and planners facing similar circumstances in other areas must rely more on stochastic and probabilistic methods, which take chance and random variables into account, to more realistically determine resource adequacy.

Currently CAISO and the CPUC rely on a traditional 15% planning reserve margin based on a one-in-10-year loss of load expectation model, "designed to measure the reliability of an electric system based on assumptions that incorporate a variety of conditions," the report notes. That is no longer enough in an age of intermittent renewables, the authors say. CAISO and others are already moving toward more advanced planning methods, a trend that must continue, they contend.

"Systems with increasing amounts of intermittent resources (e.g., wind and solar) will require additional modeling and stochastic metrics that can provide a more complete measure of resource adequacy and help identify associated reliability risks," the authors conclude. "The continued development of advanced reliability metrics, including those that examine risks beyond the peak hour, can inform policy and regulatory decisions to promote the reliable transformation to a cleaner system." ■



## CAISO/West News

# PGE Execs Contribute over Feb. Outage Communications

By Robert Mullin

Portland General Electric CEO Maria Pope expressed regret last week over a breakdown in public communications as a series of ice storms swept through Oregon in February, leaving nearly half the utility's customers without power.

About 421,000 of PGE's customers lost power at some point during the storms and their aftermath, peaking at 325,000 simultaneous outages on Feb. 15.

By the end of the month, line workers from PGE and utilities throughout the West performed more than 759,000 restorations in the company's service territory.

If the numbers don't add up, that's because some households and businesses lost power more than once as successive waves of freezing rain and snow snapped branches and toppled entire trees and power poles. The ensuing melt further destabilized many of the region's towering trees, sparking more outages even after the storms had passed.

"That happened in the rural areas but also in Portland itself, where additional damage could take out customers for a second, third, fourth [time]. Some customers had up to six outages," Pope told the Oregon Public Utility Commission during a special meeting March 30 to discuss the storm response by the state's electric and telecommunications utilities.

While the storms left hundreds of thousands of PGE customers without power, the utility's outage information system left those customers in the dark for days regarding restoration status. Customers calling into PGE or checking in via the company's web site repeatedly encountered messages saying that the utility could provide no time estimates for restoring service to their homes.

Larry Bekkedahl, PGE vice president of grid architecture, integration and system operations, told the commission that the company deployed staff in the field ahead of line crews to assess the location and size of problems and estimate repair times.

"I would say in our line centers, we did a great job monitoring where those crews were and assigning them to high-priority areas and having them out there and looking and doing the work," Bekkedahl said. The challenge was in conveying that information to PGE's call center and website. "That's where we had



The cumulative impact of repeated ice storms in mid-February brought down power lines throughout Portland General Electric's service territory. | *Portland General Electric*

the failing."

PUC Chair Megan Decker asked PGE's executive to clarify whether they felt the company had the right information but just needed to plug that into its customer facing platforms.

"Our systems operated as they were designed, but they were not designed for this magnitude of number of outages, down to the granular level of each household through our customer service system," Pope said.

"While overall restorations went well, we know that the customer information that we were able to share during the storm was inadequate, and we struggled with communicating specific customer restoration and other information, and we are working to do better," she said.

### Unique Event

Pope said that "while it's not an excuse," February's event wrought 10 times more damage than the Labor Day wildfires that ravaged Western Oregon last summer. (See [PacifiCorp Faces Class Action over Wildfire Response](#).)

"This storm was unique. The duration, winds, multiple freeze and thaw cycles and ice floodings were especially damaging," Pope said. "We operate in the heart of the Pacific Northwest, perhaps the densest forest and urban tree canopy in the United States."

Bekkedahl also pointed to the historic nature of the winter storms, "the likes of which we have not seen since the 1962 [Columbus Day Storm](#)," a locally storied event that left more than a million Oregonians without power.

During the February event, PGE lost 401 miles of transmission and 20 substations and saw the downing of 12,733 distribution lines. In the end, crews replaced over 1.2 million feet of wire, 1,165 poles, 1,110 transformers and 16,939 insulators in addition to restoring power to the substations — a necessary step before much of the other restoration work could occur.

"Recovery of this magnitude could not have occurred without mutual assistance [from other utilities] and contractors," Pope said. She noted that PGE relied on three times the normal staffing level to perform the work, greater than any other time in company history.

Spokesperson Steve Corson told *RTO Insider* that PGE has not released cost estimates for the repairs.

"PGE has filed a request with the OPUC for use of deferred accounting to track the costs of the storm for future consideration in customer prices but has not yet addressed this deferral request with the commission," Corson said.

During the PUC meeting, Pope said she thought it was "also important to acknowledge what didn't happen" as a result of the storms.

"We had no generator outages. In the extreme cold, our plants operated well, in distinct contrast to Texas during the same period of time. Nevertheless, we remain focused on ensuring that enough resources are available at all times, including the coldest and hottest days of the year," she said.

# CAISO/West News



Pope said the winter storms highlighted the importance of the company's work in helping to develop regional resource adequacy programs. She also called it a "stark reminder" of the effects of climate change and "the obligation that we all share to take bold action."

## Heart of Resilience

Bekkedahl said PGE will use its restoration review process to identify measures that improve grid reliability, including revised system planning criteria, use of storm hardening equipment, improved ice loading capabilities and a review of vegetation management practices both in and outside the utility right-of-way.

"We will look to increasing the resiliency of the grid, considering ice storms, wildfires, earthquakes and other catastrophic events. All the while, we will also ensure building the grid of

the future, thinking ahead, recognizing that we need to utilize every customer dollar efficiently," Bekkedahl said.

He said PGE's specific near-term actions will include:

- reviewing restoration priorities with a focus on critical service customers;
- improving the company's outage map and operational processes to provide better restoration information to customers; and
- providing a hardened transmission line to each of the critical substations that were de-energized.

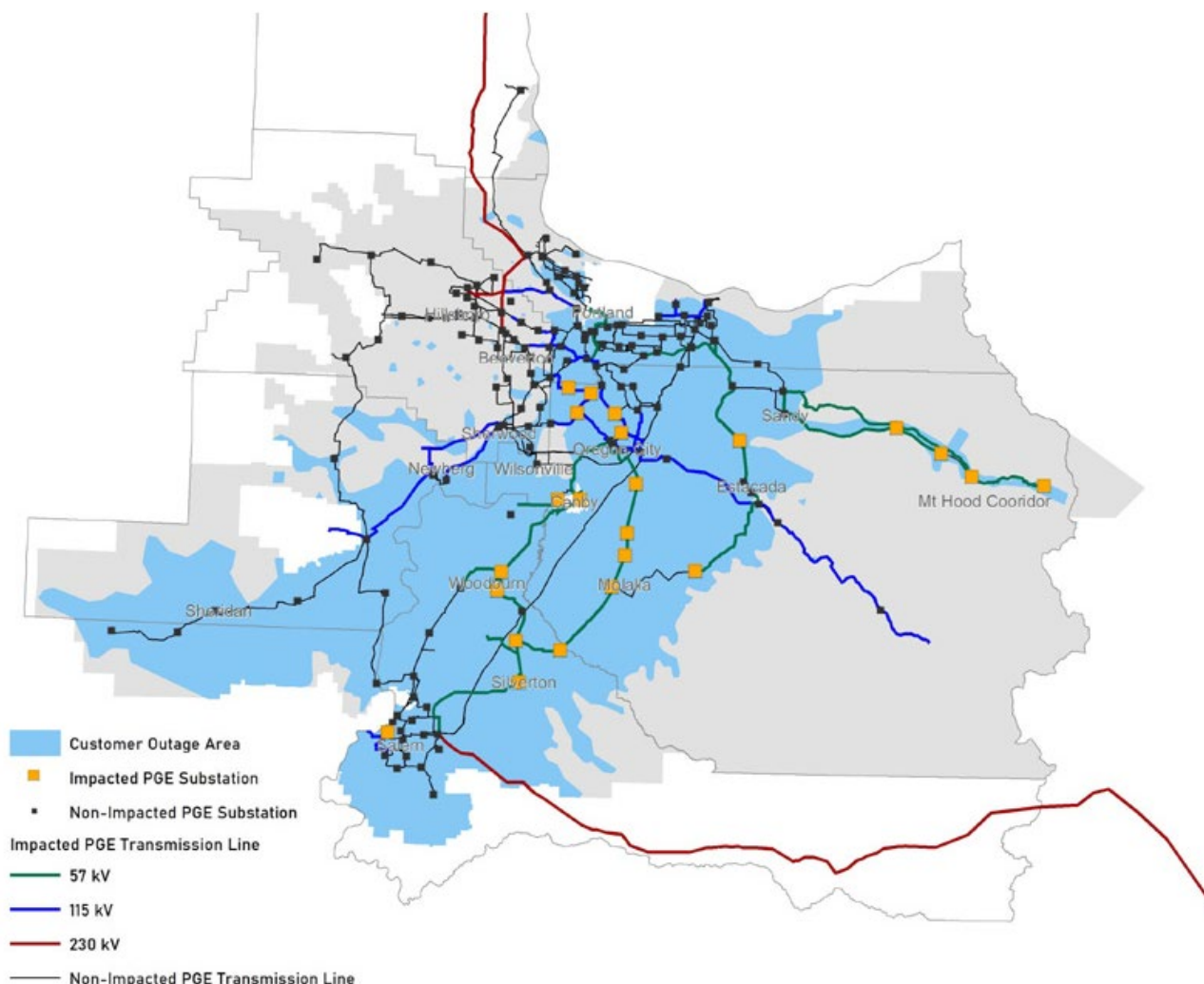
"Obviously this was an event that overwhelmed your system. Why did it overwhelm your system?" Decker asked. She wondered aloud whether industry standards are designed to respond to a one-in-40- or one-in-

10-year event. "Should we be thinking about whether industry standards are good enough?"

"When we think about resiliency, this is at the heart," Bekkedahl responded. "If we design today for half-inch ice in the foothills of the Cascades and quarter-inch ice in the rest of the [Willamette Valley], and we got an inch of ice or two inches of ice, obviously those systems weren't designed for that inch or two inches of ice."

Bekkedahl noted that the standard for trimming along a transmission facility might be 15 feet, "but these trees were coming completely over or they're bending over to a magnitude that you'd never think of as a normal standard. So how do we then harden, and should we do that for one-in-40-year events?"

"We're reacting now and saying, 'Let's think differently. Let's really harden for multiple purposes in some of these locations,'" he said. ■



Map illustrates the extent of customer and equipment outages in PGE's territory as a result of February's storms. | Portland General Electric



## ERCOT News



# Abbott Taps ABC Texas President McAdams for PUC Seat

By Tom Kleckner

Texas Gov. Greg Abbott on Thursday nominated Will McAdams, president of the Associated Builders and Contractors of Texas lobbying firm, as the Public Utility Commission's newest commissioner.

Abbott said McAdams will “will bring a fresh perspective and outstanding leadership” to the commission, and he urged the Senate to confirm the appointment.

“Will’s wealth of experience in public service and state government make him the ideal leader to carry out the PUC’s mission to protect customers, foster competition and promote high quality infrastructure across Texas,” Abbott said in a [statement](#). “Will is committed to charting a new course for the commission and restoring trust with Texans.”

McAdams’ term would expire Sept. 1, 2025.

The PUC has come under heavy political fire in the aftermath of the February winter weather that nearly brought down the ERCOT grid. All three commissioners have since resigned; Arthur D’Andrea, the last remaining member, remains in his seat until a successor is confirmed. (See [D’Andrea Resigns from Texas Commission](#).)

Unlike his predecessors, McAdams does not have a legal background, or regulatory or utility experience. However, he forged strong relationships with many in the industry during his 10 years at the capitol as a staffer. While there, he advised multiple legislators, including former House Speaker Dennis Bonnen on business and regulated industries. He also served as legislative director for Sen. Charles Schwertner and as legislative and media relations director for former Sen. Troy Fraser. He left the legislature for ABC Texas in 2019.

“Will McAdams is respected around Texas



Will McAdams | Will McAdams via LinkedIn

government for his competence and for his ability to analyze and solve complex policy challenges,” Advanced Power Alliance President Jeff Clark told *RTO Insider*. “Gov. Abbott’s confidence in Will is well placed, and I look forward to working with him in the important work ahead.”

Caitlin Smith, a vice president with the AB Power Advisors consulting firm, [said](#) in a tweet that she has “always been impressed in my interactions with him.”

Noting that the PUC deals in issues with “complex legal, business and equity dimensions under ordinary circumstances,” energy consultant Alison Silverstein wondered whether McAdams’ “fresh perspective and outstanding leadership” would be enough.

“The February electricity disaster has created or revealed many extraordinary problems for the Texas PUC to resolve,” she said in an email. “I hope McAdams can handle a very steep learning curve, because the PUC is going to be a wild ride for the next few years.”

McAdams will need Senate approval before he can take his seat because the legislature is in session. Were it not, he would have been able to step into his new role immediately. McAdams’ time at the capitol is expected to result in a quick confirmation.

The PUC said it is “awaiting further details” on when McAdams will begin serving.

The commission is next scheduled to hold an open meeting Wednesday. ■



An open meeting of the Texas PUC before COVID-19 restrictions | © *RTO Insider*



## ERCOT News



# Legislation Would Impose Fees on Renewables

A 'Really Dumb Idea,' Says Advanced Power Alliance's Clark

By Tom Kleckner

Sweeping legislation that the Texas Senate passed unanimously last week in response to February's winter blast, which resulted in a near collapse of the state's grid and blackouts that lasted days, could hit renewable resources with extra costs that one opponent called a "really dumb idea."

Tucked into *Senate Bill 3* is a requirement that "intermittent generation resources" purchase ancillary services and replacement power "sufficient to manage net load variability." The language does not mention thermal resources, which ERCOT counted on to meet expected record demand but never materialized in the harsh conditions.

"You're undoing decades of precedent. Texas is still a place where we honor commitments made to investors," Advanced Power Alliance President Jeff Clark told *RTO Insider*, referring to the \$60 billion invested in renewables. "This bill doesn't serve anybody. It just increases the costs to customers. If you're going to start assigning ancillary services, let's do it for all generators."



Advanced Power Alliance's Jeff Clark argues against SB3 before the Senate Business and Commerce Committee. | *Texas House*

Clark, who labeled the measure "dumb," pointed to the *U.S. Energy Information Administration's* capacity factor for wind energy, which it lists at 35.4%. EIA says photovoltaic solar has a 24.9% capacity factor.

"Renewable energy is not a random resource. It is a relatively predictable resource in the short term," he said. "There is a need for ancillary services, but there is a need for ancillary services for every generator. A fair approach to this would be assigning the ancillary services to the extent they can be attributed to any party."

Beth Garza, a senior fellow with R Street Institute and former director of ERCOT's Independent Market Monitor, sided with Clark.

"I believe that ancillary services costs are best assigned directly to load," she said. "ERCOT should determine the quantity of ancillary



The Texas House debates bills related to the February winter storms and their aftereffects. | *Texas House*

services required to ensure reliable operation for all loads, given all generation. By keeping the allocation simple and direct, loads will pay the lowest cost for those services rather than a generator's risk adjusted approximation of those costs."

Garza noted that ERCOT's ancillary services requirements have decreased overall, despite the large influx of intermittent generation.

"Our procurement of ancillary services has stayed flat," Clark said, while the state's renewables have increased by 262% over the last 10 years.

The language was an amendment offered by Sen. Kelly Hancock (R), who had proposed *similar legislation* of his own. Hancock chairs the Business and Commerce Committee, which conducted several hearings on the blackouts. (See *Texas PUC Won't Reprice \$16B Error*.)

SB3 would give the Public Utility Commission

the authority to fine generators and utilities up to \$1 million a day for not weatherizing their power plants or transmission lines. It would also set up a Texas Energy Reliability Council to improve the electric and gas industries' coordination and communication; create an improved outage alert network; and limit scarcity pricing to no more than 12 hours in succession.

"Requiring weatherization of those in the energy supply chain is a positive step forward," Houston Mayor Sylvester Turner, a former legislator, *told the Houston Chronicle*. "The question is who will pay for it."

The bill does not mention who would be responsible for those costs.

Lt. Gov. Dan Patrick, president of the Senate, said the body has "taken a significant step to addressing the problems we identified on our electric grid."

# ERCOT News



"SB3 includes substantive reforms that will ensure that Texas' grid is stable for decades to come," Patrick said in a *statement*. "The proposed changes in SB3 will revolutionize Texas' prevention and preparation strategies for any energy emergencies we encounter going forward."

The bill has been sent to the House of Representatives for its consideration, where it could advance unchanged to Gov. Greg Abbott for his signature. If the House amends the bill, each chamber will then vote on whether to accept the amendments or request a conference committee to hammer out the differences between the two versions.

## House Passes Grid-focused Bills

The House on March 30 approved six bills designed to "strengthen the state's electric grid," including one that would restructure ERCOT's Board of Directors.



Texas Rep. Chris Paddie leads the discussion on House bills related to ERCOT reforms. | *Texas Senate*

**HB10**, authored by State Affairs Committee Chair Chris Paddie (R), would replace the five independent directors unaffiliated with any market participants with three appointees by the governor and one each appointed by the lieutenant governor and the House speaker. All board members

would have to be Texas residents and would not be compensated beyond travel and other necessary expenses.

The bill would not change the rest of the board's makeup. An amendment to require

residency within the ERCOT region, which covers 90% of the state, was withdrawn.

PUC governance and other issues will be addressed in other bills still pending, Paddie said during discussions over proposed amendments.

The bill was approved 140-0.

Other approved legislation included:

- **HB11**: would require the PUC to mandate each generator and each transmission and distribution provider to weatherize their facilities and ensure a prompt return to service.
- **HB12**: would authorize the Texas Division of Emergency Management to establish a statewide disaster alert system, including the use of languages other than English.
- **HB13**: would create a new Texas Energy Disaster Reliability Council comprising senior-level representation from the PUC, ERCOT, the TDEM and the Texas Railroad Commission.
- **HB16**: would prohibit retail electric providers from offering wholesale index rate plans like those of Griddy, which resulted in five-figure bills for some residential customers.
- **HB17**: would stipulate that no political subdivision may adopt any measure to directly or indirectly limit or prohibit utility service based on the type or source of energy to be delivered to the end-use customer. Gas utilities have been pushing this bill in response to efforts by some cities outside Texas to adopt rules encouraging the construction of all-electric homes.

**HB3749**, relating to the provision of electric service during extreme weather conditions,

was to include the Berkshire Hathaway Energy proposal to build 10 GW of gas generation for \$8.3 billion. The bill will be considered this week, according to late word from the capitol. (See *Berkshire Hathaway Offers Texas Emergency Power Supply*.)

The Texas Coalition for Affordable Power, a nonprofit that helps cities aggregate their power needs, counts more than 400 separate pieces of legislation relating to energy or utility matters now under consideration in Austin. That's about three to four times the number the organization would expect to see during more typical legislative sessions, it said.

## PUC Names Enforcement Lead

The PUC *said* March 30 it has named Davida Dwyer to lead the agency's enforcement efforts as part of its "ongoing focus" on enforcement. Dwyer, who has 13 years of PUC experience, will serve as deputy director of the legal division.

The commission last year moved the enforcement function into legal to increase the resources available to enforcement, Executive Director Thomas Gleeson said. Lawmakers in recent weeks have criticized the PUC's inability to enforce its oversight of the ERCOT market.

"A vital function like enforcement demands a leader of Davida's integrity, tenacity and experience. We're fortunate to have her on our team," Gleeson said.

Dwyer has spent 13 years with the PUC, during which she has advised former Commissioners Barry Smitherman, Kenneth Anderson and Shelly Botkin. ■

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# ERCOT News



## Former ERCOT CEO Kahn Resigns from Board

By Tom Kleckner

ERCOT's ever changing Board of Directors has lost another member with the recent resignation of Bob Kahn on March 25.

The grid operator's CEO from 2007 to 2009, Kahn resigned from the board over a conflict of interest as general manager of the Texas Municipal Power Agency (TMPA).

Kahn said in a letter to the board that one of TMPA's four member cities, Denton, is involved in a lawsuit against ERCOT and its board members. He said he had planned to recuse himself "from any discussions that pertained to this conflict," but he came to realize that might not be possible. ERCOT legal counsel reviewed the matter and concluded that Kahn's fiduciary responsibility on the board "would create an awkward situation."

"After further consideration, and after discussing the matter with my counsel, I believe that the more prudent course is for me to resign from my position," Kahn said in his letter.

Kahn was elected to the board on March 5 by municipal segment members. New Braunfels Utilities CEO Ian Taylor is the sector's alter-



A frozen meter during the February winter storm in Texas | Kerrville Public Utilities Board

nate representative.

Five out-of-state directors resigned on Feb. 23; another non-Texan withdrew his nomination; and two other directors also left the board, leaving it with eight members at its low point. (See [Former ERCOT CEO Rejoins Board.](#))

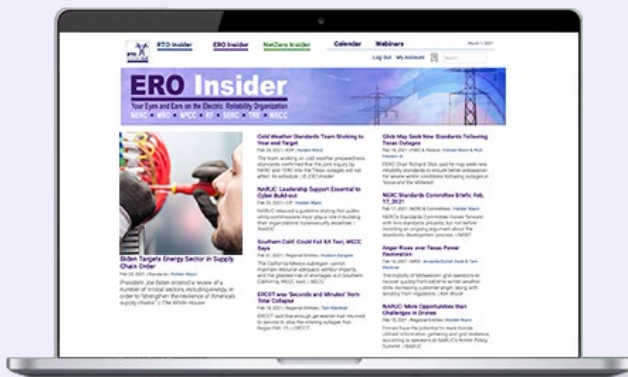
With Kahn's resignation, the 16-member board now has 10 members, including Public Utility Commission Chair Arthur D'Andrea and ERCOT CEO Bill Magness. Both are *ex officio* members: D'Andrea has resigned from the

PUC but will keep his seat until a successor is named, while Magness, who was fired March 3, has agreed to serve for a 60-day transition period that ends May 2.

TMPA ran the coal-fired Gibbons Creek Generating Station for Denton and its other member cities, Bryan, Garland and Greenville. The plant hasn't run since 2018 and was sold in February to Gibbons Creek Environmental Redevelopment Group, which will take three years to demolish it and complete environmental remediation. ■

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## ERCOT News



# Securitization Offers Texas a Way Forward

## Lawmakers Considering Refinancing Billions in ERCOT Market Charges

By Tom Kleckner

Texas lawmakers are considering securitization to help market participants and customers saddled with billions in costs from the February winter storm.

A Wall Street investment bank last week pitched a refinancing product that would help cooperatives manage the costs of buying and transmitting high-priced energy during the storms and the ensuing outages that lasted days. Other bills would use the same process to address an ERCOT market shortfall that has been whittled down to *nearly \$2.9 billion* and its downstream effects on participants.



Jim Schaefer, Guggenheim Partners | Jim Schaefer via LinkedIn

Jim Schaefer, a senior managing director with a global investment and advisory financial services firm Guggenheim Partners, *told* the House State Affairs Committee on Thursday that securitization is a “cheap form of financing” that spreads out the monetary pain over

decades. He suggested legislators take a “more elegant approach” by creating a state-level “special purpose entity” that could raise a significant amount of money and fund “those that have been damaged by this event.”

The securitization product is essentially a AAA bond, offering buyers a revenue stream that is collected from charges on customer bills while market participants benefit from having the storm’s debt moved off their balance sheets. The AAA rating provides a low financing cost, Schaefer said.

“There’s significant capital available to us at a low cost,” he said.

Schaefer likened the financial distress to a spider web that is “spreading faster than you can move on this.”

“There’s unintended consequences from letting this issue fester. The spider web continues to grow,” he said. “Stay big picture; try to get the system back to where it was pre-crisis. Get liquidity into the system.”

Guggenheim has used similar vehicles in Chapter 11 bankruptcy cases involving *Pacific Gas and Electric*, *Santee Cooper* and *Enron*, Schae-

fer told the committee. He said his staff have determined that a \$10 billion package spread out over 20 years at 3.5% interest would result in about a \$1/month surcharge for residential customers, with commercial and industrial customers paying more.

Under *House Bill 3544*, cooperatives would be able to use securitization to recover “extraordinary” costs and expenses incurred from 12 a.m. Feb. 12 to 12 a.m. Feb 20.

Witnesses representing the cooperatives welcomed the suggestion. Farmers Electric Cooperative General Manager Mark Stubbs, one of Rayburn Country Electric Cooperative’s four member co-ops, told legislators that Farmers “did everything possible to keep the lights on, with no thought of the economic consequences.”

The result was energy purchases 13,000 times above normal Feb. 14 to 20 and residential customer bills of \$3,300, rather than the normal \$200 for using 200 kWh/month, Stubbs said.

“We’re member-owned. We cannot send out \$3,300 electric bills,” he said.

Rayburn owes almost \$575 million to the ERCOT market. It has *filed a petition* with the Texas Public Utility Commission that it suspend invoicing, billing and collection of charges related to February’s high prices (*51812*).

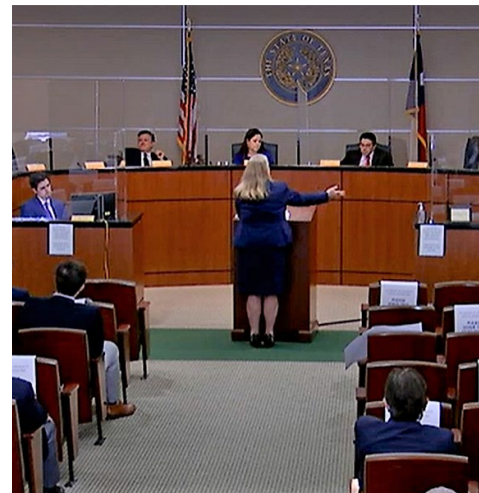
“The amount of money is not only staggering to the ratepayer but to the cooperatives themselves,” said Carl Lyon, an attorney with Orrick and a long career representing rural electric cooperatives in financial matters.

State Affairs Committee Chair Chris Paddie (R) is offering his own legislation (*HB 4492*) that would securitize costs and expenses during the energy scarcity conditions, when prices were capped at \$9,000/MWh. A similar bill (*HB1520*) and its Senate companion (*SB1579*) have been drafted for the natural gas industry.

“If we don’t do anything, the costs lingering in the ERCOT system ... will fall on ratepayers in an unbearable lump sum,” Paddie said.

Katie Coleman, speaking for the Texas Association of Manufacturers, said her organization has concerns over whether securitization would allocate costs only to consumers, instead of the entire market.

“The costs of securitizing can be big, but if it’s



Catherine Webking testifies before the Texas House State Affairs Committee on April 1. | Texas House

a big amount and over a long enough period, it can be justified. It’s a low-cost vehicle for financing big costs you’re going to have to pay anyway,” she said. “It’s not a good option if it allows a reallocation of costs that customers might not otherwise be on the hook for.”

“Obviously, that’s not the intent of the bill,” Paddie said, noting there’s still some work to do on the legislation.

Catherine Webking, representing electric retailers through the Texas Energy Association for Marketers, said ERCOT is approaching a 55-day settlement period in mid-April and faces a 90-day deadline to uplift short-pay amounts to the market. The grid operator’s protocols limit market uplift to \$2.5 million a month, meaning it would take nearly a century to complete the process.

“We’re hoping for a very surgical and specific piece of legislation that could allow this securitization to move forward quickly,” Webking said. “We hear from the financial people that the availability of capital is not the issue. It’s just coming forward with [a proposal].”

For his part, Schaefer urged the legislature to decide quickly how to move forward on securitization.

“My point is, cut it off. You can’t be picking winners and losers at this point,” he said. “You’ve effectively created winners and losers because you’ve let this carry on. It’s horrible that people who didn’t have anything to do with this will pay, but it was a system failure.” ■

# ISO-NE News

## Consensus Reached on Framework Document for NEPOOL Future Grid Study

By Jason York

Last week's joint meeting of the NEPOOL Markets and Reliability committees produced a consensus *framework document* and *assumptions* for Phase 1 of the *Future Grid Reliability Study*, which is intended to predict the impact of New England states' policies to reduce carbon emissions and electrify buildings and transportation as part of the Future Grid Initiative.

The framework document, developed by stakeholders at the MC/RC with support from ISO-NE and the New England States Committee on Electricity, consists of several analyses using different computer models. No single model could address the range of issues that stakeholders sought to assess. The analyses will be conducted in a staggered, iterative approach, with the results from one analysis informing decisions about what to model or remodel in other analyses.

Phase 1 encompasses both economic and engineering analyses. Compliance with energy and environmental laws across the region is expected to result in changes to power generation and electricity use. Generators that do not emit carbon will likely produce a much more significant percentage of the region's power supply. Electrification of the building and transportation sectors could significantly change load amounts, peaks and profiles.

The economic analyses — production cost and ancillary services simulations and revenue sufficiency — seek to answers to questions such as what the forecasted market revenues are and if they will be sufficient to attract and retain the different types of resources needed



ISO-NE control room | ISO-NE

in the future to operate the system reliably. The engineering analyses — ancillary services simulation, resource adequacy screen, and the probabilistic availability and system security analyses — will determine the conditions that will likely present operational or reliability issues, the nature of those issues, and whether the system will be able to operate reliably when variable energy resources are the predominant generation resources.

NEPOOL formally *submitted* the Phase 1 work as a 2021 Economic Study Request on March 12, and the RTO said it has the software to perform the work.

ISO-NE said it would continue to review the framework document and associated assumptions to identify additional areas for clarification as it starts to build analysis models in GridView and EPECS. Preliminary GridView results, including sensitivities and relevant alternative scenarios, will be presented at the June 16 PAC meeting. EPECS preliminary results are expected in late summer, and MARS

simulations will start later in 2021, with results by January 2022.

The final production cost simulation is scheduled for September 2021 to March 2022, and the ancillary services simulation from September 2021 to January 2022. The final report for Phase 1 will be written between January and March 2022.

As for Phase 2, the committees decided at their Feb. 26 meeting to pause work on it. A paper was *posted* that outlines the work that has been done so far on Phase 2 to develop a partial draft framework. It also notes that timing and details require further consideration. Ultimately, the paper intends to serve as a refresher and starting point for when the committees resume work on Phase 2. ISO-NE has previously said that it lacks the tools to conduct Phase 2 analyses that consist of revenue sufficiency in the capacity market and transmission thermal and voltage impacts, and recommends that NEPOOL hire a consultant. ■

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# ISO-NE News

## FERC Approves Eliminating ISO-NE Capacity Performance Payments for EE

By Jason York

FERC on Wednesday approved changes to ISO-NE's tariff that eliminate capacity performance payments for energy efficiency resources (ER21-943). The revisions became effective Thursday.

ISO-NE's Pay-for-Performance (PfP) capacity market construct is meant to link revenues to resource performance during real-time operational reserve deficiencies via incentives to resources to provide real-time energy or reserves.

"We agree with ISO-NE that energy efficiency resources are not similarly situated to other capacity resources in that they are not able to respond to Pay-for-Performance incentives during capacity scarcity conditions," the commission wrote.

FERC disagreed with trade group Advanced Energy Economy, which filed a protest that said the RTO's proposal would result in "unjust and unreasonable and unduly discriminatory treatment" of EE resources. The commission noted that the Federal Power Act "does not prohibit all discrimination, only undue discrimination."

It added that it recognizes EE resources' value but disagreed with AEE's contention that they are "similarly situated to nuclear and natural gas resources." The commission found that

EE resources, which cannot provide real-time energy or reserves during capacity scarcity conditions, cannot compare to other resources. It cited a nuclear generator as an example because it could adjust its maintenance schedule to increase the likelihood that it will be on-line and provide its full capability or reserves during capacity scarcity conditions.

FERC was also not persuaded by AEE's argument that EE resources are incentivized "to meet or exceed their capacity supply obligations [CSOs] and that accepting ISO-NE's proposal would remove that incentive."

"We find that AEE's arguments misconstrue the intent of ISO-NE's performance payments, which is to incent the real-time provision of energy or reserves during capacity scarcity conditions," the commission wrote. "In contrast, compensation for installed capacity, across all resource types, is made by the FCM's [Forward Capacity Market] monthly base payments, which energy efficiency resources will continue to receive."

AEE argued that EE resources exceeding their CSOs should continue to receive performance payments during EE measure hours. But, according to FERC, the RTO proved that EE resources do not overperform or underperform during real-time capacity scarcity conditions.

LS Power and the RTO's Internal Market Monitor, which joined the New England Power

Generators Association in filing comments supporting the tariff revisions, noted that EE resources would continue to receive base capacity payments commensurate with their CSOs.

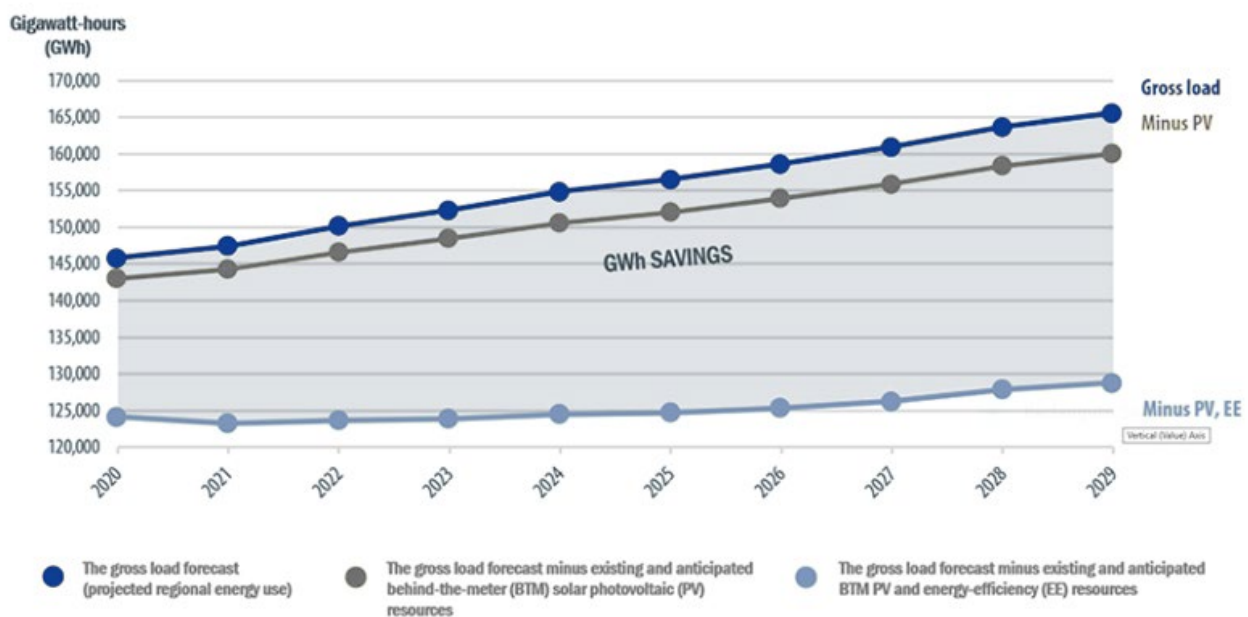
### Clements Concur, but Says FERC May 'Revisit'

In a concurring statement, Commissioner Allison Clements said that as EE programs "continue to evolve and innovate," FERC may have to "revisit their eligibility" for future PfP penalties and bonuses.

Clements said that when the commission directed ISO-NE to adopt the PfP construct in 2014, it rejected the RTO's proposal to require EE resources to either install metering or face guaranteed penalties if a reserve deficiency occurs outside of measured hours. She said that the RTO made an "adequate demonstration" to exclude EE resources from PfP, but now they are "without an avenue" to participate even with the installation of metering as in the original proposal.

With the continued innovation of EE programs, Clements added, they might eventually measure real-time performance.

"Should programs that explicitly measure meter-based energy savings develop in New England, [EE resource] participation rules may warrant a fresh look," Clements wrote. ■



Projected annual energy use with and without EE and PV savings | ISO-NE



## ISO-NE News

# Better Public Input Needed on Infrastructure Planning, FERC Says

By Emily Hayes

Public outreach on when FERC holds proceedings and how communities can intervene in those proceedings are important pieces of a larger need for energy infrastructure planning reform, FERC Commissioner Allison Clements said March 26.

New England is experiencing an increase in the electrification of sectors such as heating and transportation to accommodate clean energy sources, Clements said at Raab Associates' 169th New England Electricity Restructuring Roundtable. But FERC can be proactive in helping communities impacted by the construction of New energy transmission infrastructure understand what it means to intervene in a FERC proceeding and how to do so.

"We haven't made it clear enough for the public to understand," Clements said.

Increasing public outreach does not guarantee that FERC will reach a decision the community is happy with, but it will "make our decisions better informed," she added.

The agency is required to review natural gas infrastructure and electricity transmission line proposals to ensure energy reliability, Clements said. FERC must be "cognizant of extreme

weather events and cold winter storms," and ensure that the Northeast has the energy resources to meet high spikes in demand during potentially life-threatening situations.

FERC Chairman Richard Glick earlier this year created a new senior environmental justice role at the agency to emphasize equity issues in its decisions.

Environmental justice concerns have been raised in several electricity and natural gas transmission projects under FERC's purview, including a new natural gas compressor station in the South Shore community of Weymouth, Mass.

FERC recently called for a *briefing* on its decision last year to allow Enbridge to place the Weymouth project into service.

Natural gas makes up about half of New England's energy fleet, and compressor stations help natural gas move the long distances from its source to the energy demand. The Weymouth station is situated next to two state-designated environmental justice communities.

Opposition to the project arose from residents who are concerned about the pipeline emitting methane and releasing gas in a place where people statistically have higher rates of cancer, pediatric asthma, and cardiovascular and

respiratory diseases, according to the Greater Boston Physicians for Social Responsibility.

Anti-natural gas activists are also skeptical about future natural gas demand in Massachusetts, as state policies push the electric transition forward.

There are now more than 60 intervenors on the Weymouth station proceeding, including South Shore residents. FERC's briefing encourages public input on how any changes in the compressor's projected emissions could affect nearby environmental justice communities. Initial responses to FERC's request were due last week.

Clements said she could not comment on an ongoing proceeding and noted that FERC does not take a stance on state and local policies that propose banning gas for new heating or construction infrastructure. The agency also must legally review natural gas infrastructure proposals under the Natural Gas Act of 1938.

But the evidence intervenors bring to a FERC proceeding on projects like the Weymouth Compressor can help the commission "take into account all factors," Clements said, including demand, environmental justice and energy reliability.

"I hope we do smart-from-the-start planning," she said. ■



FERC says people affected by major infrastructure projects, like the protesters of the Weymouth compressor project in Massachusetts, could be better informed of how to participate in FERC proceedings. | Massachusetts Sierra Club

## ISO-NE News

# NEPOOL Participants Committee Briefs

### 'Long List' of Candidates for Board Openings

A [summary](#) of the Joint Nominating Committee (JNC) meeting on March 25-26 provided the NEPOOL Participants Committee last week with an update on the "long list" of candidates for two upcoming openings on ISO-NE's Board of Directors.

Jennifer Rockwood of Russell Reynolds Associates presented a total of 23 candidates, and the JNC ranked and whittled down that cohort to nine for first-round interviews slated for April 8-9 and 16. Their backgrounds include electric markets and transmission experience, customer service and transformation, emergency preparedness, and disaster recovery. The JNC also selected two alternates in case any of the primary candidates withdraw from the process.

The JNC comprises seven board members, NEPOOL's six sector leaders and a representative of the New England Conference of Public Utilities Commissioners. With input from the board, state representatives and market participants, the committee identifies the types of expertise that ensure ISO-NE has "sufficient knowledge and expertise to act as the RTO for New England," according to the Participants Agreement between ISO-NE and NEPOOL.

Neither the ISO-NE board's nor NEPOOL's stakeholder meetings are open to the public. New England state officials recently held an online technical focused on transparency in



Then-Maine PUC Commissioner Mark Vannoy (left) and ISO-NE CEO Gordon van Welie at NECPUC's 71st annual symposium in 2018. Vannoy is currently on ISO-NE's Board of Directors. | © RTO Insider

the RTO's decision-making process regarding the composition of the JNC and board selection, among other areas. (See [States Seek More Input, Visibility into ISO-NE Governance.](#))

Transparency of the search process became an issue last September when former Maine Public Utilities Commission Chair Mark Vannoy was elected to the board on a slate with incumbents Brook Colangelo and Roberto Denis. The slate was approved by the RTO's board and endorsed by the PC.

Although the JNC approved the slate unanimously, stakeholders at the time told *RTO Insider* the leaders of NEPOOL's End User and Alternative Resources sectors attempted to withdraw their support for Vannoy after hearing negative feedback from their sector members. The sector leaders were not permitted to identify Vannoy until after the JNC voted under current rules. (See [Consumer Advocates Upset with Pick for ISO-NE Board.](#))

### Energy Market Value Falls

ISO-NE's energy market value for March was \$324 million (through March 24), down \$435 million from the updated February valuation and \$152 million higher than the same month in 2020, according to COO Vamsi Chadalavada's [monthly report](#) to the PC.

March natural gas prices were 55% lower than February's average values. Average real-time hub LMPs were down 48% in March at \$37.10/MWh. Average natural gas prices in March and real-time hub LMPs were up 144% and 121%, respectively, from the same period last year.

Average day-ahead cleared physical energy during peak hours as a percentage of the forecasted load was 99% in March, down from an adjusted 99.2% during February, with the minimum value for the month of 94.3% posted March 6.

Daily uplift or net commitment period compensation (NCPC) payments totaled \$1.8 million over the period, down \$800,000 from the adjusted February value and \$100,000 less than March 2020. NCPC payments were 0.6% of the energy market value.

Chadalavada said that 12 new projects totaling 1,577 MW applied for an interconnection study — eight battery storage projects, three battery addition and hydro increase projects and an offshore wind increase project — with

in-service dates ranging from 2022 to 2026. There are 272 generation projects currently being tracked by the RTO, totaling about 25,873 MW.

### Winter Weather Operations

Additionally, Chadalavada provided details on the RTO's 2020-21 winter operations, which did not have to deal with a prolonged cold snap but were affected by the COVID-19 pandemic in terms of higher load and overall energy demand in New England.

There were a few consecutive days with below-normal temperatures but no sustained significant cold, and there were 31 straight days from Dec. 21 to Jan. 20 that had above-normal temperatures.

The winter peak demand was 18,703 MW on Jan. 29. The RTO attributed higher loads overall to work-from-home and remote-learning policies because of the pandemic. There were higher average evening peak and mid-day loads. Deviations were observed primarily during "normal working hours."

Snowfall totals, which were slightly above average in Boston and Hartford, resulted in lower PV output and contributed to approximately 22% of the higher energy demand.

### Vote Supports Removal of Appendix B from Market Rule 1

The PC [voted](#) to support the RTO's proposal to remove Appendix B from Market Rule 1 and additionally delete tariff associations such as internal references and unique definitions. The proposal won 60.12% support in a sector-weighted vote after [narrowly failing](#) to gain a similar percentage during a Markets Committee meeting on March 9.

Appendix B establishes the procedures and standards by which ISO-NE imposes sanctions for conduct such as failure to respond to the RTO's dispatch instructions. The Internal Market Monitor [said](#) that Appendix B is "unused and is unnecessary given the existing regulatory referral process under [the tariff's] Appendix A and [FERC]'s authority to determine violations and sanctions under its penalty guidelines." The Monitor added that Appendix B is "outdated" and possibly "in conflict" with FERC orders on the lack of affirmative defenses and economic excuses. ■

— Jason York



## MISO News

# Winter Wrath Not Enough to Break MISO Records

By Amanda Durish Cook

February's cold snap set MISO's winter peak this year but didn't unseat the grid operator's all-time winter demand record, stakeholders learned last week.

MISO set the winter peak of 103.1 GW Feb. 15, short of its 104-GW prediction and its all-time winter peak of 109 GW set in early January 2014. MISO South registered a 31.6-GW peak, nearly matching the region's 32.7-GW all-time summer peak set in August 2015.

JT Smith, MISO's director of operations planning, said while the wintertime peak didn't reach worst-case projections of 109 GW, unprecedented weather patterns still necessitated emergency operations.

"It was a combination of cold weather over a longer stretch of time ... and a band of snow and ice ... over a number of days," Smith said during a Reliability Subcommittee teleconference April 1.

Despite the snow and ice dumped on the system, MISO was able to limit load sheds to two-hour rolling blackouts in MISO South and smaller outages caused by local transmission emergencies. (See *MISO, Stakeholders Disagree on Post-storm Accreditation*.)

MISO said it used load-shed orders and generator redispatch to manage an unusual east-to-west power flow bias on its system during the punishing weather. The grid operator said it directly exported power to SPP when it could while also experiencing intense flows from PJM to SPP that strained MISO's system.

Smith said the MISO South load shed was called in part to manage the contractual limits on the RTO's Midwest-to-South transfer limit.

Mississippi Public Service Commission staffer Bill Booth asked whether MISO considered violating the transfer limit to avoid MISO South load curtailment, though it would have later paid penalties to SPP and the joint parties later. The RTO has an obligation to not exceed the 3,000-MW Midwest-to-South directional transfer limit for more than 30 minutes at a time.

"I don't think it's a money situation here. It's strictly a question of managing the grid reliably for us and our neighbors," Smith said. "That there wasn't an uncontrolled load shed, I think, is a testament not just to our control room operators but all our members' control room operators."

Customized Energy Solutions' David Sapper said MISO should consider analyzing its most

essential generating assets to make sure they're replaced appropriately upon retirement.

MISO and its Independent Market Monitor both agreed that control room operators managed to avert a more dangerous situation.

Market Monitor David Patton emphasized that MISO employed numerous proactive measures that lessened the severity of the event.

"MISO operators performed admirably under extraordinary conditions, taking key actions in the face of simultaneous emergencies to protect the system," he told the Board of Directors March 23.

But Patton said the event highlights the need for MISO to review its transmission loading relief procedures. He said the grid operator is often too slow to call relief procedures.

Patton also said RTO is opting not to test constraints that would be better defined as market-to-market (M2M) constraints with SPP. He said one constraint had previously been categorized as M2M "but had been disabled and not retested." He said that during the event, that constraint accounted for \$65 million in congestion costs, \$10 million of which SPP would have been responsible for had the constraint been designated M2M. ■



An Ameren Illinois worker upgrading poles to better withstand wind and ice accumulations | Ameren Illinois



## MISO News

# MISO Preps for Dynamic Line Ratings

By Amanda Durish Cook

MISO has developed a rough idea of how it might manage dynamic transmission line ratings should FERC require variable ratings.

Brian Kiefer, manager of operations support engineering, said the process involves compiling a list of facilities that have bound in the real-time market in the past two years and could be ripe for ambient adjusted ratings (AARs). The list is ranked by the facilities' marginal costs of congestion and provided to transmission owners.

Kiefer said that in the inaugural list, staff singled out 504 transmission facilities that stand to save the most in congestion costs by adding additional megawatts in line capacity.

TOs will evaluate the candidates and let MISO know by July 1 if any are contenders for AARs, Kiefer said during a Reliability Subcommittee meeting Thursday. He said the grid operator and its TOs plan to repeat the process on a quarterly basis.

MISO's preparations are a response to stakeholder requests that predate FERC's January *Notice of Proposed Rulemaking* to require all overhead lines be equipped with real-time and forecasted AARs, if possible.

"We were thinking and moving on this idea before the [NOPR] came out," Executive Director of System Planning Aubrey Johnson *said* late last year.

TOs currently tabulate and provide MISO with



MISO control room | MISO

line ratings for more than 16,000 lines, most of which remain unchanged season to season. Staff incorporate the ratings in reliability criteria and congestion-management controls; it can verify the ratings or ask TOs for more information behind their ratings methodology. In MISO South, Entergy provides hourly and current AARs to the grid operator through file transfers.

"MISO currently operates against the information we're given by the TOs," Kiefer said. "MISO does not have the in-the-field knowledge to say if a particular piece of equipment should be in an [AAR] program or not. We're not in a good position to make those judgements."

Marcus Hawkins, executive director of the Organization of MISO States, asked whether

the RTO would share more details on its evaluation or the TOs' assessment of candidates.

"I think it's still early in the process," Kiefer said. "And that's going to be actively discussed and something to consider."

MISO has said that while applying real-time ratings should be an easy lift, implementing forecasted adjusted ratings will require significant software work to set up a data exchange system between itself and TOs.

Kiefer told stakeholders not to expect that AARs or similar technology would supplant the need for new transmission infrastructure.

"It's an efficiency but not a replacement," he said. "It's not a slam dunk to eliminate all congestion, but it should certainly help." ■

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## NYISO News

# FERC Approves NYISO Co-located Storage Model

## Glick Urges NYISO to Replace MOPR Provisions

By Michael Kuser

FERC accepted NYISO rules allowing an energy storage resource (ESR) to participate in the wholesale markets with wind or solar as a co-located storage resource (CSR) ([ER21-1001](#)).

“We find that these tariff revisions will enhance the eligibility and participation of CSR component resources, as well as for ESRs more generally, in NYISO’s energy, ancillary services and capacity markets,” the commission said in its order March 30.

NYISO’s tariff revisions will allow an ESR to share a common point of injection with a wind or solar intermittent power resource (IPR).

The commission said the ISO’s proposed bidding construct will permit a CSR component to indicate when the IPR will be used to charge the ESR; when an ESR co-locating with an IPR will be eligible to provide operating and regulation services; and when an ESR participating in a CSR will retain its ability to operate consistent with scheduling and dispatch instructions even in scenarios where its paired IPR over produces its forecast.

FERC also accepted the requested March 31 effective date for new definitions and revisions to interconnection rules and installed capacity mitigation rules. The remaining tariff revisions will be effective in the fourth quarter, following testing of software changes to permit CSRs

to participate in its markets. The commission ordered an informational filing on the status of the transition Aug. 1.

On March 11, the ISO kicked off an effort to create a market participation model that would allow an ESR and multiple generators to share the same point identifier and act as a single resource. The project is slated for completion by year-end. (See [NYISO Prepares Hybrid Storage Aggregation Model](#).)

### No More MOPR

Commission Chairman Richard Glick concurred in a separate statement “to reiterate my belief that it is nonsensical to apply buyer-side market power mitigation to entities that are not buyers or that lack market power.”

Although the order applies NYISO’s existing buyer-side market power rules to co-located ESR and IPR resources, Glick said he concurred because the ISO has not proposed any substantive changes to those rules.

“But that does not mean that I have to come to terms with those rules. To the contrary, I urge NYISO and its stakeholders to move expeditiously to replace those rules with a model that moves beyond minimum offer price rules as a means for mediating the interaction between state policies and wholesale markets. In the event NYISO and its stakeholders cannot settle upon a replacement for its current buyer-side market power rules, then we will be left with little choice but to step in and establish

such rules ourselves,” Glick said.

Glick made similar comments at the commission’s technical conference on capacity markets March 23. (See [PJM MOPR in the Crosshairs at FERC Tech Conference](#).)

New York’s Climate Leadership and Community Protection Act, which requires that 70% of the state’s electric load be served by renewable resources by 2030, also requires procurement of 3 GW of storage by 2030.

### Metering, Annual Charges

The commissioners found that NYISO’s new capacity market rules properly account for the physical limitations of CSR generators, noting their understanding that the revisions and additions “do not change NYISO’s buyer-side mitigation measures nor do they change a resource’s current eligibility to qualify for any exemption to those measures.”

FERC accepted NYISO’s proposal to use a single revenue-quality meter at the point of interconnection, as well as two settlement rules that are distinct to CSRs. The commission also accepted the ISO’s proposal to not assess transmission charges to an ESR for charging energy that it receives from its accompanying IPR because the two resources are sharing energy before the point of injection to the NYISO transmission grid.

The Energy Storage Association, American Clean Power Association, Alliance for Clean Energy New York and the New York Battery and Energy Storage Technology Consortium wanted the commission to direct NYISO to net out meter data associated with charging by CSRs to eliminate administrative charges for an IPR providing charging to an ESR over customer interconnection facilities.

NYISO replied that the intervenors inappropriately conflated charges for services that it will provide to generators that participate in a CSR. The ISO said it is consistent with the commission’s cost causation principles, to recover its cost of providing scheduling and dispatch services from all resources that require those services on an equivalent basis.

The commission found it just and reasonable for NYISO to recover annual administrative charges from CSRs “because it assesses these charges on the same basis that NYISO already assesses these charges to stand-alone ESRs and to stand-alone wind or solar IPRs.” ■



A solar farm in the U.K. co-located with energy storage | National Grid



# NYISO News



## NYISO Market Monitor Reviews Class Year 2019 BSM

By Michael Kuser

The NYISO Market Monitoring Unit on March 29 discussed its report on the Class Year 2019 buyer-side mitigation (BSM) evaluations, including some of the technical assumptions used.

Raghu Palavadi Naga of NYISO Market Monitoring Unit Potomac Economics *presented* the analysis — intended as a high-level overview of the MMU’s content-heavy, main CY19 *evaluation* — to the Installed Capacity/Market Issues Working Group.

Low capacity margins and regulatory retirements were the chief drivers for Part A exemptions and renewable entry exemptions (REE), Naga said. “Additional retirements, for example from the state Department of Environmental Conservation’s peaker rule, could enable

more exemptions.”

The BSM rules are intended to avoid artificial suppression of capacity prices below competitive levels due to subsidized entry of uneconomic resources, and the new capacity resources can seek four different types of exemptions.

The REE exempts renewable technologies that NYISO determined to be weak instruments for the exercise of buyer-side market power because of their low capacity value and high fixed costs. The competitive entry exemption exempts unsubsidized merchant facilities that enter based on their own expectation of market conditions.

The Part A test exempts a resource when its capacity will not lead the capacity surplus of a locality to exceed 4 to 6%; and the Part B test

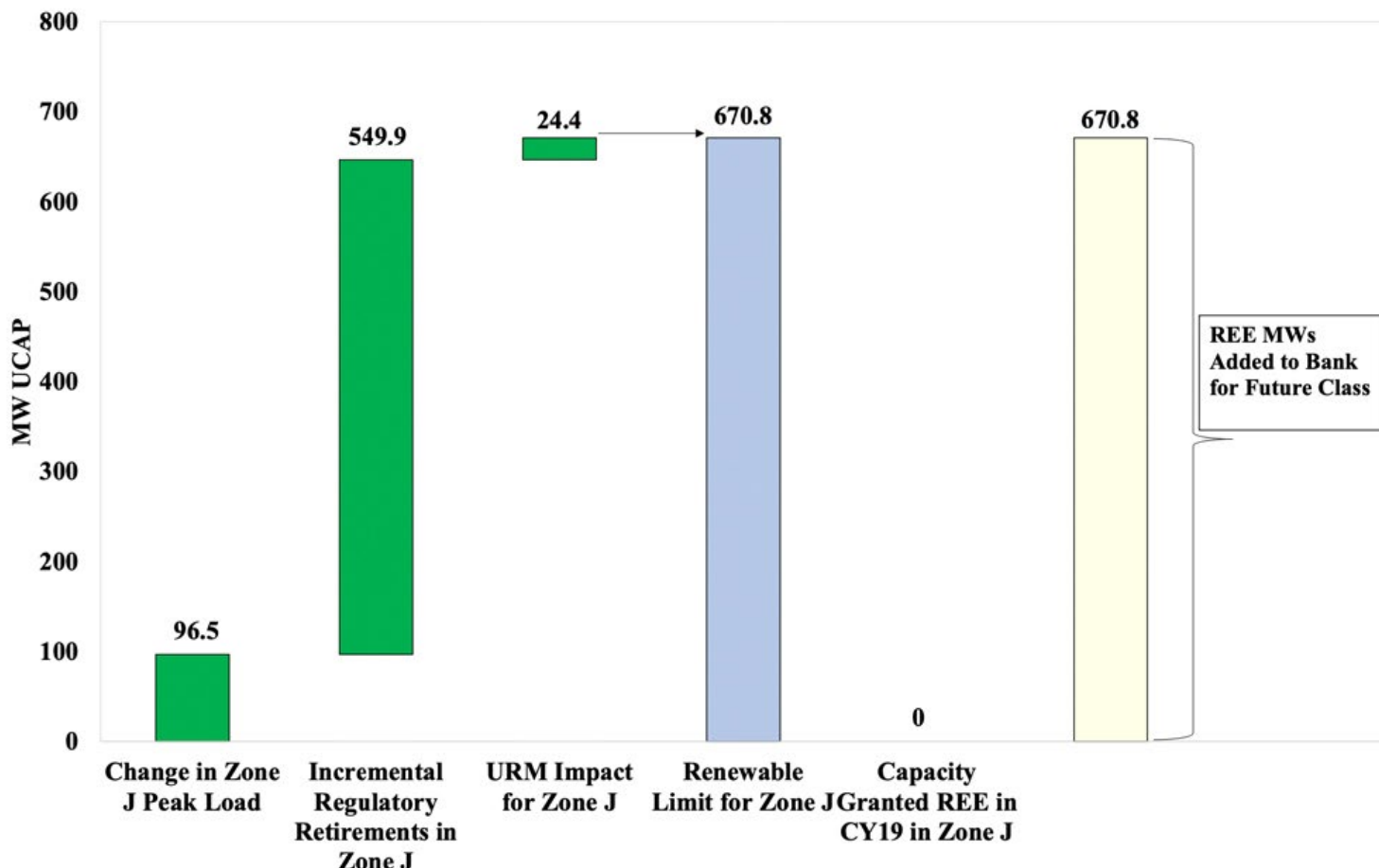
ensures that a project is not mitigated when it would be economic for the project to move forward.

The “*peaker rule*,” which became effective last January, phases in nitrogen oxide (NO<sub>x</sub>) limits for all single cycle combustion turbines in New York City and Westchester, Rockland and Nassau counties during the summer ozone season.

### Revenue Estimates

However, Naga said two issues with the REE limit should be evaluated further. Acceptance of NYISO’s Part A enhancements would not have affected the outcome of the CY19 final determinations, but it could facilitate additional entry in future class years by prioritizing public policy resources ahead of other resources (ER16-1404-007).

FERC in February modified its Oct. 7 *decision*



Results for renewable resources show the bank for renewable entry exemptions in Zone J after CY19 is 670.8 MW (UCAP) – equivalent to approximately 1,765 MW of offshore wind. | Potomac Economics



# NYISO News

disqualifying New York’s Commercial System Distribution Load Relief Programs from an exemption under the ISO’s BSM regime, agreeing with the complainants that the programs help companies avoid or defer costly distribution infrastructure upgrades and are not primarily designed to offset transmission investment. (See *FERC Backtracks on NYISO BSM Exemptions.*)

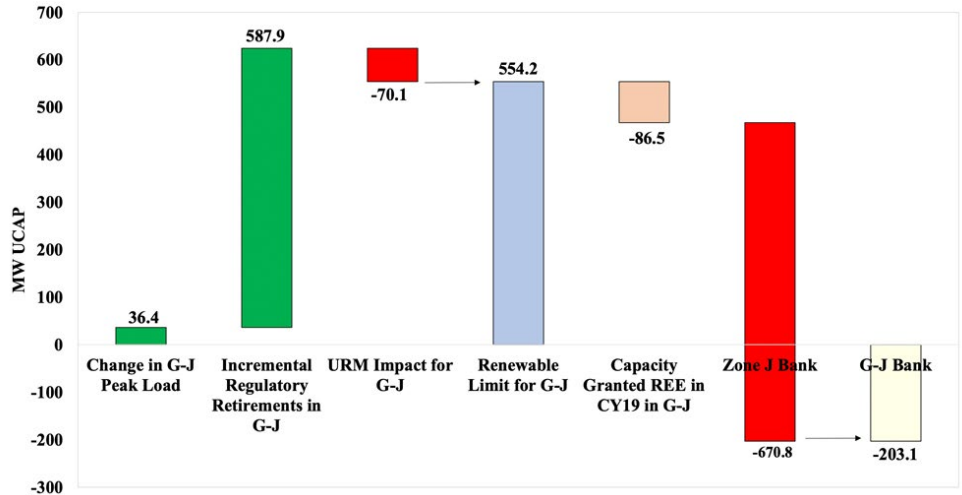
The MMU’s reference in the review of distribution level reliability benefits to “benefits” and “revenues” are intended to refer to the same thing, as there are different revenue streams in the BSM evaluations, said Pallas LeeVanSchaick of Potomac Economics.

“In some cases, for revenue streams that come from non-wholesale market products or from contracts [for energy, capacity, and/or ancillary services] the NYISO is going to use proxy values based on an estimate of the value of a particular revenue stream,” LeeVanSchaick said.

One stakeholder said he understood the ISO requires a developer to identify a revenue stream in order for it to consider these benefits in the BSM evaluation of an energy storage resource.

The difficulty comes if a developer submits a contract covering multiple services, LeeVanSchaick said. “The ISO is looking in its evaluation to estimate the value of the distribution reliability benefit portion, and if the information presented doesn’t clearly identify the portion of the overall revenues that can be applied to that, then the ISO is going to have to come up with a reasonable estimate.”

The Part B test of the BSM rules involves estimating future streams of energy, ancillary services and capacity when there may be no contract in place, he said.



Results for renewable resources show the bank for renewable entry exemptions in Zones G-J after CY19 is -203.1 MW. | Potomac Economics

The MMU suggested improving the alignment of an actual project entry date with the date used in the Part A test. This improvement was included with the proposed Part A enhancements, but he stated that fixing this in the Part B test would require additional tariff changes.

### LCR Values

One stakeholder cited the main report as saying if the locational minimum installed capacity requirement (LCR) had been higher, results would have been similar, and asked what that signified, as the LCR assumed for the study was higher than the LCRs that were being set for the market at the same time.

“When we talk about higher LCRs, we were

comparing it with what the prevailing values were,” Naga said, adding that the Zone J (New York City) LCR used was 85.5% for the first year of the study, i.e., the 2022-2023 capability year.

The report has a lot of factual information, LeeVanSchaick said, and given some stakeholder concerns about the LCR values used for the evaluations – slightly higher than the previous historical record – “we are planning to present some information in the not too distant future about some of the things we think are going on with the LCR optimizer and why it’s producing erratic results in these mitigation evaluations. That’s something we’re working on understanding better.” ■

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# NYISO News



## NYISO Management Committee Briefs

### CEO Briefing

NYISO CEO Rich Dewey informed the Management Committee on Wednesday that the ISO in early March had completed its annual stakeholder sector meetings for this year with good input and participation, which was shared on a high level with the Board of Directors. He also announced that the joint board/MC meeting in June will again be a virtual event.

“The next iteration of our market participant survey will be going out soon, and I personally read verbatim every one of the comments,” Dewey added.

Responding to a stakeholder, Dewey said he has heard nothing about the timing of the NYISO-specific technical conference that FERC announced at the March 23 conference on capacity markets. That event featured a broad discussion on PJM’s, NYISO’s and ISO-NE’s markets, but it mostly focused on PJM. The commission said it would hold individual technical conferences for both NYISO and ISO-NE in the future. (See *PJM MOPR in the Crosshairs at FERC Tech Conference.*)

### Winter Operations Went Well

Vice President of Operations Wes Yeomans

delivered the Winter 2020/21 Cold Weather Operations *report*, which showed a seasonal peak load of 22,542 MW on Dec. 16, compared with a seasonal 50/50 forecast of 24,130 MW. NYISO’s all-time winter peak load was 25,738 MW on Jan. 7, 2014.

“For the most part we did not have a single, brutal cold snap or a long sustained cold snap,” Yeomans said. “To explain the difference between the forecast and the peak, we simply did not have 50/50 weather, but if we had, I imagine the seasonal peak would have been very close to the forecast.”

The Dec. 16 snowfall exceeded that morning’s forecasts by 1 to 2 feet, and the storm proved to be the eighth largest in Albany history and the fourth largest December snowstorm.

The ISO ran the day-ahead forecast on Dec. 15, and as the day proceeded, transmission owners saw the possibility of exceeding the 50/50 forecast peak and thus issued a supplemental resource evaluation (SRE) request for Cricket Valley CC3 on Dec. 16. Transmission owners may request NYISO to issue an SRE to commit additional resources for reliability purposes in a local area.

throughout the Northeast are running at high capacity factors, as was made evident in the second week of February when colder weather saw a flurry of operational flow orders (OFOs), both daily and hourly, Yeomans said.

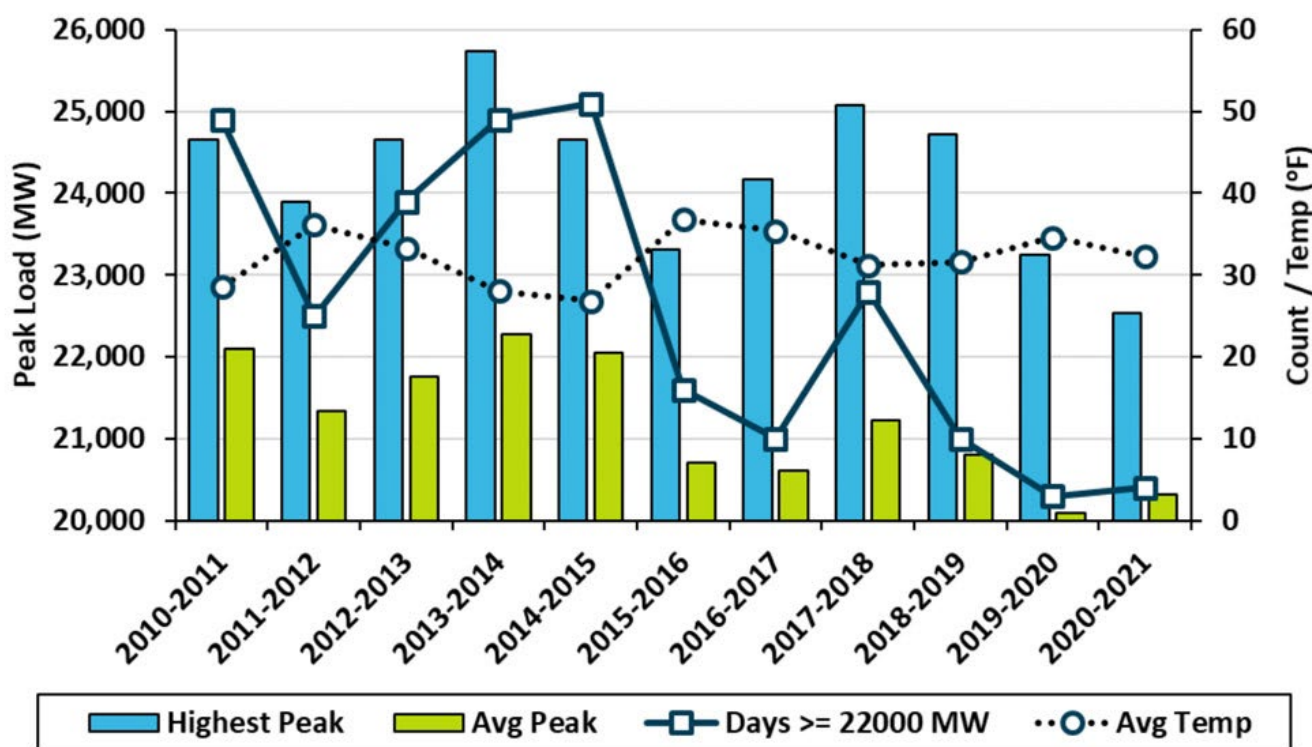
On days when gas system reliability could be at risk, the local distribution company or a gas pipeline may invoke an OFO or issue other instructions restricting use of gas imbalance service. Under extreme circumstances, interruptible customers may also have their gas service interrupted to protect gas system reliability.

“The natural gas infrastructure in New York remained in service throughout the winter, yet a number of OFOs were reported on days not identified as particularly cold,” Yeomans said. “We hope to bring more information on that situation to an upcoming OC meeting.”

NYISO is following the FERC-NERC joint inquiry into the February winter storm in ERCOT and SPP, and it intends to review all findings and consider best practices and recommendations as appropriate, Yeomans said. ■

Natural gas pipelines in New York and

– Michael Kuser



Winter 2020–2021 daily peak loads in perspective | NYISO

## NYISO News



# NY Residents Largely Oppose Danskammer Plant Repowering

By Michael Kuser

New York residents calling into virtual public hearings Wednesday overwhelmingly opposed rebuilding the 532-MW gas-fired Danskammer peaker plant as a 600-MW combined cycle unit (18-F-0325).

State Assemblymember Robert Carroll (D) said the state has just 19 years to transition to an emissions-free grid, and that the Danskammer power plant is a significant obstacle to doing so.

“With New York having some of the boldest climate leadership legislation in the nation, it would be a shame for you to approve the Danskammer power plant [to emit] 25 times more health-damaging particulate matter and volatile compounds into the atmosphere, increasing air pollution and threatening public health,” Carroll told the New York State Board on Electric Generation Siting and the Environment, which held the hearings.

The facility on the west bank of the Hudson River in Newburgh also applied for limited

provisions to burn ultra-low sulfur diesel fuel as a backup fuel, with five days of on-site fuel oil storage, the Siting Board said. Danskammer Energy filed the original application in December 2019 and made four supplemental filings in 2020.

New York’s Climate Leadership and Community Protection Act mandates that greenhouse gas emissions be reduced to 40% from 1990 levels by 2030 and 85% by 2050. (See [NY Preps Statewide GHG Emissions Report.](#))

### Health, Reliability

Christine Arroyo, a resident of Putnam County, across the Hudson River and south of Newburgh, said she and her husband moved from Brooklyn to start a family and chose not to live in Newburgh because of the pollution from the power plant.

“Besides all the health problems [Danskammer] brings to us who are already here, it also greatly contributes to miscarriages,” Arroyo said. “We have the privilege of being able to choose where to live, but think of all the people who don’t and whose lives and health conditions are worse because of it.”

The state Department of Health [submitted](#) a supplementary environmental justice analysis, concluding that “the project will meet and exceed the recommendations” from the department to mitigate any potential environmental burden to the nearby impact study area and, more specifically, environmental justice areas.

“This is because the project proposes to use the cleanest fuels presently available, which include natural gas as the primary fuel, with ULSD as the backup fuel; [and] the project will also be one of the most efficient electric-generating facilities in New York, which further reduces the NYISO systemwide average emission rate per megawatt-hour generated,” the department said.

Under its air permits, the project would incorporate technology to minimize emissions and offset emissions of nitrogen oxides and volatile organic compounds through emission-reduction credits based on the shutdown of the existing Danskammer generating station. The mitigation measures will ensure that the project “has negligible to no air quality impacts” from its operation, the DOH said.

Chloe Holden, an energy storage researcher for Wood McKenzie, shared a quote by Bill Reid, CEO of [Agate Power](#), which owns Danskammer.

“This quote really shocked me because it contradicts all recent market analysis on the topic of gas-fired power plants. In November 2019, Reid stated, ‘We need gas-powered generation until renewables can step in, and I can’t tell you whether that’s in 10 years or 30 years,’” Holden said.

Holden said Reid’s statement is “extremely misleading” and that “several natural gas-fired power plants are being moved forward based on this kind of outdated information. I am qualified to say that the argument for this plant is highly disingenuous. Danskammer’s message to the public and to regulators is that their plant is one of the last fossil fuel plants that will ever be built in the U.S., but the reality is that this plant is not needed for reliability.”

For several years the data have shown that solar energy, paired with lithium-ion battery storage power generation, can be used cost-effectively instead of gas-fired power plants, Holden said. Solar paired with storage is already being installed instead of gas-fired plants all across the U.S., she said. ■



Danskammer Energy is applying to repower the 532-MW Danskammer power plant in the town of Newburgh, Orange County. | [Riverkeeper](#)



## PJM News



# PJM Nominates Replacements for Board of Managers

By Michael Yoder

Two individuals have been nominated to replace outgoing members of the PJM Board of Managers.

In a *letter* sent to stakeholders on Thursday, PJM CEO Manu Asthana said the RTO's Nominating Committee selected Paula Conboy, former chair of the Australian Energy Regulator, and Jeanine Johnson, a vice president at Netgear and CEO of a California-based technology company. Conboy and Johnson are set to replace outgoing board member John Foster and PJM Chair Ake Almgren at the Members Committee's Annual Meeting in May.

Asthana said the Nominating Committee — comprising five PJM member sector representatives and board members Charles Robinson, Terry Blackwell and Mark Takahashi — worked with executive and board search firm Korn Ferry International since the fall to identify candidates, which included suggestions from stakeholders, in a "nationwide search." The Nominating Committee's sector representatives included: Susan Bruce (End Use Customers); Lisa McAlister (Electric Distributors); Alex Stern (Transmission Owners); Betty Watson (Other Suppliers); and Jeff Whitehead (Generation Owners).

"The Nominating Committee is confident that Paula and Jeanine will make significant contributions as PJM board members," Asthana said in his letter.

Conboy is currently an energy consultant with



Paula Conboy | Australian Competition & Consumer Commission

Sussex Strategy Group in Canada. Until 2019, she served as chair of the Australian Energy Regulator, where she was responsible for strategic direction of the country's energy policy. She is a graduate of the University of Guelph, in Ontario.

Johnson currently serves as vice president of product security for Netgear and is CEO of SunToWater Technologies, a company that develops atmospheric water generators to produce fresh water. She previously served as head of application security for internet software and services for Apple. Johnson is a graduate of the University of Missouri and Cornell University.

Besides the two new board members, the



Jeanine Johnson | SunToWater Technologies

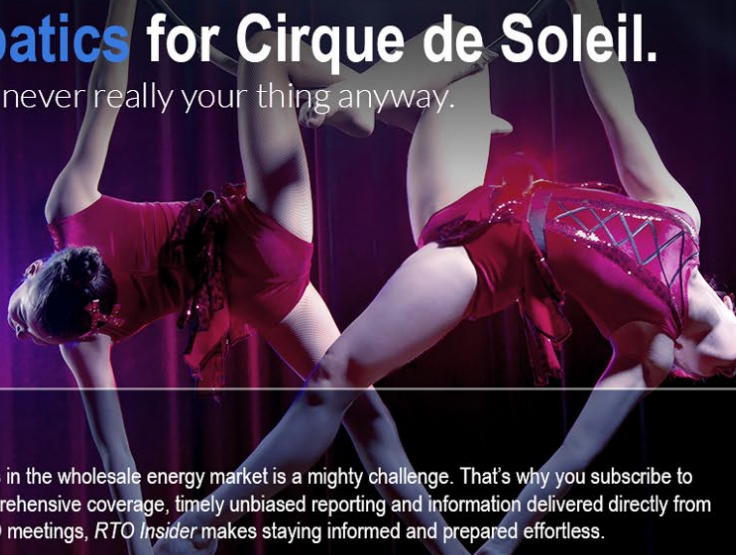
Nominating Committee also voted to nominate current board members Sarah Rogers and Neil Smith for re-election. Following the election of members at the Annual Meeting, the board will elect a new chairperson.

Almgren, the current chair of the PJM board, has been a part of the RTO since 2003. He took over as chair in 2018, replacing Howard Schneider, who served on the board from its inception in 1997 until his retirement. Foster, the chair of the Risk and Audit Committee, has also been a board member since 2003.

The Organization of PJM States Inc. (OPSI) had asked the RTO to consider board candidates who have state regulatory experience to replace Almgren and Foster. (See *OPSI Asks PJM to Consider State Regulators for Board.*) ■

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## PJM News



# PJM MRC/MC Briefs

## Markets and Reliability Committee

### CISO First Read

PJM highlighted confidentiality in its proposals for mitigating and avoiding critical infrastructure projects under NERC reliability standards.

Mike Herman of PJM reviewed the proposed solutions and manual language changes, including *Manual 14B* and *Manual 14F*, to address the mitigation and avoidance of future CIP-014 facilities during a first



Mike Herman, PJM | © RTO Insider

read at the Markets and Reliability Committee meeting March 29. At the February Planning Committee meeting, stakeholders endorsed the avoidance package, including associated manual language, with 77% support and endorsed the mitigation package with 61% support. (See “Critical Tx Infrastructure Proposals Endorsed,” *PJM PC/TEAC Briefs: Feb. 9, 2021*.) Stakeholders will vote separately on the avoidance and mitigation proposals at the April MRC meeting.

In his presentation, Herman pointed to passages from existing NERC CIP-014 standards on confidentiality, including measures for maintaining “need to know” employees, who have access to the confidential information, and preventing the release of information on critical infrastructure units outside the physical site of the transmission owner. Herman said PJM obeyed the NERC standards in its proposals and sought to strike a “balance” to implement transparency where possible.

“We wanted to point out some of the difficulties that PJM and stakeholders had working through a process where confidentiality is so highly required,” Herman said.

He said it “can be difficult to navigate” confidentiality and transparency simultaneously.

Under its avoidance proposal, PJM will study proposed projects, and if one creates a new critical substation, the RTO will work with the proposing entity to determine if the project needs to be modified.

Confidentiality and transparency are equally important under the mitigation proposal but

even more complicated because of the processes involved in planning, Herman said.

“Confidentiality associated with mitigation is even above and beyond that of avoidance due to the nature of the identified facilities,” Herman said.

PJM is proposing to conduct a request for proposal window to solicit mitigation solutions.

Herman said mitigation on a project is only available in states where a process has been established to maintain confidentiality of the need associated with the critical substation.



David “Scarp” Scarpignato, Calpine | © RTO Insider

Calpine’s David “Scarp” Scarpignato said he was impressed with the amount of feedback PJM took from stakeholders to amend the proposals.

But he said the RFP competitive solicitation window sounds “infeasible” because of the confidentiality of the substation that needs to be corrected. He asked if the competitive transmission owners agreed with PJM’s proposals.

Herman said PJM had “good engagement” on the issue from the competitive transmission owners and stakeholders involved in the competitive process.

Sharon Segner, vice president at LS Power, said her company’s role as a competitive transmission developer has kept them “very engaged” in the process of developing the proposals, and that it was appreciative of PJM’s efforts to make changes to language in the manual and Operating Agreement.



Sharon Segner, LS Power | © RTO Insider

Segner said LS Power is “not at the point yet” to support the proposed OA language but were “very close” with some tweaks.

Alejandro Bautista of PJM reviewed the proposed OA language from the proposals, saying the updated language incorporates changes based on stakeholder feedback over the last two months.

“We think it was constructive to refine the

draft OA language,” Bautista said.

PJM attempted to put together a “transparent process” in the language that protects the confidentiality of the critical units, Bautista said, while also allowing incumbent transmission owners and other developers to compete.

Some “substantial changes” in the OA included creating a new section, 1.5.11 Critical Substation Planning Analysis (CSPA) Project Process. The new section describes the CSPA process and its purpose, including allowing PJM to “identify, develop and select the more efficient or cost-effective solution to address potential reliability violations stemming from the contingency loss of a critical substation.”

Bautista said the CSPA process will be conducted annually by PJM and will include the estimated costs of a project.

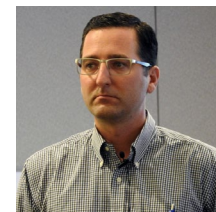
Segner said there were several “outstanding issues” in Section 1.5.11 that would keep LS Power from endorsing the OA language, including measures to make costs of projects more transparent to consumers. Segner said some of the OA language appears to define what is a competitive process and what is not, lending itself to more clarity.

“Our hope is next month that LS will be able to support the package,” Segner said.

### ICSA First Read

Stakeholders have provided recommendations to PJM’s proposal for changes to the superseding language and automatic termination provisions of the interconnection construction service agreement (ICSA).

Mark Sims, PJM manager of infrastructure coordination, reviewed a proposed solution and associated tariff revisions addressing the RTO’s concerns associated with the pro forma ICSA’s lack of superseding language and current automatic termination provision. Sims first presented the issue at the March Planning Committee meeting. (See “Interconnection Construction Service Agreement,” *PJM PC/TEAC Briefs: March 9, 2021*.)



Mark Sims, PJM | © RTO Insider

He said the catalyst for dealing with the issue is the overwhelming generation interconnection queue volume.



# PJM News



"In this environment, we have to remain focused on efficiency, and we've identified two areas of the tariff we can improve on," Sims said, denoting two sections of Attachment P of the tariff that deal with ICSAs.

Section 1 of Attachment P does not contain pro forma language that considers when an ICSA supersedes an already effective ICSA, Sims said.

The tariff provides for automatic termination of ICSA upon the occurrence of certain conditions, he said, which can occur without PJM's knowledge. The conditions include completion of construction of all interconnection facilities, a transfer of title, final payment of all costs or delivery of final as-built drawings to the transmission owner.

Sims said PJM is asking the transmission owners to notify them when the conditions have been met but is not looking to "shift burden" to the TOs.

The RTO received little stakeholder feedback regarding the superseding language, Sims said, but concerns were raised regarding the automatic termination proposal.



Alex Stern, PSEG |  
© RTO Insider

Alex Stern, director of RTO strategy for PSEG Services, provided a *friendly amendment* to the proposed tariff language. The amendment proposes that the notification obligation be "reciprocal" so that PJM will provide written notice to the

interconnected TO and customer generator that the ICSA has been canceled with FERC.

Stern said the TOs and customer generators must make quarterly report filings at FERC that provide detailed interconnection agreement information, including termination of agreements. Stern said the TOs must rely on PJM to provide notice to comply with FERC obligations.

"As long as we're making this refinement, it seemed to make sense to do as much as we can to help one another with our respective compliance obligations," Stern said.

Stakeholders will vote on the proposals at the April PC and MRC meetings.

## HVDC Senior Task Force Update

Lisa Krizenoskas, senior lead engineer with the interconnection projects group of PJM, *provided* an update regarding the status of the High

Voltage Direct Current Senior Task Force.

The opportunity statement and issue charge for the task force were approved at the May 2020 MRC meeting, with stakeholders investigating the technical and tariff issues associated with the participation and integration of HVDC converter resources in the PJM capacity market. (See *HVDC Initiative Endorsed by PJM Stakeholders*.)

The task force met four times in 2020, Krizenoskas said, receiving education on Direct Connect's SOO Green HVDC Link — a 350-mile, 2,100-MW, 525-kV underground transmission line that would deliver renewable energy from upper MISO to Illinois and the PJM grid, primarily along existing rail rights of way.

Work at the task force also included education on internal and external PJM capacity resources, pseudo ties and dynamic schedules. Interest identification and design components were also developed for the matrix since the task force's last meeting on Oct. 19.

Krizenoskas said stakeholders continue to meet with PJM to discuss potential proposals, but no formal design options or proposals have been developed.



Carl Johnson, PJM  
Public Power Coalition |  
© RTO Insider

Carl Johnson of the PJM Public Power Coalition said several stakeholders asked for clarification when the task force discussed ways to address the HVDC issue. Johnson said major changes are already under consideration for PJM's entire

resource adequacy construct, and that the timing regarding changes to the rules to new units like HVDC would be "extremely challenging" to address.

"We're increasingly challenged to find a way that this would fit into the current construct and how the anticipated proposal would work," Johnson said.

Scarp said he agreed with Johnson's opinions, and that stakeholders should consider closing the task force at the next MRC meeting. Scarp said the information and education on HVDC will become "stale" if there continues to be delays as the task force has been on hiatus for nearly six months, canceling the last six scheduled meetings.

SOO Green's attorney, Ruta Skucas of Pierce Atwood, said she was "surprised" to hear stakeholders talking about closing the task

force. Skucas said SOO Green has been working with PJM for several months to try to come up with a proposal regarding HVDC implementation.

Scarp said the stakeholder process is "not a one-off, side-off PJM process," and that conversations need to be brought back to the membership body for open discussions.

Skucas said SOO Green's intention was to go through the full stakeholder process to address the HVDC issue but felt it needed to talk to PJM first.

"We are hoping to continue to work through PJM's concerns first and then bring something that was at least acceptable to PJM and stakeholders," Skucas said.



Ruta Skucas | Pierce  
Atwood

## Consent Agenda Items

Stakeholders unanimously endorsed several manual updates:

- Revisions to *Manual 02: Transmission Service Request* from a periodic cover-to-cover review, including correction of grammatical errors, updated links and added language for an alternative method for simulating transfers. (See "Manual Changes Endorsed," *PJM Operating Committee Briefs: March 11, 2021*.)
- Revisions to *Manual 11: Energy & Ancillary Service Market Operations*, resulting from the periodic review, that provide clarification of existing processes, removing outdated rules and terminology, and correcting spelling and grammar mistakes. (See "Manual 11 Revisions," *PJM MIC Briefs: March 10, 2021*.)
- Revisions to *Manual 37: Reliability Coordination*, resulting from a periodic review, that feature fixing broken hyperlinks, updating reference document names, and the consolidation and relocation of two subsections of the manual. (See "Manual Changes Endorsed," *PJM Operating Committee Briefs: March 11, 2021*.)
- Revisions to remove the transmission loading relief (TLR) buy-through congestion process from *Schedule 1* of the Operating Agreement. (See "TLR Buy-through Quick Fix," *PJM Operating Committee Briefs: March 11, 2021*.)

## Members Committee

### Manual 34 Revisions

Members raised questions regarding proposed



# PJM News

revisions to the stakeholder process at the Members Committee meeting March 29.



John Horstmann, AES Ohio | © RTO Insider

John Horstmann of AES Ohio presented the proposed Manual 34 revisions that are aimed to address motions and amendments and reinforce the consensus-based issue resolution (CBIR) stakeholder process.

The revisions, which were under review for more than a year at the Stakeholder Process Forum, modify three sections in Manual 34.

"This has been reviewed quite a few times, including an MC requested Stakeholder Process Forum Manual 34 page turn on March 9," Horstmann said.

The group that worked on the issue, including AES Ohio, American Municipal Power, FirstEnergy, Old Dominion Electric Cooperative, PSEG and the D.C. Office of the People's

Counsel, was trying to ensure that no member has "undue influence" over the stakeholder process, Horstmann said, and they wanted to clarify when members can bring an issue directly to the MC for a vote and, with cause, bypass the full stakeholder process.



Adrienne Ford, ODEC | © RTO Insider

Adrienne Ford of Old Dominion Electric Cooperative said she was supportive of the proposed changes, and that it will "enhance the stakeholder process" for all members.

Calpine's Scarp said he was also supportive of

the changes.

"It's important that things get full vetting in the lower committee before they come up to the higher-level committee," Scarp said.

Segner said she was concerned some of the manual changes are "potentially broad ranging" and wanted to know what problem they were addressing.

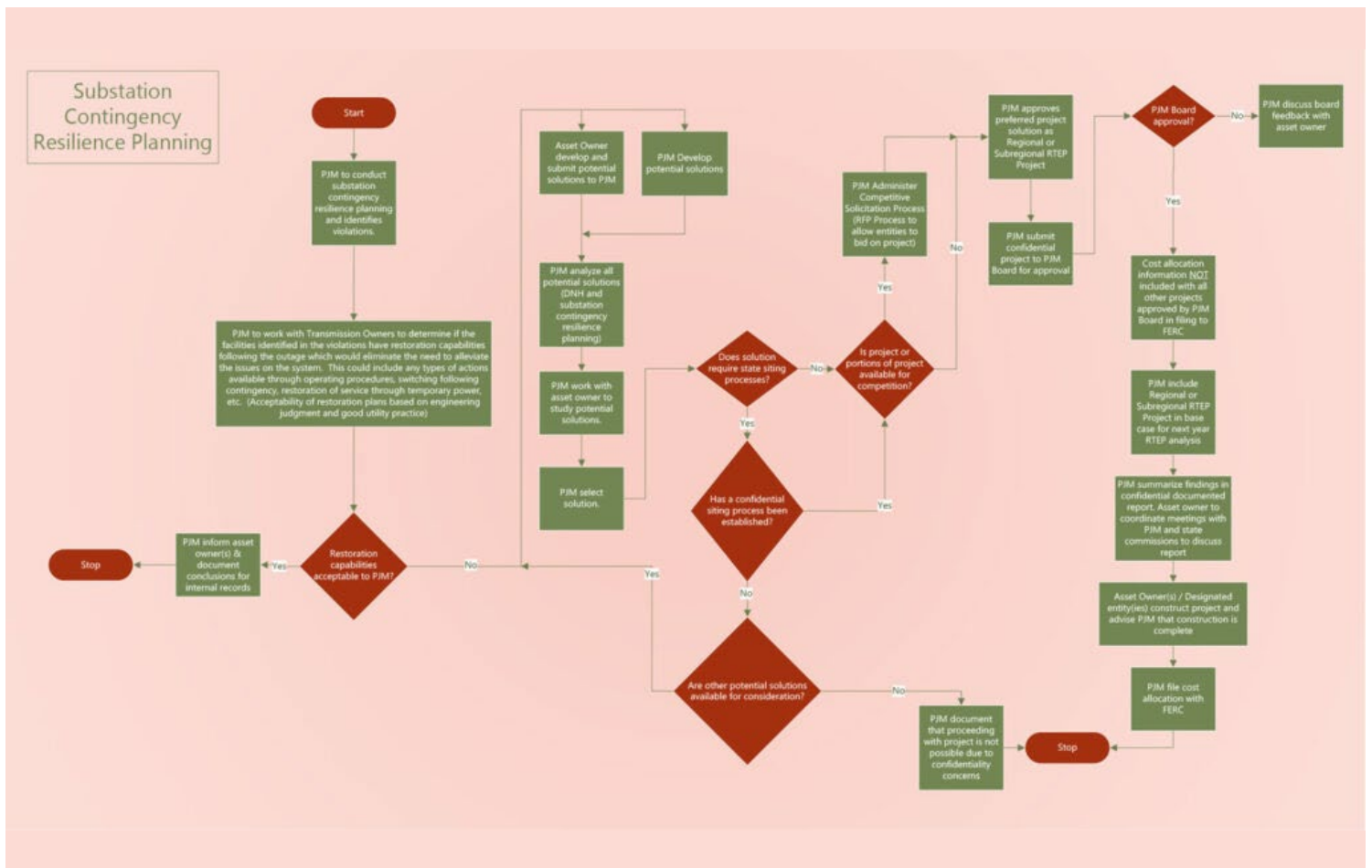
Horstmann said the consensus-based issue resolution process is intended to be the place where issues are raised and discussed by stakeholders. Without the changes, an issue that was never discussed in the lower committees could be brought forward as an amendment at the MC for a vote.

Segner said some of the proposed language seemed to "add a new test" to the process to define what is germane to an issue being discussed. She said what currently defines whether something is in scope on an issue are the words in the issue charge and problem statement. A "good amount of time" is spent on writing those documents, she added.

"I just wonder if there's going to be some unintended consequences here and at the MRC where we're going to be voting on procedural issues," Segner said.

Stakeholders will vote on the manual revisions at the April MC meeting. ■

— Michael Yoder



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

# SPP News



## Blowin' in the Wind: SPP Sets New Renewable Marks

Having recovered from February's severe weather, SPP's market operations are back to normal, with wind and other renewable resources again setting records.

The RTO, which last year became the first grid operator with wind as its No. 1 fuel source (31.3%), recorded its latest high marks at 4:33 a.m. March 29, with historic peaks for wind penetration (81.9% of the fuel mix) and renewable penetration (84.2%).

It was the first time wind penetration has exceeded 80%. Renewables broke the mark set March 14 (81.4%), which had stood only since March 9 (80.3%).

At 7:35 a.m. SPP also set new records for wind (21.1 GW) and renewable (22.7 GW) output. SPP's previous wind peak had stood since Feb. 4, when it reached 20.1 GW.

"SPP continues to set renewable records because of our diverse fuel mix and dedication to building a robust transmission system," SPP spokesperson Meghan Sever said. "We expect this trend to continue as we see more and more renewables come online."

SPP's installed wind capacity has steadily risen over the last decade. In 2009 it had 3 GW of wind installed. By 2020, that number had grown more than nine-fold to 27 GW. The grid operator expects to install an additional 4 GW of wind and add 473 MW of solar energy to its current 235 MW by the end of the year.

The RTO has more than 79 GW of renewables and storage in its generator interconnection queue, Sever said. Wind accounts for 32.6 GW, solar 35.4 GW and energy storage 11.1 GW. The queue also contains a little more than 5

GW of gas resources.

"With the continued growth of renewable generation in SPP's footprint and our proven

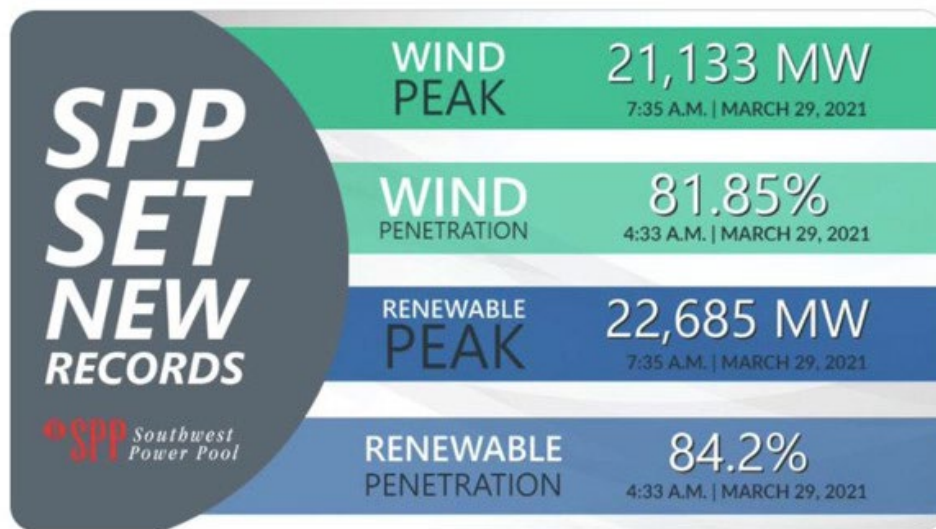
ability to reliably integrate it, we will continue to set subsequent records," Sever said. ■

—Tom Kleckner



**Southwest Power Pool**  
@SPPorg

SPP set several new system records March 29, 2021, including #wind and #renewable historical peaks and penetration records. This is the first time our wind penetration peaked over 80%. #energytwitter



5:48 PM · Mar 29, 2021 · Twitter Web App

SPP continues to set records for wind and renewable energy. | SPP



Xcel Energy's Sagamore Wind Project in New Mexico has added to SPP's bounty of wind resources. | Xcel Energy



## SPP News

# Colo. Regulators Consider Advantages of Interstate Tx

## State Senate and PUC Look to Tx to Meet Decarbonization Goals

By Rebecca Santana

With deadlines for Colorado's steep decarbonization goals fast approaching, state officials are considering every avenue to decrease emissions.

While the path to 80% emissions reductions from 2005 levels by 2030 seems manageable, reaching net zero will be the bigger challenge, according to Colorado Public Utilities Commissioner John Gavan.

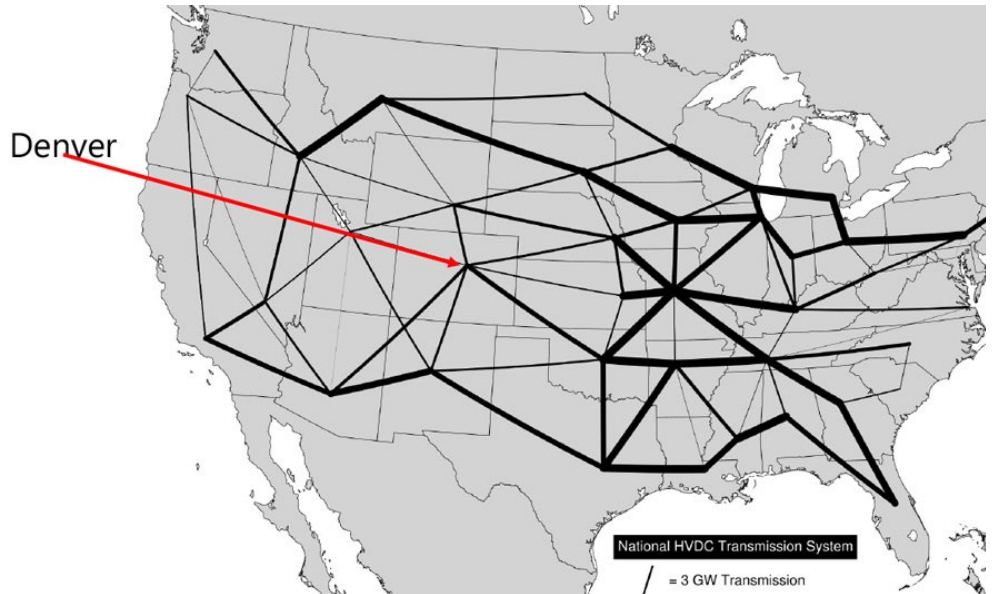
"When you talk to our utility executives, they say, 'Well, we think we have a plan to get [to 80%], but when we look at going from 80 to 100, we have no idea how we're going to do it,'" Gavan said during a Commissioner Information Meeting on March 29.

Interstate transmission "may very well be the secret sauce that allows us to get 100%," he said.

Last week's meeting brought together experts to share findings on possible interregional transmission models. Grid Strategies President Rob Gramlich started by noting that each regional grid operator has its own shortcomings, exemplified by deficiencies in MISO, SPP and ERCOT during February's cold snap, and high prices during extreme weather events in the Northeast. To address these shortcomings, the U.S. will need large-scale interconnected transmission systems that enable substantial energy transfers between regions, he said.

"By allowing new transmission to interconnect larger areas, you get better access to higher quality resource regions and thus more energy from less installed PV/wind capacity," MIT Energy Initiative's Patrick Brown said, citing his [study](#) on the value of interregional transmission in decarbonizing the U.S. The study showed that reaching 100% decarbonization with today's widely available technology — primarily onshore wind and solar — will be much more cost effective with interregional transmission planning.

Vibrant Clean Energy CEO Christopher Clack told the commission that the windiest regions of the U.S. are in the center of the country while the sunniest are in the East and West. A nationally interconnected transmission system running from east to west would allow carbon-free power to be transferred to where demand is highest, enabling utilities to participate in a variety of energy markets and



Colorado in a nationally interconnected system could become a junction point in facilitating transmission between the eastern and western U.S. and experience economic benefits from different energy markets. | Vibrant Clean Energy

enhancing grid resilience.

Circling back to the state level, Clack said Colorado will reach a 16-GW demand peak in both summer and winter by 2050. Because it would not be feasible for Colorado to build all the capacity necessary to meet future demand, the state must turn to interstate transmission.

"If we try to do it on our own as a state without interstate transmission, we're going to get lumbered with high costs ... or lose the commerce to other states," he said.

In a nationally interconnected transmission system, Colorado could be a hub that facilitates energy transfers between regions and would benefit from its high wind and solar output, Clack said.

But commission Chairman Eric Blank said building a transmission system of that scale is no easy feat and seems unlikely without federal guidance. He asked what Colorado could do in the near term to enhance transmission.

A nationwide system is key to unlocking the full decarbonization potential of interregional transmission, Clack said, but interconnecting Colorado to its neighboring states (specifically Kansas, which falls in SPP's footprint) in the short term would still help reduce emissions and enhance reliability.

### SB21-072

While the PUC ponders the potential benefits of interstate transmission planning, a bill that would require that process is under review in the Colorado Senate. If passed, *SB21-072* would require electric utilities that own transmission facilities to join an RTO in order to support the state's decarbonization goals, though there may be exceptions.

"The commission may delay or waive this requirement for a utility that is unable, despite its best efforts, to find a viable and available RTO to join or if the commission finds ... that requiring the utility to join an RTO would not be in the public interest," the bill states.

Under the bill, the PUC would be responsible for approving new transmission projects and ensuring the "ability of the proposed facilities to support future expansion as needed to enable the utility to participate in a regional transmission organization."

The legislation would also create the Colorado Electric Transmission Authority (CETA) to facilitate interstate transmission planning. CETA would "identify and establish intrastate electric transmission corridors; coordinate with other entities to establish interstate electric transmission corridors; [and] exercise the power of eminent domain to acquire eligible facilities." ■

## Company Briefs

### Southern Power Acquires Wind Farm from Invenergy

Southern Power last week announced the acquisition of the 300-MW Deuel Harvest Wind Farm in South Dakota from Invenergy. It is the company's 14th wind project.

Deuel Harvest, which recently became operational, was developed by Invenergy and uses 109 GE Renewable Energy wind turbines.

The electricity and associated renewable energy credits generated by the facility will be sold under two separate power purchase agreements: a 25-year agreement with Great River Energy and a 15-year agreement with Xcel Energy.

More: [North American Windpower](#)

### Tom Farrell Dies Day After he Retires from Dominion Energy



**Thomas F. Farrell II**, 66, died of cancer on April 2, one day after he announced he was retiring as Dominion Energy's executive chairman.

Farrell joined Dominion in 1995 as its general counsel, having previously represented the company as part of a team of attorneys at McGuireWoods. He became president and CEO in 2006 and was elected chairman of the board in 2007.

More: [Virginia Business](#)

### Volkswagen Admits Name Change was April Fools' Prank

Volkswagen last week said a news release and tweet saying it was changing its name in the U.S. to "Voltswagen" was an April Fools' joke meant to stir up interest in its electric vehicles.

"There will be no renaming of Volkswagen of America," Volkswagen spokesman Mark Gillies said. "The alleged renaming was designed to be an announcement in the spirit of April Fools' Day, highlighting the launch of the all-electric ID.4 SUV and signaling our commitment to bringing electric mobility to all."

More: [The Washington Post](#)

## Federal Briefs

### EPA Dismisses Dozens of Science Advisers Picked Under Trump



EPA Administrator Michael Regan last week said he will purge more than 40 outside experts appointed by President Donald Trump from two key advisory

panels whose advice helped the agency craft regulations related to air pollution, fracking and other issues.

Critics say the EPA's Science Advisory Board and Clean Air Scientific Advisory Committee tilted too heavily toward regulated industries and their positions sometimes contradicted scientific consensus. The Biden administration said the move is one of several to reestablish scientific integrity across the federal government.

More: [The Washington Post](#)

### House Democrats Introduce Carbon Pricing Measure

Four House Democrats last week reintroduced legislation that would price carbon at \$15 per metric ton of carbon dioxide equivalent, with the price increasing \$10 a year. The bill's sponsors claimed it would reduce carbon pollution by as much as 45% by 2030, reaching net zero by 2050.

The legislation was introduced in 2019. However, the reintroduction comes after one of the fossil fuel industry's biggest

lobbying groups, the American Petroleum Institute, announced it was supportive of carbon pricing after opposing it for years.

More: [The Hill](#)

### Mass. Sen. Reintroduces Legislation to Block NatGas Export Infrastructure

Massachusetts Sen. **Ed Markey** last week said he refiled legislation that would block the construction of any compressor station that would aid energy companies in exporting natural gas.



Markey made the announcement at the site of a compressor station near the Fore River. The compressor station is part of Enbridge's Atlantic Bridge project, which expands the company's natural gas pipelines from New Jersey into Canada. FERC recently voted to look at issues associated with the station, including whether expected air emissions and public safety impacts should prompt commissioners to reexamine the project.

More: [The Patriot Ledger](#)

### US Officials OK Plan to Send Radioactive Waste to Idaho

The Nuclear Regulatory Commission in a notice published last week signed off on sending the low-level radioactive waste

from Westinghouse Electric Company's Columbia Fuel Fabrication Facility in South Carolina to US Ecology's waste storage facility in Idaho.

The waste includes an estimated 5,200 cubic yards of sludge and debris generated from uranium recovery and is contaminated with low enriched uranium. The waste will also include about 525 obsolete steel cylinders used to transport nuclear fuel.

US Ecology has a permit from the state to receive low-level radioactive waste, but the NRC has not licensed the company's waste storage facility. The agency signed off on an exemption to allow US Ecology to take the material.

More: [KTVB](#)

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# State Briefs

## ARIZONA

### Effort to Undo Clean-energy Rules Advances

An effort to kill carbon-free energy requirements advanced in the state legislature last week, although the bill appears headed for a dead end because of a key Republican's opposition.

House Bill 2248 would void a zero-carbon requirement the Corporation Commission is set to approve for utilities, requiring them to begin transitioning to renewable energy and shutting down coal and natural-gas-fired power plants. However, Sen. Paul Boyer (R) said he opposes the bill even after it was amended.

Under the commission's rules, which still need final approval, utilities would have to cut carbon emissions in half by 2035 and reduce them to zero by 2050. They would then rely entirely on renewables, nuclear and energy efficiency to supply electricity.

More: [Arizona Republic](#)

## ARKANSAS

### COVID-19 Utility Disconnection Moratorium to End May 3

The Public Service Commission last week announced that the COVID-19 disconnection moratorium for regulated utility services will end on May 3.

Consumers with past due balances will begin receiving disconnection notices from their utilities providing at least a 35-day grace period before shutoff notices will be sent. It will apply to customers of Entergy, OG&E, SWEPCO, Liberty Utilities, Center-Point Energy, Black Hills, Arkansas Oklahoma Gas and the Electric Cooperatives.

More: [KARK](#)

## CALIFORNIA

### SDG&E EV Charging Program Ran \$25M over Budget



A San Diego Gas & Electric pilot program that installed more than 3,000 electric vehicle charging stations ran

\$25 million over budget. The Public Utilities Commission says before it approves plans to start a second phase, SDG&E must pay for

an audit to investigate the expenditures.

Utility officials do not dispute the figure, saying the overruns stemmed from the fact the program was brand new. SDG&E also has not sought to recoup the money from ratepayers, as of yet, and would be open to the PUC's scrutiny if it does.

SDG&E would pay for the audit through shareholder funds.

More: [The San Diego Union-Tribune](#)

## MISSOURI

### Ameren Requests Rate Adjustment to Bolster Reliability



Ameren Missouri last week filed a proposal with the Public Service Com-

mission to seek a rate adjustment aimed to bolster its electric and natural gas systems. The adjustment, which would take effect in 2022, would reflect infrastructure updates and clean energy investments.

The average customer would see a \$12 increase, while natural gas rates would increase by \$4. The funds would go toward eliminating processing fees for customers paying with credit cards, investing in wind generation, retiring coal-generating facilities, expanding rate options and moving the community solar program from the pilot stage to a permanent operation.

More: [The Missouri Times](#)

## MONTANA

### NorthWestern Customers to See Refund, Rate Cut



The Public Service Commission last week announced that it is requiring NorthWestern

Energy to credit its customers \$8.1 million for revenue it collects from other companies who use its system.

Under the settlement, customers will receive an \$8.1 million refund for costs paid from July 1, 2019, through March 31, along with a rate reduction going forward. The refund will be paid over the next year at \$1.10/month for the average residential customer, while the reduced rates will result in another 80-cent monthly reduction.

More: [News Times](#)

## NEW MEXICO

### State Sues NRC Over Nuclear Waste Storage Plans



New Mexico last week sued the Nuclear Regu-

latory Commission over concerns that the federal agency hasn't done enough to vet plans for a multibillion-dollar facility to store spent nuclear fuel, saying the project would endanger residents, the environment and the economy.

The complaint filed in federal court contends the commission overstepped its authority regarding Holtec International's plans to build a complex to store spent fuel from commercial nuclear power plants around the nation until the government finds a permanent solution. The state said granting a license could result in "imminent and substantial endangerment" and cited the potential for surface and groundwater contamination, disruption of oil and gas development, and added strain on emergency response resources.

More: [Albuquerque Journal](#)

## TENNESSEE

### MLGW Board Hires Company to Find Alternative to TVA

The Memphis Light, Gas and Water Board of Directors last week approved a \$520,000 contract with GDS Associates, a Georgia-based firm, to evaluate electricity provider alternatives to the Tennessee Valley Authority.

GDS Associates will compile different bids and present the information to MLGW and the Memphis City Council.

TVA officials said they respect MLGW's evaluation process but believe their services still provide the best value for Memphis customers.

More: [WREG](#)

## TEXAS

### Entrust Energy Files for Bankruptcy

Houston-based retail power company Entrust Energy filed for bankruptcy last week, joining a growing number of companies seeking Chapter 11 protection in the wake of February's power crisis.

Entrust said it has assets of \$100 million to \$500 million and liabilities of \$50 million to \$100 million.

Among claims against the company is one worth \$1.6 million by JPMorgan Chase and another worth \$270 million from ERCOT, which Entrust disputes.

More: [Houston Chronicle](#)

## VIRGINIA

### Appalachian Power Appeals Rate Case to State Supreme Court



An AEP Company

Appalachian Power last week appealed the Corporation Commission's denial of a base rate increase to the Supreme Court of Virginia in a case that could challenge the constitutionality of state law governing the earnings of both Appalachian and Dominion Energy.

That denial of a rate increase "results in a taking of private property for public use without just compensation in violation" of the Virginia and U.S. constitutions, the utility wrote in a petition on March 24. The appeal stems from the determination by the commission to not allow the utility to increase its electric rates even though staff found it would be short \$17 million in annual revenues going forward. The utility argues the SCC has the "obligation to evaluate going-forward rates" as part of its rate review.

Regulators have insisted "highly prescriptive directives" crafted by the General Assembly in state law limit their reviews to "historic" earnings — in this case, between 2017 and 2019 — and only allow reviews of future rates under specific conditions that Appalachian did not meet.

More: [Virginia Mercury](#)

### Dominion Energy Asks SCC to Increase Profit



Dominion Energy filed an application last week with the Corporation Commission asking for a large increase in profit. The request is part of the company's "triennial review," with the commission spending the coming months examining Dominion's books, accounting and reported earnings from 2017 to 2020.

Dominion is asking the commission to increase the return on equity, or profit, it can earn on its assets from 9.2% to 10.8%, which

would mean increased customer costs. In 2019, the commission rejected a request to raise the profit margin to 10.75%.

The commission is expected to issue its findings by Nov. 30.

More: [Richmond Times-Dispatch](#)

## WEST VIRGINIA

### House Passes Bill to Encourage Solar PPAs

The House of Delegates last week voted 83-16 to approve a bill designed to encourage retail customer investment in solar energy by exempting solar power purchase agreements from the Public Service Commission's jurisdiction.

The bill says solar facilities located on and designed to meet only the electrical needs of the premises of a retail customer do not constitute a public service, nor is the output subject to a PPA with the retail customer.

The bill's exemption of PPAs from PSC jurisdiction would be conditional, with the first condition being that the aggregate of all PPAs and net metering arrangements for any utility does not exceed a cap of 3% of the utility's aggregate customer peak demand during the previous year. The second condition sets individual customer onsite generator limits so that solar facilities meet only the needs of the retail customer's premises.

The bill now goes before the Senate.

More: [Charleston Gazette-Mail](#)

## WISCONSIN

### Alliant Energy to Become Largest Owner-Operator of Solar



Alliant Energy last week said it plans to spend roughly \$515 million to add 414 MW of solar generation on top of the nearly \$900 million and 675 MW announced last spring. The announcements show the utility is making good on its goal to build 1,000 MW of solar power in the state by the end of 2023.

In all, Alliant has a dozen projects that are either proposed or under development. The projects, along with other renewable resources like hydro, wind and solar, will make up nearly half of the company's power mix in the region by 2025.

More: [Wisconsin Public Radio](#)

## WYOMING

### Bills to Save Coal Gain Ground in the Legislature

A bill intended to slow the closure of state coal-fired power plants appears poised to become law, after clearing the Senate and the House.

If signed into law, the bill will require public utilities to take additional steps before they can retire aging coal or natural gas plants. Furthermore, the Public Service Commission would not have the authority to approve fossil fuel plant closures unless the plant owner can provide a sufficient level of proof in support of the retirement.

Before bringing the bill to the Senate floor, lawmakers proposed several amendments, including adopted language from another bill also aimed at safeguarding the state's coal resources. Gov. Mark Gordon backed both bills and seems poised to sign the latest one into law.

More: [Casper Star Tribune](#)

### Senate Gives Initial OK to Bill Dedicating \$1.2M to Defend Coal

A bill that would earmark \$1.2 million for the governor and attorney general to challenge actions taken by other states that "impede the export of Wyoming coal or the continued operation of Wyoming's coal-fired electric generation facilities, including early retirements of those facilities" passed an initial vote in the Senate last week. The bill had passed the House on March 22 in a 53-7 vote. The bill will need to pass two more reads before going to the governor's desk.

Wyoming is the country's top producer of thermal coal, but utilities have started turning to cheaper natural gas and renewable energy sources to save ratepayers money. In a span of three months, two Powder River Basin coal mines announced plans to close due to worsening market conditions.

The state is in a lawsuit against Washington over a coal export terminal and alleges it unconstitutionally stopped the development of a proposed coal port and inhibited the landlocked states from shipping their coal to global markets.

More: [Casper Star Tribune](#)



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