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Western RTO Proponents Vow to Keep Trying

By Hudson Sangree

Three times in three years, proponents of an organized market in the Western Interconnection have tried and failed to turn CAISO into an RTO.

Opponents say it's time to give up, but supporters of CAISO regionalization say they'll likely keep at it until they succeed.

"The benefits of a regional grid integration are so great that, frankly, we're talking about something inevitable," said Carl Zichella, western transmission director at the Natural Resources Defense Council. The environmental group was a main backer of this year's CAISO regionalization effort along with Gov. Jerry Brown and ISO leadership.

The movement's supporters argue that the future of renewable energy lies in Western

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Wood, Brownell: Unaware of Press Ban When OK'd NEPOOL

FERC also Unaware When OK'd Order 719

By Rich Heidorn Jr.

WASHINGTON — The FERC commissioners who approved the New England Power Pool as ISO-NE's stakeholder body in 2004 were unaware at the time that NEPOOL barred the public and press from its meetings.

Former FERC Chairman Pat Wood III and former Commissioner Nora Mead Brownell said in interviews they would have insisted on allowing press access had they known of the ban when they approved ISO-NE as an RTO in March 2004 (RT04-2, ER04-116, et al.).

Former Commissioner Joseph T. Kelliher, the third vote on the order, declined to comment but did not dispute Wood's and Brownell's accounts. Former Commissioner Suedeen Kelly did not take part in the order.



Left to right: former FERC Chairmen Pat Wood III, Joseph T. Kelliher and Jon Wellinghoff at the Energy Bar Association conference in May. Wood and Wellinghoff said they were unaware of NEPOOL's ban on the press and public when they were in office. | © RTO Insider

FERC commissioners also were unaware of the ban in 2008 when they approved Order 719 (RM07-19, AD07-7), according to former Chairman Jon Wellinghoff. The order set requirements for the responsiveness of RTOs and ISOs "to their customers and

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McIntyre Defends FERC Chief of Staff Pugliese

By Rich Heidorn Jr.

FERC Chairman Kevin McIntyre has defended Chief of Staff Anthony Pugliese, saying his controversial remarks did not reflect commission policy or threaten its independence and impartiality.



Anthony Pugliese | © RTO Insider

Rep. Frank Pallone (D-N.J.) and Sen. Maria Cantwell (D-Wash.), the ranking members of the House and Senate energy committees, sent McIntyre a letter Aug. 22 complaining of Pugliese's "highly partisan political remarks" at a conference of the American Nuclear Society in August and in an interview with right-wing media outlet Breitbart in July.

On Thursday, Cantwell released McIntyre's Aug. 24 <u>response</u>, in which he praised Pugliese's "outstanding management skills and his unparalleled talent for coordinating the activities of a complex, multi-faceted agency."

Pallone and Cantwell cited Pugliese's praise of President Trump and criticism of Democratic governors for blocking pipelines. They also cited his statement to ANS that FERC is working with the Department of

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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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'Almost Nobody is Happy' with Capacity Markets at Conference

By Rich Heidorn Jr.

WASHINGTON — Public power representatives reiterated their case against mandatory capacity markets last week, teaming with wind and solar advocates for a oneday conference as a forum for their criticism.



"After spending or committing over \$130 billion ... in capacity payments in ISO-NE and PJM, I can safely say that almost nobody is happy with the state of those

markets, which remain in a state of flux," Sue Kelly, CEO of the American Public Power Association, told the inaugural Future Power Markets Summit.

"We think it's time to rethink them. We believe that a resource adequacy regime that's based on longer-term planning, bilateral contracting [as in MISO and SPP] and increased respect for state and local decision-making and autonomy — with a residual market capacity market for those who feel the need to go there — actually makes more sense," she said during a lunch keynote at the conference.

Brian Forshaw, who represents public power systems at the New England Power Pool, used almost identical language. "The consensus of stakeholders



throughout the [New England] region is that out of all of our market constructs, the energy market is probably the only one that's working reasonably well," he said. He acknowledged concerns that the region is "overly reliant" on natural gas.



James Wilson, a consultant who has worked for environmental groups and state consumer advocates in PJM, lamented that the capacity market —

intended as "training wheels" to be removed once the markets found their balance — have remained, saying he would prefer an energy-only market.



Susan Bruce (far right), who represents PJM's Industrial Customer Coalition, speaks during panel discussion on capacity markets. Listening, left to right, are moderator Rob Gramlich; Devin Hartman, R Street Institute; consultant James Wilson; Katie Guerry of EnerNOC; and Jay Morrison, of the National Rural Electric Cooperative Association. | © RTO Insider

Jay Morrison, vice president of regulatory issues for the National Rural Electric Cooperative Association (NRECA), compared capacity markets to a different method of conveyance, likening RTOs' efforts to tweak the markets to attempting to convert a Ford Pinto into a Formula One race car. "It's the wrong tool," he said.

Gold Standard



Katie Guerry, EnerNOC; and Jay Morrison, NRECA | © RTO Insider

Not everyone at the Sept. 5 conference was critical, however. Katie Guerry, vice president of regulatory affairs for demand response aggregator EnerNOC, noted that DR gets virtually all of its revenue from the "availability payment" from capacity markets and very little from energy or ancillary services.

Although PJM's capacity market "is the subject of a lot of concern and criticism, it is the gold standard when you go into countries around the world," Guerry said. She noted that Alberta is adopting a capacity market with DR on the supply

side, like PJM.

Aside from losing DR revenue, "it would significantly increase our costs to serve if there were no centralized markets at all," Guerry said. "It would be very prohibitive for us."

The conference, which attracted about 80 people, came after a summer that observers expected to stress test ERCOT's energy-only market because of its reduced capacity reserves. In addition to APPA and NRECA, the summit's sponsors were the American Wind Energy Association, American Council on Renewable Energy, Solar Energy Industries Association, Large Public Power Council and Energy Systems Integration Group, a nonprofit educational association for engineers, researchers, technologists and policymakers.

Texas survived the summer with surprisingly modest prices and no generation shortfalls, thanks to better-than-expected generation performance and an early summer system peak that took advantage of above-normal wind.

But Beth Garza, director of ERCOT's Independent Market Monitor, said 2019 may be a tougher challenge. (See related story, ERCOT Monitor Relieved by End of Summer; Concerned for 2019, p.6.)

The capacity market provides certainty that resources acquired will be available, Garza

'Almost Nobody is Happy' with Capacity Markets at Conference

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said. "In ERCOT you don't get that certainty. And [certainty] comes with some cost: Any of us who have a fixed-price mortgage are paying for that certainty."

Fallacy of Fungibility

The latest challenge for capacity markets has been the effort to accommodate state preferences for renewable and nuclear generation without suppressing auction prices.

Morrison said state subsidies are only an issue because of the fallacy that capacity is a single fungible product.

"The RTOs do a good job of focusing on short-term reliability and low short-term marginal costs, and that's great. But we need a lot more than that. We need longterm reliability; long-term price stability; environmentally favorable resources," he said. "And if the one product that's available is this fungible capacity product that the RTO has bought because they know better than us and our states, that doesn't meet our needs."

In June, FERC ordered PJM to expand its minimum offer price rule (MOPR), which now covers only new natural gas generation. The commission's 3-2 ruling rejected both PJM's capacity repricing proposal and the Independent Market Monitor's MOPR-Ex proposal. (See PJM Unveils Capacity Proposal.)



Wilson was optimistic about the "resource specific" fixed resource requirement (FRR) proposal that he and consultant **Rob Gramlich** developed

on behalf of environmental groups and the D.C. Office of the People's Counsel.

"With a strong MOPR and this resourcespecific FRR, we can have our RPM [Reliability Pricing Model] capacity market that is completely free of the impact of any subsidized resources because [they have] all been pulled out. It's only the competitive resources [that remain]. And off to the side [are] those policy resources ... they're matched up with a commensurate amount of load, so customers are not paying twice. We're ... potentially getting to a pretty good place if we can make this FRR RS-thing work."

Attorney Susan Bruce, who represents the PJM Industrial Customer Coalition, was less sanguine. "This is a case where there's no good answer from my clients'



perspective. [We're] just trying to find the least bad option," she said.

She and Guerry expressed concerns over

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Overheard

WASHINGTON — Former FERC Chairman Pat Wood III used his keynote speech at last week's Future Power Markets Summit to "re-serve the Kool-



Aid" on the value of competitive markets threatened by state subsidies and the Trump administration's push for price supports for coal and nuclear generation.

He referred to the "economic carnage" caused by the over-budget Vogtle and Summer nuclear plants in Georgia and South Carolina and the Kemper "clean coal" project in Mississippi, citing estimates that they will saddle ratepayers in the cost-of-service Southeastern states with \$123

billion in excess costs over 40 years.

"That's a lot. That's not a rounding error, folks," he said. "This is what happens when you do not have the discipline of markets," he said.

Wood contrasted that with the savings seen in ERCOT's competitive energy-only market, where retail power prices have declined to about 8 cents/kWh, down from 10.5 cents before competition. Wood credited the savings to cheap wind and natural gas generation, dozens of competitive retail suppliers and lower profit margins.

"When I was a regulator, we would give a utility a 16% pretax rate of return on equity. ... When I was [chairman] at Dynegy, we were happy to get 3[%]."

The conference was sponsored by the American Wind Energy Association,

American Council on Renewable Energy, Solar Energy Industries Association, American Public Power Association, National Rural Electric Cooperative Association, Large Public Power Council and Energy Systems Integration Group (ESIG), a nonprofit educational association for engineers, researchers, technologists and policymakers. (See related story, 'Almost Nobody is Happy' with Capacity Markets at Conference, p.3.)

Wood told the 80 attendees he feared grid modernization could lead to a "gold plating" of the distribution and transmission systems that erodes the savings from cheap natural gas and renewable generation. "I don't want to see all the savings I get from crunching down on the [generation] be offset by adding a lot to" transmission.

Beth Garza, director of ERCOT's Independent Market Monitor, expressed a related concern. "We can spend dimes on transmission to save dollars in generation costs, and we've done that," she said, referring to the competitive renewable energy zone (CREZ) transmission built to deliver West Texas wind. "I think, though, that over the years ... we've reached a point now where we're starting to spend quarters on transmission to potentially [save] quarters on the energy side. I'm not sure there's the appropriate discipline and review on the regulatory side to bring those two in balance."

Garza also questioned the distinction between "the big poles and wires [transmission] and small poles and wires [distribution]."

"Distribution utilities have a fixed investment in the small poles and wires and

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Public power and renewable generation advocates attracted about 80 attendees to their inaugural Future Power Markets Summit in D.C. | © RTO Insider

'Almost Nobody is Happy' with Capacity Markets at Conference

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the modified FRR suggested by FERC.

"The FRR alternative, at least as it was put into the stakeholder process, would provide a very easy platform to sort of sink centralized capacity markets," she said, predicting it would result in a "patchwork quilt of state policies" and a temptation to save uneconomic resources.

Guerry said the FRR alternative "makes us very nervous," noting bilateral trades "are

not transparent" to her company.

"Bilaterals are perfectly transparent to those in the market," Wilson insisted.



But **Devin Hartman**, manager of electricity policy at the free market think tank R Street Institute, also was skeptical. He said it's unworkable to administratively

correct for subsidies in a pricing mechanism, calling it "a recipe for unintended

consequences."

"What constitutes a material subsidy?" he asked. "We're going to have some fun with that — in perpetuity. It's important to recognize that these markets have always had subsidies. Every resource has some degree of price subsidy. I don't see how [PJM Monitor] Joe Bowring is going to come up with a screen to price correct for Price-Anderson," referring to the law limiting liabilities for nuclear plant operators. "Where are you going to draw the line?"

ERCOT Monitor Relieved by End of Summer; Concerned for 2019

By Rich Heidorn Jr.

WASHINGTON - ERCOT's energy-only market survived the summer of 2018 with surprisingly modest prices and no generation shortfalls, but 2019 may be a tougher challenge, the RTO's Independent Market Monitor said Wednesday.

Beth Garza, director of ERCOT's monitoring unit, credited better-than-expected generation performance and an early summer system peak that took advantage



of above-normal wind for the positive results.

Coal plant retirements reduced ERCOT's installed reserve margin to below 11%, by far the lowest in the market's history, leading on-peak forward prices for August to rise as high as \$250/MWh. But although real-time prices briefly peaked at more than \$2.000/MWh, average real-time prices in July were about \$50/MWh and about \$38/ MWh in August, Garza said.

She acknowledged one competitive retailer was forced to surrender tens of thousands of customers to the provider of last resort

when it was unable to meet collateral requirements in early summer. But disruptions were minimal, Garza told the inaugural Future Power Markets Summit, sponsored by the American Wind Energy Association and several other trade groups.

"There was certainly a high level of awareness across the market, across the state legislature, across the regulators [of the tight market], and with that high level of awareness I think came a high level of preparedness, certainly from the generators," she said. "As it turned out ... generator availability was higher than normal this summer. We also had - I think because of the timing when our system peak was — we had the ... contribution from higher-thanexpected wind generation this summer.'

ERCOT recorded its summer peak at 73,259 MW on July 19, while loads in August - normally the peak month - never exceeded 71,110 MW. The 2018 Long-Term Demand and Energy Forecast projected a 2018 summer peak of 72,974 MW.

Garza said generators responded to the potential for prices up to ERCOT's \$9,000/ MWh cap. "Having that opportunity for our energy price to rise to very high levels creates that natural incentive for availability at the time when we need generation

resources the most."

But it won't get any easier for ERCOT in 2019, Garza said, as its load — unlike that of other markets — continues to grow. In addition, two announced coal plant retirements will reduce capacity by more than 1 GW by the end of the year. The system has added no significant thermal capacity although there have been wind and solar additions.

"So, I think we'll go into 2019 in a very similar state as we went through this summer," Garza said. "And that raises all kinds of questions about outcomes ... if generation availability [is] lower than expected, if wind [is] average, if load [is] a little higher.

"The good part about this job is I get to monitor the market," she laughed. "I don't have to forecast the market."

In addition to AWEA, the summit was sponsored by the American Council on Renewable Energy, Solar Energy Industries Association, American Public Power Association, National Rural Electric Cooperative Association, Large Public Power Council and Energy Systems Integration Group, a nonprofit educational association for engineers, researchers, technologists and policymakers.

Overheard

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transformers and that is recovered through a variable rate, and so of course they don't want people with PVs on their roof diminishing their consumption and diminishing their payment," she said. She suggested the variable rates on distribution be replaced with fixed rates to acknowledge that both transmission and distribution enable the connection between customers and resources.



Jeff Bladen, MISO's executive director for market design, discussed three "mega trends" that he said must be addressed by RTO markets: digitaliza-

tion, including the Internet of Things;

decentralization of generation; and "demarginalization" resulting from the rise of low- and no-marginal-cost resources.

"Our markets are moving away from the marginal cost of energy being the primary means for signaling the operational needs of the grid," he said. "As we move forward, our history of everyday scheduling our generation and forecasting our load is beginning to switch. We're going to look at a future where much more of our supply is a forecast and much more of our demand is something we try to schedule - digital devices and the like."

Robin Hytowitz, an electrical engineer for the Electric Power Research Institute, noted that FERC-jurisdictional RTOs and ISOs "have started to integrate

fixed operating costs from fast-start resources into prices."

But she lamented that "demand-side bidding versus retail choice isn't very active in most markets."

"I think that actually having a demand curve for these markets would help advance some of the price formation efforts. So, we could get the demand side in addition to the supply-side curve."



Mark Ahlstrom, board president of ESIG, argued for maximizing the granularity and flexibility of resources that provide ancillary services.

"Suppose I need 100 MW on reserve and in order to qualify to even offer it into the market, I have to be able to provide a fourhour sustained duration. Do I really want to have one product -100 MW for four

Overheard

Continued from page 6

hours of sustained duration? Or would I rather have four 100-MW units that can each sustain duration for only one hour? I would argue that — without question — you want the latter, because ... I can also use those building blocks in other ways."

Ahlstrom said although more granular resources should be cheaper, pricing them is a challenge.

"Any time we block those capabilities into hourly type products or anything like that in order to price them ... we are leaving a lot of the capability and flexibility on the cutting room floor. An engineer in the control room would like to have continuous control over everything if we can figure out how to run markets that way."

Ahlstrom said he previously thought it unwise to combine storage with a renewable resource because it increases the cost of energy. "The market should be the cheapest source of flexibility if it's working



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right," he said.

"I've had to eat my words on that because we're seeing huge demand; we're going to see a ton of these hybrid projects," he continued. "And why is that? It's because in the markets as they're operating today, it's way too tough to get through the interconnection process and connect new resources separately. ... A lot of this is a reflection that we can't just have a frictionless way of adding resources to the markets."

- Rich Heidorn Jr.

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Infocast Offshore Wind Implementation Summit

Offshore Wind Industry 'Really Moving'; Coordination Will Be Key

By Rory D. Sweeney

TEANECK, N.J. – Although states are competing to be next in the water to develop the East Coast's offshore wind, industry participants agreed last week that coordination and collaboration will be key for long-term success.

Stakeholders in the fledgling industry met last week at Infocast's Offshore Wind Implementation Summit to discuss the gamut of issues, from workforce development and environmental concerns to grid interconnection and financial considerations.

While state officials have described themselves as in a competition to follow up on Rhode Island's 30-MW Block Island project - the East Coast's first OSW farm speakers said states would be wiser to instead combine and conquer.

"I hope we can kind of get away from this concept of 'one state's going to be the winner in this race to build offshore wind.' I think if we do it right, all states will benefit. and there's a great benefit to coordinating ocean planning," said Kit Kennedy, a senior director in the Natural Resources Defense Council's Climate & Clean Energy Program. "In many ways, it's up to the states to work together on ocean planning. We're looking to you to be the leaders of this field right now because there's a vacuum at the federal level."

Brian Sabina, senior vice president of economic transformation for the New Jersey Economic Development Authority, predicted that as the industry grows, it will see beyond state-level competition to measure itself against international players.

"When you start to take that lens, regional cooperation becomes a lot easier," he said.

"It is kind of competitive ... but we really do believe the regional approach makes sense," said Paul Baldauf, an assistant commissioner of the New



Jersey Department of Environmental Protection. "If you look at some of the wind maps from Maine down to Carolina, it



Kit Kennedy, Natural Resources Defense Council 1 © RTO Insider

doesn't necessarily matter where that lease is. Multiple states can benefit from it; they all need to have input."



Coordination is also preferable for finer details, speakers said. Ross Gould, energy sector program manager for the Workforce Development Institute, pointed out that many

politicians and union bosses will need to expend political capital to overcome obstacles, and that will likely require promising jobs.

"Now we're left with the tough question that we have all these promises in all these states, but there's only a finite amount of jobs," he said. Collaboration will be key, he said, "to help figure out who can do what and where these jobs can go so that as many people as possible are able to go back and say, 'I fulfilled my promises.'"

Permitting and oversight will also benefit from collaboration to avoid wasting money on collecting unnecessary data and being able to differentiate between "real" and "perceived" risk, said Mary Boatman, environmental studies chief at the federal Bureau of Ocean Energy Management's Office of Renewable Energy Programs.

Collaboration will also help ensure that all methods, technologies and data collected are "scientifically defensible" under scrutiny at permitting meetings, said Vince Guida, a research fisheries biologist for the National Oceanic and Atmospheric Administration's Northeast Fisheries Science Center in Sandy Hook, N.J.

Markian Melnyk, president of Atlantic Grid Development, advocated coordination of offshore transmission facilities rather than

allowing generators to build their own private lines back to shore. Such coordination, a keystone of his company's Atlantic Wind Connection project, would organize the offshore network into an extension of the onshore transmission grid to prevent lines crisscrossing on the seafloor and other unforeseen impacts that create conflicts with other industries, such as commercial offshore fishing.

"So at the moment, some of these tensions with commercial fishermen seem very fraught, but as we go, and as actual projects are built, I think we're going to see that they can be planned, built and communicated in [ways] which are consistent with commercial fishing, and that's going to be very positive," Kennedy said.

Curtis Fisher, executive director for the National Wildlife Federation's Northeast Regional Center, pointed out that the developers of the Block Island project are proud to say they lost money in delaying their project when a whale was sighted in

"If you can parse out things that benefit the entire region versus things that might be specific to certain states, you can leverage those resources and really come up with a plan and be able to get there a lot quicker than you could as individual states," Baldauf

He confirmed the observations of several project developers that the industry appears to be finally taking off after years of promising announcements that never went anywhere.

"Truly, this is the first time that things are really moving. [Developers are] coming in, asking environmental questions, trying to get an idea of what they're going to have to comply with. They're telling us what their plans are. If they're further along, some of them have set up offices in N.J. They're looking [for] places where they possibly could store equipment, manufacture equipment, so we're moving. And that's very positive. To be quite honest, once the two leases were [announced] in 2014, it's been kind of glacial," he said, referring to leases that were awarded in 2015 to RES America Developments and US Wind. "We haven't moved that quickly, but now things are starting to move. And I think that's up and down the East Coast."

Infocast Offshore Wind Implementation Summit

Perceiving Lack of Support, NJ Seeking Bigger Voice at PJM

By Rory D. Sweeney

TEANECK, N.J. — Joe Fiordaliso, president of New Jersey's Board of Public Utilities, is not alone in his concerns about the state's perceived lack of influence at PJM.

In July, Fiordaliso expressed concerns to RTO Insider that he said were making him consider having the state leave the RTO. (See NJ Regulator Threatens to Exit PJM Amid States' Complaints.)

State Assemblyman John Burzichelli (D) told attendees at Infocast's Offshore Wind Implementation Summit last week that he too has concerns.

"I have issues with PJM," he said. "I'm talking about procedurally. I'm not sure they always have New Jersey issues in mind. We're going to want a larger voice in what takes place" at PJM.

Burzichelli moved on to other energyrelated topics in his featured address. But he elaborated further in an interview, saying he supports Fiordaliso's demands for increased recognition from the RTO's staff.

"There's no question that they are polite and listen, but ... they don't really don't recognize the state of New Jersey as an entity," he said. "The short answer is I think it should change. I have a lot of faith in the leadership at the BPU. I would be supportive of the president's lead in this."

He suggested that state representatives should get a vote on stakeholder issues because "my observation is that [the interests of] those utilities that are based in New Jersey and New Jersey's public interests at times are a little different."

Fiordaliso Cites Progress

Reached on Monday, Fiordaliso said he wouldn't respond to Burzichelli's comments because he hadn't yet spoken with the legislator. But he disputed an Aug. 31 report by Morning Consult that his threat to leave PJM is off the table.

"I wouldn't say we've buried the hatchet. We're moving the right direction. I think everything is on the table. Right now, I think that has eased a bit. We're engaging in more dialogue," he said. "I think PJM is trying to take a step in a positive direction. I think I'm starting to see a turnaround."

On Burzichelli's suggestion to seek voting rights at PJM, Fiordaliso acknowledged that would require states being able to become PJM members, which he said "is certainly worth looking into."

"I think voices are heard when you do have a vote, but I'd like to look into it and see how beneficial it would be to New Jersey. ... I don't expect to win every battle, but as long as there's an honest

exchange of ideas, we can forge a relationship here."

He said PJM showed it's "willing to exchange ideas with us" in its <u>comments</u> on the Independent Power Producers of New York's FERC complaint requesting NYISO prohibit installed capacity withdrawals from PJM into New York City across merchant transmission lines (EL18-189).

In its comments, PJM explained that curtailments necessary for reliability would happen concurrently between the merchant facilities and PJM load on a pro rata basis. This supported comments made in the docket by the BPU, along with the New Jersey Division of Rate Counsel and the Public Power Association of New Jersey. They said NYISO couldn't consider the merchant facilities as capacity resources because they had recently reduced their PJM transmission withdrawal rights from firm to non-firm.

In fact, it was the docket in which the transmission facilities sought to downgrade their transmission rights that initially prompted Fiordaliso's threat to leave PJM. The move left Public Service Electric and Gas to pay for most of the Bergen Linden Corridor upgrades that were designed to help facilitate "wheeling" power through northern New Jersey to New York City.

Offshore Wind

Burzichelli said his concern with PJM began with what he felt was a lack of support from the RTO in the state's attempts to develop offshore wind during Gov. Chris



New Jersey Assemblyman John Burzichelli addresses attendees at last week's Infocast's Offshore Wind Implementation Summit. | © RTO Insider

Christie's administration. The state was looking for guarantees of regional cost allocation for developing the infrastructure that would bring offshore wind generation to the RTO, but "we lost [Christie's] attention" before anything could be built, he said. Fiordaliso's "concerns and mine are the same; they just happen to be a separate topic." Burzichelli said.

He also took issue with what he believed was PJM's "failing" that required the state to act to save its nuclear plants. "As painful and as expensive as it turned out to be" to subsidize the plants, which are in his district, he "felt very strongly that it was in the public interest ... because they're reliable."

"It's sort of an insurance policy that has a price tag to it," he said, predicting natural gas prices will rise once the regional glut of supply is reduced.

"It will creep. It's just a question of when," he said.

Burzichelli said he faults PJM rather than the nuclear owners because the owners were providing for their own interests. PJM should have revised its market rules because the power from the plants gets distributed throughout the RTO, he said.

"I have a comfort level in this case that [plant co-owner Public Service Enterprise Group] is sensitive toward ratepayers. They are also sensitive toward stockholders," he said. "I think some of the stabilization should have been borne by a wider [RTO-wide ratepayer] base, but PJM did not step up at a pace that was satisfactory to the business model of the utility, so we acted."



Calif. Governor Signs Clean Energy Act Before Climate Summit

By Hudson Sangree

Gov. Jerry Brown on Monday signed legislation requiring California to get 100% of its power from renewable and other zero-carbon resources by 2045. He also issued an <u>executive order</u> for the state to achieve carbon neutrality by the same year.

Brown's actions came as he readied to host a global climate summit in San Francisco and further positioned himself as a policy counterweight to President Trump, who is seeking to withdraw from the Paris Agreement on climate change and undo EPA's Clean Power Plan.

"California is committed to doing whatever is necessary to meet the existential threat of climate change," Brown said in his signing message for SB 100. "This bill, and others I will sign this week, help us go in that direction. But have no illusions, California and the rest of the world have miles to go before we achieve zero-carbon emissions."

In addition to requiring investor-owned utilities, publicly owned utilities and community choice aggregators to obtain 100% of their energy from renewables by



California Gov. Jerry Brown signs SB 100, a bill that requires the state to have a 100% carbon-free electricity grid by 2045. | California Governor's Office

2045, the new law sets milestones along the way: 40-44% by 2024; 45-52% by 2027; and 50-60% by 2030. (See <u>Calif.</u> Clean Energy Measure Goes to Governor.)

When the law takes effect in January, California will join Hawaii as the second state to declare its intent to rely entirely on renewable resources such as wind, solar and hydropower.

Brown, meanwhile, will take center stage at the <u>Global Climate Action Summit</u>, with its main events happening Sept. 12-14 at San Francisco's Moscone Center.

The summit will feature civic and industry leaders from around the world discussing topics such as investments in clean energy, the switch to electric vehicles and the health of the planet's oceans. Portions of the event will stream live on YouTube, Facebook and Twitter.

The summit and SB 100 are part of Brown's larger push to deal with climate change as he gets ready to leave office at the end of this year.

In his signing message for SB 100, for instance, Brown reiterated his support for a Western RTO. A bill to begin the process of transforming CAISO into an RTO faltered in the State Senate this year. Similar efforts to create an organized market in the West failed in the two prior years as well. (See related story, Western RTO Proponents Vow to Keep Trying, p.1.)

"We must join our neighbors in a power system that integrates utilities across the West," Brown said in the signing message. "A regionalized electric grid would enhance California's low-carbon grid by allowing us to share renewable resources with our neighboring states, while reducing costs and increasing resiliency of our grid."



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WAPA to Divide RC Services Between CAISO, SPP

By Amanda Durish Cook

Most transmission operators in the Western Interconnection are faced with choosing either CAISO or SPP to provide reliability coordinator (RC) services after Peak Reliability winds down its operations in late 2019. The Western Area Power Administration will go with

WAPA said last week that it has selected CAISO's new RC arm to serve its Sierra Nevada region after Peak's closure, while its Rocky Mountain (RM), Desert Southwest (DSW) and Upper Great Plains (UGP) regions will use SPP's RC services. (See Peak Reliability to Wind Down Operations.)

The Sierra Nevada region already functions as a transmission operator within the Balancing Authority of Northern California, which in July was the first BA in the West to announce it would sign up for CAISO's RC services. (See CAISO Board OKs RC Rate Plan, RMR Change.)

The RM, DSW and UGP regions contain the Western Area Colorado Missouri, Western Area Lower Colorado and Western Area Upper Great Plains-West BA areas, respectively.

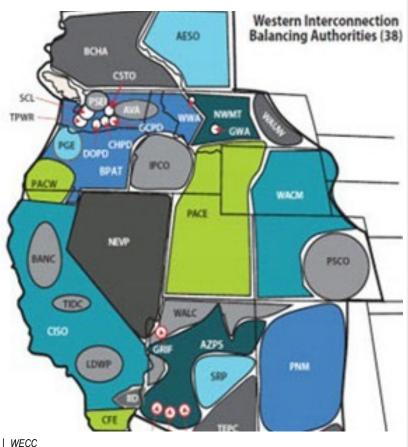
WAPA has in recent years been consolidating functions among its Interior West BAAs and said keeping those regions under one RC would avoid introducing "operational and compliance complexities." It also noted that UGP is currently a transmission-owning member of SPP and is "fully engaged" in the RTO's stakeholder process.

WAPA said the transition is dependent on SPP and CAISO becoming certified by NERC and the Western Electricity Coordinating Council as RC providers in the Western Interconnection. (See Sept. 4 Key Date for Potential Western RC Providers.)

In a Sept. 4 memo signed by Chief Operating Officer Kevin Howard, WAPA said the move could produce more benefits than Peak's services: "Initial analyses have determined that SPP and CAISO should be able to provide reliable RC services comparable or superior to the services provided by Peak, and the costs for such services are expected to be lower than Peak's."

SPP will initially cap the charge for RC services at 5.5 cents/MWh, and CAISO estimates its services will cost anywhere from 3.4 to 4.1 cents/MWh depending on total load, according to WAPA.

WAPA's regional offices promised Howard performance check-ins during and after the transition. "Given the dynamic nature of the situation and the need for ongoing analysis, each region will keep you informed of their progress. If any significant issues arise, we will bring those matters to your attention," WAPA said. In a separate statement, Howard promised to work with neighboring utilities "to ensure an orderly transition to the SPP and CAISO



RCs."

WAPA said its switch to SPP could contribute to the creation of an organized Western market: "Participating in the SPP RC will preserve and facilitate options for the potential development of an organized electricity market in the West."

At press time, neither CAISO nor SPP had provided a full list of customers taking their RC services. Representatives from both grid operators have said that they would not necessarily time announcements to Sept. 4 — the unofficial deadline NERC and WECC placed on Western BAs and transmission operators to declare their RCs. CAISO said it would only announce customers only as they sign agreements. In addition to BANC, Idaho Power and PacifiCorp have also committed to CAISO.

"At this time, announcements of entities committing to ISO RC services are being coordinated by the individual entities ... since each entity has a different approval process and varying timelines, based on their specific business decisions and operations. We plan to share our customer list as agreements are signed," CAISO spokesperson Anne Gonzales said in an email to RTO Insider.

WECC told RTO Insider that it will provide a more complete list of Western Interconnection RC selections at its annual meeting today.



Western RTO Proponents Vow to Keep Trying

Continued from page 1

states trading wind, solar and hydropower resources across state lines as easily as energy is now distributed within California.

Zichella said proponents believed they had a combination of Democratic and Republican votes needed for their measure — AB 813 — to pass the State Senate this year but that Democratic leaders wouldn't let the bill out



Carl Zichella | NRDC

of the Senate Rules Committee on the last night of the State Legislature's 2017/18 session on Aug. 31.

The bill would have started the process of turning CAISO into an RTO by initiating changes in its governance structure.

It languished in the Rules Committee, where Senate leaders had sent it, and never reached a floor vote because of a lack of Democratic unity on the bill, advocates on both sides of the issue said.

"In California, we feel like there's a future for this legislation," Zichella said. "We'll

probably take another run at it."



Freedman

Matthew Freedman, a staff attorney for The Utility Reform Network (TURN), said he hopes that won't happen. The ratepayer advocacy organization strongly opposes an effort to make CAISO a

multistate organization.

"The Legislature has emphatically rejected regional proposals put forth by the governor over the last several years, which suggests it's time to consider alternative approaches to regional coordination," Freedman said.

Those alternatives could take multiple forms, including expanding the Western Energy Imbalance Market to include more participants and moving it from a real-time exchange to a day-ahead market, he said.

"We'd prefer incremental steps toward regional coordination" that are easier to undo if necessary, the lawyer said.

TURN and other opponents are against the idea of changing CAISO's governance structure from one overseen by officials in

Sacramento to a multistate conglomerate with an independent board of directors that they contend would be more susceptible to meddling from Washington and to influence from the coal-burning states of the Interior West.

AB 813 was the latest effort to turn the ISO into an RTO. A similar bill last year stalled out in a legislative committee. (See *CAISO Regionalization, 100% Clean Energy Bills Fizzle.*) Brown supported, but then decided to postpone, regionalization efforts in 2016. (See *Gov. Brown Reaffirms Commitment to Expanded CAISO.*)

The governor is termed out of office this year, and his replacement will be elected in November.

Brown has been the main proponent of regionalization as a means to further his green energy goals across the West, Freedman noted, but "he won't be the governor in January," when the Legislature reconvenes for the start of a new two-year session.

Whether a new governor will support CAISO regionalization remains to be seen.









Western RTO Proponents Vow to Keep Trying

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It's also unclear if a majority of Democratic lawmakers can be persuaded to vote for a measure that would remove CAISO's leaders from their oversight and is opposed by labor unions, publicly owned utilities and Senate President Pro Tempore Toni Atkins other powerful interests, Freedman said. May have kept the bill in the Rules Com-

Many Democrats, who control the Legislature, had reservations about AB 813 and didn't want to be forced to vote against it on the Senate floor for fear of angering the governor, he said.

Senate President Pro Tempore Toni Atkins may have kept the bill in the Rules Committee, but she wouldn't have done so without her caucus's backing, Freedman said. "Had there been an overwhelming amount of support, she would not have held it," he said.

CAISO Eases Rules for Energy Storage, DERs

CAISO moved to update its rules Wednesday to make it easier for energy storage and distributed energy resources (ESDER) to participate efficiently in its markets.

The ISO's Board of Governors adopted the ESDER Phase 3 Tariff changes at its monthly meeting in Folsom.

Among the technical updates were new bidding and real-time dispatch options for demand response resources. Stakeholders had expressed concern that many resources couldn't respond to ISO dispatches in real time because they didn't have enough notice.

Currently "they only have two-and-a-half minutes of notification time to respond to

that dispatch," which isn't feasible for many, Greg Cook, CAISO's director of market and infrastructure policy, told the board.

The new bidding options give DR resources more time to respond by letting them provide real-time market bids as an hourly block or a 15-minute dispatch resource. (See CAISO Updates ESDER Phase 3 Proposal.)

Another provision adopted Wednesday simplifies rules for aggregated DR resources.

CAISO currently requires DR resource aggregation to be contained in a single load-serving entity with a 100-kW mini-

mum. That minimum threshold has been a problem, especially with the proliferation of community choice aggregators, Cook told the board. The new rules will remove those requirements.

Other changes will make it easier for behind-the-meter battery storage to absorb excess electricity and return it to the grid, and will allow for electric vehicles' charging performance to be measured separately of their host facilities.

The changes are detailed in a <u>memo to the board</u>. The revisions must still be approved by FERC.

— Hudson Sangree





ERCOT NEWS



ERCOT Sees Ample Capacity for Fall, Winter Seasons

AUSTIN, Texas — ERCOT said Thursday that it expects to have enough installed generating capacity available to meet fall and winter peak demand, thanks to the addition of 915 MW.

The Texas grid operator now has more than 81 GW capacity that should be available for peak demand into next spring. Two natural gas-fired power plants, one wind project and three solar projects have come online since ERCOT issued its last seasonal assessment of resource adequacy (SARA) in April. Another 265 MW of capacity is expected to become available by fall.

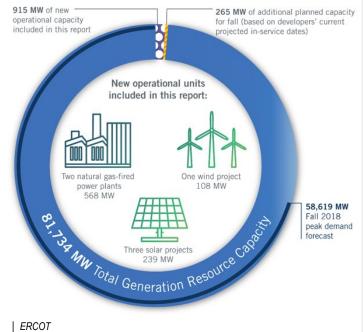
ERCOT <u>forecasts</u> a demand peak of 58.6 GW for October and November, based on normal weather conditions for those months. The ISO's preliminary <u>assessment</u> for December through February projects a peak of 61.8 GW, below the winter demand record of 65.9 GW set last January.

"Our assessments show a healthy amount of operating reserves heading into the fall season," ERCOT Manager of Resource Adequacy Pete Warnken said in a release.

The new generating capacity helped offset the mothballing of several older fossil-fired units. The grid operator has issued notifications of suspension of operations for 572 MW of gas- and coalfired capacity, effective in early October. (See "Garland Generating Units Return to Mothballs," *ERCOT Briefs: Week of July 2*, 2018.)

San Antonio's CPS Energy has also publicly announced it will mothball its coal-fired J.T. Deely plant by year-end. The plant's two units were built in the late 1970s and have a combined capacity of 850 MW.

ERCOT's installed reserve margin has fallen to about 11% with the retirement of 4 GW of coal capacity in 2017. It has survived sum-



mer demand that peaked at 73.3 GW without resorting to emergency measures.

The final winter SARA report for 2018-19 will be released in early November.

- Tom Kleckner



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Infocast Texas Renewable Energy Summit

Overheard

Solar Power Future Brighter than Wind?

AUSTIN, Texas - Infocast's Texas Renewable Energy Summit attracted developers, potential off-takers and other industry insiders to the state's capital Sept. 5-7 for discussions on the uncertainties and risks of the renewable energy market. Panel discussions focused on the continued growth of wind energy and the coming wave of solar energy, the transmission facilities needed to accommodate renewables, and the market's ability to incorporate them.

The summit's clear consensus? Solar power is a better play now than wind energy in Texas. ERCOT, which manages about 90% of the state's grid, projects it will add 3 GW of solar capacity by 2020 and 20.2 GW of utility-scale solar by 2031, double the additions expected from wind.

The state still leads all others in installed wind capacity with nearly 22.6 GW, according to the U.S. Department of Energy. However, the 2.3 GW of capacity Texas added in 2017 was below the 3.6 GW installed in 2015 or the 2.6 GW added in 2016.

Asked why the state presents such an inviting market for solar, Shalini Ramanathan, vice president of origination for RES Americas, repeated the ques-



tion. "Why Texas?" she asked. "Because it's hot and flat."



And there's so much open space in Texas, said Paul Turner, who sites solar developments for Hecate Energy as vice president of business development.

"If I see a pump jack, I go 3 miles away. I see a wind farm, I go 3 miles away," he said. "At this point, there are so many options, I just avoid [other infrastructure]."

"It just feels like it's time. Solar has a lot of headroom to grow," Ramanathan said, pointing to dropping prices for solar panels and rising natural gas prices. "The challenge is getting off-takers. A lot of the utilities



| © RTO Insider

have already bought a lot of wind and solar, Jacobs, who is responsible for Tradewind but the munis and co-ops are still interested. Corporate off-takers are great. We've seen a lot of interest in Texas that directly corresponds to the prices."

Turner referenced a recent ExxonMobil offer to purchase up to 250 MW of solar and wind energy in Texas.

"Our industry is like lemmings. If ExxonMobil starts doing it, other companies are going to do it as well," he said. "They don't want to be left behind. Their shareholders are going to ask, 'Why aren't we doing it? Why aren't we putting it on the cover of the proverbial annual report?'

"The genie's out of the bottle," Turner said.

ENGIE Solar North America Managing Director Marc-Alain Behar said potential buyers from El Paso, which is outside ERCOT's market, have been "pretty stunned" by the low prices they've seen for

"If you can make it here, you can make it in a lot of places," Behar said.

Developers Still High on Texas' Wind Resources

Wind developers agreed that there is still room for projects in Texas, saying as much as 5 GW of capacity may be built before

> the federal tax credits expire in 2019.

"It seems there are a plethora of projects, but good projects will get built," said Matt

Energy's portfolio siting. "We're really excited about the ERCOT market. From a national perspective, ERCOT is a market we see as attractive as any market in the **U.S.**"

Jacobs lauded the ease of navigating ERCOT's interconnection queue, while others pointed to falling prices of the technology and shorter construction timelines in Texas than in other RTOs. That makes it easier for developers to put up with transmission congestion and curtailments, particularly in the Panhandle.



"We have well over a decade or more of experience working in this market. There's always opportunities, but there's always some headwinds." EDF

Renewables' Caroline Mead said. "Todav. it's really about the economics. The economics speak volumes. The pricing of wind is so compelling ... that's the main driver at this point."

Tri Global Energy President Tom Carbone agreed, pointing to renewable energy's everincreasing share of ERCOT's fuel mix. "When [you] have 17% of the load



being served by renewables, that says something," he said.

Infocast Texas Renewable Energy Summit

Overheard

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"We're at a point now where there's a value proposition for these sources of generation," Recurrent Energy's **Jacob Steubing** said. "We're not being driven here



in Texas by carbon goals or renewable goals. Economics are driving the buyers. This is probably the only room where a lot of folks consider low prices a bad thing. The general public doesn't see that as a problem."



Philip Moore, vice president of development for Lincoln Clean Energy, said ERCOT's market is unique, a place "where ideas are tested out and challenged," despite a

natural resistance to change. Longer blades, larger turbines and other technological advancements have lowered prices, improved efficiency and opened new areas to wind development, he said.

"With a 40% drop in CapEx, you can go closer to where demand is ... but it's not without its challenges. We're starting to see new encroachment issues," Moore said, referring to military aviation training routes and organized political opposition. "We have to be better at explaining the investment benefits of a lot of capital coming to rural areas — and slightly less rural areas — and what the tradeoff is. We need to do a better job, because technology allows us to go to more places."

Cooperatives Adapting to Changing Member Needs

Texas' electric cooperatives are finding their business models are changing. Where once they sold meter boxes and security lights to their members, they are



now meeting customer demand for highspeed Internet service and adding wind and solar to their portfolios, Bandera Electric Cooperative CEO **Bill Hetherington** said. Bandera is the second largest certified Tesla Powerwall installer in the state. It is promoting the results of a Bloomberg New Energy Finance (BNEF) study that found lithium-ion storage batteries prices have dropped by 80% in the past eight years and projects a \$548 billion investment in energy storage by 2050.

"The cost is important, but a small percentage of our customers want to support renewables and buy Tesla Powerwalls," Hetherington said. "We've retooled ourselves and focused on our renewable subsidiaries."

Bandera serves more than 27,000 members in its footprint northwest of San Antonio. "Our service territory is pretty rural. There are areas where it would actually be cheaper to put in a microgrid rather than pay the cost of extending a service line," Hetherington said.

He said that the co-op's work with microgrids caught the National Rural Electric Cooperative Association's attention, and it selected Bandera for a project to create microgrids in Liberia and Uganda.

Hetherington said 662 million Africans don't have access to electricity, but that the continent also presents the second fastest growing economy in the world. "Investing in the future pays dividends for our customers and our members," he said.

The state's more than 75 electric cooperatives are still cognizant of their members' concerns and wants, Hetherington and his fellow panelists said.



"Our membership looks at the bottom line. They don't want to pay a premium to feel good. They want to do it because it makes economic sense," Golden

Spread Electric Cooperative COO J. Jolly Hayden said. "Some members have done community solar on their own. We have a 1-MW model that gives them a pretty good price. We're also looking at a larger project, but the members haven't signed off on it."

"We're small enough and flexible enough to make changes, from a commodity-based entity to a service-based company that is connected to its customers," Hetherington said, adding he never thought he would have 1,800 Internet customers. "The technology has changed. What doesn't change is the support our members expect

from us."

Economic Realities Driving Municipal Supply Decisions



Denton Municipal Electric General Manager **George Morrow**, a newcomer to the Texas market after years in California, said the city's recent announcement

that it intends to become the state's second 100% renewable-powered municipality was driven by the market's realities.

As part of the Texas Municipal Power Agency, the city owns the coal-fired Gibbons Creek plant, a 35-year-old, 454-MW unit that has provided more than half of its generation for a decade. The plant, which environmentalists would like to see permanently retired, will return to seasonal mothballs in October.

Morrow said in looking for replacement energy, he was surprised by the prices he was seeing for renewables. "'Wow, look at what you're offering us!" Morrow recalled. "It just made sense. We were kind of in a sweet spot. Not everybody can be 100% renewable. The system can't survive."

John Bonnin, who manages CPS Energy's supply and market operations, recalled his own experience with request-for-proposal prices in trying to



secure power for San Antonio. He likened the situation to one of the final scenes in the 1987 film "Predator," when the titular alien hunter removes its helmet.

"'You are one ugly...'" Bonnin said, stopping short of parroting Arnold Schwarzenegger's entire line. "That's kind of what it was like year after year, because the [RFP] prices kept going up. There was no thought of solar energy at the time, because people were talking about \$250, \$300/MWh prices.

"So fast forward a few years. What is our plan now? We have older coal plants ready to retire, so how do you replace that capacity on peak? Wind and solar can give you some peak, but you're not paying an out of market price for that [any longer].

Infocast Texas Renewable Energy Summit

Overheard

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The big change in our company is we're not doing this because it's a mandate, we're doing this because it's economic.'

"We were chasing environmental goals before. We were chasing goals, but we were trying to minimize the price effect," Austin Energy's Khalil Shalabi said. "That's changed with recent pricing we've seen. We've gone more into a mode of risk mitigation. How do [prices] fare under different regulatory paradigms? ... We can't predict the future, but we can look at the risks and quantify those for our customers."

Jim Briggs, the utilities manager for Georgetown, the other 100% renewable Texas city, said regulatory considerations played a role in the city's decision to go green when it ended a coal-heavy supply contract in 2012.

"My recommendation to the [City] Council and [utility] board was that renewables needed to be a portion of our energy mix," he said. "We don't know what's coming out of Washington for renewable standards, but I can tell you that, in 30 to 40 years of doing this, they have never been reduced. ... You can expect greenhouse gas legislation is going to continue. It might subside during one administration, but it's going to be back again."

ERCOT's Reserve Margin not Expected to Grow

Several panelists agreed ERCOT may have

been lucky to escape the summer heat with a reserve margin of only 11%. They pointed out the generators performed when called on, and though the system exceeded its previous peak-demand record 14 times during July, it also benefited from coolerthan-normal weather in June and August.

"Maybe it was some combination of market performance by ERCOT and luck," said Kathleen Spees, a principal with The Brattle Group. "The wind performed, and the traditional generators showed up. We had some scarcity pricing, but it wasn't [that] extreme. We skated through a summer that could have been very bad in terms of reliability, but very good for the money. Did we just get lucky? Was that the market working as intended? Or are we at a very low reserve margin, and the prices just didn't get high?"

"We feel like everything worked out as intended," said Erika Bierschbach, Austin Energy's manager of market operations. "The market is vibrant. With regard to most concerns before the summer started, there is still risk in the market."

ERCOT's Dave Maggio was quick to point out the grid operator didn't have to declare any emergencies during the summer and saw a lack of scarcity pricing.

"A big part of the story is going to be the resource performance. We got a lot of support from generation resources and transmission resources. When supply was tight, we didn't have resources offline," Maggio said. "The upshot was, we took less out-of-market actions, which is what everyone prefers."

"From the ERCOT perspective, part of the success we had was effective communica-



Brattle Group's Kathleen Spees and ERCOT's Kevin Hanson share a lighter moment. | © RTO Insider

tions with everyone," said Pete Warnken, the ISO's manager of resource adequacy. "The expectation is, as we continue to have lower reserve margins, the market and ERCOT and all the participants need to continue that discussion. We always focus on the summer peak, but fall and winter is coming up, and lowered reserve margins affect that as well."

Spees called ERCOT's summer performance with tight reserve margins "one roll of the dice."

"I don't think we would get lucky that often," she said. "One big outage, or the wind doesn't show up during peak load, or something a little closer to 2011's [recordbreaking hot] weather ... if we see a similar reserve margin next year, we could see something very different."

But don't expect ERCOT's market prices to remain depressed for the rest of 2018, BNEF Power Market Analyst Joshua Danial

"Some of the least healthy units run when spark spreads are negative, under arcane contracts where their power is guaranteed to have an off-taker," said Danial, who expects more fossil retirements in the near future. "When those contracts fall off, there'll be a lot of reconsidering whether to keep them running or not."

Manan Ahuja, senior director of North America power analytics for S&P Global Platts, said he expects to see reserve margins of 12 to 13% by 2022.

"The supply increase is tracking pretty closely to the load increase," he said, pointing to an ERCOT interconnection queue that numbers more than 19 GW of projects with signed agreements. "There are small gas projects in the queue, about 4 GW of wind that could come online in 2019. ... We expect to see reserve margins that are pretty similar [to 11%] next year."





Sidley Austin's Terence Healey (right) moderates a panel with ERCOT's Dave Maggio (left) and Austin Energy's Erika Bierschbach. | © RTO Insider

ISO-NE NEWS



ISO-NE Prices Top \$2,400/MWh in Labor Day Heat Wave

By Michael Kuser

Hot and humid weather some 5 degrees higher than forecast and 1,600 MW of unplanned generator outages sent ISO-NE power prices soaring last Monday and led the RTO to purchase emergency energy from New York and Canada.

Temperatures hit 96 degrees Fahrenheit in Boston on Sept. 3 with a dew point of 73 as load peaked at 22,956 MW, almost 2,400 MW above the initial forecast of 20,590 MW. The bulk power system saw a five-minute peak of 23,106 MW at 5:50 p.m., according to a Sept. 7 article published on the RTO's website.

Real-time energy prices rose to \$2,454.57/ MWh between 4 and 5 p.m., and reserve prices peaked at about \$2,500/MWh at times between 3 and 6 p.m.

Similar weather conditions, with a heat index at or near 100, were forecast for the following Tuesday. Load peaked at about 23,000 MW, in line with forecasts, and no alerts were issued. Boston peaked at 85 degrees.

When the dew point is above 70, every 1-degree increase can cause load to rise by about 500 MW, with rising temperatures causing similar effects on load.

The RTO implemented Master/Local

Control Center Procedure No. 2 (M/LCC 2) at 3:15 p.m. Sept. 3, declaring an Abnormal Conditions Alert and directing generators and transmission owners to stop or postpone any maintenance activities that could jeopardize system reliability.

Fifteen minutes later, the RTO implemented Operating Procedure 4, Actions 1 and 2. Action 1 declares a Power Caution, saying available capacity resources are insufficient to meet anticipated demand plus operating reserve requirements. Action 1 also allows the RTO to begin depletion of 30-minute operating reserves. Action 2 declares a Level 1 energy emergency alert.

At 4 p.m., system operators issued a Power Watch and implemented two other actions of OP4, asking market participants to reduce energy consumption at their own facilities and arranging for purchase of emergency capacity and energy from neighboring systems.

All of the alerts were lifted by 9 p.m.

ISO-NE spokeswoman Marcia Blomberg told *RTO Insider* that the Labor Day heat resulted in "higher-than-expected demand, as well as some generator outages" and that the RTO purchased emergency power from New Brunswick and New York for a short time. "While we implemented Action 4 of OP4, declaring a Power Watch, we didn't issue a request for voluntary conser-

vation. We were monitoring the system and could have issued an appeal if conditions had deteriorated.

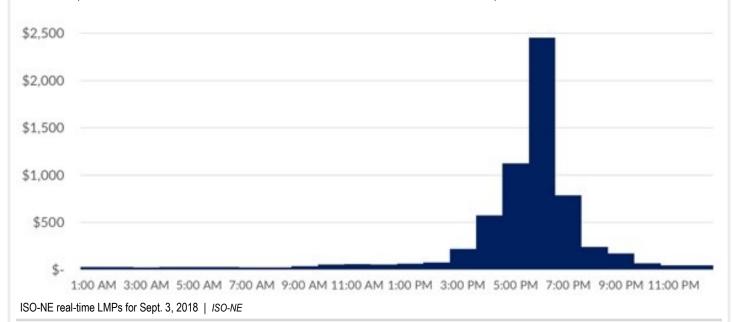
Emergency purchases from NYISO totaled 251 MW from 5 to 5:30 p.m. and 100 MW in the following half-hour, while emergency purchases from New Brunswick totaled 150 MW from 4:20 to 5:14 p.m. and 229 MW from then until 6 p.m.

"However, conditions improved rapidly as demand began to decline in the late afternoon and offline generators were able to come online quickly," Blomberg added.

ISO-NE's operations shift supervisor or one of its six local control center system operators can declare an abnormal condition under several scenarios, including a forecasted or actual deficiency of operating reserves. The local control centers, which are run by transmission owners, are generally responsible for transmission facilities rated 69 kV and below.

The RTO reported "underperforming resources will be penalized at a rate of \$2,000/MWh for failing to meet their obligation during energy shortfalls, while resources that overperform (including resources with no obligation) will receive \$2,000/MWh of additional revenue."

The performance payment rate will increase to \$5,455/MWh over the next six years.



MISO NEWS



MISO Looks to Members for Load Forecasting Ideas

By Amanda Durish Cook

MISO last week said it is reviewing stakeholder proposals to improve load forecasts and plan hourly energy delivery on its evolving system, rather than obtaining more forecasts from a Purdue University group.

Executive Director of System Planning Aubrey Johnson said CEO John Bear this summer asked to hold off on committing to continued use of the Purdue State Utility Forecasting Group's independent load forecast so the RTO could collect alternative proposals for load forecasting from stakeholders.

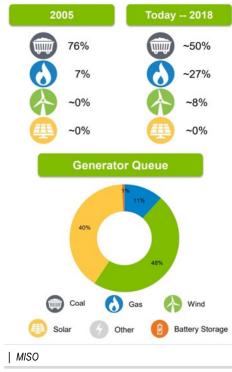
"He asked us to step back and think about what we're trying to accomplish," Johnson said during a special Sept. 7 load forecasting workshop.

In the face of stakeholder criticism, MISO in June abandoned a proposal to have its 140plus load-serving entities annually assemble four distinct 20-year load forecasts to align with each Transmission Expansion Plan. (See MISO Nixes LSE Load Forecast Plan.) However, stakeholders are now asking for more discussion about MISO's alternative plan to order four versions of the Purdue forecast, each tailored to one of the futures used to inform MTEP.

MISO said it still plans to pursue four 20year versions of Purdue's forecast beginning with the 2020 MTEP, but now it says it wants the university to include monthly forecasts specific to each of the MTEP futures. The RTO is also looking into having third parties supply load shape information on behind-the-meter generation, electric vehicles, energy efficiency, demand response and distributed energy resources.

But MISO said it has been receiving alternative forecasting proposals from stakeholders since last month. Johnson said the RTO is currently working on ways to evaluate the proposals against one another and invited stakeholders to submit more through this week.

MISO now plans to make an announcement on a new load forecasting approach at the November Planning Advisory Committee meeting after holding two more workshops



with stakeholders, Johnson said.

"What we're attempting to do is start a conversation about ... why" the forecast needs to change, Johnson said of the workshops.

'All Hours'

MISO currently plans energy supply around a yearly peak hour on the hottest summer day in its forecasting, though RTO leadership has repeatedly said there is increasing evidence that peak risk occurs throughout the year in all seasons.

"All hours matter in this conversation. In the past ... it's been one peak hour, one dispatch," said Director of Policy Studies J.T. Smith. "There are a lot of hours and generation mixes that are not being looked

Smith said MISO's current load modeling relies only on historical load shape data, but even MISO's air conditioning load shape will shift in part because of smart thermostats and hotter days.

MISO adviser Ling Hua said consumption patterns are changing from that of a "sitdown restaurant where the lunch and dinner rushes can be anticipated" to that of a neighborhood bakery.

"In the neighborhood bakery, people walk in and walk out at any time," Hua said.

"There are risks in the planning environment that we're not capturing today," Smith said. "We're seeing a very baseload-heavy environment turn into something not so baseload-heavy." In the future, MISO may need to plan transmission for a more localized system, Smith said.

Monthly Forecasts

Hua said MISO hopes to have a 20-year forecast comprising monthly load peak demand and energy forecasts for a "more complete picture of the footprint." He said the RTO needs more information, including energy efficiency, electric vehicle and load data from non-planning resources such as DR, DER and storage. "Those are really the disruptive technologies right now."

But he also cautioned MISO not to overburden LSEs with data collection.

Some stakeholders continued to question why MISO needed such a detailed load forecast.

Indiana Utility Regulatory Commission staffer Dave Johnston pointed out that load forecasters failed to foresee the Great Recession that sunk load growth from about 2% to about 0.5% and the shale gas revolution that made natural gas so popular as a

"I just throw those out as how different the load forecast can be," Johnston said. "The need for transmission projects is low because we're in this low growth era. ... Do you have an idea of demand growth ... 10 years in the future?"

Smith conceded the impossibility of predicting some trends but said that shouldn't deter MISO from adopting a more comprehensive approach. He said it may end up that load growth becomes decoupled from economic growth.

"I'm not saying I'm going to be exactly right in my forecast. What I'm looking for is a breakdown of the information," Smith said.

MISO NEWS



MISO Looks to Members for Load Forecasting Ideas

Continued from page 19

Alternatives

One stakeholder group has already offered an alternative to MISO's forecasting proposal.

Members of the Coalition of Utilities with an Obligation to Serve in MISO (CUOS), an ad hoc group of MISO utilities and regulators that has been meeting since 2014, support providing one 20-year baseload forecast that includes monthly non-coincident peak forecasts and monthly energy forecasts. The LSEs' forecasts would only be used in the MTEP "business as usual" future scenario.

Representing the group, WPPI Energy's Valy Goepfrich said LSEs could pull from their forecasts and submit separate data on demand served by demand resources, energy efficiency planning resources and

behind-the-meter planning resources. She added that, under the CUOS proposal, LSEs would not provide data on demand served by non-planning resources or energy efficiency programs.

Goepfrich stressed that LSE data is integral to whatever forecasting method MISO settles on.

"The LSEs have the best access to their data. That data is proprietary," Goepfrich said.

MISO Evaluating 12 Proposals for 2nd Competitive Project

MISO announced it has received 12 complete proposals from nine developers seeking to construct and own the Hartburg-Sabine Junction 500-kV project, the RTO's second competitively bid transmission expansion.

The grid operator had been screening proposals for the Hartburg-Sabine project since it closed the request for proposals window on July 20. As a practice, the RTO does not reveal which developers may have submitted incomplete proposals. (See "MISO Reviewing Hartburg-Sabine Proposals," MISO Informational Forum Briefs: July 24, 2018.)

MISO said it only reviewed the <u>proposals</u> for completeness and has not vetted the content of the proposals.

"With the final list of complete proposals, we now begin our competitive evaluation phase, which is outlined in the MISO Tariff," Aubrey Johnson, executive director for system planning and competitive transmission, said in a statement.

MISO said it expects to announce the selected developer by Dec. 31.

The completed proposals come from Avangrid Networks; EasTex TransCo; GridLiance Heartland (with Cleco Energy); Midwest Power Transmission Arkansas; NextEra

Energy Transmission Midwest; Transource Energy; Verdant Plains Electric; Xcel Energy Transmission Development Co.; and a joint bid from ITC Midcontinent Development, Hunt Transmission Services and Texas Infrastructure Holdings. MISO did not reveal which developers submitted multiple proposals.

The estimated \$129 million, 500-kV line and substation project, intended to alleviate system congestion in eastern Texas, is expected to be in service by 2023. The RTO opened the submittal window in early February after its Board of Directors approved the project as part of the 2017 Transmission Expansion Plan. (See MISO Board Approves Texas Competitive Tx Project.)

— Amanda Durish Cook



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NYISO NEWS



FERC Dismisses PSE&G Complaint Against Con Edison

By Michael Kuser

FERC on Thursday sidestepped yet another dispute between Public Service Electric and Gas and Consolidated Edison, saying a fight over the fate of their shared transmission lines between New Jersey and New York should be resolved in federal court.

The dispute — over two underwater transmission lines compromised by a pier collapse — is evidence of the continuing bad blood over Con Ed's April 2017 termination of the "wheel" it used to move power from upstate New York to New York City via northern New Jersey.

In May, PSE&G filed a complaint alleging that Con Ed was violating the NYISO Tariff by failing to cooperate in removing dielectric fluid and the transmission cables from the 345-kV B and C lines after B was damaged by a pier collapse in Jersey City, N.J. The lines were built in 1972 and 1980, respectively, to facilitate the former wheeling arrangement.

Federal Court Suit

In June, Con Ed countered by filing suit in U.S. District Court in New Jersey, accusing PSE&G of violating their interconnection agreement by refusing to put the lines back into service.

In a Sept. 6 order dismissing the complaint, FERC said it did not have exclusive jurisdiction over the dispute and declined to assert primary jurisdiction, leaving the matter for the federal court to decide (EL18-143).

The B Line starts at PSE&G's Hudson Generating Station in Jersey City and terminates at Con Ed's Farragut Substation in Brooklyn, while the C Line starts in Brooklyn and terminates at PSE&G's Marion Substation in Jersey City. The transmission lines are housed inside steel pipes encased in concrete.

A 700-foot section of B was damaged in two pier collapses a decade ago, and in 2016 the New Jersey Department of Environmental Protection informed PSE&G that the two lines could be leaking dielectric fluid, an oil used to regulate the temperature inside the steel pipes. The marina own-



The damaged B transmission line runs under the Newport Marina in Jersey City, N.J. (foreground) through Manhattan (background) to Brooklyn. | Newport Associates Development Co.

er was sued to remove tons of debris to allow investigation, which showed B to be leaking a gallon of fluid a day. The C Line was de-energized to facilitate the investigation.

Both utilities reported B repaired in August 2017, and they both agree that neither line is leaking now. The U.S. Coast Guard, however, requires the companies to fix the leakage such that dielectric fluid is not seen on the surface of the Hudson River for 15 consecutive days, a requirement they have yet to meet.

'Pitting Corrosion'

PSE&G said the leak occurred because of "pitting corrosion" after the pier collapse exposed about 700 feet of the steel pipes to river water. Although the initial leak was fixed with the replacement of a 10-foot portion of steel pipe, PSE&G said additional leaks are likely in the unrepaired pipes.

PSE&G asserted that it has authority to unilaterally drain the fluid and remove the transmission cables from its portion of the lines. Con Ed insists its interconnection agreement with PSE&G prohibits it from unilaterally taking the lines out of service; it wants to reintroduce dielectric fluid and reenergize the lines to conduct a test that the Coast Guard proposed.

State and RTO officials lined up on opposite sides of the dispute, with the New Jersey Board of Public Utilities filing comments supporting PSE&G's complaint, and NYISO and the New York Public Service Commission filing protests opposing it.

NYISO and the PSC said that as interregional transmission facilities, the lines support grid resilience by providing the ISO and PJM with operational flexibility between their service areas. NYISO said its joint operating agreement with PJM allows use of all the phase angle regulators and transmission lines at their border in an emergency.

NYISO also argued that PSE&G's underlying reason for seeking to remove the lines is that it wants to replace the lines with transmission facilities that will allow it to have more operational control, increasing their commercial value.

PJM said "there is no reliability criteria violation associated with retiring the [B-C lines], even under peak summer conditions," and that it does not rely on the lines as a part of its black start plan. The RTO also said, however, that if there are resilience benefits "and it is determined to be advantageous to maintain or replace these tie lines," the utilities should equitably share the cost.

FERC sided with Con Ed in concluding that the B-C interconnection agreements remain effective through 2020.

The commission said it would not assert primary jurisdiction in the dispute because the issue did not raise a policy issue important to its regulatory responsibilities and that "the unique facts and contractual dispute in this case are not broadly applicable to the commission's policies on interconnection agreements or reliability requirements."

PJM NEWS



FERC Upholds Orders on PJM Virtual Trading Nodes, Uplift

By Michael Brooks

FERC on Thursday rejected financial stakeholders' request for rehearing of its Feb. 20 ruling reducing the number of bidding nodes for virtual transactions (ER18-88-002).

The commission also upheld its rejection of PJM's proposal to allocate uplift to up-to-congestion transactions (UTCs) as it does to increment offers (INCs) and decrement bids (DECs) (ER18-86).

Virtual Transaction Nodes

The commission said that XO Energy and the Financial Marketers Coalition merely rehashed arguments they had made against the node reduction proposal. (See <u>FERC</u> OKs Slash in Virtual Bidding Nodes for PJM.)

The changes reduce by almost 90% the number of bidding nodes, limiting INCs and DECs to those where either generation, load or interchange transactions are settled, or at trading hubs where forward positions can be taken. They also barred UTCs from zone, extra-high-voltage and individual load nodes. The changes reduced the number of INC/DEC trading nodes from 11,727 to 1,563, and UTC nodes from 418 to 49.

FERC did accept PJM's request to change the effective date for the changes from Jan. 16 to Feb. 22, 2018. PJM said it intended to make the changes prospectively and that in its Dec. 22 response to a deficiency letter the RTO had neglected to change its requested effective date. PJM said the January date would be disruptive to the market, as it would have to remove all virtual transactions at points no longer eligible for bidding and re-execute the dayahead market.

Commissioner Cheryl LaFleur issued a partial dissent, repeating her assertion that PJM had not justified reducing nodes for UTCs.

"As I stated in my partial dissent, I believe that UTCs provide value to the market and that reduced granularity in their use is a move in the wrong direction," she said. "I would, however, be open to other solutions more targeted to the specific problems that PJM has identified."

Uplift for UTCs

PJM complained that in its Jan. 12 rejection of the RTO's uplift proposal, FERC dismissed the proposal outright, without setting it for hearing, or considering parts of the proposal separately. (See FERC: PJM

Uplift Proposal for UTCs Falls Short.)

PJM claimed that, unless its filing was deficient, the commission could only accept the proposal or suspend it for hearing. But FERC said it was under no obligation to set the proposal for hearing. The RTO failed to demonstrate that the proposal would result in just and reasonable rates under Federal Power Act Section 205, the commission reiterated, "as it proposed to treat different financial transactions, with differing characteristics and effects, as if they were the same."

However, FERC did reverse itself to accept PJM's proposal to exclude internal bilateral transactions from uplift calculations, which the RTO said the commission should have considered separately. The commission directed PJM to submit a compliance filing in 30 days implementing the change.

PJM can still propose a different way to allocate uplift to UTCs, as FERC had dismissed the proposal without prejudice. "We also note, however, that any such hypothetical, future filing must address the concerns noted above, including the commission's concern with PJM's proposal to allocate uplift to a UTC as though it were two separate transactions, an INC and a DEC," the commission said.

PJM, IMM Extend Contract Through 2025

PJM and Monitoring Analytics, its Independent Market Monitor, have agreed on a deal that will extend the Monitor's contract through 2025 and require the Monitor to submit to an annual independent audit. The agreement was filed for FERC approval Friday (ER18-2402).

In a concurrent filing, the parties also agreed the Monitor will provide to PJM more of the data market participants submit into MIRA, the Monitor's online database, so participants don't have to send the data to both the RTO and the Monitor. The additional sharing includes data used in generators' fuel-cost policies. The filing also requires both parties to inform the other of changes to their systems (ER18-2403).

The new audit requirement "provides for a review intended to ensure that the services being provided to PJM by Monitoring Analytics are being completed consistent with the systems and controls in place for the provision of those services, similar to the reviews PJM conducts of its own systems and controls," the RTO said in the filing.

The Monitor's current contract runs through 2019, and stakehold-

ers — particularly state regulators and consumer representatives — have been urging the parties to come to agreement early. (See "IMM Support," <u>Advocates Push PJM Board for Explanations at Annual Meeting.</u>)

The early agreement also avoids some of the drama of the previous contract, which began in September 2013. As the initial six-year contract, which went into effect on June 30, 2008, neared its expiration, PJM's Board of Managers announced



Monitor Joe Bowring | © RTO Insider

plans in March 2013 to issue a request for proposals. The Organization of PJM States Inc. joined industrial consumers and cooperatives in protesting the decision, and the parties eventually agreed to an extension. By PJM's annual meeting in October, a potential crisis had passed. (See <u>Board, OPSI Bury the Hatchet over Monitor Contract.</u>)

- Rory D. Sweeney

PJM NEWS



PJM Sets Terms for Using IMM's Cost Calculator

By Rory D. Sweeney

Responding to stakeholder demands to resolve a yearlong dispute, PJM's Stu Bresler has sent a <u>letter</u> outlining his requirements for accepting the Independent Market Monitor's opportunity cost calculator.

The public pronouncement of PJM's terms was unexpected but welcomed. "I'm surprised that PJM has apparently decided to negotiate this publicly," Monitor Joe Bowring said. "We will respond." Bowring declined to address whether the RTO's terms were acceptable and detailed enough.

For more than a year, PJM and its Monitor have been unable to agree on a single calculator for opportunity costs included in generation offers. The RTO argues that FERC Order 719, issued in October 2010, allows the Monitor to provide input on cost determinations but that "PJM retains the ultimate decision-making authority." From then until "the latter part of 2016," both calculators produced consistent results, Bresler said in his letter, but have since

diverged substantially.

PJM says it can't endorse the Monitor's calculator until staff understand how and why it produces different results. For that reason, PJM announced in August it would only accept opportunity cost calculations using its calculator.

The Monitor argues that it has continued to enhance its calculator while PJM hasn't changed its methodology since 2010.

PJM staff have asked to understand the calculator's inner workings, but Bowring has been reluctant to fully throw back the curtain, arguing that staff haven't specifically detailed their requests and that the underlying computer code is proprietary intellectual property.

Generators say the dispute has left them in a bind, fearing a referral to FERC enforcement for using an unapproved number.

At the Aug. 23 Markets and Reliability Committee meeting, generators attempted to force a resolution by threatening Tariff revisions that would require PJM to accept the Monitor's calculator. (See <u>Stakeholder</u> Proposal Aimed at Ending PJM-IMM Dispute.)

Bresler's letter details three requests to the Monitor:

- the design requirement specification documents for the Monitor's calculator, including descriptions of steps taken to calculate adders and accompanying mathematical formulas;
- alternatively, the calculator's output from predefined sample inputs and parameters so PJM can compare the results with its calculator's output using the same inputs; and
- a commitment to notify PJM of any changes to the calculator and to rerun the comparative analyses afterward.

Bresler, PJM's senior vice president of operations and markets, shot down an earlier suggestion from Bowring that they allow a third-party auditor to compare the calculators, saying it was less efficient and more expensive than his solutions. He gave Bowring a Sept. 10 deadline to respond to the proposal.

The Members Committee is set to vote on the proposed Tariff revisions on Sept. 27, barring an agreement before then.





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FERC & FEDERAL NEWS



McIntyre Defends FERC Chief of Staff Pugliese

Continued from page 1

Energy and National Security Council on the Trump administration's proposal to provide price supports for at-risk coal and nuclear generators. (See <u>Democrats Call Out</u> 'Partisan' Remarks by FERC Chief.)

Pugliese, a former lobbyist in Pennsylvania's capital, and an unsuccessful state legislative candidate, joined FERC in August 2017 after a stint at the U.S. Department of Transportation as a member of Trump's socalled "shadow cabinet."

McIntyre said he had authorized Pugliese to make the Breitbart and nuclear conference appearances but that "the specific subjects of his remarks were not subject to review and were not identified in advance."

The chairman said none of Pugliese's comments reflected FERC policy because "the commission speaks exclusively through its orders. Consequently, neither the public statements of Mr. Pugliese nor those of any other FERC staff member can state the views of the commission, particularly in connection with proceedings on which the commission has not issued an order on the merits."

"While I understand your concerns, I can

assure you that this commission remains independent and impartial," McIntyre said.

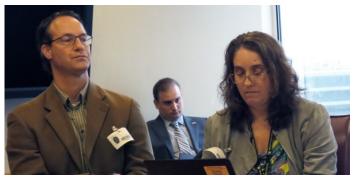
McIntyre joined in a 5-0 vote in January rejecting Energy Secretary Rick Perry's Notice of Proposed Rulemaking to save atrisk coal and nuclear plants and instead opened a docket to consider resilience concerns (AD18-7). In June, however, Trump ordered Perry to save coal and nuclear plants under an obscure Korean War-era law. (See More Questions than Answers for FERC, RTOs on Bailout.)

In his response to Cantwell, McIntyre said commission staff "has not discussed the merits of any 'grid resilience' proposal that

would seek to prefer one form of generation over another with executive branch officials. Commission staff does, however, have regular contact with our counterparts in the Department of Energy on a host of matters of shared responsibility including intelligence, personnel and legal process."

Cantwell said in a <u>statement</u> that she was encouraged "to hear Chairman McIntyre clarify that the commission's official orders, like the 5-0 rejection of the Trump coal bailout, are what count. However, speeches and interviews by the commission's top staffer that are laced with bad-faith partisan attacks serve to undermine FERC's traditional impartiality and neutrality."

Pallone said he was "disappointed that [McIntyre] failed to acknowledge that the partisan comments of his chief of staff, Anthony Pugliese, were wholly inappropriate, unhelpful and distasteful. To my knowledge, no other FERC chief of staff under either Republican or Democratic administrations has used that position as a platform for partisan attacks."



Anthony Pugliese (rear) monitors then-FERC Chair Neil Chatterjee's October 2017 press conference as reporters take notes. | © RTO Insider





COMPANY BRIEFS

Duke Agrees to Temporarily Reinstate Net Metering in SC



Duke Energy has agreed to reinstate net **ENERGY** metering for its South Carolina solar custom-

ers until March 15.

The agreement between the utility and environmental and solar energy advocates must be approved by the South Carolina Public Service Commission.

Duke won a battle with advocates over legislation that would have removed a cap on the amount of residential solar generation that can be deployed under net metering. The extension keeps net metering in effect while Duke and advocates try to work out compromise rules governing residential solar deployment.

More: The State

Duke to Add Customers, Solar, Natural Gas in Carolinas

Duke Energy Carolinas expects to increase its solar power generating capacity from about 1,200 MW next year to 3,400 MW in 2033, according to the integrated resource plan it filed with the North Carolina Utilities Commission on Sept. 5.

Even with the growth, solar power will still only provide about 8% of Duke's capacity in the Carolinas. Coal will fall from 29% of its capacity last year to 18% in 2033.

Duke expects to add 445,000 new customers by 2033, which will increase its peak electricity demand by 2,650 MW. The company will meet that need mostly by adding natural gas-fired plants.

More: WFAE

NiSource Names Former Entergy Executive to Board

NiSource said Sept. 5 that it has named Theodore Bunting Jr. a member of its board of directors.

Bunting was group president of utility operations at Entergy from 2012 until his retirement in 2017. Prior to that, he was a senior vice president and chief accounting officer at the company, which he joined in 1983.



Bunting

Bunting has been a director of Unum Group since 2013.

More: NiSource

NRC Approves Reactor License Transfers in Dominion-SCANA Deal



Dominion Energy and SCANA said Sept. 4 the Nuclear Regulatory Commission has given them another one of the approvals needed to complete Dominion's purchase of SCANA for about \$14.6 billion in stock.

The NRC approved the transfer of the licenses of the three reactors at the V.C. Summer Nuclear Station in South Carolina from SCANA's South Carolina Electric & Gas subsidiary to Dominion. Two of the licenses are for reactors that SCE&G and Santee Cooper failed to complete, resulting in the financial difficulties that led to SCANA agreeing to be bought by Domin-

The deal still must be approved by regulators in South Carolina and North Carolina.

More: The Post and Courier

NextEra Affiliates Agree to Renewable Portfolio Deal

NextEra Energy Partners said Sept. 5 it has agreed to buy a geographically diverse portfolio of 11 wind and solar projects with a total capacity of 1,388 MW from a subsidiary of NextEra Energy Resources for \$1.275 billion, plus the assumption of approximately \$930 million in tax equity financing and \$38 million of non-recourse project debt.

In conjunction with the acquisition, NextEra Energy Partners said it also has entered into a \$750 million convertible equity portfolio financing with a fund managed by BlackRock Global Energy & Power Infrastructure.

NextEra Chairman and CEO Jim Robo said the acquisition enables NextEra Energy Partners to replace the Canadian portfolio it sold earlier in the year with higheryielding assets in the United States. NextEra expects the acquisition will be completed in the fourth quarter.

More: NextEra Energy Partners

Dominion Has Started Building James River Towers for Tx Project



Dominion Energy has begun construction on **Dominion** the towers that will

carry the Surry-Skiffes Creek transmission line across the James River.

Four of the 17 towers that will carry the 500-ky line across the river were built last month, and Dominion expects to build three or four towers a month until the project is completed.

A Dominion spokeswoman said the project, which includes upgrading a 230-kv line and building a switching station in James City, Va., remains on schedule to be completed next summer, although its cost has increased from \$325 million to \$390 million.

More: The Virginia Gazette

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FEDERAL BRIEFS

Climate, Energy Conservation Groups Sue TVA over New Rates

Five climate and energy conservation groups on Sept. 6 filed a lawsuit in U.S. District Court accusing the Tennessee Valley Authority of imposing discriminatory electricity rates that discourage homeowners and businesses from investing in renewable energy and energy efficiency.

The groups oppose TVA's fixed grid-access charge, which they say makes residential solar generation systems less cost effective. They also oppose the agency's rate reduction for its large business customers, which they say encourages companies to continue relying on TVA's fossil fuel-powered energy rather than investing in distributed solar and discourages businesses from adopting energy efficiency measures.

More: The Chattanoogan

FEMA Awards \$55 Million to PREPA for FPL Expenses

The Federal Emergency Management Agency said Sept. 5 it has awarded \$55 million in public assistance grants to the Puerto Rico Electric Power Authority, which will use the money to cover expenses of Florida Power & Light for repairing electricity systems damaged or destroyed in the island territory after Hurricane Maria.

With the grants, FEMA has awarded nearly \$3.4 billion under its Public Assistance Program to Puerto Rico's municipalities and government agencies.

More: FEMA

White House Deleted Climate Change Impact from ACE Analysis

The White House deleted warnings about potentially severe consequences of climate change from an impact analysis of the Affordable Clean Energy rule before EPA issued it last month.

Internal documents from a White Houseled interagency review of the rule reveal the decision to spike the language but show neither the reasoning behind the deletions nor who ordered them.

The documents, which were recently released online, show the deletions came during last-minute edits to the rule's regulatory impact analysis.

More: Bloomberg

DOE Providing \$80M to 36 Bioenergy R&D Projects

The Department of Energy said Sept. 4 it will provide up to \$80 million to 36 projects

to promote early-stage bioenergy research and development.

The department said the projects are meant to make possible cost-competitive drop-in renewable hydrocarbon fuels, bio-based products, and power generation from non-food biomass and waste feedstocks.

DOE said the funding supports its goal of decreasing the cost of bio-based drop-in fuels to \$3/gallon by 2022.

More: Department of Energy

Energy-related CO₂ Emissions Fell Slightly Last Year

Energy-related carbon dioxide emissions fell 0.9% last year to 5.14 billion metric tons, the Energy Information Administration said Sept. 5.

A 2.6% decline in coal-related CO_2 emissions due to a reduction in coal consumption was the primary driver of the decline, EIA said. Natural gas-related CO_2 emissions also decreased, falling 1.5%, because of lower natural gas consumption.

EIA said energy-related CO_2 emissions have declined in seven of the past 10 years and are now 14% lower than they were in 2005.

More: Energy Information Administration

STATE BRIEFS

ARIZONA

APS Seeks Rate Hike to Cover Environmental Equipment

Arizona Public Service is asking the Corporation Commission for a \$67.1 million rate increase to cover the cost of environmental equipment added earlier this year to the Four Corners Power Plant.

The company's request for an increase comes as the Corporation Commission considers requests to reopen a rate case from last year in which it granted APS a rate increase. That increase didn't include the cost of the Four Corners equipment because it was still being installed.

APS owns 63% of the two units still operating at the Four Corners plant.

More: Arizona Republic

CONNECTICUT

State Makes \$5 Million Grant for Microgrid on Submarine Base



Gov. Dannel P. Malloy on Sept. 5 announced a \$5 million state grant to build a microgrid at the Naval Submarine Base in Groton.

Energy security at the submarine base was identified as a major concern during the Base Realignment and Closure process in 2005. State officials hope the microgrid will improve the base's standing when the next round of reviews for possible facility closures occurs in 2021.

Work on the microgrid is expected to start

next year.

More: New Haven Register

DELAWARE

Carney Signs Clean Energy Financing Bill

Gov. John Carney on Sept. 5 signed a bill enabling Commercial Property Assessed Clean Energy financing in the state.

The financing is used to pay for commercial energy efficiency and renewable energy projects. It's provided by private lenders and repaid by voluntary assessments on the county tax bills for the properties on which the projects are built.

The Delaware Sustainable Energy Utility

STATE BRIEFS

Continued from page 26

will administer the program and hopes to have it up and running in the first quarter of next year.

More: Delaware Business Times

LOUISIANA

New Orleans Extends Power Plant Scandal Investigation Deadline

The New Orleans City Council has extended until Oct. 19 the deadline for investigators looking into how paid actors wound up at two of its meetings voicing support for a controversial natural gas-fired power plant that Entergy New Orleans ultimately was given permission to build.

The investigators asked for the deadline extension. They are trying to determine whether Entergy executives were aware of the plan by its contractor, the Hawthorn Group, to have a company called Crowds on Demand hire actors to show up at council meetings voicing support for the plant. They also are trying to determine whether Entergy hired Hawthorn for similar work in the past.

More: The Advocate

MAINE

Longroad Plans \$140 Million Wind Farm for Hancock County



Longroad Energy Chief Development Partner Matt Kearns met with officials from Han-

cock County on Sept. 7 about a \$140 million wind farm the company wants to build adjacent to the Hancock Wind and Bull Hill wind farms.

Kearns said Longroad expects to file an application for the wind farm with the Department of Environmental Protection. Longroad also needs to get a permit for the wind farm from the Department of Transportation and approval by the Land Use Planning Commission. Longroad expects to have the wind farm operational by 2020, Kearns said.

More: The Ellsworth American

Central Maine Power Asks PUC for NECEC Conference

Central Maine Power has asked the Public Utilities Commission to schedule a settlement conference concerning a certificate of public convenience and necessity for the New England Clean Energy Connection (NECEC).

The Avangrid subsidiary took the action on Aug. 29 in response to questions about whether the ownership structure of the transmission project should be changed to better protect CMP's customers in case the project suffers a setback, said John Carroll, Avangrid's spokesman for the project.

The NECEC would bring electricity from Hydro Quebec to Massachusetts. It faces opposition from renewable energy developers, who say CMP should build a transmission line that wind and solar projects could tap into more cheaply, and environmental groups that say it will harm ecosystems in western Maine.

More: Maine Public

PUC Issues RFP for Retail Electricity Standard Offer Service

The Public Utilities Commission on Sept. 5 issued a request for proposals to provide retail electricity standard offer service for all customer classes in the territories of Central Maine Power and Emera Maine-Bangor Hydro District.

The commission is seeking proposals to provide service for one year, beginning Jan. 1, 2019. Initial proposals are due on Oct. 3, 2018.

Standard offer service is what utilities' customers receive if they don't purchase power from another supplier.

More: Maine Public Utilities Commission

MASSACHUSETTS

Court: State Can Order Generators To Cut Greenhouse Gas Emissions

The Supreme Judicial Court on Sept. 4 upheld the state's authority to require power generators to reduce their greenhouse gas emissions to comply with the 2008 Global Warming Solutions Act.

The decision came in a case originated in 2017 when the New England Power Generators Association and GenOn Energy

sued the Department of Environmental Protection, contending it acted unlawfully in establishing a "cap regulation" for instate power plants.

The DEP had told generators to reduce their carbon dioxide output from 9.1 metric tons in 2018 to 1.8 metric tons in 2050. It imposed the regulation following direction by Gov. Charlie Baker after teenagers sued it for failing to comply with the Global Warming Solutions Act.

More: MassLive

NEW JERSEY

BPU Accepts Application for Wind Farm off Atlantic City

The Board of Public Utilities said Sept. 5 it has officially accepted the application tendered by EDF Renewables and Fishermen's Energy for the Nautilus Offshore Wind project, which is proposed for 2.8 miles east of Atlantic City.

The BPU said it expects to review the project over the next few months and decide whether to approve it for immediate construction.

The project, which is expected to comprise three wind turbines with a combined capacity of up to 25 MW, could be completed as soon as 2020.

More: EDF Renewables

NEW MEXICO

PRC Unanimously Rejects SunZia Southwest Route



The Public Regulation Commission voted 4-0 on Sept. 5 to reject the pro-

posed path of the \$2 billion SunZia Southwest Transmission Project.

The commission rejected the route without prejudice, meaning SunZia can file a new proposed route for the project, which would consist of two lines carrying 1,500 MW 520 miles from central New Mexico to Arizona. A SunZia spokesman said the company intends to do that.

More: Santa Fe New Mexican

STATE BRIEFS

Continued from page 27

SPS Ordered to Stop Charging Solar Customers 'Standby Fee'

The Public Regulation Commission voted 4-1 on Sept. 5 to order Southwestern Public Service to stop collecting the "standby fee" it charges customers with rooftop solar generation systems. SPS had sought to increase the fee 11.6%.

The PRC also required SPS to reimburse its customers more than \$10 million over the next 18 months, which is the amount the company has saved in taxes since the Tax Cuts and Jobs Act took effect in January.

More: Santa Fe New Mexican

NEW YORK

NYPA Names Salati EVP, Chief Commercial Officer

The New York Power Authority has named Sarah Orban Salati executive vice president and chief commercial officer.

Salati will be responsible for \$2 billion in annual revenues from NYPA's 16 power generation assets. She also will oversee the authority's customer operations and help lead several of Gov. Andrew Cuomo's clean energy and economic development initiatives that NYPA administers.

Salati had been the managing director for

New Energy Solutions at AES. She worked for AES for 13 years, holding several different positions.

More: New York Power Authority

SOUTH DAKOTA

PUC Accepts Settlement Giving Black Hills Customers Tax Savings

The Public Utilities Commission voted Sept. 4 to accept a settlement agreement between its staff and Black Hills Energy that will pass the benefits of the Tax Cuts and Jobs Act through to the utility's customers.

As a result of the settlement, Black Hills customers will receive a \$7.67 million refund that the utility says will amount to a credit of approximately \$50 on their bills in October.

The settlement also will decrease Black Hills customers' variable charges and slightly increase their monthly fixed charges, resulting in a net decrease to their base rates of about \$9 million beginning next year.

More: Public Utilities Commission

VIRGINIA

State Mandates to Cost Dominion Customers \$5.6B, Analysis Says

New state mandates requiring Dominion

Energy Virginia to expand its use of renewable energy and modernize its grid will cost its customers nearly \$5.6 billion over the next 15 years, according to an analysis by State Corporation Commission staff.

Additionally, the staff says its estimate could be low because it was based on a Dominion load forecast the staff thinks is inflated.

Dominion says it strongly disagrees with the staff analysis, largely because it doesn't reflect the savings its expenditures will produce and undervalues the efficiency of new solar power generation compared to other generation options, such as natural gas.

More: Richmond Times-Dispatch

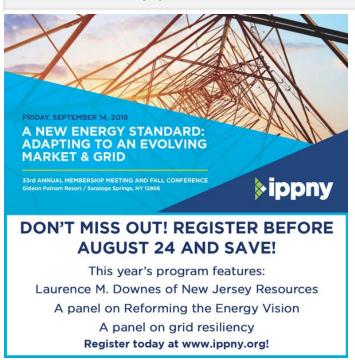
WASHINGTON

Judge Grants Injunction on Release Of PacifiCorp Plant Information

A Thurston County Superior Judge on Sept. 7 granted PacifiCorp's request for a permanent injunction on the release of some economic information about its coal-fired power plants.

Sierra Club wanted the information made public, saying people should have data about the financial risk the plants pose to PacifiCorp. The company said releasing the information would put it at a competitive disadvantage.

More: The Associated Press





Wood, Brownell: Unaware of Press Ban When OK'd NEPOOL

Continued from page 1

other stakeholders, and ultimately to the consumers who benefit from and pay for electricity services."

"I do not recall this ever coming up when I was at FERC, and I do not remember the issue in 719," Wellinghoff said via email. "Stakeholder meetings should absolutely be open to all, including the press."

The other former commissioners who joined Wellinghoff and then-Chairman Kelliher in voting on Order 719 — Kelly, Marc Spitzer and Philip Moeller — did not respond to requests for comment last week.

New England is the only one of seven U.S. regions served by RTOs or ISOs where the press and public are prohibited from attending stakeholder meetings.

On Friday, RTO Insider filed a complaint asking FERC to overturn NEPOOL's press ban or terminate the group's role and direct ISO-NE to adopt an open stakeholder process like those used by other RTOs. The Section 206 complaint (EL18-196) came two weeks after NEPOOL submitted a proposal to FERC seeking to codify an unwritten policy of banning news reporters and the public from attending the group's stakeholder meetings. (See RTO Insider Seeks Repeal of NEPOOL Press Ban.)

Media Family

Wood, attending an industry conference in D.C. on Wednesday, told RTO Insider that it was inconceivable that he and Brownell

would have approved NEPOOL's press ban. Brownell's family owned the Erie Times-News in Pennsylvania until 2015.

"If Nora Brownell signed off on that - her being from a media family - I'm sure it did not come up," Wood said. "Nora would be kind of the canary in the mine on anything [dealing with media]. Any time that you came up with transparency stuff, she kind of had my proxy."

Brownell, now a board member of National Grid, confirmed Wood's recollection in a phone interview.

"Pat is absolutely right," Brownell said. "I did not know and would never have approved. Shame on me if it was out in the open, but it couldn't have been obvious. I remember expressing concerns over SPP's stakeholder process.

"I just can't imagine why the meetings have to be closed," she continued. "I think it is critically important for people to have confidence in the outcome of what is being recommended and what the RTO/ISO ultimately adopts. ... If the consumer is paying a bill [for RTO actions], as they are, directly or indirectly, they have a right to have access to the process."

Wood said ensuring stakeholder meetings are open to the public and press is essential. "The very first step of transparency is doing the sunshine," he said. "You know, most things done in the dark do start to smell."

Two Dockets

RTO Insider also filed its complaint as a pro-

test in the docket NEPOOL opened in August (ER18-2208). Comments in the NE-POOL docket are due Sept. 14.

The commission set a Sept. 20 deadline for comments in the docket opened by RTO Insider. NEPOOL on Thursday requested that deadline be extended seven business days to Oct. 1 "to align the timing of any appropriate NEPOOL response to pleadings submitted on these same issues in Docket No. ER18-2208." RTO Insider responded that it did not oppose the request.

The 2004 order approved by the three commissioners, all Republicans, includes three references to "transparency" but no mention of NEPOOL's then unwritten press ban. It noted, for example, the promise of ISO-NE and the New England transmission owners that the revised ISO-NE board procedures "would promote greater transparency by requiring board agendas to be posted, the opportunity for stakeholders to provide written input on agenda items, and for reports on board meeting actions, and proposed revisions to market rules or other tariff provisions."

NEPOOL moved to codify its unwritten ban on press and public attendance at stakeholder meetings after RTO Insider reporter Michael Kuser, who lives in Vermont, applied for membership in NEPOOL's Participants Committee as an end-user customer in March. NEPOOL's proposed amendments to the NEPOOL Agreement would add a definition of "press" and bar anyone working as a journalist from becoming a NEPOOL member or alternate for a participant.

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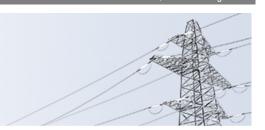
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