# RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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

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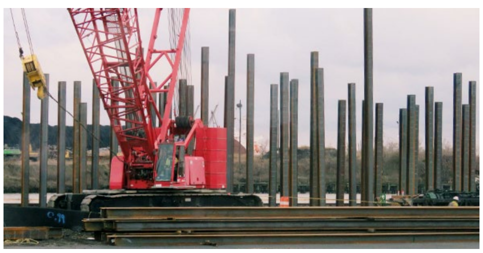
## Former Steel Mill Eyes Offshore Wind Future

*By Rich Heidorn Jr.*

SPARROWS POINT, Md. — New signs of life are emerging amid the rubble of what used to be the world's largest iron and steel mill.

Tradepoint Atlantic, which is redeveloping the 3,300-acre site of the former Bethlehem Steel Sparrows Point, calls its project a "modern industrial revival." But instead of manufacturing the skeletons of bridges, office buildings and warships on the site, Tradepoint is building infrastructure for international trade and e-commerce.



A crane operator drives piles at Ørsted construction site. | *© RTO Insider*

With access to ship, rail and truck transportation, and supported by the heavy industrial, electrical and other utility services left from the steel mill, this "intermodal logistics hub" has already attracted Amazon and Baltimore-based Under Armour, which have neighboring warehouses totaling 2 million square feet. Home Depot and Floor & Decor are about to open even bigger distribution facilities nearby. And Volkswagen has *leased* 115 acres as a terminal to handle the import of 120,000 cars annually.

One place that will be doing at least some manufacturing is the 45-acre site that Denmark-based Ørsted is developing as a staging area for its 120-MW Skipjack offshore wind farm planned near the Maryland-Delaware border.

Sparrows Point is one of four ports being developed for offshore wind facility manufacturing on the East Coast, with nine others under consideration, according to the Business Network for Offshore Wind.

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## DC Circuit to Reconsider FERC Tolling Orders

President Barack Obama nominated Judge Patricia Millett (right) to the D.C. Circuit Court of Appeals in 2013, along with (from left) Robert L. Wilkins and Cornelia "Nina" Pillard. | *The White House*

*By Rich Heidorn Jr.*

The D.C. Circuit Court of Appeals indicated Thursday it will reconsider its precedent that allows FERC to issue "tolling" orders to indefinitely delay action on requests for rehearing.

The court vacated an August 2019 *ruling* by a three-judge D.C. Circuit panel that rejected challenges to FERC's approval of Williams'

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## PG&E Announces $13.5B Settlement with Wildfire Victims

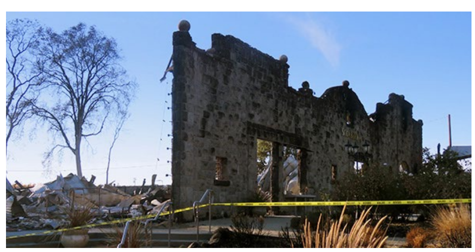
### *Pact Caps Week of Big Developments in Bankruptcy*

*By Hudson Sangree*

Pacific Gas and Electric announced late Friday it had reached a $13.5 billion settlement with the individual victims of wildfires sparked by its equipment from 2015 to 2018.

The announcement ended a tumultuous week for PG&E that included a growing movement to take the investor-owned utility public and revelations in a state report that said worn and broken hardware on a century-old transmission line had led to California's worst wildfire disaster.

PG&E's agreement with the Tort Claimants Committee (TCC) and firms representing individual claimants, to be paid in cash and stock, matches a proposed deal by bondholders for their own Chapter 11 reorganization plan in an effort to take over the utility. PG&E and bondholders have engaged in mediation and negotiations with California Gov. Gavin Newsom to



A broken PG&E jumper cable is suspected of starting November's Kincade Fire, which burned down the 150-year-old home of the Soda Rock Winery in Sonoma County. | *© RTO Insider*

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# In this week's issue

Counterflow

By Steve Huntoon

# Oy Vey

*By Steve Huntoon*

## Recap

Six months ago, I discussed how PJM's capacity market (the "Reliability Pricing Model") reversed a deteriorating reserve margin, efficiently assuring resource adequacy years into the future while integrating demand response and renewable resources.[1]

RPM has been a bulwark against bailout claims for coal and nuclear units by enabling a transition from dirty coal and inefficient nuclear to cleaner natural gas and clean renewables. And the Capacity Performance refinement to RPM incents resources to be available when needed, further enhancing reliability.[2]

Notwithstanding all this, the coal/nuclear bailout lobby created doubt about the "security" of generation resources that lack fuel on-site, i.e., natural gas generators without oil storage backup and, of course, renewable (intermittent) resources generally. This led to new buzzwords, "resiliency," as something other than "reliability," and resulted in a broad inquiry into "fuel security" at PJM.

## Solution in Search of a Problem

Once again let us put "fuel security" as a risk in historical context. Rhodium Group figured this out for us in 2017 and nobody has denied it:[3]

"Between 2012 and 2016, there were roughly 3.4 billion customer-hours impacted by major electricity disruptions. Of that, 2,382 hours, or 0.00007% of the total, was *due to fuel supply problems* (below). Interestingly, 2,333 of those customer hours were due to one event in Northern Minnesota in 2014. And it involved a coal-fired power plant."

Thanks again, Rhodium Group, for that great emperor-has-no-clothes exposé.

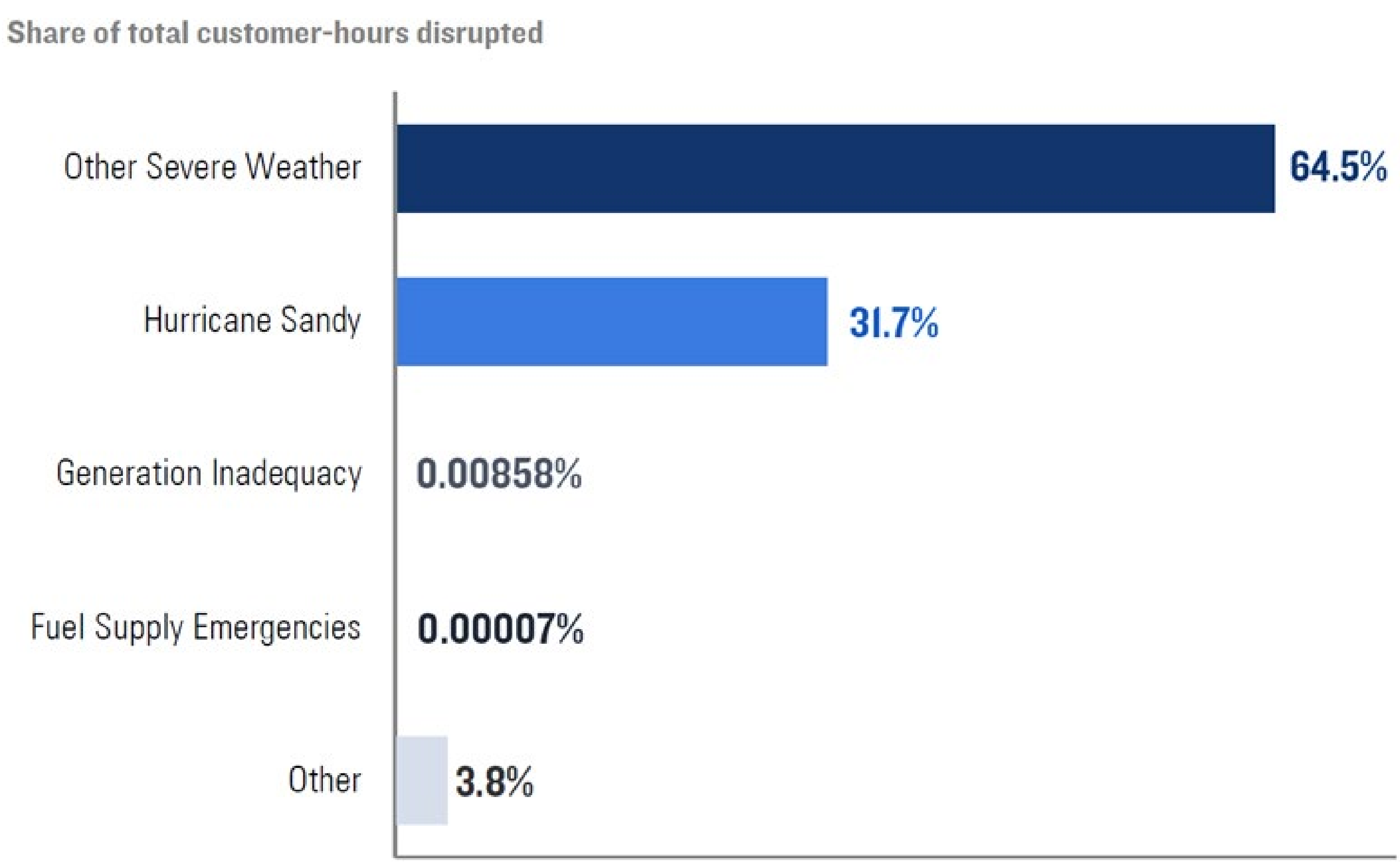
## Creating a Problem

So how could there be a "fuel security" problem? PJM acknowledged last summer that there is no current problem. But it created worst-case scenarios for a potential problem in the future, say 2023-2024.

PJM created 324 scenarios, and in some of the most extreme, it found load shedding (outages) could occur.

In the *worst of the worst-case scenarios*, PJM found that there could be 83 hours of load shed for an average of 2,452.8 MW. Now, 83 hours sounds like a lot, but we need to remember that load/demand during this peak period is around 140,000 MW. So if load shed is spread across the system, it's an average of 1.5 hours for any given customer.[4] So this worst of the worst-case scenarios was *tiny*.

Now, how likely was this worst of the worst-




Cause of major electric system disturbances 2012-16 | *Energy Information Administration and Rhodium Group*

# Counterflow

By Steve Huntoon

case scenarios to occur in any given year? For starters, it was based on a one-in-20-year extreme-winter condition. And it was based on a "high pipeline disruption," meaning the entire loss of pipeline flow in a right of way. This is an extremely rare event and has never caused a major detrimental gas supply loss to PJM generation, [5] but being very conservative, one could assume a one-in-10-year chance of that both happening in PJM and happening in the winter. Now, what's the chance of that disruption occurring at the same time as the extreme 14-day winter condition? About 1/6, because 14 days are about one-sixth of a three-month winter period.

OK, here's the math: 1/20 x 1/10 x 1/6 = 1/1,200. Yes, once every 1,200 *years*, we might experience a *tiny* 1.5 hours of outage for the average PJM customer. As I said about this six months ago, we should live so long.

## Flash Forward to the Latest PJM Analysis

Over the last six months, PJM has run more scenarios: 1,180,380 to be exact. And, the best I can make out, the bottom line is the same.

Where PJM (1) assumes a supply disruption that causes a generation loss of 10,000 MW,[6] (2) assumes all 10,000 MW are lost for five days, (3) assumes this happens during a "cold snap" and (4) assumes its net capacity resources are lower by 15,300 MW from the future projected resource balance,[7] PJM comes up with an expected load shed value for the top 5% worst-case scenarios of 264.51 MWh and an associated expected value of lost load (VOLL) cost of around $4 million.[8]

Please note that the worst-case *natural gas* disruption is 4,945 MW (not 10,000 MW), for which the worst-case scenarios' load shed is an even more trivial 10.4 MWh at an even more trivial VOLL cost of $156,000.

It's difficult to aggregate all these remote possibilities into a single risk number, but somehow I think there's a bigger chance of being hit by a meteorite.[9] And even then, the VOLL costs involved are trivial.

## But Wait, There's More

These tiny risks (and tiny costs) *overstate* the real risk because of mitigation factors (that are admittedly hard to quantify).[10]

- Winter generation capability greater than summer capacity rating.
- Load reduction in response to what would be very high energy prices in the worst-case scenarios.
- Load reduction from public calls for voluntary conservation in the worst-case (emergency) scenarios.
- Import assistance from neighboring regions such as occurred during the polar vortex.

## Much Ado About Not Much

After extensive work by PJM, I think we're where we began. Tiny risks layered on top of one another with tiny costs under worst-case scenarios.

Oy vey. ■

[1] http://energy-counsel.com/docs/Fuel-Security-PJM-Does-Seinfeld.pdf.

[2] https://www.pjm.com/-/media/library/reports-notices/capacity-performance/20180620-capacity-performance-analysis.ashx?la=en (see for example conclusion at pdf page 34).

[3] https://rhg.com/research/the-real-electricity-reliability-crisis-doe-nopr/ (emphasis added).

[4] The math is 83 load-shed hours times average load shed of 2,452.8 MW divided by 140,000 MW of peak load.

[5] Please see detail and supporting reference in footnote 5 of my prior column. By the way, contrary to a claim made at a PJM task force meeting in the summer, in the 1994 "cold wave," firm customers were not curtailed because of loss of gas supply. This is shown on page 6 of this NERC report, https://www.nerc.com/pa/rrm/ea/February%202011%20Southwest%20Cold%20Weather%20Event/NERC%201994%20Cold%20Wave%20Report.pdf.

[6] https://www.pjm.com/-/media/committees-groups/task-forces/fsstf/20191025/20191025-item-05-scenario-results-part-1.ashx (slide 49).

[7] https://www.pjm.com/-/media/library/reports-notices/fuel-security/2018-fuel-security-analysis.ashx?la=en (difference between 193,239 MW projected for 2023/24 year, and escalated retirement level of 177,906 MW).

[8] https://pjm.com/-/media/committees-groups/task-forces/fsstf/20191122/20191122-item-05-and-06-phase-2-summary-and-poll-questions-post-meeting.ashx (slides 11, 22, 28). By the way, PJM projects actual resources well above the target installed reserve margin for the next 10 years. https://pjm.com/~/media/committees-groups/committees/mc/20191031/20191031-item-01-2019-pjm-reserve-requirement-study-report.ashx (page 15, Table 1-4).

[9] Which did actually happen to one person … once in all recorded history. https://www.nationalgeographic.com/news/2013/2/130220-russia-meteorite-ann-hodges-science-space-hit/

[10] More detail and supporting references are in my prior column.

SEIA Solar+ Summit

# SEIA Rallies the Troops for 'Solar Policy Blitz'

*By Michael Brooks*

From left to right: NARUC President Brandon Presley; Steve Levitas, Pine Gate Renewables; Boyd Brown, TT&B; and Maggie Clark, SEIA. | © *RTO Insider*

WASHINGTON — Last week was a busy one for the Solar Energy Industries Association.

The trade association held its annual policy summit at the Washington Plaza Hotel on Wednesday, on the eve of both the International Trade Commission's midterm review of the Trump administration's tariffs on imported solar panels and a Court of International Trade ruling affirming the exemption of bifacial modules from the tariffs.

On Thursday morning, SEIA held a rally outside of the trade commission's headquarters in D.C., calling upon "solar workers, advocates and anyone passionate about fair solar trade policy" to attend and show support for ending the tariffs.

But Wednesday's summit acted as a rally of sorts as well, as the solar investment tax credit expires at the end of this year, and legislation to extend it faces stiff competition for congressional attention amid impeachment proceedings and a Dec. 20 deadline to fund the government.

SEIA President Abigail Ross Hopper and keynote speakers urged attendees to be more active in contacting their representatives in Congress, particularly if those representatives are Republican.

The event opened with a speech from U.S. Sen. Catherine Cortez Masto (D-Nev.), who in July introduced the Senate version of a *bill* that would extend the tax credit for another five years. (The House *version* was introduced by Rep. Mike Thompson (D-Calif.)

"I need your help," she said. "I need your help with some of my colleagues on the other side of the aisle. ... Just make the call, if you haven't already. They don't need to publicly sign onto to the bill. ... Just ask them to reach out to Mitch [Senate Majority Leader Mitch McConnell (R-Ky.)] and tell him why this is so important; why this needs to be passed; why this needs to be part of the package at the end of the day."

Hopper echoed Cortez Masto's call to action before she began her own speech, noting that she has found people in the industry to be timid when it comes to calling their representatives.

Many of the panels that followed focused on the best ways to lobby Republicans on solar energy policy. Speakers told their own success stories and described the gradually changing political landscape around renewable energy and climate change as encouragement for attendees.

Brandon Audap, vice president of government relations for *Citizens For Responsible Energy Solutions*, spoke about his efforts to lobby Republicans on climate change. His organization focuses only on trying to convince the GOP to enact "responsible, conservative solutions" to solve the problem.

As SEIA's former director of federal affairs, Audap worked on the first tax credit legislation. Though "Republicans are more engaged on climate change," there is no unified party stance on it, so his organization has had to canvas every elected official in Congress (250) individually, he said.

The good news for the industry: "The era of the Republican climate denier is coming to an end. It's a dying breed. I could name a handful of serious climate deniers still."

The bad news: "Don't get me wrong. There's plenty of guys who talk about climate change but have no intention of ever doing anything or advancing clean energy or tax credits." He described a conversation he had with House Minority Whip Steve Scalise (R-La.), who told him, "'Basically our guys are comfortable talking about airplanes and cow farts'" to mock the Green New Deal, a proposed resolution by Rep. Alexandria Ocasio-Cortez (D-N.Y.). Scalise's reference came from a draft *FAQ* accidentally released by Ocasio-Cortez's staff and later retracted, which Republicans have *seized* on to claim Democrats secretly want to ban air travel and hamburgers.

Audap said Scalise continued to say that "'we're going to ring all the political hay out of the Green New Deal and then get around to doing some serious policy.'"

## The Economy, Stupid

The key then, panelists said, is to focus on the economic benefits of solar rather than the environmental ones.

Boyd Brown, one of the three partners in lobbying firm Tompkins, Thompson & Brown, described his firm's successful efforts earlier this year to get South Carolina's *Energy Freedom Act* passed into law. Both houses of the state legislature unanimously voted to pass the bill after its introduction in January, and Gov. Henry McMaster signed it into law in May. Among the provisions supporting solar power, the law permanently eliminated any caps on net metering. It also requires utilities to consider offering neighborhood community solar programs and for their integrated resource plans to fairly evaluate solar-plus-storage investments.

Brown, a former Democratic member of the South Carolina House of Representatives, laid out the challenge the solar industry faces on the lobbying battlefield. "You got to start peeling back this onion legislatively in these states where utilities have had the ability to run roughshod over the landscape over the last half-century," he said. "You guys are really new to the game. And these folks are entrenched." During the battle for the Energy Freedom Act,

# SEIA Solar+ Summit

"I think there were like eight registered solar lobbyists in South Carolina, versus 67 utility lobbyists. So it was really a David-versus-Goliath match."

South Carolina is also a rural, deeply conservative state, and concerns about climate change do not resonate with its residents, nor with those in similar states, multiple speakers said.

But the bill was spurred by and benefited from "a groundswell of pure hatred, really, for Big Nuclear and Big Energy" after the failure of SCANA's expansion of the V.C. Summer nuclear plant, for which customers were left on the hook, Brown said.

"I'm not sure the words 'climate change' ever came out of my mouth when I was lobbying legislators in South Carolina. We talked about 'energy freedom'; we talked about consumer choices; we talked about free-market and fair-market principles," he said. "We were like, 'Where are ... the free markets that Republicans are supposed to believe in?' So we were really able to ... build a coalition around Democrats who believed in protecting the environment and Republicans who believed in fair-market principles."

Corey Schrodt, staffer for Rep. Francis Rooney (R-Fla.) | © RTO Insider

Corey Schrodt, legislative director for Rep. Francis Rooney (R-Fla.), advised attendees to "always localize" data they use in their messages, such as how much money constituents would save or how many jobs would be created. "When people see the numbers, especially big jumps in numbers, it catches their attention."

He also stressed that every call, email and letter from constituents to their representatives is logged by staff. Each week, members of Congress are given statistics on how many messages they received and what issues they were about. "When you call in, it does get tracked. I can't speak for every office, but I know that most offices use that information to their advantage in how they contact, how they message their own constituents."

"Just put your best foot forward," Audap said. "Don't feel like you need to convince them on climate change to get their support for solar. That's frankly irrelevant in a lot of offices, even some Democratic offices."

NARUC President Brandon Presley | © RTO Insider

Brandon Presley, Mississippi Public Service Commissioner and new president of the National Association of Regulatory Utility Commissioners, said for many residents, it's not a matter of whether they believe in climate change. As an elected official in a poor district, "I represent people that worry about tonight how they're going to feed their children, and how they're going to put gas in the van to get them back and forth to school. And if I'm talking to them about climate change, although that's important to me ... [I'm] not making headway" with his constituents on solar policy.

## Next Steps

The Court of International Trade on Thursday blocked the Office of the U.S. Trade Representative's decision to revoke bifacial modules' exemption from the solar panel tariffs, ruling that the office had violated the Administrative Procedure Act by not providing notice or opportunity to comment on a proposed decision.

"This is an important temporary reprieve for the bifacial module exclusion," Hopper said in a statement after the decision. "We will continue to make the case that the ... tariffs are harming the U.S. industry and the American consumer and that the bifacial exclusion was a fair and reasonable solution to the problem of domestic module supply shortages."

The International Trade Commission will submit a report to President Trump on the tariffs as part of its midterm review by Feb. 7. At Wednesday's summit, SEIA General Counsel John Smirnow said he thinks that the administration would eventually drop the tariffs, but he noted that Trump is notoriously unpredictable, especially when it comes to trade. The president's tweets can lead to a drop in the stock market one day, and a rebound the next. "Anybody who tells you they know what is happening, what's going to happen, dates certain ... I'd be surprised if they actually do," he said.

SEIA General Counsel John Smirnow updates attendees on the current status of the Trump administration's solar panel tariffs. | © RTO Insider

Erin Duncan, SEIA vice president of congressional affairs, gives attendees her prognostication for Congress extending the solar investment tax credit. | © RTO Insider

Erin Duncan, SEIA vice president of congressional affairs, asked Schrodt if a carbon tax or dividend would be the next big policy battle after the tax credit extension. Rooney is the only Republican supporter of the *Energy Innovation and Carbon Dividend Act*, which would tax the carbon emitted by fuels, deposit the revenue into a new Carbon Dividend Trust Fund and distribute the funds back to taxpayers.

"The unfortunate reality is that we're headed into a campaign year," Schrodt said. "I've been on the Hill long enough to know that we have from now to maybe until March to really do anything. It's going to take smaller bites of the apple."

Unmentioned by Schrodt is that Rooney is not running for re-election. His announcement came in October, one day after he told CNN he was open to investigating whether Trump should be impeached. ■

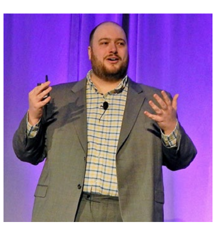
# Overheard at GTM's Energy Storage Summit 2019

## *Analyst: Promising Growth Trends for Energy Storage*

Opening session of the GTM Energy Storage Summit | © *RTO Insider*

DENVER — Almost 500 members of the storage industry and assorted regulators, financiers, and utility and RTO representatives gathered last week for the Greentech Media Energy Storage Summit 2019.

These are heady times for the industry. Seven states — California, Hawaii, Illinois, Ohio, Pennsylvania, Texas and West Virginia — have at least 50 MW of energy storage. In all, nearly three dozen states — blue, red and purple — have some sort of storage facilities, though some are 10 MW or less.



Daniel Finn-Foley, Wood Mackenzie | © *RTO Insider*

"The map is starting to fill out. That's not a pattern you see with wind regions or solar regions," said Daniel Finn-Foley, who leads consulting firm Wood Mackenzie's energy storage team and focuses on front-of-the-meter energy storage applications.

Wood Mackenzie's third-quarter market report indicates storage deployments were up 32% quarter-over-quarter to 430 MW, with 100 MW deployed during the period. Finn-Foley predicts the storage market will triple and come close to the $2 billion level in 2020, more than doubling to $4.2 billion in 2021, and that annual deployments will reach 5.4 GW by 2024.

"Energy storage is spreading across the United States in a way we haven't seen other technologies do," he said. "Storage has a value in whatever region it's in. Years ago, we would have been confined to particular areas."

Finn-Foley said the surging interest is driven by utility procurements and markets that see the need for storage's fast-start abilities. That has led to a jump in grid operators' interconnection requests.

"People are taking advantage of [storage's] eligibility and hopefully making a little money. People are looking forward into these markets and making bets," Finn-Foley said.

"No longer are developers going to the market and pushing up and saying, 'Energy storage can do so much if you can give us a chance,'" he said. "It's going to be the policymakers, the regulators, looking back down to the energy storage industry and saying, 'We need you now, if we're going to have these 100% renewable targets.'"

### ISOs, RTOs Working to Accommodate Storage Resources

ERCOT is ground zero for storage's growth, just as it has been for renewable energy. Though Texas currently classifies storage as a generation asset, developers have found the resource helps arbitrage wind power and meet demand peaks.

"We have a lot of people knocking on the door right now, a lot more than a few years ago," said Paul Wattles, ERCOT's senior analyst of market design and development. He recalled looking at the storage interconnection queue and seeing "almost nothing" in it.

Checking the numbers on a note in front of him, Wattles said ERCOT now has more than 5,600 MW of storage projects in the queue.

"I'm assuming that's way back in the queue," he said. "[Storage] is really in the category of noise, but with 5,600 MW in the queue, it won't be noise for too long."

# GTM's Energy Storage Summit

Wattles said ERCOT's scarcity pricing cap of $9,000/MWh, which the grid operator reached or neared for more than six hours this summer, "creates an opportunity for energy arbitrage, which I'm sure the batteries are well-qualified to take care of." Storage providers are more likely to earn returns by providing ancillary service, he said, given the "island" grid operators need for fast-responding regulation service.

"Our challenge is to find friendly locations in ancillary service and the energy market for all types of resources," Wattles said.

SPP General Counsel Paul Suskie and James Pigeon, NYISO manager of distributed resources integration, joined Wattles on the panel as they discussed roadblocks to energy storage's participation in U.S. markets and implementing FERC Order 841.

Suskie said SPP has largely complied with the rulemaking, designed to eliminate barriers to storage's participation in wholesale electric markets. He said FERC wants the RTO to move energy storage requirements from the protocols into the Tariff, "which we'll do." (See *FERC Partially OKs PJM, SPP Order 841 Filings*.)

"What we're seeing in the queue is solar and storage paired together" to take advantage of tax incentives, Suskie said. With more than 22 GW of installed wind capacity and wind bidding in at negative prices, getting paid to store off-peak power and then letting it back into the market "makes sense," he said.

Left to right: Paul Suskie, SPP; James Pigeon, NYISO; and Paul Wattles, ERCOT | © *RTO Insider*

"We have more wind on the system than load," Suskie said. "It'll be an asset to store the wind energy. Wind can drop off dramatically, and we're going to need more products to get us up quickly, and batteries will do that."

NYISO is the only grid operator still waiting on an Order 841 compliance ruling from FERC. (ERCOT is not FERC-jurisdictional.)

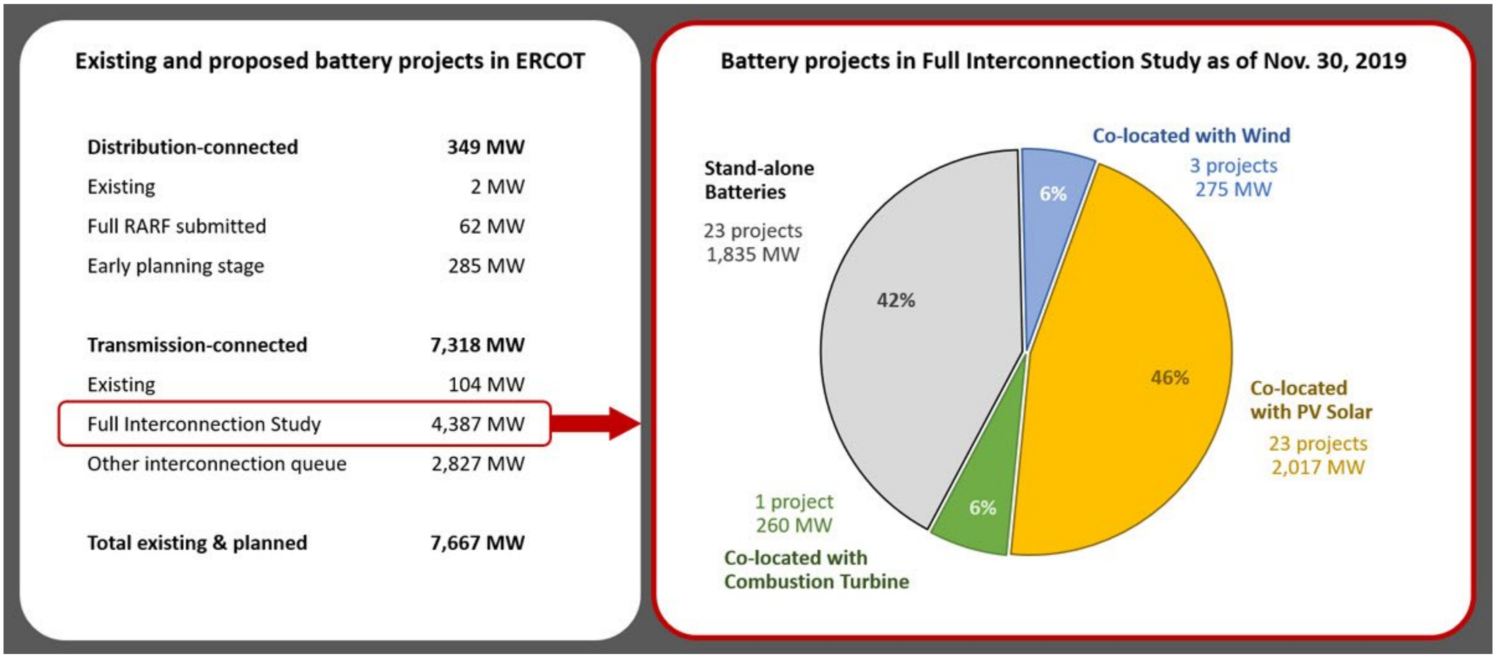
"We've worked with stakeholders to see where we land in meeting all of FERC's requirements and still find benefits while providing lowest-cost power," Pigeon said. NYISO has proposed a model that allows storage resources to either blend into a higher aggregation with storage and demand response, or to come together as one, virtual, larger resource.

"By leveraging this new aggregation model, hopefully storage and DERs will be able to come together and help the ISO," Pigeon said. NYISO currently allows four-hour storage resources and expects more interest, he said, which has led the ISO to propose two-, four-, six- and eight-hour increments.

"If the storage device decides it wants to run longer, it can do so at a discounted rate," Pigeon said. "Hopefully, that provides a flexibility people can use and leverage."

## California Outages Open Eyes to Storage

California's attempts to prevent wildfires with




Storage in the ERCOT interconnection queue | *Grid Monitor*

# GTM's Energy Storage Summit

public safety power shutoffs in November left more than 2 million residents in the dark — and created additional demand for energy storage solutions.


Thomas Plagemann, Vivint Solar | © *RTO Insider*

"The experience of a shutdown is a real motivator," said Thomas Plagemann, Vivint Solar's chief commercial officer. "We're talking a lot more with customers about resiliency. The ability to store some of your energy in the daytime, to keep the refrigerator running, charge your phone overnight … that resiliency is in high demand in California."


Suparna Kadam, EnterSolar | © *RTO Insider*

"Storage has become a standard part of what we evaluate for with [California] customers, where it was demand-side management," said Suparna Kadam, EnterSolar's director of business development. "Resiliency is now more meaningful to customers."

## Colorado's Polis: Seeing Value in Storage

As the governor of a state intent on reaching a 100% renewable grid by 2040, Colorado's Jared Polis would normally have been the star of his presentation. That is, until he brought along Gia, a terrier mix rescued 10 years ago by Polis and his partner.

"She's really into storage," he said, as he placed Gia in the chair next to his. "Not so much on the generation side."

Polis mentioned an upcoming adoption event for rescue animals at the governor's mansion, but he also had another … pet cause on his mind.

A Democrat, Polis easily won election last year, running on a pledge to have the state's grid running on 100% renewable energy by 2040. While the renewable goal is not state law, the legislature did codify a 50% emission reduction by 2030 that increases to 90% by 2050.

"Colorado is a very forward-looking state. The people want to make sure the future works for us, rather than against us. They understand this is the way Colorado is going, America is going, the world is going," he said. "Sure, there'll be potholes along the way — for instance, the lack of federal progress under this administration — but we see enormous progress at the local level."

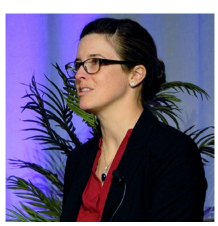
Polis said 14 municipalities have set more aggressive renewable goals than the state and numerous private sector companies "large and small" have announced renewable energy goals. Xcel Energy, the state's largest electric utility, has announced an 80% carbon reduction by 2030, and Polis talked of visiting an Amazon distribution facility with a rooftop solar array nine football fields long that will provide 80% of the facility's total energy needs.

"It's all about the economics. The generation side, solar and wind, they are there. They have a lower cost than coal," he said. "Natural gas comes and goes, but we're not building out our capacity based on low prices now. The question is how we can retire legacy assets and give consumers opportunities for savings sooner rather than later."

Polis sees energy storage as supplying some of the answers to the question. He noted that Xcel's bids for wind-plus-storage came in "significantly" lower than existing coal production.

"I think that helped inspire their confidence in 100% green by 2030," he said. "It's amazing just to see the improvement on energy storage. It brings into the realm of the economically possible even more energy. I think people understand the savings and the resiliency that could result from increased renewable energy, coupled with storage. With storage, you have enormous opportunities over time for exponential, game-changing type technological advancements."

## RPS Requirements Helping Drive Renewables


Alice Jackson, Xcel Energy-Colorado | © *RTO Insider*

Alice Jackson, president of Xcel Energy-Colorado, and Colorado Public Utilities Commissioner Frances Koncilja took a break from rate case arguments and regulatory filings to discuss the increase in renewable portfolio standards across multiple states and energy storage's role. Six states and D.C. are chasing 100% RPS, with New York and California accounting for one-third of investment firm Morningstar's RPS-based renewable energy growth estimate over the next 10 years, and solar, paired with storage, is expected to be responsible for much of the growth.


Colorado PUC Commissioner Frances Koncilja | © *RTO Insider*

Koncilja said the PUC is just beginning to work with stakeholders to create storage requirements through its electric resource plan (ERP), which is conducted every four years.

"We have really left this to the market. The bids that came in [2018's ERP process] were so robust and amazing, the question was, does a regulator really need to come in and deal with this?" she said. "We are moving away from least-cost to cost-effective. Least-cost might mean we would never get to the RPS we need."

Xcel-Colorado saw an "overwhelming" response to renewable procurements. Jackson said there were so many responses to a 2017 request for proposals that it broke the company's modeling tool.

"Normally, you would have gotten about 50 bids from customers. We got over 400 bids," she said. "We were surprised by some of the [storage] pricing."

Xcel-Colorado has agreed to an early retirement of 725 MW of coal-fired generation, which will require the utility to obtain an additional 450 MW of generation. It plans to add 1,100 MW of wind and 700 MW of solar and pair 275 MW of storage with solar.

"We're not invited to make the film, we're not invited to the Academy Awards, and we're not invited to the after-party. We're sort of the cleanup crew," Koncilja said. "We are the implementation group. We do that through our rules and our statutes."

Koncilja said recent state legislation included "Machiavellian" language that surprised the commission. The so-called "Turducken Bill" not only reauthorized the PUC, but also set carbon-reduction targets and established a process for issuing low-cost bonds to retire power plants in lieu of cleaner resources.

"We're more attuned to how many things are being required of our utilities," she said. "For me, it's how do we make this a level playing field. It should be where everyone is bidding the same." ■

*— Tom Kleckner*

## FERC/Federal News

# DC Circuit to Reconsider FERC Tolling Orders

Continued from page 1

Atlantic Sunrise natural gas pipeline project, scheduling an en banc oral argument for March 31 (*17-1098*).

The *project*, an expansion of the existing Transco pipeline between northern Pennsylvania and South Carolina, began service late last year after winning FERC approval in February 2017 (*CP15-138*). (See *FERC OKs Pipelines, Delegation Order Before Losing Quorum*.)

The three-judge panel unanimously rejected the challenges by environmental groups and landowners, but Judge Patricia Millett wrote a concurring opinion sharply critical of FERC, saying it had "transformed this court's decisions upholding its tolling orders into a bureaucratic purgatory that only Dante could love."

Millett's concurrence took no issue with her colleagues' rejection of complaints that FERC failed to consider the pipeline's downstream greenhouse gas emissions or to substantiate market need for the project.

But she expressed sympathy for pipeline opponents' complaint that FERC denied them due process by allowing construction to begin before the certificate of public convenience and necessity could be challenged in court.

Parties seeking judicial review of such a certificate must first seek rehearing from the commission. Because the Natural Gas Act says rehearing requests are deemed denied if the commission fails to act within 30 days, FERC regularly issues tolling orders granting rehearing "for the limited purpose of further consideration." It also uses tolling orders to circumvent the 30-day deadline on rehearings under the Federal Power Act.

The commission issued a tolling order in response to a request for rehearing and stay of the Atlantic Sunrise certificate order, then took no action on the stay motions for more than five months before denying them.

Pipeline opponents also sought rehearing of the commission's Sept. 15, 2017, order granting Williams permission to begin construction. The company began construction that day.

In December 2017, more than nine months after the first rehearing request and three months after construction began, FERC rejected the appeals, making its decisions finally subject to court review.

Millett acknowledged that the D.C. Circuit has previously ruled that the commission's tolling orders qualify under the NGA as an action upon the rehearing request, effectively stopping the 30-day clock.

"But the commission has twisted our precedent into a Kafkaesque regime," she wrote. "Under it, the commission can keep homeowners in seemingly endless administrative limbo while energy companies plow ahead, seizing land and constructing the very pipeline that the procedurally handcuffed homeowners seek to stop. The commission does so by casting aside the time limit on rehearing that Congress ordered — treating its decision as final-enough for the pipeline companies to go forward with their construction plans, but not final for the injured landowners to obtain judicial review. This case starkly illustrates why that is not right."

She noted that the court's acceptance of tolling orders started in a case that involved disputes over money, not property. "Because disputes over monetary payments can be fixed later, the consequences of commission delay were temporary and remediable," she said. "But allowing the commission to take its time while private property is being destroyed is another thing altogether."

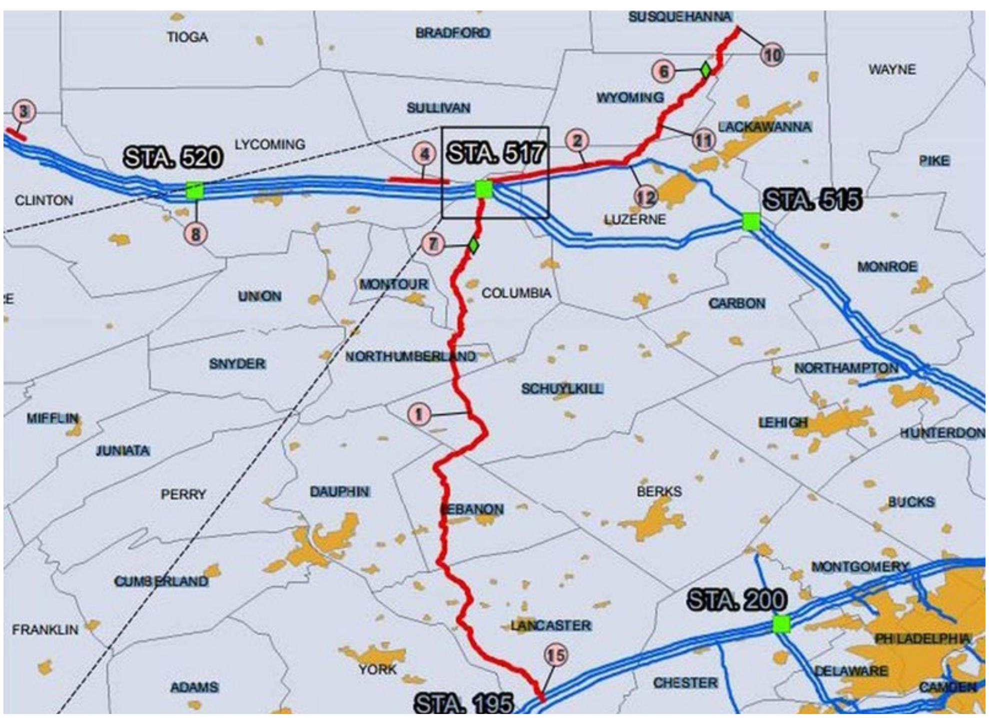
Millett said the court could require more timely action by the commission on rehearing requests, or FERC could decline to issue construction orders until it resolves certificate rehearing requests on the merits.

"If that is too administratively burdensome, then the commission could try the easiest path of all: take absolutely no action on the rehearing application. That would have the effect of denying the request as a matter of law. And that approach would have opened the courthouse doors to the homeowners … five months before construction started."

FERC declined to respond to the ruling, saying it doesn't comment on court proceedings.

ClearView Energy Partners analyst Christine Tezak said FERC's tolling orders "may be vulnerable to prospective change" but that the court is unlikely to reject the commission's use of precedent agreements as evidence of the need for new pipelines, although it was part of the homeowners' appeal.

"Regardless of how this case plays out, we see little risk to the operation of the Atlantic Sunrise project at this time," Tezak said in a note to clients. "We also would note that neither the FERC's [National Environmental Policy Act] review nor its contentious policies on downstream greenhouse gas emissions appear to be at issue in this *en banc* review." ■




The Pennsylvania portion of Williams' Atlantic Sunrise natural gas pipeline project, which began service late last year after winning FERC approval in February 2017 | *Williams*

# PG&E Judge Weighs Insurers' Settlement

*By Rich Heidorn Jr.*

Attorneys for Pacific Gas and Electric urged U.S. Bankruptcy Judge Dennis Montali on Wednesday to quickly approve the utility's proposed $11 billion settlement with insurance companies and hedge funds, warning that claims could rise much higher if it is rejected.

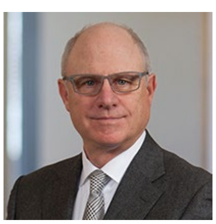
Opponents countered that the settlement would require wildfire victims to sign "one-sided" releases that could leave them far from whole for their losses.

Stephen Karotkin | *Weil, Gotshal & Manges*

"No one can challenge the reasonableness of the settlement," PG&E attorney Stephen Karotkin told Montali during a nearly two-hour hearing, saying it represented a 45% "discount" from more than $20 billion in claims.

Karotkin asked Montali to rule by December 6, calling it a "serious drop-dead date" for the subrogation claimants seeking reimbursement for insurance claim payouts. Swift approval of the deal is essential to the utility's ability to meet the June 30 deadline for eligibility to participate in an insurance fund for future wildfire claims under Assembly Bill 1054, he said.

"From the debtor's perspective, we don't want to take the risk that this [settlement] blows up," he said.



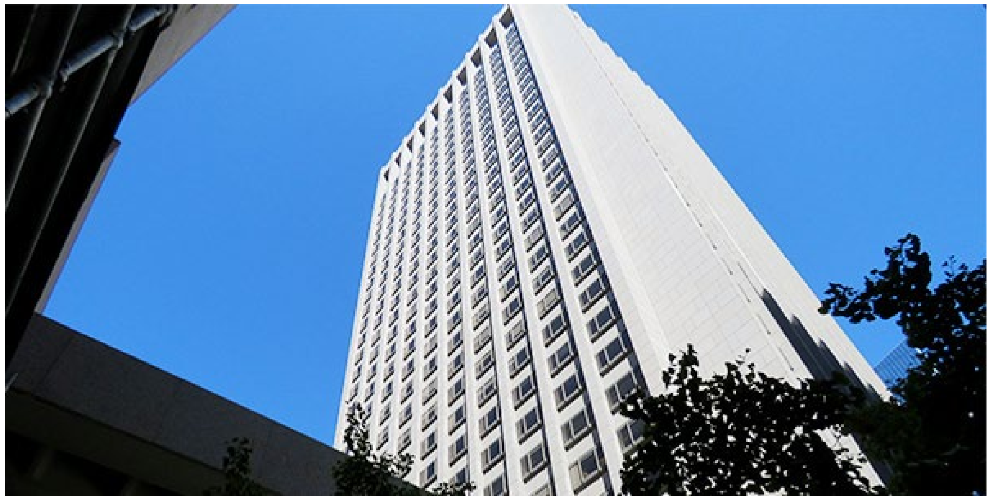
Robert Julian | *Baker & Hostetler*

But Robert Julian, representing the Official Committee of Tort Claimants, said the case could be settled within days if the "one-sided" release was eliminated.

Wildfire victims facing hospital bills or damaged homes will be forced to sign the release to obtain cash "because they're so desperate. That's not choice," he said.

"You're asking me to violate the 'bird in hand rule' and let this $11 billion bird fly away," Montali responded, saying that if he rejects the deal, "maybe there will be a $20 billion or $25 billion set of claims. … That's not a good thing for anybody."

With the proposed release, "this case is not re-



PG&E headquarters in San Francisco | © *RTO Insider*

solving," Julian responded. "I can't get lawyers to agree to any plan in this case or mediation … or anything because they can't [endorse] something they can't recommend under the law. … You're forcing this release down our throats."

Rebecca J. Winthrop | *Norton Rose Fulbright*

Rebecca J. Winthrop, attorney for Adventist Health, whose Feather River Hospital was among 18,700 structures damaged or destroyed by the Camp Fire in November 2018, agreed that the release "is not symmetrical."

"So, if I want to go against those tree trimmers or against my insurers, I can't. … That is well beyond what is necessary to protect the insurance carriers," she said.

Nancy Mitchell | *O'Melveny & Myers*

Nancy Mitchell, representing Gov. Gavin Newsom, said the governor is concerned that the settlement will leave the utility without enough cash to meet the requirements of AB 1054. She echoed claims the governor's office made in court filings last month that holders of subrogation claims, some of which also hold equity in PG&E, are using the settlement to improve their holdings. (See *Fight Escalates over PG&E Settlement with Insurers*.)

"This settlement is about leverage. It is not about a debtor who … is trying to do the right thing," she said. "This plan is making it impossible for us to evaluate other plans because the debtor is only pursuing one plan."

Gregory Bray, representing the official Committee of Unsecured Creditors, said the $11 billion settlement is "in the ballpark" but that it should apply also to competing reorganization plans.

In his closing remarks, Karotkin denied that the company was acting in bad faith or taking advantage of wildfire victims, insisting the release provisions challenged by the opponents "are customary and typical."

"The debtors are not hell-bent on an equity-sponsored plan. What they are hell-bent on is having the best plan, a financeable plan, that is fair to all of the debtors' economic stakeholders and will get these debtors out of Chapter 11 in a timely basis so they can participate in the wildfire fund."

Montali ended the hearing with a pledge to make a ruling, "not to defer a ruling," as some in the case had urged.

"I can't promise you how soon it will be," he said. "I'm trying to keep the decisions coming out. I'll do my best."

Bloomberg *reported* Wednesday that PG&E is close to finalizing a $13.5 billion settlement to wildfire victims, half in cash and the rest in stock in the reorganized company. PG&E stock rose 7% on news of the potential deal, closing at $9.47/share after trading as high as $10.75. ■

## CAISO/West News

# PG&E Announces $13.5B Settlement with Wildfire Victims

### *Pact Caps Week of Big Developments in Bankruptcy*

*Continued from page 1*

resolve their differences. (See *PG&E Bankruptcy Judge Appoints Mediator*.)

How PG&E's announcement will affect the bondholders' plan remains uncertain, but the utility hailed its settlement as a big step in its bankruptcy. The company is trying to emerge from bankruptcy by June so it can participate in a $21 billion wildfire recovery fund established by the state last summer under Assembly Bill 1054.

"From the beginning of the Chapter 11 process, getting wildfire victims fairly compensated, especially the individuals, has been our primary goal," PG&E CEO Bill Johnson said in a *statement*. "With this important milestone now accomplished, we are focused on emerging from Chapter 11 as the utility of the future that our customers and communities expect and deserve."

Neither the TCC nor other interested parties had issued any reaction to the announcement as of Sunday.

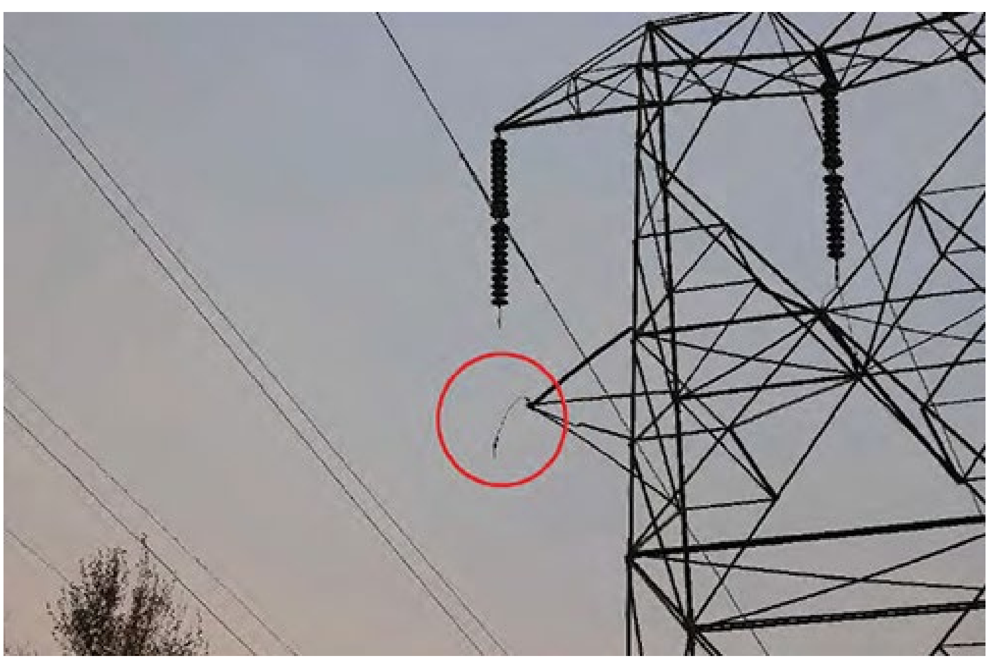
PG&E came under heavy criticism this fall for cutting power to millions of residents as part of its public safety power shutoff events, intended to prevent its equipment from igniting more wind-driven wildfires.

The $13.5 billion settlement with the TCC, composed of the lawyers representing fire victims, will resolve all claims arising from 22 major wildfires in Northern California's wine country in October 2017 and the 2018 Camp Fire, PG&E said.

In a surprising move, the agreement includes the Tubbs Fire, which killed 22 people and leveled part of Santa Rosa in Sonoma County in October 2017. It's unclear why that fire was included. State fire investigators determined a private landowner's illegal distribution lines, not PG&E's equipment, sparked that fire. PG&E has denied responsibility. A trial to determine liability is scheduled to start in January, but whether it will proceed is unknown.

The settlement also covers the Butte Fire, which decimated communities in the Sierra Nevada foothills southeast of Sacramento in September 2016, killing two people, destroying 475 homes and scorching more than 70,000 acres. Many victims of that fire have yet to receive compensation from PG&E.

The settlement with fire victims is the third and final agreement that PG&E wanted to emerge from Chapter 11 reorganization. The utility previously announced a $1 billion settlement with local governments over fire claims and an $11 billion settlement with insurers and hedge funds who hold subrogation claims against it.



On the tower suspected of starting the Camp Fire in November 2018, an insulator detached from the hangar plate and hung upside down. | *PG&E/CPUC*

On Wednesday, lawyers argued in court over whether the bankrupt utility should be allowed to move forward with a proposed $11 billion settlement with the subrogation claimants. Lawyers for fire victims have argued that the deal would leave the company without enough resources to fairly compensate fire victims. (See related story, *PG&E Judge Weighs Insurers' Settlement*.) PG&E's agreement with fire victims could potentially moot that concern.

All the settlements must be approved by U.S. Bankruptcy Judge Dennis Montali in San Francisco, who is overseeing the case.

PG&E's stock price shot up from $7.66/share on Dec. 3 to $10.49 during trading Thursday based on rumors of the settlement with wildfire victims prior to its announcement. Shares closed Friday at $9.65.

The settlement ended an eventful week in the PG&E drama. California's largest utility, facing billions of dollars in wildfire liabilities, is engaged in one of the largest bankruptcies in U.S. history.

On Dec. 3, the California Public Utilities Commission's Safety and Enforcement Division released a nearly 700-page *report* that detailed PG&E's failings in its inspections and maintenance on its 100-year-old Caribou-Palermo transmission line in the rugged foothills of Butte County. Those failings led to the Camp Fire, the deadliest and most destructive fire in state history, which killed 86 people and destroyed more than 19,000 structures in November 2018 in the town of Paradise, state fire investigators and the CPUC found.

On Thursday, San Jose Mayor Sam Liccardo said his plan to turn PG&E into a public utility was gaining ground — with 115 elected officials now supporting it — as he released an outline of principles meant to guide such a transition. Those principles include keeping the giant utility whole, instead of breaking off pieces into municipal utilities as some have suggested, while transitioning it to public ownership and operation. "Today, we released a ... framework for a customer-owned PG&E that is transparent, accountable and equitable to put the company's days of underinvestment, mismanagement and negligence far behind us," Liccardo *tweeted*. ■

## CAISO/West News

# FERC OKs SCE Rate Settlements

### *Base ROE Cut to 9.92% for 2018*

*By Rich Heidorn Jr.*

FERC last week approved a settlement reducing Southern California Edison's 2018 base transmission revenue requirement (TRR) and return on equity, and a partial settlement on the utility's 2019 request for an ROE increase to reflect wildfire risks.

The commission approved an uncontested settlement in a dispute over SCE's 2018 base TRR and revisions to its formula rate methodology (*ER18-169-002*). It set the case for hearing and settlement procedures in late 2017, saying that although SCE proposed a reduction in its TRR, "a further decrease may be warranted." (See *FERC Sets Hearing on SCE Tx Rates; Glick Dissents*.)

The commission approved the deal after its endorsement by FERC trial staff, which *said* the settlement "provides numerous benefits to customers," including increased transparency of the utility's cost inputs and "near-immediate rate relief."

SCE had proposed a base ROE of 10.3%. The settlement reduces that to 9.92%, exclusive of the 50-basis-point CAISO adder and project-specific adders equivalent to 0.78%.

The true-up TRR for 2018 was set at $1.079 billion. SCE had sought a TRR of $1.169 billion, down from $1.189 billion in 2017.

The settlement also adjusts how SCE calculates its capital structure, limits its recovery of incentive compensation and allows more time for stakeholders to discuss draft annual updates with the company.

Investigators found that Southern California Edison power lines sparked the Thomas Fire, which killed two people in December 2017 and led to mud flows that killed 21 more. | *U.S. Forest Service*

The utility also agreed to pay up to $350,000 for the California Public Utilities Commission's consultant to participate in the CAISO transmission planning process, the transmission maintenance and compliance review, and the 2019 formula rate annual update and settlement negotiations. SCE and the CPUC also agreed to continue discussions on potential rate design modifications.

SCE's proposed two-year limitation on correction of errors was eliminated.

FERC had required SCE to file a replacement transmission rate recovery mechanism as part of a settlement over its original formula rate, which took effect in 2012. SCE had recovered its TRR through stated rates after unbundling its retail transmission rates and transferring operational control of its transmission network to CAISO in 1997.

### SCE Wins 12.47% ROE in Temporary Deal

The commission also approved a partial settlement reducing SCE's ROE from 17.62% to 12.47% as settlement proceedings continue over the company's 2019 TRR (*ER19-1553-001*).

SCE requested the 17.62% ROE in April, citing "dramatic material changes to SCE's regulatory and financial conditions that have occurred" since the utility's prior rate took effect in October 2017 — a reference to the potential for multibillion-dollar costs based on California's strict liability standard for utility-sparked wildfires. In June, FERC tentatively accepted the increase but postponed any change for the maximum five months and set it for an evidentiary hearing. (See *FERC Leery of SCE's ROE Request for Wildfires*.)

The partial settlement, which was unopposed, "does not definitively resolve any issues set for hearing but reduces SoCal Edison's ROE on an interim basis," the commission wrote. It noted trial staff's *comments* that the commission "has not found the 12.47% ROE to be fair, reasonable or in the public interest, and that it is leaving a final determination on that issue to the existing hearing and settlement judge procedures." ■

## CAISO/West News

# EIM Entrants Cite Changing West as Motivation for Joining

*By Hudson Sangree*

LAS VEGAS — CAISO's Western Energy Imbalance Market Governing Body and Regional Issues Forum met last week in Sin City's fake take on an ancient Egyptian pyramid, the Luxor Hotel and Casino. In the casino, gamblers pulled on the handles of slot machines while nursing free drinks. In a nearby meeting room, RIF participants discussed resource adequacy while sipping free coffee.

They also heard from representatives from Modesto Irrigation District, Tacoma Power and Turlock Irrigation District, who explained why they plan to join the West's real-time interstate electricity market.

Money was a factor, but so too was the evolving Western electricity market, where interstate trading of diverse resources across state lines appears key to the future.

"As more and more folks join the EIM … the thought of not participating in that market is just not feasible … to be blunt," said James McFall, Modesto's assistant general manager of electric resources. "You'd get left out in the cold, and we'd have a very illiquid market to access at that point."

The irrigation district was formed in 1887 to supply water to farmers in California's Central Valley. It became an electricity purveyor in 1923 and now serves nearly 129,000 retail, commercial and industrial customers across 560 square miles.

The neighboring Turlock Irrigation District, which is two days older than MID, has a similar backstory, said its energy markets manager, Dan Severson. Its hydroelectric dams in the Sierra Nevada foothills are now part of a portfolio that includes natural gas, biomass, solar, wind and geothermal generation.

From left: James McFall, Modesto Irrigation District; Clay Norris, Tacoma Power; and Dan Severson, Turlock Irrigation District, talked about their utilities' decision to join the EIM. | *© RTO Insider*

In his presentation, Severson echoed some of McFall's remarks. He said that as EIM participation increases, the bilateral hour-ahead markets are becoming less liquid, with fewer trading — which will increase costs going forward. As the EIM looks to expand to a day-ahead market, liquidity could be further reduced, he said.

By joining the EIM, "we [have] access to a larger network of energy providers and increased revenues from sales and increase purchase of megawatt-hours," Severson said.

Tacoma Power's electricity comes mainly from hydropower, said Clay Norris, the utility's power manager. The 125-year-old municipal utility is a subsidiary of a parent company, Tacoma Public Utilities, that also owns and operates a short-line railroad serving the Port of Tacoma.

Norris said Tacoma Power ran its own analyses instead of hiring a consultant when it considered joining the EIM. Its scenarios didn't all pencil out. The utility has about a 70% chance of recovering the hefty start-up costs of joining the market in the next 10 years, he said.

But the move was about more than finances, he said, echoing that bilateral trading was becoming more difficult in the West, and the broader market of the EIM is now the primary route for buying and selling electricity, with diverse resources and fluid trading.

"This decade has really been about the EIM, I think," Norris said.

Washington, like several other Western states, now has a 100% clean energy mandate by midcentury and needs to modernize its trading practices to achieve that goal, he said.

The three new entrants join a growing list of EIM participants in a Western market that's proven popular for its financial benefits and wholly voluntary participation.

The Balancing Area of Northern California signed an implementation agreement with CAISO that will allow members Modesto, Turlock and others to begin trading in the EIM in April 2021.

The BANC agreement represents the second phase of the balancing area's approach to incorporating its members into the EIM. Sacramento Municipal Utility District entered the market in April. (See *SMUD Goes Live in Western EIM*.)

Tacoma plans to begin participating in the EIM in 2022. By that time, 77% of the Western Electricity Coordinating Council's total load will be active in the EIM. ■

EIM Governing Body members (left to right) Valerie Fong, John Prescott and Chairman Carl Linvill presided over the EIM meeting Dec. 4. | *© RTO Insider*

## CAISO/West News

# EIM Stakeholders Cool to Tx Feasibility Rules

By Hudson Sangree

LAS VEGAS — Stakeholders in CAISO's Western Energy Imbalance Market last week reacted coolly to a proposal by Utah's Deseret Power Electric Cooperative to tighten the market's rules on transmission feasibility.

The EIM Governing Body and Regional Issues Forum met Dec. 3-4 at the Luxor Hotel and Casino in Las Vegas. | © *RTO Insider*

Deseret made the proposal during a Dec. 3 Regional Issues Forum panel that explored the differences between resource sufficiency and resource adequacy.

Don Tretheway, CAISO's senior adviser for market design, said the difference is mainly timing.

"Resource adequacy is ensuring, on a forward basis, that you've contracted with sufficient steel in the ground so that you can meet your monthly peaks, your annual peaks. It's really about … making sure that you can serve your load," Tretheway said. "Resource sufficiency evaluations [are] a series of tests to ensure that someone's not inappropriately leaning on an energy imbalance market [to meet demand] on a short-term basis."

Four tests are conducted several times per hour to ensure an entity has met the agreed-upon threshold for participating in the EIM, Tretheway said, including a transmission feasibility test to determine if a participating entity has sufficient transmission capacity or unresolved transmission congestion. A balancing test determines if an entity's actual load is within 5% of its base-schedule load for that hour, according to the ISO. A capacity test makes sure an entity has sufficient resources to meet its projected load, and a ramping test looks at ramping flexibility in 15-minute increments.

Clay MacArthur, vice president of power marketing at Deseret, *said* the EIM should adopt rules to address a loophole in the feasibility test that may allow entities to inappropriately spread around (socialize) the costs of congestion.

The transmission feasibility test, he said, determines if electricity can reach load within a particular balancing area. "It's just a simple test that looks for congestion on the system," he said.

The EIM's design allows for the socialization of unforeseen congestion constraints within a given hour, but MacArthur said that's not the problem. The feasibility test, he said, doesn't account for an entity that knows it has transmission constraints but fails to report them ahead of time.

"They can just submit a base schedule that ignores that," MacArthur told *RTO Insider*.

If an EIM entity knows of transmission constraints and includes them as part of its base schedule, it will bear the costs, MacArthur said. But if it doesn't report its pre-existing constraints, the EIM's market design can inadvertently shift the costs of those constraints to other load-serving entities across the market via neutrality charges. "If my schedules were balanced and somebody came into the hour with a known transmission infeasibility, why should I pay a share of that?" MacArthur said. "I can't do anything to mitigate that."

He proposed tariff language requiring EIM entities to "ensure that all financially binding base schedules submitted to the market operator are feasible and do not violate any known or expected transmission constraints."

If they do, then the EIM would be required to notify the entity and give it a chance to revise its base schedule. If the entity doesn't, then it may be subjected to congestion offset charges, the proposal says.

MacArthur called for greater market transparency by releasing suffiency test results and neutrality charges to market participants. That would allow for an objective evaluation of whether the market has a problem, he said.

MacArthur said he just meant "pass or fail" and "ones and zero," without divulging privileged information.

His proposal prompted sometimes heated discussion between panelists and audience members, though not much agreement with MacArthur's proposal.

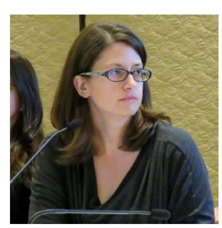
Kelcey Brown, PacifiCorp's manager of market and analytics, acknowledged her company had been a party to the problem described by MacArthur during the EIM's early years, after starting operations in 2014, when utilities were still going through a learning curve. But she said the company put safeguards in place to ensure it wouldn't happen again. She said she didn't know of other examples.

"I'm not sure this is as big of an issue as Clay is referring to," Brown said.

Petar Ristanovic, CAISO vice president of technology, agreed. "I don't understand your concern, sir," he told MacArthur.

MacArthur said the only way to determine the problems' extent would be to have the information he'd asked for.

For about 30 minutes, panelists and audience members held a back and forth, trying to clarify or argue points.



RIF Chair Pam Sporborg | © *RTO Insider*

At the end of the panel, Pam Sporborg, the new chair of the RIF, thanked the panelists "for a lively discussion," and the audience responded with hearty applause.

MacArthur said that as the transmission customer of an EIM entity, Deseret couldn't formally request further proceedings. CAISO could do that on its own, he said, or Deseret could file with FERC.

"That may be the only way to get it addressed," he said. ■

# ERCOT News

# ERCOT's Reserve Margin Climbs to 10.6% in 2020

By Tom Kleckner

ERCOT will likely welcome back double-digit reserve margins next year and well into the decade, according to the grid operator's latest capacity, demand and reserves (CDR) *report*.

While they won't provide relief from Texas' blistering summers, the additional reserves will give ERCOT a little more room to work with than it did in surviving 2019's record demand with a 8.6% margin — up from an initial historic low of 7.4%.

Released Thursday, ERCOT's newest CDR indicates its planning reserve margin will hit 10.6% in 2020 and 18.2% in 2021. The margin will shrink again after that, reaching a projected 12.9% in 2024. The grid operator has a target planning reserve margin of 13.75%.

"Yes, the reserve margin's improving, and the [later] years seem to be significantly better," said Dan Woodfin, ERCOT's senior director of system operations. "While the reserve margin seems higher in 2020, we could still see some operating days with tight conditions. We're prepared for that, just like we were last year."

ERCOT shattered its all-time system peak in August, hitting 74.8 GW and breaking the mark set in 2018 by more than 1 GW. While its resources met peak demand, the grid operator ran into tight conditions during the early afternoon when West Texas wind energy dropped off. It was twice forced to call energy emergency alerts to ease the scarcity. (See "ERCOT CEO Briefs Commission on Summer Performance," *Texas PUC Briefs: Aug. 29, 2019*.)

Staff are projecting a peak of more than 76.7 GW in 2020, but they also expect an additional 7.6 GW in new capacity for summer 2020, based on preliminary data from generation owners. Most of those resources are renewable or smaller gas-fired peakers.

ERCOT has approved 1,058 MW of installed capacity for commercial operations since the last CDR was released in May. More than 4,650 MW of installed capacity has become eligible for inclusion in the CDR after completing necessary agreements and permits.

Two canceled gas plants with 1,227 MW of capacity were removed from the CDR, and eight solar projects with a 1,056-MW capacity contribution were delayed until 2021, accounting for the reserve margin's leap to 18.2% that year.

Wind and solar energy will continue to increase their shares of ERCOT's fuel mix. Solar's summer capacity is forecast to account for 9.7% of the fuel mix by 2022, while coal will drop to 15.6%. Wind energy is projected to reach 10.2% of the summer mix in 2024.

ERCOT has changed the way it calculates wind and solar capacity for the CDR, switching to a capacity-weighted average instead of a simple average of historical contributions. Staff also split its non-coastal wind region into "Panhandle" and "other" wind regions. ■

## New England Energy Summit

# Overheard at the 1st New England Energy Summit

### *Clean Energy Strategies, Compensation Debated*

BOSTON — Some 200 industry players braved the first major snowstorm of the season in order to attend the New England Power Generators Association's inaugural energy summit last week, where state officials and investors debated the right market model to achieve environmental goals across the six-state region.

NEPGA hosted the first New England Energy Summit in Boston on Dec. 2. | © *RTO Insider*

NEPGA President Dan Dolan said the inaugural conference marked the 20th anniversary of ISO-NE launching its wholesale electricity market in 1999.

NEPGA President Dan Dolan | © *RTO Insider*

Following are highlights of what we heard at the conference.

### Wood Urges Markets to Become 'Proactive'

Pat Wood III | © *RTO Insider*

Former FERC Chair Pat Wood III said that the electricity markets have provided a lot of benefits since the founding of the New England Power Pool in 1971, but that a "troubling amount of state subsidies outside the market ... risks losing all the benefit of that market construct."

"That efficient dispatch and that transparent display of pricing — people meeting each other in the market — brings down costs to the customer," Wood said. "That's fundamentally in the spirit of a public industry that's got a lot of private interest involved but is a very publicly oriented industry."

The link between what customers and their elected representatives want and what the markets are delivering is fraying because of the growing imbalance between market revenue and that from out-of-market contracts, he said.

"So, we've got to get the market design back to being a proactive function and not so much in the reactive mode," Wood said. "Unbundle the crap out of everything and take exactly what we have in the FERC system and unbundle it.

"When we align the end-use customer price signals back to all these wonderful price signals we're putting out in the wholesale market, that's when we win."

### State Priorities

Massachusetts Sen. Michael Barrett, a member of the legislature's Joint Committee on Telecommunications, Utilities and Energy, said his state can expect a big energy initiative soon.

Mass. Sen. Michael Barrett | © *RTO Insider*

"It's fair to say the state subscribes to the idea that we are here to support deep electrification," Barrett said. "Fundamentally, if you're a power generator, this is very good news."

Barrett said Massachusetts is "leading the way" on the *Transportation and Climate Initiative* (TCI), a collaboration of 12 Northeast and Mid-Atlantic states and D.C. seeking to reduce car and truck emissions, partly because New York has not joined.

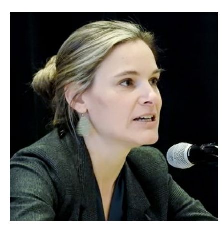
"New York is sending staff to the multistate meetings, but Gov. [Andrew] Cuomo has not committed his state the way other governors have done," Barrett said. "It would be wonderful if New York did join."

The gasoline market does not show a perfect correlation between pricing and consumer behavior, "so if you double the price, you don't halve consumption, but there is a positive relation, so we can make progress," he said.

New Hampshire Sen. Martha Fuller Clark, chair of the Energy and Natural Resources Committee, said her state "has historically been a bit behind the other New England states in energy policy ... which is not necessarily a bad thing, since we've been able to learn from the others."

NH Sen. Martha Fuller Clark | © *RTO Insider*

Massachusetts Energy and Environmental Affairs Secretary Kathleen Theoharides said that she is focused on bringing new renewable resources into the market as well as electrifying the transportation and building sectors to take advantage of the new hydro, wind and solar resources as they come online.



Massachusetts EEA Secretary Kathleen Theoharides | © *RTO Insider*

"We really feel you need to do those two pieces at the same time. You don't just clean up your power and then do electrification next," she said.

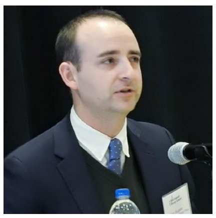
Transportation now accounts for 40% of carbon dioxide emissions in the state, region and country, so the TCI is working on a cap-and-trade system similar to the Regional Greenhouse Gas Initiative, which the state has been trying to do "in one form or another for the past 10 years," Theoharides said.

"Our economies are tied together in the region, and pricing gasoline is more difficult if you're doing it state by state," she said. "If you

# New England Energy Summit

look at the 12-state region, Massachusetts is about 10% of the emissions for that region, so when we're able to get the whole region into something like this, we can actually multiply our impact on emissions 10 times."

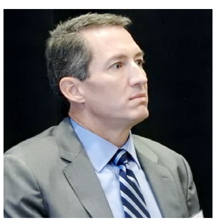
Theoharides said she worries about "the piecemeal nature of some our climate and energy policies" and that cities, states, regions and the federal government have to "pull together" better than they have to date.



Dan Burgess, Maine Energy Office | © *RTO Insider*

Dan Burgess, director of the Maine governor's Energy Office, highlighted the new push for renewables under Gov. Janet Mills and said that "a lot of the new energy legislation passed in Maine this year was done in a bipartisan way."

## Investor Perspectives

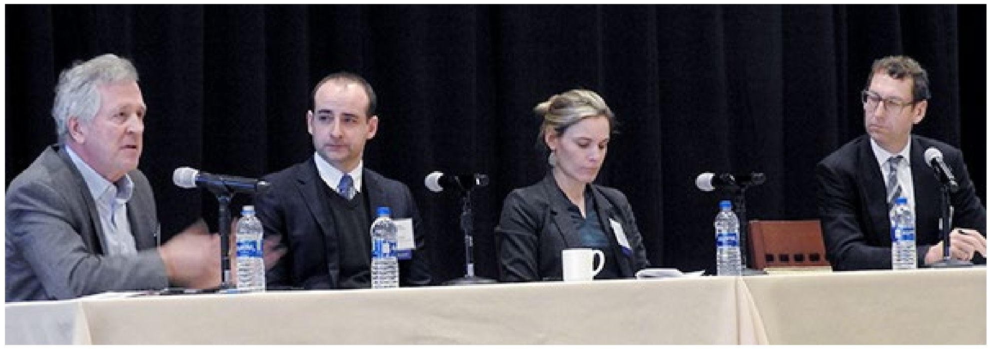


Jim Burke, Vistra Energy | © *RTO Insider*

Jim Burke, executive vice president and COO of Vistra Energy, said that in the past three years, his company has "shut 4,200 MW of coal in Texas; we have just shuttered 1,500 MW of coal in Illinois last month; we have 400 MW that will close in two weeks; and our portfolio shifted from two-thirds coal to two-thirds gas."

The company also has the 2,425-MW Comanche Peak nuclear plant in Texas, "and we're building the largest battery so far ... just an hour south of Silicon Valley; that's a 300-MW battery." It is also pairing energy storage with solar, he said.

"We are technology-agnostic," Burke said. "We believe that trends that are happening in New England and California will happen elsewhere in the country, but we'd also like to see trends that are happening in Texas spread elsewhere. There are things we can learn from each market."



From left: Michael J. Bradley, MJ Bradley & Associates; Dan Burgess, Maine governor's Energy Office; Massachusetts EEA Secretary Kathleen Theoharides; and Sherman Knight, Competitive Power Ventures | © *RTO Insider*

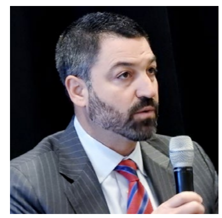
Brookfield Renewable Power Managing Partner Mitch Davidson said his company invests in New England for the same reason it invests elsewhere: because it sees an opportunity to either acquire or build an asset and get a healthy return on it.

"Early on in New England, the capacity markets worked very well," Davidson said. "In Forward Capacity Auction 8, we saw that the market was short, and the price signals were there ... and in FCAs 9, 10 and 11, there were 2,000 MW built over those four capacity auctions. Those were the right signals ... and that's the kind of environment we want to put our capital to work in."

In FCA 12, the company expanded its Bear Swamp pumped hydro facility, of which it is part owner, he said.

"What we have concerns about is the trend in which the market is heading ... some uncertainties we're seeing," Davidson said.

Matthew O'Connor, managing director of Carlyle Power Partners, said his firm chose New England in 2015 "because it looked like a really good environment to invest: really hard to permit things, really hard to build things, lots of barriers to entry. And back then, we actually thought gas was going to come into the region."



Matthew O'Connor, Carlyle Power Partners | © *RTO Insider*

Carlyle is the second-largest owner of generation in New England after Vistra, with just under 2,500 MW, he said.

"We have a number of plants that are dual-fuel, so we are able to respond to ISO-NE when gas gets really short, as it does in the wintertime here," O'Connor said.

"We see this as an attractive market, but I share Mitch's concerns about the future," he said. "As an example, we put almost $90 million in each of our plants over the last three years. We're only going to be able to continue to do that if there's going to be a return on that money, and we're starting to get concerned that that might be good money after bad."

Former FERC Chair Cheryl LaFleur asked, "Are you still confident that if we get the price signals right, we can still build the things that we need to serve New England? Or, how much is that in your thinking?"

Cheryl LaFleur, ISO-NE | © *RTO Insider*

"I think 'confident' is a strong word when answering that question," O'Connor said. "The question is, do the economics support that [investment]? And we would argue today that they don't." ■

*— Michael Kuser*

From left: Carol Holahan, Foley Hoag; New Hampshire Sen. Martha Fuller Clark; and Massachusetts Sen. Michael Barrett | © *RTO Insider*

## ISO-NE News

# Overheard at ISO-NE Consumer Liaison Group Meeting

Massachusetts DPU Chairman Matthew Nelson speaks at the ISO-NE Consumer Liaison Group's 10th anniversary meeting on Dec. 5 in Boston. | © *RTO Insider*

BOSTON — ISO-NE on Thursday marked 10 years of its Consumer Liaison Group, whose quarterly meetings serve as a forum for the public to get to know the regional transmission organization, and for the RTO to hear people's concerns about climate change, their electricity bills and public policy on energy.

As is customary on an anniversary, people took the opportunity to look back, as well as to think about what the future might hold.

The nearly 200 people who attended included state regulators, utility executives, consumer advocates and industry stakeholders — some of whom thought that public policy is outstripping people's ability to pay, while others said the region is not moving fast enough to meet the challenge of climate change.

Following are highlights of what we heard at the event.

### Tick Tock, Tick Tock

Mary Beth Gentleman, FirstLight Power | © *RTO Insider*

"We are running out of time," said Mary Beth Gentleman, board member of FirstLight Power and clean energy advocate E4TheFuture. "We have done incredibly creative and smart things in New England, but we're not doing it fast enough. We face an existential threat, and the kind of consensus and meetings and groupthink that have been the strength of New England now seems at odds to me with the pace that we need to move."

Gentleman said that the biggest surprise for her in the past decade was that Massachusetts licensed a billion-dollar natural gas-fired power plant, Footprint Power's 674-MW Salem Harbor Station, which came online in May 2018.

Lisa Linowes, WindAction Group| © *RTO Insider*

Lisa Linowes, executive director of The WindAction Group, a clean energy advocacy organization, said that most consumers have no idea why electricity prices are so high, or how public policy decisions affect their lives.

"Today I would encourage, if not demand, that the Consumer Liaison Group become much more engaged with consumers, and not people who come to push their own agendas at the state house," Linowes said.

The RTO deserves a lot of credit for the work it's done over the past decade, but ratepayers in New England are paying the highest electricity rates in the continental U.S., and third in the country only to Hawaii and Alaska, she said.

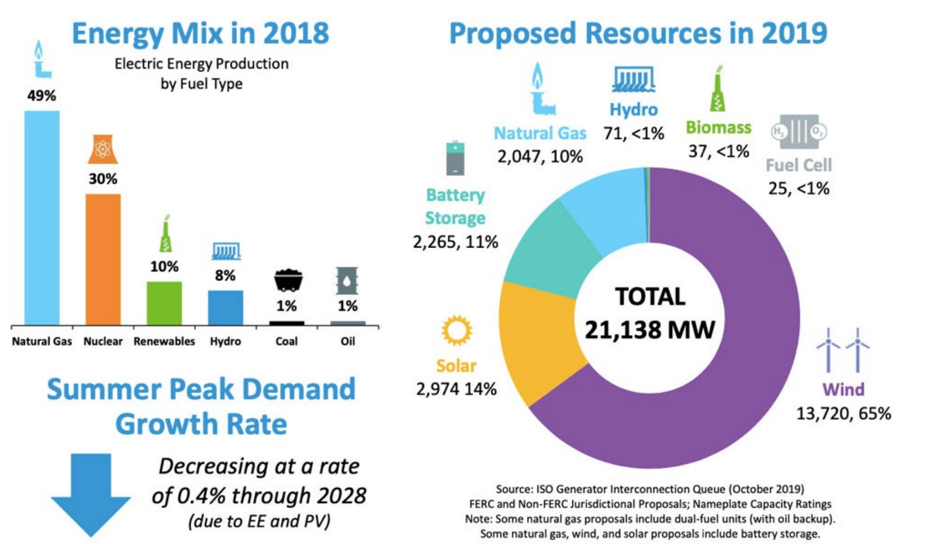
"There's something wrong with the system here," Linowes said. "Much of the onus, in my opinion, is on the shoulders of the states. Does anyone know how much the Massachusetts [renewable portfolio standard] costs? In 2016, which … is the most recent information we have, it was $645 million; that's the *estimate* put out by [the Department of Energy Resources]."

### Market Economics

Matthew Nelson, Mass. DPU | © *RTO Insider*

"I don't think markets are broken; it's just that the world has changed around the markets," said Matthew Nelson, chair of the Massachusetts Department of Public Utilities. "Regardless of our personal or political positions, the reality in the market is one of increasing demand for clean resources.

"The question is: Can the market rise to meet




New England's grid is transitioning to clean energy resources, which already dominate the ISO-NE interconnection queue. | *ISO-NE*

# ISO-NE News

that challenge? And if it can, what's the cost?" Nelson said.

He likened today's market to a three-legged stool, and said, "We're trying to balance clean with cost and with reliability. Reliability today is king in the electric market, but the relationship between reliability and clean energy is not binary. The narrative that a clean future can only come at the expense of reliability is false."

While reliability will decline slightly because of adding variable generation to the resource mix, it's important to better understand what is "on the margins," and the connection between decarbonization goals, reliability and costs, he said.

"Our metrics for reliability on the electric side are not easily understood, nor is the cost around different levels of reliability easily understood," Nelson said.

Clean energy does bring sustainability, "but reliability will decline, so we're left to decide how to deal with that going forward," Nelson said. "We're trying to redesign the market on the fly, while not interrupting service, and that's a cost."

If costs go up too much, it would affect businesses in the region, which face global competition, he said.

"I think out-of-market contracts are putting a strain on the system a little bit," Nelson said. "They've got new resources coming in at zero price, but the costs are being passed onto consumers, and that's interrupting the way the market works.

"We want to be able to balance sustainability with a plan," he continued. "Where is this energy coming in? How much do we need? These are the decisions we need to think about right now. And are the contracts being purchased to respond to a consumer demand, or a policy demand for clean energy?"

Judy Chang, Brattle Group | © RTO Insider

Judy Chang of The Brattle Group spoke on trends in the New England power sector, such as declining load, technological advances, reduced costs of solar and wind, low natural gas prices and increasing environmental restrictions.

"What does it mean to have a market of increasing amounts of zero or negative price energy?" Chang said, suggesting setting up a centralized market for clean energy attributes.

Left to right: Peter Howe, Denterlein; Cal Bowie, Eversource Energy; Robert Dostis, Green Mountain Power; Mary Beth Gentleman, FirstLight Power; and Lisa Linowes, WindAction Group. | © RTO Insider

Chang mentioned the power of corporations to affect energy policy, as signified by the growth of the *Renewable Energy Buyers Alliance*, whose members include many household names. Companies "do want to contribute to decarbonization," Chang said. "Their customers and employees will be increasingly demanding such action."

Brian Forshaw, Energy Market Advisors | © RTO Insider

Brian Forshaw of Energy Market Advisors said he brought a consumer-owned utility perspective to the conference, and that his biggest surprise of the past decade "is that the markets have lasted as long as they have" after being created in the aftermath of the 1965 blackout.

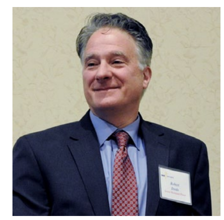
Forshaw said the key takeaway from the day came from Nelson, who said that the world has changed around the region's electricity markets.

## Wind, Sun and Storage

Anne George, ISO-NE | © RTO Insider

Anne George, vice president for external affairs and corporate communications at ISO-NE, presented an *update* on the RTO's activities, noting the grid's transition to renewable resources, a topic to which the grid operator devoted a conference in May. (See *'Grid Transformation Day' Highlights ISO-NE Challenges*.)

"It's a much different grid from 10 years ago," George said. "The amount of wind in our interconnection queue is the greatest we've ever had" — 13,720 MW, or 65% of the queue total of 21,138 MW. "And over the next 10 years, we're going to see a lot more activity with battery storage," she added.



Robert Dostis, GMP | © RTO Insider

Solar is growing too, as attested by Robert Dostis, vice president of stakeholder relations at Green Mountain Power, which serves about 78% of Vermont.

"In 2008 when I joined [GMP], I put solar on our roof and it was a novelty," Dostis said. "It started picking up in 2012, and in 2013, we had 20 MW in the state. Today, just in [GMP] territory, we have 300 MW of installed solar and 130 MW in the queue. We have so much solar that some substations can't handle any more."

Rebecca Tepper, Mass. AGO | © RTO Insider

CLG Coordinating Committee Chair Rebecca Tepper, chief of the Energy and Telecommunications Division at the Massachusetts attorney general's office, offered a snapshot of the group's history.

"I don't know if people are aware of this, but the Consumer Liaison Group was formed because of a FERC order, No. 719 ... which was about enhancing the responsiveness of RTOs and ISOs to customers and other stakeholders," Tepper said.

Among other requirements, FERC directed each RTO to provide a forum for affected consumers to voice concerns and propose solutions on how to improve the efficient operation of the markets, she said.

Tepper said the CLG will meet next on March 12, 2020, in Vermont. ■

*— Michael Kuser*

## ISO-NE News

# ISO-NE Projects Adequate Resources for Winter

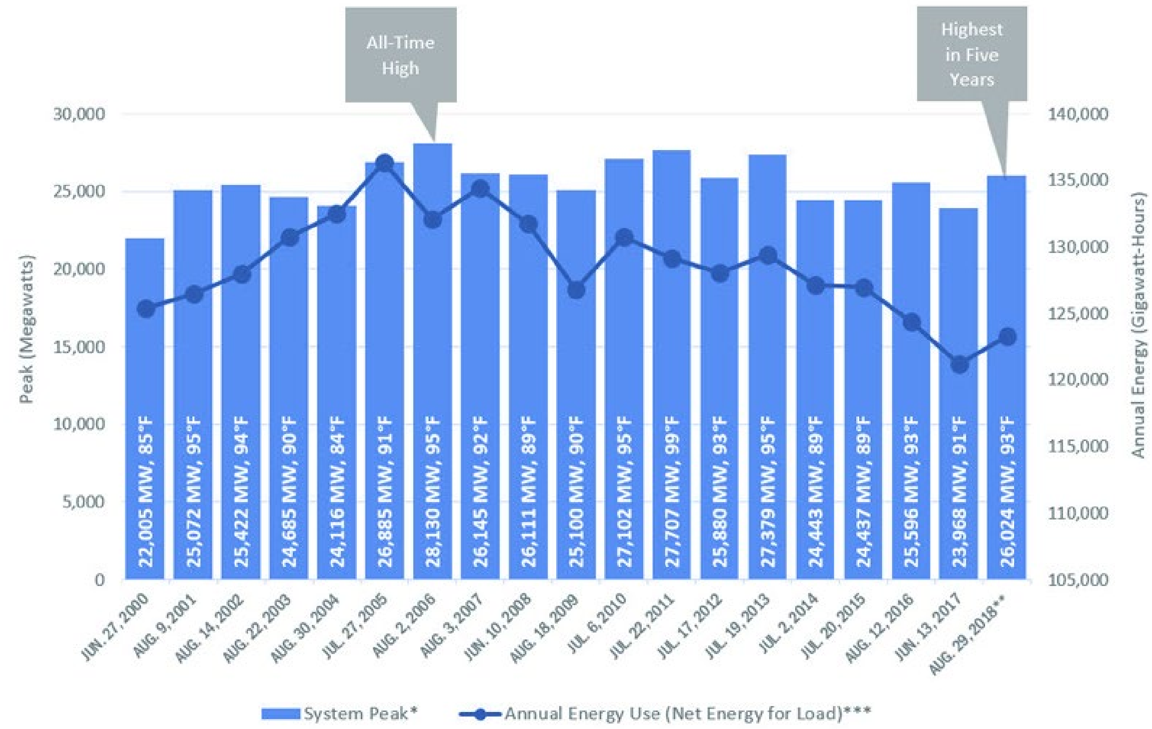
### *RTO Cautions on Availability of Fuel in Cold Snaps*

ISO-NE *reported* Wednesday that the region has sufficient power generation resources to meet the forecasted peak demand this winter but warned that during periods of extreme cold weather, "natural gas pipeline constraints can limit the availability of fuel for natural gas-fired power plants."

Based on regular surveys on generators' fuel supplies, the RTO estimates that more than 4,500 MW of natural gas-fired generating capacity is at risk of not being able to get fuel when needed.

Storms and extreme cold can also impact oil and LNG availability and deliveries, the RTO said.

This is the first winter season since the 2,028-MW Pilgrim nuclear plant retired in May. The plant's capacity is being replaced by several new resources, including three dual-fuel plants, as well as solar and wind resources.




| *ISO-NE*

### By the Numbers

The RTO forecasts a peak demand of 20,476 MW, assuming normal winter lows (7 degrees Fahrenheit), and 21,173 MW under extreme winter weather (2 F).

Resources with a Forward Capacity Market capacity supply obligation represent 32,747 MW (94%) of the region's total resources.

Last winter's peak demand of 20,773 MW occurred Jan. 21, 2019, during the hour ending 6 p.m. The all-time winter peak in New England was 22,818 MW on Jan. 15, 2004.

ISO-NE is developing an Energy Security Improvements proposal, with stakeholder discussions on LNG supplies, market mitigation and a second demand curve. (See *NEPOOL Markets Committee Briefs: Nov. 12-13, 2019*.) The RTO has until April 15, 2020, to file a long-term fuel security mechanism under FERC's second extension since its original order last July (*EL18-182*). ■

*— Michael Kuser*

# NEPOOL Participants Committee Briefs

## Van Welie Defends ESI

ISO-NE CEO Gordon van Welie briefed the New England Power Pool Participants Committee on Friday on his defense of the RTO's efforts to integrate state carbon policies into its markets in response to a letter from seven U.S. senators last month. The senators urged the grid operator to more closely align its fuel security initiative with state policies seeking to expand renewable energy resources. (See *Senators Ask ISO-NE to Heed States on Clean Energy*.)

In his Nov. 21 *response*, van Welie noted the region's efforts to integrate energy efficiency and demand response into the wholesale markets and addressed the senators' concern that the Energy Security Improvement (ESI) market design project "further delays market reforms that recognize and facilitate state public policies to grow clean energy and address climate change."

Van Welie said that although the ESI would benefit generators with stored fossil fuel, it could also provide opportunities for solar facilities with battery storage "or an offshore wind farm that operates at a high capacity factor during winter."

"Rather than delaying the transition to a renewable future, ESI may actually accelerate the transition to reliable, zero-carbon renewable resources and storage technologies by recognizing and compensating these resources for the reliability attributes they provide," van Welie wrote.

PC Chair Nancy Chafetz cut short the ensuing discussion, assuring stakeholders that they would have ample opportunity to voice their opinions at NEPOOL Technical Committee meetings over the coming months.

The PC also received a briefing from ISO-NE Director Brook Colangelo on the RTO's cybersecurity work and its participation in last month's GridEx V exercise. (See *GridEx V Throws New Tech Curveball*.)

COO Vamsi Chadalavada *apologized* for a computer glitch on Nov. 3 that caused the submission window for external transactions to close at 9 a.m. instead of 10 a.m.

The problem was due to a software error related to the daylight saving time transition, he said.

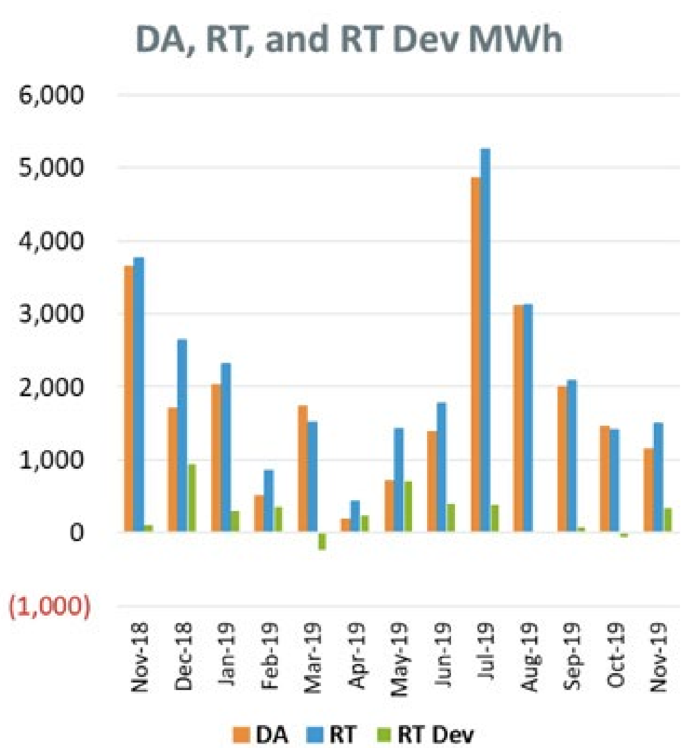
A new eMarket application had been placed in service Oct. 23, and a few participants could not enter or modify external transactions after 9 a.m. on Nov. 3, though the application performed as expected for all other supply offers and demand bids.

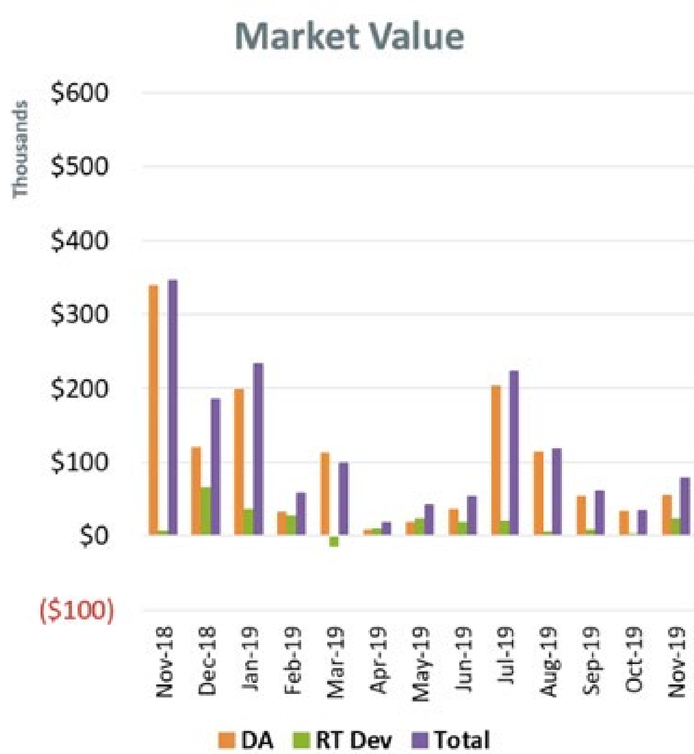
The day-ahead market was cleared with the offers and bids as of 10 a.m., per normal schedule, and the issue was fixed by early afternoon, Chadalavada said.

One stakeholder suggested that the RTO have extra staff on hand when transitioning to new software, just in case customers need service.

## Natural Gas Prices Double from October

Chadalavada reported the energy market value for last month was $284 million, through Nov. 25, up $82 million from October 2019 and down $319 million from the same month a year ago.




Note: DA and RT (deviation) MWh are settlement obligations and reflect appropriate gross-ups for distribution losses.

Price-responsive demand (PRD) energy market activity by month | *ISO-NE*

# ISO-NE News

Natural gas prices doubled from October to November, helping push average real-time hub LMPs to $35.52/MWh, up 74% from the prior month.

However, natural gas prices and LMPs were down 46% and 36%, respectively, from November 2018.

Average day-ahead cleared physical energy during the peak hours as a percentage of forecasted load was 99.6% during November, up from 98.8% during October, with the minimum value for the month of 95.7% posted on Nov. 8.

Daily uplift, or net commitment period compensation (NCPC) payments, in November totaled $3.3 million through the 25th, up $600,000 from October and down $1.3 million from the same month last year.

NCPC payments over the period were 1.2% of the energy market value.

## Committee Officers Elected, Appointed

The Participants Committee re-elected Chafetz (Customized Energy Solutions); Vice Chairs Calvin Bowie (Eversource Energy), David Cavanaugh (Energy New England), Douglas Hurley (Synapse Energy Economics) and Tom Kaslow (FirstLight Power Resources); Secretary David Doot (Day Pitney); and Assistant Secretary Sebastian Lombardi (Day Pitney). In addition, Michael Macrae, energy analytics manager for Harvard Dedicated Energy, was elected vice chair representing End Users. He replaces Liz Delaney, who stepped down after leaving the Environmental Defense Fund to become director of wholesale market development for Borrego Solar.

ISO-NE appointed Mariah Winkler to serve as the new chair of the NEPOOL Markets Committee. Winkler has 10 years of experience in the Forward Capacity Market and led the Reliability and Transmission committees through discussions on issues such as FCM fuel security reliability reviews and competitive transmission solicitations.

The RTO appointed Emily Laine to replace Winkler as the new chair of the Reliability and Transmission committees. Laine also serves as secretary of the Demand Resources Working Group.

After 17 years serving the MC, most recently as chair, Alex Kuznecow will now serve as chair of the NEPOOL Working Groups.

## 2020 Budget

The PC unanimously approved a 2020 budget of $6,365,000 for NEPOOL, up $90,000 (1.4%) from 2019's spending plan. NEPOOL expects to spend $6,625,000 by the end of this year, $350,000 above the approved budget. Most of the increase stems from $340,000 in above-budget spending for Day Pitney's counsel fees, an 8.6% exceedance. Independent financial adviser fees and disbursements were $5,000 over budget (12.5%), and committee meeting fees were $30,000 more than planned (4.4%). They were partially offset by $25,000 in savings on the Generation Information System (-2.9%).

**ESTIMATED 2020 NEPOOL BUDGET COMPARED TO 2019 NEPOOL BUDGET AND 2019 PROJECTED ACTUAL EXPENSES**

| Line Items | 2019 Approved Budget | 2020 Proposed Budget |
|---|---|---|
| NEPOOL Counsel Fees (1) | $3,950,000 | $ 4,100,000 |
| NEPOOL Counsel Disbursements (1) | $ 40,000 | $ 40,000 |
| Independent Financial Advisor Fees and Disbursements (2) | $ 40,000 | $ 45,000 |
| Committee Meeting Expenses (3) | $ 675,000 | $ 725,000 |
| Generation Information System (4) | $ 850,000 | $ 945,000 |
| Credit Insurance Premium (3) | $ 720,000 | $ 510,000 |
| NEPOOL Audit Management Subcommittee ("NAMS") Consultant (5) | $ 0 | $ 0 |
| SUBTOTAL EXPENSES | $6,275,000 | $6,365,000 |
| **Revenue** | | |
| NEPOOL Membership Fees (3) (6) | ($2,060,000) | ($2,070,000) |
| Generation Information System (4) (7) | ($ 850,000) | ($ 945,000) |
| Credit Insurance Premium (3) (8) | ($ 720,000 ) | ($ 510,000 ) |
| TOTAL REVENUE | ($3,630,000) | ($3,525,000) |
| **TOTAL NEPOOL EXPENSES** | **$2,645,000** | **$2,840,000** |

Breakdown of projected 2020 NEPOOL expenses | *NEPOOL*

## Consent Agenda

The PC unanimously approved the Reliability Committee's recommendation to revise ISO-NE Operating Procedure No. 2 to incorporate a new reference document and clarify the RTO's role in approving the scheduling of planned equipment maintenance and outages.

It also approved the Markets Committee's recommendation to change Market Rule 1 to sunset the fuel security reliability review provisions following Forward Capacity Auction 14, one year earlier than currently planned. The RTO said the review will not be necessary for FCA 15, when the ESI design is expected to be in place.

## Litigation Report

Doot highlighted a few items from the monthly litigation report, including that FERC last month conditionally accepted, subject to a 60-day compliance filing, the RTO's Order 841 compliance filing on energy storage (*ER19-470*). The commission found that ISO-NE had largely complied with Order 841, but it ordered changes to some of its proposed Tariff revisions. (See *Storage Plans Clear FERC with Conditions*.)

That compliance filing is due Jan. 21. Requests for rehearing of FERC's order are due by Dec. 23.

Doot also mentioned the commission's Notice of Inquiry in March for comments on whether it should change its method of calculating returns on equity for electric transmission and natural gas and oil pipelines (*PL19-4*). The proceeding has produced splits between transmission owners and load interests, as well as calls for new policies to increase the efficiency of existing lines and mandates on interregional planning. (See *Tx Incentives NOI Brings Calls for Broader Reforms*.)

He also drew attention to the D.C. Circuit Court of Appeals' ruling Thursday indicating it will reconsider its precedent that allows FERC to issue "tolling" orders to indefinitely delay action on requests for rehearing. (See related story, *DC Circuit to Reconsider FERC Tolling Orders*.) ■

*— Michael Kuser*

## MISO News

# MISO Mulls Linking Interconnection, MTEP Planning

*By Amanda Durish Cook*

CARMEL, Ind. — A new team considering sequencing parts of MISO's transmission planning with network upgrades identified in generator interconnection studies held its second meeting Wednesday, with stakeholders outlining the issues they hope to have addressed.

Upcoming discussions of the RTO's Coordinated Planning Process Task Team (*CPPTT*) could result in strategies to lower the increasing costs generation developers are facing for network upgrades.

The task team is MISO and stakeholders' response to complaints from the Environmental and Other Stakeholder Groups sector and others that renewable growth is being hindered by increasingly expensive upgrades. (See ***Renewable Proponents Outline MISO Planning Wish List*** and ***Renewables Group Calls for MISO West Tx Construction***.)

Several stakeholders have called for the RTO to more closely align its studies that identify network upgrades for the interconnection queue with its annual Transmission Expansion Plan (MTEP) so that transmission that facilitates new renewable output isn't borne exclusively by generation developers.

The team's tentative mission is to identify "potential coordination and consistency issues" between MISO's generator interconnection and MTEP processes.

MISO Manager of Resource Interconnection Arash Ghodsian promised that the team will examine the timing and methodology of the different studies under the interconnection queue and MTEP. "Where can we gain some efficiencies? Where can we gain some consistency?" he told stakeholders. He said the goal is to find the best transmission solutions that can meet a variety of purposes.

Clean Grid Alliance's Natalie McIntire said the interconnection queue and the MTEP process should share assumptions so that it's not a race to see which party will foot the bill of a transmission project. "We don't want to have the timing of the studies determine who pays for the project. Right now, whatever study finishes first determines who pays. That seems to us to be an important principle here. We should have a better process to determine the beneficiaries," McIntire said.

Arash Ghodsian, MISO | © *RTO Insider*

However, MISO Director of Planning Jeff Webb said it's impractical to expect the RTO would be able to apply the same set of assumptions to every type of planning study. "It doesn't make sense. It's too prescriptive," Webb said.

McIntire said that interconnection customers are discovering that the costs of network upgrades are "more than the capital costs" of the generation projects themselves.

"I don't think anyone believes that these several million to $1 billion major upgrades are going to be paid for by interconnection customers," EDF Renewable Energy Interconnection Manager Anton Ptak said.

He also said MISO "is just at the beginning" of seeing its utilities dramatically alter their fuel mixes and argued that it should identity the beneficiaries beyond the interconnection customer of such expensive upgrades.

"Once upon a time, we were ordered to do cost allocations for generator interconnections instead of the direct assignment approach," Webb pointed out, noting that MISO has returned to assigning costs directly to interconnection customers and ignoring other beneficiaries. About 14 years ago, the RTO used a 50/50 cost sharing of network upgrades between interconnection customers and load in corresponding transmission pricing zones, with the zonal half collected like baseline reliability projects were, through a blend of 20% postage stamp and 80% sub-regional allocation. To be eligible for the cost sharing, interconnection customers had to become MISO network resources or have proof of a one-year power purchase agreement.

The Union of Concerned Scientists' Sam Gomberg said MISO should strive to end the "free ridership" of beneficiaries. "Those seem like principles that we should be able to get behind," Gomberg told attendees.

Great River Energy's Mike Steckelberg suggested MISO consider creating a transmission project market, where multiple parties can bid in to share project costs.

MISO stakeholders are encouraged to send more issues for the task team to consider through Jan. 2. The CPPTT will hold another meeting in mid-January. ■

# MISO Market Subcommittee Briefs

## Solar Dispatch Imminent

CARMEL, Ind. — MISO is moving ahead with a proposal to bring solar generation into market dispatch, reusing many of the rules from its 2011 change that brought dispatchable wind generation into the markets.

At the Market Subcommittee meeting Dec. 3, Executive Director of Market Operations Shawn McFarlane said MISO will file the Tariff changes later this month.

The proposal would require solar plants to register under the dispatchable intermittent resources category, the same category MISO requires of its wind generation. Officials said the change is driven by the rapid increase of solar installation in the RTO's footprint. (See *Anticipating Boom, MISO Extending Dispatch to Solar*.)

Some stakeholders last month asked for grandfathered provisions from the change for existing solar generation, but MISO Manager of Resource Retirement Kun Zhu said no grandfather provisions were laid out in the RTO's wind dispatch rules, nor SPP's similar rules for solar dispatch.

Brian Brown, MISO | © *RTO Insider*

## Restoration Energy Design Nears Completion

MISO said its stakeholders are supportive of its plan to price energy that reactivates islanded areas of the grid following a blackout.

The RTO plans to make a Tariff filing to incorporate the new pricing structure in either March or April.

MISO's proposal dictates that compensation for restoration energy would rely on last-submitted offers before the blackout as a starting point for pricing, resulting in unique costs based on resource. The RTO would allow for the recovery of start-up costs, emergency purchases and resource-specific energy costs. It would also include recovery for any unusual costs incurred during operation, provided they can be verified by the Independent Market Monitor. It would also accept after-the-fact updates of offers. (See "Restoration Energy Pricing in the Works," *MISO Market Subcommittee Briefs: Oct. 10, 2019*.)

Costs of restoration energy — including both resource costs and emergency energy purchases — would be allocated on an hourly load-ratio share to re-energized load in an islanded area. The restoration events would be considered finished when MISO's day-ahead market again takes over economic dispatch.

Michael Chiasson, vice president of Potomac Economics, MISO's Monitor, said the cost determination might not be neat and orderly, as islanded areas might shrink, grow or meld into one another as the restoration develops.

Chris Delk, MISO manager of market settlements, said the RTO would limit non-typical start-up costs, with a cap proposed at 50% of a unit's cold start-up costs, the most expensive category. He said MISO and the Monitor were concerned about how high supplementary start-up costs could go absent a cap. The atypical costs might include the costs of renting hotel rooms for employees, travel or transportation, he said. Recovery of anything beyond the 50% cap on additional start-up costs would require a filing with FERC.

"We want it to go before FERC to get it on the record and get them defending it publicly," Delk explained to stakeholders.

## New MISO Market Protections Inevitable

MISO will seek FERC approval next month for authority to increase collateral requirements and suspend trading when a market participant exhibits undue risk to its markets.

The RTO will request an effective date before April for the changes to its credit policy.

MISO's proposed Tariff language would allow it to act when it perceives evidence of default, manipulation or unreasonable risk to the markets. The new rules would also allow it to reject applications from new market participants and former market participants that have an uncured financial default and attempt to rejoin the RTO under a different name. Finally, MISO would ask prospective and current market participants for more specifics on its annual certification form. It would inquire about any past defaults, bankruptcies, dissolutions, mergers or acquisitions, and any investigations.

The broader market protections edits are an expansion on stepped-up requirements in MISO's financial transmission rights market. The RTO on Nov. 22 received FERC permission to apply higher collateral requirements (*ER20-73*). (See *MISO Looks Beyond FTRs for Market Protections*.)

Customized Energy Solutions' David Sapper asked if MISO will rely only on publicly available information to make decisions about risk to the market.

"Probably not," said Brian Brown, principal credit analyst for the RTO. "If there's risk to the market, we don't want to put our head in the sand and ignore it."

Brown also pointed out that the Tariff already requires market participants to notify the RTO of confidential investigations, so it should already be privy to certain nonpublic information. ■

*— Amanda Durish Cook*

MISO News

# MISO RASC Briefs

## MISO Looks to Cut Capacity Testing Reporting Errors

CARMEL, Ind. — MISO says it will look to make improvements to the capacity testing process after sifting through results from its generators and discovering errors.

The RTO received more than 1,800 submittals from approximately 140 generation operators by the Oct. 31 deadline for its generation verification test capacity (GVTC) process. It requires generation owners to test the capability of their units annually to determine maximum capacity to help calculate MISO's resource adequacy.

At the Resource Adequacy Subcommittee's meeting Dec. 3, MISO Manager of Capacity Market Administration Eric Thoms said the RTO would reach out to about 40 generation owners this month to discuss correcting possible errors in the submittals in time for the 2020/21 Planning Resource Auction.

Some stakeholders asked how MISO had determined errors had been made in the first place.

"It wouldn't be obvious to me that we've even made errors," MidAmerican Energy's Greg Schaefer said.

Thoms said MISO performed a quality and validation review at the behest of its Independent Market Monitor. He said the likely errors are centered on temperature corrections for cooling water and air temperature, generator polarity data, and "misinterpretations" of some of the fields on the survey.

RASC liaison Patrick Brown said that over the next year, the RTO will investigate potential GVTC process improvements to "increase the quality of data being submitted and lesson the burden of MISO's review."

"We're not trying to eat the elephant all at once," Brown said of working in improvements.

## Stakeholders Remain Critical of Capacity Deliverability Remedy

MISO remains committed to tightening capacity deliverability requirements using the same method it proposed in October, but some stakeholders are voicing concerns over reduced capacity credits issued to wind resources.

The RTO has said it will use an intermittent resource's transmission service request value to set its maximum historical output for the average capacity factor, which will likely reduce a resource's unforced capacity values and stands to reduce capacity credits. It would only apply the solution to its intermittent resources, citing increasing wind curtailments in the footprint. (See "MISO Pushes Back Deliverability Requirements," *MISO RASC Briefs: Oct. 9, 2019*.)

MISO's Darrin Landstrom said the move will "improve the expectation of generators required to deliver capacity to load."

"Under the current process, an intermittent resource that is not fully deliverable could acquire capacity credit with the same equality as an intermittent resource that is fully deliverable. Revising capacity accreditation calculations to factor in studied levels of deliverability may incentivize intermittent resources to obtain more deliverability if necessary and/or improve the confidence that capacity is being accredited in a method that more closely aligns with deliverability levels," MISO said.

The Monitor has argued for more than a year that the RTO doesn't properly account for capacity deliverability because its loss-of-load expectation (LOLE) study assumes that all capacity resources are fully deliverable on an installed capacity (ICAP) basis. However, it also allows resources to demonstrate deliverability only up to the unforced capacity (UCAP) levels, which tend to be about 5 to 10% below full ICAP levels. The Monitor thinks it should assess deliverability for all capacity resources based on full ICAP.

Madison Gas and Electric's Megan Wisersky said MISO's proposal may be expensive in that more capacity resources or more transmission capacity will be required to meet peak loads.

"Are we merely trying to jack up the transmission we're building, increasing costs to our customers?" she asked.

Landstrom said the proposal might leave some of the wind fleet's effective load carrying capability (ELCC) unassigned. He said the unassigned ELCC might be applied to resources that have secured full deliverability through transmission service. However, MISO may run into problems if it gives a resource more capacity credit than the reliability, including the issue of "how to slice and divide the ELCC pie." MISO annually calculates a system-level ELCC, which is currently 15.7% of the MISO wind fleet's registered maximum capacity.

IMM Michael Chiasson also pointed out that there are few benefits to purchasing transmission service for 100% deliverability. He said it's possible to achieve zonal resource credit requirements "well under" full deliverability.

"We have some homework to do," Brown said before closing the discussion. He said MISO may need to delay release of its design concept until February and promised another presentation in January. "In my mind, we have a lot of open questions, and I'll take that, on behalf of MISO staff." ■

*— Amanda Durish Cook*

Darrin Landstrom, MISO | © *RTO Insider*

## MISO News

# Stakeholders Debate MISO Planning Futures

## *Some Say RTO Runs Risk of Obsolete Scenarios Again*

*By Amanda Durish Cook*

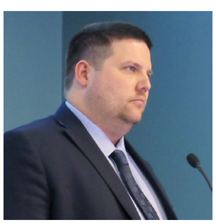
CARMEL, Ind. — MISO stakeholders last week debated whether the RTO is being too conservative in anticipating industry shifts in its new futures scenarios for transmission planning.

MISO in October released a trio of new 20-year future scenarios to assist transmission planning for the 2021 Transmission Expansion Plan (MTEP 21). (See *MISO Sets Course for New Futures*.)

Now, the RTO has *revised* the scenarios' names to Announced Plans, Accelerated Fleet Change and Advanced Electrification. It has also upped the age at which coal units retire by at least four years in each future and reduced carbon reductions from 50% to 40% in the Accelerated Fleet Change future.

MISO also cut its electrification predictions in both the Advanced Electrification (from 70% to 40% energy growth potential) and Accelerated Fleet Change futures (from 40% to 20%).

Finally, the Announced Plans future now contains an 85% probability instead of total confidence in changes identified in utilities' integrated resource plans, including coal retirements, new gas-fired generation and emission-reduction targets.



Tony Hunziker, MISO | © RTO Insider

At a special workshop Thursday, MISO Planning Manager Tony Hunziker said the changes were made after the RTO evaluated feedback from stakeholders.

"There was an emphasis on having more conservative assumptions," he said.

### A Question of Coal Retirements

Xcel Energy's Drew Siebenaler pointed out that his company plans to *end* all coal use in the MISO footprint by 2030. He also said the RTO should consider that it is often expensive to keep aging coal plants cycling.

"What we've learned is it takes a ton of capital to keep these units [operating as reliability]-must-run. I'd like to also see how they're going to be dispatched," he told RTO staff.

Veriquest Group's David Harlan said MISO wasn't clear on what generation would replace retiring coal units. Hunziker said it would use the Electric Power Research Institute's Electric Generation Expansion Analysis System (*EGEAS*) to predict generation expansion.

Clean Grid Alliance's Natalie McIntire said it didn't make sense to extend the lifespan of coal plants from 30 years to 35 in the Advanced Electrification future. She said coal use is ending, whether or not members want it to occur.

"I understand that there are a lot of stakeholders that are uncomfortable with an aggressive future. But it's not MISO's job to predict the future; it's to create a reasonable range of plausible futures. We're not trying to get everyone comfortable with every future. I don't think it's reasonable not to have an aggressive future in there, given that all of the [changes predicted] in MISO's existing futures have been exceeded," she said.

### Comfort not the Goal

Megan Wisersky of Madison Gas and Electric said she agreed that stakeholders shouldn't be at ease with the scenarios outlined in the futures.

"It's not our job to make sure that everyone is comfortable. We really need futures that are stretches — that contemplate technological change, political change ... that in late 2019, we can't fathom," she said.

Wisersky said MISO should craft futures using more intense industry shifts so it doesn't again use obsolete predictions. The RTO plans to use its existing four futures one last time for the 2020 cycle of its transmission planning.

"It just seems like MISO has scaled back on these in response to a few stakeholders' comments. These are supposed to be bookends," McIntire said.

Minnesota Public Utilities Commission staff member Hwikwon Ham suggested MISO assume a 35-year coal plant age retirement in all three futures, then update the ages as utilities announce retirements.

Stakeholders also said MISO should take utilities' IRP plans at their word, or even assume that utilities will exceed their IRP goals ahead of time. Some suggested that for utilities to publicly announce retirements and not see them through may constitute fraud.

McIntire asked if MISO would include corporate commitments to renewable energy and carbon-cutting in any of its futures.

| © RTO Insider

"We considered that. We didn't want to double-count them," Hunziker said.

He said MISO would rely on load-serving entities to include that information in their load forecasting. However, he also said it might consider reaching out to multistate corporations whose renewable goals might be hard to pin down on a single-utility basis.

After MISO revealed its initial futures proposal, the Union of Concerned Scientists' Sam Gomberg *blogged* that they were the result of the RTO "lean[ing] into the undeniable transition towards renewable energy resources, emerging technologies like battery storage and the growing momentum behind decarbonizing our economy."

Gomberg said the new futures are "essential to ensure a modern grid is ultimately ready to support a clean and reliable electricity supply."

"MISO's job isn't easy — making investments now to prepare for an uncertain future. MISO can't create our clean energy future — that's up to us as consumers to demand. But MISO, through its function as the regional grid operator, can either complement or hinder our progress. MISO's proposed revamp of its planning process is a strong step in the right direction to ensure our electricity grid is ready for our clean energy future," Gomberg said.

Hunziker invited more stakeholder opinions on the three futures. MISO will continue developing the futures scenarios through January, with the definitions completed in either February or March. ■

## MISO News

# MISO OK'd to Require Site Control in Interconnection Queue

*By Amanda Durish Cook*

MISO received FERC approval last week to require its generation developers to secure land for projects earlier in the interconnection queue over some protests from renewable developers.

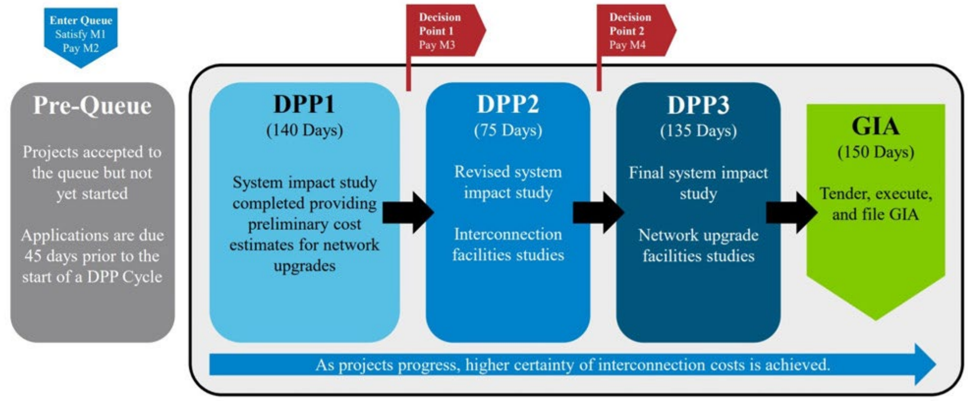
The RTO will now require interconnection customers to demonstrate 100% site control 90 days before the proposed projects enter the first phase of the three-phase definitive planning phase (DPP) of the interconnection queue for study. It also scrapped the previous practice of accepting a $100,000 cash deposit in lieu of demonstrating site control.

FERC said the stricter process was a reasonable way for MISO to better manage its brimming interconnection queue. It also accepted MISO's transition plan to grandfather interconnection requests submitted in prior DPP cycles from the changes.

"More stringent site control requirements, as proposed by MISO, may help to reduce the number of speculative, duplicative, and non-ready projects entering DPP Phase I," the commission said Dec. 3 (*ER20-41*).

As of last month, MISO's queue totaled 569 projects at nearly 89 GW of generating capacity. The RTO reported that more than 730 projects totaling almost 120 GW have entered the queue in the last three DPP cycles.

"Much of this capacity will not come to fruition and is the result of certain interconnection customers submitting multiple interconnection requests into DPP Phase I to find the most advantageous point of interconnection, a strategy that has resulted in numerous withdrawals," FERC said. "We find persuasive MISO's argument that the ability of interconnection customers to enter the queue without financial risk contributes to the submission of speculative projects, which negatively impacts the entire queue by causing delays, skewing study results, shifting costs to other customers and inflating milestone payments when these projects are withdrawn."




MISO interconnection queue design | *MISO*

| *MISO*

The filing FERC accepted was MISO's second attempt at more rigorous obligations on project owners. The RTO first proposed higher milestone fees in addition to the firmer site control requirements. However, it dropped its plan to change the first, $4,000/MW milestone payment to a variable cost representing 10% of the average network upgrade cost from the last three DPP cycles. FERC said the change would have resulted in accounting uncertainty and averages applied unfairly across the entire footprint. (See *MISO Zeroes in on Queue Overhaul Filing*.)

MISO will now allow different fuel types and multiple generation projects to share the same site, abandoning the first proposal's requirement that project owners show exclusive use of land. As it proposed in the first filing, the new rules add a provision that 50% of milestone fees are considered at risk of not being refunded if they're needed to help defray network upgrade costs should a project withdraw.

A group of renewable generation developers, Invenergy and the Solar Energy Industries Association had disputed MISO's 50% milestone forfeiture, arguing that it didn't show that the current practice of fully refunding the first milestone fee caused delay in queue studies. They also argued that withdrawing after paying the first milestone fee is natural, as MISO delivers the estimated costs of necessary network upgrades only after the milestone payment deadline has passed. Withdrawal after the queue's first decision point is usually a "reasonable response" to expensive upgrade estimates, they said, and not the hallmark of a speculative project.

But FERC pointed out that MISO will now require a screening study more than two weeks before the DPP begins, thereby informing customers of potential thermal and voltage constraints. The new study "should provide interconnection customers with an awareness of what network upgrades may be necessary to accommodate the interconnection of their projects," the commission said.

FERC also denied EDF Renewables' request that it compel MISO to annually detail in reports how the 50% milestone forfeiture has a "meaningful impact on keeping speculative projects from entering the queue."

EDF had also sought a defined endpoint for MISO's harm tests on withdrawing projects and a deadline for it to return milestone payments to interconnection customers if no impact is found on other projects. The commission said it wouldn't hold the RTO to deadlines on either, noting that project withdrawals can create ripple effects that impact other projects, even as they advance to later stages of the queue.

FERC urged MISO to be more transparent with customers over how it "will calculate harms caused by withdrawing interconnection customers and how it will distribute forfeited milestone payments to offset those harms," but it did not direct the RTO to make an additional compliance filing. ■

# MISO News

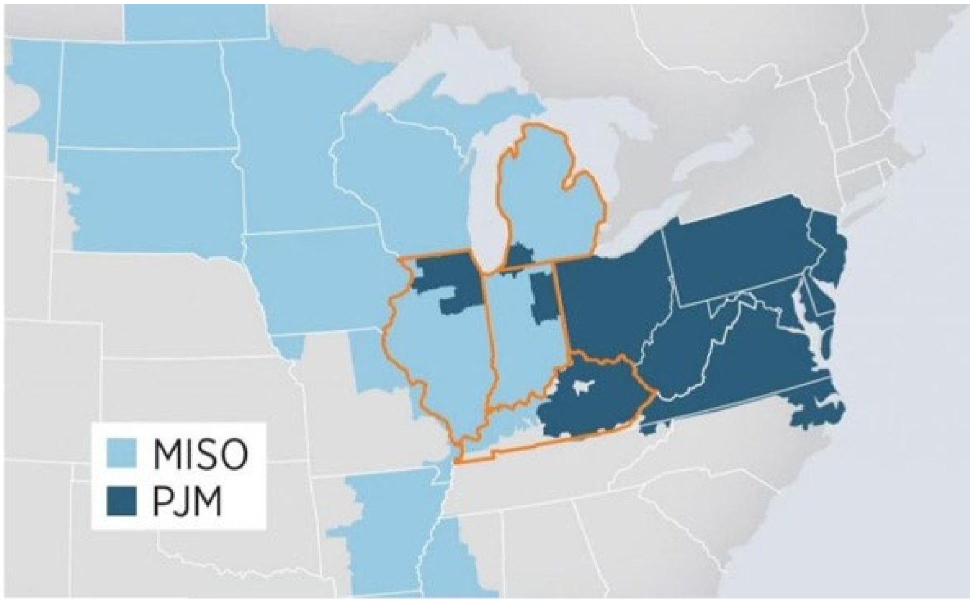
# MISO-PJM Joint Operating Agreement Revisions Accepted

## *Planning with SPP Deemed 'Out of Scope'*

FERC on Dec. 2 accepted revisions to PJM and MISO's joint operating agreement but declined a broader review of how interregional planning coordination could be improved with SPP (*ER20-34, ER20-36*).

MISO and PJM filed identical sets of JOA revisions in October that clarified the coordinated system plan (CSP) process, corrected errors and addressed inconsistencies in earlier versions. The revisions:

- clarify that a CSP study including a more complex, longer-duration study provides for, but does not require, the development of a joint model;
- clarify that construction of interregional transmission projects is subject to the regional tariff in which the facilities will be constructed;
- remove the interregional market efficiency project criterion that at least one dispatchable generator in the adjacent market has a generation-to-load distribution factor of 5% or greater;
- remove references to use of a joint model from the determination of benefits; and
- remove a legacy provision that allows testing of any project against interregional cost allocation criteria outside a CSP study.




PJM and MISO footprints | *MISO, PJM*

The RTOs said the revisions reflect their stakeholder processes and "are intended to improve and add greater clarity to the development of the CSP process."

ITC Holdings told FERC the revisions were an improvement but said more changes were needed to address planning coordination with SPP.

The company also said the JOA between MISO and PJM disfavors interregional transmission projects with more broadly applicable benefits and that FERC should consider "elevating interregional transmission planning processes to a more equal footing with their respective regional counterparts."

FERC rejected ITC's arguments as out of scope. ■

*— Christen Smith and Rich Heidorn Jr.*

## PJM News

# Dominion Cancels RFP for New Peaker Plant

Dominion Energy called off its solicitation for a 1,500-MW peaking plant Wednesday, just days after LS Power asked Virginia officials to intervene in the process.

The request for proposals, issued last month, was meant to help close a projected 4,044-MW capacity gap identified in the company's integrated resource plan. But LS Power argued that such generation already existed in Dominion's footprint and questioned the competitive process described in the RFP. (See *Dominion Challenged on RFP for New Peaker Plant*.)

The Doswell Energy Center in Hanover County, Va. | *Fluor*

Jeremy Slayton, a Dominion spokesperson, did not give a reason for the reversal in an email sent to *RTO Insider* on Wednesday afternoon.

"The company will continue to monitor market conditions to determine if an RFP for peaking generation will be reissued in the future," he said.

Nathan Hanson, senior vice president at LS Power, had urged William F. Stephens, the State Corporation Commission's director of public utility regulation, and state Attorney General Mark Herring "to suspend the solicitation as it is currently structured, review the requirements and implement changes that will make the process competitive, for the benefit of Virginia consumers."

Hanson sent the letter on behalf an LS Power limited partnership, which began operation of two 170-MW natural gas peaking plants at the Doswell Energy Center in Hanover County, Va., in May 2018.

Marji Philips, LS Power's vice president of wholesale market policy, said late Wednesday via email that the company "was pleased by Dominion's recognition that the RFP was ill conceived at this time." ■

*— Christen Smith*

# FERC Rejects Pepco, Delmarva Tx Rate Challenges

*By Christen Smith*

FERC last week rejected transmission rate challenges against Potomac Electric Power Co. (Pepco) and Delmarva Power & Light that challenged the accounting of the utilities' prepaid pension assets.

Delaware Municipal Electric Corp. and Southern Maryland Electric Cooperative in January questioned the prudency of the utilities' combined $522.5 million in retirement contributions, suggesting the costs were voluntary and inappropriately included in their 2018 transmission base rates.

Both Pepco and Delmarva participate in a consolidated retirement fund with Atlantic City Electric and Baltimore Gas and Electric. Parent company Exelon manages the account and determines annual contribution requirements for each utility, based on federal law and an internal policy that mandates at least a $300 million contribution until fully funded. Pepco and Delmarva raised transmission rate bases last year by $34.5 million and $12.4 million, respectively, to account for the prepaid pension assets.

SMECO said Exelon's policy lacks transparency and its funding strategy remains unclear, noting the contributions go above and beyond federal mandates — arguments FERC rejected (*ER09-1159*). DEMEC's complaints against Delmarva were likewise dismissed, just as they were in a near identical challenge to the company's 2016 annual update (*ER09-1158*).

"The commission did not say [in 2016] that an expenditure is imprudent if it exceeds the minimum funding requirements established by federal pension laws, or that there is a serious doubt about the prudence of an expenditure just because it is not required by federal pension laws," FERC wrote. "SMECO's argument runs contrary to the commission's prudence standard because it suggests that Pepco was limited to a single correct act — making cash contributions that matched minimum funding obligations under federal law — rather than having discretion in its decision-making."

DEMEC's attempts to solicit refunds from Delmarva for accumulated deferred income tax (ADIT) associated with two retired transmission facilities also failed, as the utility paid the ADIT balance to the appropriate government authorities per IRS procedure.


Pepco headquarters in D.C. | *© RTO Insider*

FERC also said Delmarva acted appropriately when it used historical formula rate methodology to true-up rates between Jan. 1 and May 31, 2018, despite the fact that the federal income tax rate had dropped from 35% to 21% that year.

Questions about the utility's accounting of software-related expenses as miscellaneous intangible plant costs, which raised the rate base by $10,000, were also dismissed as unproblematic because the category accounts for licensing, an "intangible" element of software. ■

# Former Steel Mill Eyes Offshore Wind Future

Continued from page 1

Ørsted, the world's leading offshore wind developer with about one-quarter of world market share, is investing $38.2 million in Sparrows Point to satisfy the "local content" requirement Maryland regulators demanded in their contract to purchase Skipjack's offshore renewable energy credits. Ørsted also is making port investments in Rhode Island ($40 million in ProvPort and Quonset), Long Island (an operations and maintenance hub in Port Jefferson) and New London, Conn. ($57.5 million in a joint venture with Eversource Energy).

On Dec. 2, Tradepoint and Ørsted hosted an open house and tour for about 100 people — including local union officials, a state senator and former Bethlehem Steel workers — curious about the plans.

The visitors saw workers driving piles into the site of the "LoLo" (lift on, lift off) berth, where cranes will move heavy equipment. That is perpendicular to the "RoRo" (roll on, roll off) berth. The two comprise a 15-acre dockside operations area, which is designed to handle loads as heavy as 15 tons per square meter.

Adjacent to that will be a 115-acre manufacturing and "laydown" area, where the 351-foot turbine blades and even longer monopiles will be stored. The laydown area could grow, said Russell Williams, a Tradepoint business development associate who led the tour. "For the size and weight of the components for offshore wind, we need a lot of space and we need a lot of heavy [load-bearing capacity]," he said.

Ørsted also will have access to the 1,200-by-200-foot dry dock, which could be used for assembling gravity-based turbine foundations.

For starters, much of the equipment for the wind farm — including the monopiles and blades — will be imported from Europe to Sparrows Point for assembly. Only the external platform, suspended internal platform (housing for electronics and switch gear), boat landings and anode cage will be manufactured locally initially.

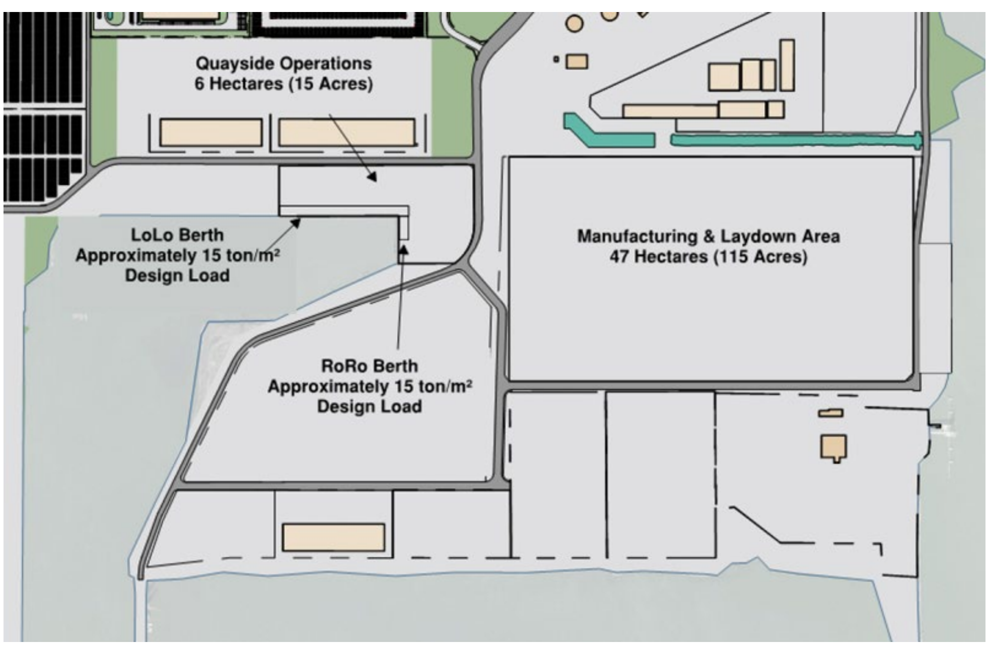
"Obviously, the long-term goal would be to manufacture [the blades and monopiles] here, but for the first round of projects, that's not really feasible," said Zach Finucane, an Ørsted manager of the project.

Using the Chesapeake & Delaware Canal as a shortcut to the Atlantic, Ørsted's staging facilities will be about 94 miles from Skipjack (which is in the federal government's Delaware Wind Energy Area, although it will sell its output to Maryland ratepayers).

## Growth Opportunities

The Atlantic Coast between Cape Hatteras, N.C., and Cape Cod, Mass., has seen the most interest from offshore wind developers in the U.S., because of its strong winds, the shallow waters of the continental shelf and its large, energy-hungry coastal population.

Russell Williams of Tradepoint Atlantic leads a tour of Ørsted's construction site. | © *RTO Insider*




Ørsted site plan | *Tradepoint Atlantic*

Brandon Burke, policy and outreach director for the Business Network, noted six states in the region — Massachusetts, Vermont, New York, New Jersey, Maryland and Virginia — have renewable portfolio standards of at least 50%. He also pointed out that the region also will need capacity to replace retiring nuclear and coal plants.

Burke said state commitments exceed the capacity of the offshore wind leases the federal government has issued on the East Coast. "We are encouraging the federal government to issue additional leases, and we do see that coming, particularly in the New York Bight," which stretches from the Cape May Inlet in New Jersey to Montauk Point on the eastern end of Long Island.

Ørsted hopes to win all the permits it needs for Skipjack by 2021, with installation beginning in 2022 and commercial operations later that year. The company has *selected* General Electric's new 12-MW *Haliade-X* turbine, which the manufacturer says can produce a gross capacity factor of 63%, far higher than turbines previously deployed.

The new technology has resulted in a potential roadblock: The Maryland Public Service Commission announced last month it was *reconsidering* its approval of Skipjack and US Wind's project in the state's wind energy area after learning the turbines for both will be about 200 feet taller than originally planned.

Finucane said Ørsted is optimistic the review will not delay its timeline. "Obviously there's always risks [of delay] to any construction project. We're hopeful that's not going to be a showstopper." ■

# PJM MRC/MC Briefs

## Board Recognizes Incoming, Outgoing CEOs

Ake Almgren, PJM | © *RTO Insider*

VALLEY FORGE, Pa. — PJM Board of Managers Chairman Ake Almgren recognized fellow board member and interim CEO Susan Riley for her efforts to lead the RTO during a "challenging" season, telling the Markets and Reliability Committee on Thursday her work will continue under her successor, Manu Asthana.

"We are very excited to welcome Manu as our new president and CEO," Almgren said. "He brings many decades of experience from the electric industry. Some were different experiences, but very relevant experiences. We are confident in his leadership moving PJM forward."

Riley will resume her role on the board once Asthana arrives next month and will help ensure a smooth transition, some six months after former CEO Andy Ott resigned.

"Overall, I'm proud of the progress PJM has made to build stronger relationships with constituents, built on common respect and listening," Riley said. "I know this great work will continue under Manu, and the board is anxious for him to start."

## FTR Vote Deferred

The MRC deferred voting on the first round of financial transmission rights credit-related policy changes after some stakeholders expressed concerns about the ripple effect the revisions may have on market design.

PJM said the recommendations, initially presented at the October MRC, will improve its credit risk policies after the Financial Risk Mitigation Senior Task Force delegated a more holistic FTR market review and possible design changes to a separate Market Implementation Committee task force. (See "FTR Market Rule Changes," *PJM MRC Briefs: Oct. 31, 2019*.)

One change includes hosting five long-term FTR auctions a year, instead of three, in order to increase oversight and visibility into portfolio conditions so that more collateral can be collected if necessary. A second would alter the structure of Balancing of Planning Period auctions so that participants can buy and sell


PJM Board of Managers member Sue Riley sits beside Chairman Ake Almgren at her last Markets and Reliability Committee meeting as interim CEO. | © *RTO Insider*

in any month of the year, rather than being limited to a specific quarter.

The PJM Industrial Customer Coalition (ICC) and the Consumer Advocates of PJM States (CAPS), however, said their longstanding concerns about increasing the auction frequency still stand.

"We think the monthly change bleeds into the market design element," the ICC's Susan Bruce said. "We've not fully thought through the impact of FTR underfunding. If we don't have good information on transmission outages, we have concerns that it may affect underfunding and it may have implications for market design."

"The advocate offices had very similar concerns," said Greg Poulos, executive director of CAPS. "This is one item that has a little bit of impact on market design, something that consumer advocates have been asking to be reviewed since last year when the GreenHat [Energy] investigation was going on."

PJM Chief Risk Officer Nigeria Poole Bloczynski reiterated that the independent GreenHat investigation recommended these very changes and said the task can revisit the issue, if needed.

"This is not a one-stop shop," she said. "We will continue to make improvements."

Riley chimed in, urging stakeholders to find consensus, saying, "If we could get to 'yes' on this, it would be a really big win.

"We thought long and hard about design changes versus credit changes," she said. "I agree this straddles the two. I understand the concerns. Voting in favor of the increase in auctions enables better credit management. … It doesn't mean that a review of this can't be a part of market design changes that we consider."

The MRC will reconsider the changes at its Dec. 19 meeting.

## End of Life Issue Charge Endorsed

American Municipal Power and Old Dominion Electric Cooperative scored a big win on Thursday after stakeholders in a sector-weighted vote of 3.83 to 1.17 endorsed their joint problem statement and *issue charge* exploring end-of-life determinations.

While stakeholders rehashed a familiar debate before casting their votes over where PJM's role in supplemental project planning should begin and end, the committee ultimately approved formalizing the discussion. (See *Competitive TOs Push Against PJM Supplementals* and "Stakeholders Mull Tx Asset Management Discussion," *PJM MRC Briefs: Oct. 31, 2019*.) None of the 11 TOs voting endorsed the issue charge, according to PJM's *tally*.

The MRC will continue working on the issue and recommend approval for any necessary governing document changes at its March meeting.

## Comparative Cost Framework, Opportunity Cost Calculator in Flux

The MRC did not endorse revisions to the opportunity cost calculator or hear another

# PJM News

first read of its pending comparative cost framework.

In the former issue, main motion sponsors Dominion Energy and Panda Power Funds are working toward a single-package compromise with PJM. (See "Opportunity Cost Calculator," *PJM MIC Briefs: Sept. 11, 2019*.) In the latter, PJM said conversations remain ongoing with the Independent Market Monitor on some of the manual language defining its role in the process. (See *PJM TOs Wary of Cost Containment Rules*.)

### Real-time Values, Parameter-limited Schedules

Some capacity generators use real-time values (RTVs) to override unit-specific parameters for inappropriate reasons, PJM contends, causing unnecessary confusion during dispatch.

The original intent of RTVs was to provide a way for generation operators to communicate current operating capability to PJM if their resources couldn't meet their unit-specific parameter limits or approved exceptions. Generators opt to use RTVs and forfeit operating reserve credits and make-whole payments as a result.

Except, some generators consistently use RTVs to increase notification time on parameter-limited schedules "to reflect the decision not to staff the resource during hours they project the resource will not be economic," PJM said in a *problem statement*. The operational impacts mean that resources called in real-time based on their schedules cannot perform as expected.

PJM *suggested* a special session of the MIC to commence in 2020 to study the problem and recommend solutions.

### Manuals Endorsed

- PJM Manual 3: Transmission Operations — periodic *review* to *update* operating procedures.
- Manual 03A: Energy Management System Model Updates and Quality Assurance — *revisions* stemming from a cover-to-cover periodic review and is phase one of an effort to update, reorganize and streamline the manual's content.
- Manual 13: Emergency Operations — *revisions* to incorporate the 2020 day-ahead scheduling reserve requirement.
- Manual 15: Cost Development Guidelines — *revisions* that clarify that market sellers can only change the format of maintenance adders ($/MMBtu, $/MWh or $/start) during the annual review period for energy offer components. (See "Manual 15 Clarifications on VOM Costs," *PJM MIC Briefs: Nov. 13, 2019*.)
- Manual 18: PJM Capacity Market — *revisions* that implement the new must-offer exception process approved by *FERC* in October. (See *FERC to PJM Gens: Use or Lose Capacity Rights*.)
- PJM Manual 19: Load Forecasting & Analysis — a periodic *review* and documentation of the long-term load forecast.
- Operating Agreement *revisions* that clarify the requirements for sharing forecasted unit commitment data to TOs for reliability studies.
- Non-substantive *changes* to the Tariff, OA and Reliability Assurance Agreement that standardize cross references in all three documents.

### Members Committee Elections

Members Committee Chairman Chuck Dugan, of East Kentucky Power Cooperative, led his last meeting Thursday before Vice Chair Steve Lieberman, of American Municipal Power, takes over next year.

Katie Guerry of Enel X will assume the role of MC vice chair. Brian Kauffman, also of Enel X, will take over as whip for the Other Supplier sector. Members also re-elected all existing whips, including:

- Susan Bruce, PJM ICC, End Use Customers
- Adrien Ford, Old Dominion Electric Cooperative, Electric Distributors
- Michael Borgatti, Gabel Associates, Generation Owners
- Sharon Midgley, Exelon, Transmission Owners

### Load Management Test Rules

PJM's new load management testing rules became official on Thursday after receiving endorsement from the MC.

In October, the MRC endorsed new load management and price-responsive demand testing rules for Capacity Performance resources after PJM said old measures failed to mimic real-life emergency procedures. (See *PJM Stakeholders Support More Realistic DR Testing* and "Stakeholders Urge Consensus on Load Management Testing Requirements," *PJM MRC/MC Briefs: Sept. 30, 2019*.)

The new rules, effective with the 2023/24 delivery year, would give PJM authority over scheduling tests — instead of the resource itself — and provide advanced notification so participants can prepare. The changes would implement a three-step system that gives resources first notice of an upcoming test one week prior to the two-week testing window, with additional alerts by 10 a.m. the day before and the day of the scheduled test. There will be one test per year when there is no event, with half of resources tested in winter and the other half in summer.

### Critical Infrastructure Resolution

Growing concerns over a pending Tariff attachment proposal from TOs that would create a new, confidential process to mitigate critical infrastructure reached a crescendo on Thursday when LS Power presented the first read of an *advisory* against the proposal.

Sharon Segner, vice president of LS Power, said her company believes the attachment conflicts with the OA because it will move forward without any vetting from the MC.

"We can't veto or delay, but we can offer an opinion," Segner said of the advising document. "It's a voice that says the issues with the OA haven't been addressed."

At the heart of Segner's argument is a belief that incumbent TOs don't get exclusive rights to handling critical infrastructure on NERC's CIP-014 list. Because the projects could carry significant regional implications, LS Power believes PJM should plan their mitigation. (See *PJM TO Filing Stirs Up Transparency Concerns*.)

"My company stands on the side of PJM," she said. "My company believes that PJM is a world class transmission planner and, as a result of that, when it comes to national security, we believe PJM should be in charge."

Incumbent TOs argue that NERC's confidentiality standards — and their rights under PJM's Attachment M-4 process — support their intention to file the mitigation plan at FERC without input from other sectors.

"There is no inconsistency between Attachment M4 and the OA," said Pulin Shah, director of transmission strategy and contracts for Exelon. "The M4 process is not permanent. It will sunset in five years. There is a compelling need to move forward to address the loss of these substations."

PJM maintained its neutrality in the debate and reiterated that all stakeholders agree about mitigating critical assets so they are no longer vulnerable to attack. (See *PJM Remains Neutral in CIP-014 Debate*.) ■

*— Christen Smith*

# Company Briefs

## Bankruptcy Judge Slams Blackjewel over Expenses by Company Attorneys

U.S. District Judge Frank Volk has ordered bankrupt coal firm Blackjewel to provide additional details on $73,583 of expenses that company attorneys accumulated over three months while coal miners awaited back pay.

Volk has demanded the company itemize roughly 75 of the requests and questioned the company's decision to stay at high-end hotels and eat exorbitant meals. The court requested additional information on several single-night hotel stays, one of which reached $982.32. The company also requested $378.24 in reimbursement for a lunch at Jimmy John's on Aug. 5 and more than $22,000 for "telephone" expenses. No additional details were provided.

"The court understands that expenses naturally occur during a bankruptcy case, especially during the pendency of a case as frantic and time-consuming as the above-captioned matter," Volk said. "However, it is the court's duty to the estate and unsecured creditors to question the propriety and necessity for some of these expenses."

The judge ordered Blackjewel to respond no later than Dec. 13.

More: *Casper Star-Tribune*

## Court Approves Plan for Cloud Peak Energy to Exit Bankruptcy

A federal judge approved a plan for coal company Cloud Peak Energy to exit bankruptcy last week, bringing the Wyoming-based company closer to resolving a Chapter 11 case that began in May. Although the court accepted the company's disclosure statement and plan, Cloud Peak still has additional steps to take before the case can officially close.

The coal operator owned three Powder River Basin mines and owed roughly $400 million in outstanding debt when it filed for bankruptcy. After filing its petition, the publicly traded company turned to the auction block, where it sold off the mines. The Navajo Transitional Energy Co. secured the winning bid for the mines and began operating them in October. In purchasing the mines, it also assumed $94 million in pre- and post-petition debts left behind by Cloud Peak. Though the new owner received a license to mine from Wyoming and Montana, it has yet to complete permit transfers, leaving Cloud Peak on the hook for more than $400 million in reclamation obligations.

Though the company will likely resolve its case soon, it will not technically dissolve, nor will it cease to exist.

More: *Billings Gazette*

## Exelon Appoints New Executive VP

Exelon last week appointed **Calvin G. Butler Jr.**, CEO of Baltimore Gas and Electric, as senior executive vice president of Exelon and CEO of Exelon Utilities, a role he has held on an interim basis since Oct. 15. Carim Khouzami, who was the senior vice president and chief operating officer of Exelon Utilities, will replace Butler as CEO of BGE. Both appointments were effective immediately.

In his new role, Butler will oversee Exelon's six local electric and gas companies that form the nation's largest utility company by customer count (approximately 10 million electric and gas customers).

Butler took over for former CEO Anne Pramaggiore, who retired on Oct. 15 amid a grand jury probe after the company received a subpoena seeking communications between Exelon and Illinois Sen. Martin Sandoval about its lobbying of the state legislature. Sandoval's home and offices were raided by FBI agents in September. His daughter was hired by Exelon's Commonwealth Edison during Pramaggiore's tenure.

More: *Exelon*; *RTO Insider*

## FERC OKs PECO Rate Settlement

FERC last week approved an uncontested settlement over PECO Energy's transition from a stated transmission rate to a forward-looking formula rate.

The commission had set the Exelon unit's proposed rate for settlement procedures following protests from Pennsylvania's Public Utility Commission and consumer advocate and the Philadelphia Area Industrial Electric Users Group. The commission's trial staff endorsed the settlement in August, noting the base return on equity of 9.85% was a 65-basis-point reduction from the 10.5% PECO had proposed.

FERC said consumers also will benefit from the "rate certainty" of PECO's 55.75% cap on equity. "The settlement agreement provides significant cost savings to customers through explicit reductions to numerous cost-of-service components, and an annual $850,000 rate credit expiring at the end of 2021," staff wrote. "Equally important, the settlement agreement reflects several formula rate mechanisms that enhance the transparency of PECO's formula rate."

More: *ER17-1519-002*

## FERC OKs PSCo's Interconnection Rules

FERC on Wednesday approved Public Service Company of Colorado's (PSCo) revised large generator interconnection procedures and interconnection agreement, saying the changes will address the backlog of more than 22,000 MW of requests in the utility's queue.

PSCo's "transition from a serial first-come, first-served approach to a clustered first-ready, first-served approach, should allow ready projects to proceed on a more accelerated basis while allowing less developed projects access to early information through the informational interconnection study and customer engagement window," the commission said.

FERC rejected the company's request for an exemption from federal regulations concerning the calculation of interest on cash security.

More: *ER19-2774*

## FERC OKs Waiver for Genbright DERs in FCA 14

FERC last week granted a limited waiver allowing four distributed energy projects of Genbright to participate in ISO-NE's Forward Capacity Auction 14 in February after they were inadvertently disqualified. Local distribution company Eversource Energy had misclassified them as subject to FERC interconnection jurisdiction rather than that of Massachusetts.

The commission found that Genbright, based in Hingham, Mass., and acquired last

May by Engie North America, "acted in good faith" to qualify for FCA 14 by complying with the deadlines and submittals required by the ISO-NE Tariff.

ISO-NE did not oppose the waiver, commenting that commission jurisdiction would have required each project to interconnect pursuant to the RTO's Schedule 23 small generator interconnection process to qualify for FCA 14. Because the four projects had applied to interconnect through the state-administered interconnection process, ISO-NE disqualified them from FCA 14. The commission granted a waiver of the procedural deadlines for participating in the auction.

More: *ER20-158*

### Ørsted Signs Record Deal for Offshore Wind Power

Ørsted signed a deal last week to sell 100 MW of power from a wind farm in the North Sea to Covestro, a German chemical company, in what the companies say is the biggest corporate purchase agreement for offshore wind.

The deal will supply Covestro with electricity for 10 years from the 900-MW Borkum Riffgrund 3 wind farm, which is set to be commissioned in 2025. Covestro will use the electricity for its factories in Germany. No price details were disclosed.

More: *Bloomberg*

### Residential Solar Company Stiffs Customers

Altaray Solar, a solar panel installer based in Utah, is in hot water with former customers who claim the company installed panels and did nothing else.

Claims range from the panels generating no energy to phone complaints going unanswered or falling into an endless hold-and-transfer loop. Furthermore, some customers claim the company never got the required permits for their installation. One couple in Minnesota is out $33,000, while others have taken out loans in order to pay for their initial costs. Not surprisingly, the company currently has an "F" rating from the Better Business Bureau (BBB).

"This is a company that was actually revoked. They were kicked out of the BBB because they were not answering and working with consumer complaints," said Jim Temmer, CEO of the Wisconsin BBB.

Since May, We Energies said it has received 30 applications from Altaray on behalf of homeowners waiting to generate solar power. However, the utility said no one can prove they have a functioning solar panel system and all of them remain offline.

More: *PV Magazine*; *WITI*; *KMSP*

# Federal Briefs

### Coal Power Becoming 'Uninsurable' as Firms Refuse Cover

The number of insurers withdrawing cover for coal projects more than doubled this year, leaving Lloyd's of London and Asian insurers as the "last resort" for fossil fuels, according to a new report.

Ten firms moved to restrict the insurance they offer to companies that build or operate coal power plants in 2019, taking the global total to 17, according to the Unfriend Coal campaign. The report was launched at an insurance and climate risk conference in London last week. The report, which rates the world's 35 biggest insurers on their actions on fossil fuels, declares that coal "is on the way to becoming uninsurable" as most coal projects cannot be financed, built or operated without insurance.

At least 35 insurers with combined assets of $8.9 trillion, equivalent to 37% of the industry's global assets, have begun pulling out of coal investments. A year ago, 19 insurers holding more than $6 trillion in assets were divesting from fossil fuels.

"We hope within two to three years, it will be so difficult to obtain insurance that most coal projects won't be able to go forward," said Peter Bosshard, an Unfriend Coal campaign coordinator.

More: *The Guardian*

### FirstEnergy Nukes to Get Operating Licenses Transferred

The Nuclear Regulatory Commission last week approved the transfer of the Davis-Besse, Perry and Beaver Valley 1 and 2 nuclear plants' operating licenses to Energy Harbor Corp., a new company being established to run and maintain the facilities once bankruptcy proceedings for FirstEnergy Solutions are completed. The commission said the transfer will become effective upon completion of the bankruptcy and formation of Energy Harbor.

Energy Harbor will wholly own Energy Harbor Nuclear Generation and Energy Harbor Nuclear Corp. The transfer is being made from FirstEnergy Nuclear Operating Co. and FirstEnergy Nuclear Generation Co., which have been part of FES. The FirstEnergy companies requested the transfer as part of the bankruptcy proceedings.

More: *The Toledo Blade*

### Experts Predict Global GHG Emissions to Hit Another Record High

Total carbon dioxide emissions from fossil fuels and industry are projected to total 36.8 billion tons in 2019, according to an estimate from the Global Carbon Project. The number represents a 0.6% increase from 2018, which until now stood as the record.

At the same time, U.S. emissions are projected to fall 1.7% in 2019 after rising the previous year, as coal is steadily displaced by natural gas and renewable energy. Emissions in the E.U. are expected to decline at a similar rate, as nations there also move away from coal. While emissions fell in those regions, they are projected to have grown in China (by 2.6%) and India (1.8%).

Global emissions have risen for three consecutive years. A recent report from the U.N. Environment Program detailed how off-target the world remains in its collective goal of limiting the planet's warming. The report said global emissions must fall by nearly 8% per year over the next decade to stay in line with the goal of limiting warming to just 1.5 degrees Celsius above preindustrial levels.

More: *The Washington Post*

### Natural Gas Companies Call for Carbon Tax

Natural Gas Supply Association President **Dena Wiggins** last week said member companies were unanimous in their support for creating a carbon price and suggested more industry companies were likely to follow.

The association said it is not lobbying for any one specific proposal but broadly supports putting a price on carbon while eliminating existing regulations on carbon and delivering revenues directly to U.S. consumers. Several individual oil companies, including ExxonMobil, BP and Royal Dutch Shell, have already said they support a carbon tax.

"It's such a huge, important national conversation, every trade association has to be thinking about it," Wiggins said. "We're likely not going to be the last. It might [help our image], but that's not why we did it. We think it's the right thing to do and want to be part of the conversation."

More: *Houston Chronicle*

### Turkey Point Nuclear Reactors Get OK to Run Until 2053

The Nuclear Regulatory Commission last week awarded final federal approval to Florida Power and Light to continue to operate its Turkey Point nuclear power plant through at least 2053. The decision was viewed as "unprecedented" as it extended the operating lifespan of the two nuclear reactors to 80 years. The utility's operating licenses, which the commission had already agreed to extend by two decades once before, will now expire in July 2052 and April 2053.

FPL has faced criticism and legal challenges over Turkey Point's aging cooling system, which created a massive saltwater plume encroaching into the adjacent freshwater aquifer. The plant then struggled with hot temperatures in the canal system after FPL finished a massive multimillion-dollar overhaul to boost power coming from the reactors in 2014. Three years ago, a study also found radioactive isotopes in high levels in nearby areas of Biscayne Bay. Since then, the utility has been under court order from the state Department of Environmental Protection to contain the spreading plume and prevent contamination of the water supply within 10 years. Critics of NRC's decision were disappointed it did not impose conditions to improve the plant's operations before obtaining the license renewals.

More: *Miami Herald*

### US Storage Market Rebounds in 3rd Quarter

The third quarter saw an increase in utility-scale storage projects, according to the Energy Storage Monitor report from Wood Mackenzie and the Energy Storage Association.

Front-of-meter storage deployments boomed compared to a lackluster second quarter, with Massachusetts deploying 58 MWh of systems. Vermont and Arkansas tied for second with 24 MWh apiece. This was up 121% compared to the second quarter. According to Wood Mackenzie, the year is expected to see a 10% growth in front-of-meter deployments.

In the behind-the-meter battery market, a decrease in commercial, industrial and other nonresidential deployments limited growth in the quarter. However, the quarter did see a record-breaking 40-MW increase in residential battery systems, with California deploying 46.4 MWh.

Pacific Gas and Electric's public safety power shutoff events are expected to drive residential battery sales in early 2020. The ongoing threat of power outages, combined with other key shifts in the state's regulatory policy, will contribute to record residential storage deployment next year, Wood Mackenzie Senior Storage Analyst Brett Simon said.

More: *GreenTech Media*

# State Briefs

## CALIFORNIA

### Planning Commission Approves Wind Farm South of Lompoc

The Santa Barbara County Planning Commission voted unanimously on Nov. 20 to approve the installation of 29 wind turbines on 3,000 acres of land south of Lompoc. The Strauss Wind Energy Project (SWEP) would double Santa Barbara's renewable energy production.

SWEP is an updated version of the Lompoc Wind Energy Project that was approved in 2009 but scrapped before construction began because of economic conditions. SWEP uses the same section of land originally approved and would create 29 turbines instead of the 65 that were approved in 2009 thanks to efficiency advances. The project would additionally include an on-site substation, a meteorological tower and a 7.3-mile transmission line connecting the site to the Pacific Gas and Electric grid in Lompoc via a new switching station.

SWEP now awaits several other permits and approvals required to move forward with construction. Strauss representative Daniel Duke stated that the project needs to be completed before Dec. 31, 2020, in order to obtain federal tax credits, and that Strauss would pull out of the project if further periods of study were required that could jeopardize completing the project by that date.

More: *Santa Barbara Independent*

### State Bans Insurers from Dropping Policies Made Riskier by Climate

The state last week enacted a new policy that imposes a one-year moratorium preventing insurers from dropping customers in or alongside zip codes struck by recent wildfires. The state also asked insurers to voluntarily stop dropping customers anywhere in the state because of fire risk for one year.

"People are losing insurance even after decades with the same company and no history of filing claims," said Ricardo Lara, the state's insurance commissioner. "Hitting the pause button on issuing non-renewals due to wildfire risk will help California's insurance market stabilize and give us time to work together on lasting solutions."

Natural disasters in 2017 and 2018 generated $219 billion in payouts worldwide, according to Swiss Re, a leading insurance company. At the same time, government regulators are trying to balance the need to protect consumers from high insurance rates with the need to keep insurance companies from going out of business. Research shows that the wildfires of 2017 and 2018 alone wiped out a full quarter-century of the industry's profits.

More: *The New York Times*

### State Cuts EV Rebates, Drops Luxury Models

Effective Dec. 3, state regulators stopped offering rebates for buyers of EVs or plug-in hybrid vehicles that cost more than $60,000.

The state Air Resources Board, the agency that regulates the program, also reduced the standard rebate by $500 per vehicle (from $2,500 to $2,000 for all-electric cars) and eliminated rebates for plug-in hybrid cars with an electric-battery range of less than 35 miles. Under the rules, low-income buyers will still be eligible for higher rebates, which are unchanged: $4,500 for all-electric cars and $3,500 for hybrids that run on a combination of gas and plug-in battery.

California leads the nation in EV sales and has issued rebates to 354,064 car buyers since the program began in 2011. About 5% of rebates have been earmarked for low- and moderate-income people, currently defined as those earning less than $50,730 for a household of two.

More: *San Francisco Chronicle*

## CONNECTICUT

### State Picks Vineyard Wind for Bridgeport Project

The state last week selected Vineyard Wind to develop a major wind power project that will advance the state's zero-emissions energy resources.

Vineyard will develop the 18.3-acre Park City Wind Project, which will provide 804 MW and represent 14% of the state's electricity supply, on a waterfront industrial property. The company will negotiate 20-year contracts with the state's electric utilities, Eversource Energy and United Illuminating, and is expected to bring the project online in 2025.

The company says it will build an operations and maintenance hub for the project that will generate power south of its planned Massachusetts project off Cape Cod.

More: *Hartford Courant*

## INDIANA

### Solar Field Approved by Utility Service Board

The Logansport Utility Service Board last week approved a planned 51,000-panel solar facility and a 30-year agreement with Inovateus Solar of South Bend to provide power to the city.

The 30-year agreement will lock in rates for Logansport for the electricity produced by the facility. After that, there will be a five-year period where the city can renegotiate rates and take over the project should Inovateus cease to exist. In the final five years, the city will have the option to purchase the land, create a new solar field or walk away completely.

More: *Pharos Tribune*

## MARYLAND

### Under Armour to Use Power from Solar Plant

Under Armour will power two of its sites in the state, including its headquarters, with electricity produced by a 3-MW solar PV array in Capitol Heights.

The 10.5-acre solar farm has a 12-year power purchase agreement with WGL Energy Services, which will provide its output exclusively to Under Armour.

More: *Renewables Now*

## NEVADA

### NV Energy Approved for Solar Projects, Storage

NV Energy last week said it had secured approval from the Public Utilities Commission for 1.19 GW of new solar power projects and 590 MW of energy storage capacity.

The additional solar capacity will come from three projects located in Clark County, which are scheduled to be operational by January 2024. The projects will help the company reach its goal of doubling its renewable energy capacity. Energy providers in the state are required by law to comply with a 50% renewable energy portfolio standard by 2030.

The projects include the 200-MW Arrow Canyon solar scheme, which has 75 MW of battery storage; an addition of 300 MW of solar power with 135 MW of storage within the Southern Bighorn Solar & Storage Centre; and the 690-MW Gemini solar farm with 380 MW of storage.

More: *Renewables Now*

## NEW HAMPSHIRE

### Sununu Moves State Closer to Advocating for Wind Projects

Gov. **Chris Sununu** signed an executive order last week creating four advisory boards to advise the U.S. Bureau of Ocean Energy Management's Offshore Renewable Energy Task Force as the state moves closer to advocating for offshore wind energy projects.

The advisory boards will deal with issues affecting fisheries, existing offshore industries, workforce and economic development, and the siting and transmission process that would lie ahead for projects. The task force's first meeting will be Dec. 12 at the University of New Hampshire.

"New Hampshire recognizes the tremendous potential that offshore wind power has to offer," Sununu said. "With today's executive order, New Hampshire will ensure that this is an open and transparent process involving diverse stakeholders to balance existing offshore uses with a new source of clean energy."

More: *New Hampshire Union Leader*

## NORTH CAROLINA

### Petition Filed over Utilities' 'Unlawful' Use of Ratepayer Funds

The U.S. Center for Biological Diversity last week submitted a petition to the Utilities Commission, arguing that customers' First Amendment rights are being violated when utility membership fees are used by trade associations for lobbying and political contributions. The petition is a response to the commission's proposed regulations released this August to stop investor-owned utilities from engaging in such practices.

Duke Energy has been specifically targeted because it is "the second-largest electric utility in the world, generates 90% of the electricity used in North Carolina and emits more carbon pollution than any other U.S. utility." The Edison Electric Institute was also singled out for "spending millions of dollars a year fighting air and water safeguards while propping up fossil fuels."

More: *PV Magazine*

# SOUTH DAKOTA

## PUC Approves Deuel County Wind Project

The Public Utilities Commission granted a construction permit for the Tatanka Ridge Wind Project last week. Once completed, the 56-turbine, 27,900-acre initiative would generate up to 155 MW of energy near the towns of Toronto and Brandt in Deuel County.

The commission previously accepted a settlement agreement presented by Tatanka Ridge and PUC staff, with issues not addressed in the settlement, such as funding for decommissioning, risk associated with ice throw, cumulative sound impacts and the potential impacts to whooping cranes. The commission recently met to rule on those matters and deemed the project permit ready.

More: *Daily Energy Insider*

# WASHINGTON

## Avista Moves Away from Coal in a Proposed Rate Settlement

In a proposed settlement that will set higher electricity and gas rates for Avista customers, the utility has proposed several measures that signal its move away from coal power.

The company will pay off the debt on its portion of the Colstrip coal-power plant in Montana about a decade earlier than planned and will not support any upgrades that would keep the plant going after 2025, according to the settlement. The settlement, which still needs to be approved by the Utilities and Transportation Commission, also proposes a $3 million contribution to a community transition fund for Colstrip.

The settlement also includes electricity and gas rate increases that are lower than Avista's initial proposal. The company's electric revenues would increase 5.7%, while natural gas revenues would increase by 8.5%.

The commission does not have to agree to all elements of the settlement, which is expected to go to a hearing before April.

More: *Inlander*