RTO Insider

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



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EPA Finalizes CPP Replacement

Seeks Efficiency Improvements; Fuel Switching Out

By Rich Heidorn Jr.

The Trump administration on Wednesday finalized its repeal of the Obama administration's Clean Power Plan, saying its replacement will correct its predecessor's overreach of the Clean Air Act and restore power to the states.

Under the Affordable Clean Energy (ACE) *rule*, EPA has determined that the best system of emissions reductions (BSER) is heat-rate efficiency improvements that can be achieved at individual coal plants, not the "beyond the fence line" generation-shifting, fuel-switching and state emission caps required under the CPP.

EPA proposed the ACE rule last August. (See EPA: CPP Replacement Could Boost Coal-Fired Power by 6%.)

EPA Administrator Andrew Wheeler said in a *statement* that U.S. power sector CO₂ emissions

will fall by as much as 35% below 2005 levels after ACE's full implementation. But most of the reductions will result from industry trends toward renewables and natural gas and away from coal.



Andrew Wheeler | © RTO Insider

The agency outlined

the proposal at a press briefing Wednesday, insisting the briefing leader be referred to only as a "senior EPA official." The official said EPA rejected carbon capture and sequestration as "not technically feasible and not cost effective," although it said states could impose such requirements on their own.

The official dismissed comparisons with the CPP as "fictitious" because it was never imple-

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SPP's Western EIS Market Poised to Challenge EIM

By Tom Kleckner and Hudson Sangree

SPP has raised the stakes in what could shape up to be a long-term competition to win over the Western electricity market one service at a time.

The RTO on June 17 announced it will launch its Western Energy Imbalance Service (WEIS) market in December 2020, offering to provide real-time services to balancing authorities across the Western Interconnection.

The move will put SPP toe-to-toe with CAISO's well established and ever expanding Energy Imbalance Market.

SPP said it will administer the WEIS on a contract basis, allowing non-SPP members to participate in much the same way non-CAISO members voluntarily trade in the EIM. Participation would be open to entities with load or generation within — or pseudo-tied into — a participating balancing authority.

The RTO said it is building on its previous success with regional markets to offer a *variety*

of services to Western entities. As if to punctuate the point, it has even developed a new logo for its Western Energy Services portfolio, which includes its forthcoming reliability coordina-

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2019 IESO Electricity Summit



IESO CEO Peter Gregg addresses the grid operator's Electricity Summit in Toronto on June 17, 2019. (p.3) | © RTO Insider

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2019 IESO Electricity Summit

Overheard at 2019 IESO Electricity Summit

TORONTO — Facing many of the same challenges as its counterparts in the U.S., Ontario's Independent Electricity System Operator (IESO) is reshaping its markets to handle an influx of renewable and distributed energy resources.

That transformation was a key topic of discussion at the IESO's annual Electricity Summit held June 18-19. Billed as the "Electricity Market of the Future," the event drew nearly 1,000 attendees. Here's some of what we heard.

Market Benefits



Peter Gregg | © RTO Insider

In his opening remarks kicking off the summit, IESO CEO Peter Gregg said his staff will spend the next six to 12 months focused on finalizing the "Energy Stream" initiative within the grid operator's broader Market Renewal Project (MRP),

an ambitious multiyear effort to overhaul its markets.

The initiative will close the timing gap between IESO's pricing and dispatch runs by introducing a single-schedule market to ensure prices better reflect actual system conditions at the point of dispatch. The effort will also refine real-time processes while introducing a new day-ahead market and an incremental capacity auction intended to replace the existing demand response auction. (See Stressed in US, Capacity Markets Come to Ontario, Alberta.)

Gregg said IESO is working to address concerns among DR providers about the upcoming capacity auction changes that will enable competition between additional resource types.

"We will also be focused on running the next two auctions in December of this year and June of next year and making ineligible [for participation] additional resources such as



Kathleen Spees | © RTO Insider

generators who are without a contract and also including imports," said Gregg, who is also on NERC's Member Representatives Committee.

Brattle Group principal Kathleen Spees said MRP's main benefit



IESO CEO Peter Gregg addresses the grid operator's Electricity Summit in Toronto on June 17. | © RTO Insider

will be to give customers choices on energy prices and services. It will also provide "much more efficient pricing, at every time scale, in the energy and ancillary services markets so that the supply side of the market knows how

to react."



Leonard Kula | © RTO

"These markets allow us to achieve reliability in an efficient manner ... they don't exist for the sake of having markets," IESO COO Leonard Kula said.

Kula noted that when IESO opened its whole-

sale electricity market in 2002, it moved from an Ontario Hvdro

command-and-control structure to a system based on a five-minute, financially binding price.

"And we were able to make that transition because we provided a whole lot of information and data in support of it, so we had daily security inadequacy assessments, 18-month outlooks and a whole variety of products,"

Kula said. "That data supports a distributed decision-making model that allows different people to go in, read that information and respond accordingly."

MRP represents a greater opportunity for participation in Ontar-



Joe Oliver | © RTO

io's electricity markets. IESO Board Chair Joe Oliver said.

"What started as a small club has now grown to almost 600 market participants," Oliver said. "Last year, nuclear and hydro met 86% of the province's electricity needs, but other resources were important, too, including non-hydro renewables and demand response resources, with wind at 7%, gas at 6%, and solar and biomass at 0.7%."

The result is that Ontario's electricity system was more than 93% carbon-free in 2018. compared to 56% in New York, 49% in New England, 40% in PJM and 24% in MISO, he said.

But creating such an exceptionally green system "has exacted a financial toll on ratepayers," Oliver said. "The so-called Fair Hydro Plan artificially lowered costs for residential customers by about a quarter by pushing costs to taxpayers now, and potentially to ratepayers in the future. Still, affordability remains a problem for too many families of lesser means."

The federal government authorized the billreduction plan in 2017 through the Ministry of Energy, Northern Development and Mines, but the reduced rates do not apply to industrial

Oliver cited a *study* by Hydro-Québec that found industrial customers in Toronto paid an average 10.66 cents/kWh (about 8.1 cents U.S.), higher than in other Canadian cities and 20 to 25% more than companies in U.S. cities.

Nuclear and hydro in Ontario cost 7.5 cents/

2019 IESO Electricity Summit

kWh, while new resources in the province cost an average 40 cents/kWh, which is why residents pay on average 12 cents/kWh, he said.

"Happily, wind and solar prices will decline ... and that's relevant because the IESO is now agnostic about the sources of power and it values the competition," Oliver said.

Why Stay Connected?

In his opening comments, Gregg also highlighted a *report* issued this month by the Energy Transformation Network of Ontario (ETNO) on the structure of the grid with increasing penetration of DERs.

The report acknowledges "strong differences of opinion" among stakeholders as to what market model will work best for both consumers and private industry, and that IESO will have to balance between a "natural monopoly" in areas such as grid operations and local distribution, and open competition in new, value-added services.

During a panel on the subject, ETNO Vice Chair David McFadden, president of Generation Four Capital, noted that while consumers value reliability ahead of price, they are still sensitive to price. If new products and ser-



David McFadden | © RTO Insider

vices "generate customer benefit in terms of price, then we've delivered what customers are

interested in," he said.



Lorenzo Kristov | © RTO Insider

Independent consultant Lorenzo Kristov, a former CAISO market designer, posed a basic question that he said industrial customers will be asking themselves: Why stay connected to the grid?

"If the costs of being part of the grid outweigh the benefits, then we'll have real equity problems," Kristov said. "It will be the more financially capable and larger customers that are going to leave the grid first, and leave the cost of that to everyone else."

He pointed to one reason to stay connected: market opportunities.

"In particular, if you can install equipment behind the meter, and then be a participant in the market, providing grid services, getting compensated for non-wires alternatives, en-



Left to right: Katherine Sparkes, IESO; Lorenzo Kristov, ESP; Sanem Sergici, Brattle Group; and David McFadden, Generation Four. | © RTO Insider

gaging in energy transactions — creating that marketplace is also a way to realize customer value and reduce rates," Kristov said.

Role for Storage



Christy Walsh | © RTO Insider

Christy Walsh, director of FERC's Office of Energy Policy and Innovation, discussed the commission's efforts to overcome market barriers for energy storage. She said storage posed a challenge for policymakers because it blurs the lines between

transmission and generation, and between market-based energy and ancillary services.

FERC Order 841 directed U.S. RTOs and ISOs to remove barriers to the participation of electric storage resources in their capacity, energy and ancillary services markets, and set a Dec. 3, 2019, deadline for them to comply.

One major issue that "we issued an order on last month was jurisdiction, which essentially means that any storage resource that met our definition ... can participate in the wholesale markets, and it didn't matter whether that storage resource was connected at transmission, at distribution or behind the meter," Walsh said. (See FERC Upholds Electric Storage Order.)

Industry stakeholders had protested that FERC lacked jurisdiction to make rules on distribution-level or BTM storage.

"What we essentially said was, 'We disagree with you," Walsh said. "All we're saying is, if they participate at retail, they can partici-

pate in our markets. We're not saying how or whether they can participate in retail markets."

Increased penetration of inverter-based technologies presents a special challenge to IESO because inverters represent a different system impact in terms of inertia, Kula said.

"Many technologies can provide multiple services," Kula said. "The question is, who should decide what services those resources should provide? From our perspective, we favor a model that says, here are the reliability services that we need. We can't anticipate all the different ways that people can use those technologies, so we would prefer that the people who own the assets and do know those technologies can go ahead and target their operations to meet what the system needs."

"We really do need to be more creative in performance," said Annette Verschuren, CEO of storage company NRStor. "We have a little flywheel facility with the IESO ... and it can produce frequency regulation two-and-athird times faster than a traditional generation facility."



Annette Verschuren | © RTO Insider

"We have too much surplus energy in our system," Verschuren said. "And energy storage is not the [only] answer; it's also demand-side, all kinds of energy efficiencies. Look, we invented basketball in Canada, and we also had the first NBA game with the Huskies here in Toronto in 1946 ... and I think we should own innovation."

– Michael Kuser

FERC/Federal News



EPA Finalizes CPP Replacement

Seeks Efficiency Improvements; Fuel Switching Out

Continued from page 1

mented and was stayed by the Supreme Court.

"It's a fantasy to say there's any real comparison here. But even if you were to try and compare ... even if we were to implement CPP beginning today, it would produce no real change in the glide path that the industry is on right now," he said.

That's because the CPP's implementation was blocked, the official acknowledged, and because "the world keeps changing around us. There are fundamental changes occurring in the power sector that have nothing to do with our regulation and have everything to do with market economics and the shale gas boom. There's a pronounced move out of coal and into gas; there's a pronounced move into renewables for reasons unrelated to the price

The official said the ACE rule is, in part, a recognition of state's rights.

"The Obama administration actually imposed emission-reduction obligations on each and every state. We think that's not EPA's role," he said. "We're revising the framework regulations primarily to make it abundantly clear that we, as the federal government, identify [the] best technology; states ... develop the emissions limits ... and then we review and approve. The Clean Power Plan was way too federal-heavy, and this part of the ACE final rule is going to rebalance the relative role of the states and federal government."

The new plan will cover about 600 coal-fired generating units at 300 facilities.

States will have three years from the date of the final rule to submit their plans for EPA approval, compared with nine months under the CPP. EPA will have 12 months to approve or reject state plans, up from four months under CPP. For states that fail to submit an approvable plan, EPA will have two years to develop its own plan, up from six months.

New Source Review

In its ACE proposal last year, EPA also proposed allowing states to adopt an hourly emissions increase test for determining whether power plant upgrades are a "major modification" triggering a new-source review under CAA Section 111d. Only projects that



Trimble County 1, a 514-MW coal-fired unit between Louisville and Cincinnati | © RTO Insider

"The Obama administration actually imposed emission-reduction obligations on each and every state. We think that's not EPA's role."

Senior FPA official

increase a plant's hourly rate of pollutant emissions would need to undergo a full NSR analysis, which could result in additional pollution controls.

Under current rules, an NSR review can be triggered if annual emissions increase because of increased dispatch even if hourly emissions drop — putting it in conflict with the ACE plan, the official said.

"Our projection is that the cost of having to go through the permitting process and the cost of corresponding emission controls and measures would make an otherwise viable efficiency project not viable and not sustainable under a state plan."

The official said EPA will be back within several

months with a final revision to the NSR regulations. "We fully intend to finalize the newsource review fix, but frankly with everything we have in the final [ACE] rule, we've bitten off as much as we can chew."

The official was asked about studies predicting that up to 28% of coal plants will increase their total emissions because the efficiency improvements will improve their competitive-

"We project at full implementation that emissions from the sector are going to decrease." the official said. "It's entirely possible that for some individual [plants], emissions may go up. But even if they go up based on greater utilization, the emissions rate will go down because that's what this regulation would require."

Reaction

Reaction to the plan was unsurprisingly split.

Coal lobbying group ACCCE called it a "sensible and legally sound approach to regulating carbon dioxide emissions from the nation's coal fleet."

"We are especially pleased the ACE rule provides flexibility to set reasonable carbon dioxide standards that do not force the premature retirement of more coal-fired generating units." ACCCE CEO Michelle Bloodworth said. "For that reason, we commend EPA for not attempting to use environmental regulations to drive energy policy."

U.S. Rep. Bill Johnson (R-Ohio) said the rule shows President Trump making good on his

FERC/Federal News

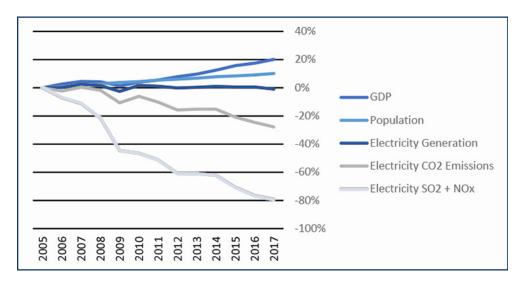


promise to end "the War on Coal."

"The current leadership at the EPA understands we can have smart environmental regulations and protect coal jobs and our economy at the same time," he said in a statement.

Rhea Suh, president of the Natural Resources Defense Council, vowed to fight the plan in court. "President Trump's dirty power scheme would do nothing to address the rising economic costs and the increasing dangers wrought by climate change," she said. "Instead, it would give polluters free rein and doom future generations to a dangerously hostile world."

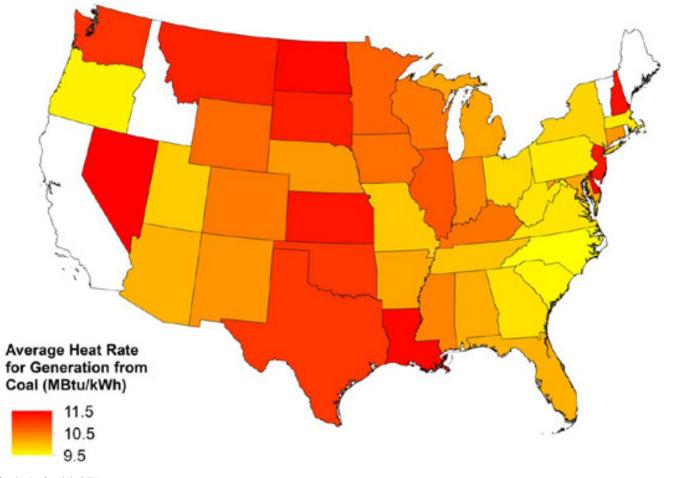
Analysts at ClearView Energy Partners noted that parties will have 60 days from the rule's publication in the Federal Register to appeal, meaning the Trump administration would still be in office to defend the rule. "If there are significant delays to the pace of the appeal, the potential that a differently minded administration (should one be elected in 2020) could mount a less aggressive defense or reconsider the rulemaking (as the EPA under the Trump



EPA included this graph on a fact sheet about the new ACE rule to show power sector CO, emissions were already decreasing without the Obama administration's Clean Power Plan. | EPA

administration did) could grow."

ClearView said the rule does not prevent states from enacting higher renewable portfolio standards or other climate measures. "Indeed, we think the less stringent replacement for CPP may further galvanize subnational decarbonization efforts," they said.



Coal heat rates by state | EIA

FERC/Federal News



LaFleur Announces Departure Date

FERC Commissioner Cheryl LaFleur on Thursday announced via Twitter that she would leave the commission at the end of August.

"After nine amazing years, I will be leaving FERC at the end of August," LaFleur said in her tweet, which came in the afternoon, after the commission's monthly open meeting. "The July open meeting will be my last, and I have a lot of people to thank. I am looking forward to the future, but no announcements on that at this time." FERC does not hold open meetings in August.

LaFleur's current term — her second — ends June 30, but by law she is allowed to serve past that date until the Senate confirms a replacement or the end of the current session of Congress. She first announced her impending departure in late January. (See LaFleur Announces Departure from FERC.)

The commission will be down to three members once she leaves, restoring its Republican majority.

"FERC was designed as a five-member commission, and I urge the administration to



FERC Commissioner Cheryl LaFleur speaks at the Energy Bar Association's annual meeting in May. | © RTO Insider

move quickly to nominate individuals to fill the two open seats simultaneously in a bipartisan manner," said Sen. Joe Manchin (D-W.Va.), ranking member of the Senate Energy and Natural Resources Committee. "I look forward to reviewing the nominees ... so we can restore a fully functioning commission."

"During her nine years of service, Commission-

er LaFleur has been a source of wisdom and stability at FERC," Chair Neil Chatterjee said in a statement. "I will never forget the kindness she offered me when I came to the commission. She and her staff did not hesitate to show me the lay of the land as I stepped into this new role." ■

- Michael Brooks

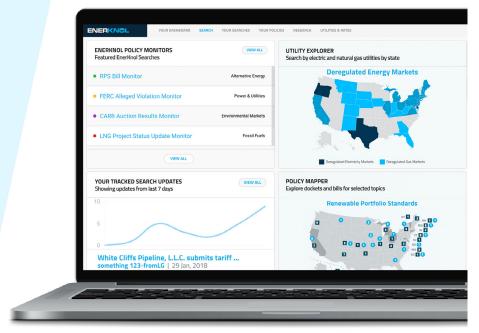
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Patchwork of Carbon Policies Troubles Western EIM

Divide Between Coastal and Mountain States Discussed

By Hudson Sangree

FOLSOM, Calif. – A carbon workshop hosted by the Western Energy Imbalance Market's Regional Issues Forum on June 18 underscored how West Coast and Intermountain states can be uneasy partners in CAISO's real-time energy market.

California has a well established cap-and-trade program. Oregon is poised to adopt one.

Washington voters rejected a carbon fee bill last year, but the state has pursued aggressive carbon-reduction policies much like California's, including a 100% clean-energy mandate. (See Western States to Tackle Wildfires, Renewables, EIM Told.)

Some states between the Sierra Nevada and Rocky Mountains, however, have no official carbon policies and continue to burn coal as a significant power source.

Carl Zichella, Western transmission director for the Natural Resources Defense Council, said the EIM has consistently proven its economic benefits since it started in 2014. Its diverse members — eight participants across eight Western states — are "like dogs and cats lying down together," he said, referring to the fact that investor- and publicly owned utilities with different business models are working together to capture the benefits of a regional market under the EIM's framework.

But notable regional differences emerged during a daylong discussion of how to reconcile disparate carbon policies in a centralized energy market such as the EIM. CAISO's largest meeting room was unusually crowded for the event.

While Californians worried about accounting for carbon leakage in interstate transfers, representatives of Mountain states urged their coastal counterparts to keep politics out of a market that so far has produced more than \$650 million in benefits for its voluntary participants across the West.

"I think that adding policy into an economic universe, when you're bringing in more and more states with diverse policy interests, makes the system more fragile," said Idaho Public Utilities Commissioner Kristine Raper, a frequent critic of California trying to export its environmental policies to other parts of the West. (See Overheard at Transmission Summit

West.)

She said adding politics into the EIM was like stretching a rubber band thinner and thinner until it's at the point of snapping.

"The EIM is clearly an economic benefit to its customers," but the more policy that is added on, the "more tenuous it gets," she said.

Utah Public Service Commissioner Jordan White said he thought trying to incorporate carbon policy into the market runs the risk of undermining its ability to optimize energy use among states with and without carbonreduction goals.

"I hope we don't erode the efficiency we've achieved so far." he said.

Neither Utah nor Idaho have cap-and-trade or carbon-reduction programs. Some Mountain states are becoming more progressive, however. New Mexico recently joined the growing list of states, including California and Nevada, to adopt goals of relying on 100% clean energy by midcentury. (See New Mexico Moves Toward Clean Energy, EIM Participation and Washington, Nevada Join 100% Clean Energy Movement.)

Sarah Cottrell Propst, New Mexico's secretary of energy, minerals and natural resources, said that under Democratic Gov. Michelle Lujan Grisham, the state is pursuing environmental

policies like those farther west. They include providing financial support to utilities that close coal plants and reducing methane emissions from natural gas and oil production.

Public Service Company of New Mexico, the state's largest utility, has committed to achieving the state's 100% clean-energy mandate five years ahead of schedule, in 2040, she said. The state's ample wind and solar production, which exceeds the needs of its relatively small population, will be a major export commodity in the EIM, she said.

"New Mexico is really roaring back in terms of policy and creativity," Propst said.

California Public Utilities Commissioner Clifford Rechtschaffen took issue with the idea that the energy market would be undermined by policy directives. The CPUC has been dealing with legislative mandates for the past decade without undue problems, he said.

CAISO Vice President Mark Rothleder agreed it would be optimal to have a united carbon policy across the West but said the obstacles may be too difficult to overcome, especially with the EIM expected to add day-ahead trading to its current real-time-only market.

"We need to coordinate on what the overall objectives are," Rothleder said. "Let's move forward in a thoughtful way."



A panel on state carbon policies featured (left to right) Brad Cebulko, Washington Utilities and Transportation Commission; Glenn Blackmon, Washington Department of Commerce; Lauren McCloy, Washington governor's office; and Sarah Cottrell Propst, New Mexico secretary of energy, minerals and natural resources. | © RTO

CAISO/West News



BPA Marches Toward EIM Membership

By Hudson Sangree

The Bonneville Power Administration took another significant step toward membership in CAISO's Western Energy Imbalance Market on Thursday, when it formally kicked off a monthlong public comment process that it hopes will lead to signing an implementation agreement in September.

The federal power marketing agency sent a letter to stakeholders informing them of the move after conducting outreach and meetings since last July and working through a number of stakeholder concerns.

Moving into the homestretch of signing the EIM agreement is "a pretty big milestone, I think," Steve Kerns, BPA's director of grid modernization, told RTO Insider. "It pretty much memorializes everything we've talked about at our stakeholder meetings for the last year." (See BPA Stays on Track to Join the Western EIM.)

BPA projects additional annual power revenues of \$29 million to \$34 million from EIM membership, according to the letter signed by CEO Elliot Mainzer.

"There are also significant benefits for transmission reliability and operations due to the improvement in situational awareness, visibility and congestion management associated with participation in the EIM," Mainzer wrote. "This is consistent with the goal of using the transmission system more efficiently."

BPA owns and operates three-quarters of the



BPA owns 15,000 circuit miles of high-voltage transmission lines in the Pacific Northwest, including in Klickitat County, Wash. | © RTO Insider

high-voltage transmission lines in the Pacific Northwest, and its footprint occupies an area larger than the size of France, encompassing the drainage areas for the Columbia and Snake rivers.

Its assets include 31 hydroelectric projects, such as the 7.079-MW Grand Coulee Dam and the 2.614-MW Chief Joseph Dam. It supplies electricity to 143 electric utilities that serve millions of customers in Washington, Oregon, Idaho, Montana, California, Nevada, Utah and Wyoming.

BPA would be the largest transmission owner and hydroelectric provider in the EIM, Kerns

The EIM is a real-time wholesale energy trading market whose voluntary participants in eight Western states have reaped more than \$650 million in benefits since it started in 2014, according to CAISO. (See Cold Forces NW to Dip More Deeply into EIM as Avista Joins.)

In addition to CAISO, the EIM's current members are Arizona Public Service, Idaho Power, NV Energy, PacifiCorp, Portland General Electric, Powerex, Puget Sound Energy and the Sacramento Municipal Utility District.

Other entities scheduled to begin participation include Seattle City Light and Arizona's Salt River Project, both in 2020; the Los Angeles Department of Water and Power, North-Western Energy and Public Service Company of New Mexico, all in 2021; and Avista and Tucson Electric Power, in 2022.

The BPA said it hopes to make a final decision in 2021 and to go live in 2022.

The public comment period runs through July

"Bonneville will use the input from comments to develop a record of decision planned for release in September," Mainzer told stakeholders in his letter. "If the decision is to sign the implementation agreement, the next steps will include implementation activities and further stakeholder processes for the additional policy development, leading to needed changes to the Tariff and rates...

"All this activity will build up to Bonneville making a final decision on whether to join the EIM in late 2021," he said. ■



BPA's McNary Dam spills on the Columbia River on the border of eastern Oregon and Washington. | © RTO Insider

CAISO/West News



NW Price Spike a 'Wake-up Call,' Ex-BPA Chief Says

By Hudson Sangree

The Pacific Northwest's March 1 price spike "should serve as a wake-up call" of the region's coming capacity shortage, power industry consultant and former Bonneville Power Administration chief Randy Hardy warned in April.

Hardy *reported* that bilateral March 1 dayahead peak prices at the Mid-Columbia trading hub broke \$900/MWh, driven by natural gas prices of \$160/MMBtu. By comparison, CAISO day-ahead prices that day ranged from about \$38 to \$82/MWh, holding that high for only one evening interval. (See *Cold Forces NW to Dip More Deeply into EIM as Avista Joins.*)

On Wednesday, the Western Electricity Coordinating Council Board of Directors received a briefing from Operating Committee Chair Richard Hydzik on preliminary findings of the OC and the Market Interface Committee regarding the



Richard Hydzik | © RTO Insider

event. "The question was, was there a capacity issue related to this?" asked Hydzik, principal transmission operations engineer with Avista.

The answer is still up in the air. Hydzik noted the region had adequate reserves during the event, and his presentation focused on the temporary supply constraints.

The event occurred during the first week of March, with unusually low temperatures that were closer to those in a typical January. The cold snap led to high demand for natural gas and electricity. At the same time, utilities were doing maintenance or had taken assets out of service during a time that normally sees lower demand.

Hardy's report noted that the high prices "and the capacity shortage that they reflected, occurred despite all the soon-to-be retired PNW coal plants operating at maximum capacity."

Hardy cited research by analysts E3 that predicts load growth and announced coal plant retirements could leave the PNW with an 8-GW capacity deficit by 2030 without new dispatchable capacity. That would increase the region's loss-of-load probability (LOLP) to 48%, he said, noting that WECC utilities' normal reliability standard is a 5% LOLP.

Hardy said the situation is complicated by moves by Oregon and Washington lawmakers to prevent the building of new gas-fired generation. Hardy said the region could be limited to wind and solar for new energy resources and batteries and pumped storage for new capacity.

Shoulder Month Surprise

Hydzik told the WECC board the March 1 price spike was attributable in part to a lack of south-to-north transfers on the DC Pacific Intertie, which was down for maintenance. A major gas pipeline moving fuel from British Columbia into Washington was running at 80% capacity because of an explosion last fall, and one 730-MW unit at the coal-fired Centralia (Wa.) plant had been taken offline. Balancing authorities were serving native demand and limiting exports.

"So, this is March. Typically, it's a shoulder month," Hydzik said. "Six months earlier you plan all of your maintenance to be out of this stuff [before summer demand hits]. Once you take some of these facilities down, you cannot quickly restore them, and you're simply out of service."

But the BAs and the Northwest Power Pool Reserve Sharing Group had ample reserves. No emergency alerts were called, and transfers were flowing into the region. BC Hydro "saw this coming," Hydzik said, and sent an additional 2,000 MW into the U.S. from Canada, reversing the predominant flows on the BC Intertie as the utility's Powerex marketing arm reduced purchases and boosted exports to take advantage of the surging market.

"Good for them," he said. "Maybe not so good if you're south of the border. ...

"So, what did we find so far?" he said. "Every-

one in the Northwest had more than adequate reserves. ... Just because something was expensive doesn't mean it wasn't available."

Gas supplies were constrained, and coal plants and other resources have been retired. Additional findings will be presented at a future meeting, he said.

Director Jim Avery said the situation had raised concern at WECC and may be a sign of things to come.

"Here we are in the shoulder months experiencing some of the bigger problems," Avery said. "These are going to become the new norms.

"We're going to have different resources that perform differently in different seasons," he said. "And yet we've been operating the system the same, and that is, 'Well, shoulder months, that's when we do our maintenance.' We're going to have to rethink that because during peak load conditions in the middle of the day, we may have an abundance of resources [such as solar] that we've never had before. And that's just the new norm."

Hydzik said he agreed with Avery's comments.

Hardy offered several potential actions to respond to the capacity shortage, including adding transmission to access Montana or Wyoming wind power; an overhaul of "fossil fuel era" planning and operating metrics; and incentives for ramping resources.

A lack of action would leave the region praying "for rain and mild weather," Hardy said.

"Murphy's law predicts that the next low water year in the PNW will arrive in 2025 as peak coal plant retirement occurs and the PNW [integrated resource plans] defer decisions on construction of new resources waiting for the next cost reduction in carbon-free capacity."



Pacific DC Intertie at The Dalles | © RTO Insider

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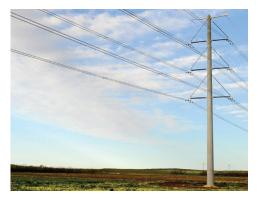
NextEra Takes Texas to Court over ROFR Law

By Tom Kleckner

NextEra Energy on June 17 filed a federal lawsuit challenging the constitutionality of a recent Texas law giving incumbent utilities the right of first refusal (ROFR) to build transmission projects in the state.

The suit argues that *Senate Bill 1938*, which was signed into law May 16, causes "injury" to NextEra's subsidiaries by preventing their entry into Texas' transmission development marketplace as regulated utilities. It said the bill also interferes with the companies' ability to plan, invest in and conduct business operations in the ERCOT, MISO, SPP and Western Electricity Coordinating Council regions of the state (1:19-cv-00626).

"This case is about the very type of economic protectionism the Constitution was designed to prevent," NextEra wrote, contending that SB1938 violates the U.S. Constitution's Commerce and Contracts clauses.



NextEra Energy Transmission could find itself locked out of the Texas market. | NextEra Energy

Filed in the U.S. District Court for the Western District of Austin by NextEra Energy Capital Holdings (NEECH), the suit names Texas Attorney General Ken Paxton and Public Utility Commissioners DeAnn Walker, Arthur D'Andrea and Shelly Botkin as defendants. They have 21 days to file a response.

The lawsuit also calls out state lawmakers for caving to the interests of incumbent transmission owners and reversing a "long and successful history of holding itself as open for business" to new transmission entrants that didn't already own transmission or hold PUC certificates of convenience and necessity (CCNs) to provide service.

"Despite this history, after facing competition, several of Texas' traditional transmission and distribution utilities successfully lobbied the Texas Legislature to effectively close the border to further new entrants," NextEra wrote. "The resulting law is discriminatory on its face, by preserving the opportunity to invest in and provide service over new transmission facilities in the state solely to entities that already own facilities and hold a certificate." The law is intended to benefit local entities that already hold "the sole right to build transmission lines ... in Texas, even when those transmission lines deliver power in interstate commerce," the company said.

SB 1938 grants CCNs to build, own or operate new transmission facilities that interconnect with existing facilities "only to the owner of that existing facility." (See *Texas ROFR Bill Passes*, *Awaits Governor's Signature*.)

As written, the legislation endangers a pair of transmission projects previously awarded to

NextEra subsidiaries.

NextEra Energy Transmission (NEET) Midwest last November won a competitive bid from MISO for the Hartburg-Sabine project in East Texas, which would consist of a new 500-kV line, four 230-kV lines and a 500-kV substation. MISO executives on June 18 acknowledged that the congestion-relieving project "may face challenges as a result of recent Texas legislation," casting its future into doubt. (See related story, *Uncertainty Deepens for Hartburg-Sabine Project*.)

NEET Southwest has a CCN application pending before the PUC to transfer ownership of 30 miles of 138-kV facilities from Rayburn Country Electric Cooperative in SPP's region of East Texas.

In contesting the bill before its passage, NextEra had countered concerns by legislators that out-of-state transmission companies might be less reliable than in-state companies by pointing to the Texas' Competitive Renewable Energy Zone buildout, a \$7 billion effort that resulted in 2,800 miles of new transmission facilities. NextEra said the "small number" of out-of-state companies brought into ERCOT to run CREZ lines has "successfully shown that out-of-state new entrant transmission service providers are just as reliable as in-state traditional transmission and distribution utilities."

Joining NEECH as plaintiffs in the lawsuit are NEET, NEET Midwest, NEET Southwest and Lone Star Transmission, which built 330 miles of 345-kV transmission lines for ERCOT as a part of CREZ.

The PUC declined to comment on the lawsuit. ■







ERCOT News



ERCOT Briefs

IMM's Garza Shares Market Insights with **GCPA Audience**

HOUSTON — Beth Garza's annual visit to the Gulf Coast Power Association's Houston chapter Thursday once again drew a roomful of electric industry insiders and observers hoping to glean insights into the state of the ERCOT market.

But first, Garza, director of ERCOT's Independent Market Monitor, had to remind her luncheon audience what her role is. Asked about her expectations of the market's performance during the summer, Garza responded, "The cool thing about my job is that it's the Market Monitor, not the market predictor."

Garza did allow that forward prices do show a "moderation of expectations" for the summer. She shared a slide that showed ERCOT's North Hub futures for August at around \$120/MWh and the July futures at around \$70/MWh.

A year ago, August futures briefly eclipsed \$250/MWh in May, when the reserve margin was 11%. It is now down to 8.6%.

"It's been a wet spring, and wet springs tend to portend not-that-hot summers. I think we will see similar outcomes in the summer of 2019," she said, echoing ERCOT's weather forecast. (See "Staff Prep Directors for Summer Expectations" and "IMM Market Report: Load Continues to Climb," ERCOT Board of Directors Briefs: June 11, 2019.)

ERCOT says it expects to use emergency measures this summer to meet a record forecasted



GCPA luncheon audience listens to IMM's Beth Garza. I © RTO Insider

peak demand of 74.9 GW, more than last summer's all-time system peak of 73.5 GW. The grid operator has an available capacity of 78.9 GW.

The Monitor's State of the Market *report* notes ERCOT's load grew at a 5.3% clip last year. ER-COT expects the growth to continue at a 2.5 to 3% rate through 2022, when peak demand is projected to hit 84.1 GW.

"This continued growth puts us on a path of

being short," Garza said. "If you look at installed capacity ... the resources we have today will be insufficient to serve projected load in 2021."

One luncheon guest asked Garza whether batteries and other forms of energy storage could play a major role in the market.

"The difficulties and challenges around batteries are numerous and hard," she said. "ERCOT is not alone in the RTO world in wrestling with those questions and trying to figure out what the right answers are. I don't have easy answers, because there are no easy answers."

74-MW Wind Farm to Retire in November

ERCOT on Thursday approved West Texas Wind Energy Partners' request to shut down a 74-MW wind farm in Southwest Texas. The grid operator said its reliability analysis indicated the facility was no longer needed to support system reliability.

The Southwest Mesa Wind Energy Center will be decommissioned and retired permanently in November.

Southwest Mesa began commercial operation in 1999. With nearly 22.1 GW of installed wind in ERCOT's footprint as of April, the facility's retirement will represent a 0.33% cut in wind capacity.



The Southwest Mesa Wind Energy Center | NextEra Energy Resources

- Tom Kleckner



ISO-NE Planning Advisory Committee Briefs

2nd Maine Integration Study Sees Dropouts

WESTBOROUGH, Mass. — Several projects in Northern and Western Maine have withdrawn from the interconnection queue since the second Maine Resource Integration Study began last September, leaving only 520 MW of incremental generation cluster-eligible. Among the withdrawals was a proposed 248-MW wind farm in Aroostook County.

"The farther north we go, the more upgrades we incur," AI McBride, the RTO's director of system planning, told the Planning Advisory Committee on Wednesday.

The study's goal is to identify potential transmission infrastructure that could be needed to interconnect queued generation in Maine, and to quantify generation that could interconnect with new transmission pursuant to the network capability interconnection standard

(NCIS) and the capacity capability interconnection standard (CCIS).

The PAC also heard a presentation on the evaluation of time-sensitive projects identified in the Boston 2028 Needs Assessment study.

The study was recently updated to reflect the draft Capacity, Energy, Loads and Transmission (CELT) 2019 load *forecast*. The retirement of Mystic 8 and 9 may delay or inhibit the ability to re-energize the 345-kV cables in the Boston area and to restore area load as a part of the system restoration plan.

The RTO will perform an operational study on the impact of the Mystic retirements on system restoration plans and will communicate any resulting needs in an addendum to the study.

RTO Seeks Comments on RFP Template

Director of Transmission Planning Brent

AND THE REPORT OF THE PARTY OF

The Upper Maine study area | ISO-NE

Oberlin presented the draft competitive transmission request for proposal (RFP) *template* for stakeholder review.

The RTO plans to issue its first RFP for a competitively developed transmission solution under FERC Order 1000 in December 2019 to address the results of the Boston 2028 Needs Assessment. (See ISO-NE Planning Advisory Committee Briefs: April 25, 2019.)

"We are following what's going on in PJM," Oberlin said. "There's been some discussion of whether or not they're moving to a template structure to evaluate various risks to exposure to cost increases, etc., how cost containment will affect that. So, we've been on the phone with PJM every week making sure we understand where they're going."

The New England Power Pool Transmission Committee is discussing modifications to Section I and Attachment K of the Tariff along with the addition of a selected qualified transmission sponsor agreement (SQTPSA).

The NEPOOL Reliability Committee is discussing related modifications to sections I and III.12.6 of the Tariff, as well as modifications to Planning Procedure 4, which governs cost review of regulated transmission solutions eligible for regional cost support.

Comments on the draft RFP materials should be submitted to *pacmatters@iso-ne.com* by July 10.

Net Load Reduced in Upper Maine 2029 Needs Assessment

The RTO has reduced the net load in its 2029 Maine Needs Assessment as a result of the draft 2019 CELT forecast, Alex Rost, manager of transmission planning, *told* the PAC.

Rost said the net load was reduced because of changes in load, energy efficiency and solar PV since the 2017 CELT.

Resources to be included in a needs assessment are those clearing a Forward Capacity Auction, or that have been selected in, and are contractually bound by, a state-sponsored request for proposals, or are otherwise obligated by contract.

Two new projects that received capacity supply obligations in FCA 13 have been added to the 2029 cases, he said. The 632-MW combined cycle Killingly Energy Center in Connecticut is far from the study area and therefore modeled offline, while the 123-MW



Three Corners Solar project connecting into the Albion Road 115-kV substation in Maine is modeled at about 32 MW, or 26% of nameplate.

In addition, four generators have been set as out-of-service in the 2029 cases, Rost said. One generator in New Hampshire, the 48-MW Schiller 4, is fully delisted for the second consecutive FCA.

As described in the Transmission Planning Technical Guide, if a resource has delisted in the two most recent FCAs, the RTO will consider the resource unavailable for dispatch when performing a Needs Assessment. If a resource does not operate for three calendar years in a row, the resource is deemed to be retired.

One stakeholder asked if the RTO was proposing to define a new interface. No, Rost said.

"The interfaces that exist on the system are there based on varied system conditions, many of which may not necessarily be captured in what we study and set up for a Needs Assessment, especially when you consider the probabilistic methodology that we use for setting up generator dispatches when studying peak load." Rost said.

The 15-MW Indeck-Energy Alexandria generator in New Hampshire had a qualified capacity value of 0 MW for FCA 13, while two generators in Maine have submitted retirement delist bids for FCA 14: the Yarmouth 1 and 2 units of 50 MW each.

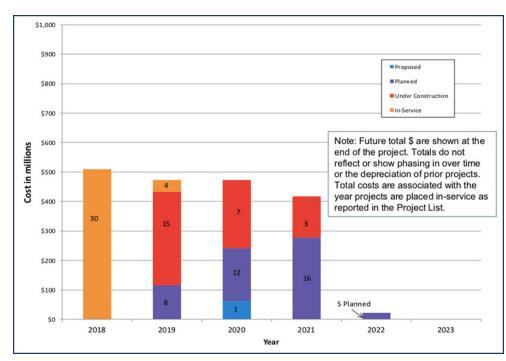
Maine line impedances and ratings, and 345/115-kV transformer voltage schedules, have been updated with the addition of a new large industrial load at the Belfast 115-kV station.

The Upper Maine 2029 Needs Assessment will consider sensitivity scenarios adding the New England Clean Energy Connect (NECEC) project (modeled at 1,090 MW), as well as the Three Rivers Solar Power projects (modeled at 26 MW).

While NECEC does not yet have an approved contract with the Massachusetts Department of Public Utilities, the RTO recognizes that the project may have a contract prior to, or soon after, the completion of the Needs Assessment. Rost said.

Update on Tx Projects and Asset Conditions

Eva Mailhot, assistant engineer for transmission planning, presented an *update* on Regional System Plan transmission projects and asset



Investment of New England transmission reliability projects by status | ISO-NE

condition projects that showed no major cost estimate changes and no new projects since the March 2019 update.

Four upgrades on the project list have been placed in service since March: three around Boston and one in Southeast Massachusetts/ Rhode Island. In addition, one project was canceled in that period, the \$7.3 million Newcastle Substation upgrades project in Maine.

The new in-service projects are:

- Project 1518 (\$14.5 million) resolved thermal overloads by upgrading Kingston Station in Greater Boston, creating a second normally closed 115-kV bus tie and reconfiguring the 345-kV switchyard.
- Project 1741 (\$3.3 million) resolved thermal overloads by rebuilding the 2.5-mile Middleborough Gas and Electric (MGED) portion of the E1 line from Bridgewater to Middleborough.
- Project 1352 (\$19.4 million) resolved thermal overloads in Greater Boston by adding a second Mystic 345/115-kV autotransformer and Mystic bus reconfiguration.
- Project 1357 (\$1.5 million) provided reconfiguration needed to resolve short circuit concerns by opening lines 329-510/511 and 250-516/517 in Greater Boston at Mystic and Chatham respectively, and operating K Street as a normally closed station.

Summer Locational Reserve Needs Reduced

RTO staffer Fei Zeng *presented* on locational reserve needs for 2019-2023.

The study showed no need to maintain summer reserves in Greater Southwest Connecticut through 2023 thanks to the additions of new gas-fired generation since 2018 and transmission upgrades expected in 2021. The retirement of Bridgeport Harbor 3 in 2021 is expected to have little impact.

Greater Connecticut's summer reserve needs were eliminated by the 2018 start-up of CPV Towantic, the assumed addition of Bridgeport Harbor Unit 5 and Greater Hartford/Central Connecticut transmission upgrades.

For Northeast Massachusetts/Boston, reserve needs are expected to be in the range of 50 to 400 MW for summer 2020 but will be eliminated by the Greater Boston transmission upgrades.

The study used historical operational data used for developing forward reserve market requirements and the 2019 CELT for future loads and behind-the-meter PV forecast.

Forward Capacity Market results are used for resource additions and retirements. Transmission limits were consistent with those assumed for installed capacity requirement-related simulations to be conducted in 2019.

- Michael Kuser



Building Decarbonization a Costly Priority for Northeast

By Christen Smith

Decarbonizing the building sector remains a top priority if Northeast states want to reach their climate targets by 2050, energy experts and regulators said last week.

But state policy efforts have, so far, fallen short of long-term emissions-curbing targets.

"We've achieved 17% of where we need to get to in order to reach climate stabilization goals," Sue Coakley, executive director of Northeast Energy Efficiency Partnerships, said Friday during the Raab Associates New England Restructuring Roundtable at law firm Foley Hoag's headquarters in Boston. "In recent years, emissions have increased. We really want to get a 76% change. So, we are not on that pathway, and we need to get there."

Coakley said the building sector contributes about 35% of total greenhouse gas emissions measured in the New York and New England region — a close second to the transportation industry. "The bottom line is we can't get to climate stabilization without dealing with it," she said.

Coakley's \$200 billion solution encourages home efficiency retrofits and replacing fossil fuel heating with cold climate heat pumps in 12 million homes across New England and New York by 2050. She said the \$8 billion annual investment over 25 years would decarbonize and improve health, safety and comfort at a far lower cost than the \$12.5 billion per year customers currently pay to heat their homes.

To save money, Coakley suggests aligning the projects — estimated to cost anywhere between \$5,000 and \$30,000 per home — with natural investment cycles of equipment replacement and home improvement. Broad adoption of advanced heat pumps alone would reduce residential and commercial sector heating energy consumption by 67% and "bend the line down" significantly on carbon emissions, she said.

"The numbers are big, but they don't scare me," she said. "We do that kind of economic activity in our region all the time."

It's not as simple as slapping heat pumps into aging structures erected decades — and sometimes centuries — before uniform building codes existed, said Cutler Cleveland, Boston University professor and author of the "Carbon Free Boston" study.

"It's the toughest nut to crack," he said. "We assume there's just going to be some buildings that it's really hard to get fossil fuel out of."

Beyond logistics, Cleveland notes that the poorest 10% of Boston's households spend up

to 25% of their income on fuel and electricity costs, compared to just a few percentage points at the opposite end of the spectrum. Some 16,000 renter-occupied, multifamily households will prove very challenging to retrofit, he said.

"Retrofits and rooftop solar panels can increase gentrification and displacement," he said. "The toughest buildings to retrofit align with socially vulnerable neighborhoods. The increased value of green homes is great, unless you're poor, because they can increase the city's affordable housing problem unless accompanied by explicit policies to protect socially vulnerable populations."

Eric Dubin, senior director of utilities and performance construction for Mitsubishi Electric Trane HVAC — the leading global manufacturer of energy-efficient heat pumps — said New York City faces similar challenges if it wants to reduce greenhouse gas emissions 80% by 2050. He said research shows that nine in 10 buildings must electrify hot water systems and at least half must convert from oil and natural gas furnaces to high-efficiency heat pumps, he said.

"This is going to be costly," Cleveland said.
"You're talking about changing a major energy system, the lifeblood of a large industrial city."

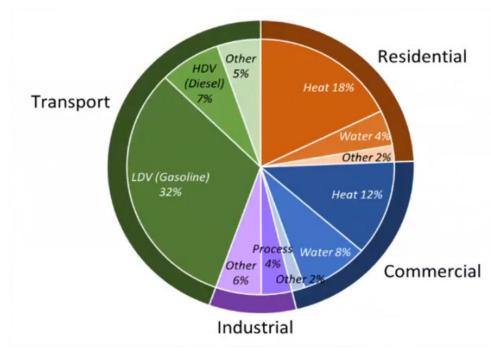
Before it Breaks

Last week in New York, legislators passed the Climate Leadership and Community Protection Act, which sets a statewide goal of reaching net-zero greenhouse gas emissions by 2050. The bill also codifies the state's clean energy commitments — 9,000 MW of offshore wind by 2035, 6,000 MW of distributed solar by 2025 and 3,000 MW of energy storage by 2030 — and charts a path to 70% renewable energy by 2030 and 100% clean energy by 2040.

"The legislation ... far exceeded my expectations of what good we could do," said Alicia Barton, CEO of the New York State Energy Research and Development Authority. "We believe it's the most aggressive climate policy enacted by a major economic market and sets the most aggressive targets in the nation for decarbonization."

It's that kind of policy commitment that other state regulators say the region will need to meet its climate goals.

"Heat is a humbling problem," said Mackay



Source breakdown of regional greenhouse gas emissions | NEEP

Miller, director of strategy for National Grid. "Yes, we will save emissions at this point, but it will require public policy and investment support — decisive political action and major changes in real estate and customer behavior."

In California and Massachusetts, policymakers have begun tackling the problem through various energy efficiency programs. California Energy Commissioner J. Andrew McAllister said a new state law the will target spending \$200 million over four years to retrofit existing buildings and build greener dwellings — with a focus on low-income housing. Ratepayer funds also contribute \$1.4 billion annually for investment in energy-efficient technologies.

Judith Judson, commissioner of the Massachusetts Department of Energy and Resources, said her state's strategy for curbing emissions 35% by 2030 includes electrifying the building and transportation sectors and promoting conservation and peak demand reduction programs. It's been a decadelong journey for the state, which first approved energy efficiency mandates in 2008, and has since turned its focus to expanding investments into energy storage, strategic electrification and fuel switching to clean resources. The American Council for an Energy Efficiency Economy ranked Massachusetts No. 1 in the

MARRIOTT COURTYARD

MARLBOROUGH, MA

NECA

VERMONT **NEW HAMPSHIRE** Incentives for ASHPs and Developed first-in-nation **HPWHs through Efficiency VT RPS** carveout for and utilities renewable thermal Tier 3: GMP ASHPs and HPWHs **ASHP and HPWH rebates** for RES compliance from individual utilities Montpelier - Building Energy Standards & Disclosure new

and existing homes & buildings

NYSERDA & utility Heat Pump

New York REV - Policy

Investment Plan

Incentives

NYSERDA Clean Energy

Workforce Development

Heat Pump initiatives

CONNECTICUT

Energize CT

NYC Multifamily Retrofit &

Home Energy Scores

NYC Bldg Carbon Emission Cap

Heat pump rebates through

NEW YORK

NH

MAINE

Significant uptake in residential ASHP/HPWH through Efficiency Maine rebate and financing programs (over 20,000 rebates FY14-FY16)

MASSACHUSETTS

- Renewable thermal energy into

- heat pumps, EVs, and storage
- Expanded cost-benefit test to

RHODE ISLAND

- ASHP Incentives, Building Energy Rating
- **Exploring workforce development** programs to drive heat pump uptake (e.g. engaging delivered fuel dealers)

Highlights of regional policies and programs for building decarbonization | NEEP

U.S. — eight years running — for its efforts.

Miller argues, however, that renewable gas should factor into any heating decarbonization strategy designed for the Northeast, noting that its climate challenges are too different from a state like California to reasonably compare.

"Heat pumps, hybrid homes, renewable gas from biomass and hydrogen from electrolysis will all play a part," he said.

Dubin also said it's important to encourage early retirement of heating equipment rather than waiting for the natural replacement cycle, noting that consumers are less likely to upgrade or transition to more energy-efficient options when dealing with the stress of unit failure.

"I'm that guy," he said. "How do you motivate me to replace that thing early? We need to do more consumer research and figure out what motivates customers to take action before their systems break down. Encouraging early retirements of old systems would also help move system replacements into times when contractors are not as busy." ■

NE Electricity Restructuring Roundtable Save the Date: Sept 27, 2019 State Utility Regulators & NE's Clean Energy Future; and Conference Scaling-Up Off-Shore Wind Cestructurin Coundtab



See Agenda HERE

Registration to open in mid-July



Emergencies Prompt MISO to Re-examine LMR Protocols

By Amanda Durish Cook

TRAVERSE CITY, Mich. — MISO executives last week said they continue to seek ways to improve the RTO's response to an increasing number of emergency events.

The issue became a point of discussion at a June 18 meeting of the MISO Board of Directors' Markets Committee when the RTO and its Independent Market Monitor expressed different conclusions about the management of a mid-May emergency in MISO South.

Executive Director of System Operations Renuka Chatterjee said MISO experienced tight operating conditions in its southern region because of multiple forced outages coinciding with above-average temperatures. Planned outages totaled about 9 GW in MISO South on May 16 and unplanned outages and derates took another 7 GW offline.

"When we lose that many megawatts in such a short period of time, that's outside of our band of tolerance," Chatterjee said.

"We're not aware of the reasons behind these forced outages yet. Operators have until the end of June to let us know," she said, adding that MISO is considering requiring operators to more quickly report the reasons behind forced outages.

But Monitor David Patton also pointed out that multiple generators extended their planned outages in May, exacerbating the situation.

"The planned outages that were supposed to go away get extended,"

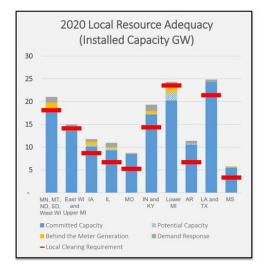


David Patton | © RTO Insider

Patton explained. "If your outages don't ramp down as quickly as you hoped, you get these tighter operating conditions in May."

Altogether, the RTO said projected capacity shortages in mid-May "were reliably mitigated with good coordination and communication between MISO and its members in the southern region."

But Patton has said he disagrees with the RTO's decision to call an alert and deploy load-modifying resources in MISO South on May 16. (See "MISO South May Emergency," Stakeholders: MISO System Fix Too Late for Summer.)





"Our conclusion is not quite the same as MISO's," Patton said at this month's Market Subcommittee meeting.

During the emergency, MISO ended up retracting a call for LMRs with 12-hour lead times

MISO's decision-making behind conservative operations and emergency declarations has been "inconsistent," Patton said. "We want to work with MISO to clarify what the triggers are so costs are reasonable event-to-event."

Chatterjee said MISO has been declaring emergencies to access LMRs with some regularity since 2017.

MISO President Clair

Moeller also pointed

out the RTO used LMRs

once in 2017, twice in

2018 and three times

said MISO will naturally

already in 2019. He

find ways to improve

the process as emer-

gencies "dramatically



Clair Moeller | © RTO Insider

increase."

"We're gaining experience by having experiences," he said with a smile.

Moeller also pointed out that LMR operators that signed up to modify load might have to delay action to "become safe." For instance, plant operators with a "crucible full of steel" can't immediately work to shave load, he said.

"There's turbulence behind the operating environment," Moeller added.

2024 Local Resource Adequacy (Installed Capacity GW) 30 25 20 15 MN, MT. East WI IA IL MO IN and Lower AR LA and MS ND, SD, and West WI Upper MI Committed Capacity Behind the Meter Generation Local Clearing Requirement

The 5-Year Supply Picture

Despite the emergencies, MISO now doesn't expect a capacity shortfall until 2023 or 2024 and predicts a generation surplus of about 3 to 6 GW in 2020, according to the most recent annual resource adequacy survey produced jointly by the RTO and the Organization of MISO States. (See *Supply Future Brighter*, *OMS-MISO Survey Shows.*) In four to five years, MISO could see anything from a 7-GW surplus to a 1.3- to 2.3-GW deficit.

"It's not uncommon to see this kind of imbalance in the further-out years," Chatterjee said, pointing out the difficulty of identifying long-term capacity deficiencies.

"Is this causing any raised eyebrows? Is this similar to what we've seen in prior years?" Director Barbara Krumsiek asked.

Chatterjee responded that MISO must rely more heavily on intermittent resources



Barbara Krumsiek | © RTO Insider

and LMRs in the future. But she also noted recent implementation of three new short-term resource availability and need rulesets that impose stricter outage scheduling, tighten LMR availability requirements and enforce annual real power testing for demand response. (See FERC OKs MISO Outage Scheduling Rules, DR Testing.) The RTO will gauge the impact of the new rules over the next year and expects the associated "incentives" to improve supply,

she said.

"I have a bit of a problem with the word 'incentive'. It's more of a carrot than a stick, isn't it?" Krumsiek asked. Chatterjee agreed.

Summertime Adequacy?

MISO foresees a 70% probability that it will declare an emergency to call on LMRs this summer despite having an estimated 149 GW of resources on hand to cover a 125-GW projected peak.

But Patton sees the summertime supply picture differently, predicting just 137 GW of available resources to manage a 124.7-GW peak — and just 129 GW in a realistic scenario with the usual emergency no-shows and unforeseen outages. He criticized as unrealistic MISO's forecasting assumptions of unequivocal availability of emergency resources and no unforced outages.

"It's frequent that we don't see emergencies coming more than two hours in advance," Patton said, noting that time constraints effectively disqualify many emergency resources. "If you don't see the emergency coming, it's almost useless to you."

However, he said MISO's ample import capability and willing neighbors make up for already tight margins.

Krumsiek inquired about MISO's estimate that it was only able to access about 75% of LMRs that committed to being available last summer.

Chatterjee said MISO is expecting a similar response this summer as well, adding that "75 to 80% is actually a pretty good number." She said the RTO may not always be able to call on LMRs in excess of their required start-up commitments.

Patton offered the prediction that capacity margins will likely fall as "fossil resources retire and suppliers continue to export capacity to PJM." The Monitor said he remains concerned that capacity is increasingly being supplied by LMRs, which require an emergency declaration in order to be accessed. He said it is "increasingly important" that MISO begin making changes to its capacity market so the auction sends more efficient economic signals "to maintain an adequate resource base."

Low Auction Prices, Again

Any changes in emergency declaration protocols must be considered in tandem with measures that make the capacity market more economic, Patton argued.

The bulk of MISO planning resources cleared at \$2.99/MW-day in this year's capacity auction; last year, most of the footprint cleared at \$10/MW-day. (See Most MISO Zones Clear at \$3/

MW-day in 2019/20 PRA.)

Unsurprisingly, Patton again derided those prices as "close to zero." He said the price is "well below" the \$200/MW-day he estimates would motivate new generation investment or the \$100/MW-day needed to keep older existing units in operation.

"I have to say that," he said wryly. "It's probably the biggest issue in MISO."

Patton also *said* MISO cleared a large generator in Michigan that will be unavailable for the entire 2019/20 planning year. If MISO disqualified the generator from the auction, prices in the Michigan's Zone 7 might have hit \$243.37/ MW-day — right around the cost of new entry benchmark — instead of the \$24.30/MW-day clearing price.

"We're counting on a unit that's on an approved planned outage for the entirety of the planning year," Patton said.

"That to me says something is broken in MISO resource adequacy," Independent Power Producers representative Mark Volpe said a day later at an Advisory Committee meeting.

Meanwhile, MISO reported an average 69.7 GW of load from March through May, with the 97.7-GW spring peak occurring March 5. Energy prices averaged \$25.78/MWh, a 7% decline from last spring. ■

If You're not at the Table, You May be on the Menu

RTO Insider is the only media "inside the room" at RTO/ISO stakeholder meetings. We alert you to rule changes that could affect your business — months before they're filed at FERC. Plus we monitor the news at FERC, EPA, CFTC, Congress, federal and state courts, and state legislatures and regulatory commissions.

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For more information contact Marge Gold: marge.gold@rtoinsider.com / 240-750-9423



Uncertainty Deepens for Hartburg-Sabine Project

By Amanda Durish Cook

TRAVERSE CITY, Mich. — MISO on June 18 acknowledged that it might be forced to change course on its second-ever competitively bid transmission project after the passage of a Texas law giving incumbent utilities right of first refusal (ROFR) for any projects built in the state.

Details remain scant, but the RTO now says the Hartburg-Sabine project "may face challenges as a result of recent Texas legislation." (See Texas ROFR Law Clouds Hartburg-Sabine Future.) Project developer NextEra Energy on June 17 filed suit in federal court challenging the ROFR law. (See related story, NextEra Takes Texas to Court over ROFR Law.)

Speaking at a meeting of the MISO Board of Directors' System Planning Committee, Executive Director of System Planning Aubrey Johnson confirmed that the new Texas statute applies to Hartburg-Sabine, although it's still unclear how the law will affect the project.

Johnson said staff are reviewing the new law and the Tariff to determine how the rules might interact "in accordance with regional transmission plans and state laws."

Committee Chair Mark Johnson noted the status of the project is undoubtedly causing some "burning questions right now" among stakeholders and said it would be discussed in the committee's closed session immediately following the meeting.

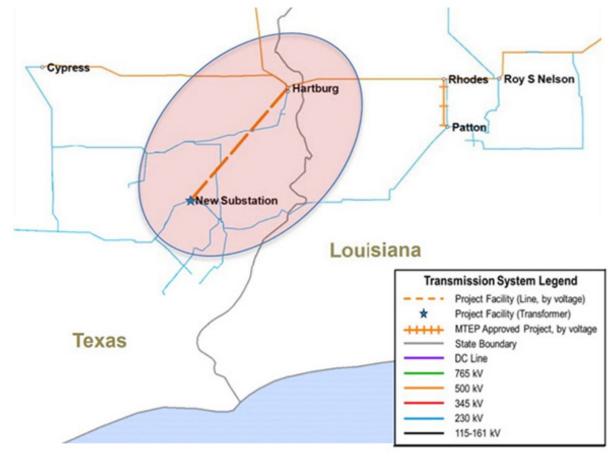
MISO in November selected NextEra Energy Transmission Midwest's \$115 million bid to construct the 500-kV Hartburg-Sabine project in East Texas, which would include a new 23-mile 500-kV transmission line, four short 230-kV lines and the new Stonewood 500-kV substation. NextEra's proposal beat 11 other competitors, scoring 97 out of a possible 100 points under the RTO's selection criteria. (See NextEra Wins Bid to Build MISO's 2nd Competitive Project.)

Meanwhile, MISO continues to hold monthly meetings with Republic Transmission, devel-

oper of the RTO's first competitive project, the \$62.4 million Duff-Coleman 345-kV transmission line in southern Indiana and western Kentucky, Johnson said. That project is so far going off without a hitch, she added, and is on track to be in service by January 2021 — or possibly earlier.

During sector introductions at MISO's Wednesday Advisory Committee meeting, Competitive Transmission Developers Sector representative Steve Rowley touted the cost benefits that competitive developers offer through lower bids and project cost caps.

An April *report* released by The Brattle Group found electricity customers could save \$8 billion over five years if competitive transmission planning processes expanded to cover a third of all transmission investments, compared with just 3% today. But another study published by Concentric Energy Advisors this month questioned that conclusion, claiming incumbent transmission owners' initial cost estimates for projects generally prove to be accurate. (See *Study Findings Clash on Value of Competitive Tx.*.)



Hartburg Sabine project | MISO

Task Team Urges MISO Nominating Committee Expansion

By Amanda Durish Cook

TRAVERSE CITY, Mich. — The group charged with re-examining MISO's director-selection process has issued its first recommendation: that stakeholder representation be doubled on the Nominating Committee.

Board Qualification Task Team (BQTT) Chair Mark Volpe on Wednesday said MISO sectors favor increasing stakeholder seats on the Nominating Committee from two to four to give members a greater voice in deciding who serves on the RTO's Board of Directors. A handful of sectors first signaled support for such a move during a BQTT call last month. (See MISO Sectors OK Expanding Nominating Committee.)

The Nominating Committee is currently composed of two stakeholders and three directors.

While the BQTT says it favors stakeholders outnumbering directors on the committee, it has yet to determine how representatives would rotate to ensure all sectors get a chance to serve.

Environmental and Other Stakeholder Groups sector representative Beth Soholt said she supported some sort of sector rotation. She recalled once serving on the Nominating Committee in the "early years of MISO" but couldn't remember an Environmental sector representative serving since.

She said she would like to "try to get away from a popularity contest and towards forced diversity."

Municipals, Cooperatives and Transmission Dependent Utilities sector representative Me-



Megan Wisersky | © RTO Insider

gan Wisersky, who sat on the committee last year, warned that serving is time-consuming. She said sector representatives should be volunteers rather than being "frogged-marched" into the job.

Cooling-off Period Next

The task team will next tackle whether the current one-year "cooling-off" period should continue to be a prerequisite for board service, though several sectors already lean toward retaining the policy.

Volpe said his Independent Power Producers and Exempt Wholesale Generators sector "feels strongly" that the one-year moratorium for those employed in the industry should be extended to cover more candidates, including state and federal regulators and their staffs.

That issue arose last year when members installed Minnesota Public Utilities Commission Chair Nancy Lange on the board, despite concerns about the appearance of a sitting commissioner in a MISO state also sitting on the board. (See MISO Elects Lange to Board; Keeps 2 Incumbents.)

Volpe pointed to FERC Order 888, which created RTOs/ISOs with an emphasis on independence.

"Independence in appearance is very important," Volpe said.

State Regulatory Authorities sector representative, and Wisconsin Public Service Commissioner, Mike Huebsch said he personally continues to believe the one-year moratorium is an "antiquated policy." However, the Organization of MISO States has declined to take a stance on the matter.

Huebsch said from his experience, recusals and non-compete clauses are more common. He said MISO's legal counsel should be astute enough to recognize when a board member might be wading into a possible conflict of interest.

"I might have a darker view of human nature," Wisersky said. "Although it might be 'antiquated, I think there's still a need for it. Optics are very important.... I'm not so concerned with what happens publicly. I think a public shaming can occur in public media, but my concern is what occurs non-publicly."

The BQTT will produce a list of preliminary recommendations to improve the board selection process by September. Volpe said he would likely present a package of final recommendations to the Advisory Committee in November.









Advisory Committee Considers 11th MISO Sector

By Amanda Durish Cook

TRAVERSE CITY, Mich. – MISO's Advisory Committee is considering creating a new miscellaneous sector in order to give its Environmental Sector a more singular voice.

The committee is weighing whether to spin off the "Other" contingent from the Environmental and Other Stakeholder Groups sector in response to member requests that entities with miscellaneous interests be separated from those with an environmental focus.

MISO came into existence with nine stakeholder sectors and added the Competitive Transmission Developer sector in 2014 after multiple developers joined the Environmental/Other sector, marking the only time a new sector has been added in the RTO's 19-year history. The Transmission Owners Agreement stipulates that all entities must join a sector, which are used for Advisory Committee voting.

"We drew the short straw [to be a catch-all] for several reasons, I'm sure. It's a form-overfunction action here," John Moore, senior attorney for the Sustainable FERC Project, said during an Advisory Committee meeting Wednesday.

"It could threaten the integrity of our sector if a raft of other entities show up," Moore said, questioning the requirement that every MISO entity must identify with a sector.



Beth Soholt | © RTO Insider

"I think we were the place of last resort," Clean Grid Alliance's Beth Soholt said.

She said MISO could test having a standalone Environmental sector first without creating a new "other" sector to see whether

other entities come forward "that don't have a home." It could then spin off a separate "other" sector if the need arises, she said.

The Environmental/Other sector currently contains 11 entities, all with an environmental bent. To create a new sector, the Advisory Committee must make a recommendation to be adopted by the Board of Directors, then filed with FERC.

Soholt said that over the course of MISO's history, she's seen a handful of companies that sought to join the Environmental/Other sector



Stakeholders try live polling at the June 19 Advisory Committee meeting. | © RTO Insider

but were a bad fit.

"And keep in mind that I was 13 when I began with MISO," she joked.

"The Environmental sector should be a sovereign sector. I think everyone can agree to that," said Mark Volpe, representative for the Independent Power Producers and Exempt Wholesale Generators sector.



Mark Volpe | © RTO Insider

Chair Audrey Penner said the committee should approach the issue with a bigger picture in mind, pointing out that FERC has indicated it might examine RTO governance and transparency. Several members of the House Energy and Commerce Committee's Subcommittee on Energy this month urged the commission to holistically review RTO and ISO governance rules. (See FERC Probed on RTO Governance, Market Issues.)

"I'm thinking about the Googles and Amazons here. Where do they fit? The writing is on the wall for some of these entities. They're going to want to be part of the discussion," Penner said.

Volpe suggested MISO might create a new sector for industrial entities.

"I think it's incumbent upon us to be inclusive," he said.

Volpe also suggested MISO create a list of all the entities that have approached sectors for entry but didn't quite fit in. Multiple stakeholders said they had experience with an entity that was difficult to categorize in any one sector.

MISO Senior Director of Stakeholder Affairs and Communications Shawna Lake opened the item to written stakeholder feedback. Penner urged stakeholders to think through their recommendations carefully to avoid unintended consequences.

Meanwhile, MISO rolled out live stakeholder polling during the meeting. Stakeholders put the new feature to the test using the Poll Everywhere app on their smartphones to vote on what description furnished by sector representatives applied to which sector. Poll respondents were kept anonymous.

Lake said MISO would eventually use the technology in other stakeholder forums to collect opinions in real time.



FERC Stands Firm on Michigan Dam Closure

By Amanda Durish Cook

FERC last week denied a request to reconsider its decision to revoke the license for a small Michigan hydroelectric project over significant safety concerns.

The commission also rejected Boyce Hydro's motion to transfer the license for its 4.8-MW Edenville Dam to another operator, Wolverine Hydro, calling the request moot in light of the revocation (*P-10808*).

FERC ordered Edenville closed in February 2018, then revoked the dam's license the following month after finding it had insufficient spillway capacity and that Boyce had a longstanding history of noncompliance with other safety measures. The commission denied Boyce's request for rehearing on the closure early this year. (See Closed Michigan Dam Loses Rehearing Bid.)

In the order issued Thursday, FERC said it only

entertains motions for reconsideration when a party can assert the commission "may have erred by overlooking or misunderstanding facts or arguments set forth in the party's rehearing request." Boyce didn't pose that argument in its request for rehearing over the license, and its other arguments were "unconvincing," the commission wrote.

"Here, Boyce Hydro does not claim that the commission misunderstood or misinterpreted its prior arguments. Thus, its pleading is not a proper request for reconsideration and we will not consider it as such. ... To the extent that Boyce Hydro seeks to introduce new facts and arguments into the record, it is making an untimely, collateral attack on the now final revocation order."

FERC made clear that revocation of the license was not up for negotiation and that Boyce's only recourse now is to seek a new license.

"In any event, we have no ability to grant

the relief that Boyce Hydro seeks. We have revoked the license for the Edenville Project, in orders that are now final. Accordingly, we currently have no jurisdiction over the Edenville project works. Should Boyce Hydro or any other entity wish to operate the project to generate electricity, they would need to seek a license to do so." FERC said.

And because it could not reinstate the Edenville license, FERC said it also could not grant the request to transfer the license to Wolverine.

Boyce had claimed that it could secure a new power purchase agreement with Consumers Energy at a higher rate that would have allowed it to obtain a loan to "fund construction of auxiliary spillway capacity sufficient to pass the entire [probable maximum flood]" requirement, then pass the license to Wolverine.

But FERC said Boyce brought no "firm proof" that such a situation will play out. ■



Edenville Dam spillway

FERC Rebuffs Challenges to Grand Gulf Ruling

By Amanda Durish Cook

FERC last week rejected separate rehearing requests from both sides in a dispute between the Louisiana Public Service Commission and System Energy Resources Inc. (SERI) over the return on equity rate for the company's Grand Gulf Nuclear Station (*EL18-142*).

Entergy subsidiary SERI's rehearing request centered on the question of whether FERC could legally probe the Grand Gulf ROE in two separate proceedings and set two separate 15-month refund periods.

FERC last August set to settlement procedures the Louisiana PSC's complaint that the ROE in the unit power sales agreement (UPSA) formula rate for calculating the Grand Gulf costs billed to Entergy's operating companies is unjust and unreasonable. The Louisiana regulator contested SERI's capital structure and the depreciation rates included in the ROE. (See FERC Sets La. Entergy Complaint for Settlement.)

SERI owns 90% of the 1,400-MW Grand Gulf plant in Port Gibson, Miss., and sells the plant's output under a FERC-regulated wholesale rate to Entergy's Arkansas, Mississippi, Louisiana and New Orleans subsidiaries under the UPSA.

Regulators in Arkansas and Mississippi also claimed in 2017 that the 10.94% ROE used by SERI in its formula rate for energy sales from Grand Gulf is outdated and overcharges customers (EL17-41). (See FERC Opens Proceeding over Entergy Nuclear Power Sales.)

FERC put both complaints to settlement proceedings in order to reset SERI's ROE, equity ratio and depreciation rates to just and reasonable levels. Because of the complaints' similarities, the commission eventually consolidated them into one settlement process.

But SERI contended that FERC was in breach of the Federal Power Act because it set a second refund date for the Louisiana complaint, saying the law "precludes refunds for more than a 15-month period absent dilatory behavior on the part of the utility."

The commission pointed out that it has yet to make any final determinations in the case and could dismiss a request for rehearing on that detail alone.

But it offered a deeper explanation for its denial of the premature challenge, saying "even if we were to consider SERI's request for rehearing on the merits, we would deny it."

The commission said it was not circumventing

the 15-month refund period requirement because the two complaints were filed separately and, as such, the limitation applies separately to each complaint.

It also noted it is free to investigate the same ROE in two different proceedings and that SERI was incorrect in its assumption that the commission should have dismissed the Louisiana PSC complaint because it didn't contain "new claims or changed circumstances sufficient to justify an additional proceeding."

Instead, FERC pointed out, the two complaints are based on financial data from different time periods, and as such, are based on different factual records. According to the Louisiana PSC, the 2017 docket did not reflect more recent discounted cash flow data now available.

"Although the two complaint proceedings have been consolidated for purposes of hearing and settlement judge procedures, the commission may or may not reach the same conclusions regarding SERI's ROE with respect to each complaint," FERC said.

It also noted it has "previously allowed successive complaints when presented with new analysis."

In the same order, FERC also denied the Louisiana PSC's request to rehear the federal commission's dismissal of the PSC's complaint regarding SERI's use of its own capital structure — rather than that of its parent Entergy — for setting the ROE for Grand Gulf to put the issue to settlement proceedings.

The PSC had conceded that its original complaint failed to apply FERC's three-part test for determining the independence of an affiliate's capital structure from that of its parent or to show that the test was inapplicable in SERI's case. But it argued that its amended complaint was sufficient to support SERI's adoption of Entergy's capital structure or a structure appropriate for a utility with low risk.

In response, FERC pointed out the PSC admitted the commission did not err in its August 2018 order.

"There is thus no basis upon which to grant rehearing," FERC wrote. "Moreover, the commission has already issued an order in response to the Louisiana commission's amended complaint, establishing additional hearing and settlement judge procedures. We decline to address that matter further here."



Grand Gulf Nuclear Station | Entergy

MISO Board of Director Briefs

Board Moving on Rainwater Replacement

TRAVERSE CITY, Mich. — The empty chair at last week's MISO Board of Directors meeting should be filled by fall, stakeholders learned during the RTO's quarterly Board Week.

Former Director Thomas Rainwater vacated his position in April to serve on the board of a for-profit New England waste-to-energy company. (See *Rainwater Exit Leaves Open Seat on MISO Board*.)

"We miss him, but we thank him for all of the wonderful years of service he gave to this board," Board Chairman Phyllis Currie said of Rainwater at the Thursday board meeting.

in St. Paul, Minn.



Phyllis Currie | © RTO

But the show must go on, and the board expects to announce a replacement during its September Board Week

Nominating Committee member Jeff Dodd reminded stakeholders last week that only the board will get a chance to vote on the new member. Board counsel Karl Zobrist clarified that MISO's bylaws stipulate that vacancies are dealt with by solely the board, and not through the usual Nominating Committee process and subsequent stakeholder vote.

The chosen candidate will serve the remaining 20 months of Rainwater's three-year term and could choose to run for re-election for three subsequent three-year terms.

Currie said the board can expect to meet multiple times over the summer to select a candidate.

Meanwhile, the Nominating Committee has begun to discuss candidates to fill spots for three directors whose terms end this year: Todd Raba, H.B. "Trip" Doggett and Barbara Krumsiek. Both the Nominating Committee and the board are using search firm Russell Reynolds to identify a slate of candidates.

Besides Dodd, the Nominating Committee this year *consists* of Directors Baljit Dail, Mark Johnson and Theresa Wise; Minnesota Public Utilities Commissioner Matthew Schuerger occupies the other stakeholder seat on the committee.

Rainwater's wasn't the only empty seat at

board committee meetings last week. Dail tuned in to Board Week via phone due to an ill-timed summons for jury duty.

3 More Solar-oriented Members

In a sign of solar's increasing foothold in MISO, the board welcomed three more solar companies as non-transmission-owning members.

The board unanimously approved applications from *Community Energy Solar* and *Urban Grid Solar Projects*, as well as solar and storage developer Savion, which is being *acquired* by Macquarie's London-based Green Investment Group.

All three will participate via MISO's Independent Power Producers Sector.

MISO's current generator interconnection queue *consists* of 644 projects totaling 101.2 GW, including more than 59 GW of prospective solar projects and 27 GW of wind. Executive Vice President of Market Development Strategy Richard Doying said the RTO's long-term resource mix will be "heavily weighted toward renewables."

Krumsiek requested that MISO executives continue providing the board with regular updates and illustrative charts on the status of the queue.

After hearing a report on the still unknown market changes MISO might have to make to manage a majority renewable mix, Currie noted that she heard a lot of qualifiers containing words like "uncertainty" and "possibility."

"We'll be looking for a new set of words, like 'certainty' [and] 'definitely," Currie joked.

MISO Budgets

MISO is so far \$1 million - or 1% - in the red in its operating budget this year, *spending* \$92 million to date.



MISO Board Week was held at the Grand Traverse Resort in Traverse City, Mich. | © RTO Insider

But the RTO's capital spending is \$2.2 million under budget at just \$6.4 million.

CFO Melissa Brown said both budget variances stem from the timing of planned investments. And while she expects those variances to narrow by year-end, MISO will likely overshoot both budgets, incurring \$274.5 million in operating expenses and \$25.1 million in capital expenses, compared with the original estimates of \$272.5 million and \$24.3 million, respectively.

Vendor Delay on Market Platform Replacement

MISO's ongoing market platform project is making "good progress" despite a new delay, Vice President of Market System Enhancements Todd Ramey told the board.

Ramey *said* delivery of a new day-ahead market clearing engine is running behind schedule, with vendor General Electric now expected to deliver at the end of the year instead of in August as originally scheduled. Once delivered, MISO will begin testing the engine's capabilities.

Director Dail said the RTO's IT team is working well "despite the circumstances."

"Management is doing a stellar job in a very tough situation," he said.

Ramey said MISO expects to spend about \$21 million this year on the project and \$28 million in 2020, though that latter number is subject to change. It forecasts it will spend a total \$139.7 million on its market platform replacement.

In April, stakeholders pressed MISO on its March announcement that current platform vendor GE is now willing to support the existing platform through 2030. (See MISO Seeking Multiple Vendors for Market Platform Redesign.) They sought assurances that the RTO won't take the next decade to finish the platform.

Senior IT Director Curtis Reister said MISO envisions using only some of that extra time for unforeseen and additional system testing, either on behalf of the RTO or market participants needing to integrate their software with the new system.

"There's over 400 members that interact with the system, and we want to make sure we're ready," Reister told attendees at the Market Subcommittee meeting in April. ■

— Amanda Durish Cook

NYISO News



NYISO Business Issues Committee Briefs

New Energy Law Could Affect CO₂ Market Design

RENSSELAER, N.Y. — NYISO presented the Business Issues Committee the final market *design* for pricing carbon emissions into its wholesale electricity markets on Thursday, the same day the New York State Assembly passed a bill that will put many of Gov. Andrew Cuomo's environmental targets into statute.

The Climate Leadership and Community Protection Act (A8429) will require 70% of the state's electricity be generated by renewable resources by 2030, nearly quadruple its offshore wind energy goal to 9 GW by 2035 and require the economy to be carbon-neutral by 2040. The law also doubles the distributed solar generation goal to 6 GW by 2025 and targets deploying 3 GW of energy storage by 2030. (See New York Boosts Zero-carbon, Renewable Goals.)

Stakeholders were divided on whether the bill — expected to be signed into law by Cuomo — necessitates increased skepticism on carbon pricing or urgency on the effort.

"It will take time to digest the new information, but having carbon pricing helps reach these goals, said Rana Mukerji, NYISO senior vice president for market structures. "If [load-serving entities] are required to buy renewables, the procurement prices will reflect the benefit renewables derive from having carbon priced into the energy market."

Representing the Independent Power Producers of New York, Matt Schwall said, "IPPNY continues to be very supportive. ... Carbon pricing is now more important than ever. There's been a lot of time spent developing the idea, and this will help us reach the targets."

Luthin Associates' Aaron Breidenbaugh, representing Consumer Power Advocates, an unincorporated group of nonprofit institutional customers, said he was "skeptical" of how consumers could benefit from carbon pricing under the new law.

Couch White attorney Kevin Lang, speaking for New York City, said he shared Breidenbaugh's concerns: "Carbon pricing isn't going to get us incrementally more generation ... and I agree that NYISO needs to look at the new law before moving forward."

Mark Younger of Hudson Energy Economics said, "You can put targets, but that doesn't mean they're effective. You can put 7,000 MW of wind in the North Country and meet a

target of 7,000 MW of additions, but not get much benefit of zero-carbon megawatt-hours in the state."

"Action needs to start happening immediately, and we need to be sending price signals that reflect the value, or the damage, of carbon emissions," said Howard Fromer, director of market policy for PSEG Power New York. "How? The closest thing is the mechanism we've come up with here, and carbon pricing is even more important now than it was a year ago."

Robert Pike, NYISO director for market design and product management, said, "We're here today just to recognize the culmination of the work that's taken place over a considerable amount of time."

Mark Reeder, representing the Alliance for Clean Energy New York (ACE NY), said, "A long time ago, we said that a market without a carbon component is inconsistent with our environmental goals. Carbon pricing can help the state reach its goals."

On Monday, third-party consultant Analysis Group presented to the Installed Capacity/ Market Issues Working Group preliminary *results* of a supplemental analysis examining the impacts of pricing carbon. The study is intended to augment the Brattle Group *report* process that concluded in December. (See *More Details Divulged on New NYISO Carbon Pricing Study.*)

Broader Regional Markets Update

Pike presented the monthly Broader Regional Markets *report* and highlighted item No. 26, noting that the Management Committee in May approved a new external supplemental resource evaluation (SRE) penalty regime.

Approved by the BIC in April, the SRE penalty provisions will boost the ISO's ability to call on external resources that have sold capacity to New York. Pending FERC approval, the proposal is anticipated to become effective in August.

Pike also highlighted BIC and MC approval last month of revisions to the NYISO-PJM joint operating agreement to address coordination on flowgates similar to the East Towanda-Hillside Tie Line.

Manual Revisions

The BIC approved revisions to several manuals, with most of the changes required by implementation of the Zone J (New York City)

reserve region.

Following Board of Directors and stakeholder approval, the ISO in April filed a proposal with FERC to establish the new reserve region. (See NYISO Business Issues Committee Briefs: March 13, 2019.)

Ashley Ferrer, NYISO energy market design specialist, *reported* that the changes would affect the Ancillary Services, Day-Ahead Scheduling and Transmission & Dispatch Operations manuals.

ISO staff engineer Harris Miller detailed additional revisions unrelated to the Zone J reserve requirements being proposed within the affected manuals.

Ferrer said the proposed New York City reserves would go into effect Wednesday, assuming approval by FERC.

LBMPs, Gas Prices Drop

NYISO locational-based marginal prices averaged \$23.10/MWh in May, down about 17.5% from April and about 19.7% from the same month a year ago, Pike said in delivering the monthly operations *report*. Year-to-date monthly energy prices averaged \$37.57/MWh, a 25% decrease from a year ago.

Day-ahead and real-time load-weighted LB-MPs came in lower compared to April. Average daily sendout was 373 GWh/day in May, higher than 371 GWh/day in April and lower than 397 GWh/day in the same month a year ago.

Transco Z6 hub natural gas prices averaged \$2.27/MMBtu for the month, off slightly from April and down 11% from a year ago.

Distillate prices were down 8.5% year over year and mixed from the previous month, with Jet Kerosene Gulf Coast averaging \$14.64/ MMBtu, up a penny from April, while Ultra Low Sulfur No. 2 Diesel NY Harbor dropped to \$14.54/MMBtu from \$14.72/MMBtu in April.

May uplift increased to 13 cents/MWh from -15 cents in April, while total uplift costs, including NYISO's cost of operations, came in higher than the previous month.

The ISO's 23 cents/MWh local reliability share in May was up from 20 cents the previous month, while the statewide share climbed to -11 cents/MWh from -35 cents in April.

The Thunderstorm Alert cost was 19 cents/ MWh, up from the usual zero to 1 cent.

- Michael Kuser

NYISO News



FERC Upholds NYISO Treatment of ESCO as Successor

By Michael Brooks

FERC on Thursday upheld NYISO's decision to shelve a New York energy service company's application to join the ISO until its predecessor pays its outstanding debt (*EL19-39*).

Light Power & Gas of NY told FERC in January that NYISO had violated its Tariff and the Federal Power Act in treating it as the successor to North Energy Power, a bankrupt ESCO kicked out of the ISO in October after it filed for Chapter 11 bankruptcy and its unpaid obligations exceeded its collateral.

NYISO noted — and LPGNY did not dispute — that though the two companies are separate, both share Abe Leiber, Jack Klein and Hindy Gruber as principals, and that LPGNY "apparently seeks to serve the very same customers as North Energy."

The ISO also noted that, though formed in 2014, LPGNY only became active a week after North Energy filed for bankruptcy, when one principal contacted the ISO about joining. LPGNY also filed its application to join exactly one week after North Energy's membership was terminated, NYISO said.

LPGNY argued that NYISO's Tariff has no "successor liability" policy and that, even if it and North Energy were the same company, the ISO failed to follow its bad debt and re-entry provisions for defaulting transmission customers.

FERC sided with NYISO. "We find that NY-ISO's decision to treat LPGNY as the same entity as North Energy is reasonable in light of the record, particularly the close overlap in not only those entities' relevant personnel, but also their business activities," the commission said. "Namely, both entities have the same contacts and administrators, similar addresses, are engaged in the same business in the same territory and seek to serve the same customers."

The commission has previously found that it "may disregard the corporate form in the interest of public convenience, fairness or equity."

It also found that the Tariff "neither explicitly supports nor prohibits NYISO's decision," though it urged the ISO to file Tariff revisions spelling out the factors it will consider when deciding whether to treat two separate entities as the same. Moreover, it emphasized that its decision "does not rely on the application of 'successor liability' that LPGNY alleges is the

basis of NYISO's actions."

Finally, FERC found that NYISO did not violate its bad debt procedures, saying the Tariff gives the ISO "wide latitude in pursuing cost-recovery measures that may minimize or avoid a bad debt loss."

PJM and a group of New York transmission owners intervened in NYISO's defense. PJM said the case "implicates broader and common policy issues regarding whether [RTO/ISO] tariff rules" allow for denying a new member's application based on prior enforcement history.

The Maryland Public Service Commission also intervened, though without taking a position, saying it was interested in the case because of its potential impact on PJM. The RTO is dealing with the effects of being burned by financial transmission rights trader GreenHat Energy and its principals Andrew Kittell and John Bartholomew, who were identified as lieutenants in J.P. Morgan Ventures Energy Corp.'s scheme to manipulate the CAISO and MISO markets between 2010 and 2012.

In an unusual move, LPGNY asked FERC to dismiss the interventions, a request the commission rejected. ■



A screenshot of (the now bankrupt) North Energy Power's website | North Energy Power



Ohio Nuke Bill: A Worthwhile Tradeoff?

By Christen Smith

Ohio lawmakers are being asked to trade ratepayer-funded renewable energy mandates for the jobs and carbon-free energy that would come from the continued operation of FirstEnergy Solutions' Davis-Besse and Perry nuclear plants.

House Bill 6, titled the Clean Air Act, has confounded fossil fuel proponents and environmental groups alike, while state Republicans and labor unions insist the cost of losing the facilities overrides the need to invest in renewable resources and energy efficiency programs.

Under current *law*, the state's electric distribution utilities (EDUs) must obtain 12.5% of their power from renewable sources by 2027, including 0.5% from solar. HB 6 would repeal those requirements and provide subsidies to "clean air resources" including nuclear power and some solar resources that had obtained siting certificates before June 1.

"Ohioans deserve so much better," said Miranda Leppla, vice president of energy policy at the Ohio Environmental Council Action Fund. "HB 6 is nothing more than a ploy to bail out corporate utilities that want to continue to run old, dirty energy sources, under the guise of 'clean air."

FirstEnergy argues its plants deserve the help. Davis-Besse and Perry produce 2,100 MW of electricity around the clock — 90% of Ohio's carbon-free power — but the company says it

"Ohioans deserve so much better. HB 6 is nothing more than a ploy to bail out corporate utilities that want to continue to run old, dirty energy sources, under the guise of 'clean air."

 Miranda Leppla, vice president of energy policy at the Ohio Environmental Council Action Fund

can't afford to keep the plants running based on its revenues from PJM's wholesale market, which has seen prices fall because of renewables and cheap natural gas.

The bill, approved 53-43 by the House of Representatives on May 29, also has the support of Gov. Mike DeWine. "As I have previously stated, Ohio needs to maintain carbon-free nuclear energy generation as part of our energy portfolio," DeWine said. "In addition, these energy jobs are vital to Ohio's economy."

The bill is now being considered by the state Senate.

Critics say FES doesn't need help to keep the plants afloat and are playing a "shell game" in PJM's capacity market auctions to convince lawmakers otherwise.

"The bottom line is that Ohio nuclear resources are in no danger of retiring anytime soon and to do so would not only be economically irrational but would financially harm the equity shareholders of these nuclear assets," Paul Sotkiewicz, president of E-Cubed Policy Associates and PJM's former lead economist, told the Ohio Senate Energy and Public Utilities Commission on June 4. He came to share the results of an American Petroleum Institute-funded study that accused the company of misleading lawmakers and the public about their intentions to deactivate the plants over the next two years.

"I must say, I was surprised with this result," Sotkiewicz said. "Of all the nuclear assets in PJM, I viewed single-unit facilities such as Three Mile Island, Davis-Besse and Perry to be very much at risk for retirement given the Nuclear Energy Institute's reported costs for single-unit sites."

FES' supporters say Sotkiewicz's math is wrong.

"The natural gas industry is doing what all rivalrous generation resources do in these instances," said Ray Gifford, former chairman of the Colorado Public Utilities Commission, who was brought to Columbus by FES to



Ray Gifford | © RTO Insider

convince the Senate Energy and Public Utilities Committee to approve the bill. "It is protecting its turf and trying to handicap its rivals."

FirstEnergy spokesperson Tom Becker said that Sotkiewicz's profitability calculations are "deeply flawed" and correcting his "obvious" errors would show a loss in excess of \$125 million for both plants over the next decade.

"After weeks of testimony in committee inaccurately criticizing the health, longevity and maintenance of our two nuclear plants in Ohio as unworthy of future investment, suddenly this last-minute report — funded by out-ofstate oil and gas interests — proclaims that Davis-Besse and Perry are in excellent position



Former PJM Senior Economic Policy Adviser Paul Sotkiewicz (left) and Independent Market Monitor Joe Bowring | NRC

to continue providing clean energy in Ohio," he said. "Clearly the opponents of HB 6 cannot make the argument on both sides."

Emissions and Reliability

FES says its nuclear plants' contribution to the grid's reliability and the state's carbon-free electricity can't be ignored.

"I see no good alternative, and these plants are too vital to Ohio to sacrifice because of the failures of a distorted regional wholesale market," Gifford said.

He said it's unrealistic to expect renewables and battery storage will replace the lost capacity if the plants close. Just ask Germany and Japan, where carbon emissions and energy prices increased after they severely curtailed their nuclear output, he said.

"You end up with a collective action problem where states that do not subsidize their failing units end up being chumps who forego the power, the resilience characteristics, the jobs and tax revenue," he said, urging Ohio not to give up its plants and let natural gas fill the void. "I don't know a good way to cut this Gordian Knot, but I do know that losing these plants would be bad for Ohio and bad for consumers."

A PJM analysis released earlier this month concluded emissions will drop regardless of whether Perry, Davis-Besse and FirstEnergy's Beaver Valley plant in Pennsylvania close or stay open — though the reduction would be significantly greater if the plants stay online. (See PJM: Nukes Keep Energy Costs Down, in

The problem, according to PJM Independent Market Monitor Joe Bowring, is that the number of gas plants slated to come online in 2023 will likely decrease by more than half of what is currently in the RTO's pipeline of approved projects, and less enthusiasm for nuclear subsidies in Pennsylvania means a scenario that saves all three plants is far from realistic. A combination of nuclear plant retirements and canceled gas projects would increase energy costs and push emissions in both states higher because of the reliance on less efficient coalfired generation, PJM's analysis concluded.

'Rise Like Lazarus'

Sotkiewicz insists the new law would just increase the profitability of the plants by as much as 240%, with no true reduction in carbon emissions on account of the bill's last-minute carveout for two of Ohio Valley Electric Corp.'s coal plants.

Citing data compiled from publicly available



The Davis-Besse nuclear plant in northern Ohio | NRC

sources, Sotkiewicz said the single reactors at Perry and Davis-Besse incur costs nearly 25% below the industry average. He estimated annual net operating profits over the next decade for Perry will reach \$28 million, while Davis-Besse will collect almost \$44 million.

As a result of FES' bankruptcy proceedings, Sotkiewicz says the reorganized company will soon rid itself of crippling debt service and be poised "to emerge as a fully independent power producer."

He also pointed out that the entirety of FirstEnergy's generation portfolio, except for its 545-MW West Lorain fuel-oil and natural gas-fired plant, has submitted retirement notices. "That seems highly implausible ... why would [bond holders] agree to become equity holders in a single peaking plant? Other resources slated for retirement are likely to 'rise like Lazarus, but only those with the most to offer competitively. Perry and Davis-Besse are good candidates given their profitability."

He further suggests that PJM auction data indicate that FirstEnergy plays "a shell game" by "hiding cleared capacity in units slated for retirement (or already retired) to eventually be transferred over to nuclear plants when they remain in service" — another sign that the Ohio nukes "are not going away anytime soon."

Gifford says Sotkiewicz gets its all wrong.

"The API study does what all wish-fulfillment utility planning models do," Gifford said. "It cherry-picks its numbers to overstate revenues and understate costs. By doing so, plants operating at a loss suddenly turn profitable."

Specifically, Gifford accused the API study of using inaccurate price nodes and assuming plants receive capacity payments when they

have not cleared auctions in several years. He also said the study underestimates operating costs for nuclear plants, including overlooking refueling years, equipment maintenance and the differences between cost structures at single- and multiunit facilities.

He also cited another API study that determined TMI would lose \$466 million over the next decade.

"Three Mile Island and Davis-Besse are virtually twin facilities, and both are operated at the highest level of performance within the same PJM market construct," he told the committee. "Yet, a study completed 60 days prior to the one submitted to you today reflects nearly a \$750 million difference in profitability between the two units over the next 10 years. How can that be?"

Over-compliance on EE

HB 6 also would make major changes to Ohio's energy efficiency incentives.

Under current law, EDUs assess a monthly \$4.10 fee on customers. The Ohio Environmental Council Action Fund says about 74 cents support distributors meeting renewable resource standards and the remaining \$3.36 is used for energy efficiency and peak demand reduction.

Over the last five years, Ohio's EDUs have collected more than \$1.3 billion from residential customers to meet the mandates, Public Utilities Commission of Ohio Chairman Sam Randazzo said. Utilities boost their take by reducing energy efficiency and peak demand response over and above the state requirement for the year.

"The EDUs have been over-complying with the

2.10

statutory demand-side compliance requirements," Randazzo told the committee on June 4. "Based on past experience and the incentives that each EDU presently is receiving, it is reasonable to expect that this over-compliance trend will continue into the future."

PUCO spokesperson Matt Schilling said the primary driver for this behavior boils down to the millions in shared profits that utilities split for each megawatt-hour saved. Between 2014 and 2017, companies shared \$233 million in savings, he said.

In fact, all the state's EDUs will hit the statutory compliance peak of a 22.2% reduction in demand a full four years before the 2027 deadline, according to PUCO's analysis.

"The escalating annual supply-side and demandside compliance requirements were not based on any studies or analysis," Randazzo said. "They were and are arbitrary. But more importantly, the compliance obligations were proposed and considered based on some assumptions about the future — assumptions that sharply conflict with our current reality."

Randazzo said the compliance obligations incentivize entry of renewable generation sources while simultaneously encouraging EDUs to reduce the size of the overall electricity market — disproportionately impacting "non-preferred" technologies on both the supply and demand side. Because it's unlikely they'll stop collecting these fees, Randazzo said, it's no wonder these older technologies, nuclear generation included, want financial assistance "to stay in the game."

Rob Kelter, senior attorney with the Environmental Law & Policy Center, said existing efficiency mandates help keep costs lower for consumers.

"Because the efficiency programs reduce energy consumption across the state, energy prices are lower for all Ohioans," he *said*, noting a Resource Insight *report* that determined rate-payers save an additional \$2/month because of the fees. "Our Energy Efficiency Resource Standards are vitally important, not only for the environmental benefits that result from reducing our energy consumption, but because they keep energy prices low for all Ohioans."

Sweetener for EDUs?

EDU Duke Energy Ohio *testified* in April that any elimination of the energy efficiency standard should be gradual, with "a reasonable period of time to allow affected stakeholders to adjust to the change."

Two other companies, AES' Dayton Power & Light and American Electric Power, indicated their *support* for HB 6 last month.

Duke, AEP, FirstEnergy and AES are the parent companies for all six of Ohio's EDUs.

The companies also own almost two-thirds of OVEC, which would benefit from a provision in the bill that codifies a state Supreme Court ruling allowing it to charge customers up to \$2.50/month to subsidize its Kyger Creek and Clifty Creek coal-fired plants.

On top of the nuclear subsidy fee, which sunsets in 2026, electricity companies can also recoup costs lost on long-term contracts to meet Ohio's renewable portfolio standard mandates until 2030. AEP, the Columbus-based utility that owns more than 40% of the state's coal and natural gas plants, urged lawmakers to allow rate recovery for these existing contracts when moving the bill forward.

Tom Froehle, AEP's vice president of external affairs, testified on June 12 that the bill allows the company to further invest in renewable resources, while simultaneously addressing Ohio's increasing reliance on out-of-state generation and its legacy resource issues dating back more than a decade.

"HB 6 provides ongoing certainty for an important and longstanding baseload generating asset," he said. "The bill also includes rate caps for customers while allowing for the continued operation of OVEC generating units, which will provide certainty for AEP Ohio's customers and Ohio jobs."

Critics said this OVEC carveout serves one purpose alone: bolstering support among EDUs.

"The only reason these plants are in HB 6 was to enlist support for HB 6 from the other Ohio utilities, because the bailout for the nuclear plants would only benefit FirstEnergy," said John Finnigan, lead counsel for the Environmental Defense Fund.

Ratepayer Impact

HB 6 would eliminate the \$4.10 fee and charge residential customers \$1/month, starting in 2021, to support the nuclear plants through 2026. Commercial customers will pay \$15/ month, industrial customers will pay \$250 and large-scale users consuming more than 45 million kWh at one site annually will pay \$2,500 monthly. The anticipated \$198 million in revenue will be collected by the state treasury and distributed back to the defined "clean air resources" at a rate of \$9/MWh. The subsidy would be reduced if the "market price index" based on energy futures contracts for the PJM AEP-Dayton hub and projected capacity prices using PJM's Rest of RTO market clearing price - exceeds \$46/MWh. Wind and new solar generators are ineligible for the credit.

Ohio Sen. Steve Wilson (R), chairman of the Energy and Public Utilities Committee, told *RTO Insider* the issue is certainly "complicated" for lawmakers.

"I've been working hard to be the guy in the striped shirt blowing the whistle and giving everyone a chance to explain their position," he said. "But we are working hard to get FirstEnergy an answer by their June 30 deadline."

The committee completed its *fourth* hearing on the bill June 19 and has scheduled a fifth for today. ■



Coal conveyer belt for OVEC's Clifty Creek generating plant | OVEC

2,100

Ohio Supreme Court Overturns FirstEnergy Subsidy

By Christen Smith

The Ohio Supreme Court on Wednesday overturned a 2016 decision by state regulators that netted FirstEnergy at least \$168 million in extra annual revenue through a distribution modernization rider (DMR) — though ratepayers shouldn't expect a refund anytime soon.

In a 4-3 *ruling*, the court said the Public Utilities Commission of Ohio erred when it allowed FirstEnergy to modify its existing electric security plan to charge more than 2 million customers for the rider, collecting approximately \$442 million over the last three years.

The commission approved the charge because the revenue it generated would purportedly serve as an incentive for the companies to modernize their distribution systems. The Ohio Consumers Counsel and 18 other parties challenged PUCO's decision, telling the court that the fee was a sham devised for "credit support" and never once funded any system upgrades.

"Although the DMR may make it possible for



The Ohio Supreme Court overturned a 2016 decision that allowed FirstEnergy to collect about \$442 million in fees.

FirstEnergy to obtain capital for future infrastructure investment on more favorable credit terms, the evidence cited does not support the commission's finding that the DMR qualifies as an incentive under [the Revised Code]," the court said in its ruling. "The PUCO staff's wishful thinking cannot take the place of real requirements, restrictions or conditions imposed by the commission for the use of DMR funds."

Although FirstEnergy must immediately remove the charge from ratepayer bills, the court acknowledged current state law does not provide any refund mechanism for the nearly half-billion dollars in fees it says the company improperly collected.

It's a common occurrence, said OCC spokesperson J.P. Blackwood, noting that since 2008, utility companies have collected more than \$1 billion from consumers in unlawful fees without paying back a single dime.

"Without a refund, this decision is another victory for utilities who have thwarted consumer attempts at the PUCO, the legislature and the court to enable refunds of utility charges that the court finds to be improper," he said. "The utilities have too much influence in this state and that needs to be reformed."

Matt Schilling, spokesperson for PUCO Chairman Sam Randazzo, did not respond to a line of questioning about whether the organization would ever consider approving a refund mechanism for consumers in the future.

"The PUCO is currently reviewing the decision and will respond in accordance with the court's directives," he said.

FirstEnergy also said it is still reviewing the ruling and evaluating its options.

"We continue to believe that [the DMR] provides benefits to our customers by enhancing our ability to modernize our system and invest in advanced technologies," company spokesperson Mark Durbin said. "A third party appointed by the PUCO just [last] week determined that we have appropriately used DMR funds in support of grid modernization."

In its ruling, the court was specifically critical of PUCO's previous third-party DMR expenditure reviews, performed periodically by Oxford Advisors, saying they "do not sufficiently protect ratepayers from possible misuse of DMR funds."

The court noted that Oxford is required to submit quarterly updates to PUCO staff, as well as a midterm report in the event FirstEnergy seeks to extend the DMR beyond its initial three-year term and a final report within 90 days of the termination of the DMR.

But the court also pointed to a catch: While PUCO will allow any participant in the DMR proceeding to examine Oxford's conclusions and recommendations, the reports do not become available until they are filed with the commission.

"This will not occur, however, until FirstEnergy seeks to either extend or terminate the DMR, and so it appears that the parties will not be able to challenge Oxford's findings until well after the DMR funds have been recovered and spent," the court wrote. "Thus, it is not clear what remedy would be available should the commission (or this court on appeal) find that FirstEnergy has misused DMR funds." ■





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Contact Marge Gold (marge.gold@rtoinsider.com)



FERC Rejects PJM TMEP Rehearing Requests

By Christen Smith

FERC last week rejected a set of rehearing requests by PJM merchant transmission owners, New Jersey regulators and the New York Power Authority contesting the cost allocations for several cross-seams projects.

The commission's ruling Thursday reaffirmed a July 2018 order that directed PJM and its TOs to submit compliance filings revising Tariff provisions regarding cost responsibility assignments for four targeted market efficiency projects (TMEPs) with MISO included in PJM's Regional Transmission Expansion Plan (*ER18-614*).

FERC had approved 41 PJM transmission projects but rejected the allocations for TMEPs b2971, b2973, b2974 and b2975, instituting a Section 206 proceeding to resolve the matter and ensure the Tariff contained clear language regarding allocations for the future. (See FERC OKS PJM RTEP Allocations, Sets TMEP 206 Proceeding.) The PJM TOs had argued that the RTO erred in not allocating project costs to Hudson Transmission Partners and Linden VFT, which operate merchant lines into New York City and had recently converted their firm transmission withdrawal rights to non-firm. Those lines would benefit from the TMEPs, the other TOs contended.

On July 31, 2018, PJM submitted a compliance filing updating the cost responsibility assignments to reflect Hudson and Linden, while the PJM TOs the next day submitted a separate filing clarifying that TMEP allocations would be assigned to merchant facilities.

Hudson, Linden and NYPA contested FERC's rejection of the original cost allocations excluding merchant owners from the TMEP assignments. They argued that the commission misinterpreted PJM Tariff language that "limits all cost allocations ... based on their actual firm transmission withdrawal rights."

FERC rejected that argument, noting that the basis for cost allocation under the TMEP provision "is the net congestion incurred in PJM zones" regardless of merchant transmission facility contracts for firm or non-firm withdrawals rights.

"Customers of merchant transmission facilities without firm transmission withdrawal rights still receive benefits from TMEPs in the form of lower congestion costs," the commission said. "PJM transmission owners make clear

that the intent of the TMEP provision was to assign costs to merchant transmission facilities based on the net congestion relieved by the project."

BPU Rebuffed

The commission also rejected the New Jersey Board of Public Utilities' contention that FERC erred in accepting TMEPs b2955 and b2956 because the projects were no longer necessary after Hudson and Linden relinquished their firm withdrawal rights. The BPU argued that PJM should have therefore withdrawn the projects from the RTEP.

But FERC pointed out that PJM re-evaluated the projects after the merchant owners relinquished their firm withdrawal rights, citing an affidavit from Aaron Berner, the RTO's manager of transmission planning, that explained why that move did not change the results of the RTO's reliability studies that determined the

rejected projects to still be "necessary."

"Mr. Berner explained ... that the analysis showed that injections of electricity by the merchant transmission facilities, not withdrawal from these facilities, contributed to the need for the projects. Because firm transmission withdrawal rights relate only to withdrawals from PJM, the relinquishments of the firm transmission withdrawal rights have no bearing on the need for projects b2955 and b2956," FERC said.

The commission further accepted the cost allocation revisions submitted in PJM's July 31, 2018, compliance filing that reflected Hudson and Linden's *pro rata* share of the sum of the net transmission congestion charges paid by market buyers, as identified in the TMEP study. It also approved the PJM TOs' Aug. 1, 2018, compliance filing clarifying the language regarding TMEP cost allocations. ■



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PJM MRC/MC Preview

Below is a summary of the issues scheduled to be brought to a vote at the PJM Markets and Reliability and Members committees Thursday. Each item is listed by agenda number, description and projected time of discussion, followed by a summary of the issue and links to prior coverage in RTO Insider.

RTO Insider will be in Valley Forge, Pa., covering the discussions and votes. See next Tuesday's newsletter for a full report.

Markets and Reliability **Committee**

1. Fuel Security Senior Task Force Charter (9:20-9:35)

PJM will ask the Markets and Reliability Committee to approve the charter for its controversial Fuel Security Senior Task Force on Thursday.

Stakeholders reluctantly endorsed a problem statement and issue charge in March after some doubted the necessity of the conversation and even inferred that PJM already had a solution in mind. (See PJM Stakeholders Reluctantly OK Fuel Security Initiative.)

If approved, the task force will report back to the MRC in September with any possible recommendations for addressing the first four key work activities outlined in the issue charge: providing education on the issue; quantifying the risk of selected scenarios that could risk fuel security; defining fuel/energy security; and determining whether there is a quantifiable and/or locational requirement for fuel/energy security. The MRC will provide a timeline for completion of the remaining goals at the September meeting.

2. Manual 6 Amendments (9:35-9:50)

Staff will seek endorsement of revisions to

Manual 6: Financial Transmission Rights as part of their cover-to-cover review.

The revisions contain language reflecting recent and upcoming FTR market changes. They would remove all details on FTR credit policy, providing a reference to credit rules in the RTO's Credit Policy and Attachment Q of the Tariff, which address the recently added mark-to-auction requirement.

Brian Chmielewski, manager of market simulation, said at last month's MRC that staff are continuing their look into rule changes around FTR mark-to-auction credit requirements detailed in Section 6.7, but they're moving ahead with default settlement rule updates, realignments to the OASIS refresh and the hourly cost component change, pending FERC approv-

3. Manual 14B Amendments (9:50-10:30)

LS Power's proposed Manual 14B revisions are scheduled for a vote after two deferrals back to the Planning Committee for further work.

During the June PC meeting, PJM Manager of Transmission Planning Aaron Berner said stakeholders appeared close to agreeing on tweaks to the language and would be ready for an MRC discussion later that month.

Sharon Segner, vice president of LS Power, first offered the revisions at the January MRC meeting after expressing concern over the growing number of supplemental projects languishing in the Regional Transmission Expansion Plan. Supplemental projects are proposed by transmission owners and are not required for compliance with PJM's reliability, operational performance or economic criteria.

Segner's proposed language specifies that a TO's supplemental project "will generally be removed from the RTEP" following a final order by a state siting agency rejecting it. A special session of the Planning Committee has been meeting over the last three months to review a variety of legal issues related to FERC Orders 890 and 1000. (See "RTEP Removal Language Vote Deferred, Again," PJM MRC/MC Briefs: April 25, 2019.)

Berner will also present feedback received from stakeholders about the direction of the special PC discussion on the RTEP language. (See "RTEP Poll," PJM PC/TEAC Briefs: June 13, 2019.)

Members Committee

1. Must-offer Exception Process (1:25-1: 45)

The Members Committee will be asked to endorse rule changes for PJM's must-offer exception process after months of debate among stakeholders.

The MRC endorsed a joint plan from PJM and the Independent Market Monitor in April that would strip capacity interconnection rights (CIRs) from generators seeking must-offer exceptions without a plan to become capable of meeting Capacity Performance requirements.

Stakeholders approved the proposal in a sector-weighted vote of 3.74 to 1.26, with unanimous support from both electric distributors and end-use customers. The two sectors shot down PJM's original plan to take CIRs from resources after a three-year period of lost CP capability, which had been approved by 79% of the Market Implementation Committee in November. The sectors also rejected an alternative from Exelon that would have allowed capacity resources to switch voluntarily to energy-only status and disallowed PJM to force such a switch. (See Load Interests Endorse PJM-IMM Must-offer Proposal.) ■

- Christen Smith

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FERC Reverses Course — Again — on PJM Line-loss Refunds

By Rich Heidorn Jr.

FERC last week reversed its position in a more than decadelong dispute over line-loss refunds, ordering PJM to surcharge load to recover overpayments resulting from earlier commission rulings.

Acting on a voluntary remand of a case before the D.C. Circuit Court of Appeals, the commission's ruling Thursday reversed orders it issued in 2011, 2012, 2015 and 2016. It ordered PJM to pay refunds of misallocated line-loss overcollections to some financial marketers and to surcharge load to recover refunds from parties that previously had received overpayments (EL08-14-012).

Last week's ruling, which could require PJM to collect millions from load, was actually the third reversal by FERC in the complicated dispute.

The case originated from a complaint by financial marketers — including Black Oak Energy, EPIC Merchant Energy and SESCO Enterprises — who argued they weren't getting their fair share of line-loss refunds for up-to-congestion (UTC) transactions. PJM includes line losses in its LMP calculations to ensure correct pricing signals and efficient dispatch, a procedure that results in the RTO collecting more in line losses than it pays to generators.

After initially ruling that the marketers were not entitled to line-loss refunds, the commission reversed itself, leading PJM to pay the marketers \$37 million in 2010. FERC reversed itself again in orders in 2011 and 2012, leading PJM to issue invoices in 2012 requiring the marketers to repay the refunds. As of 2014, PJM told FERC, only \$9 million of the \$37 million had been returned.

The commission's latest reversal came in response to a challenge by financial marketer Energy Endeavors to commission rulings in 2015 and 2016. During briefings before the D.C. Circuit, the commission submitted an unopposed motion for voluntary remand, citing court rulings finding that the Federal Power Act gives the commission "broad remedial authority, including the ability to act retroactively to correct unjust situations and to ensure that what 'should have been done' is done," FERC explained.

"The commission in the past has referenced a general policy of not ordering refunds in cost allocation and rate design cases. However



Transmission line crossing the Pennsylvania Turnpike near Bowmansville, Pa. | © RTO Insider

... we find that the commission has greater discretion with respect to this refund-related issue under sections 309 and 206b of the FPA than was indicated by those statements.

"In light of these precedents, the commission will consider whether to require refunds in cost allocation and rate design cases based on the specific facts and equities of each case, even where such refunds must be funded through surcharges on certain parties."

In addition to directing PJM to pay line-loss overcollections to financial marketers for UTC transactions, FERC also ruled that the RTO should treat customers that export energy from it to MISO "on an equal basis to PJM load"

It said PJM has authority to impose surcharges if needed to implement the refunds but should not surcharge the MISO exporters because the exporters had made business decisions based on "a reasonable expectation of receiving at least some credit for line losses."

"Certain exporters pointed out that they would not have engaged in significant numbers of export transactions had they had notice that they would no longer be eligible for a pro rata share of marginal line-loss allocations," the commission noted. "DC Energy, for example, calculated that it would not have engaged in 350,000 MWh of transactions." The commission directed PJM to calculate the refunds, with interest, owed to the financial marketers; the amounts of refunds previously paid, and not returned, that may be retained by the financial marketers; and the surcharges owed by PJM load and the exporters based on their proportionate share of the marginal line-loss allocations taking into account the payment of refunds.

"This resolution provides the most equitable result, as it permits those engaging in up-to-congestion transactions to participate equally in the distribution of line-loss credits while not unduly upsetting settled expectations." the commission said.

Pierce Atwood attorney Randall S. Rich, who represents several of the financial marketers, declined to comment on the ruling and said he did not know how much money is at stake.

PJM spokesman Jeff Shields said the RTO will implement the order but does "not have an estimate of a dollar figure at this point."

"There will be challenges associated with how many years have elapsed, during which time participants now deemed by FERC to owe money have left the market," Shields said. "PJM is disappointed by the order for a number of reasons, not the least of which is the financial burden it will place on consumers who actually use the grid to buy and sell energy."

2.1

Ørsted Wins Record Offshore Wind Bid in NJ

By Michael Brooks

Ørsted's 1,100-MW Ocean Wind project won the New Jersey Board of Public Utilities' first offshore wind power solicitation last week, setting the record for the single largest award for the resource in the U.S.

The board selected *Ocean Wind* over two other projects: Atlantic Shores Offshore Wind, a partnership between EDF Renewables and Shell New Energies; and Boardwalk Wind, sponsored by Equinor.

The BPU said it evaluated the three proposals based on the offshore wind renewable energy certificate (OREC) "purchase price, economic impact, ratepayer impact, environmental impact, the strength of guarantees for economic impact, and the likelihood of successful commercial operation."

It said it found Ørsted's economic development plans were "the most detailed and offered the most benefit to New Jersey," citing its promise of \$1.17 billion in net economic benefits.

The board also said Ørsted offered the "most complete and ... advanced" plan for minimizing environmental impacts, and that its experience and knowledge gave it "the best chance of successful development."

The Danish company offered a first-year



Ocean Wind's location | Ørsted



Ørsted's Walney Wind Farm off the English coast | Ørsted

OREC price of \$98.10/MWh for the project. The levelized net OREC Cost — the actual cost paid by ratepayers after energy and capacity revenues are refunded to ratepayers — was estimated at \$46.46/MWh. The BPU said it will increase residential customers monthly bills by \$1.46, with average increases of \$13.05 for commercial customers and \$110.10 for industrials.

The BPU did not respond to a request to provide details on proposals by the competing bidders.

Ørsted's bid was submitted in a partnership with PSEG Renewable Generation. PSEG will "provide energy management services and potential lease of land for use in project development," the companies said in *announcing* their partnership in December.

The BPU *approved* the project "based on the analysis that Ørsted's project offered the strongest contribution to New Jersey's economy, combated climate change, provided added reliability to the transmission network, and did so at the lowest reasonable cost and risk," it said.

The project covers nearly a third of the state's target of 3,500 MW in offshore wind power by 2030. Gov. Phil Murphy has also set a goal for 100% clean energy by 2050; he released a draft energy master *plan* for achieving that goal earlier this month. State regulators expect to

seek an additional 1,200 MW of OSW in 2020 and another 1,200 MW in 2022.

"Today's historic announcement will revolutionize the offshore wind industry here in New Jersey and along the entire East Coast," Murphy said in a statement. "This award is a monumental step in making New Jersey a global leader in offshore wind development and deployment."

Ocean Wind will be located 15 miles off the coast of Atlantic City. Construction is expected to begin in "the early 2020s," according to Ørsted, with the project operational in 2024.

"Today's announcement firmly establishes a fast-growing global industry in New Jersey, which will create jobs and supply chain in the state," said Thomas Brostrøm, CEO of Ørsted U.S. Offshore Wind and president of Ørsted North America. "Ocean Wind will ensure that the state and its residents not only benefit from clean, renewable power, but that they reap the rewards of being an early player in the offshore wind industry as it grows in the U.S."

The BPU said that by acting now it hoped to provide the winning bidder time to qualify for federal investment tax credits that expire at the end of 2019. "It is estimated that these credits could save New Jersey ratepayers approximately 12% of the total project cost," the board said. ■

SPP News



FERC Rejects Pair of SPP Contested Settlements over ATRR

By Tom Kleckner

FERC last week rejected contested settlements filed by SPP regarding the annual transmission revenue requirements (ATRRs) for two cooperatives.

The commission said that as the settlements were contested, they couldn't be approved under its guidelines and precedent set by a 1999 case involving *Trailblazer* Pipeline Co. It remanded both proceedings to the chief administrative law judge to resume hearings.

The first settlement, involving SPP, Corn Belt Power Cooperative, MidAmerican Energy, Basin Electric Power Cooperative, Alliant Energy Corporate Services and the Missouri Public Service Commission, revolves around the RTO's 2015 Tariff revisions to accommodate Corn Belt's ATRR as an incoming transmission-owning member (*ER15-2028*).

The commission accepted the proposed revisions, effective Oct. 1, 2015, and established hearing and settlement procedures. SPP submitted the settlement agreement in July 2017.

The agreement was initially opposed by FERC staff, Missouri River Energy Services (MRES) and the Western Area Power Administration on the grounds that the rate treatment for three Corn Belt grandfathered agreements (GFAs) was unjust and unreasonable and inconsistent with commission precedent. The GFAs provide in-kind transmission service to each of the settlement's parties. (See "FERC Accepts ITC Midwest's Interconnection Agree-



Corn Belt's headquarters in Humboldt, Iowa | Corn Belt Power Cooperative



NIPCO towers over Western Iowa's landscape.| NIPCO

ment," FERC Approves Change to Eliminate Gaming in SPP Markets.)

The supporting parties argued that the GFA's rate treatment, which credits all GFA revenues against Corn Belt's revenue requirement, is consistent with the SPP Tariff. They said any attempt by non-settling parties to seek relief inconsistent with the Tariff provisions would amount to "collateral attacks on the SPP Tariff."

FERC noted its regulations provide that it may decide a contested settlement's merits only if "the record contains substantial evidence upon which to base a reasoned decision or the commission determines that there is no genuine issue of material fact."

The commission said it couldn't approve the settlement under any of the first three approaches for reviewing contested settlements under its *Trailblazer* ruling, nor could it sever the contesting parties or contested issues under the fourth.

Under the first *Trailblazer* approach, "if there is an adequate record, the commission can address the contentions of the contesting parties on the merits," which requires a merits determination on each contested issue. FERC found the supporting parties' argument that Corn Belt has adhered to the Tariff because it is crediting the revenues from the GFAs against its revenue requirement to be unsupported.

Under the second *Trailblazer* approach, FERC may "approve a contested settlement as a package on the grounds that the overall result of the settlement is just and reasonable." The commission said such a finding in this case

"does not appear possible because certain crucial information needed to evaluate Corn Belt's proposed revenue requirement is absent."

It said there were two obstacles to the third *Trailblazer* approach: The record is insufficient to determine whether the settlement's benefits outweigh the objections to it; and the contesting parties are located in Corn Belt's zone and share a direct interest in the provisions relating to the utility's revenue requirement.

FERC also used *Trailblazer* precedent in rejecting a contested settlement involving Northwest Iowa Power Cooperative (NIPCO), SPP, Basin Electric, MidAmerican and the Missouri PSC (ER15-2115).

As in the Corn Belt case, SPP filed Tariff revisions in 2015 to allow for NIPCO's ATRR when it joined the RTO as a transmission-owning member. The commission accepted the proposed revisions, effective Oct. 1, 2015, and set hearing and settlement procedures. SPP submitted the settlement agreement in July 2017.

MRES and WAPA opposed that settlement as well, objecting to its rate treatment of two NIPCO GFAs. The intervenors said other transmission owners will essentially subsidize transmission loads and shift the cost from NIPCO and its customers to the TOs.

The commission said it couldn't approve the contested settlement under any of the first three *Trailblazer* approaches. It also said it couldn't sever the contesting parties or contested issues under the fourth *Trailblazer* approach.

SPP News



SPP's Western EIS Market Poised to Challenge EIM

Continued from page 1



SPP's Western Energy Imbalance Services logo | SPP

tion service.

SPP CEO Nick Brown said the RTO wants to



Nick Brown | © RTO Insider

do more than simply launch a wholesale electricity market in the West.

"We want to work with utilities to understand the challenges they face and develop smart solutions that benefit the whole region," he said. "That's how we operate

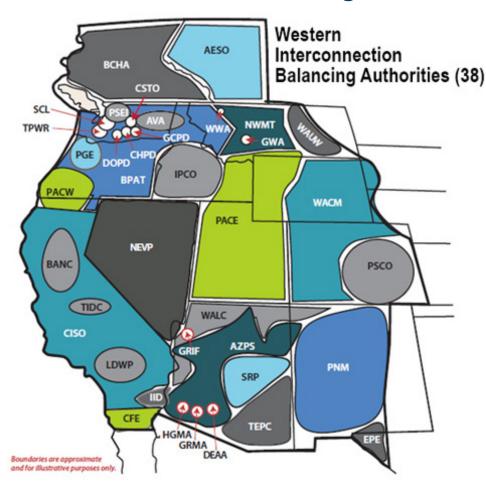
as an RTO, and it's how we plan to administer this and other contract services in the West."

SPP's plans met with a cool reception at a Western EIM Regional Issues Forum carbon workshop June 18 in Folsom, Calif. Carl Zichella, director of western transmission for the Natural Resources Defense Council, said SPP doesn't have a lot to offer EIM participants and noted there are limited transmission links between its territory and EIM states.

"They're looking at ways to get a toehold in the Western market," Zichella told *RTO Insider*. "But when you have a market that's already delivering more than half a billion dollars in benefits, it's going to be tough to compete with."

CAISO rolled out the EIM in 2014 with Pacifi-Corp as its first member. The market now has eight participants across eight Western states and one Canadian province, with eight other BAs slated to join over the next couple years.

ISO spokesperson Anne Gonzales said the EIM has grown steadily and has delivered "substantial" cost savings and carbon-emission reductions to its participants. She pointed out that by May, the market had yielded total benefits of more than \$650 million, and the \$83.5 million in first-quarter benefits more than doubled those for the same period a year earlier. (See *Cold Forces NW to Dip More Deeply*



WECC balancing areas | WECC

into EIM as Avista Joins.)

"We envision even more expansion of the market, especially since the benefits increase with each new participant," Gonzales said.

Some EIM participants alluded to lingering unease between California and the Rocky Mountain region that SPP may be trying to capitalize on.

'Tender Time'

At the carbon workshop, an event intended to explore the integration of carbon pricing into the EIM, some state regulators cautioned against incorporating carbon policies in the market. (See related story, *Patchwork of Carbon Policies Troubles Western EIM.*)

Utah Public Service Commissioner Jordan White said that while he didn't know the details of SPP's imbalance market, he approved of "competition among market platforms" and suggested entities should choose whichever market platform is the best fit for them.

SPP spokesman Derek Wingfield said the RTO's recent launch of Western contract-based services "acknowledges there's value to be had by both SPP and customers in providing these products on a standalone basis."

"We're glad for the chance to do so and prove our worth," Wingfield said.

SPP is already set to begin managing RC services to more than a dozen Western utilities in December. SPP, CAISO and BC Hydro are among those taking advantage of the decision by Peak Reliability, the Western Electricity Coordinating Council's incumbent RC provider, to go out of business by year-end. (See SPP on Track for WECC RC Certification.)

The RTO already administers the Western

Continued on page 37

SPP News



SPP Proposes to Drop Exit Fee to \$100K

By Tom Kleckner

SPP may ask FERC to lower its exit fee in response to the commission's April order that the RTO eliminate the fee for members who are not transmission owners or load-serving entities.

Staff told the Corporate Governance Committee on June 17 that they believe FERC's order (EL19-11) suggested the commission may approve a lower amount. SPP faces an Aug. 1 deadline to make a compliance filing and has already submitted a rehearing request to clarify the definitions of TOs and non-TOs. (See FERC Tells SPP to End Exit Fee for Non-TOs.)

The committee agreed in executive session to recommend a fixed \$100,000 exit fee to the Board of Directors when it meets on July 30. The current exit fee is estimated at \$631,915, nearly twice the \$327,191 fee that FERC approved in 2006, when it last required the RTO to impose an exit fee on all members.

Load-serving members would be subject to an additional share of SPP's financial obligations and future interest based on their net energy for load percentage. LSEs would be defined as distribution or electric utilities that have a service obligation and/or secures energy and transmission service to serve its end-use customers' demand and energy requirements.

Staff noted the commission's order said "some level of exit fee that does not act as a barrier to membership and is not excessive could be appropriate in SPP."

By making the fee a fixed amount, SPP said it would be addressing the commission's concern that the exit fee can move up or down.

FERC's order came in response to a complaint filed by the American Wind Energy Association and Advanced Power Alliance, formerly the Wind Coalition. The groups charged that SPP's exit fee results in unjust and unreasonable rates and creates "a barrier to membership" for non-TOs and non-LSEs.

"What's being proposed here does not seem to track with cost-causation principles. Such an exit fee that's not based on any ... principles would likely be opposed," APA's Steve Gaw said. "We would like to see something that is more



Steve Gaw | © RTO

in line with what other RTOs have found to be appropriate for membership and stakeholder participation."



Denise Buffington | © RTO Insider

CGC member Denise Buffington, director of federal regulatory affairs with Evergy companies Kansas City Power & Light and Westar, cautioned against the move considering the pending rehearing request.

"If FERC gets this as an alternative ... it's an

easy pass for them not to deal with this issue. My preference would be to wait until we get an order on the rehearing request," she said. "If I were giving legal advice on behalf of the client, I would stick close to what FERC has ordered."

SPP CEO Nick Brown said staff debated the timing of the alternative proposal but said the recommendation was "to help FERC get the right answer."

"We've continued to debate this [issue] at the request of non-members or members who wished to withdraw but couldn't afford the exit fee," he said. "In putting this proposal on the table, we specifically wanted to influence FERC's thinking and help them to make a decision. We consider this just and reasonable."

Other committee members favored the lower exit fee. Dogwood Energy's Rob Janssen said the reduced fee would solve the problem of "zombie members": those who staved members "because it was easier than paying the exit

"I think this change will make them come out of the woodwork and make a decision one way or the other," Janssen said.

The CGC will also recommend approving the compliance filing, which would change SPP's governing documents in response to FERC's order. Staff said it will include what it believes are errors in FERC's order, for which they are seeking rehearing.

If the board approves the committee's recommendations in July, they will be promptly filed at FERC to meet the Aug. 1 deadline.

SPP's Western EIS Market Poised to Challenge EIM

Continued from page 36

Interconnection Unscheduled Flow Mitigation plan, which uses controllable devices to manage congestion along transmission lines, for six Western entities: CAISO, NorthWestern Energy, NV Energy, PacifiCorp, Tri-State Generation and Transmission Association, and the Western Area Power Administration.

SPP also said it is in the early stages of developing planning coordination services to help utilities study and plan upgrades to the region's transmission system.

"We're a stakeholder-driven organization that

believes in the power of partnership," Brown

SPP said in April it was seeking interested utilities and customers to help build a real-time market "that will meet the electricity needs of the Western Interconnection." (See SPP Solicits Interest in Western Real-time Market.)

It plans to operate the WEIS under a Western Joint Dispatch Agreement that SPP said will guarantee "participants a say in the market's ongoing evolution." Its central feature will be an intra-hour, centralized dispatch of energy every five minutes from participating resources. The market will provide price transparency

of wholesale energy and allow parties to make bilateral trades and hedge against transmission congestion.

SPP operated an EIS market in its own footprint from 2007 until 2015, when it added the day-ahead Integrated Marketplace. That market yielded about \$150 million in annual benefits, with one single-year peak of more than \$250 million.

"SPP knows markets," said Bruce Rew, the RTO's vice president of operations. "We [have] designed, built and operated wholesale energy markets that far exceeded participants' expectations."

Company Briefs

Arch, Peabody Combine Wyo., Colo. **Operations**

Two of the world's largest coal producers have announced they will combine mining operations in Wyoming and Colorado in an attempt to improve their competitiveness against natural gas and renewable energy sources.

Arch Coal and Peabody Energy say the deal could save about \$120 million annually in mostly operational costs over 10 years. It will be 66.5% owned by Peabody and 33.5% by Arch.

The plan involves the North Antelope Rochelle, Black Thunder, Caballo, Rawhide and Coal Creek mines in Wyoming and the West Elk and Twentymile mines in Colorado.

More: The Denver Post

Tendril Acquires FirstFuel to Help Utilities Serve C&I Customers

Tendril, the company that's built up a

portfolio of software and services to help utilities manage their residential customers, has acquired FirstFuel Software to expand its offerings to utilities' commercial and industrial customers as well.

This is the third acquisition for Tendril since last year's major investment, led by private equity firm Rubicon Technology Partners, meant to give the Boulder, Colo.-based company the capital to expand its scope of business for its utility clients.

FirstFuel is considered a market leader in utility business customer engagement, with deployments at more than 35 utilities, including Pacific Gas and Electric, Southern California Edison, Alliant Energy, Baltimore Gas & Electric, American Electric Power and Southern Co.

More: Greentech Media

Shell Leaps Ahead in Race for Dutch **Utility Going Private**

A domestic consortium set up by Royal



Dutch Shell and pension fund manager PGGM has taken a bigger lead in the race for

Dutch energy company Eneco as two other contenders have dropped out, sources close to the matter told Reuters.

France's Total and Italy's Enel, which had teamed up with Dutch pension fund manager APG, have both dropped out of the process, the source said. But Macquarie and Japan's Mitsubishi are also still in the race for the company estimated by analysts to be worth about \$3.4 billion, sources said. One said French nuclear energy utility EDF had also made a nonbinding offer.

Eneco is owned by 53 cities in the Netherlands and supplies about 2 million customers in the country with natural gas and electricity. The cities put the company up for sale in Mav.

More: Reuters

Federal Briefs

USDA Burying Studies Showing Dangers of Climate Change



The Trump administration has refused to publicize dozens of government-funded studies that carry warn-

ings about the effects of climate change, defying a longstanding practice of touting such findings by the Agriculture Department's acclaimed in-house scientists.

The studies range from a groundbreaking discovery that rice loses vitamins in a carbon-rich environment — a potentially serious health concern for the 600 million people worldwide whose diet consists mostly of rice — to a finding that climate change could exacerbate allergy seasons, to a warning to farmers about the reduction in quality of grasses important for raising cattle.

None of the studies were focused on the causes of global warming — an often politically charged issue. Rather, the research examined the wide-ranging effects of rising carbon dioxide, increasing temperatures and volatile weather.

More: Politico

Utilities Oppose Big Tech's Bandwidth



The power industry is lining up against a Federal Communications Commission proposal that would let tech

companies sell devices that send and receive data using the 6-GHz band.

The change, utility officials say, would increase the risk of interference at a time when data from smart meters and digital sensors play an increasingly integral role in grid operations.

"Utilities see this band as mission-critical." said Robert Thormeyer, spokesman for the Utilities Technology Council. "Any interference to those transmissions degrades the integrity of the data being sent."

More: Energy News Network

FERC Acts to Modernize Process for Filing Commission Forms

FERC on Thursday adopted eXtensible Business Reporting Language (XBRL), a nonproprietary, open technology standard, as its new format for filing.

The new standard will be used for filing Form Nos. 1, 1-F, 2, 2-A, 3-Q electric, 3-Q natural gas, 6, 6-Q, 60 and 714.

"By modernizing FERC's data collections and making them more accessible, today's final rule will increase efficiency in regulatory filings and business information processing, further the goal of transparency and decrease the costs, over time, of preparing the necessary data for submission," the commission said.

More: FERC Order 859

State Briefs

ARIZONA

ACC Bans Power Shutoffs Until Oct. 15 After Resident Death



Residents who are late on their utility bills this summer can't be shut off from power until Oct. 15 under an

emergency rule passed by the Corporation Commission on Thursday that takes effect immediately.

The emergency rule making was passed following news that a 72-year-old Sun City West woman died last year after Arizona Public Service cut her power because she was behind on payments.

The emergency moratorium on utility shutoffs will protect customers while the commission looks into the issue. The commission will accept public comment on shutoff rules for utilities and eventually pass a new policy on when companies are allowed to disconnect customers.

More: The Arizona Republic

CALIFORNIA

GE to Scrap Power Plant 20 Years Early



General Electric last week said it plans to demolish a large power plant it owns in the state this year after only one-third of its useful life because the plant is no longer economically viable.

The 750-MW gas-fired Inland Empire Energy Center uses two of GE's H-Class turbines, developed only in the last decade, before the company's successor gas turbine. the flagship HA model, which uses different technology.

In a filing with the Energy Commission, GE said the plant is "not designed for the needs of the evolving California market, which requires fast-start capabilities to satisfy peak demand periods."

More: Reuters

MAINE

Mills Signs Wind Bill, Announces Plans to Advance Offshore Energy



Gov. Janet Mills last week signed legislation directing the Public Utilities Commission to approve the contract for Maine Agua Ventus, a first-of-itskind wind project in the U.S., in hopes of resur-

recting stalled efforts to test a floating wind farm off the state's coast. The project had been stalled at the PUC for more than a year after the panel decided to reopen its power purchase contract.

Mills also announced two efforts to initiate offshore research in the state. First, the state accepted an invitation from the U.S. Bureau of Ocean Energy Management to participate in a federally led Gulf of Maine Intergovernmental Regional Task Force. The goal is to identify potential opportunities for renewable energy leasing and development on the outer continental shelf.

Second, Mills announced she will create the Maine Offshore Wind Initiative. The statebased program will identify opportunities for offshore wind development in the Gulf of Maine and determine how the state can position itself to benefit from future offshore wind projects.

More: Portland Press-Herald

MISSOURI

Liberty-Empire Gets Go-ahead for **Wind Project**

The Public Service Commission approved Liberty Utilities-Empire District Electric's 600-MW wind project in the southwest part of the state, representing an investment of more than \$1 billion.

Turbines will be split among two spots in Southwest Missouri and a third location in Southeast Kansas. The two sites in Missouri, which will generate 150 MW each, are being called King's Point and North Fork Ridge. Construction is expected to be completed by the end of 2020.

The PSC determined the project will add renewable capacity at reduced costs because it takes advantage of tax benefits through tax equity partnerships. The company said it expects to meet a significant portion of the financing requirements using federal

tax credits.

More: The Joplin Globe

NEBRASKA

NPPD's Controversial R-Project Clears Final Hurdle



The high-voltage R-Project transmission line planned through the Sand Hills will move

forward after the Nebraska Public Power District received federal approval to protect an endangered insect along the route.

The U.S. Fish and Wildlife Service's decision means the \$400 million project will no longer be held up over concerns about affected cultural resources or migratory birds. The agency said the objections did not provide any new information to justify extending its environmental review.

NPPD expects to start building the 225mile, 345-kV transmission line this fall.

More: Omaha World-Herald

OREGON

Senate Republican Walkout over Climate Bill Continues



A legislation-stalling walkout by the 11 Republicans in the state Senate continued Monday, with no end in sight.

The Republican senators fled the state to keep a massive bill to regulate carbon emissions from

passing. The Senate needs a quorum of 20 senators to vote on legislation; there are only 18 Democrats. The senators' getaway across state borders means that they escape the jurisdiction of State Police, dispatched by Gov. Kate Brown last week to bring them to the capitol.

A planned floor session for Saturday was canceled amid what police dubbed a "credible militia threat." On Sunday, Senate President Peter Courtney gaveled the chamber open with all 18 Democrats present, but without the Republicans, the brief floor session ended minutes later.

More: The Oregonian

TEXAS

Clearway Unveils Plans to Repower 283 MW of Wind Farms

Clearway Energy will invest \$111 million to repower two wind farms in the state with a combined capacity of 283 MW.

The initiative is possible through binding equity commitments by Clearway Energy into an existing partnership with Clearway Group. The specific assets that will benefit from the agreements are the 161-MW Wildorado wind farm in Vega and the 122-MW Elbow Creek wind park in Howard County.

Clearway Group, formerly NRG Yield, will be responsible for all aspects of construction and expects the plan to bring it an average of \$12 million in annual asset cash available for distribution from 2020 onward.

More: Renewables Now

New Retail Provider, and Solar Developer, Opens

174 Power Global, the U.S. solar development arm of South Korea-owned Hanwha Group, has launched a new retail electric



service and announced it broke ground on a 150-MW

solar facility in the state.

The company started Chariot Energy after receiving an operating certificate from the Public Utility Commission earlier this year. It has also began building the \$200 million Oberon Solar Power Facility in Ector County. The project is expected to be completed next spring.

More: San Antonio Express-News

If You're not at the Table, You May be on the Menu

RTO Insider is the only media "inside the room" at RTO/ISO stakeholder meetings. We alert you to rule changes that could affect your business months before they're filed at FERC. Plus we monitor the news at FERC, EPA, CFTC, Congress, federal and state courts, and state legislatures and regulatory commissions.

If what's happening on the grid impacts your bottom line, you can't afford to miss an issue.





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