

RTO Insider

YOUR EYES AND EARS ON THE ORGANIZED ELECTRIC MARKETS

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

SPECIAL REPORT: 2020 YEAR IN REVIEW

PLUS A LOOK AHEAD AT WHAT'S TO COME IN 2021

FERC & Federal

COVID, Climate Change Shaped 2020

(p.3)

MISO

MISO Bends to Renewable Realities in '20, '21

(p.12)

CAISO

CAISO to Focus on Resource Adequacy in 2021

(p.4)

NYISO

NY Set Fast Pace for Clean Energy in 2020

(p.16)

ERCOT

ERCOT Takes a Shine to Solar Energy

(p.7)

PJM

MOPR, COVID Drive 2020 Policies in PJM

(p.19)

ISO-NE

States Ring in New Year with ISO-NE Reform Wish List

(p.9)

SPP

2020 a Year of Challenges for SPP, Sugg

(p.23)

RTO Insider

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

Editorial

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

Deputy Editor / Daily | Deputy Editor / Enterprise
Michael Brooks | Robert Mullin
 301-922-7687 | 503-715-6901

Art Director
Mitchell Parizer 718-613-9388

Associate Editor
Shawn McFarland 570-856-6738

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

CAISO/West Correspondent
Hudson Sangree 916-747-3595

ISO-NE Correspondent
Jason York 860-977-7830

MISO Correspondent
Amanda Durish Cook 810-288-1847

NYISO Correspondent
Michael Kuser 802-681-5581

PJM Correspondent
Michael Yoder 717-344-4989

SPP/ERCOT Correspondent
Tom Kleckner 501-590-4077

NERC/ERO Correspondent
Holden Mann 205-370-7844

Subscriptions

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

Account Executive
Kathy Henderson 301-928-1639

Account Manager
Phaedra Welker 773-456-4353

Marketing Director
Margo Thomas 480-694-9341

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

2020 Annual Subscription Rates:

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

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

In this week's issue

FERC/Federal

COVID, Climate Change Shaped 2020 3

CAISO/West

CAISO to Focus on Resource Adequacy in 2021 4

ERCOT

ERCOT Takes a Shine to Solar Energy 7

ISO-NE

States Ring in New Year with ISO-NE Reform Wish List 9

FERC Further Alters Mystic Cost-of-service Agreement 11

MISO

MISO Bends to Renewable Realities in '20, '21 12

UCS Urges Broad Midwest Energy Legislation for 2021 15

NYISO

NY Set Fast Pace for Clean Energy in 2020 16

NY Power Panel Sees Urgency to Act in 2021 18

PJM

MOPR, COVID Drive 2020 Policies in PJM 19

SPP

2020 a Year of Challenges for SPP, Sugg 23

FERC Approves SPP's Western Market Tariff 24

Briefs

Company Briefs 26

Federal Briefs 26

State Briefs 26

Save your 10 to 1 odds for Vegas.

You never want to chance too much in this market.
RTO Insider. Stay informed.

FERC/Federal News



COVID, Climate Change Shaped 2020

Georgia Senate Races Crucial to Biden Legislative Plans

By Michael Brooks

2020 was a year that strained the very idea of society and tested the United States' democratic institutions. It began with the acquittal of the president on impeachment charges and ended with his re-election defeat, seen by many as a referendum over his response to the novel coronavirus has killed more than 350,000 people.

The COVID-19 pandemic underscored the value of the Internet even as it proved that people are still as dependent on face-to-face contact and social interaction as their ancestors 300,000 years ago.

The year also brought increasing evidence of climate change: The 2020 Atlantic hurricane season was the most active in recorded history, and the Western U.S. saw record-high dry weather that once again triggered dangerous wildfires and a heat wave that drove CAISO to enact rolling blackouts in California.

An Appetite to Address Climate Change?

Though Joe Biden won the presidential election, Democrats did not manage to flip the Senate as they had hoped, at least not yet. That will be determined as soon as today, when Georgia holds two runoff elections for its seats, currently held by Republicans. If Democrats win, there will be a 50-50 tie in the Senate, and Vice President Kamala Harris will hold the tie breaker.

Democrats also lost seats in the House of Representatives, narrowing their majority. Thus, Democrats will lack the sort of margins that could enact Biden's promises for sweeping climate change policies. (See [GOP Senate May Limit Biden Climate Ambitions.](#))

In the final days of the year, the Democratic-controlled House and the Republican-controlled Senate passed the first comprehensive energy policy legislation since 2007 as part of an annual spending package. After hinting at a veto, President Trump signed the bill a week after it was passed. Among its many provisions the legislation included tax break extensions for wind, solar, energy efficiency and carbon capture; a requirement for the Interior Department to seek at least 25 GW of renewable projects on federal lands; and a phase-out of the use of hydrofluorocarbons in air conditioning and refrigeration. (See [Wind, Solar, EE, CO₂ Storage Win Tax Breaks.](#))

How much the bill will impact U.S. emissions is unclear. But the legislation will not result in the scale of decarbonization of transportation, industry and building infrastructure that experts say is necessary to avoid the worst impacts of climate change. (See [State Decarbonization not on Track, Study Says](#) and [Net Zero Price Tag: \\$2.5 Trillion.](#))

Another question that arose late last year is how the U.S. will rejoin the Paris Agreement on climate change after it formally withdrew just after Election Day. Biden has pledged that he would immediately begin that process after he is inaugurated, but the U.S. will need to update its emission-reductions targets from those sought by President Barack Obama in 2015. And though he has proposed spending on clean energy projects to combat climate change, Biden has not yet detailed regulations, like Obama's Clean Power Plan, to achieve any targets under the agreement.

FERC Transition

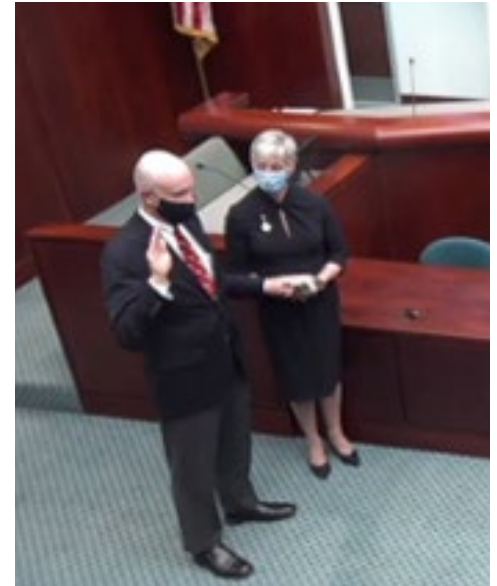
With commissioners serving staggered five-year terms, the makeup of FERC is always in flux, and last year was no different for the agency.

Early on, Commissioner Bernard McNamee announced he would not seek another term after his current one expired June 30. While he said he would continue to serve until a replacement was confirmed, he resigned shortly after President Trump nominated his intended successor, Virginia State Corporation Commission Chair Mark Christie, in late July.

It took the Senate until Nov. 30 to confirm Christie, a Republican, and Allison Clements, a Democrat and former energy policy consultant. Clements was sworn in soon after being confirmed, and Christie was sworn in on Jan. 4, giving the Republicans a 3-2 edge. (See [Senate Confirms Christie, Clements to FERC.](#))

Meanwhile, tension continued to grow between FERC and states, which complained that the commission's capacity market rules were frustrating their efforts to integrate renewable resources.

But Chair Neil Chatterjee, a Kentucky native, continued his transformation from coal-state partisan by shepherding through Order 2222, which ordered RTOs and ISOs to open their markets to distributed energy resource aggregations. (See [FERC Opens RTO Markets to DER Aggregation.](#)) He also held a technical conference on integrating offshore wind and supported



FERC commissioner Mark Christie is sworn in Jan. 4 | FERC

a policy statement inviting states to propose carbon pricing in the wholesale markets.

Chatterjee acknowledged that these actions likely led Trump to demote him and name Commissioner James Danly — who was confirmed in late March after serving as FERC's general counsel — as chair. (See [Trump Names Danly FERC Chair.](#))

Because of the COVID-19 pandemic, if Danly is replaced immediately after Inauguration Day he will be the only chair to have never presided over an in-person open meeting. The commission moved its January meeting to the day before Biden will become president, ensuring at least one more virtual session for Danly and the Republican majority. Biden will name either Clements or her Democratic colleague Richard Glick (the more likely candidate) as chair.

How long the Republicans will maintain their majority will depend on Danly. Chatterjee's term ends June 30, though he can stay on after that until a replacement is confirmed or Congress adjourns for the year, and he has pledged repeatedly to serve out his term.

It is also possible that Danly could resign — as Republican Chair Joseph T. Kelliher did when Obama assumed the presidency in 2009 — allowing Biden to fill his seat with a Democrat. That would give the Democrats a 3-2 edge and could allow Biden to renominate Chatterjee. ■

CAISO/West News

CAISO to Focus on Resource Adequacy in 2021

EIM Expansion, Electrification and Wildfire Prevention Will also Take Priority

By Hudson Sangree

CAISO's top priority in 2021 will be making sure there is enough generating capacity for summer after last year's shortfalls.

The ISO also will focus on the expansion of its Western Energy Imbalance Market, which is set to add five new entities in the coming months, and it will pursue plans to add a day-ahead market to the EIM by 2022.

The electrification of vehicles and buildings will pick up pace in 2021 in response to state and local requirements and abundant state funding.

And efforts to prevent Pacific Gas and Electric equipment from starting conflagrations heads into its fourth year. PG&E has a new CEO but remains under suspicion of starting yet another fatal fire in September.

RA 'Job No. 1'

"Without question, resource adequacy is job No. 1 for California," CAISO CEO Elliot Mainzer told *RTO Insider* in November. "We need to make sure we adapt to stay ahead of that reliability curve." (See [New CAISO CEO Vows Urgency on Resource Adequacy](#).)

CAISO is not waiting to start; its efforts kick off Jan. 6 with a multi day workshop on resource adequacy enhancements. A final report on the causes of the August blackouts will also be released in January, it said. (See [CAISO Says Constrained Tx Contributed to Blackouts](#).)

Much of the ISO's work in the first half of 2021 will involve connecting hundreds of megawatts of battery storage to the grid by this summer to head off energy emergencies like those that hit the state during severe heat waves in August and September.

Those crises, including rolling blackouts Aug. 14-15 that shut off power to a million residents, happened in the early evenings as solar power ramped down and other resources proved insufficient. Batteries to store solar and wind power could be key to preventing shortfalls.

CAISO is working with the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) to ensure resource adequacy.

The CPUC approved 1,200 MW of lithium-ion batteries and other storage to come online in



California's energy emergencies in August and September occurred as the sun set, shutting off solar power. | © RTO Insider

2021, after ordering investor-owned utilities to procure 3,300 MW of new resources on a proportional basis. (See [CPUC OKs 1.2 GW of Storage by 2021, 38,000 EV Chargers](#).)

The ISO is also seeking to keep some older gas plants operating, to limit exports during times of tight supply, and to increase its planning reserve margin from 15% to 20%. The CPUC must approve the increase. (See [CAISO Board Fields RA Measures, Big and Small](#).)

CAISO and the two state commissions responsible for resource planning and procurement must cooperate to head off shortfalls, Mainzer said.

"I think it's just clear California will not succeed and will not have an effective resource adequacy framework if the ISO and the CPUC and the CEC do not have that shared sense of tremendous urgency and focus and collaboration," he said.

Industry experts are also urging Western utilities and state regulators to quickly address looming RA shortfalls in other parts of the West. (See [Experts Urge West to Address RA Shortfall Immediately](#).)

"Our Northwest studies show that the Northwest has a problem," Arne Olsen, senior partner with Energy and Environmental Economics, said during a WECC Resource Adequacy Forum in November.

A key interstate RA effort started taking shape last spring when the Northwest Power Pool began developing a voluntary program to ad-

"I think it's just clear California will not succeed and will not have an effective resource adequacy framework if the ISO and the CPUC and the CEC do not have that shared sense of tremendous urgency and focus and collaboration."

—CAISO CEO Elliot Mainzer

dress capacity deficits across an area spanning nine Western states. Rollout of a nonbinding measure is slated for this year, followed by a progressively binding program heading into 2024.

CAISO/West News



RA became a signature issue for WECC last year after an intensive survey of its members. The regional entity in December released its first *Western Assessment of Resource Adequacy Report*, which advised the Western Interconnection to adopt dynamic planning margins in response to the region's growing reliance on variable resources. The report also called for increased coordination among balancing authorities around RA planning. WECC plans to release more detailed regional assessments in January and hold additional forums this year. (See *Western RA Planning Must Change, WECC Says*.)

EIM Expands; EDAM Advances

Eight entities are slated to join CAISO's burgeoning EIM in early 2021, the largest number to go live in the same timeframe.

Joining will be the Los Angeles Department of Water and Power, the largest municipal utility in the U.S.; Public Service Company of New Mexico, the state's largest electric provider; and Northwestern Energy, which serves 735,000 electric customers across a vast area

of Montana and South Dakota.

The Turlock Irrigation District, a water-and-electric utility in California's Central Valley, and a second set of participants in the Balancing Authority of Northern California (BANC) will also go live early this year.

BANC Phase 2, as it's called, includes the Modesto Irrigation District, the Western Area Power Administration's Sierra Nevada region, and public utilities in the cities of Redding and Roseville. In Phase 1, the Sacramento Municipal Utility District (SMUD), the nation's sixth largest municipal utility, joined the EIM.

"The success of Phase 1 BANC/SMUD and the benefits we've realized encouraged more of our public power members to participate," BANC General Manager Jim Shetler said in a news release announcing the decision. "We expect the transition will be as smooth for Phase 2 as it was for Phase 1."

Six other entities are scheduled to join the EIM in 2022: Avista, Tucson Electric Power, Tacoma

Power, Avangrid, the Bonneville Power Administration and Xcel Energy of Colorado, bringing the total membership of the EIM to 22 entities spanning every state from the Rocky Mountains to the Pacific Ocean and including a large part of British Columbia.

SPP's competing *Western Energy Imbalance Service* (WEIS) is slated to launch in February, with eight members in Colorado, Wyoming and neighboring states. (See *SPP Stakeholders Dig into WEIS Market Study*.)

In addition to geographic expansion, CAISO is engaged in a stakeholder initiative to add a day-ahead market to the EIM, which currently operates only in real-time. The move could increase regional cooperation absent a Western RTO. (See *CAISO Proposal Sets Course for EIM Day-ahead*.)

PG&E and Wildfire Prevention

After emerging from bankruptcy in June, PG&E is trying to move past years of catastrophic wildfires caused by its equipment. Critics have accused the utility of neglecting its power lines for decades to increase profits.

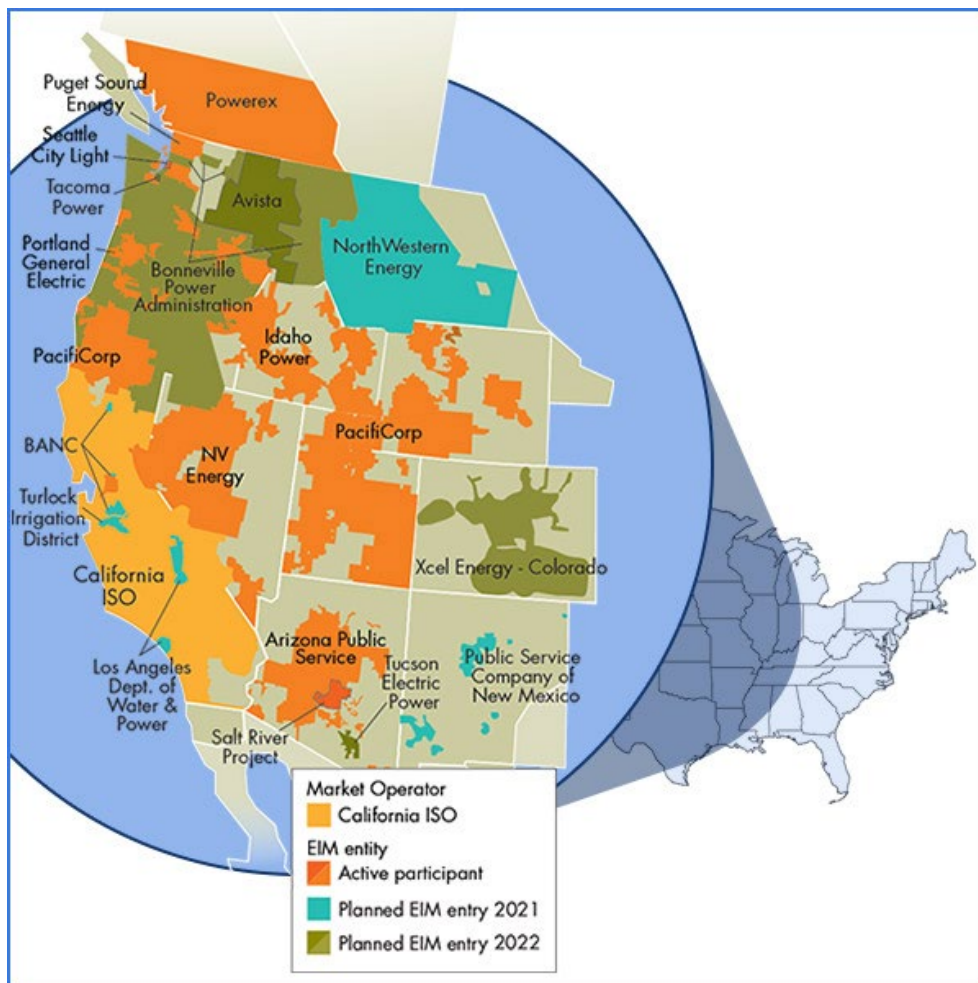
One outspoken PG&E critic, federal Judge William Alsup, is overseeing the utility's criminal probation on charges related to the 2010 San Bruno gas pipeline explosion. Recently he demanded PG&E explain its role in starting the Zogg Fire, which killed a mother, her young daughter and two others in rural Northern California in September. (See *PG&E Line Was Active when Zogg Fire Started*.)

On Dec. 29, Alsup proposed adding probation conditions to require "the convicted utility, in deciding which power lines to de-energize during windstorms, to take into account the extent to which power lines have or have not been cleared of hazardous trees and limbs as required by California law and the offender's own wildfire mitigation plan."

"This proposal is made to protect the people of California from yet further death and destruction," the judge wrote. He noted PG&E has started 20 or more wildfires since its probation began in 2016, "killing at least 111 individuals, destroying at least 22,627 structures, and burning half a million acres."

Alsup ordered PG&E to brief the matter by Jan. 20 with a hearing scheduled Feb. 3.

CPUC President Marybel Batjer also threatened PG&E with stricter monitoring because of its alleged lapses in trimming trees and maintaining its power lines. (See *PG&E Faces 'Enhanced Oversight' by CPUC*.)



Five entities, in blue on the map, will join the EIM in early 2021. | CAISO

CAISO/West News



“My concerns arose from what appears to be a pattern of vegetation and asset management deficiencies that implicate PG&E’s ability to provide safe, reliable service to customers,” Batjer wrote in a letter to PG&E interim CEO William Smith in November.

Patti Poppe, former CEO of Michigan’s CMS Energy, will succeed Smith. She will be the utility’s fourth chief executive in two years. (See [Struggling PG&E Nabs CMS Energy’s CEO.](#))

Newsom Appointments

In December, Gov. Gavin Newsom appointed Batjer to a second term as CPUC president, reinforcing her authority over PG&E and her mandate to shake up the CPUC, which has often been criticized as slow to respond to current events. (See [CPUC President Wants More Control over PG&E.](#))

Newsom will get to appoint a new member to the CPUC in 2021, after he named Commissioner Liane Randolph to head the California Air Resources Board (CARB). (See [CPUC’s Randolph Named CARB Chair.](#))

And the governor must name a new member to CAISO’s Governing Body after former Chair David Olsen retired at the end of November.

(See [Ex-CAISO Board Chair to Retire.](#))

EVs and Building Electrification

California is moving faster than any other state to adopt electric vehicles and to electrify homes and buildings – a trend expected to accelerate in 2021.

In September, Newsom decreed that all new passenger vehicles sold in the state must be zero-emission vehicles (ZEVs) by 2035. Partly in response, the CEC and CPUC have allocated hundreds of millions of dollars to install tens of thousands of EV charging stations in shopping centers, workplaces and apartment complexes.

California currently has more than 725,000 electric vehicles and accounts for half of the nation’s EV sales, yet it remains far from reaching the ambitious targets set by Newsom and former Gov. Jerry Brown, who ordered that the state have 5 million ZEVs on the road by 2030.

The National Renewable Energy Laboratory estimated the state could need as many as 1.15 million chargers in public places and millions more in home garages to reach Brown’s goal. (See [California Needs Huge Number of EV Char-](#)

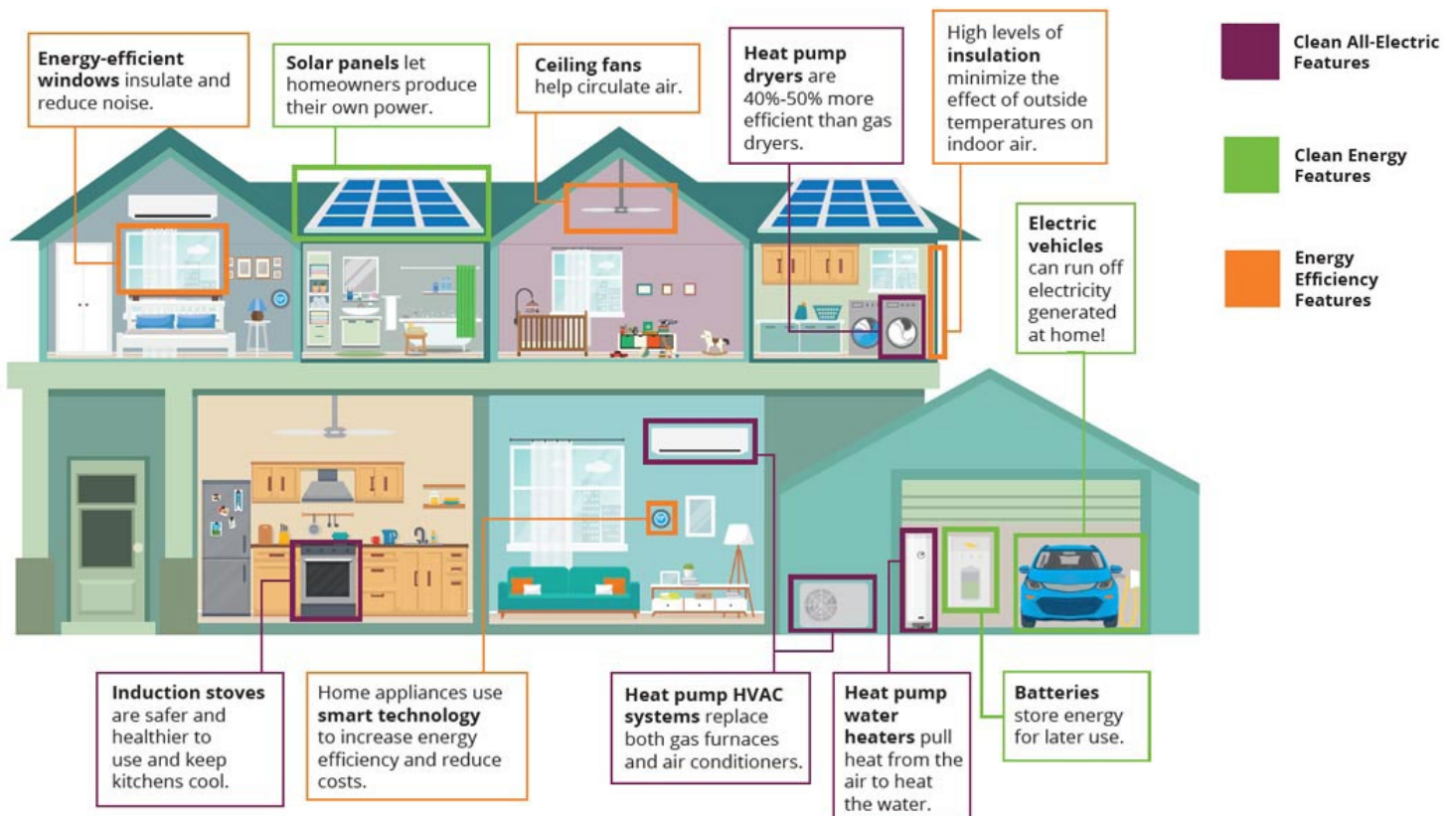
[gers and Can California Meet Its EV Mandates?](#))

CARB, which regulates vehicle emissions, told the CEC in August that automakers must double the pace of EV sales to deliver 5 million by 2030.

Building electrification picked up momentum in 2020 as local governments, from small towns to major cities such as San Jose, petitioned the CEC for permission to adopt ordinances that exceed state mandates for energy efficiency. ([Calif. to Stay Course on Electrification, CEC Chair Says.](#))

California can only achieve its legal mandates to reach carbon neutrality and rely almost entirely on clean energy resources by midcentury if buildings are electrified, eliminating natural gas furnaces and water heaters, advocates said, including utilities and environmentalists. (See [West Coast Pushes for Building Electrification.](#))

“The electrification of buildings represents an important opportunity to reduce greenhouse gas emissions from buildings both in the near term and long term, and can lead to consumer capital cost savings, bills savings and lifecycle savings in many circumstances,” Southern California Edison said in an April 2019 report. ■



Replacing traditional gas appliances such as water heaters with electric units is a key goal of housing electrification. | Edison International

ERCOT News



ERCOT Takes a Shine to Solar Energy

Renewable Resources Benefit from Competitive Market

By Tom Kleckner

With almost 31 GW of wind capacity, Texas can lay claim to having more wind resources than any other state and all but four countries.

ERCOT, which manages about 90% of the Texas grid, has almost 25 GW of that capacity. It expects to have 38 GW of wind capacity by 2023.

Blessed with wide open spaces, a friendly business environment and one of the world's most efficient deregulated energy markets, the Lone Star State is also on track to stake out similar leadership in solar energy.

In November, Invenergy *announced* it was building what will be the largest U.S. solar farm in northeastern Texas. The 1.31 GW Samson Solar Energy Center, within ERCOT's footprint

near its seam with SPP, will be built in five phases over the next three years through a \$1.6 billion investment.

ERCOT began 2020 with 2.28 GW of solar capacity, but projects that number to quintuple to 12.31 GW by the summer of 2022.

"We have giant solar resources here. The demand has never been better," Charlie Hemmeline, executive director of the Texas Solar Power Association (TSPA), said during a webinar in November. "We're definitely looking forward to adding megawatts."

Solar energy has several advantages. The TSPA says expanded and more efficient manufacturing, advanced technology, economies of scale, and sophisticated financing partners have resulted in cost-competitive prices. According to the financial advisory firm Lazard, solar's electricity costs have fallen by 89% in

"We're definitely looking forward to adding megawatts."

—Charlie Hemmeline,
executive director of the Texas
Solar Power Association (TSPA)

the last decade.

Solar facilities can also be built closer to load centers, forgoing the need for expensive transmission infrastructure often necessary to connect wind facilities to the grid.

'Good Fundamentals'

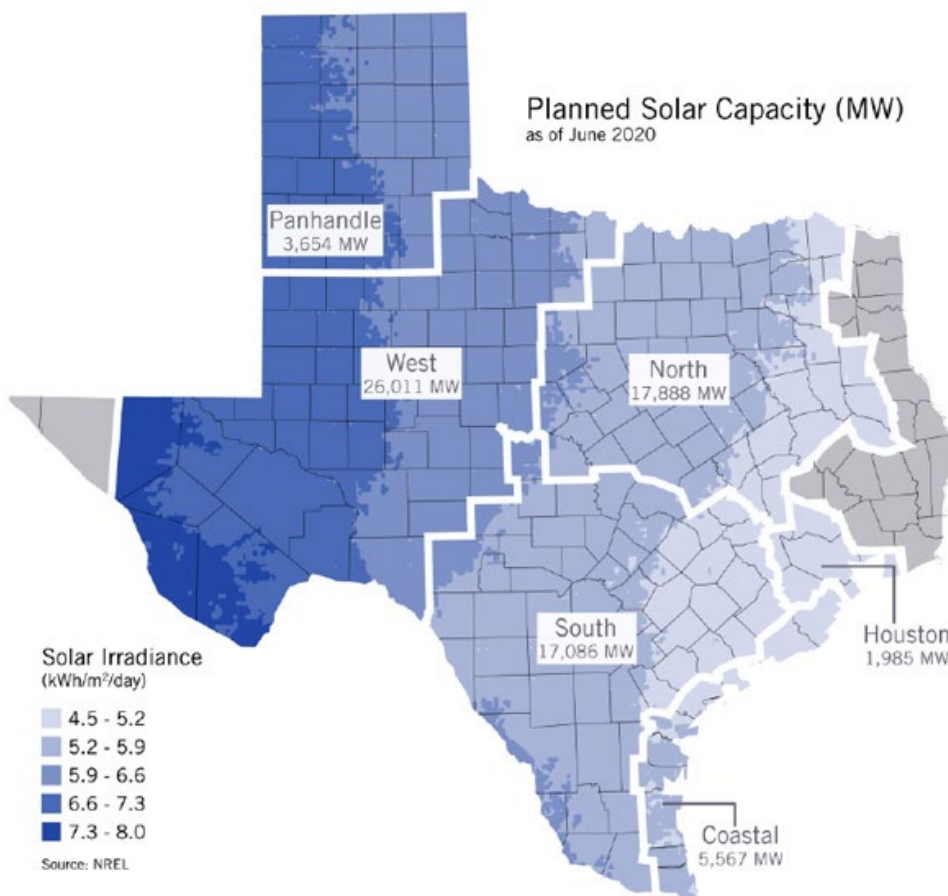
Hemmeline said the key has been the ERCOT market and its prices, among the 10 cheapest states as recently as October (\$.083/KWh).

"The market structure has worked very well for solar," he said. "Texas has a lot of good fundamentals and characteristics. You've got a highly competitive generation market and on the other side, a highly competitive retail market. Our solar resources are fantastic, but a lot of other states have good solar resources and higher electricity prices."

ERCOT's *long-term system assessment* projects "significant" growth in solar and wind resources over the next 10 to 15 years across five different future scenarios. Here significant means more than doubling solar generation capacity by 22.2 GW to 35.3 GW and more than doubling wind capacity by 35 GW to 44.8 GW.

The assessment also foresees more than 21 GW of existing coal and natural gas generation capacity to be retired by 2035. Wind has already surpassed coal as the No. 2 fuel in ERCOT, behind only gas resources.

"There are a lot of changes in the resource mix," ERCOT CEO Bill Magness told the Board of Directors in December. "We've started to see, as expected, real impacts of



ERCOT News



utility-scale solar.”

The projected influx of wind and solar energy — and now battery storage — has raised ERCOT’s planning reserve margins to healthy percentages in the mid-20s through 2025, double the ISO’s minimum target of 13.75%. Gone are the days of single-digit reserve margins and sweaty palms in the face of record demand during the dog days of summer.

Magness said ERCOT had three major overarching goals in 2020: establishing rules for batteries and other new resources, improving the exchange of data information with the market and strengthening its core systems.

Much of that work is now part of the grid operator’s *Passport Program*, which is designed to allow emerging technologies to expand their participation in the market. Staff and stakeholders will spend the next four years aligning the task forces’ work with an upgrade of the grid operator’s energy management system that also incorporates distribution generation resources into its systems. (See *ERCOT Board of Directors Briefs: Dec. 8, 2020.*)

“We’re in a good position to start taking on work in 2021,” Magness said.

New Tx Needed

ERCOT also has staff’s eyes on the transmission system. The ISO endorsed almost \$600 million in transmission projects in 2020, including the \$219 million *Corpus Christi North Shore Project* to address future industrial load growth on the lower Gulf Coast. (See “Corpus Christi Tx Project Gets OK,” *ERCOT Board of Directors Briefs: June 9, 2020.*)



Utility-scale solar facilities are helping pad ERCOT’s reserve margins. | CPS Energy

Some stakeholders have warned more transmission will be necessary to stay ahead of the renewable tsunami. Texas’ *Competitive Renewable Energy Zones* effort jump-started the growth of West Texas wind energy, but that was almost a decade ago. Oil and gas activity in the Permian Basin has only exacerbated the situation.

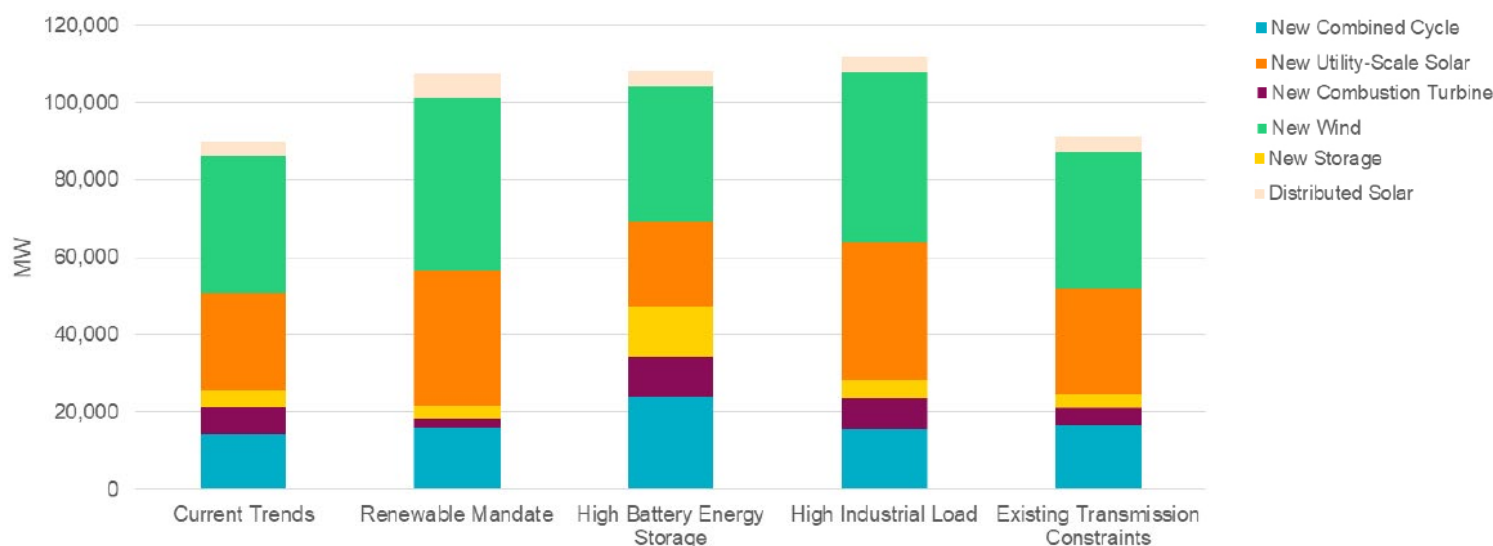
“We’re finding in our region that the transmission is getting loaded up now,” said David Hudson, president of Xcel Energy’s Southwestern Public Service subsidiary.

“[Renewable] generation is developing faster than transmission in ERCOT. We need more transmission to relieve the congestion,” said Susan Williams Sloan, the American Wind Energy Association’s vice president of state affairs. “The current system we have is not really fixing the problem. One of the things we

need to do is talk about the fact that 20 years ago, when the competitive market was set up, [state] leaders understand transmission was [then] fundamental to the market.”

Help is coming. ERCOT’s 2020 *Regional Transmission Plan* lists eight noteworthy reliability projects and three economic projects that will be necessary by 2027. The Regional Planning Group said transmission owners will provide the ISO additional details on projects under review “to ensure the identified system facilities are still needed.”

If Texas is going to continue to grow “in the way that we know it can,” Hudson said, “transmission will be an important part in that — and figuring out the right way to build and allow the growth of the Texas energy market.” ■



ERCOT’s projected future capacity additions, across five futures | ERCOT

ISO-NE News

States Ring in New Year with ISO-NE Reform Wish List

By Jason York

Tensions between New England states and ISO-NE came to a head last year when five governors issued a joint statement calling for reforms to the RTO to enable their efforts to reduce economy-wide greenhouse gas emissions. (See [New England Governors Call for RTO Reform](#).)

A few days later, the New England States Committee on Electricity (NESCOE) released “New England States’ Vision for a Clean, Affordable and Reliable 21st Century Regional Electric Grid.” The [report](#) urged ISO-NE to convene a “collaborative process” with states and other stakeholders in 2021 to consider changes to its mission statement and governance structure “to achieve greater transparency around decision-making, a needed focus on consumer cost concerns and support for states’ energy and environmental laws.” (See [States Demand ‘Central Role’ in ISO-NE Market Design](#).)

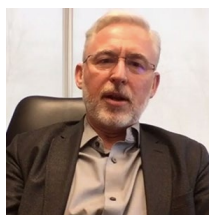
The statement made repeated references to the RTO’s “lack of transparency,” which “undermines public confidence” in the organization. Neither ISO-NE Board of Directors meetings nor NEPOOL stakeholder meetings are open to the public.

It also criticized the makeup of ISO-NE’s Joint Nominating Committee, which selects board members. The committee comprises seven incumbent board members, six market participants — one from each of NEPOOL’s sectors — and only one shared vote for the six New England states.

Katie Dykes, commissioner of Connecticut’s Department of Energy and Environmental Protection, said in September that improving ISO-NE’s transparency and accountability is “core to the design and implementation of our wholesale markets” and a “necessary and essential step” to achieve affordable decarbonization that relies on competition and minimizes risk to ratepayers. She added that states currently do not have adequate input and visibility into the RTO’s governance structure. (See [Mass., Conn. Seek Federal Partner on Decarbonization](#).)

In November, ISO-NE CEO Gordon van Welie [shared](#) the RTO’s vision statement with

NEPOOL: “to harness the power of competition and advanced technologies to reliably plan and operate the grid as the region transitions to clean energy.” (See “ISO-NE Shares ‘Vision for the Future,’” [NEPOOL Participants Committee Briefs](#): Nov. 5, 2020.)



ISO-NE CEO Gordon van Welie | [NECBC](#)

The events set up an interesting end to 2020 and foreshadowed what is ahead in 2021.

Starting Jan. 13, the states and NESCOE will hold a series of public online technical conferences focusing on [wholesale market design](#), [transmission planning](#) and [governance reform](#).

“Understanding there are resource constraints on people and organizations, we really cannot afford to just go along and hope that we will land with the right market design and the right transmission pieces that need to be built,” said Judy Chang, undersecretary of energy for the Massachusetts Executive Office of Energy and Environmental Affairs. “I think that’s the ultimate vision ... to really work collaboratively so that we can achieve this future in the least amount of disruption and at the lowest cost.” (See [NE Energy Leaders Discuss Paths to Decarbonization](#).)

Carbon Pricing

Carbon pricing was another hot topic in 2020. There was fervent opposition from state officials like Dykes, who said she opposed ISO-NE’s proposal to add a carbon price on top of the Regional Greenhouse Gas Initiative (RGGI), which sets the cap for carbon emissions across New England and other Eastern states. (See [Dykes Calls out ISO-NE, FERC on Carbon Pricing](#).)

“Our states in New England, participating in RGGI as we do, have sent multiple letters to ISO New England and to NEPOOL regarding carbon pricing,” Dykes said in September. “And essentially, repeatedly, we’ve had to go on record stating that we are not in support of a carbon adder as a supplement or perhaps as a replacement for the RGGI program.”

However, Sen. Sheldon Whitehouse (D-R.I.) said in November that “carbon pricing is a pretty essential component of any rational analysis in the energy sector,” and there is an “imbalance” in the form of a massive subsidy for fossil fuels. (See [Overheard at New England](#)

[Energy Summit](#).)

Whitehouse said a carbon price is “far from dead” in Congress. It is the “leading strategy” on the Republican side, and there are four separate Democratic carbon pricing bills, “so this is not some fringe idea.”

FERC Commissioner Neil Chatterjee said in November, after he was demoted by President Trump in part for supporting carbon pricing in RTOs and ISOs, that state policies have negatively affected the competitiveness and function of the markets, which required “tough, but in my view, necessary decisions” at the commission. (See [Officials Discuss Future of ISO-NE During Summit](#).)

“It all boils down to this: Carbon pricing is a fuel-neutral, transparent and market-based approach that can be harmonized with the markets we oversee,” Chatterjee said. “This stands in stark contrast to policy tools like subsidies, which can amount to hidden costs that can degrade market efficiency and skew price signals, ultimately hurting the consumer.” (See [FERC: Send Us Your Carbon Pricing Plans](#).)

In December, Connecticut, Massachusetts, Rhode Island and D.C. signed a [memorandum of understanding](#) to launch the Transportation and Climate Initiative Program (TCI-P), which aims to cut greenhouse gas emissions from vehicles by 26% from 2022 to 2032.

A cap-and-invest program, TCI-P would require large gasoline and diesel fuel suppliers to purchase allowances for emissions and later auction them, which officials said will generate \$300 million for yearly investments in less polluting transportation. Each year, the total number of emission allowances would decline. (See [NE States, DC Sign MOU to Cut Transportation Pollution](#).)

FERC Updates

FERC in October rejected ISO-NE’s proposed Energy Security Improvements (ESI) market design because it said the proposal would add substantial costs to consumers “without meaningfully improving fuel security” ([ER20-1567](#)).

ESI would have allowed the RTO to procure energy call options for three new day-ahead ancillary service products to improve the region’s energy security, particularly in winter when natural gas shortages can leave generators without fuel. Option awards would have been co-optimized with all energy supply offers and demand bids in the day-ahead market.

ISO-NE News

FERC also rejected an alternative proposed by NEPOOL that would have lowered costs to ratepayers, saying it contained the same deficiencies. (See [FERC Rejects ESI Proposal from ISO-NE](#).)

The result of more than a year of stakeholder meetings, the ESI proposal was prompted by FERC's July 2018 finding that ISO-NE's tariff lacks a way to address fuel security concerns that the RTO said could result in reliability violations as soon as 2022. The tariff currently only allows cost-of-service agreements to respond to local transmission security issues.

Following the rejection, ISO-NE asked FERC whether it could seek its direction on how to improve fuel security following the ruling. ISO-NE said the region "is at a crossroads with ... energy security and its reserve markets. The ISO does not believe that it is prudent to move forward without the opportunity to speak freely with the commission and its staff. Accordingly, we are stalled." (See [ISO-NE to FERC on Fuel Security: What Now?](#))

Also in November, FERC defended its Competitive Auctions with Sponsored Policy Resources (CASPR) order, which permitted ISO-NE to create a two-stage capacity auction to accommodate state renewable energy procurements ([ER18-619](#)). The commission said it continued "to find the economic principles underlying CASPR to be sound" and agreed with the RTO's recommendation to prioritize the preservation of a competitive Forward Capacity Auction price to ensure investor confidence. (See [FERC Defends CASPR Order](#).)

Democratic Commissioner Richard Glick dissented, saying he does not believe CASPR "is a just and reasonable means of accommodating state public policies" in the Forward Capacity

Market. He said concerns about "consequences that resource entry and exit decisions have for climate change, among other things, are likely to play a more important role in resource entry and exit than the FCM clearing price," especially in New England.

Speaking of FCM, FERC ordered ISO-NE to remove its new-entrant rules from its tariff in December, preventing resources from being allowed to lock in their prices for seven years ([EL20-54](#)). The rules had been in effect since ISO-NE began its capacity market in 2006.

The commission said the rules resulted in "unreasonable price distortion" and that locked-in prices are "no longer required to attract new entry, with the benefits provided by price certainty no longer outweighing their price-suppressive effects." Price-lock agreements in effect before the order will not be impacted, with the new rules starting with FCA 16, scheduled for February 2022. (See [FERC Orders End to ISO-NE Capacity Price Locks](#).)

Renewable Energy

Solar developers were the clear winners in the Maine Public Utilities Commission's renewable energy procurement in September, accounting for 482 of the 546 MW in approved projects through a competitive bidding process. It was the PUC's largest procurement of renewable energy since restructuring more than 20 years ago. (See [Maine Makes Record Renewable Procurement](#).)

Winning bidders estimated the projects would reduce greenhouse gas emissions by approximately 500,000 tons per year. The projects were the first approved since Mills, a Democrat, signed a bill last year to increase the state's renewable portfolio standard to 80%

by 2030 and set a goal of 100% renewable energy by 2050.

Later in October, Rhode Island Gov. Gina Raimondo (D) announced a new competitive solicitation to procure up to 600 MW of offshore wind energy. (See [R.I. Opens Solicitation for 600 MW of Offshore Wind](#).) Raimondo had signed an executive order in January committing her state to use renewables to meet 100% of its electricity demand by 2030.

The state's target for OSW energy is 1,030 MW, with 430 MW currently selected. The potential addition of 600 MW would meet the target.

During a speech in December, U.S. Sen. Ed Markey (D-Mass.) said New England states have the chance to be "the true leaders of the Green New Deal" that he co-sponsored with Rep. Alexandria Ocasio-Cortez (D-N.Y.) — or some variation of it.

Markey said achieving the Green New Deal's objectives of a 100% clean energy economy and carbon-free power sector by 2035 will require billions of dollars for battery storage and promoting electric vehicle adoption through the construction of at least 500,000 new charging stations. (See "Markey: Climate Issues Top Agenda," [Overheard at NE Electricity Restructuring Roundtable](#).)

"This is not pie in the sky, put a man-on-the-moon stuff; these are largely technologies that already exist," Markey said. "It's been a political problem but not a technological problem. ... We know we can get this done. It is just a matter of political will. I will be working very hard to make sure that these hundreds of billions of dollars are spent in a way in which we have public-private partnerships jumpstarting clean energy innovation and deployment." ■

**Save your acrobatics
for Cirque de Soleil.**

Jumping through hoops was never really your thing anyway.
RTO Insider. Stay informed.



Save the Date

March 26, 2021

Restructuring
Roundtable

MANAGED AND FACILITATED BY:
RAAB ASSOCIATES, LTD.
www.raabassociates.org

HOSTED BY
FOLEY
HOAG LLP

**Interactive Online Webinar:
Topics/Speakers TBD**

**Save your 10 to 1
odds for Vegas.**

You never want to chance too
much in this market.
RTO Insider. Stay informed.



ISO-NE News

FERC Further Alters Mystic Cost-of-service Agreement

By Jason York

FERC last month made additional alterations to its orders approving ISO-NE's cost-of-service contract with Exelon's Mystic Generating Station after the commission ruled on rehearing requests from the RTO, power generators and Connecticut regulatory entities ([ER18-1639](#)).

The commission clarified its multiple orders governing the contract after rehearing requests from ISO-NE, New England States Committee on Electricity (NESCOE), New England Power Generators Association (NEPGA), and Connecticut's Public Utilities Regulatory Authority, Department of Energy and Environmental Protection and Office of Consumer Counsel. (See [FERC Tweaks Orders on Mystic Contract](#).)

Commissioner Richard Glick, who had opposed the original 2018 orders and clarifications made to them in July, dissented. Commissioner Allison Clements, who was sworn in earlier in the month, did not participate in the proceeding.

Tank Congestion Charge

ISO-NE and NESCOE sought rehearing of FERC's finding that the "tank congestion charge" in the fuel supply costs for Mystic

Unit 8 and 9, which are fueled by a nearby LNG import terminal in Everett, Mass., was no longer needed. The groups argued that the charge was negotiated as a consumer protection in the agreement, saying a methodology for calculating tank congestion costs may be necessary for Exelon to demonstrate that ISO-NE ratepayers only pay for congestion attributable to serving Mystic.

The RTO signed the two-year, \$400 million contract to preserve the region's reliability after Exelon announced plans to shutter Mystic when its existing capacity supply obligations expire in 2022.

The commission agreed with those arguments, but it clarified that while Exelon must demonstrate that Mystic recovers only those costs attributable to serving it, the company will not be required to file the charge methodology. FERC also agreed with NESCOE's request that these costs may be reviewed in the true-up process.

Application of Clawback Mechanism

The commission was also persuaded by NEPGA's arguments that the phrase "that were expensed" rendered the agreement's clawback mechanism, modeled after provisions in MISO's tariff, unjust and unreasonable. The mechanism requires Exelon to refund ratepayers if Mystic continues participating in

ISO-NE's markets after the termination of the agreement.

NEPGA noted that the phrase was a deviation from the MISO tariff's language; FERC said it had accepted the change by reasoning that it was made to be consistent with ISO-NE tariff terminology.

"We agree with [NEPGA] that the commission's intention is for the clawback mechanism to apply to costs 'that are incurred' rather than those that 'that were expensed.' We note that the term 'expensed' is not defined in the Mystic agreement and could be interpreted in many ways, including the method that [NEPGA] describe, thus creating a potential loophole that uses accounting treatment to avoid returning capital expenditures to New England ratepayers," FERC wrote. It directed Exelon to remove the phrase.

Other Issues

But FERC said it disagreed with Connecticut that it erred by failing to apply the clawback mechanism to the Everett terminal. The state argued that Exelon should also refund repair and improvement costs to the terminal if it continues to operate after a separate cost-of-service agreement, one between the plant and the terminal, expires.

But the commission said that agreement is not under its jurisdiction. It did note "that ISO-NE, Everett and Mystic are free to negotiate a revenue crediting mechanism and include it in the Everett agreement, but such a mechanism is not required for Mystic's jurisdictional rate to be just and reasonable."

Glick Dissent

Noting his previous dissents, Glick said "the weight of the evidence across the commission's New England fuel security proceedings shows that the retention of Mystic was aimed squarely at bailing out [an LNG] import facility."

"If anything, the order underscores the extent to which many of the issues that are nominally related to Mystic really are, first and foremost, questions about the operation of the non-jurisdictional Everett facility that Mystic was retained to support," Glick wrote. "Accordingly, I dissent from [this] order not because I necessarily disagree with any of the specific determinations made herein, but because I continue to believe that the commission exceeded its jurisdiction in the series of orders that brought us to this place." ■



Mystic Generating Station, on the Mystic River in Everett, Mass.

MISO News

MISO Bends to Renewable Realities in '20, '21

By Amanda Durish Cook

In 2020 MISO promised a turnaround in its approach to a changing resource mix and clean energy targets by states in its footprint.

As the 2020s roared in, the grid operator managed several intricate discussions in remote format, among them redefined reliability standards, a capacity market subdivided by season, and the launch of its first long-term transmission planning effort in a decade.

President Clair Moeller said the RTO is emerging from being “a victim of circumstance” of future renewable realities.

“We haven’t spent a lot of time trying to anticipate. That changes now,” Moeller said during the December board meeting.

‘Not Farewell, but Good Riddance’

“If we could have gone back 12 months and say that we’d be able to accomplish all this, we’d all be happy,” MISO CEO John Bear said during MISO’s annual members meeting in December. “We can choose to see 2020 as a time of resilience that we’d never want to repeat, or we can view it as preparation for changes. I think we’ll view it as the latter.”

“This year MISO wrote the playbook on how to safely and reliably serve load in uncertain times,” Transmission Owners representative Stacie Hebert said.

With pandemic-induced lockdowns and bans on in-person gatherings, MISO load bottomed out to about 10% below historically normal levels from March through May. The coronavirus’ impact decreased during summer and early fall, but with the contagion spreading unabated, load now tracks about 5% below normal.

“This is definitely not a year-over-year situation,” said MISO Executive Director of Market Operations Shawn McFarlane in May.

Through the upheaval of 2020, MISO super-sized 72,000 miles of high-voltage transmission and about 184 GW of generating resources.

Hebert joked all MISO members were ready to say “not farewell, but good riddance” to 2020.

MISO rolled out a live, informal stakeholder polling feature during some online committee meetings.

“When we’re in person, it’s a lot easier to read



MISO control room | MISO

body language and get a sense of the room,” said WEC Energy Group’s Chris Plante, chair of the Resource Adequacy Subcommittee, in August. “Are people frowning? Are they smiling? Are half of them out in hallway?”

Long-range Transmission in the Works

MISO executives said the footprint cannot afford to wait on transmission investment and risk the system buckling under the pressures of interconnecting renewable resources. In July, it announced its first long-term transmission planning effort since 2011.

“If you love renewables, then you have to love transmission. Although no one wants to have transmission built next to them, it must happen,” Bear said during the board meeting in December. He added that MISO planners would try their best to leverage and expand existing transmission corridors. (See [MISO Prepares Members for Pricy Transmission Expansion](#).)

“In case no one has noticed, we’re using words like ‘urgent’ and ‘imperative,’” Moeller said of the need for new transmission to achieve clean-energy goals.

He noted Entergy is the latest MISO utility to pledge carbon neutrality by 2050.

“It’s important to understand that the whole of the footprint is making changes even though they’re not identically the same. This is going to take a team sport,” Moeller told the MISO Board of Directors.

He said planning long-range transmission is going to be about “dollar flow, not power flow,” predicting that determining new transmission’s cost allocation will be thorny.

It’s been a decade since the RTO last explored

“It’s important to understand that the whole of the footprint is making changes even though they’re not identically the same. This is going to take a team sport.”

—MISO President Clair Moeller

how the costs of long-term transmission projects should be shared.

The Organization of MISO States has convened a special cost-allocation committee to draw up principles on how MISO should approach sharing costs of long-term projects.

OMS has heard from staff about the MISO’s history of transmission project classification and cost allocation, from FERC [Order 2003](#) — which standardized generator interconnection procedures — to this summer’s cost-allocation overhaul, which lowered the voltage threshold for market efficiency projects from 345 kV to 230 kV, added two new benefit metrics and eliminated a previous 20% postage stamp

MISO News



allocation. (See [MISO Cost Allocation Plan Wins OK on 3rd Round.](#))

Indiana Utility Regulatory Commissioner Sarah Freeman said the OMS will be ready with suggestions on cost allocations in the first quarter of 2021.

Several regulators have asked that MISO take care to ensure that beneficiaries of new lines pay for them. Some have suggested allocating some GI upgrades to load and some backbone transmission projects to generation. Others have kicked around the prospect of allocating projects on a subregional basis because of the footprint's hourglass geographic shape.

Staff have said the new cost-sharing method could see the RTO approving more transmission projects.

On the other hand, MISO and SPP again failed to identify any beneficial cross-border transmission projects after a fourth interregional study this year.

The grid operators have somewhat assuaged stakeholders by announcing a new joint study targeting the RTO's GI challenges. (See [MISO, SPP to Conduct Targeted Transmission Study.](#)) The study could bring new transmission capacity

and thus bring online renewable generation trapped in the RTOs' interconnection queues. Last year also saw a turnaround in cooperation and tone between the MISO and SPP CEOs. (See [MISO, SPP Heads Present Unified Front on Seams.](#))

Unparalleled Storm Season

The U.S. experienced 30 named tropical storms in 2020, three of which — Hurricanes Laura, Delta and Zeta — pummeled MISO's Gulf of Mexico states.

"I hope everybody got to learn their Greek alphabet this year," J.T. Smith, MISO's director of operations planning, said wryly during a Markets Committee meeting in December.

August saw MISO's first-ever load shedding orders as a result of Hurricane Laura's landfall in Louisiana. Following landfall, the RTO declared local conservative operations for a month to support restoration efforts. (See [MISO Enacts Rolling Blackouts in Laura Aftermath.](#))

"She took out every electrical element in her path. ... We had thousands of structures down," Smith said of the destruction. He defended MISO's decision to shed load. "It's something

we'd do again," he said. "We knew load was going to come offline in southwest Louisiana."

MISO said Laura was the strongest storm to hit the Louisiana coast since 1856. The RTO's director of grid operations, Durgesh Manjure, said the hurricane produced "drastic images of towers twisted and bent," but Entergy acted quickly to reenergize a 500 kV line.

"This is the first time in MISO's history that we directed a load-shed event," Manjure told the Midwest Reliability Organization in November. "I hope this is a once-in-a-lifetime or once-in-a-career event."

He said the storm made it clear that MISO's market rules and pricing are not "geared" toward catastrophic weather events. He said staff are meeting with MISO South members to discuss possible changes.

The stakeholder community was already in discussions about updating MISO's current \$3,500/MWh value-of-lost load (VOLL) when the storm led to rolling blackouts in a load pocket spanning the Texas-Louisiana border. The RTO has not updated its VOLL pricing since 2009 and may file to increase it in 2021.

In all, Laura spawned about 900,000 customer outages, 6.8 GW in generation outages and 365 transmission line outages. Some of the transmission outages were not returned to service until late October.

Smith said Hurricane Delta's Louisiana landfall in early October was just 12 miles east from Laura's path more than a month prior. He said this time, MISO was prepared. The Category 2 storm produced about 600,000 customer outages, 2 GW in generation outages and 54 transmission line outages.

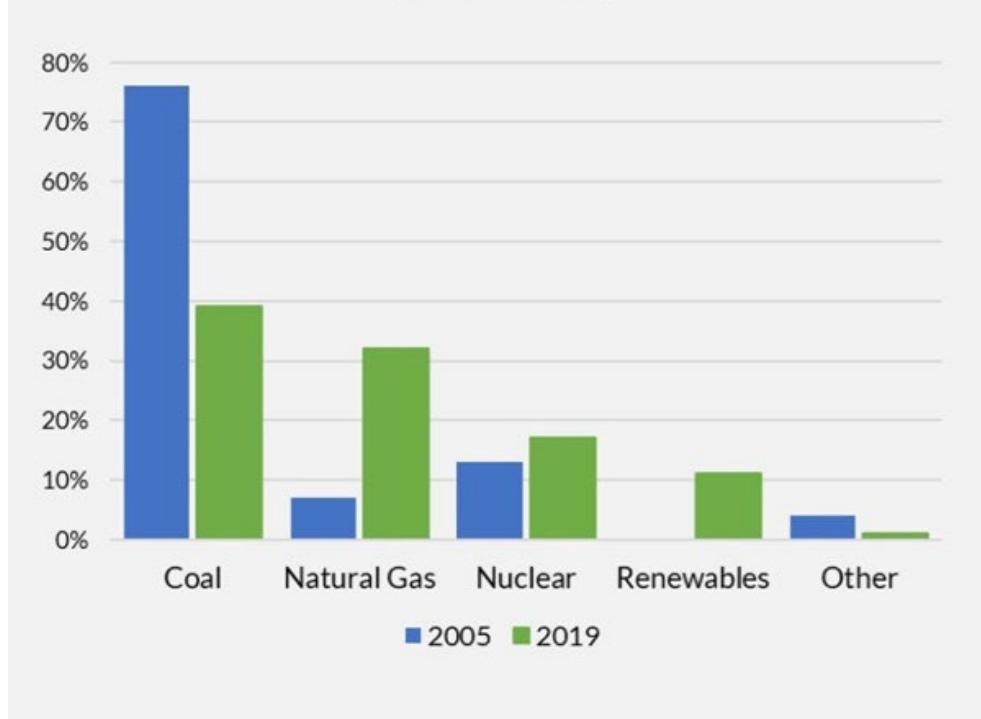
Hurricane Zeta lashed New Orleans later in October and set off 600,000 customer outages, 1 GW of generation outages and 33 transmission outages.

New Risk Regimen

MISO said "an active, record-breaking 2020 hurricane season highlights the importance" of its efforts to establish a new reliability imperative, which may include a seasonal capacity auction and using operating hours that contain heightened risk. The grid operator currently uses a single peak summer day to define loss-of-load risk. (See [MISO Nearing Decision on Seasonal Capacity Auction.](#))

Richard Doying, executive vice president of market and grid strategy, said an ever-changing resource portfolio paired with aging

MISO Generator Mix (% of MWh)



MISO's 2005 generation mix compared to 2019 | MISO

MISO News

thermal generation's more frequent outages means that risk is expressing itself in winter as well as summer. He said staff may adjust resource accreditation based on how much of resources' nameplate capacity is useful.

"We see that migration of risk," Doying said in December. "I think our stakeholders are comfortable with the fact that the world has changed."

Doying also said that he'd like to see more price-responsive demand in MISO's markets and not forcing grid operators to wait for an emergency before accessing demand-response resources. He said those moves would keep MISO markets pliable.

Staff's Dustin Grethen, a market design adviser, said that the catalyst for the resource-

adequacy initiatives is that MISO went several years without maximum generation events before encountering its first in four years in 2020.

Grethen likened the proposals to a person standing on one end of the Golden Gate Bridge and looking to the other side mired in fog. He said while MISO can't perfectly predict what will be necessary for its market, operations and planning in the long-term, it can see how to begin crossing the bridge.

Market and resource adequacy changes will be managed on MISO's new market platform, which is being phased in over six years. The grid operator plans to incrementally swap out systems and eventually retire its legacy platform by 2023. The legacy platform relies on 1990s-era technology and was built in an

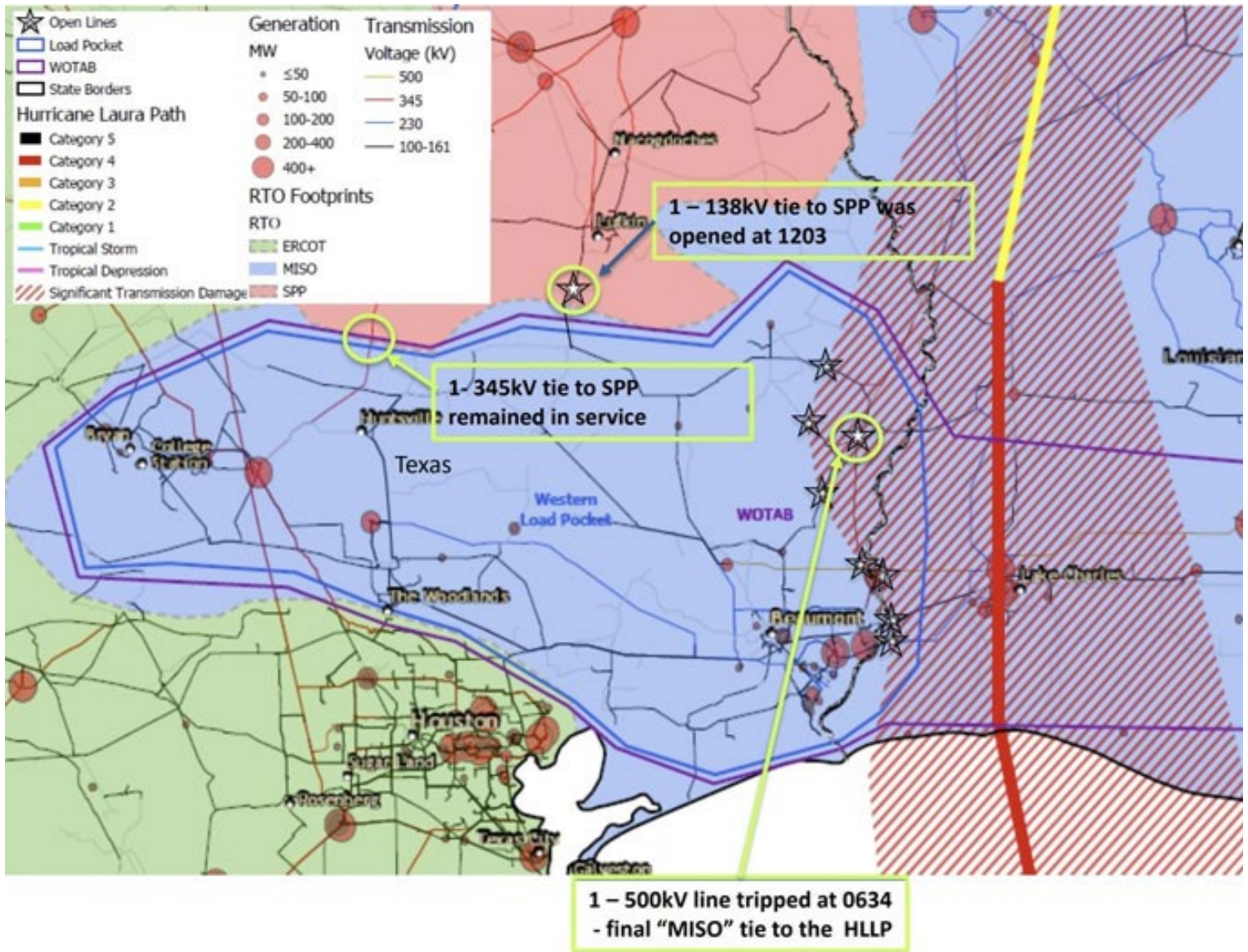
age of conventional resources, but staff determined in 2016 that it was not able to keep up with the evolving grid's demands

MISO's modular platform is being developed in conjunction with other ISOs/RTOs. IT Senior Director Curtis Reister said it's a cost-conscious move that has the RTO splitting development costs with ISO-NE and PJM.

"By doing this, we can create a more standardized product and reduce the need for customization," Reister said.

Complicating matters, MISO expects to lose about 30% of its operators through retirement over the next few years.

"Lots of baby boomers in control rooms," Moeller observed during the board meeting in December. ■



Hurricane Laura's path and transmission destruction | MISO

MISO News

UCS Urges Broad Midwest Energy Legislation for 2021

By Amanda Durish Cook

The Union of Concerned Scientists (UCS) is making a pitch to Midwestern states in hopes that they pass sweeping clean energy bills in 2021.

A UCS year-end *report* says progress along the clean energy front was a mixed bag in 2020 in the Midwest, though some scattershot advancements were made.

UCS analyst Jessica Collingsworth said while Midwestern utilities made several carbon-cutting commitments in 2020, they're no substitute for state legislative packages. She advised Midwestern states "to make large commitments to moving clean energy policy in 2021."

"Unfortunately, none of those states passed a large clean energy policy in 2020. But I think there's potential in each of these states to do this. To get the social and economic benefits, we need to be bold in 2021 and pass comprehensive clean energy policies," Collingsworth said in an interview with *RTO Insider*.

"I think there's broad public support for the transition and combatting climate change. I think that there's going to be more and more clean energy from states and at the national level. This isn't a coastal thing," she said. "I have a lot of hope for Illinois and Minnesota."

In December, Minnesota's Great River Energy announced that it will retire its 1.1 GW Coal

Creek Station in North Dakota by 2023 and replace the output with wind power. Collingsworth said Xcel Energy's pending integrated resource plan before the Minnesota Public Service Commission phases out its coal generation in Minnesota by 2030 while expanding solar resources.

Xcel also said this year that it will operate its coal plants on a seasonal basis until their retirement.

Illinois' proposed *Clean Energy Jobs Act* proposes to achieve a carbon-free power sector by 2030 and reach 100% renewable energy by 2050. Collingsworth predicted the package would pass sometime in 2021.

"There's a lot of support behind it," she said.

Collingsworth said Midwestern state legislation may have faltered in 2020 because legislative sessions were cut short by pandemic protocols. She said the legislative bodies may gain momentum as coronavirus transmission retreats.

"It's a question mark what legislative sessions will look like in 2021," she said.

Even without a law, Vistra Energy said it will wind down operations at seven coal plants in Illinois and Ohio by 2027, blaming in-part an "irreparably dysfunctional" MISO capacity auction design. (See *Vistra Declares End of Midwest Coal Fleet*.)

"While that's welcome news, it's critical that

the Clean Energy Jobs Act passes in 2021 to support a just transition for coal plant workers and coal communities," Collingsworth said.

Additionally, the Illinois Commerce Commission in December ordered Ameren Illinois to restore full retail net metering for new customers. Ameren announced late in the year that it had attained 5% distributed solar generation, which would have allowed it under state law to discontinue issuing credits for new customers.

Collingsworth praised Michigan Gov. Gretchen Whitmer's goal to achieve economy-wide decarbonization by 2050 and her formation of the state's *Council on Climate Solutions* to help reach the target. Collingsworth also called attention to Wisconsin's *Task Force on Climate Change*, which recently *advised* the state to adopt more than 50 initiatives, including requiring utilities to lower their emissions 60% below 2005 levels by 2030 and 100% by 2050.

She predicted that the grid will look much different in the coming years as more distributed energy enters and climate policies materialize.

"I think it will help to have some strong climate leadership at the federal level, and I think Illinois can be a real leader and show how it's done and adopt clean energy policy," Collingsworth said. "Clean energy policies in one state help another state. Our clean energy goals in Illinois will help neighboring states." ■



| Pattern Energy

NYISO News

NY Set Fast Pace for Clean Energy in 2020

By Michael Kuser

New York Gov. Andrew Cuomo kicked off 2020 by pledging to step up efforts to decarbonize the state's economy and to spread the benefits to disadvantaged communities. "We must accelerate our transition to renewable energy, because the clock is ticking," Cuomo said in his State of the State address last January.

The state made considerable progress despite the coronavirus pandemic, which forced NYISO, the Public Service Commission and other state agencies move their stakeholder meetings to virtual platforms.

By year's end, the state had issued its largest-ever package of renewable energy solicitations and saw approval of the largest wind farm to pass Article 10 siting review.

The state closed out the year Dec. 30 by releasing [guidelines](#) for establishing a monetary value for the avoided emissions of carbon dioxide.

Cost of Carbon

The Climate Leadership and Community Protection Act (CLCPA) required the Department of Environmental Conservation (DEC) to establish a value of carbon to aid state agencies in considering greenhouse gas emissions and climate change in their decision-making.

Based on the federal government's social cost of carbon, the non-binding guidance recommends a "central" discount rate of 2% as the primary value for decision-making, which translates to a 2020 value of carbon dioxide of \$125/ton. But it said the central rate should be reported along with 1% and 3% discount rates — equating to a range of \$53-\$421/ton. "State agencies should look at the full range as a method that is consistent with the federal government's guidance for using a damages-based value of carbon," DEC said.

The CLCPA calls for 70% of New York's electricity to come from renewable energy resources by 2030, and for electricity to be 100% carbon-free by 2040. It also nearly quadrupled New York's offshore wind energy target to 9 GW by 2035 and requires state agencies to invest at least 35% of clean energy program resources to benefit disadvantaged and environmental justice communities. The law's mandates also include doubling distributed solar generation to 6 GW by 2025, deploying 3 GW of energy storage by 2030



New York Gov. Cuomo displays one of the first samples of COVID-19 vaccine on Dec. 3. | NYDPS

and raising energy efficiency savings to 185 trillion BTU by 2025.

Agencies Get to Work

The New York State Board on Electric Generation Siting and the Environment in early June overrode local opposition to approve the 340-MW Alle-Catt Wind Farm south of Buffalo, the largest wind farm to pass siting review under [Article 10](#), which previously governed all generating facilities above 25 MW. The order authorized Invenergy to build and operate up to 116 wind turbines on approximately 30,000 acres spread across Allegany, Cattaraugus and Wyoming counties. The project had been under review since December 2017. (See [NY Regulators Approve 340-MW Alle-Catt Wind Farm](#).)

In April, the Assembly approved Cuomo's call to streamline the siting process for large-scale renewable energy projects with the creation of the Office of Renewable Energy Siting. The new office will handle permitting of renewable projects of 25 MW or more. New renewable projects between 20–25 MW, and existing projects in the initial phases of the Article 10 review process may opt-in to the new review process. (See [Cuomo Proposes Streamlining NY's Renewable Siting](#).)

State officials in July [announced](#) New York's largest-ever package of renewable energy solicitations, seeking a combined 4 GW of offshore wind, onshore wind and solar power. (See [NY Announces 4 GW in Clean Energy RFPs](#).)

Climate Action Council

New York's 22-member Climate Action Council (CAC) met in June to lay the groundwork

for a scoping plan to be delivered by Fall 2021 to help the state achieve its clean energy goals, building on a [white paper](#) released earlier that month by the New York State Energy Research and Development Authority (NYSERDA) and the PSC. (See [NY Climate Action Council Looks at Deep Decarbonization](#).)

In addition, the CAC in October approved creation of an advisory panel on waste emissions to be established by DEC staff.

"We're going to evaluate emissions and mitigation strategies for a wide range of these waste generating sectors, including the traditional municipal and commercial solid waste generation infrastructure; facilities like transfer stations, landfills and waste-to-energy; and municipal combustors and co-gen facilities," DEC Deputy Commissioner Martin Brand said. (See [NY Officials Create Waste Emissions Panel](#).)

The waste panel joins six others, along with a Just Transition Working Group to ensure social equity in the council's proceedings. In all, more than 100 stakeholders are informing the CAC's work — including manufacturers, farmers, generators, labor unions, environmental groups and trade associations.

NYSERDA in December issued a \$5 million request for proposals seeking contractors to conduct site reuse planning studies for retired power plants, which often are located in or near disadvantaged communities. (See [NY Seeks 'Just Transition' in Decarbonization Plans](#).) (See related story, [NY Power Panel Sees Urgency to Act in 2021](#).)

A CAC roundtable discussion on electrification and fuels last month heard that full electrifica-

NYISO News



tion of transportation carries a heavy price tag and long timelines, which necessitate looking for bridge technologies, new strategies and alternative fuels that can achieve emissions reductions right away. "Since total electrification will be very expensive, finding some of these bridge technologies is very important," said Mike Scarpino of the U.S. Department of Transportation's Volpe Center in Cambridge, Mass. (See [NY Panel Examines Vehicle Electrification, Cleaner Fuels.](#))

PSC Actions

The PSC took several climate related actions:

- In May, it *ordered* a study be done by NYSERDA and the Department of Public Service to identify distribution upgrades, local transmission upgrades and bulk transmission investments needed to meet the state's clean energy goals (Case No. [20-E-0197](#)). (See [NYPSC Launches Grid Study, Extends Solar Funding.](#))
- In July, it approved over \$700 million in spending over five years to install more than 50,000 light-duty electric vehicle charging

stations throughout the state and to prepare pilot programs to accommodate medium- and heavy-duty vehicles ([18-E-0138](#)). (See [NYPSC Approves \\$700 Million for EV Chargers.](#))

- In October, it designated NYPA's \$1 billion Northern New York transmission line as a high priority for meeting the state's renewable energy goals and adopted criteria for identifying other such "priority transmission projects" (PTPs) ([20-E-0197](#)). The commission's order bypassed NYISO's public policy transmission planning process, referring the project straight to NYPA for development and construction in accordance with the Accelerated Renewable Energy Growth and Community Protection Act of 2020. (See [NYPSC OKs NYPA Project, 'Priority' Tx Criteria.](#))

NYISO

The ISO began the year pledging to devote at least one day a month in 2020 to discussing how to meet the CLCPA goals.

NYISO CEO Rich Dewey in October *presented* to the CAC on the grid operator's Grid in Tran-

sition initiative, which is taking place in conjunction with the state-mandated grid study. The ISO is taking a three-pronged approach to grid transition, undertaking a Climate Change Impact and Resilience Study in addition to its existing Congestion Assessment and Resource Integration Study (CARIS), which includes a scenario analyzing the CLCPA's 70 X 30 goal, and its Reliability Needs Assessment (RNA), which examines the DEC rules on emissions from generators used to serve peak load. Stakeholders in December voted to rename CARIS as the System and Resource Outlook and double the assessment periods to 20 years, consistent with the study period for proposed economic or public policy transmission projects.

The ISO's annual Power Trends *report* forecasts over 4.5 million total EV purchases in the state by 2040, including passenger vehicles, trucks and buses. Notably, NYISO's forecasts suggest that the impacts of EVs and increased reliance on electricity for heating will lead to the system peak shifting from summer to winter as early as 2039. (See [Public Policy Challenges Top NYISO Grid Plans.](#))

"This has been probably one of the most challenging years of any of our professional experience," Dewey said at the final Management Committee meeting of the year.

Despite having to make most staff work from home, the ISO succeeded in replacing its energy management system and business management system, completed a demand curve reset and rolled out market rules for energy storage. It also continued to explore carbon pricing and won FERC approval for its distributed energy resources participation model, Dewey said.

Designing Tx for OSW

Transmission planning for OSW was the subject of much discussion. In August, Anbaric Development Partners released a study by The Brattle Group which estimated that New York would save \$500 million through a planned transmission strategy for its next 7,200 MW of OSW versus the generator lead line (GLL) approach. (See [New York Ponders Planning an Offshore Grid.](#))

In November, a state-commissioned analysis on OSW transmission delivered preliminary results suggesting that a mesh-and-backbone network design would be the best way to integrate OSW into the New York grid despite higher initial costs than a radial approach. It also said the design would likely offer more redundancy and additional savings in the future. (See [Meshed OSW Tx Grid May Work Best, NY Officials Hear.](#)) ■



The New York DEC in 2020 began using drones to locate orphaned oil and gas wells as a way to speed the capping process and reduce emissions. | DEC

NYISO News

NY Power Panel Sees Urgency to Act in 2021

By Michael Kuser

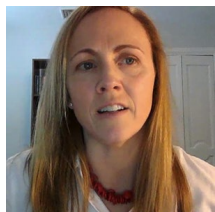
The Power Generation Advisory Panel of the New York Climate Action Council (CAC) held its final meeting of the year on Dec. 21, looking back with satisfaction on its year's work but acknowledging that much needs to be done, and quickly, to meet the state's ambitious clean energy goals.

"I would remind people, we are out of time," said John Reese, senior vice president of Eastern Power Generating Co.

The Climate Leadership and Community Protection Act (CLCPA) requires the state to consume 70% renewable electricity by 2030, switch to 100% zero-emission electricity by 2040 and reduce greenhouse gas emissions to 85% below 1990 levels by mid-century.

Barriers to development include money, efficiency in procurement and processing, and getting projects through the interconnection queue, where often the local utility is an obstacle, Reese said.

Barriers to Buildout



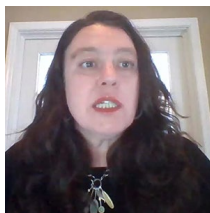
Emilie Nelson, NYISO
| NYDPS

A poor audio connection prevented panel chair John Rhodes, chairman of the state Public Service Commission, from reporting on the various subgroups, which NYISO Executive Vice President Emilie Nelson covered in his place.

The Barriers Subgroup, focused on clean energy siting and energy delivery and hosting capacity, met several times in the fall and established a weekly cadence for meetings going forward.

"Much of our discussion has been on the need for transmission and distribution buildout, as well as those other technology solutions," Nelson said, referring to storage and improved data collection. "We discussed physical limitations, particularly in the metropolitan areas of New York City [with siting of storage]."

The subgroup also discussed the importance of allowing renewable resources to access the transmission system and the need to address border flow issues that could impede energy delivery, she said.



Lisa Dix, Sierra Club |
NYDPS

Sierra Club representative Lisa Dix discussed with the subgroup the need to scale storage to hit the 3-GW target by 2030 and how the state can assist in making that happen.

Bill Acker, executive director of the New

York Battery and Energy Storage Consortium (NY BEST), said, "We have the barriers around getting to the near-term solution of 70% renewables, and then the barriers around getting to a carbon-free solution, which is a more daunting task by far."

Solutions for the Future

The Solutions for the Future Subgroup is addressing reliability of the future grid, including storage and flexible, dispatchable resources.

A topic called the last clean megawatts (also called the final X percent), is about encouraging the necessary market investments for future innovation in energy delivery, Nelson said.

"There was acknowledgement of the different elements needed to encourage innovation, and discussion about the longer-term developments needed in the markets to encourage the transition that is happening across the system," Nelson said.

The subgroup discussed whether carbon pricing should be applied through wholesale power markets, or if it's better to have a broader mechanism that applies economy-wide, she said.

The Resource Mix Subgroup had "a really long list" of topics, including the electrification of buildings and transportation; the natural gas system; downstate peakers; instate renewables; regional connections; local distributed energy resources; and energy storage, Nelson said. (See [NY Panel Examines Vehicle Electrification, Cleaner Fuels.](#))

"There was quite a bit of review of the impact that peakers have on local communities, but also on how we will define peakers in the future," she said. "One would anticipate that as renewable buildout really increases, the remaining fossil base really will only perform on a peaking basis."

Equity Subgroup

The CLCPA requires that 40% of the benefits

"Much of our discussion has been on the need for transmission and distribution buildout, as well as those other technology solutions."

—NYISO Executive Vice President Emilie Nelson

of state investments in clean energy reaches disadvantaged communities, such as those located near the dirtiest oil and gas-fired peaker plants.



Betta Broad, NYCP |
NYDPS

Betta Broad, outreach director at New Yorkers for Clean Power, summarized the meetings of the Equity Subgroup, which focused on community impacts, affordability and access for all, and workforce development.

"There's a lot of concern about the disproportionate impacts on communities living near high-emission plants and peaker plants downstate, and on how we are going to close those plants as quickly as possible," Broad said. "We've been talking about the need for real sunset dates and having a plan for scaling up and retiring those most-polluting plants."

In a discussion on workforce development, the subgroup wanted to see long-term careers for residents, "not just a temp situation," said Jennifer Schneider, state coordinator for the International Brotherhood of Electrical Workers.

Annel Hernandez, associate director of the New York City Environmental Justice Alliance, said she wanted to stress the importance of making sure large-scale renewable energy projects maximize local workforce benefits.

"It's important to build these industries in New York City and New York state and make sure it's inclusive of environmental justice communities that have been historically left out," Hernandez said. ■

PJM News



MOPR, COVID Drive 2020 Policies in PJM

By Michael Yoder

If 2019 was a turbulent year for PJM as it dealt with fallout from the GreenHat Energy default and the emergence of the minimum offer price rule (MOPR) issue, 2020 proved an even bigger challenge with a worldwide pandemic.

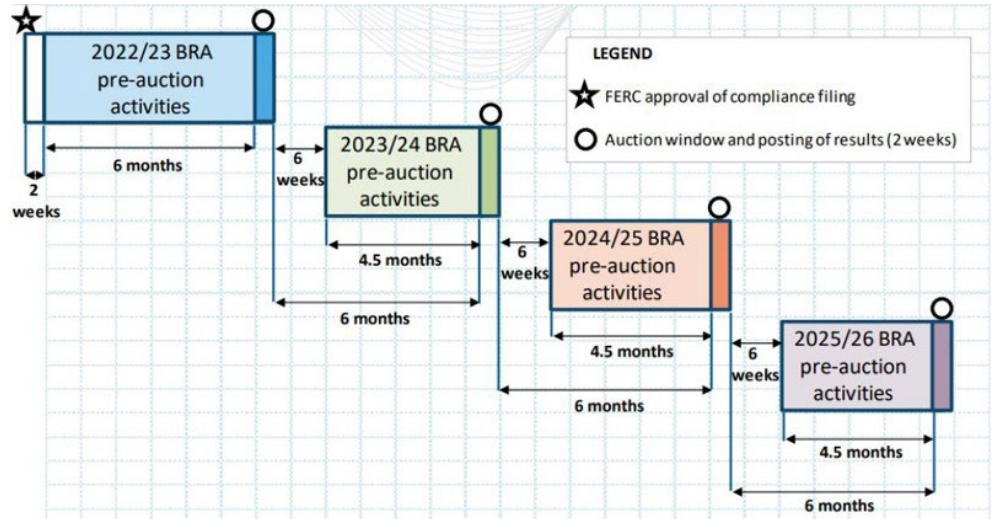
COVID-19 was the defining problem of the year as PJM worked with stakeholders to overcome logistical difficulties in coordinating complicated deliberations on a host of issues, including the MOPR. The year also saw the unfolding of political scandals involving some of the RTO's largest utilities and the increasing number of renewable energy resources coming online and the new obstacles they provide for grid planning.

Here's a review of some of the biggest PJM stories of 2020 and a peek at what stakeholders will be looking at in 2021.

MOPR Takes Shape

Last January, a wide range of stakeholders began asking FERC to reconsider its Dec. 19 order requiring PJM to overhaul its capacity market, saying the commission's directive was unnecessary and overstepped federal jurisdiction. FERC said PJM had to expand its MOPR to counter the impact of growing state subsidies, primarily for renewables and nuclear generation. (See [FERC Extends MOPR to State Subsidies](#).)

But state regulators, utilities and load-serving entities argued that the order went too far in attempting to control generation choices and



| PJM

failed to prove state-subsidized resources suppress capacity market prices. (See [PJM MOPR Rehearing Requests Pour into FERC and Consumer Advocates Appeal MOPR Order to DC Circuit](#).)

By the end of January, PJM officials had announced they would not run a capacity auction until FERC approved the RTO's compliance filing implementing the MOPR expansion, all but confirming that the delayed 2019 auction would not occur in 2020. (See [PJM: BRA Unlikely in 2020](#).)

PJM's Independent Market Monitor released [analysis](#) in March concluding that expanding the MOPR would not impact clearing prices or auction revenues for the 2022/23 Base Residual Auction because it won't significantly

change the treatment of gas-fired resources and also allow categorical exemptions for existing self-supply, demand response, energy efficiency and storage resources. The analysis also cited the "competitiveness of unit specific offers for existing subsidized nuclear resources." (See [MOPR May Not be Death Knell for Renewables in PJM](#).)

PJM submitted its proposed Tariff changes in March after discussing its planned compliance filing in several stakeholder meetings. ([EL16-49](#), [ER18-1314](#), [EL18-178](#)). (See [PJM Makes MOPR Compliance Filing](#).)

As PJM continued refining its MOPR, several states began weighing the option of meeting resource needs outside the capacity market.

Delivery Year	Original BRA schedule	Revised BRA Schedule	IAs cancelled
2022/2023	2019	May 2021	1 st and 2 nd
2023/2024	2020	December 2021	1 st and 2 nd
2024/2025	2021	June 2022	1 st
2025/2026	2022	January 2023	
2026/2027	2023	July 2023	
2027/2028	2024	May 2024	

Indicates auction is back on schedule

| PJM

PJM News



The New Jersey Board of Public Utilities (BPU) voted March 27 to investigate whether staying in the capacity market will impede Gov. Phil Murphy's goals of 100% clean energy sources for the state by 2050 or increase consumer costs (Docket No. [EO20030203](#)). If the goals are not achievable, board members instructed their staff to examine alternatives to the market. (See [N.J. Investigating Alternatives to PJM Capacity Market.](#))

Illinois and Maryland officials also started their own discussions on leaving the capacity market. MOPR's extension to subsidized nuclear plants created problems for Illinois regulators, where nukes receive zero-emission credits (ZECs), while Maryland's plans for offshore wind are also impacted. (See [PJM's MOPR Quarterly: Should States Stay or Should they Go?](#))

The commission in April clarified that voluntary renewable energy credits and Regional Greenhouse Gas Initiative (RGGI) participation would not subject capacity resources to PJM's expanded MOPR. FERC directed PJM to make a compliance filing within 45 days to set the default offer price floor for new energy efficiency resources at the net cost of new entry (CONE) and existing energy efficiency resources at the net avoidable cost rate. (See [FERC: RGGI, Voluntary RECs Exempt from MOPR.](#))

By October, FERC approved most of PJM's MOPR compliance filing while reversing its position on state-directed default service auctions ([EL16-49-003](#), et al.). The commission said it agreed with PJM and commenters to exclude "independently evaluated, non-discriminatory, fuel-neutral, competitive state-directed default service auctions from application of the expanded MOPR."

The commission also rejected PJM's proposed revisions to the market seller offer cap as beyond the scope of the compliance proceeding. (See [FERC Acts on PJM MOPR Filing.](#))

PJM then moved even closer to restarting its capacity auctions with FERC's November approval of its new energy and ancillary services (E&S) offset calculation ([EL19-58-002](#)). (See [FERC Approves PJM Reserve Market Overhaul.](#))

The commission acknowledged the changes would increase the RTO's reserve procurement and thus, the revenue resources received, affecting the capacity market's E&S offset. The offset is a key variable in calculating the net CONE for resources in the capacity market and is calculated using energy market results from the three calendar years prior to the BRA.

PJM's revisions changed the offset to be

forward-looking and included in its filing indicative E&S and net CONE values for various resource types. These values are "based on the latest published and publicly available forward prices at that time," FERC said, and would be revised using updated forward prices prior to the upcoming BRA for the 2022/23 delivery year. (See [FERC Approves PJM Key Capacity Market Variable.](#))

PJM was finally able to announce that it will hold the 2022/23 BRA May 19-25 and will post results on June 2. (See [PJM Sets BRA for May 2021.](#))

Political Scandals

Last year also saw major figures in the Illinois and Ohio legislatures caught up in alleged bribery schemes involving two of PJM's largest stakeholders over controversial laws passed to help save costly nuclear plants. The evolving scandals took down company leadership and leaves several people facing the possibility of stiff jail sentences.



Ill. House Speaker
Michael Madigan

Exelon's Commonwealth Edison [agreed](#) last July to pay a \$200 million fine to settle allegations that it bribed Illinois House Speaker Michael Madigan (D) in return for legislation that increased the company's earnings and bailed out its

money-losing nuclear plants. Madigan is the longest-serving leader of any state or federal legislature in U.S. history, having held the speaker title for all but two years since 1983. (See [ComEd to Pay \\$200 Million in Bribery Scheme.](#))

The U.S. Attorney's Office in Chicago filed a one-count [information](#) alleging that to influence legislation favorable to the company, ComEd arranged no-work jobs for Madigan associates, including former Chicago Alderman Michael R. Zalewski, the father-in-law of Illinois Commerce Commission (ICC) Chair Carrie Zalewski.

In 2011 ComEd sought to persuade Illinois lawmakers to allow it to make billions in smart grid investments and switch to a formula rate-making process to enable it to recover costs more quickly, investigators said.

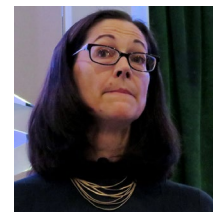
ComEd also admitted to appointing a Madigan ally to its board of directors, retaining a law firm favored by the speaker and providing internships to students who resided in the speaker's Chicago ward.

In return for the alleged bribes, the company won Madigan's support for the 2011 Energy Infrastructure Modernization Act, which approved the formula rate mechanism, and the 2016 Future Energy Jobs Act, which authorized subsidies for Exelon's Clinton and Quad Cities nuclear generators. (See [How ComEd Got its Way with Ill. Legislature.](#))

Within weeks of the bribery announcement, ComEd officials apologized to the ICC at an open meeting, while Zalewski defended herself against the conflict-of-interest allegations. (See [ComEd on Hot Seat at ICC Hearing.](#))

Illinois electric customers went on to file a federal class action civil racketeering [lawsuit](#) in August against ComEd and Madigan, seeking more than \$450 million in damages and an order barring the longtime politician from participating in any electricity legislation related to ComEd or its parent company, Exelon.

The plaintiffs' attorney Stuart Chanen said ComEd's agreement to pay the \$200 million fine settling criminal allegations did not prohibit customers from pursuing additional damages under the Racketeer Influenced and Corrupt Organizations Act. (See [ComEd, Madigan Sued for \\$450M in Racketeering Suit.](#))



Former Exelon
Utilities CEO Anne
Pramaggiore | © RTO
Insider

In November, several former ComEd executives, including former CEO Anne Pramaggiore, were indicted in connection to the ongoing bribery investigation. Investigators alleged the executives conspired with outside consultants to influence and reward a high-level elected

official in Illinois to assist with the passage of legislation favorable to ComEd. (See [Ex-ComEd CEO, Officials Charged in Ill. Bribery Scheme.](#))

Just days after the ComEd news broke, federal officials in Ohio alleged FirstEnergy spent \$61 million in bribes and "dark money" campaign contributions to elect the speaker of the Ohio House of Representatives and allies, who won \$1.5 billion in subsidies for the company's struggling nuclear plants. (See [Feds: FE Paid \\$61M in Bribes to Win Nuke Subsidy.](#))



Ohio House Speaker
Larry Householder |
Ohio House of Represent-
atives

Ohio House Speaker
Larry Householder (R),

PJM News



Lobbyist Juan Cespedes | *The Oxley Group*

FirstEnergy Solutions lobbyist Juan Cespedes, lobbyist Neil Clark, former state Republican Party Chair Matt Borges and political strategist Jeff Longstreth were arrested on racketeering charges in an alleged three-year scheme resulting in the

passage of House Bill 6 in 2019, which authorized ZECs for FirstEnergy Solutions' (FES) Perry and Davis-Besse nuclear plants.

FirstEnergy no longer owns the nuclear plants, as FES emerged from bankruptcy in February as Energy Harbor. But the utility's then-CEO Charles Jones and others face legal jeopardy based on the 81-page *affidavit* that said Jones was in regular contact with Householder.



Former FirstEnergy CEO Charles Jones | *FirstEnergy*

Ohio Gov. Mike DeWine (R) said in July the state should repeal House Bill 6 considering the federal bribery charges were against Householder and called for the politician's resignation. DeWine had previously said that the law, which he signed last July, should



Ohio Gov. Mike DeWine | *Ohio Governor's Office*

remain intact to save the nuclear plants' jobs and carbon-free power. (See *Ohio Gov. Calls for Repeal of Nuke Bailout*.)

Without any debate, House members voted unanimously to remove Householder as speaker after his arrest. Householder retained his seat in the house despite calls for his resignation. (See *Householder Removed from Ohio Speaker Post*.)

By October, FirstEnergy announced it had fired Jones and two other officials after an internal investigation determined they had violated the company's code of conduct in the alleged bribery scheme.

Jones' firing was announced after Cespedes and Longstreth pleaded guilty earlier that day to participating in a racketeering conspiracy. (See *FirstEnergy Fires Jones over Bribe Probe*.)

In November, Public Utilities Commission of



Perry nuclear plant | *Nuclear Regulatory Commission*

Ohio Chair Sam Randazzo resigned, less than a week after the FBI raided his Columbus home. Randazzo, who served as the chair of the PUCO since his appointment by DeWine in 2019, made the announcement in a *letter* sent to the governor.

The move came one day after FirstEnergy *told* the U.S. Securities and Exchange Commission that it made a \$4 million payment to an "entity associated with an individual who subsequently was appointed to a full-time role as an Ohio government official directly involved in regulating [companies regarding] distribution rates." (See *PUCO Chair Randazzo Resigns*.)

COVID-19 Impacts

As the U.S. was gearing up to shut down significant sectors of the economy in early March over the spread of COVID-19 from China, PJM was trying to determine how to keep its workers safe while still maintaining grid reliability.

The *System Operations Subcommittee* (SOS) began holding weekly conference calls in March to discuss how the coronavirus was impacting generation and transmission operators locally and the steps PJM and stakeholders were taking to handle the situation.

"I recognize that many of you are competitors in our markets ... on a normal day-in-and-day-out basis," PJM's Paul McGlynn said about the meetings. "But our industry has a long tradition of working together to operate the grid reliably and ... keep the lights on through some pretty challenging conditions."

PJM canceled all business travel, restricted access to its buildings and limited stakeholder meetings to WebEx video conferencing. (See "SOS to Meet Weekly on COVID-19 Impacts,"

PJM Operating Committee Briefs: March 12, 2020 and PJM to Hold Weekly Calls on COVID-19.)

Within the first week of lockdown measures across the region, PJM officials reported seeing changes in energy use. The data from March 17-19 showed the normal 8 a.m. morning peak shifted to 9-10 a.m., and the evening peak was about 5% lower than expected, the RTO said.

On March 16, load came in at about 95,500 MW compared to an expectation of about 100,000 MW.

PJM implemented a work-from-home policy through April 10, except for system operators and other shift personnel, and employees began working longer shifts to minimize shift changes. The RTO also canceled its May 4-5 annual meeting in Chicago.

Crews began prepping the PJM campuses for sequestration in early April, with healthy workers required to remain on site if the pandemic became worse. Crews installed temporary bedding, entertainment, food and other accommodations for employees.

A team also converted PJM's control room simulator into a potential third control room in case of an emergency. (See *PJM Preps 3rd Control Room, Plans for Sequestration*.)

Analysts began working on worst-case scenarios in the early stages of the pandemic, with PJM engineers saying the RTO could support the loss of up to 40% of installed generation capacity on a summer day and up to 60% on a spring day in a worst-case scenario in which units were knocked offline from a COVID-19 outbreak among plant workers.

PJM officials presented the *generator availability*

PJM News



analysis to stakeholders, saying it was intended to determine the maximum generation loss PJM could handle without curtailing power to the hardest hit areas. The analysis began by considering the impact of an outbreak at one plant spreading and disabling a generating company's entire fleet. (See [PJM Analyzes Potential COVID-19 Generation Losses](#).)

According to a [report](#) issued in August by the Monitor, COVID-19 depressed PJM energy prices in the first half to the lowest levels of any comparable six-month period since the creation of the RTO's markets in 1999.

The IMM 2020 State of the Market Report showed average energy prices fell over 29% from already historically low levels in 2019, to \$19.40/MWh. Monitor Joe Bowring attributed the decrease to lower fuel costs, which accounted for more than half the decline. Also contributing was a significant decrease in demand because of mild winter temperatures throughout the region and the stay-at-home orders arising from the pandemic. (See [PJM Monitor Reports Record-low Energy Prices](#).)

PJM Vice President of State and Member Services Asim Haque said late last year that the RTO will continue its cautious measures this year, with most employees continuing to work from home while its campus remains closed until at least June 2021. (See [PJM Official Reflects on COVID-19 Impacts](#).)

State Clean Energy

PJM states continue to advance ambitious clean energy goals, causing conflicts among the RTO, stakeholders and government officials over the best ways to achieve the goals.

New Jersey Gov. Phil Murphy in January released an updated [Energy Master Plan](#) outlining

how the state will meet its goal of 100% "clean energy" and an 80% reduction in statewide greenhouse gas from 2006 levels by 2050.

Murphy also issued an [executive order](#) directing the Department of Environmental Protection to issue regulations to reduce emissions and adapt to climate change. The regulations require a monitoring and reporting program to identify all significant sources of GHG emissions and integrate climate change considerations — such as sea level rise — into the department's land-use permitting and other regulatory programs. (See [NJ Unveils Plan for 100% Clean Energy by 2050](#).)

Indicating a desire for a new transmission strategy, New Jersey regulators voted in November to ask PJM to conduct a competitive solicitation for upgrades to connect 6,400 MW of OSW to the regional grid.

The New Jersey BPU unanimously [requested](#) that PJM integrate the state's OSW goals into the RTO's Regional Transmission Expansion Plan process under the "state agreement approach," making it the first state to do so since the approach was approved by the FERC under Order 1000. PJM expects to open a competitive solicitation window in the first quarter of 2021. (See [NJ Asks PJM to Seek Bids for OSW Tx](#).)

In April, Virginia Gov. Ralph Northam (D) signed legislation committing the state to closing most of its coal-fired generation by 2024 and making it the first southern state to adopt a 100% clean energy standard.

The Virginia Clean Economy Act ([House Bill 1526](#) and [Senate Bill 851](#)) creates a CO₂ cap-and-trade program to reduce emissions from power plants and amends the Clean Energy and Community Flood Preparedness Act, committing the state to joining RGGI. (See [Va.](#)

[1st Southern State with 100% Clean Energy Target](#).)

The PJM [Carbon Pricing Senior Task Force](#), which began meeting in 2019, heard analysis in February on the impact of Virginia and Pennsylvania joining RGGI and the effect on emissions, prices and interregional trading of a "carbon price region" composed of up to five PJM states. (See [PJM Panel Weighs Impact of Pa., Va. Joining RGGI](#).) Virginia officially became a RGGI state Jan. 1, 2020.

Pennsylvania Gov. Tom Wolf issued an [executive order](#) in 2019 directing state officials to develop a rulemaking by July of 2020 for joining RGGI, although a Republican-controlled legislature has challenged his authority to do so. (See [Critics: Pa. RGGI Hearing Stacked with Detractors](#).)

In July, the Pennsylvania House passed House Bill 2025 by a bipartisan majority of 130-71, requiring the legislature's approval before Pennsylvania can enter any multistate program like RGGI that imposes taxes.

The Department of Environmental Protection would need to submit "a description of the economic and fiscal impacts that would result" from joining such a program to aid the legislature in its decision. The bill would also require legislative authorization before the state can impose a carbon tax on employers engaged in electric generation, manufacturing or other industries. (See [Pa. House Passes Bill Limiting RGGI Entry](#).)

On the renewable energy side, the governors of Maryland, North Carolina and Virginia [said](#) in October they will collaborate to promote their states as a hub for the OSW industry. (See [Md., NC, Va. to Team up on Offshore Wind](#).)

The Southeast and Mid-Atlantic Regional Transformative Partnership for Offshore Wind Energy Resources (SMART-POWER) will seek to increase regulatory certainty, encourage manufacturing of components, reduce project costs through supply chain development and share best practices.

OSW can "drive economic development and job creation as well as reduce the emission of greenhouse gases and other harmful air pollutants," the group said in a press release, citing Department of Energy estimates that the Atlantic Coast OSW project pipeline could support 86,000 jobs, \$57 billion in investments and generate up to \$25 billion in economic output by 2030.

Virginia (5.2 GW) and Maryland (1.2 GW) have pledged to build 6.4 GW of the 29.1 GW in OSW capacity targeted by East Coast states. ■



| Avangrid

SPP News



2020 a Year of Challenges for SPP, Sugg

New CEO Strengthens MISO Relationship, Western Markets

By Tom Kleckner

Last year began with a foreshadowing of the twists and turns to come for SPP when its Board of Directors appointed Barbara Sugg as CEO in January.

In a traditionally male-dominated industry, Sugg joined the Australian Energy Market Operator's Audrey Zibelman as the only women in the world running an electricity marketplace. (Zibelman *resigned* in September to take a job with X, a research and development facility founded by Google.)

In choosing Sugg from a pool of candidates that included several with a "broader set of CEO experience," the directors cited Sugg's ability to develop, build and strengthen relationships as being "increasingly critical" to SPP's success. (See [SPP Board Taps Barbara Sugg as New CEO](#).)

Sugg wasted little time in dethawing SPP's frosty relationship with MISO in recent years. Shortly after officially becoming CEO on April 1, she contacted MISO's John Bear and opened a line of communication. The two have bonded over their love of white Labradors — each owns one — and have appeared together in several virtual settings this year, exchanging kudos and acknowledging each other's willingness to work together.

"I really appreciate you reaching out quickly when you took your new role," Bear told Sugg in December.

Sugg told *RTO Insider* it was simply a matter of following new corporate goals that include improving the MISO relationship "for the benefit of both regions."

"I eagerly accepted responsibility for this goal

and gave it a high priority," she said, noting MISO's "warm reception" and its commitment to also work on the relationship.

"It is only through a healthy mutual relationship that we will successfully tackle the many challenges faced along our seam with MISO," she said.

After four joint studies over the previous six years failed to produce a single interregional transmission project, the RTOs are embarking on a year-long study in 2021 to identify and fund projects that can resolve congestion along their seam. They say the transmission system is at capacity in the upper Midwest, but that current mechanisms do not provide enough cost sharing to encourage new generator interconnections. (See [MISO, SPP Stakeholders Applaud New Joint Study](#).)

Hopes are high on both sides that the study will produce results as developers continue to propose new projects that put further strain on the system. The interconnection queue has 39.9 GW of wind projects and 36.3 GW of solar facilities under some form of study, with even energy storage (8.9 GW) outpacing natural gas (5.0 GW).

Wind energy was already on track to overtake coal as SPP's No. 1 fuel source in early December. Wind makes up about 27% of capacity, but has averaged 31% of the fuel mix, ahead of coal (30.3%) and natural gas (27.2%).

Twice in December SPP set new records for wind and renewable energy peaks, settling at 19.7 GW and 20.9 GW, respectively, on Dec. 23. Wind has accounted for as much as 75% of the RTO's production at one time.

Western Interest

SPP's ample renewable resources are one reason several Western utilities have indicated a desire to join the RTO's expansion into the Western Interconnection. The grid operator launched *reliability coordination* services in the West in 2019, and its contract-based *Western Energy Imbalance Service* (WEIS) market is scheduled to go live in February.

WEIS participants Basin Electric Power Cooperative, Deseret Power Electric Cooperative, the Municipal Energy Agency of

Nebraska, Tri-State Generation and Transmission Association, and the Western Area Power Administration have all expressed an interest in placing their Western Interconnection facilities under SPP's Tariff. (See [Western Utilities Eye RTO Membership in SPP](#).)

Tri-State CEO Duane Highley said that if the cooperative is to successfully integrate renewables and meet clean energy targets, it will have to participate in an RTO in the West.

"One of the great attributes of SPP is its reach across 14, 15 states. [It's] been able to integrate more renewables in a bigger way than thought possible," Highley said.

Sugg told stakeholders in a *year-end email* that SPP has other "big things in the works" for 2021. In addition to the WEIS market and reorganization of the Markets and Operations Policy Committee's stakeholder groups, she listed the *Strategic and Creative Re-Engineering of Integrated Planning Team's* (SCRIPT) work revamping transmission planning processes and a new five-year strategic plan that clearly defines the RTO's mission, vision and shared objectives.

"And that's just scratching the surface," she said.

Character Revealed

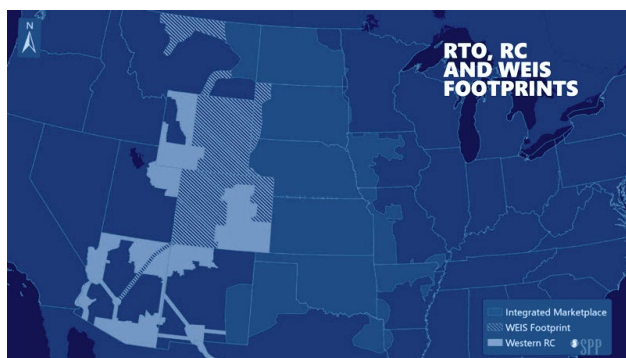
Sugg nears the end of her first year as CEO the same way it began — working from home in the midst of the COVID-19 pandemic.

By the time she officially took on the role in April, non-control room staff were working remotely, employee travel was prohibited and all stakeholder meetings were virtual. She had expected "the most challenging and rewarding assignment of my career," but this?

"I had no idea," she told stakeholders. "More than nine months later, I have yet to see my first 'normal' day."

It will be several months yet. SPP said staff won't return to the office until April at the earliest.

"Crises don't build character, they reveal it," she told stakeholders. "This year has revealed the strength of character of the amazing staff I have the honor to lead at SPP. It's also shown me the character of all of you working on behalf of our region to keep the lights on today and in the future. Working together, we have accomplished incredible things in the face of substantial opposition." ■



| SPP

SPP News

FERC Approves SPP's Western Market Tariff

WEIS Market to Launch in February

By Tom Kleckner and Rich Heidorn Jr.

FERC handed SPP an early Christmas present Dec. 23 when it approved the RTO's second version of a tariff for its five-minute Western Energy Imbalance Service (WEIS) market.

The commission accepted as just and reasonable the proposed tariff, the Western joint dispatch agreements (WJDAs) executed by eight entities and a charter for the Western Markets Executive Committee (WMEC). FERC found the WEIS market will yield "diverse benefits to the participating utilities and customers in the Western Interconnection" (ER21-3, ER21-4).

FERC said SPP's proposal addressed its concerns with the RTO's first filing, which it rejected in July. The commission said the earlier version failed to respect the transmission rights of nonparticipants and could improperly burden reliability coordinators, among other issues. (See [FERC Rejects SPP's WEIS Tariff](#).)

This time, FERC said SPP's tariff "presents a just and reasonable regional solution."

"We expect that the WEIS market will improve energy imbalance management by making a broader pool of resources available to serve load, enabling participating utilities to meet their energy imbalance needs at lower cost," the commission said. "Additionally, we expect that the WEIS market will improve reliability by managing resources that could relieve transmission constraints more effectively, leveraging a larger, more diverse set of resources to operate the system within limits and creating price signals that lead to actions that could enhance reliability."

The commission agreed with SPP that the WEIS market will help integrate and manage increasing levels of variable energy resources "by pooling variability over a larger area and re-dispatching resources to help manage imbalance energy caused by variable energy resources." It said it expects the market to realize similar benefits as those of other energy imbalance markets.

The order keeps SPP on schedule to launch the WEIS market on Feb. 1. It had asked for a

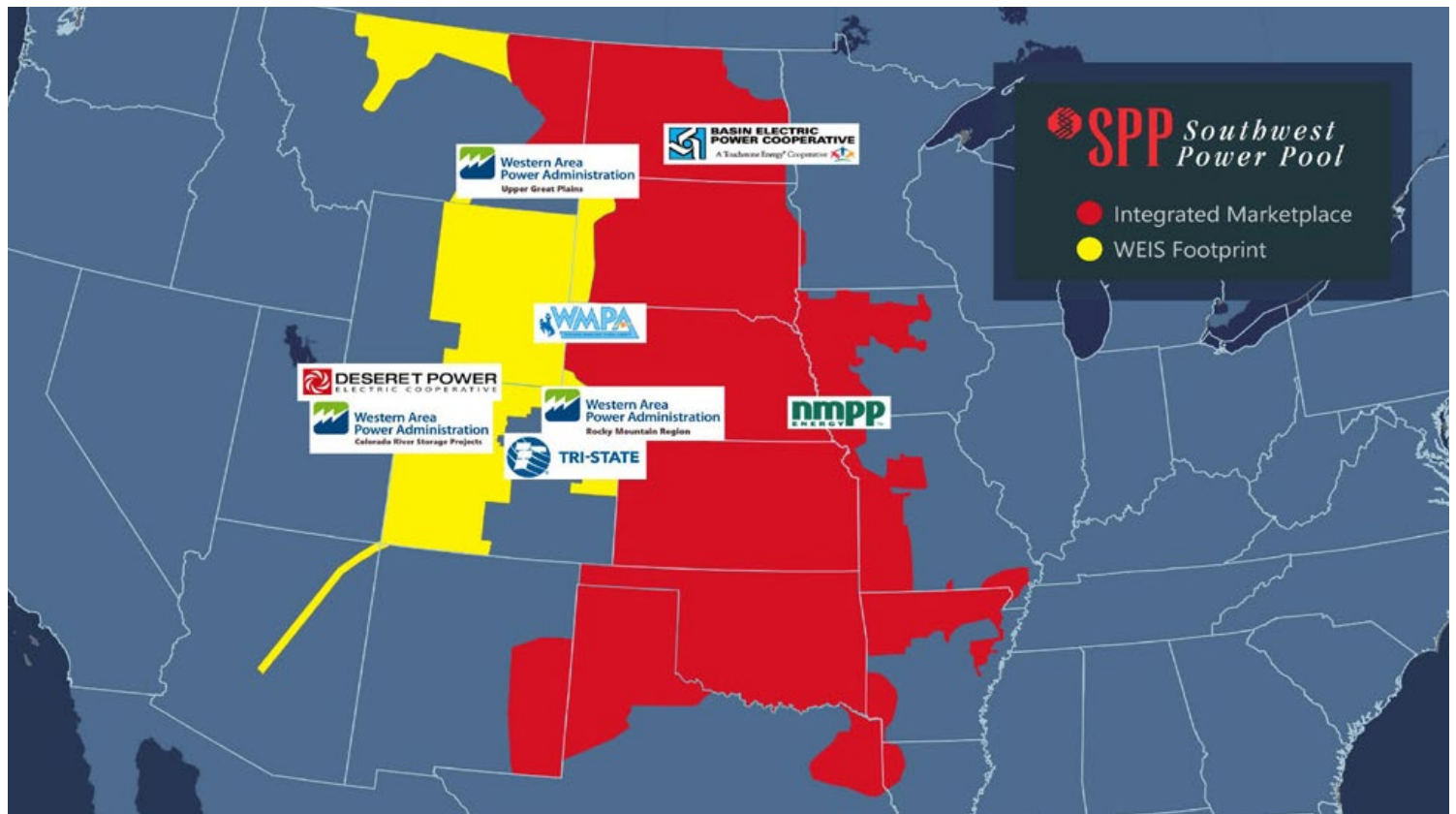
response from FERC by Dec. 3.

Bruce Rew, SPP's senior vice president of operations, said in a [statement](#) that the grid operator is pleased with the order and "excited to be able to proceed with our implementation efforts, which are well on their way."

The tariff defines rates, terms and conditions for the WEIS market and sets the rules and obligations for market participants. It includes a market participant agreement effective on the date participants begin their WEIS involvement. The tariff will be administered separately from SPP's tariff in the Eastern Interconnection.

WEIS market participants began parallel operations earlier in December, giving them a chance to test their systems and train staff in the market's production environment.

SPP will launch the WEIS with eight members covering the Western Area Power Administration's Colorado Missouri (WACM) and Upper Great Plains West balancing authority areas. SPP said in November that several of its WEIS



SPP's market footprints | SPP

SPP News

market participants are evaluating full membership in the RTO.

SPP also serves as an RC for about 12% of the Western Interconnection. It will add about 3.45 GW of generating capacity to its RC footprint — eight generating resources that are part of Gridforce Energy Management's BA in Washington, Oregon, Arizona and New Mexico — effective April 1, 2021. (See *SPP Expands its Western RC Footprint*.)

Protests Rejected

Several intervenors protested the filing, including Xcel Energy-Colorado, Colorado Springs Utilities and Black Hills Energy, which plan to join CAISO's Energy Imbalance Market (EIM).

Black Hills complained that its costs for energy imbalance service will significantly increase under the WEIS through the WACM BA, even though they are nonparticipants and that SPP did not conduct the kind of detailed cost-benefit analysis that was used to support CAISO's EIM.

Filing jointly, Earthjustice, Natural Resources Defense Council, Sustainable FERC Project, Western Grid Group and Western Resource Advocates said SPP should allow them and other stakeholders to help develop a cost-benefit analysis.

The commission said a centralized imbalance market "can deliver significant benefits,

including reliability benefits that are not easily quantified."

"We do not find protesters' arguments that SPP must demonstrate quantifiable net benefits persuasive. Although the commission carefully considers evidence of costs and benefits, it does not require a quantified cost-benefit analysis of proposals."

FERC said SPP's proposal to allocate costs based on net energy for load "reasonably reflects cost causation because net energy for load correlates to the size of the market."

It rejected complaints that costs would be passed through to nonparticipants, saying there is "nothing in the WJDAs assesses costs to nonparticipants. To the extent WEIS market costs will be passed through to nonparticipants through other agreements, those agreements are not part of SPP's filing and are not before the commission in the instant proceeding."

The commission also rejected challenges to the SPP's proposed governance structure, saying limiting voting rights to WJDA signatories "is reasonable because only WJDA signatories have made a financial commitment to the WEIS market."

SPP provided ways for non-WJDA signatories to participate in open meetings, FERC said, noting the WMEC charter "is explicit in delineating that only portions of meetings voted as

having a need for confidentiality by the WMEC will be closed to the public."

The commission said SPP's market mitigation provisions are "largely structured like those in SPP's Integrated Marketplace but with additional measures, including a more stringent set of mitigation thresholds and a provision to address structural systemwide market power."

It also rejected challenges to SPP's proposal to include marginal losses in dispatch and LMPs, saying it was "necessary to ensure least-cost dispatch and will minimize imbalance costs, provide prices that accurately reflect marginal costs and preserve resources' incentives to follow dispatch."

SPP's proposal to activate constraints to incentivize supply adequacy and prevent market participants from leaning on others was responsive to the commission's July order, FERC said.

It also rejected a protest over SPP's modeling of transmission availability, saying "if nonparticipants do not voluntarily offer their transmission for use in the WEIS market, the constraint enforced in [security-constrained economic dispatch] will not allow the WEIS market dispatch to utilize the nonparticipants' transmission rights."

Newly installed Commissioner Allison Clements did not participate in the proceeding. ■

Save your acrobatics for Cirque de Soleil.

Jumping through hoops was never really your thing anyway.

RTO Insider. Stay informed.

Staying on top of the trends and policy changes in the wholesale energy market is a mighty challenge. That's why you subscribe to *RTO Insider*. Offering unlimited access to comprehensive coverage, timely unbiased reporting and information delivered directly from reporters inside the room at almost all RTO/ISO meetings, *RTO Insider* makes staying informed and prepared effortless.



Company Briefs

Ameren Takes over 1st Wind Farm



Ameren last month announced that it has taken over ownership of the 400-MW High Prairie Renewable Energy Center in North-

ern Missouri. It is the utility's first wind farm. The newly constructed project consists of 175 turbines and marks the start of Ameren's commitment to wind. Its second, a 300-MW project in northwest Missouri's Atchison County, is almost finished

By 2030, the company plans to invest \$4.5

billions toward 3,100 MW of wind and solar generation, which includes the \$1.2 billion devoted to the two wind projects. It also aims to reduce carbon emissions by 50% in the next decade, compared to 2005 levels, and to reach net-zero emissions by 2050.

More: [St. Louis Post-Dispatch](#)

Tesla 2020 Deliveries Beat Estimates

Tesla last week said it delivered 499,550 electric vehicles in 2020, which came in above Wall Street estimates of 481,261 vehicles, according to Refinitiv data. However,



TESLA

the total fell about 450 units shy of CEO Elon Musk's ultimate target. At the start of the year, Tesla said it would "comfortably exceed 500,000 units" for the year — a target it left unchanged despite the COVID-19 pandemic. Still, the company's share price has risen more than 700% over the last year, has reported five consecutive quarterly profits and was included in the S&P 500 index in December.

More: [Reuters](#)

Federal Briefs

DOJ Appeals Ruling Barring Pendley from BLM Post



The Department of Justice last week filed a notice of appeal with the U.S. District Court in Montana initiating a challenge to Chief Judge Brian Morris' ruling that Williams Perry Pendley "unlawfully" served as the Bureau of Land Management's *de facto* director for more than a year and barred him from continuing to do so.

The appeal also covers a second order by Morris invalidating three revised resource management plans in Montana because Pendley took actions he was not authorized to perform.

The notice of appeal sends the case to the 9th Circuit Court of Appeals. The fate of the appeal is uncertain after President-elect Joe Biden is inaugurated next month, as it's expected the administration will drop it.

More: [E&E News](#)

FBI: White Supremacists Plotted Attack on Grid

According to a mistakenly unsealed affidavit, the FBI said a group of white supremacists plotted to attack power stations in the southeastern U.S., and an Ohio teenager who allegedly shared the plan said he wanted the group to be "operational" on a fast-tracked timeline if President Trump were to lose re-election.

The teen was in a text group with more than a dozen people in the fall of 2019 when he introduced the idea of saving money to buy a ranch where they could participate in militant training. The teen, who was 17 at the time, also shared plans of a plot to create a power outage by shooting rifle rounds into power stations in the southeastern U.S. The teen called the plot "Light's Out" and had plans to carry it out in summer 2021, the affidavit states.

One group member, a Texas native who was a Purdue University student at the time, allegedly sent an FBI informant a text saying "leaving the power off would wake people up to the harsh reality of life by wreaking havoc across the nation."

More: [The Associated Press](#)

State Briefs

NEW YORK

Groups Call on State to Eliminate Fossil Fuel Subsidies from Budget

More than 150 student, faith, labor, political, business and environmental groups last week issued a petition to legislative leadership and Gov. Andrew Cuomo asking them to eliminate unnecessary fossil fuel subsidies from the 2021-2022 budget.

The groups say the state is facing a projected budget shortfall of more than \$14 billion in the current fiscal year, and in light of that,

"New Yorkers, who are already suffering so greatly, cannot afford to bear the brunt of our fiscal shortfall. Instead of cutting essential public services, New York must make polluters pay by cutting subsidies to the oil and gas industry."

More: [WTEN-TV](#)

OHIO

Supreme Court Delays Fee Collection Involving House Bill 6

The state Supreme Court last week post-

poned the collection of \$170 million in fees involving House Bill 6, a move stemming from the legal fight over how the Public Utilities Commission set up charges to customers stemming from the tainted legislation. The ruling means the charges, set to begin this week, will likely be postponed until the justices make a decision that could take months.

The ruling comes days after Franklin County Common Pleas Judge Christopher Brown blocked the collection of fees in an order on a preliminary injunction. Attorney General Dave Yost and the cities of Columbus and

Cincinnati also sought to stop the distribution of the fees, citing the allegations brought by federal prosecutors.

Under the legislation approved last year, every electricity customer must pay a monthly surcharge of about 85 cents for residents and \$2,400 for large industrial plants that runs through Dec. 31, 2027. The money would be deposited into the Clean Air Fund, which the state treasurer would keep and disperse to Energy Harbor, which owns the Davis-Besse and Perry nuclear plants.

More: Cleveland.com

SOUTH CAROLINA

Senators to Investigate NextEra



A Senate subcommittee last week voted unanimously to investigate NextEra

Energy's efforts to acquire Santee Cooper, the state-owned electric utility.

The bipartisan subcommittee of seven senators agreed to send NextEra a letter requesting details about its lobbying efforts with, and campaign contributions to, state lawmakers. The committee will also ask NextEra to provide details on a reported ongoing federal criminal investigation into

its activities in its home state of Florida. NextEra will have 15 days to reply.

"I'm not committed to selling [Santee Cooper]; I'm not committed to keeping it; I'm not committed to any course of action ... but I want to know what I'm voting on, and we can't get there until these questions are answered," Sen. Dick Harpootlian (D) said. "I'm not casting aspersions. I just don't know what the facts are."

More: The State

WISCONSIN

MGE Proposes Solar Farm to Serve City, School Needs



Madison Gas and Electric last week filed an application with the Public Service Commission to build a \$15.3 million solar farm to provide renewable energy to local city and school buildings.

Energy from the 8-MW project would be sold exclusively to the Madison School District and the city under MGE's renewable energy rider, which ensures costs are not passed on to other ratepayers. According to the application, the school district will

purchase 37.5% of the output, with the city taking the remainder, which it estimates will supply nearly one-fifth of its energy needs.

If approved, construction would begin in April.

More: Wisconsin State Journal

PSC to Update Rules on Distributed Generation

The Public Service Commission last week approved parameters for revising 17-year-old administrative codes governing distributed generation facilities.

The current rules were written in 2004 to address issues such as engineering, reliability and safety, and to establish methods for determining the cost to connect to the grid. They do not mention storage at all. By last year, the state had about 100 MW of customer-owned solar, with another 26 MW expected to come online in 2020.

The update is one of dozens of actions outlined in a report by Gov. Tony Evers' task force on climate change, which said the "outdated and ambiguous" regulations have resulted in standards that differ from one utility to another.

More: Wisconsin State Journal

Save your obstacle courses for weekend Mud Runs.

Getting the information you need shouldn't wear you out.

RTO Insider. Stay informed.

Staying on top of the trends and policy changes in the wholesale energy market is a mighty challenge. That's why you subscribe to RTO Insider. Offering unlimited access to comprehensive coverage, timely unbiased reporting and information delivered directly from Reporters inside the room at almost all RTO/ISO meetings, RTO Insider makes staying informed and prepared effortless.



Save your 10 to 1 odds for Vegas.

You never want to chance too much in this market.



RTO Insider. Stay informed.

Staying on top of the trends and policy changes in the wholesale energy market is a mighty challenge. That's why you subscribe to *RTO Insider*. Offering unlimited access to comprehensive coverage, timely unbiased reporting and information delivered directly from reporters inside the room at almost all RTO/ISO meetings, *RTO Insider* makes staying informed and prepared effortless.

