



Don't Rush on Resilience, Commenters Urge

Warn Against PJM Overreach, Abandoning Stakeholder Process

By RTO Insider Staff

FERC should let RTO stakeholder processes work and not issue broad and costly new mandates, most commenters told the commission in its grid resilience proceeding (AD18-7).

RTO Insider's review of more than 60 of the dozens of comments filed ahead of the May 9 deadline indicated widespread support for RTOs' requests in their initial filings in March for time to discuss the issues with stakeholders, more coordination with natural gas operators and more information on cyber threats. (See [RTO Resilience Filings Seek Time, More Gas Coordination](#).)

But many commenters criticized PJM's call for setting firm deadlines for rule changes, saying the RTO's proposals would increase costs without necessarily improving resilience. Several commenters, including Edison Electric Institute and the National Rural

Energy Bar Association Annual Meeting



FERC ALJ Lawrence Brenner (far left) moderates a discussion with former commission chairmen (left to right) James Hoecker, Pat Wood III, Joseph T. Kelliher, Jon Wellinghoff and Norman Bay at the Energy Bar Association's annual meeting in D.C. last week ([p.3](#)).

Other Coverage

- Panel Debates Need for Changes in FERC Merger Policy ([p.5](#))
- Playing the ROE Slot Machine ([p.6](#))
- Time for New FERC Enforcement Rules? ([p.7](#))
- Overheard ([p.8](#))

Electric Cooperative Association (NRECA), suggested FERC schedule one or more technical conferences on the issue. Numerous commenters called for cost-benefit analyses of any new requirements.

In a [joint filing](#), CAISO, MISO, NYISO, SPP and ISO-NE asked FERC not to impose

PJM's proposals in their regions.

"The record in this proceeding does not support any universal resilience standard or tariff changes requirements to be applied to all RTOs/ISOs. To the contrary, the record demonstrates that RTOs/ISOs have differ-

[Continued on page 32](#)

Calif. Code Change Would Mandate Rooftop Solar

By Jason Fordney

SACRAMENTO, Calif. — The California Energy Commission rocked the energy world Wednesday when it unanimously approved a mandate requiring new homes in the Golden State to include rooftop solar, making it the first state to move to adopt such a rule.

The [2019 Building Energy Efficiency Standards](#) would apply to most newly constructed buildings and additions to existing structures built after Jan. 1, 2020, requiring builders to add solar panels and encourage

battery storage systems and heat pump water heaters to improve energy efficiency. They also update standards for indoor and outdoor lighting by incentivizing maximum usage of LED lighting in non-residential buildings.

The proposed rules also include three other major components in addition to solar: updated thermal envelope standards that prevent interior/exterior heat transfer; residential and nonresidential ventilation requirements; and nonresidential lighting requirements. California for the first time extended the standards to health care facilities.

The package still requires approval from the state's Building Standards Commission. CEC spokeswoman Amber Paricha Beck told RTO Insider the building commission usually approves what the CEC sends over.

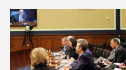
[Continued on page 13](#)

Also in this issue:



Overheard at IPPNY 2018 Spring Conference

([p.20](#))



Little Time for Transmission Talk on the Hill

([p.30](#))

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Subscription Rates:

Payment Frequency	PDF-Only	PDF & Web
Annually:	\$1,350.00	\$1,650.00
Quarterly:	380.00	475.00
Monthly:	150.00	175.00

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IN THIS WEEK'S ISSUE

- Don't Rush on Resilience, Commenters Urge ([p.1](#))
- Little Time for Transmission Talk on the Hill ([p.30](#))
- Report: Customer Needs Should Lead Resilience Effort ([p.31](#))
- Oncor Financing Tamps down Sempra Earnings ([p.39](#))
- Connecticut Energy Bill Draws Mixed Reviews ([p.42](#))

EBA Annual Meeting

- Former FERC Chairs Reminisce at EBA ([p.3](#))
- Panel Debates Need for Changes in FERC Merger Policy ([p.5](#))
- Playing the ROE Slot Machine ([p.6](#))
- Time for New FERC Enforcement Rules? ([p.7](#))
- Overheard ([p.8](#))

CAISO

- Calif. Code Change Would Mandate Rooftop Solar ([p.1](#))
- CPUC OKs Temporary Increase in Aliso Canyon Injections ([p.10](#))
- CAISO Updates ESDER Phase 3 Proposal ([p.11](#))

ERCOT

- Texas PUC Delays Final Approval of SPS Wind Farm ([p.14](#))

MISO

- MISO Stakeholders Outline Early Storage Impacts ([p.15](#))
- ATC Restores Tx Link Between Michigan Peninsulas ([p.16](#))
- MISO Monitor Floats Plan for Partial-year Capacity Resources ([p.16](#))
- Market Subcommittee Briefs ([p.17](#))
- MISO LOLE Study Overestimates Auction Capacity ([p.18](#))
- MISO, PJM Plan 2 Studies for Seams Projects ([p.19](#))

NYISO

- Overheard at IPPNY 2018 Spring Conference ([p.20](#))

PJM

- PJM Prices up Sharply in Q1, Monitor Says ([p.22](#))
- PJM Capacity Proposals Widely Panned ([p.23](#))
- FERC Closes Book on PJM's 'Paper Capacity' Concerns ([p.27](#))

SPP

- SPP's Tariff Team Begins Carving up the Elephant ([p.28](#))
- SPP Average Winter Prices Up 4.6% from 2017 ([p.29](#))

Briefs

- Company ([p.39](#))
- Federal ([p.40](#))
- State ([p.41](#))

Correction

In the print edition of a story last week (See [PJM Capacity Proposals Widely Panned.](#)), a cutline for Doug Koplou, founder of Earth Track, was misspelled as "Kaplow."

Clarification

An article in last week's issue reported that LS Power's proposal to require consideration of cost-containment provisions in PJM's analysis of transmission construction bids was "unannounced" when it was brought before the January Markets and Reliability Committee meeting. While the proposal was not listed on the meeting's agenda, it was properly posted on the committee's webpage before the meeting. (See [Cost Containment Proposal Survives; Headed to MRC.](#))

Energy Bar Association Annual Meeting

Former FERC Chairs Reminisce, Sound off at EBA *Margaritas, Russian River Red Wine and Crony Capitalism*

By Rich Heidorn Jr.

WASHINGTON — The Energy Bar Association closed its annual meeting last week with a panel discussion with five former FERC chairs whose terms collectively spanned two decades. The former chairs offered entertaining anecdotes about the past while expressing pride over the growth of competitive markets — and frustration over forces they said threaten them.

James Hoecker (1997-2001) jokingly referred to his tenure as the “Cretaceous period of FERC regulation,” a time when he said there was less state-federal conflict but also no FERC authority to impose meaningful penalties on market manipulators. He started at FERC as a staff attorney in 1979 and left for a time before returning in 1993 as a commissioner. He cited Order 637, which revised gas pipeline rules to encourage competition, and Order 2000, which set the requirements for RTOs, among the biggest accomplishments of his tenure.



“FERC had not gotten to be so visible in the media because of its work in energy infrastructure as it’s become recently,” said Hoecker, now counsel to the trade group WIRES. “I guess I’m thankful for that.”



going to solve all the problems that happened in California” during the 2000-2001 Western energy crisis.

“Maybe I’m overselling my persuasive skills and it was never meant to be, but [I wish] I could have talked them out of being so intransigent against Standard Market Design,” said Wood, now chairman of Dynegey.

He also wished he had been “more willing to accept imperfections” in the RTO

applications filed by Southern and other companies in the Southeast and West.

“Accepting that could have avoided what I call the carnage that’s happened [in the Southeast] with noncompetitive generation. ... But I was pretty rigid on making sure they met the criteria of Order 2000 and neither of those [regions] had” sufficient independence.

Joseph T. Kelliher (2005-2009) said his pre-commission career as a congressional aide helped him in negotiations to eliminate “hostile” anti-FERC provisions from the Energy Policy Act of 2005 shortly after becoming chair. The law gave the commission the authority to issue enhanced penalties for market manipulation and mandatory reliability rules, and deputize NERC as the Electric Reliability Organization.



“At the time, I had a lot of doubts about NERC’s capacity to discharge their responsibilities under the act,” said Kelliher, now NextEra Energy’s executive vice president for federal regulatory affairs. “And I thought it was necessary for FERC to adopt a larger role until NERC expanded its capacity, almost like a big brother throws his arm around his little brother until he gets some more muscle. ... I think NERC is a much more capable institution than it was in 2005.”



Jon Wellinghoff (2009-2013) said his background as Nevada’s first consumer advocate informed his chairmanship, during which he “tried to ensure that the

markets were open and fair” for technologies such as renewables and demand response.

Wellinghoff expressed special pride in Order 745, which required that RTOs pay DR resources LMPs, and Order 755, which required RTOs to compensate fast-regulation resources for speed and accuracy. He also cited Order 719, requiring RTOs to treat DR offers like generation, and Order 764, which aided the integration of variable energy resources.

“I think they’re all important to ensuring that all resources can efficiently and effectively compete in these markets. And then ... in Order 1000, the transmission planning order, we tried to ensure that there was some level of competition in the planning and selection of transmission.”

Wellinghoff, who has continued to advocate for distributed energy resources as CEO of consulting firm GridPolicy, added he is “very encouraged” by actions the current commission has taken to open markets to energy storage and DERs.

“You’re seeing the distributed resource technologies just explode. You’re seeing the enabling technologies underneath them — which are really the communication and control technologies — get less and less

Continued on page 4



Left to right: Wood, Kelliher and Wellinghoff share a laugh. | © RTO Insider

Energy Bar Association Annual Meeting

Former FERC Chairs Reminisce, Sound off at EBA

Continued from page 3

expensive ... and more available to consumers. My son is truly a computer geek. ... He was cataloging our house the other day: We have 52 addressable devices in the house."

Wellinghoff said he'd like to see more done to open competition in transmission. Without competition, he said, the industry is "going to stamp down innovation. There are many innovative technologies coming into the transmission space ... that are substitutes for transmission that need to have the opportunity to compete ... against the incumbents."

Norman Bay (2015-2017) talked of the obligation he felt to live up to the legacy of his predecessors. "As I listened to their comments today, I'm struck by ... the



nonpartisan nature of the work that we've been doing. The ability of Republicans and Democrats alike to come together to get things done to further the public interest," said Bay, now head of Willkie Farr & Gallagher's energy regulatory and enforcement group in D.C. "I would bet that if anyone were to listen to the comments of anyone on this stage and didn't know what political party they belonged to, they would have no idea if that person was a Republican or a Democrat. And how great is that?"

'Crony Capitalism'

Wood and Bay debated the impact of zero-emission credits — enacted in Illinois and New York and under consideration in New Jersey — to subsidize nuclear generation.

"Are they a good idea? No. They're crony capitalism by just a new name," Wood said. "I do think that FERC has got to take ... an informational role to let these state legislatures know ... what damage these kinds of things do the operation of the competitive markets that we worked for a quarter century to set up. That's exactly what they are. The resilience thing looks like a continuation of the same crony game," referring to calls for subsidies for coal and nuclear plants with onsite fuel. "I

just think it's poisonous to markets."

Bay, however, said ZECs are states' response to the markets' failure to price carbon emissions. "I think everyone on this panel would agree that the first best solution if you care about carbon emissions is to put a price on carbon and then harness the power of markets. That clearly has not happened.

"The second-best solution — and I would say second by a long ways — is to provide financial incentives to resources that do not produce the negative externality. And that's essentially what states are trying to do. Running the market now without taking into account the negative externality results in an inefficient market outcome."

"And that would be fine, I think, if all zero-emitting resources now and in the future could qualify for that," Wood responded. "As opposed to the New York case, which is very egregious, that named plants [eligible for ZECs] and one [Indian Point] was excluded."

Future of Capacity Markets

Wood and Wellinghoff responded to a question about the future of capacity markets.

"As one who comes from the energy-only market of Texas, it works," said Wood, acknowledging that the market will be stressed this summer because of the reduction in ERCOT's reserve margin. "It will be a real big test. So, ask me this question at the end of September." (See [ERCOT Gains Additional Capacity to Meet Summer Demand](#).)

Wellinghoff said he has grown increasingly skeptical of capacity markets.

"Don't tell him this, but Bill Hogan may be right," said Wellinghoff, referring to the Harvard University professor, a prominent proponent of energy-only markets. "Ultimately, I think capacity markets are

very difficult to design correctly and functionally. I'm currently working in Alberta. The ISO and the government there have committed to put a capacity market in with a balancing energy-only market. I'm working with a client there trying to help them to help the ISO come up with a design that will work for everybody. And we're close to pulling our hair out!"

Confessions



At the end of the session, moderator and FERC Administrative Law Judge **Lawrence Brenner** elicited confessions from some of the panelists over "impulsive" actions

they took as chair.

Bay recalled being up until 2 a.m. the night before the FERC Christmas party because he insisted on hand squeezing the 20 pounds of limes needed to make proper margaritas. "You can probably divide the world into two camps: the people who believe that a margarita can be made from a mix, and the people who realize, no, you really need to use fresh squeezed lime juice," he said.

Kelliher recalled when vineyards near California's Russian River petitioned him to authorize the release of water from hydro projects during a drought.

"Of course my first thought was, 'I really like Russian River red wine.' But my question to the staff was, 'What legal authority do I have to do that?' And the response was, 'Highly questionable' — FERC-staff speak for nonexistent.

"And I thought about it for about 10 seconds and I said, 'Release the water!'" he said to laughter. "It felt very Christ-like. I knew it was the closest I would get to being holy. ... I wasn't turning water into wine but authorizing water. ... And I thought if I go down [get overturned], I'll get a *Wine Spectator* cover or something."

"I think everyone on this panel would agree that the first best solution if you care about carbon emissions is to put a price on carbon and then harness the power of markets."

Norman Bay, Willkie Farr & Gallagher

Energy Bar Association Annual Meeting

Panel Debates Need for Changes in FERC Merger Policy

By Rich Heidorn Jr.

WASHINGTON — Should FERC should begin requiring supply curve analyses in its merger reviews? It's a no-brainer to Cynthia Bogorad, who has attempted to submit them as an intervenor challenging acquisitions.

"I've got black and blue marks to show that that ... has not been a very successful strategy, because you don't have the data or the time to get the data in [the] 60 days" allowed for filing a protest, Bogorad, a partner at Spiegel & McDiarmid, said during a panel discussion at last week's Energy Bar Association annual meeting.

"And the commission has in my experience been very reluctant to accept intervenor analysis. We've presented a strategic bidding analysis in a case that the commission just said, 'No, don't do that.' So, I think ... the commission [requiring merging companies to provide the analyses] would be very important because it's hard to get them in [evidence] otherwise."

The commission said it was considering changes in its merger policy in a September 2016 Notice of Inquiry (RM16-21). It noted that its market power evaluation for mergers, which are regulated under Section 203 of the Federal Power Act, differs from that used in market-based rate applications under Section 205. The commission asked for input on several issues, including whether it should add supply curve and market share analyses to its reviews, and whether it should require applicants to submit consultant reports and other internal reports that assess the competitive effects of the merger, as the Justice Department does. (See [FERC Considers Changes to Market Power Analyses](#).)

FERC currently requires merger applicants to perform a competitive analysis screen unless they can show that the acquisition does not increase their generation capacity in the relevant geographic markets or that the increase is *de minimis*. The screen includes a delivered price test (DPT), which has been essentially unchanged since its introduction in 1996 and generally focuses on the short-term energy market "with far less detail and attention given to the other relevant products," FERC said.



Left to right: panel moderator Eric Korman of Analysis Group, Naeve, Niefer, Bogorad and Pore. | © RTO Insider

False Positives?

Mike Naeve, a partner with Skadden, Arps, Slate, Meagher & Flom, said FERC's screening already prevents acquisitions that have no competitive harm.

"If we decide on top of that we're going to add three or four other screens ... I think there would be a lot more false positives," Naeve said. "And I also think the amount of time and money and effort to prepare and advise clients for these filings [will] go up astronomically. So, the question is: Is the current process so flawed that it needs to be fixed?"

Naeve also was not convinced that FERC needs to adopt DOJ's tools.

"As long as I've been doing this, I don't know [of] a transaction where the commission said this transaction looks fine with us ... and the DOJ, using these other methodologies and tools ... says, 'Oh, there's a problem there FERC that you missed because your methodology is too simple.' I don't think that's ever happened."

Amery Pore, an economist in FERC's Office of Energy Market Regulation, disagreed with Naeve's characterization of the potential changes, which the commission is still reviewing. The comment period in the NOI expired in December 2016.

Flexibility?

"I guess one way to read the NOI would be

to see these additional tests as extra hurdles to jump through," Pore said. "But alternatively, you could think of them as employing the flexibility that was actually considered back in 1996 when the DPT wasn't intended, when it was implemented, to be the screen to use."

"If these were alternative tools to show it really is a false positive and there aren't competitive problems, then I think we would all say that's worth doing," Naeve agreed. "But I would also say you [should not] need to do it in your application unless you have a screen failure."

Naeve said he's seen intervenors opposing mergers submit "very simplistic" supply curve analyses.

"To do it right you have to take into consideration a lot of factors ... like the [generators'] ramp rates [and] minimum run times and minimum down times; the fact that sometimes in an RTO-type market ... a transmission constraint that raises prices on this side of the constraint actually lowers prices on the [other] side of the constraint, so if you have generation there you're actually losing money. ... There's just a lot of factors [that affect] the profitability of withholding."

"That's why it's hard for intervenors to do it in the 60 days they have to protest," Bogorad replied.

Mark Niefer, deputy chief legal adviser in

Continued on page 6

Energy Bar Association Annual Meeting

Playing the ROE Slot Machine

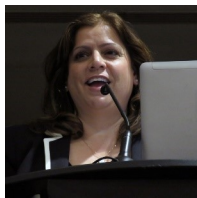
Industry Awaits FERC Response to Emera Remand

By Rich Heidorn Jr.

WASHINGTON — FERC's delay in responding to a 2017 appellate ruling vacating its order on New England transmission rates has created the risk of an endless series of "pancaked" rate cases, a panel told the Energy Bar Association's annual meeting last week.

The D.C. Circuit Court of Appeals' April 2017 *Emera Maine* ruling overturned FERC's 2014 order setting the base return on equity for a group of New England transmission owners at 10.57%. The court said the commission failed to adequately explain why the previous 11.14% rate was unjust and unreasonable. (See [Court Rejects FERC ROE Order for New England](#).)

"We're in a huge amount of uncertainty right now. The *Emera* decision has essentially taken everything and flipped it up into the air, and now we're all waiting to see what happens next," said **Nina Plaushin**, ITC Holdings' vice president for regulatory, federal affairs and communications. "It's as close to a thriller as you get in doing utility regulation."



In the 2014 ruling, the commission voted 4-0 to change the way it calculates ROEs for electric utilities, moving to a two-step discounted cash flow (DCF) process it has long used for natural gas and oil pipelines that incorporates long-term growth rates. But the commission split 3-1 over its first application of the new formula, tentatively setting the ROE for the New England TOs at three-quarters of the top of the "zone of

reasonableness," a departure from the prior practice that used the midpoint in the range (EL11-66-001). (See [FERC Splits over ROE](#).)

FERC rejected the TOs' argument that the commission lacked authority to change the ROE without showing it is outside the zone of reasonableness.

"There's no protection from being in the range [of reasonableness], so any complaint can come in and [cite] a number that's slightly lower than your number and then you're in a hearing," Plaushin said. "And that's why this *Emera* remand is so important, because we need to figure out how we're deciding what goes to hearing and what doesn't. It can't just be that I proved a number different than yours."

Customers filed new complaints even as previous ones were still pending, she noted, because of the 15-month limit on refunds under the Federal Power Act. The clock starts on the date of the utility's rate filing.

Plaushin said the zone of reasonableness can differ based on changes in interest rates and other inputs, or as utilities are added to or subtracted from the proxy group.

In June 2016, she noted, an administrative law judge determined 10.68% as the top of the range in a complaint against MISO TOs. This was little more than three months after another ALJ, ruling on the third complaint against the New England TOs, found the top of the range at 12.19%, with 10.9% as the midpoint.

"It just doesn't seem to make sense. It just has to do with the fact of when they filed. ... [New England] got lucky. They filed when there was a good number. And one of the things the commission will [have] to consid-



David E. Pomper | © RTO Insider

er is: Do you really want to get into a situation where people are trying to game their ROEs by doing multiple filings just so they can track volatility?"

David E. Pomper of Spiegel & McDiarmid, who argued the *Emera* case for Massachusetts, predicted there will be more complaints challenging rates. "I'm certain of that," he said. "There's a lot of ROEs out there that are still way above the cost of equity."

He agreed with Plaushin about the risk of a never-ending cycle of filings.

"I think that probably something we can all agree on is ... if the results of the litigation changes dramatically from case to case, there's something wrong with the way you're reaching decisions," he said. "That creates incentives to keep filing in the hope that you'll get lucky."

"The solution will be in the answer to the remand in *Emera*," Plaushin said in an interview later, acknowledging FERC's response was slowed by its loss of a quorum last year. "Hopefully that will establish better parameters, so we don't have as many serial cases."

Former FERC Commissioner Suedeen Kelly, a partner at Jenner & Block, who moderated the session, noted the increase in ROE challenges since 2011. The panel also featured Robert S. Kenney, Pacific Gas and Electric's vice president of regulated affairs, who discussed the impact of ROEs on his company's ability to adapt to distributed energy resources and protect the grid from cyber threats.

Panel Debates Need for Changes in FERC Merger Policy

[Continued from page 5](#)

the Justice Department's Antitrust Division, said it's important to avoid inconsistencies between DOJ and FERC reviews because the potential harm to consumers is so high.

"You're talking about markets that are tens

of billions of dollars in size, such that a very, very small exercise of market power over a very short period of time can impose harm on consumers ... that are in the tens of millions of dollars," he said. "So, my own personal preference when conducting a merger analysis [is] to tend to try to avoid false negatives rather than false positives. I just think the stakes are too high. And I think

history bears that out. If you look back at California — the exercise of market power [during the 2000-2001 [Western Energy Crisis](#)] pretty much put a damper on restructuring in the United States. ... And I think that damper still is in place."

The panel was moderated by Eric Korman, vice president of Analysis Group.

Energy Bar Association Annual Meeting

Time for New FERC Enforcement Rules?

By Rich Heidorn Jr.

WASHINGTON — It's been 10 years since FERC revised its enforcement policy guidelines, and former commission attorneys David A. Applebaum and Todd Mullins think it might be time for a check-up.

"In many cases, penalties are just too high," said Applebaum, a former director of the Division of Investigations in FERC's Office of Enforcement, during a panel discussion at the Energy Bar Association's annual meeting last week.

He said that while companies face treble damages for federal antitrust violations, some FERC penalties are five to 10 times the amount of the unjust profits.

Mullins, chair of McGuireWoods' energy enforcement practice and a former branch chief in the Division of Investigations, agreed a review of the guidelines "might be timely."

NAV Policy

Mullins was more emphatic about the commission's policy on issuing staff Notice of Alleged Violations (NAVs). "There's a pretty broad consensus that the NAV is not providing benefits," he said. "I just think it's time to get rid of it."

Introduced in 2009, the policy allows FERC's Enforcement director to make a public disclosure of its enforcement investigations — including the identities of investigation subjects — once the subject has had the opportunity to respond to staff's preliminary findings. The NAV comes before staff finalizes its conclusions and the commission issues an order.

Previously, investigations were secret until the commission issued an order approving a settlement or began an enforcement action with an Order to Show Cause. The commission acknowledged that public notices could harm the reputations of subjects but said the change was justified because it would allow third-party market participants to bring relevant information to FERC's attention and educate them about the nature of the alleged violations.

Applebaum, now a partner at Akin Gump, coauthored a 2017 [article](#) in the *George Washington University Journal of Energy & Environmental Law* calling on FERC to rescind the NAV policy.

Identifying Individuals

The article contended the policy has not produced the benefits that the commission anticipated and that the commission's enforcement efforts are increasingly targeting individuals in addition to their companies.

Martin Ramirez, compliance counsel for Freepoint Commodities and another former FERC Enforcement attorney, said the policy does have a deterrent effect.

"There's nothing that wakes up people in the middle of a [compliance] training than going over some of the individuals who have been affected by that policy," he said. "Nobody wants to be the guy whose perp walked out of their place of business."

Mullins said the disclosures can be devastating.

"When the NAV comes out — which is a one-line [summary] — and names the individual and says, 'The staff has preliminarily determined,' if that person works for a public company, they're toast," he said.

Having won court approval for pursuing individuals, the commission is unlikely to reverse the policy, Mullins said. But he said it could formalize the process and explain which individuals will be named. "There's obviously a lot of human beings

surrounding the activity. Where do you draw the line between someone who was just really peripheral and you're not including them versus someone who you are including?" he asked. "Or are you including people just because of management responsibilities?"

Mullins noted former Commissioner Tony Clark's dissent from the commission's 2015 order that fined Maxim Power \$5 million and employee Kyle Mitton \$50,000 for overcharging ISO-NE in a fuel-switching scheme. Clark said Enforcement did not prove the case to his satisfaction and that he had doubts about Mitton's culpability. "Even in the event that I had found that Enforcement staff had met its overall burden in the case, I could not support holding only the front-line employee culpable when management itself embraces and takes ownership of the actions," he wrote. (See [FERC Fines Maxim Power \\$5M in Switching Scheme](#).)

De Novo Reviews

The panel, which was moderated by Skadden Arps attorney Donna M. Byrne, also discussed six recent federal court rulings that said defendants in civil penalty cases are entitled to a *de novo* trial rather than a more limited appellate-style review of FERC's evidence. (See [FERC Loses Again on 'De Novo' Review](#).)

Applebaum questioned whether FERC will want to continue its current practice of issuing orders assessing penalties.

"If the courts are essentially saying that the order assessing penalties is really of no moment — what really matters is just the complaint that's going to be filed — does the commission want to spend all of that time working on an order that may not be necessary?"

"And so, the commission may well find itself in the position of saying 'Let's truncate — or potentially get rid of — the order-assessing-penalties process if that means getting to federal court more quickly.'

"Certainly, among defendants, among market participants — I think a lot of people in the Enforcement staff — would be happy if we could get to federal court more quickly. But there's a legal issue that the commission is going to have to face: Does the FPA allow the commission to get rid of this more involved order-assessing-penalties process? There's a difference of opinion on that."



Left to right: Byrne, Ramirez, Applebaum and Mullins. | © RTO Insider

Energy Bar Association Annual Meeting

Overheard

McIntyre Recalls First Day at FERC

WASHINGTON — FERC Chairman Kevin McIntyre, the luncheon speaker on the second day of the Energy Bar Association annual meeting last week, said he's often asked about his priorities as head of the commission. "I love this [question] because it suggests I get to pick," he said to laughter.

"We get to select some of the topics we work on but ... I arrived in December and at that time, there was a faint ticking sound ... on the 11th floor of the FERC — something awaiting prompt attention," he continued. The ticking sound was the Dec. 11 deadline for responding to Energy Secretary Rick Perry's Notice of Proposed Rulemaking to provide price supports for coal and nuclear generation.

"And I thought, in the [tradition of the] Hippocratic Oath: First do no harm. So, my first official and brave act as FERC chairman on Dec. 7 was to humbly request more time," McIntyre said. "I'm happy to say that such time was granted and that we beat our extended deadline by a couple of days. And we managed a five-to-nothing order taking action on the Notice of Proposed Rulemaking that was proffered to us by the secretary, deciding as a commission that we could not adopt it in the form it was presented to us." The commission instead opened a new docket on resilience — a proceeding that prompted more than 100 comments last week. (See related story, *Don't Rush on Resilience, Commenters Urge*, p.1.)

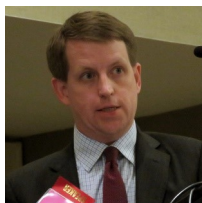
McIntyre also discussed the commission's challenges in determining whether state subsidies for generators based on their fuel source is unduly discriminatory. "Isn't that an unfair market advantage? These are valid questions, not crazy questions. And we have before us the work of trying to figure



FERC Chairman Kevin McIntyre speaks on the second day of the conference. | © RTO Insider

out answers to them, and every bit as difficult as that, trying to figure out how to implement sensible policy steps based on those answers. This plays out in a number of different ways, and I wish I had all the answers. ... As lawyers we like challenges ... and boy is this one. It's a real toughie."

With Antitrust Risks Rising, 'Boring is Good'



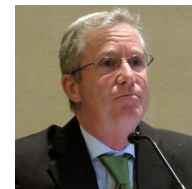
Former FERC General Counsel **Max Minzner** said the "defensive regimes" that have shielded energy companies from antitrust liability — the state action doctrine,

federal pre-emption and filed rate doctrine — are being eroded.

One source of the erosion is litigation, he said, referencing the Supreme Court's 2015 *ONEOK* decision, which found that federal pre-emption under the Natural Gas Act does not prevent state antitrust suits over pipelines' price manipulation.

Minzner, now a partner with Jenner & Block, also cited technology that can overcome natural monopolies and regulatory changes such as the development of federally regulated gas and power markets. "And finally, one of the areas that I find most fascinating, is erosion from legislative change. The rise of the market manipulation authority within the Energy Policy Act of 2005 has an overlay on the filed rate doctrine."

Minzner was the moderator of a panel on antitrust trends, where panelist **R. Scott Mahoney**, general counsel and chief compliance officer for Avangrid, sparked a discussion on the risks of making intemperate statements in emails, text messages and internal presentations that can be obtained



More than 400 attorneys and other energy professionals attended the Energy Bar Association's annual meeting last week. | © RTO Insider

Continued on page 9

Energy Bar Association Annual Meeting

Overheard

Continued from page 8

in discovery.

Mahoney said he urges Avangrid employees "to think about doing that in a ... more precise way so that you don't create the one email that then gets waved around" as evidence of anticompetitive behavior.



Richard M. Lorenzo, chair of Loeb & Loeb's antitrust practice, recalled the damage done to Microsoft's antitrust defense in 1999 after testimony

that company Vice President Paul Maritz had threatened to cut off rival Netscape's "air supply."

He cited a 1982 phone call from American Airlines President Bob Crandall to Braniff Airways President Howard Putnam — which Putnam recorded — in which Crandall said, "Raise your goddamn fares 20%. I'll raise mine the next morning."

"So, what you write in memos matters. [We're] trying to emphasize to employees at all levels of the company — especially at the management level — to tone it down. Write factually as opposed to emotionally with lots and lots of adjectives. It's very important because this stuff comes back to bite you when there is discovery."

"People want to make a splash. People want to be remembered, and so therefore they're always pushing the envelope with respect to PowerPoints and other ideas [using] colorful language," added Michael O'Connor, chief legal executive for law and human resources for the Salt River Project. "And once you have one of these cases and you put it in that light and it's thrown up in a federal district court or all over the papers, people remember that.

"And they realize that boring is good."

EBA Elects Matthew Rudolphi President

Energy Bar Association members elected Matthew Rudolphi president of its 2018-2019 board of directors at its Annual Meeting & Conference on May 8.



Matthew Rudolphi | © RTO Insider

EBA members also elected Jonathan Schneider of Stinson Leonard Street as president-elect; Jane Rueger of White & Case as vice president; Carrie Bumgarner of Wright & Talisman as secretary; Paul Breakman of the National Rural Electric Cooperative Association as assistant secretary; Paula Johnson of Ameren as treasurer; and Richard Smead of RBN Energy as assistant treasurer.

— Rich Heidorn Jr.

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

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

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CPUC OKs Temporary Increase in Aliso Canyon Injections

By Jason Fordney

The California Public Utilities Commission on Thursday voted unanimously to allow Southern California Gas to temporarily increase gas injections into Aliso Canyon, but it denied a request to increase the storage facility's allowable capacity.

The commission said it approved the decision "recognizing the urgent nature of ensuring reliable gas delivery during peak summer periods and with the summer season quickly approaching, as well as various pipeline outages and curtailments constraining gas flows into the SoCalGas system."

There is a movement among residents of the nearby Porter Ranch neighborhood in Los Angeles to shut down Aliso Canyon, with many complaining of health impacts even after the massive gas leak at the facility was contained in February 2016, after being discovered the previous October.

While the CPUC's current protocol is to allow for withdrawals only as a last resort when needed for reliability and other alternatives are exhausted, the facility is proving to be critical to electricity reliability in the region. Its potential loss has been a topic of increasing concern for the commission. When questioning CPUC President Michael Picker during a March hearing after the commission authorized gas withdrawals, State Sen. Henry Stern expressed alarm that it had "secretly granted" SoCalGas' request to increase usage of the facility. (See [Picker Seeks Guidance on IOUs, Aliso Canyon](#).) But Picker said the commission's hand is being forced because of gas supply concerns.

'Even More Urgent'

The CPUC said its measure Thursday will improve system reliability this summer and next winter. It approved several measures within SoCalGas' second injection enhancement plan, which the company said is needed to meet customer demand and prepare the facility for winter. The plan allows the company to implement temporary modifications to its operations to increase injections and temporarily increase



storage injection capacity.

But the commission denied a request to increase the allowable inventory at the facility to enable more systemwide injections and denied a request for more flexible use of the facility through a temporary deviation from certain rules.

Aliso Canyon is the largest of the company's storage facilities and had a capacity of 86.2 Bcf before the leak. Injections into the facility were forbidden through a proclamation of Gov. Jerry Brown in May 2016 until a safety review could be conducted. The state Division of Oil, Gas and Geothermal Resources last July certified a SoCalGas safety plan, allowing injections to resume and the facility to operate at pressure of up to 2,926 pounds/square inch, which translates into a gas inventory of 68.6 Bcf, or about 80% of its capacity.

The CPUC approved a similar resolution for SoCalGas' first proposed injection plan in June 2017 to support summer reliability last year. That decision also approved an agreement between CAISO and SoCalGas for summer reliability services through Sept. 30, 2017.

The commission said several pipeline disruptions have occurred since then. On Oct. 1, the day after the ISO's reliability agreement expired, there was a rupture on SoCalGas Line 235-2, which is still not in service. Line 4000 also went under maintenance and is now operating at significantly reduced capacity. A right of way through the land of the Morongo Band of Mission

Indians also expired, reducing the capacity of Line 2000. (See [SoCalGas Pipeline Losses Spur Curtailment Warnings](#).)

"All of these outages have placed additional stress on the system, making storage injection even more urgent than it was in spring 2017," the commission said.

In July, the CAISO Board of Governors approved a package of market rule changes specifically developed to deal with the reduced output of Aliso Canyon. The rules allow the grid operator to constrain the operations of gas-fired plants across the state and the Western Energy Imbalance Market in the face of tight gas supplies. (See [CAISO Board Approves Aliso Canyon Rules Package](#).)

SoCalGas wrote to the CPUC on March 2 asking for the permission to immediately begin using Aliso Canyon to manage gas inventory and preserve withdrawal capability at other storage fields. The company was predicting colder weather and said that storage at other fields was critically low. "Noncore" gas customers such as gas plants saw curtailments, and lower storage levels made it more difficult to withdraw gas.

The commission authorized withdrawals on March 3, provided that SoCalGas coordinate with CAISO and the Los Angeles Department of Water and Power to reduce overall gas demand, and the withdrawals were only authorized through March 13. SoCalGas was to increase inventories at all facilities once demand hit normal levels.

Continued on page 11

CAISO NEWS



CAISO Updates ESDER Phase 3 Proposal

By Jason Fordney

CAISO is taking comment on the latest revisions to its ongoing policy initiative to better facilitate the participation of energy storage and distributed energy resources (ESDER) in its markets.

The ISO provided stakeholders with more information about its [revised straw proposal](#) for ESDER 3 in a [Thursday presentation](#) and call.

ESDER 3 is organized under the broad themes of demand response; “multiple-use applications” that allow storage to provide services and receive revenue from more than one entity at a time; and non-generator resources (NGRs).

The latest document updates the previous iteration that was published on Feb. 15, using feedback from stakeholders and a late March workshop that tackled highly technical problems related to integration of the resources. (See [CAISO Storage, DER Plans Progressing](#).)

Major changes include a reorganization of each proposal into three categories:

- “Pre-market,” which describes changes needed before a resource can participate in the CAISO market;
- “Market,” which identifies potential mod-



CAISO Infrastructure and Regulatory Policy Specialist Eric Kim is leading the ESDER 3 effort. | © RTO Insider

eling and bidding rule changes to allow participation; and

- “Post-market,” which examines implications for settlement, including measures of performance such as customer load baselines.

PDR Bid Changes Afoot

Among the new updates for DR is a proposal to allow proxy demand resources (PDRs) — one or more DR resources allowed to bid as a single resource — to bid on hourly and 15-minute bases, with an ability to change the bid within an hour. The proposal would redefine issues around infeasible real-time dispatches of demand response to conform with separate changes CAISO is making to its day-ahead market. (See [CAISO Says Changes Will Better Match Forecasting, Demand](#).)

“Stakeholders such as the Joint DR Parties are in support of the proposal but do not believe the expanded bid options fully resolve the issue of infeasible dispatches,” CAISO said in the revised straw proposal. The Joint DR parties include CPower Energy Markets, EnerNOC and Energy Hub.

Also proposed in ESDER 3 is the removal of a requirement that DR be aggregated under a single load-serving entity, which CAISO said is supported by a majority of stakeholders. The ISO said changes being proposed in the day-ahead market proposal — including combining the integrated forward market and residual unit commitment processes while introducing an integrated resource plan procurement — eliminate concerns that had been raised about some default energy bids being rejected.

CAISO is also looking at the design of the proxy demand resource-load shifting resource (PDR-LSP), which is a DR resource that provides load curtailment and also gets paid for dispatchable load consumption to shift load. The ISO said such resources will register as two separate resources with load consumption compensated via the “metered energy consumption” methodology.

DER company Olivine recommended the creation of a more refined load-shifting product, not just a consumption product, but CAISO said the separation of the resources does not create a “consumption-only” product. A requirement that PDR-

[Continued on page 12](#)

CPUC OKs Temporary Increase in Aliso Canyon Injections

[Continued from page 10](#)

The commission directed SoCalGas to file the injection plan with the goal of rapidly achieving more storage capability at fields other than Aliso Canyon and to establish minimum month-end storage targets for the rest of 2018.

Still a Key Asset

The CPUC said that because of pipeline outages, capacity reductions and other limitations, SoCalGas’ technical assessment showed that under a worst-case scenario, there is not enough capacity for this

summer to meet both customer demand and to inject additional gas into storage at the rates necessary to meet the winter season storage withdrawal rates as directed by the CPUC, even with the use of Aliso Canyon. Without the facility, the SoCalGas system would not be able to meet summer peak day demand, the commission said.

Under the plan approved by the commission Thursday, SoCalGas cannot guarantee gas storage inventory targets can be reached, even with Aliso Canyon available. The company requested that the allowable inventory at Aliso Canyon be increased to 30 Bcf from the current 24.6-Bcf limit. The commission said that request required

additional examination and technical assessment.

SoCalGas estimates that it will reach the current allowable inventory next month and said not having additional injection capacity available will reduce the amount of gas available to the system on any given day.

In assessing Aliso Canyon, the CPUC is faced with the challenge of maintaining reliability while dealing with public opposition to a facility that has become a symbol of the hazards of dependence on natural gas. As unpopular as it is, the facility at present appears to be indispensable for keeping the lights on in Southern California.

CAISO NEWS



CAISO Updates ESDER Phase 3 Proposal

Continued from page 11

LSPs have directly metered energy storage will guarantee that the energy being discharged and charged will result in a load shift, the ISO said.

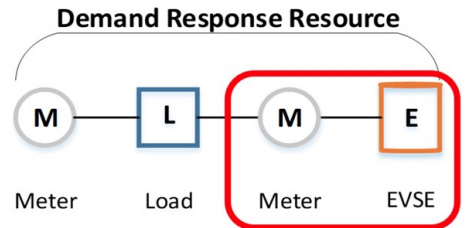
Electric Vehicle Supply Equipment Examined

As another component of ESDER 3, CAISO is working to recognize the load curtailment capability of electric vehicle supply equipment (EVSE), which is seen as a way to absorb excess output from renewables. Currently, a DR resource that includes EVSE is measured without considering the equipment's effect on load dynamics, and the ISO is working to meter the data to measure the performance of EV infrastructure. The ISO has established a distinction between EVSE located in residential versus nonresidential areas.

EVSE can already participate in markets using the "metered generation output" (MGO) performance measurement (approved by FERC as part of ESDER 1), which recognizes a sub-metered storage device's contribution to a facility's overall load curtailment during a CAISO dispatch event. But the ISO cannot currently accommodate a sub-metered resource with a different performance profile than its host facility load. The ISO proposes to enable EVSE sub-metering and extend the MGO performance method for EVSE independent of, or in combination with, its host customer.

"Sub-metering resolves the lack of 15-minute interval metering at the host facility for measurement of curtailment in five-minute intervals, enables direct measurement of the actual EV load curtailment achieved and creates a more tailored market participation model for EVSEs," CAISO said.

Under the initiative to facilitate market participation for NGRs, CAISO dropped a



CAISO's proposal to sub-meter electric vehicle supply equipment (EVSE). | CAISO

proposal to identify commitment costs for NGRs in its separate Commitment Cost and Default Energy Bid Enhancements proposal, leaving those resources to be modeled as not having start-up, minimum load and transition costs.

CAISO is taking comment through May 21 on the ESDER 3 proposal and said it will continue to hold working groups, including focused working groups to examine more complex issues or those that have cross-jurisdictional concerns. Other participants in ESDER 3 are EV charging station company eMotorWerks and the California Energy Storage Alliance.

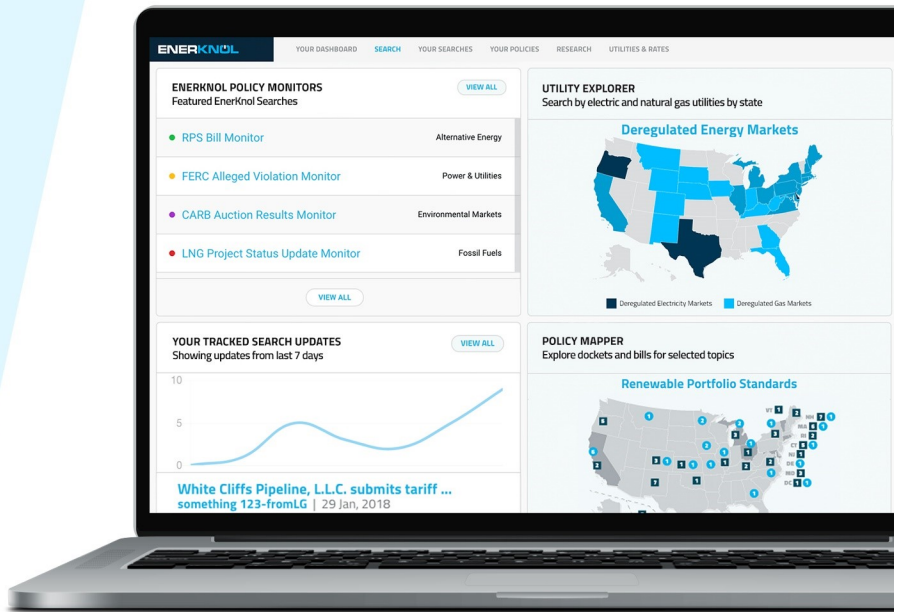
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Calif. Code Change Would Mandate Rooftop Solar

Continued from page 1

In discussion ahead of the vote, CEC members said the measure will cut energy bills and reduce greenhouse gas emissions, noting that the cost of solar panels has dropped dramatically in recent years. The vast majority of [comments](#) filed in the proceeding favored the changes.

CEC Chairman Robert Weisenmiller said that California has expanded its economy in recent years even while reducing greenhouse gas emissions. Implementing the standards will require close work between the commission and the building industry, which he said he wants to keep “vibrant.”

“This is just a milestone, but there is a hell of a lot of work to go between now and 2020, and we really have to keep our eye on the ball to make this work smoothly,” Weisenmiller said. “There will be some surprises, and we will need to stay on top of this, but the bottom line is we are going to focus on making this happen.”

“Once we get there, yeah, we can talk about the future,” he added.

The CEC’s Wednesday meeting drew an unusually heavy media interest for a commission decision, and by the evening even the BBC had [picked up](#) the story.

The measures will make it more expensive to build new homes in a state already known for some of the highest housing and construction costs in the country, but the commission said it will be worth the expense.

While the new standards will add about \$9,500 to the cost of a new home, they will save homeowners \$19,000 in energy and

maintenance costs over 30 years, the CEC said. The changes would add about \$40 to the average monthly mortgage payment but save \$80 per month on heating, cooling and lighting bills. Nonresidential buildings will use about 30% less energy under the standards, mainly because of lighting upgrades, according to the agency.

The explosion of rooftop solar in California has led to massive amounts of solar output coming online and offline each day as the sun rises and sets, requiring increased use of fast-ramping generation resources to compensate for the variability. Asked about the impact on California’s “duck curve” that illustrates the steep ramps, CAISO spokesman Steven Greenlee said Thursday that zero-net energy home projections are included in the CEC’s Integrated Energy Policy Report (IEPR) forecasts, which the ISO uses in its transmission planning process.

“Our planning already takes into consideration state policies,” Greenlee told *RTO Insider*. “We have been managing increasing amounts of renewables coming onto the grid for many years and use the IEPR forecasts for transmission planning. However, as the amount of renewables on the system grows, grid operators need increased visibility into behind-the-meter resources, including developing practices for aggregated information sharing and operational coordination.”

Solar Energy Industries Association CEO Abigail Ross Hopper said: “This is an undeniably historic decision for the state and the U.S. California has long been our nation’s biggest solar champion, and its mass adoption of solar has generated huge economic and environmental benefits, including bringing tens of billions of dollars of investment into the state.”

California Building Industry Association CEO Dan Dunmoyer said the standards “struck a fair balance between reducing greenhouse gas emissions while simultaneously limiting increased construction costs.”

Parties issuing statements in favor of the proposal include the Natural Resources Defense Council, Habitat for Humanity San Joaquin County, California Solar & Storage Association, California Air Resources Board, Southern California Edison, Pacific Gas and Electric, and Tesla.

Opposition to the standards was mostly limited to individual commenters, some addressing aspects of the standards other than the rooftop solar mandate.

At the meeting, longtime Colorado-based energy attorney and consultant Peter Esposito said he only learned of the rooftop solar proposal on May 8.

“I initially thought it was ‘fake news,’ and I would like to add that I think you are making a big mistake,” Esposito said. He advocated against a technology-specific approach and said consumers should be able to choose how to meet greenhouse gas emission goals.

“Please don’t lock out other technologies,” he said, without being specific as to what particular technologies he was referring to.



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Texas PUC Delays Final Approval of SPS Wind Farm

The Public Utility Commission of Texas on Thursday delayed its final approval of Southwestern Public Service's request to build a 478-MW wind farm in West Texas, allowing the company and other parties in the docket time to provide written answers to the regulators' latest questions and recommend further revisions to the draft order ([46936](#)).

SPS said it could make a reply filing on May 16, clearing the way for the PUC's final approval during its May 25 open meeting.

The commission had verbally approved SPS' request during its April 27 meeting, promising a final approval this week. (See [Texas Commissioners Approve 478-MW SPS Wind Farm](#).)

PUC Chair DeAnn Walker apologized for the two-week delay, saying she developed the questions as she reviewed the proposed order.

"I fully intended to get it done today," she said. "If anything should be clear to anyone in this industry, it's that I need to be comfortable with what I sign."

The wind farm is part of a 1.23-GW [project](#) by SPS parent Xcel Energy that will provide renewable energy to SPS customers in Texas and New Mexico. The utility says the project will save its retail customers about \$1.6 billion in energy costs over its 30-year life.

PUC staff filed a [draft order](#) on May 9 that revised its previous version, eliminating provisions rendered moot by a settlement reached in March between SPS and staff, the Department of Energy, the Office of Public Utility Counsel and seven other consumer groups, area cooperatives and landowners.

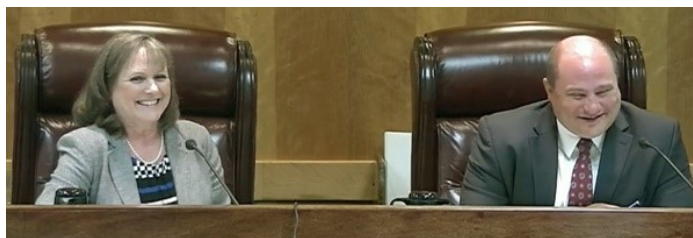
Walker filed a [memo](#) that same day outlining her concerns about SPS' exceptions to the latest order. She said some rate-related findings suggested in the order would be more appropriately made in a future rate proceeding, and that some sections of the order "lack the clarity" necessary for inclusion in a PUC filing.

She focused much of her discussion on the order's proposal to recover costs by flowing production tax credits through fuel, asking the parties to explain why the commission should deviate from its "well-established principles" of matching costs and benefits.

"The benefit of production tax credits flowing through fuel accrues to some customer classes more than the costs those same customers bear through their base rates," Walker wrote. "Conversely, customers who bear more of the costs in their base rates receive less of the benefits, because they flow through fuel. This does not meet the commission's typical matching principle."



SPS' legal counsel Ron Moss, with President David Hudson to his left, answers questions.



PUC Chair DeAnn Walker (left) and Commissioner Arthur D'Andrea.

Attorney Rex VanMiddlesworth, representing Texas Industrial Energy Consumers, said the PTCs should flow through fuel as they are earned, pointing out that they are used when bidding into the markets.

"You've got to have those PTCs going through fuel, otherwise the fuel costs won't reflect the actual [bid] ... into the LMPs. You would be bidding in at -\$28, and the customers wouldn't be getting that -\$28," VanMiddlesworth said. "PTCs are kind of a classic energy allocation. When we have a rate case, if it's litigated, I wouldn't be surprised to say at least part of the PTC ought to be allocated on an energy basis."

SPS President David Hudson reminded the commission that the utility has said the wind farm will be an energy resource, rather than a capacity resource.

"Our intention all along is to allocate the base rate case cost on energy," Hudson said. "It's going to be consistent with how the fuel goes back and the PTCs go back. Everything is going to be synchronized. It's just some parties thought there might be a capacity addition in the future."

"We've never had a plant like this. Every other plant we had was to meet demand," he said.

VanMiddlesworth said the SPS facility is being built "largely because of PTCs," which make it profitable over the first 10 years.

"You have your decision then, we have our rights to address it at that time," he said. "We don't foresee it as a problem. We do want the ratepayers to get the PTCs as they're earned."

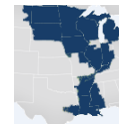
Rayburn Country Picks 44.6 Miles of Trinity Valley Assets

The commission also [approved](#) the transfer of certificate of convenience and necessity rights for 44.6 miles of existing 138-kV transmission lines in East Texas from Trinity Valley Electric Cooperative to Rayburn Country Electric Cooperative (Docket No. [47951](#)).

Rayburn already owns or leases more than 360 miles of 138-kV lines that serve wholesale loads in both ERCOT and SPP. The transferred facilities are operated in ERCOT.

— Tom Kleckner

MISO NEWS



MISO Stakeholders Outline Early Storage Impacts

By Amanda Durish Cook

CARMEL, Ind. — Stakeholders last week said they foresee MISO making multiple changes to its markets to accommodate storage in response to FERC Order 841.

MISO invited stakeholders to give presentations on storage integration under the order during a May 10 Market Subcommittee meeting. The RTO will explore how to best comply with the order during a more comprehensive meeting scheduled for June 6, a joint effort of its Reliability, Market and Resource Adequacy subcommittees.

NextEra Energy's Holly Carias, also representing the Energy Storage Association, said MISO's participation model should not exclude any type of resource that meets the definition of storage.

"I think it's not simply enough to fit storage into the traditional generator definition," she said.

Instead, Carias said, storage resources should be able to self-bid instead of being subjected to must-offer obligations, in order to prevent battery life from being cut short by unpredictable injections. She also said MISO might need to update rules on physical withholding given storage's operational nature.

But Minnesota Public Utilities Commission staff member Hwikwon Ham cautioned that allowing storage resources too much flexibility in the market could open MISO up to attempts to game the system.

The RTO's market platform replacement comes at an opportune time then, Carias said, as it will be able to handle how storage will change energy use.

"In 10 years, battery storage is going to be so cheap that it will disrupt how we use energy," Carias said, adding that by 2025, storage prices are estimated to fall to about \$100/kWh.



Holly Carias | © RTO Insider

MISO Executive Director of Market Operations Jeff Bladen reminded stakeholders that Order 841 simply requires RTOs to open their markets to storage participation and does not mandate any market design changes, although MISO will nevertheless debate to facilitate storage additions.

"To be clear, our view at MISO is that we want to evolve our markets. The pathway to changing our markets is not Order 841 compliance; it's our own Market Roadmap [improvements]. ... I want to make sure we don't lose sight of that," Bladen said.

Vistra Energy's Mark Volpe asked how MISO's views on storage assets interconnected at the distribution level — and not currently subject to the RTO's control — might evolve in light of Order 841.

"The question of FERC-jurisdictional assets is not one that we're going to get into," Bladen responded firmly.

He added that MISO would carefully dispatch any generation assets for which the RTO is granted operational control.

"We need to be to very confident that we're not going to cause any harm or mayhem at the distribution level. We essentially have a Hippocratic Oath that we're not going to do any harm at the distribution level," Bladen said.

Customized Energy Solutions' David Sapper said storage could inject energy to relieve the heightened, late-day loss-of-load risk hours predicted by a recent MISO study on

increased renewable resource integration. (See [MISO Renewable Study Predicts Later Peak, Narrower LOLE Risk.](#))

"Storage could address those few hours that are becoming so worrisome," Sapper said.

Nick Griffin of DTE Energy, which co-owns the Ludington Pumped Storage Plant in western Michigan, urged MISO not to leave pumped storage behind when considering Order 841.

"We certainly think pumped storage is part of the solution, and there might be additional flexibility to leverage to benefit MISO as well as MISO customers," Griffin said.

Concepts like state-of-charge and charge times can easily translate into reservoir levels and pumping times, he said.

Xcel Energy's Kari Clark, representing MISO's transmission owners, said the RTO should study the possible impacts of storage on the transmission system.

Clark also said existing metering capabilities do not distinguish charging from delivery, and distribution utilities and RTOs should work together to update metering processes. TOs "don't feel that the metering is quite there," she said.

Storage in the Capacity Auction

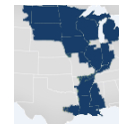
Meanwhile, MISO could see its first energy storage resource offer into the Planning Resource Auction next year.

Storage resources can currently qualify as planning resources by qualifying as either emergency-only behind-the-meter generation or as the RTO's new Stored Energy Resource Type II (SER Type II) category type. (See [FERC OKs MISO Plan to Expand Storage.](#))

MISO Executive Director of Strategy Shawn McFarlane said that, as of mid-May, one market participant is going through the process of registering its storage as SER Type II. He urged other market participants thinking of registering a SER Type II to contact their MISO representative.

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ATC Restores Tx Link Between Michigan Peninsulas

By Amanda Durish Cook

American Transmission Co. has restored one of two underwater circuits connecting Michigan's Upper Peninsula with the lower part of the state following a monthlong outage for the damaged lines.

ATC reconfigured and combined three undamaged submarine cables to form one circuit across the Straits of Mackinac. The company owns two 138-kV circuits across the peninsulas, consisting of three submarine cables apiece. One cable in each circuit was damaged on April 1, and both circuits were taken offline after they leaked a toxic, petroleum-based fluid used for insulation into the water.

MISO had been using an alternative transmission route through Wisconsin to transmit energy to the Upper Peninsula while both circuits were down. (See [Wisc. Tx Picks up Slack After Upper Peninsula Outage.](#))

ATC said it tested the new configuration and has been operating the reworked circuit since May 1.

The company said the cables were possibly damaged by "vessel activity" in the lake, spilling fewer than 600 gallons of fluid insulation. The U.S. Coast Guard has initiated an investigation into the incident



Site of ATC's lines in the Straits of Mackinac | ATC

and is still reporting low risk to the public and wildlife.

The damaged cables have been "soldered, capped, sealed and returned to the bottom of the straits," ATC said. Company spokesperson Jackie Olson confirmed the cables were rendered "permanently inoperable."

ATC said it is making plans to construct two new circuits in the straits, this time using a solid dielectric insulator instead of a liquid-based insulation. If the new circuits are approved, ATC will permanently decommission all six fluid-filled insulating cables, the company said, though it did not release a timeline or cost estimate for the possible new project.

"Our planning team is hoping to secure internal approval for such a project in the next several weeks," Olson said.

MISO spokesman Mark Adrian Brown said while the RTO was pleased to see restora-

tion of ATC's submarine connection, no reliability issues arose during the outage.

"While other routes also serve the U.P., the restoration is an important step for added reliability and greater redundancy of the power grid," Brown told *RTO Insider*.

Brown also said ATC worked closely with MISO throughout the outage to ensure reliability as it performed subsea inspections and determined a course of action.

"This connection is essential for reliability for the eastern U.P. and the northern portion of lower Michigan," said ATC Chief Operating Officer Mark Davis in a [statement](#). "We were able to maintain reliability by implementing conservative operating procedures during the month the connection was lost, but re-establishing this power line will give us greater flexibility and an added measure of reliability to help us keep the lights on."

Davis thanked the Coast Guard and other groups that helped monitor and minimize the incident, including EPA, the Michigan Department of Environmental Quality, county emergency managers, local native tribes, the National Oceanographic and Atmospheric Administration and the U.S. Fish and Wildlife Service.

"The coordinated response helped minimize impacts to the environment and local community," Davis said.

MISO Monitor Floats Plan for Partial-year Capacity Resources

By Amanda Durish Cook

CARMEL, Ind. — MISO's Independent Market Monitor last week floated a plan that would allow resources that are unavailable for the full planning year to offer into the RTO's capacity auction.

Speaking during a May 9 Resource Adequacy Subcommittee meeting, the IMM's Michael Chiasson said that capacity resources that become unavailable and fail to replace themselves — but are not needed for reliability — should incur a financial penalty rather than a Tariff violation. The penalty price should be

baked into a resource's facility-specific reference level calculation, he said.

Chiasson also proposed that MISO designate monthly limits on how much capacity can be disqualified without replacement in order to maintain reliability.

"If there's not a reliability issue, let it be a penalty rather than it just being a Tariff violation," Chiasson urged. "How many megawatts of room are out there? Then put



Michael Chiasson | © RTO Insider

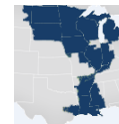
a hard stop on it."

But he said the treatment should not extend to generators that are unavailable during the summer peak.

"If they can't be available for the summer peak, then they shouldn't be a planning resource. That's our view," he said.

MISO's Tariff currently requires capacity resources retiring or suspending prior to the end of the planning year to replace themselves with uncleared zonal resource credits. It allows credits from outside the local resource zone only when zonal import and export limits permit.

Continued on page 17



Market Subcommittee Briefs

MISO Concentrates on Interface in Platform Replacement

CARMEL, Ind. — MISO's long-term project to replace its market platform is now getting down to specifics, stakeholders learned last week.

RTO technical staff are currently devoting time to creating a better market user interface — the nonpublic webpages MISO uses to accept energy bids and offers, MISO Senior IT Director Curtis Reister told the Market Subcommittee on Thursday.



Curtis Reister |
© RTO Insider

The new interface is expected to work with Internet Explorer, Microsoft Edge, Chrome and Firefox. Reister said MISO sometimes forces users to use older versions of browsers for compatibility with the old interface.

He could provide no release date for stakeholders to peak at the new interface but said the RTO would keep them updated on progress.

MISO CEO John Bear last month said he expects about 200 employees to spend 100,000 hours total on the platform replacement project.

Final Uninstructed Deviation Proposal

MISO's final proposal for dealing with generators' uninstructed deviations from dispatch instructions appears to strike a balance between the views of RTO staff and stakeholders.

The plan calculates a generator's uninstructed deviation by comparing the time-weighted average of its real-time ramp rate with its day-ahead offered ramp rate, while allowing for a 12% tolerance from set point instructions.

The proposal eliminates the RTO's current "all or nothing" eligibility for make-whole payments, instead allowing generators to collect full payments when they respond to dispatch instructions at a rate of 80% or higher over an hour, while excluding payouts when performance rates fall below 20%. Units operating between those two thresholds would earn make-whole payments in proportion to performance. (See [Monitor Backs MISO Uninstructed Deviation Proposal](#).)

The change would mean that a generator that fails four or more consecutive five-minute dispatch intervals within an hour by either providing excessive or deficient energy will not automatically lose its eligibility for make-whole payments.

In response to the concerns of some stakeholders that wind and solar resources



Jason Howard |
© RTO Insider

would be flagged for producing excessive energy, MISO crafted an exception to its uninstructed deviation proposal. MISO Market Quality Manager Jason Howard said the RTO only plans to assess

excessive or deficient energy charges on dispatchable intermittent resources during intervals when the resources are economically dispatched below the RTO's forecast. Dispatchable intermittent resources that use their own forecasts will be charged for excessive or deficient energy like any other resource under the proposal.

Howard said the move could help eliminate any intentional under- or over-forecasting by intermittent resources in order to collect make-whole payments, an issue the Independent Market Monitor has repeatedly raised.

"I don't think that we're done here. We're going to have other discussions about forecasting and intermittent resources," Howard said.

MISO now plans to file with FERC to reflect the change by the third quarter of this year, with the new uninstructed deviation calculation in place by early 2019.

Multiple stakeholders thanked MISO staff for taking extra time to develop a compromise proposal.

— Amanda Durish Cook

MISO Monitor Floats Plan for Partial-year Capacity Resources

Continued from page 16

Chiasson said it may be difficult for generators to find 100% of their replacement capacity in their own zones.

"It could be that there's nothing left to clear in your zone," he said.

Failure to come up with replacement credits triggers a Tariff violation and counts against a resource's physical withholding conduct threshold. However, MISO gives a pass on physical withholding consequences to capacity resources that cannot deliver after Feb. 28 because March 1 is viewed as

the end of peak system conditions. Those resources are encouraged to obtain a facility-specific reference level that includes the cost of zonal resource credit replacement. Chiasson pointed out that MISO does not extend that option to partial-year capacity resources.

Some stakeholders note that a MISO monetary penalty determination might not be the end of the concerns for capacity resources available for part of the year, which could still face resource adequacy rule violations with their state regulators.

Alliant Energy's Jamie Nicolls cautioned that the Monitor's plan could introduce a

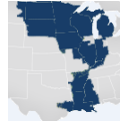
new reliability risk by allowing offers from units that cannot perform for the entire planning year.

Chiasson said MISO could mitigate that risk by memorializing a monthly reliability limit calculation in its Tariff.

Nicolls also said it would be difficult for a resource owner to quantify the risk of being unable to replace capacity in setting the penalty cost in the unit's reference level.

"All we expect people to do is to make a reasonable business decision," Chiasson said.

MISO NEWS



MISO LOLE Study Overestimates Auction Capacity Stakeholders Question Zonal Import Limits

By Amanda Durish Cook

CARMEL, Ind. — A recent MISO study slightly overestimated actual capacity offers in the 2018/19 Planning Resource Auction, stakeholders learned this week.

The RTO's loss-of-load expectation (LOLE) study predicted about 143.3 GW of capacity in the Planning Resource Auction, while the auction itself attracted about 141.8 GW in offers, MISO Resource Adequacy Senior Engineer William Buchanan reported during a May 9 Resource Adequacy Subcommittee meeting.



William Buchanan
| © RTO Insider

MISO said three factors played into the difference between the study results and auction outcome:

- PJM completed its third Incremental Auction in early March after the LOLE analysis was complete, which increased exports.
- The LOLE used forecasts submitted in

November 2016, while the PRA relied on forecasts with reduced load growth submitted in November 2017.

- The LOLE study was completed before the latest round of Attachment Y retirement notice submittals, which were not included in modeling.

Buchanan also said a year-over-year decrease in transmission losses shaved peak load by about 426 MW.

MISO cleared 135 GW of capacity during the 2018/19 PRA last month, with nine of its 10 local resource zones clearing at \$10/MW-day. The lone outlier was Zone 1 — covering parts of Wisconsin, Minnesota and the Dakotas — which cleared at \$1/MW-day. (See [MISO Clears at \\$10/MW-day in 2018/19 Capacity Auction.](#))

In more detailed results released this week, MISO cleared slightly less than 49 GW of coal capacity, down 3.3 GW from last year's cleared volumes, while natural gas capacity was up about 2 GW at 51 GW. Cleared wind capacity remained relatively static at 2.2 GW, while solar capacity more than doubled from 180 MW to 461 MW. Nuclear capacity remained steady at 12.5 GW.

Capacity Import Limit Change

Some MISO stakeholders said they were caught off guard by an unexpected drop in capacity import limits used in the auction compared with preliminary auction data.

Consumers Energy's Jeff Beattie asked why the auction's actual CILs changed from the first published limits by "hundreds of megawatts." He said the changes were a departure from previous years, when draft preliminary and final preliminary CILs remained relatively static.

"Zone 5 changed by more than 500 MW in the capacity import limit," Beattie said.

Harmon said the RTO simply updated the limits for known exports out of the system to non-MISO load as it became aware of the changes. He said MISO may investigate requiring stakeholders to provide more information earlier.

From February to mid-March, when limits were finalized, MISO's preliminary CILs fluctuated anywhere from 752 MW in Missouri's Zone 5 to no change in Michigan's Zone 7.

Vistra Energy's Mark Volpe said MISO could do more to telegraph the limit changes to its stakeholders ahead of the auction.

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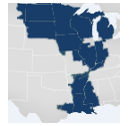


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MISO, PJM Plan 2 Studies for Seams Projects

By Amanda Durish Cook

MISO and PJM will pursue two separate interregional studies this year to identify potential joint transmission projects, the RTOs said last week.

One six-month study process would look for small cross-border projects, while a two-year effort would seek to uncover potential major interregional projects, stakeholders learned during a May 11 conference call held by the RTOs' Interregional Planning Stakeholder Advisory Committee.

2nd Round of TMEPs

The shorter-term study will identify targeted market efficiency projects (TMEPs), a project category the RTOs created in 2017, subsequently approving a five-project portfolio in December. This category of smaller interregional projects is intended to target historical congestion along the RTOs' seams.

Staff from both RTOs said the study would concentrate on historically binding flowgate constraints that have amassed at least \$1 million in congestion charges. MISO and PJM have experienced about \$500 million in congestion payments on more than 200 market-to-market flowgates in 2016 and 2017. PJM interregional engineer Alex Worcester said \$200 million of that congestion will be addressed by planned upgrades, both by regional fixes and the five planned TMEPs.

"But there's a bulk \$300 million of conges-

tion left on the seams that can be investigated," Worcester said.

The second TMEP study will be conducted much like the first, and the RTOs hope to complete review of historical congestion along the seams by the end of June, Worcester said. The study will examine why flowgates were binding and determine whether transmission outages caused the problem.

The RTOs have committed to working with equipment owners associated with the congestion this July to zero in on which equipment is limiting the flow of electricity and discuss potential upgrades. By October, the RTOs hope to have completed an evaluation of project ideas and submit project recommendations for approval by their respective boards of directors.

TMEPs must cost less than \$20 million, be in service within three years of approval and provide historical congestion relief that is equal to or greater than construction cost within the first four years of operation. The construction cost is divided between MISO and PJM based on the percentage of congestion relief benefits.

The two RTOs approved a \$20 million, five-project TMEP portfolio last year, with projects in Illinois, Indiana, Michigan and Ohio; all are upgrades to existing systems. Project costs are on average allocated 69% to PJM and 31% to MISO, based on projected benefits, which are expected to reach \$100 million. (See [FERC Conditionally OKs MISO-PJM Targeted Project Plan](#).)

Northern Indiana Public Service Co.'s Miles Taylor asked if MISO and PJM would consider speeding up the process to get

projects approved by the end of summer.

MISO's Adam Solomon said his RTO may be open to the idea, but he added it would be difficult to expedite the process, considering that the grid operators must complete an analysis and obtain approval from both boards before moving forward with TMEPs.

Some stakeholders asked the RTOs to consider generation retirements when studying historical seams congestion, as retiring generation could alleviate congestion on its own. Solomon said the study process is already equipped to collect that type of information.

2-Year IMEP Study

MISO and PJM have also agreed to begin a more traditional two-year coordinated system plan study to identify more expensive seams projects called interregional market efficiency projects (IMEPs), none of which have been approved by the RTOs.

For the more involved study, Worcester said each RTO will develop an economic regional model and study project suggestions submitted by stakeholders. IMEP proposals must be submitted to both regional processes, with the proposal window open from Nov. 1, 2018, to Feb. 28, 2019, according to PJM Tariff rules. Board approval of potential IMEPs would take place by the end of 2019.

Before approval, proposals will be reviewed multiple times: first to determine eligibility, then to calculate interregional cost allocation and the share of regional benefits. A third review tests the projects against each RTO's regional criteria, while the fourth and fifth evaluations involve getting approval

Continued on page 22

MISO LOLE Study Overestimates Auction Capacity

Continued from page 18

"We did not hear a discussion as to why they changed. MISO needs to be more transparent," Beattie said.

Laura Rauch, MISO manager of resource adequacy coordination, said the RTO would try to improve transparency in next year's auction.

Exelon's David Bloom said he was "begging" MISO to make preliminary PRA data easier to locate on its website.

MISO will meanwhile continue to make predictions for out-year capacity import and export limits, but it will use a new process of analyzing only those zones expected to bind on their import or export limits — or fall short of procuring local clearing requirements. MISO's Matt Sutton said the RTO will now review those zones

with its Loss of Load Expectation Working Group (LOLEWG) and then perform analyses on selected zones. Results will first be shared with the LOLEWG.

Sutton said the technical design of the new process will also be taken up at the LOLEWG.

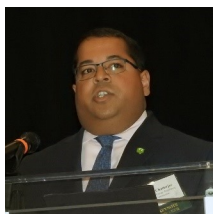
MISO last month said it would revise its practice of forecasting long-term capacity import and export limits after proposing in early spring to discontinue them. (See "Reprieve for Out-year Import and Export Limit Estimates," [MISO Resource Adequacy Subcommittee Briefs: April 11, 2018](#).)



Overheard at IPPNY 2018 Spring Conference

ALBANY, N.Y. — New York is reshaping its grid to accommodate public policy goals and an influx of new renewable resources while seeking to maintain a balance between state responsibilities and wholesale electricity market standards, industry stakeholders heard May 8 at the Independent Power Producers of New York Spring Conference.

"It should not be up to the federal government to tell a state what its energy future is going to be," FERC Commissioner **Neil Chatterjee** told conference attendees.



"New renewable resources, storage and other innovative technologies need to be integrated into the market," Chatterjee said. "As our generation changes, as it modernizes, our policies may have to as well. ... This could include revising market rules that might be a barrier to participation, or updating interconnection requirements, or modifying operating procedures for procuring operating reserves and other ancillary services."

But Chatterjee cautioned that "the revolution in generation would fizzle" without the transmission capacity needed to manage supply and demand.

"In New York, like many other places, significant issues arise when vast quantities of cheaper generation resources are located great distances from the load centers," he said. "In fact, the region might need hundreds of miles of new transmission in order to effect the renewables goal set forth in" the state's Reforming the Energy Vision program that, along with the associated Clean Energy Standard, requires that 50% of the state's electricity come from renewables by 2030 and that statewide greenhouse gas emissions be reduced by 40% from 1990 levels by 2030.

New Capacity Market?

IPPNY Board Chairman **John Reese**, of Eastern Generation,



said New York needs a forward capacity market like those in ISO-NE and PJM in order to reduce price volatility and provide investors with more certainty that generation investments will earn returns.

"New York has taken a different path from its neighboring RTOs and is looking at carbon pricing as a way of taking the externalities that you value ... and see if we can put it into the marketplace," Reese said.

"In a different world, we might have been there nationally today, but in the current environment, the burden is on the individual states to find ways to do that," said Reese. "IPPNY's been supportive of including carbon pricing in the marketplace; not choosing winners and losers, but setting a price, allowing the industry and private investment to choose how they invest, where they invest, to allow technology innovation." (See [NY Looks at Social Cost of Carbon, Modeling.](#))



IPPNY CEO **Gavin J. Donohue** said, "Like New England, we're experiencing very low prices, stagnant if not decreasing demand and limited market-based investment. All

of these are compounded by regulatory uncertainty and cross-signals within investment, making it very complicated in a one-state ISO to do business."

Legislative Update

"It's important to make sure there's a shift in investment risks to private developers," said State Assemblyman **Michael Cusick** (D), chair of the Assembly Energy Committee. Cusick said he worked to block Gov. Andrew Cuomo's proposal to



allow the New York Power Authority to own and operate other renewable energy resources besides its statutory mandate for hydropower. The plan did not survive in the final budget.

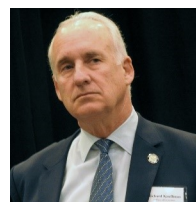
Cusick said he is now focusing on new energy legislation, including a real property tax exemption that would be made available to certain renewable energy technologies such as fuel cells and linear generators (9651A).

State Sen. Joseph Griffo (R), chair of the Senate Energy and Telecommunications Committee, said "all ratepayers pay for our clean energy transformation," and that legislators need to "apply the Hippocratic Oath here and know when to step back and do no harm."

The legislative process has so many "intangibles" this year that making an accurate forecast is "almost like meteorology," Griffo said. "We're going to be wrapping up energy storage legislation ... hoping to ensure competitive procurement processes."

Griffo added that he "is working with the administration" to ensure the governor advances a candidate to fill the fifth and only open seat left on the Public Service Commission.

Grid Needs Robust IT System



Richard Kauffman, chairman of Energy & Finance for New York and chair of the New York State Energy Research and Development Authority's board, said Cuomo

recognized five years ago that the energy system was unsustainable and that "we needed to change the whole system to build the new grid, a mix of large-scale generation and distributed energy resources."

"It's a big job to change the system of systems ... we want the policies to drive the target, not the target to drive the policies," Kauffman said.

Continued on page 21



Overheard at IPPNY 2018 Spring Conference

Continued from page 20

Technological improvements seen in other industries have not occurred in energy because of how utilities are protected from market forces by the regulatory structure, he said.

"Our grid and its current IT system will not carry us forward; we need a much more robust IT system," Kauffman said.

He said the model should be how Apple provides the platform for its iPhone and lets the apps come from other developers, who in turn provide feedback to Apple on how to invest to make the platform more valuable.

"Competitive actors will find the projects better than regulated utilities," Kauffman said. "Competitive markets will figure out what customers want ... and building this kind of platform is not a core competence for" the utilities.

"The effort to try to change utility compensation and business practices has begun," Kauffman said, pointing to the "non-wires" approach of the Brooklyn-Queens Demand Management project, where Consolidated Edison "went to the market for alternative approaches that resulted in \$200 million of costs, rather than spending \$1.2 billion on substations." (See "PSC OKs Con Ed Energy Storage Tariff," [NYPSC Expands VDER Project Size to 5 MW.](#))

Regional Perspectives

Glen Thomas, president of PJM Power Providers, said, "There's a lot going right in PJM, but when you look around the edges we start to get concerned about this market going forward.



"PJM just came out with estimates on the cost of new entry and they are dramatically reduced from where they currently sit," Thomas said. "Of course the cost of new entry calculations are very important because that's the base by which the curves are set for the capacity auctions,

which are coming up here in a couple weeks."

Power producers in PJM face a flat supply stack "pretty much year-round," but New Jersey is the biggest challenge facing producers in the RTO's footprint, he said. Legislation is now on the New Jersey governor's desk that could see zero-emission credits applied to 40% of the megawatts delivered in the state by 2030, and renewable energy credits applied to 50%. The state also plans to subsidize construction of 3.5 GW of offshore wind and 2 GW of storage by 2030, he noted.

"You have to wonder what's left of the market," Thomas said.



Dan Dolan, president of the New England Power Generators Association, said his region saw the second-lowest prices in history last year at just over \$33/MWh,

"and at the same time we have the highest wholesale transmission rates of any market in the country — they've increased more than 400% over the last 10 years. Our wholesale transmission rates are double those in PJM [and] four times those in MISO."

And while producers "are seeing remarkable competition, and extraordinary results from investment, reliability and emissions,"

consumer bills are going up, Dolan said.

While energy supply costs have declined 35% over the past few years, consumer electric bills have gone up 6%, and consumers are not usually prone to breaking down their bills to see where the increases come from, he said.

Dolan faulted ISO-NE for saying it wants to keep Mystic 8 and 9 running for fuel security reasons after Exelon in March filed to retire the plant. It would take three and a half years to come up with a market construct for that attribute, he said. (See [ISO-NE Moves to Keep Exelon's Mystic Running.](#))

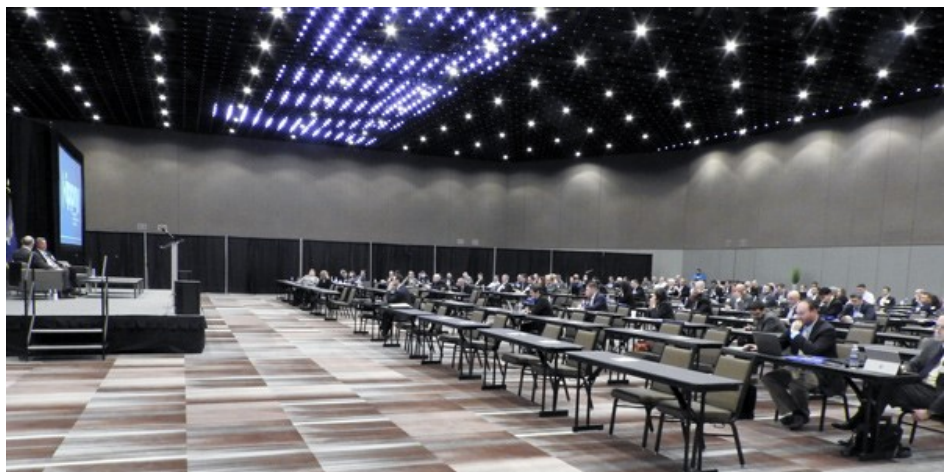
"I'd like to think we can walk and chew gum at the same time and get it done a little faster than that," Dolan said.

John Shelk, CEO of the Electric Power Supply Association, took the long view on market prices, noting how opinions have flip-flopped since RTOs and ISOs were formed about 20 years ago.

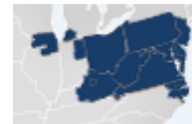


"Ten years ago, we thought markets were going to fail ... because prices were so high ... and now suddenly markets are bad because prices are too low," he said.

— Michael Kuser



| © RTO Insider



PJM Prices up Sharply in Q1, Monitor Says

By Rich Heidorn Jr.

January's cold weather resulted in a sharp increase in natural gas and power prices in the first quarter, PJM's Independent Market Monitor reported last week.

The load-weighted average real-time LMP rose to \$49.45/MWh in the first three months of 2018, a 63% jump from the \$30.28/MWh seen a year earlier, according to the Monitor's quarterly State of the Market report. The increase reflected a nearly 136% jump in eastern natural gas prices versus the first quarter of 2017.

Other metrics saw even bigger jumps, including energy uplift charges (up \$57.7 million, 227%) and congestion costs (up \$503 million, 318%).

Revenues from auction revenue rights and financial transmission rights offset less than 62% of total congestion costs for the first 10 months of the 2017/18 planning period, the first in which new rules required the allocation of balancing congestion to load instead of FTR holders. ARR and FTR revenues had offset 98% of load's congestion costs during the 2016/2017 planning period.

It was a good quarter for generators, as measured by net revenue. All types of generation saw higher margins, including combustion turbines (+324%); combined cycle

(+61%); coal (+650%); nuclear (+70%); wind (+43%); and solar (+57%).

The Monitor made seven new recommendations in the first-quarter report:

Energy Market

- Change the Tariff to allow generators to have fuel-cost policies that do not include fuel procurement practices, including fuel contracts. "Fuel procurement practices, including fuel contracts, may be used as the basis for fuel-cost policies but should not be required," the Monitor said. (Priority: Low.)
- PJM should change the fuel-cost policy requirement to apply only to units that will be offered with non-zero cost-based offers. The RTO should set to zero the cost-based offers of units without an approved fuel-cost policy. (Priority: Low.)

Energy Uplift

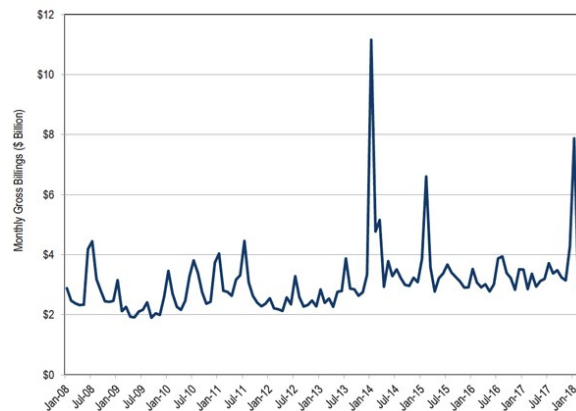
- Uplift should only be paid based on operating parameters that reflect the flexibility of the benchmark new entrant unit in the capacity market. (Priority: High.)
- PJM should eliminate the

use of intraday segments to define eligibility for uplift payments and return to evaluating the need for uplift on a daily, 24-hour basis. (Priority: High.)

- PJM should pay uplift based on the offer at the lower of the actual unit output or the dispatch signal. (Priority: Medium.)
- PJM should implement a metric to define when a unit is following dispatch to determine eligibility to receive balancing operating reserve credits. (Priority: Medium.)

FTRs/ARRs

- All congestion revenue in excess of FTR target allocations should be distributed to ARR holders on a monthly basis. (Priority: High.)



PJM reported monthly billings | Monitoring Analytics

MISO, PJM Plan 2 Studies for Seams Projects

Continued from page 19

from both the staff and boards for both RTOs.

"It seems like one of the goals MISO and PJM have is to remove the triple hurdle. What I'm seeing here is a five-hurdle," Wind on the Wires' Natalie McIntire remarked. "It just seems like we should have less review."

Worcester said only three of the reviews result in a pass/fail outcome for a project. The first review simply determines if the project would be eligible under IMEP requirements, while the second only serves to get an idea of project cost benefits, he

said.

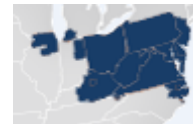
MISO and PJM last conducted a coordinated system plan in 2016 and 2017, ending the process without recommending any projects. One serious contender, a proposed 30-mile, 138-kV line near the Indiana-Illinois border, ultimately failed the joint 5% generation-to-load-distribution factor test, which requires each RTO to show that at least one of its generators has at least a 5% impact on the affected flowgate. (See [MISO, PJM Ponder Interregional Study](#).)

Axe 5% GLDF Test

As a result of the last two-year study, the

RTOs plan to revise their joint operating agreement to remove the 5% generation-to-load-distribution factor test, instead letting each of their regional processes determine flowgate impacts. Solomon said the edits will also remove references to a MISO-PJM joint model study requirement, as the joint model was eliminated in FERC compliance filings in response to a 2013 complaint from NIPSCO on the RTOs' interregional process. (See "No Joint Model," [FERC Signals Bulk of NIPSCO Order Work Complete](#).)

Solomon said MISO and PJM want the revisions in place before opening the IMEP project proposal window in November. For that to happen, Solomon said the changes should be on file with FERC no later than July.



PJM Capacity Proposals Widely Panned

By Rory D. Sweeney and Rich Heidorn Jr.

[Editor's Note: This story has been updated to include additional filings posted at FERC after *RTO Insider* went to press on May 8.]

If it were a Broadway play, PJM's "jump ball" proposals for protecting the capacity market from subsidized resources would have closed after one night.

May 7 was the deadline for the critics to file their comments on PJM's proposal and the reviews were largely negative. *RTO Insider's* initial review of four dozen filings found almost no commenters wholeheartedly endorsing either PJM staff's capacity repricing proposal or the Independent Market Monitor's MOPR-Ex plan to extend the minimum offer price rule to existing resources in addition to new entries (ER18-1314). (See [PJM Board Punts Capacity Market Proposals to FERC.](#))

PJM's plan would allow state-subsidized generators to bid into capacity auctions but ensure they don't suppress prices by removing those offers in a second "repricing" stage of the auction.

Numerous commenters said PJM had failed to prove the need for the proposed changes, arguing there was little evidence state subsidies, such as nuclear plants receiving zero-emission credits, were suppressing prices. Several commenters said the proposals would increase prices while failing to address the capacity and energy markets'

fundamental flaw: the failure to capture attributes valued by states, such as carbon-free generation. PJM's state regulators, led by the Organization of PJM States Inc. (OPSI), were unanimously opposed.

Hedging Their Bets

While few commenters enthusiastically endorsed either proposal, many offered qualified support for MOPR-Ex. Others hedged their positions.

Dominion Energy, Public Service Electric and Gas, American Electric Power and the Nuclear Energy Institute said FERC should reject both options but that if forced to choose, they preferred PJM's proposal. While "imperfect," repricing "is a far more balanced a solution" that respects state initiatives and avoids the possibility of load paying twice for capacity, NEI said.

Exelon opposed both options but called the Monitor's proposal "particularly indefensible."

Old Dominion Electric Cooperative — seeking to protect its self-supply resources procured outside of the capacity market — said both proposals should be rejected but that it would accept MOPR-Ex if it were amended to include the municipal/cooperative entity exemption from the capacity repricing proposal. "ODEC's primary position remains that the commission should avoid layering yet another significant design change onto the already complex [Reliability Pricing Model] construct," it

said.

Consumer advocates from D.C., Maryland and New Jersey also said they would accept MOPR-Ex over repricing, subject to a settlement proceeding or stakeholder process "to further refine" it. The Ohio Consumers' Counsel took a similar position, saying MOPR-Ex is "less detrimental to markets and to consumers because it is more likely to encourage uneconomic generating resources to retire."

IMM Joe Bowring acknowledged his proposal "is not perfect" but "is the only choice consistent with markets in this proceeding."

The PJM Industrial Customer Coalition gave the proposal lukewarm support, saying its members "do not object" to it as "a reasonable extension of the existing construct" but are in full opposition to the repricing proposal.

Several commenters questioned why PJM was pushing for swift action on the proposals while it is conducting its quadrennial review of the variable resource requirement curve and launching a fuel security initiative. (See [PJM Seeks to Have Market Value Fuel Security.](#))

"In light of other, overlapping initiatives currently underway, it is unwise and unnecessary for PJM to push forward with either of the proposed capacity market modifications — particularly when both modifications failed to obtain stakeholder consensus," AEP said.

American Municipal Power said FERC should order PJM to reconvene the Capacity Construct/Public Policy Senior Task Force "without arbitrary deadlines to complete the evaluation of whether and what types of changes are needed to accommodate state actions."

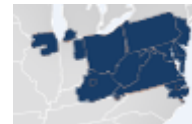
"The commission should reject the proposal and direct PJM to reconvene the stakeholder process in its administrative resource adequacy construct, as well as the current quadrennial review process and the novel fuel security proposal," AMP said.

"Rather than seeking multiple arbitrary commission deadlines and guided processes for the additional work needed to resolve issues with PJM's proposal, the commission should direct PJM to address the issues with the two proposals and create a sup-



Quad Cities nuclear plant

Continued on page 24



PJM Capacity Proposals Widely Panned

Continued from page 23

portable proposal that achieves the first principles identified by the commission in the [ISO-NE Competitive Auctions with Sponsored Policy Resources] proceeding.” (See [Split FERC Approves ISO-NE CASPR Plan.](#))

Blow it up and Start Over

Several companies suggested FERC use its Section 206 powers to craft a solution, though they disagreed on how urgent the problem is.

NRG Energy asked FERC to create “its own just and reasonable capacity market design.”

“While NRG agrees that the existing PJM rules are being overwhelmed by subsidized generation, neither of the two PJM proposals will result in a long-term sustainable market structure,” NRG said. “Inaction is not a viable option.”

The PJM Power Providers Group agreed “the threat ... is real” and backed developing a different MOPR “that removes many of the exemptions contained in the MOPR-Ex proposal.”

The New Jersey Board of Public Utilities asked FERC to reject the filing and order PJM to “ensure that any future capacity market revisions are complementary to” attributes sought by the states.

“PJM’s proposals do not aid the commission in its longstanding efforts to harmonize state policies with capacity market planning,” the BPU said. “Status quo is the appropriate action for now.”

The American Public Power Association said the proposals are “further evidence of the ongoing unsuitability of mandatory capacity markets to ensure resource adequacy.” It said, “Bilateral contracting or ownership should be supported instead of merchant development of generation resources.

“APPA agrees that such state policy goals should be accommodated, but raising capacity prices for customers without any assured benefit is not the way to do it.”

Full Rejection

Consumer advocates from Illinois, Delaware, West Virginia, Kentucky and Indiana said FERC doesn’t have the authority to choose one of the two proposals. “Effectively, PJM is asking the commission to conditionally approve a proposal and then oversee a rewrite of that proposal,” they said.

The Illinois Commerce Commission also questioned FERC’s authority to act on either proposal, adding that, despite “PJM’s lip service to states’ rights ... PJM reserves to itself the discretion to cherry-pick which resources are worthy of state policy revenue.

“State laws that do not seek to impermissibly intrude upon the wholesale electricity market or abrogate a commission-mandated rate, properly fall within the jurisdiction reserved to the states and do not violate the [Constitution’s] Supremacy Clause,” the ICC wrote.

Rare Endorsements

One full-throated endorsement came from [comments](#) filed jointly by Starwood Energy Group and Direct Energy, who argued MOPR-Ex “is narrowly tailored to mitigate artificial price suppression in PJM’s capacity market while retaining core market fundamentals” and “preserves the ability of both customers and investors to bring new capacity resources, and offer existing eco-

nomics capacity, into the market on a competitive basis.”

The companies opposed PJM’s repricing proposal and repeatedly juxtaposed the two to argue for MOPR-Ex, which it said “does not thrust the capacity repricing costs onto the market generally.”

The American Petroleum Institute also expressed support, arguing that repricing “effectively provid[es] preferential treatment to high-cost, subsidized resources for capacity commitments that continue to inefficiently displace lower-cost resources.”

“Contrasted with capacity repricing, implementation of MOPR-Ex is straightforward and narrow with all subsidized resources subject to mitigation without exception, and unsubsidized resources would not be subject to mitigation,” API said in a joint filing with private equity Panda Power Funds and J-POWER USA Development, an independent power producer and developer with 2,700 MW of generation operational or under development in PJM.

LS Power Associates also backed MOPR-Ex, saying it is “based on the well-established minimum offer price rule that has long been part of PJM’s capacity market,” while the repricing proposal is “fundamentally unfair” and “irredeemably flawed.”

Rockland Capital argued for MOPR-Ex with settlement discussions to “ensure that the exceptions from mitigation are tailored to preserve wholesale market prices first and accommodate state interests second.”

Continued on page 25



Clinton nuclear plant



PJM Capacity Proposals Widely Panned

Continued from page 24

The Natural Gas Supply Association was less outspoken in its support but nonetheless urged approving and suspending implementation of MOPR-Ex, then directing those involved to engage in settlement discussions to consider “how exemptions are provided and the appropriateness of unit-specific exemptions, including exemptions provided for units subject to a renewable portfolio standard.”

The group pointed to the nuclear subsidies recently passed in New Jersey as evidence “that the time is now to address state subsidies given that the number of subsidies in the market continue to grow.” (See Exelon to Push for Laws, Rules to Boost Profitability.)

Vistra Energy and its Dynegy Marketing and Trade subsidiary took a similar position, saying “an appropriately designed” MOPR is the best way to support competition.

The Electric Power Supply Association said it opposed capacity repricing but agreed “100%” with PJM that changes are needed.

“The commission should summarily reject the ‘capacity repricing’ proposal ... which would enable and encourage state interference with the commission-jurisdictional RPM market, and should instead focus on a MOPR approach, consistent with its recent commitment to ‘use the MOPR as [its] standard solution’ where state policies threaten the organized capacity markets.”



| © RTO Insider

EPSA noted that the Monitor’s MOPR-Ex plan received more support among stakeholders than PJM’s alternative. If the commission does not find MOPR-Ex just and reasonable, EPSA said, it should find PJM’s current MOPR rules are not just and reasonable because they don’t cover existing resources.

Exelon, however, said MOPR-Ex “would prevent state-supported clean generators from clearing at all, replacing them with polluting units. Perversely, that will not just force customers to pay higher electricity prices but also will inflict on customers the additional costs of grappling with the pollution [MOPR-Ex] has created.”

‘Externalities’

Exelon said PJM’s premise — that states making payments to recognize the environmental benefits of renewable and nuclear generators states are “distorting” price signals — is incorrect.

“Sound economics understands that when states tax polluting generators, or pay clean generators for their environmental value, they do not ‘distort’ price signals. They reduce distortions and account for true economic costs and benefits. The only distortion comes from treating clean and polluting generators as the same when they are not.”

The Institute for Policy Integrity at New York University School of Law, a nonpartisan think tank that says it is dedicated to improving the quality of government decision-making, also cited the markets’ failure to value environmental externalities.

FirstEnergy, in a joint filing with East Kentucky Power Cooperative, also agreed that the capacity market is failing to account for externalities — but defined those uncompensated attributes as “resilience, fuel diversity and fuel security.”

“The simple facts are, notwithstanding numerous amendments and market design enhancements through the years, PJM’s wholesale capacity market has never worked as intended. States are compelled to address the needs of their constituents. It therefore should be no surprise that states within the PJM footprint are responding to this long-term market failure

by implementing policies that are designed to preserve important generation units and their associated attributes, including generation and zero-emissions attributes.”

They said FERC should reject PJM’s proposals and require the RTO to “develop a holistic solution to the fundamental issues facing its markets.”

Resume Negotiations

Several commenters called on PJM to return to stakeholder negotiations.

Dominion said it opposes both proposals because they extend mitigation to existing capacity resources. “Dominion Energy does not agree that existing capacity resources have the same pricing effects as new capacity resources and warrant identical treatment,” it said. FERC should insist the RTO resume stakeholder discussions to develop rule changes “that focus on actual distortive pricing effects stemming from state public policies,” Dominion said.

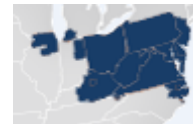
Talen Energy Marketing and its fleet of generation subsidiaries argued both proposals are “inadequate” and asked FERC to “direct PJM to engage with its stakeholders in a broader price reform effort, including necessary revisions to the energy market, that would seek to appropriately compensate generators for other, non-price attributes that provide measurable value to the grid.”

States Unanimous

In a rare unanimous vote, OPSI urged FERC to reject both proposals and argued that PJM should “respect the resource choices of state policymakers unless there is a legal determination that a state policy impermissibly intrudes” on federal jurisdiction. State subsidies aren’t impacting the market’s ability to attract resources and provide adequate returns, and PJM’s evidence to the contrary is purely “speculative” and anecdotal, OPSI said.

“Data shows that adequate numbers of generation resources are consistently able to recover their costs, while receiving rational price signals, from PJM markets,” OPSI said. “PJM abandons the cost-minimizing principle and instead proposes an exceedingly complex design change that

Continued on page 26



PJM Capacity Proposals Widely Panned

Continued from page 25

will place more weight on administratively determined artificially inflated prices rather than actual market participant offers.”

It noted that the Monitor’s State of the Market report found the average age of at-risk units is 42 years while a Department of Energy-funded [report](#) found that the average lifespan for coal units in the Eastern Interconnection is 40 years.

“Such findings seem less indicative of market failure, than of rational market signals of entry and exit. ... Rather than rising, there is significant data that shows capacity prices should be falling,” OPSI said, noting the results of PJM’s recent quadrennial analysis of its demand curve and recommendations to reduce the expected cost for a new unit to enter the market.

OPSI said the CAPPSTF was flawed because its charter limited it to only consider the capacity market.

The Maryland Public Service Commission [said](#) PJM’s proposed changes would “obscure resource clearing, increase uncertainty and raise customer prices.”

The Pennsylvania Public Utility Commission [noted](#) that neither proposal received a two-thirds majority at the Markets and Reliability Committee and that both “could result in subsidized resources in one state, significantly increasing market prices in another state.” (See “No Consensus on Capacity Revisions,” [PJM MRC/MC Briefs: Jan. 25, 2018.](#))

It said capacity repricing would incent market sellers to underbid in the first stage of the auction “causing further price volatility” while MOPR-Ex could cause states to pay twice for capacity even as it suppresses energy prices.

The Public Utilities Commission of Ohio [said](#) FERC should preserve the current rules “until a direct path to addressing state subsidies, if at all, can be determined.”

“The commission, state commissions and other parties have taken significant steps to resolve perceived capacity market design deficiencies that have not been fully implemented. Yet, in less than three years, PJM

is again before the commission proposing another significant overhaul of the capacity market under far less certain circumstances,” PUCO said. “While PJM has provided information on the price suppression effect of subsidies, it has not similarly substantiated the level of penetration of state-subsidized resources that would trigger the need to depart from the status quo with another major overhaul of RPM. Furthermore, the PUCO notes that there is no analysis as to the cost impacts of either proposed option on load.”

The New York Public Service Commission, which is working with the NYISO to incorporate a carbon adder into its wholesale market to accommodate state-subsidized nuclear plants, sought assurances that the commission’s ruling on the PJM proposal “will not serve as binding precedent for other control areas.”

“This is critical for other control areas to have the autonomy needed to develop market mechanisms that address their regions’ unique circumstances,” the PSC said in a [joint filing](#) with the New York State Energy Research and Development Authority.

Environmental Groups Oppose

A joint filing from the Sustainable FERC Project, Sierra Club, Natural Resources Defense Council and Environmental Defense Fund asserted that “PJM wrongly puts the commission in the position of policing the efficiency of state policies.” The proposals put “wholesale market rules on a collision course with states’ core duty to protect the public.”

The filing included a report from “subsidy expert” Doug Koplow that argued energy subsidies “have long been pervasive at both the federal and state level without attendant impacts on PJM’s wholesale markets that have prevented that market from attracting record levels of investment.”

“Even if one state’s policies were to somehow to harm customers in other states, that would not justify commission intervention

to countermand those laws where they are lawfully within the state’s authority,” the filing argued.

The Solar RTO Coalition, a newly formed group of solar developers and capital providers, said it is “challenging” to address supply-side subsidies.

“The sheer scope of some of the issues that are associated with how to best incentivize the ‘proper’ development of generation resources ... are part of the reason why PJM’s stakeholders were unable to come to a consensus.”

Both OPSI and the Solar Coalition sought to distinguish PJM’s filing from ISO-NE’s CASPR proposal, which the coalition said “was much narrower in scope.”



Ari Peskoe

Ari Peskoe, of the Harvard Electricity Law Initiative, said, “PJM fails to explain why it equates state support for legacy assets with competitive state programs for environmental attributes, even

though it concedes that the latter affect wholesale rates ‘to a lesser degree.’”

“Commission approval would substantially expand RTO authority in a field of shared authority. ... States did not sign up to have a regional system operator pick and choose among their generation procurement programs, and any assertion to the contrary is unsupported,” he said. “If the commission approves one of PJM’s proposals, it should expect a steady stream of [Federal Power Act Section] 206 complaints about laws and regulations ensnared or uncaptured by PJM’s arbitrary rules.”

Self-supply Concerns

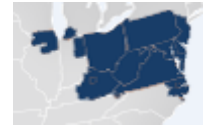
Dayton Power and Light [said](#) either of the two proposals are improvements over the status quo but that FERC should correct “deficiencies” in the proposals by adopting changes to the fixed resource requirement (FRR) option that allows state regulators and regulated utilities to supply their own load with their own capacity resources outside the RPM.

“With the minor tweak to the FRR rules, Dayton believes that market price out-



Doug Koplow

Continued on page 27



FERC Closes Book on PJM's 'Paper Capacity' Concerns

By Rory D. Sweeney

FERC has signaled that it's done dealing with PJM's concerns about market participants selling "paper capacity" to arbitrage price differences between the Base Residual and Incremental auctions.

The commission issued an order May 8 rejecting changes to the Incremental Auction structure and terminating a longstanding proceeding on the issue (ER18-988, EL14-48).

PJM voiced concerns with FERC about capacity auction arbitrage as far back as March 2014, when it filed for approval of auction revisions that would have made the activity harder. It would have created a sell-back offer floor at the relevant Base Residual Auction's clearing price and eliminated two IAs, along with increasing charges and penalties and making it more difficult for generators to represent capacity that is unlikely to materialize.

FERC rejected the revisions as "beyond what was reasonable to ensure that offers are supported by physical resources" but initiated a proceeding under Section 206 of the Federal Power Act to hold a technical conference on the issue. PJM asked to defer it four times, including in its current filing on IA changes.

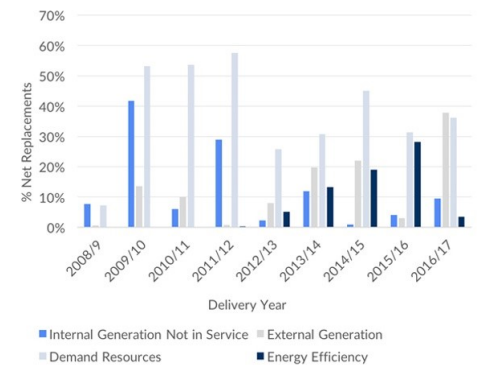
In that filing, PJM asked for the authority to change the IAs in which it can offer excess capacity commitments — and to determine

the allowable volumes. During the PJM stakeholder process, some stakeholders, represented by Direct Energy's Marji Philips, argued the issue had been "subverted into a lot of other interests" and "is actually worse than the status quo at this point." (See "Incremental Auction Revisions Endorsed," *PJM Markets and Reliability Committee Briefs: Dec. 21, 2017.*)

FERC agreed, saying PJM's proposal resembled several other proposals the commission rejected.

"On three separate occasions, the commission has rejected as unjust and unreasonable PJM's proposals to value sell-back offers at a level that differs from the valuation of excess of capacity reflected by PJM's capacity demand curve," the commission said. "We again find PJM's proposal to submit sell-back offers at the relevant Base Residual Auction clearing price to be unjust and unreasonable, as it fails to establish a reasonable price for excess capacity as the commission has found in the prior orders, and, as a result, the Incremental Auctions would not adequately correct for PJM's over-procurement of capacity in a Base Residual Auction and would not produce prices commensurate with load's value of the over procured capacity."

PJM's Independent Market Monitor had attempted to provide some support, developing a report to argue that "the lack of a specific requirement that all capacity resources be demonstrably physical assets when offered into PJM capacity auctions



PJM's Independent Market Monitor says demand response providers disproportionately replace commitments from Base Residual Auctions compared with sellers of other resource types. External generation and internal generation not in service also had high rates of replacement in some years. | PJM

continues to provide strong incentives to offer speculative paper capacity." (See *PJM Monitor Asks FERC to Act on 'Paper Capacity'*.)

However, the commission argued that "in recent years, PJM has implemented reforms that reduce the likelihood of speculative offers," including documentation to verify offers.

"For these reasons, we find that there is no need for the commission's further consideration of solutions to address potential speculative behavior" in the auctions, the commission said, and with that, terminated the proceeding.

PJM Capacity Proposals Widely Panned

Continued from page 26

comes will be preserved and states wishing to subsidize varying attributes of generation can be accommodated," it said.

"The only changes needed is to allow for a partial or overlay FRR within a state as opposed to a full zone as the rule exists today. If a state subsidizes 1000 MW of generation for any reason it deems appropriate, it would remove a corresponding amount of load including reserve requirements from the PJM RPM auction."

In its own filing, EKPC asked FERC to force PJM to change MOPR-Ex's "public entity" exemption to recognize that the co-op is the only winter-peaking load-serving entity within PJM's footprint. The proposal uses LSE's zonal summer-peak demand forecasts to calculate the LSE's eligibility for the exemption. The LSE cannot own more than 600 MW of generation above the peak summer load it serves. However, EKPC procures generation to cover its higher winter peak, which would put it beyond the 600-MW cap.

The Illinois Municipal Electric Agency

avoided comment on MOPR-Ex and focused on criticizing the repricing proposal, which it said would hurt load in the ComEd zone by reducing capacity transfer rights allocated to load "due to the predictable decreased clearing of lower-priced imported generation under stage one."

The National Rural Electric Cooperative Association reiterated its opposition to PJM's mandatory capacity market. "However, recognizing that the commission may not at this time unravel PJM's mandatory capacity construct, NRECA urges that the commission ... mandate that any outcome of this proceeding must contain specific exemptions for self-supply by cooperative utilities and other load-serving entities."



SPP's Tariff Team Begins Carving up the Elephant

By Tom Kleckner

KANSAS CITY, Mo. — As chairman of SPP's Holistic Integrated Tariff Team (HITT), Tom Kent has been asked to lead a team responsible for addressing "the many issues challenging" the region.

Simple things, like cost allocation and transmission zones, Z2 credits, the planning and study process, and what to do with 60 GW of wind in the planning queue — issues that have vexed staff and members for the past several years.

"There are some pretty meaty topics," admitted Kent, Nebraska Public Power District's COO.

The 17-person team includes state regulators, SPP directors and key member representatives, all of whom also have day jobs. So how do you keep everyone on track?

"We have to come together on how we want to eat the elephant, so to speak, right?" Kent said before the team's April kickoff. "It's a pretty big topic, and you've got to take it one bite at a time. We're going to spend a lot of our time kind of understanding what the elephant is, and what the scope is, and how big the elephant is. Hopefully, we'll get to the point where we're able to start prioritizing which bites we want to take off and go after."

Fortunately, Kent has plenty of experience in meeting management and team dynamics.

"It's nothing new. It's a broader group with different perspectives, but the dynamics of leading a team or a group are very similar," he said. "You've got to get everyone to start working together and understand how we're going to function as a group. Keep the group focused on the priorities that we're working on — and there are going to be lots of things to work on.

"It's just typical team dynamics, right?"

HITT Squad

The "HITT squad," as it is called informally, encountered some early turbulence when several stakeholders complained about the secrecy under which it was created in



The HITT meets for the first time. | © RTO Insider

March. SPP's Board of Directors approved the team's formation during a closed-door meeting. (See *SPP Questioned on Secrecy over Tariff Team.*)

SPP proposed that most HITT meetings be held face to face, with stakeholders "encourage[d]" to participate by dialing in, unless they are presenting to the team in person. Early discussion about the group suggested that only team members would be allowed to participate in meetings, but other stakeholders are now invited to provide information and ask questions.

"I wouldn't use the word 'secret.' It's just new," Kent said. "You've got to give everyone an understanding of how the group's going to work, what the scope's going to be, what the priorities are going to be. You can't take the elephant all at once. I expect for a while, at least, the meetings will be focused on the team."

The early focus has been on education and technical presentations. The HITT's first meeting was spread out over two days following the April board meeting, with staff delivering detailed presentations on SPP transmission, planning and cost allocation, and markets and operations.

The team began drawing up a list of hot topics and requested feedback from stakeholders on the issues, topics and/or challenges they believe it should be addressing.

Afterward, Kent shared with the HITT a study on the market value of variable renewables and additional background materials.

"I thought we covered a lot of good information," Kent said.

The team next meets in Dallas on May 16. On the agenda: developing a problem statement, reviewing requested infor-

mation, and more technical presentations and education.

The HITT has been tasked with filing a written report by April 2019, but it can request additional time, if needed. It will report to the board's Members Committee and provide status reports to the Regional State Committee, Markets and Operations Policy Committee and Strategic Planning Committee.

The team includes Directors Larry Altenbaumer and Graham Edwards, state commissioners Shari Feist Albrecht (Kansas Corporation Commission) and Dennis Grennan (Nebraska Power Review Board), and member representatives for the investor-owned utilities, cooperatives, independent power producers, municipalities, state agencies and independent transmission companies.

Cindy Ireland, the Arkansas Public Service Commission's director of research and policy, has joined the team as a liaison for the Cost Allocation Working Group (CAWG). The RSC had requested a liaison, as much of the HITT's work will touch on that of the CAWG's.

"We don't want to retrace ground other groups are working on," Kent said. "That coordination and working together is going to be important for the CAWG, and it's also going to be important for other groups, potentially."

Taking on the Animal

The HITT has been asked to assess:

- Transmission planning and study processes: generation interconnections; the interconnection queue; aggregate studies; energy resource interconnection service and network resource interconnection service; capacity requirements, including more attributes than energy; and related FERC planning requirements.
- Transmission cost allocation issues: highway/byway; directly assigned costs; Attachment Z2 credits; cost allocation impacts on transmission pricing zones with large wind resources; and state-by-state supply resource mix requirements

Continued on page 29



SPP Average Winter Prices Up 4.6% from 2017

By Tom Kleckner

SPP's winter real-time prices increased 4.6% from the previous year, according to the Market Monitoring Unit's latest quarterly State of the Market report.

The report said real-time prices averaged \$25.69/MWh, compared with \$24.57 the previous winter, when prices jumped 37.9%. Day-ahead prices this winter averaged \$24.07/MWh, 7 cents shy of the 2017 average.

The MMU reviewed the report, which covered December 2017 to February 2018, with market participants during a webinar Friday.

Also last week, the MMU released its annual State of the Market report, saying SPP's market showed increasing flexibility and improving efficiency during 2017. The MMU had shared a draft with the RTO's Board of Directors in April. (See "MMU Shares Draft of State of the Market Report," [SPP Board of Directors/Members Committee Briefs: April 24, 2018.](#))

The quarterly report noted average gas and electricity prices — which have historically been highly correlated — diverged slightly this year, with gas dropping from \$3.08/MMBtu in 2017 to \$2.64/MMBtu in 2018. Panhandle Eastern hub prices ranged from \$2.50 to \$2.80/MMBtu from February 2017 until January, when they spiked to \$3.23/MMBtu during a cold snap.

SPP set three new winter peaks Jan. 16-17, topping out at nearly 43 GW. Oil-fired units set prices during the period that "routinely exceeded" \$400/MWh in western Arkansas, eastern Texas and southern Missouri.

SPP and MISO were forced to use market-to-market redispatch Jan. 16-18, resulting in SPP collecting \$2.66 million during that time. The Neosho-Riverton flowgate was responsible for most of the costs, as it has been since the two RTOs began the M2M process in March 2015. Congestion on the flowgate has resulted in \$26.5 million in payments to SPP, more than half of the \$51.4 million M2M charges MISO has incurred.

The MMU said the flowgate also caused Empire District Electric and the Missouri

cities of Carthage and Springfield to see the highest winter prices in SPP's footprint, with Carthage seeing average real-time prices of slightly more than \$50/MWh.

Other highlights from the report include:

- An increase in the occurrence of negative price intervals, with winter 2018 levels higher than previous years.
- A nearly 7% increase in the hourly average load for winter 2018 from winter 2017. December 2017 was at a similar level to the prior year, but January and February 2018 average loads were nearly 11% higher, driven primarily by lower-than-normal temperatures.
- A 7% increase in average monthly real-time generation from winter 2017 to winter 2018. Coal-fired generation its downward trend, accounting for only 46% of energy produced during the winter. Wind resources accounted for 26% of total generation.
- A 36% day-ahead wind capacity factor, which increased to 46% in the real-time market. The disparity between day-ahead and real-time capacity factors contributed to the increase in negative price intervals.

SPP's Tariff Team Begins Carving up the Elephant

Continued from page 28

and/or goals.

- Integrated Marketplace: effects related to a changing resource mix; access to lower cost generation; potential changes in production tax credits; using market-based compensation for varying attributes of different types of generators.
- Disconnects or potential synergies between transmission planning and real-time reliability and economic operations.
- Additional areas and/or issues as appropriate and reasonably related to its scope of work.

The team has been modeled after the Synergistic Planning Project Team (SPPT), which was formed in 2008 to suggest a process addressing deficiencies in SPP's then-existing planning processes. In just a

matter of months, it filed a report that led to the RTO's Integrated Transmission Planning process and the highway/byway cost allocation methodology.

SPP is hopeful the HITT will be just as successful.

General Counsel Paul Suskie, who represented the Arkansas PSC on the SPPT and is the staff secretary to the HITT, said the SPPT's work led to FERC Order 1000.

"Three of the five commissioners told me that SPP's approach to planning is what the nation needed," Suskie said.

Suskie also recalled conversations he had with fellow team member Barry Smitherman, then chair of Texas' Public Utility Commission. Texas was in the midst of its Competitive Renewable Energy Zone project, which used state money to finance nearly \$7 billion in transmission infrastructure to connect West Texas wind energy

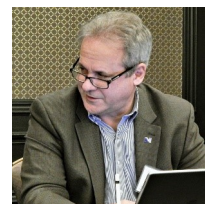
with cities to the east. Customers would eventually pick up the tab through CREZ fees on their bills.

The two would tease each other over the best methods to fund transmission buildouts.

"I'd always call [regional funding] socialization," Suskie said. "Barry would tell me, 'In ERCOT and Texas, they call it uplift.'"

Suskie is just one of three holdovers from the eight-person SPPT, which also included Dogwood Energy's Rob Janssen, the HITT's vice chair, and SPP COO Carl Monroe.

"That experience and that background, having gone through the process before, will be invaluable," Kent said. "I'm excited about being able to sit down with them and take on this animal, and talk about some different issues and look for opportunities to improve things going forward."



Tom Kent | © RTO Insider

FERC & FEDERAL NEWS



Little Time for Transmission Talk on the Hill

By Michael Brooks

WASHINGTON — A panel of electricity industry leaders — including Public Service Enterprise Group CEO Ralph Izzo — came to the House Energy Subcommittee on Thursday prepared to talk about the importance of transmission infrastructure, but the visit was mostly in vain.

Votes on the House floor kept the hearing to about 90 minutes, most of it taken up by the prewritten opening statements by subcommittee leaders and the panelists. Subcommittee members barely asked any questions, and none were directed to either Izzo or Jennifer Curran, MISO vice president of system planning.

In the little time allotted to them, the panelists made clear that FERC Order 1000, which opened transmission development to competition in 2011, was not working as intended, with very few projects being approved.

But they differed in their overall assessment of the order. Izzo called for Congress to outright abolish the rule, while former FERC Commissioner Tony Clark repeated his past assertion that the order was “well-intentioned” but clearly needs revisiting by the commission.

The order replaced RTOs’ “collaborative, bottoms-up approach to transmission planning with a complex bureaucracy, where the name of the game is completing a compliance checklist that may not actually result in transmission development,” Clark said. He pointed to MISO’s multi-value projects as an example of pre-Order 1000 developments that were impactful.

Rob Gramlich, president of energy consultancy Grid Strategies, submitted detailed written testimony highlighting the benefits of the grid in lowering consumers’ costs and allowing access to resources in other regions. Among his recommendations was that the Energy Department use the never-applied Section 1221 of the 2005 Energy Policy Act, which allows the secretary of energy to designate transmission corridors in the national interest and for FERC to site and permit projects in those corridors.

“I recommend that for specific extra-high-



Subcommittee Vice Chair Pete Olson (R-Texas) addresses the panel. Visible from back to foreground are Tony Clark, Edward Krapels, Jennifer Curran and Rob Gramlich. | © RTO Insider

voltage (e.g., 500 kV and up), long-distance lines that provide broad multistate reliability benefits and long-term consumer benefits, where state approval has been withheld after thorough consultation, DOE and FERC should be encouraged to be willing to use the current authority,” Gramlich wrote.

In the little time she spoke, Curran only gave general information about her RTO, lauding its transmission planning processes and reliability record. Also in attendance were Edward Krapels, CEO of Anbaric Development Partners, and John Twitty, executive director of the Transmission Access Policy Study Group.



Despite lengthy opening statements on the importance of transmission, members of the House Energy and Commerce Committee’s Subcommittee on Energy were preoccupied by votes taking place on the House floor. By the end of the 90-minute hearing, the dais was occupied only by subcommittee leaders and their staffs. | © RTO Insider

FERC & FEDERAL NEWS



Report: Customer Needs Should Lead Resilience Effort

By Tom Kleckner

Ahead of the deadline for filings in FERC’s resilience docket last week, two aides to former FERC Chairman Pat Wood III sought to reset the definition – saying resilience is about transmission and distribution, not generation.

In a report funded by the Natural Resources Defense Council and the Environmental Defense Fund, Alison Silverstein and Rob Gramlich say resilience should be measured from the customers’ perspective: the number of outages (frequency), customers affected per outage (scale) and length of time before restoration (duration).

“Customers pay the ultimate price for power outages, whether through their electric bills or their own personal losses and expenditures,” says the study, whose third author is Michael Goggin, who worked with Gramlich at the American Wind Energy Association and has since joined Gramlich’s consulting firm.

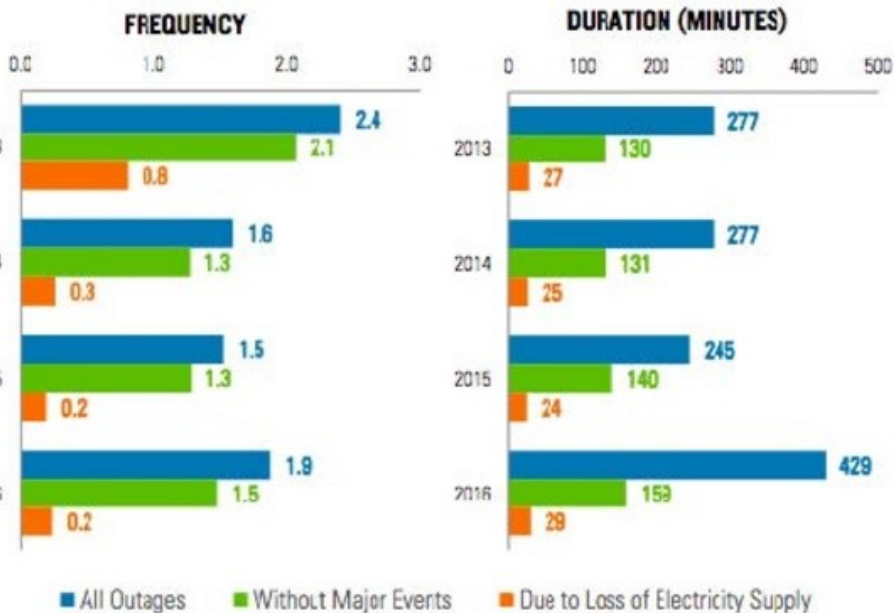
Silverstein, the former senior energy policy adviser to Wood, made headlines last year when, after helping coauthor the Department of Energy’s grid study, she denounced Energy Secretary Rick Perry for using it as a pretext for price supports for struggling coal and nuclear plants. (See [Author of DOE Grid Study Disputes Recommendations.](#))

The department’s Notice of Proposed Rulemaking to FERC sought “resilience” payments to power plant with 90 days of fuel onsite.

In rejecting the NOPR in January and initiating the resilience docket, FERC offered its own definition of the term: “The ability [of the grid] to withstand and reduce the magnitude and/or duration of disruptive events, which includes the capability to anticipate, absorb, adapt to and/or rapidly recover from such an event.”

RTOs made filings in the docket in March. Comments on the RTO filings were due May 9 (AD18-7). (See related story, [Don’t Rush on Resilience, Commenters Urge, p.1.](#)) The Silverstein-Gramlich-Goggin report was filed in the docket May 8.

“I’m a customer, you’re a customer. We operate the grid for the customer, not just



Customer electric outage frequency. Loss of supply during major events is included in loss of electricity supply. | Rhodium Group analysis based on EIA data

for our jollies,” Silverstein said in an interview. “It seemed to me that if the point of preventing outages is protecting the customer, as NERC and others assert, we should look at the most effective ways of measuring resilience.”

The report notes the vast majority of outage events occur at the distribution and transmission levels because of weather events – which has only led customers to expect more outages.

The authors cite a Rhodium Group study that found less than 0.1% of customer-outage minutes in 2012-2016 were caused by generation shortfalls or fuel supply issues. The study found most outages can be attributed to routine causes such as local storms, vegetation, squirrels and equipment problems, with high-impact, low-frequency events such as hurricanes and winter storms causing about half of customer outage-minutes.

“We cannot prevent and mitigate all the hazards and threats that cause outages, and we can mitigate some but not all of their consequences,” the authors write. “So which risks should we take, what level of resilience and mitigation cost are we willing to bear and how should we choose among

resilience measures?”

The paper doesn’t answer the risk question, but it does offer a path for “assessing and selecting resilience regulatory policy options.” The report suggests regulators and stakeholders ask how each remedy “might reduce the frequency, magnitude and duration of customer outages relative to the entire scope of customer outages, not just those resulting from generation- or transmission-level causes.”

In attacking the problem, Silverstein said she borrowed from the Rocky Mountain Institute’s cofounder and chief scientist, Amory Lovins, who has said you can solve the energy problem by enlarging it. By carving problems into bite-sized chunks, Lovins has said, “You don’t have a big enough design space to have enough options, degrees of freedom and synergies.”

“There’s a big difference between generation resilience and the resilience of the power system and resilience from customers’ perspective,” Silverstein said. “When you look at resilience from the customer’s perspective, there’s a whole lot of ways to

Continued on page 32



FERC & FEDERAL NEWS

Don't Rush on Resilience, Commenters Urge

Continued from page 1

ent resilience issues and priorities, and requiring all RTOs/ISOs to follow PJM's proposed schedule on the issues pertinent to PJM will undermine each RTO/ISO's efforts to address the specific challenges within its region," they said. "Thus, the commission should reject PJM's requests and allow individual RTOs/ISOs to pursue the resilience-related issues and initiatives they have identified in their region through collaborative efforts with their stakeholders and pursuant to the time frames they have established."

Others, including the Advanced Energy Management Alliance, agreed that RTOs should continue their existing efforts to address their unique challenges. "PJM's explanation of the need for changes to certain energy and ancillary market rules is helpful to inform the commission as to areas PJM is working on, but PJM cannot ask FERC to require rule changes to be filed in pre-emption of the stakeholder process or development of an evidentiary record that change is necessary."

After rejecting the Department of Energy's call for price supports for coal and nuclear generators in January, the commission asked its six jurisdictional RTOs and ISOs to respond to two dozen questions on resilience. This week's deadline was for responses to the RTOs' comments.

"This is not an issue within FERC's domain in non-RTO regions, where states and localities maintain authority over generation investment decisions and cost recovery."

Large Public Power Council

The comments touched on topics including FERC's jurisdiction, fuel security, cyber threats and climate change, as well as individual regional issues.

Jurisdictional Concerns

Several commenters raised jurisdictional issues, noting that states, not FERC, have authority over distribution systems where most outages occur. Arizona Public Service said NERC's reliability standards already address resilience.

"Before taking any additional steps to address resilience, the commission [should] consider the ... comprehensive federal, state and industry efforts [that] address all levels of the electric grid and significantly contribute to ensuring" resilience, APS said. The utility criticized proposals it said "are clearly focused upon expanding the role of ISOs and RTOs and are, without understanding efforts at the state level and among utilities commercially, premature."

The Pennsylvania Public Utility Commission asked FERC to "clearly articulate" its juris-

diction regarding resilience, saying it disagrees with PJM's assertion that resilience is "within the commission's existing authority with respect to the establishment of just and reasonable rates under the Federal Power Act." Therefore, clear and precise justification of FERC's authority on this matter will be beneficial prior to any initial steps in regulating resilience," the PUC said.

Entergy also disagreed with PJM's "overly broad" interpretation of the commission's jurisdiction.

The Large Public Power Council (LPPC) agreed with commission's proposed definition of resilience but urged that "to the extent further rules or standards are considered, FERC must be mindful of the statutory limits on its authority," saying the Federal Power Act does not provide the agency a general grant of authority "to take action on reliability or resilience outside its specific statutory role in the approval and enforcement of standards."

The LPPC also contended there is "no ba-

Continued on page 33

Report: Customer Needs Should Lead Resilience Effort

Continued from page 31

solve the problem quickly. If I spend a fortune on reducing generation failures, that's a whole lot of money that could have been spent on tree trimming or strategic spare equipment. Tree trimming and situational awareness are not addressed by a generation resilience proposal."

Because most outages occur at the distribution level, Silverstein, Gramlich and Goggin write, "it logically follows that measures that strengthen distribution and hasten recovery would be highly cost-

effective."

One example of this would be mobile substations, which proved invaluable during the Hurricane Harvey restoration efforts. Other examples include hardening distribution poles, physical security, outage-management systems, mutual assistance, and emergency planning and drills.

Silverstein said this will become even more important as severe weather events continue to increase in the years ahead. According to the report, the U.S. weathered 16 "disaster events" last year, each incurring at least \$1 billion in damages. Most of the

events damaged some electric system infrastructure and caused service disruptions, totaling more than \$350 billion in damages.

"We really need to take that threat seriously and think about how to design power system architecture and assets for the long-term threat," she said. "A lot of the designs today were developed in the early 1900s. The weather is going to be a lot more severe and meaner 10, 20 and 30 years in the future. We designed the grid for 'Ozzie and Harriet' weather. What's coming at us is 'Mad Max.'"



FERC & FEDERAL NEWS

Don't Rush on Resilience, Commenters Urge

Continued from page 32

sis" for applying any rule governing resilience to non-RTO areas, as had been recommended by MISO and PJM. "This is not an issue within FERC's domain in non-RTO regions, where states and localities maintain authority over generation investment decisions and cost recovery," the group said.



The Electric Power Supply Association sees it differently.

"Resilience must be a priority in all regions of the country, not only those served by independent system operators or regional transmission organizations," EPSA said. "Therefore, it is important for the commission to extend its inquiry on the holistic examination of resilience to all jurisdictional entities, particularly transmission owners and systems outside of ISOs/RTOs."



The American Petroleum Institute said PJM's proposals regarding gas-electric coordina-

tion — such as requiring interstate pipelines to offer new transportation services and build new infrastructure — are unnecessary and may be beyond FERC's jurisdiction under the Natural Gas Act.



LG&E and KU Energy warned FERC against undermining existing

state processes, saying its resource planning and transmission and distribution operations are working well, and noting that it is not part of an RTO. In 2017, the utilities said, they attained their lowest forced outage rate since 2004 at 3.46% of its base-load generation.

The Transmission Access Policy Study Group, which represents transmission-dependent utilities, said FERC should give RTO stakeholders time to build consensus

"It is important for the commission to extend its inquiry on the holistic examination of resilience to all jurisdictional entities, particularly transmission owners and systems outside of ISOs/RTOs."

Electric Power Supply Association

"As issues arise in the future, PG&E encourages the commission to consider the risks of climate change when making decisions that could affect stakeholders' ability to make climate-smart investments, or to make other decisions to address climate resilience for the future."

Pacific Gas and Electric

on issues within their purview and leave distribution systems to state and local regulators.

Cyber Threats

PJM's Transmission Owners Agreement-Administrative Committee said their members need more information from the government on potential cyber threats. "The threat data that resides at, for example, the Department of Energy, Department of Homeland Security, National Security Council and Department of Defense is vital for the RTO/ISOs to have access to for developing and implementing effective protection mechanisms," they said.

"Therefore, it is essential that the commission develop a process by which PJM may receive verification concerning the reasonableness of vulnerability and threat assessments based on internal government data that has not been made available to RTOs on national security grounds."

Exelon said FERC, DOE and DHS should participate in the development of modeling scenarios and create a "design-basis threat" to provide a baseline against which RTOs can measure their resilience efforts.

Climate Change's Role



The Center for Climate and Energy Solutions said that FERC's scope of grid resilience lacks an acknowledgment of cli-

mate change and how it could hinder resilience.

The environmental nonprofit said that although it would prefer FERC order "an economy-wide pricing mechanism" to absorb the economic impacts and even prevent some physical impacts of climate change, it said the commission should at least ensure that wholesale power markets are "internalizing the costs of carbon emissions" through carbon pricing.

The center added that increasing regularity of droughts threatens cooling systems for generating stations and rising temperatures will impede the capacity of bulk transmission lines to transport power. The nonprofit called on FERC to convene a technical conference to explore best practices for an industry coping with global warming.

"Climate science and lived experience show that historical conditions are no longer a reliable predictor of future conditions," Pacific Gas and Electric said. "As issues arise in the future, PG&E encourages the commission to consider the risks of climate change when making decisions that could affect stakeholders' ability to make climate-smart investments, or to make other decisions to address climate resilience for the future."

Fuel Supplies

Numerous commenters cited the certainty of fuel supplies as an essential element of resilience.

NERC said FERC should consider encouraging firm transportation, multiple pipeline connections and dual-fuel capability for gas generators. "Further, the commission could consider requiring that resource adequacy assessments account for potential reliability

Continued on page 34



FERC & FEDERAL NEWS

Don't Rush on Resilience, Commenters Urge

Continued from page 33

ramifications associated with the 'just-in-time' natural gas fuel delivery model."



"Fuel security risk is the most important factor to include in the commission's definition of resilience and in its evaluation of grid resilience generally," the American Coalition for Clean Coal Electricity said. The American Coal Council said coal generation retirements are a threat because intermittent resources can't always be counted on.



Basin Electric Power Cooperative said its fossil generating units continue to be affected by markets "that fail to adequately compensate resources" for providing "essential electric service" in the wholesale markets.

The North Dakota co-op called for "equity across all fuel types," saying the RTOs' comments did not address the "preferential treatment" wind generation receives. It said a new ramp product, "if structured appropriately," could reflect the value of stand-by products and provide "sufficient mitigation for assets that must stay online and incur losses" to backfill wind.



The Electricity Consumers Resource Council and industrial energy users warned against using resilience as a pretext for a "bailout" of coal and nuclear plants, adding, "No action to advance resilience can be considered 'just and reasonable' if it has not considered the impact to consumers and how to minimize that impact."

Americans for a Clean Energy Grid, a coal-

"Fuel security risk is the most important factor to include in the commission's definition of resilience and in its evaluation of grid resilience generally."

American Coalition for Clean Coal Electricity

tion supporting a "fully electrified" society, noted that this winter's "bomb cyclone" forced Northeast grid operators to rely on more expensive generation such as coal, oil and dual-fuel units, even while wind output — stranded by transmission constraints — was higher than normal during the weather event. "Thus, while wind power can be more reliable than other resources during extreme winter weather, it is limited by interregional transmission constraints," the group said.

Role of Capacity Markets

While many commenters, including EPSA and the Natural Gas Supply Association, called for market-based responses to resilience needs, the American Public Power Association and NRECA said mandatory capacity markets are not producing the resource mix needed to provide required resilience attributes. "Rather than relying on the markets, appropriately accommodating state resource policy choices in the mandatory capacity markets likely would help alleviate some of these [resilience] concerns."

API, in contrast, warned that some of PJM's proposals "seem to be regressing back toward an integrated resource planning world where picking winners and losers takes precedence over markets and competition."

Role of Transmission

Many commenters noted that most outages occur on the transmission and distribution

systems.

ITC Holdings said the bulk power system's resilience faces "a substantial threat from the ongoing lack of any effective, regular interregional transmission planning processes between many RTOs/ISOs," citing MISO's seams with PJM and SPP. "Despite the highly interconnected nature of [the MISO-PJM] seam, and despite a long history of commission exhortation to ensure sufficient coordination between the two regions, no interregional transmission project has ever been planned for or built between these two RTOs. As such, each region is unnecessarily limited in its ability to call on generating resources from the neighboring region to respond to grid emergencies."

Although the vast majority of customer disruptions occur because of failures of the distribution system and are beyond FERC's jurisdiction, the commission could aid resilience by integrating distributed energy resources into wholesale markets and revising Order 1000 to increase the use of non-wires solutions to transmission constraints, said a group of environmental and public interest organizations, including the Natural Resources Defense Council and Environmental Defense Fund.



Trade group WIRES said FERC should update Order 890's transmission planning principles to include resilience as a distinct planning driver for RTOs. "Generation and

fuel supply policies offer only a limited hedge against potential disruption. Moreover, while distributed resources are important for rapid recovery, they are of limited long-term capability without the grid's transfer capabilities," the association said.

The Energy Storage Association said FERC

"Distributed energy resources that are co-located with load can continue to provide electric service to customers even in the face of a complete failure of the bulk power system and are best-placed to provide resilience in a wide variety of contingencies impacting the grid."

Tesla

Continued on page 35



FERC & FEDERAL NEWS

Don't Rush on Resilience, Commenters Urge

Continued from page 34

could enhance resilience through greater storage use, embedding the resource type into transmission planning and encouraging wholesale market participation of distribution-level storage. "Storage decouples the element of time from supply and demand," the ESA said. "It makes non-dispatchable generators dispatchable; it makes inflexible generators flexible; and it makes inefficient cycling generators more efficient."



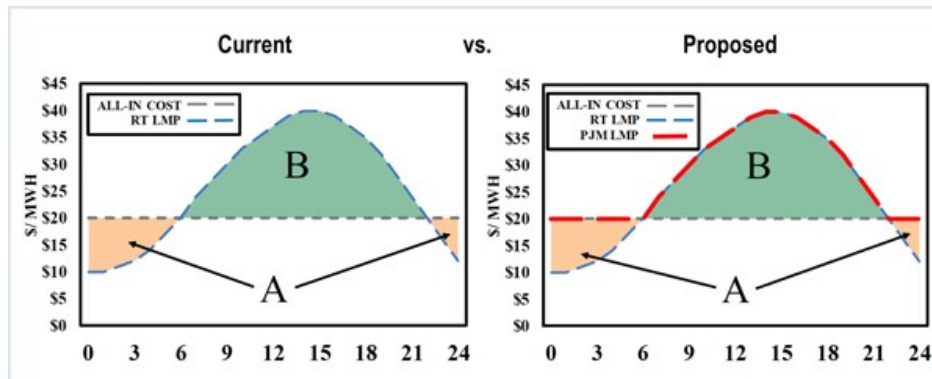
The WATT Coalition, a group of companies that offer technologies to increase the delivery capability of the existing grid, urged FERC to focus on how advanced transmission technologies can improve resilience. "During times of system stress, network topology optimization, dynamic line ratings and power flow control can help ensure reliable operation," the group said.

It noted that ISO-NE's relaxation of transfer limits during this winter's bomb cyclone allowed it to import an additional 200 MW of generation from NYISO. "When it is cold, cloudy or windy, lines are cooled, so they can physically deliver more energy without sagging or overheating," the coalition said.

Tesla warned against a definition of resilience that focuses on generator availability or transmission. "Distributed energy resources that are co-located with load can continue to provide electric service to customers even in the face of a complete failure of the bulk power system and are best-placed to provide resilience in a wide variety of contingencies impacting the grid," it said.



David Patton, whose company Potomac Economics provides market monitoring services to MISO, ISO-NE, NYISO and ERCOT, said adopting PJM's proposal to allow inflexible generators to set clearing prices would have boosted MISO's system marginal prices by 30%, based on analysis of the 12 months ending in October 2017. (See [Critics Slam PJM's NOPR Alternative as 'Windfall'](#).)



Graph on the left shows how baseload resources recover their fixed commitment costs under current LMP rules. During the peak hours, prices are typically above the resource's marginal costs; the excess revenues in area B will exceed the amount by which the revenues fail to cover average costs in area A. Under the PJM proposal (right), LMPs would cover the average cost of all baseload resources needed to serve load. | Potomac Economics

PJM Comments Under Scrutiny

PJM's March filing was the subject of numerous commenters.

"In its zeal to address resilience in its own market, PJM has inappropriately laid out directives and requirements for every other market to follow, according to PJM's proposed time frames," EPSA said.

EI agreed, saying "it may be premature to require all RTOs/ISOs to make specific filings as requested in PJM's comments."

David Patton, whose company Potomac Economics provides market monitoring services to MISO, ISO-NE, NYISO and ERCOT, said adopting PJM's proposal to allow inflexible generators to set clearing prices would have boosted MISO's system marginal prices by 30%, based on analysis of the 12 months ending in October 2017. (See [Critics Slam PJM's NOPR Alternative as 'Windfall'](#).)

"This plan is a fundamental departure from the efficient locational marginal pricing framework that has been the foundation of

all successful wholesale markets in the U.S.," Patton said. "It would, for the first time, introduce fixed costs into real-time pricing that are clearly not marginal in the real-time dispatch horizon. In effect, PJM would be requiring that the average costs of all resources needed to service load be reflected in every five-minute interval."

The Pennsylvania PUC said it supported some of PJM's proposals but feared that some "offered in the name of resilience may shortchange or even bypass normal PJM stakeholder deliberative processes" and warned against giving RTOs "a license to 'gold-plate' the generation, transmission and cyber assets of its members to achieve standards of resiliency that are disproportionate to a particular vulnerability or threat assessment."

The regulators said they were concerned over the potential scope and costs of PJM's proposals. "Some of PJM's recommendations, especially in the market design arena, appear to utilize the grid resilience docket as another forum to advocate for specific market modifications, such as energy price formation, that are not immediately germane to the resilience discussion," the PUC said.

It agreed with PJM that FERC may need to "revisit" NERC reliability standards. "However, revision of NERC standards is a complex, time-consuming process that

PJM's "plan is a fundamental departure from the efficient locational marginal pricing framework that has been the foundation of all successful wholesale markets in the U.S."

David Patton, Potomac Economics

Continued on page 36

FERC & FEDERAL NEWS



Don't Rush on Resilience, Commenters Urge

Continued from page 35

should be allowed to proceed on its own timeline without an accelerated impetus from this docket.”

THE P³ GROUP The PJM Power Providers Group (P3), on the other hand, praised the RTO's “thoughtful recommendations” for addressing “antiquated energy price formation structures.”

“However, the stakeholder deliberations regarding this issue have been unproductive to date. Commission direction may be required for energy price formation goals to come to fruition as a means to support the commission's resilience aims,” it said. P3 expressed concern over PJM's proposal to permit non-market operations during emergencies, saying the commission should require the RTO to submit Tariff revisions to allow the change.

PJM also received support from American Electric Power, Dayton Power and Light and East Kentucky Power Cooperative, which made a joint filing as the PJM Utilities Coalition.

The coalition said it agrees with PJM's recommendation that all RTOs be required to submit proposed Tariff changes to implement resilience planning criteria and develop processes for the identification of vulnerabilities.

“No meaningful steps towards a resilient system can begin without appropriate direction given by the commission that explicitly grants power to the RTO to establish resilience planning criteria and other aspects of the process,” it said. It also questioned whether the stakeholder process could address the issues. “If PJM reverts to a stakeholder process to determine resilience criteria, the process may get mired in political debates and cost allocation, and

PJM's “document describing its process only refers to risks associated with greater reliance on natural gas, and the language suggests that PJM has already made an unsupported predetermination that natural gas is a weak link in their ability to be reliable and resilient.”

Natural Gas Supply Association

not focus on the necessary task of determining objective resilience criteria. For this reason, clear direction from FERC to guide that process is requested.”

PJM also filed reply comments, saying it wanted to provide additional information on its fuel security initiative announced April 30, clarify its proposals regarding gas-electric coordination and “provide context for its approach to this docket relative to the approach taken by certain other RTOs and ISOs.” (See PJM Seeks to Have Market Value Fuel Security.)



The Organization of PJM States Inc. (OPSI) said PJM's filing did “not address the prudence and affordability of measures that may be implemented as a result of” the RTO's recommendations, which it said indicate “extensions of its current mandate.”

“While not the stated intent, a future PJM could be positioned to drive transmission planning and craft new market structures in its mandate to address perceived low-probability, high-impact threats,” OPSI said. “The prospect of this expanded authority, with planning and decision-making impacting billions of dollars in investments with cost recovery from end users, may require a re-examination of PJM's scope, governance and oversight.”

Industrial energy users, consumer advocates for Delaware, New Jersey and D.C., and American Municipal Power, filing joint-

ly as PJM Consumer Representatives, said the inconsistencies between the positions of PJM and those of other RTOs indicate the need for regional flexibility.

“Unlike the comments of the other RTOs/ISOs, PJM's comments embark on an aggressively activist course, advocating positions that could result in substantial changes to PJM energy and capacity market rules, in addition to whatever changes may be necessary in transmission planning and system operations rules,” they said.

They called for a cost-benefit analysis or “prudence assessment” of any new resilience rules and said neither the 2014 polar vortex nor the 2017-2018 cold snap “justify subsidizing uneconomic coal and nuclear units ... in the name of resilience.”

FirstEnergy FirstEnergy's regulated utilities called for urgent action, noting they sought voluntary load curtailments during the polar vortex to prevent load shedding for 142,000 customers. FERC should “immediately implement stopgap measures to preserve the operation of generators that contribute to grid resilience until a full evaluation of resilience needs is complete,” the utilities said.

FirstEnergy Solutions, the company's merchant generation unit, said it “disagrees with the overall thrust of PJM's comments.” It called for FERC to adopt mandatory resilience standards for RTOs and ISOs and ensure the continued operation of “critical” nuclear and coal-fired generators in the interim.

The Natural Gas Supply Association said PJM's fuel security initiative “appears to reflect an unsupported bias against natural gas.”

“PJM states that the process of examining

“Commission direction may be required for energy price formation goals to come to fruition as a means to support the commission's resilience aims.”

PJM Power Providers Group

Continued on page 37

FERC & FEDERAL NEWS



Don't Rush on Resilience, Commenters Urge

Continued from page 36

fuel risk will be done in a fuel-neutral manner. However, its document describing its process only refers to risks associated with greater reliance on natural gas, and the language suggests that PJM has already made an unsupported predetermination that natural gas is a weak link in their ability to be reliable and resilient.”

ISO-NE



ISO-NE's response to FERC's identified fuel security as its resilience risk. It said potential responses include additional gas pipeline or LNG capacity, relaxing rules on dual-fuel resources and additional investments in renewables and transmission.

The New England Power Pool Participants Committee stressed that resilience solutions be worked out in the stakeholder process, calling it “a prerequisite to yield the solutions that work best for New England.”



The New England States Committee on Electricity shared ISO-NE's perspective that fuel security presents the primary challenge to the resilience of the region's power system. NESCOE recommended additional analysis of potential risks and cautioned “against prescriptive actions or further processes” that could impede regional or state efforts to mitigate fuel security challenges.



The New England Power Generators Association said ISO-NE's Operational Fuel Security Analysis (OFSA) “neither captures market participant behavior in response to price signals nor the probability of any particular outcome ... and therefore should not be the basis for the market solutions to be developed and later filed for acceptance with the commission.” (See *Report: Fuel Security Key Risk for New England Grid.*)



Eversource Energy said ISO-NE's fuel security study “may

“Efforts to ensure resilience should not be rushed to meet some arbitrarily short time frame unless they are justified by the evaluation of the ISO/RTO.”

Independent Power Producers of New York

understate the magnitude and scope of the challenges.”

“This could lead one to falsely conclude that only minor changes are required, and that commission action may be unneeded at this time. To the contrary, time is not on New England's side,” the company said.

The company urged the commission to convene a New England-specific technical conference to determine state and federal actions to improve the region's infrastructure, citing additional gas pipeline capacity from the Marcellus shale deposit and electric transmission to carry Canadian hydro-power and on- and offshore wind.

The attorneys general of Massachusetts, Rhode Island and Vermont also cautioned against overreliance on the OFSA, which they said “relies on underlying assumptions that do not present a realistic or complete view of either the present or the future bulk power system.”

“The OFSA presents a deterministic (as opposed to probabilistic) analysis that provides no context about whether modelled events are likely to occur,” they said.

They also said the study's approach to resilience is overly narrow, failing to consider “cyber and physical adversarial threats, technological accidents, and extreme heat and other weather events.”

The region's local gas distribution companies recommended FERC “consider expedited review of and decisions on new natural gas pipeline certificate applications in critical fuel security regions.”

NYISO



NYISO told FERC in March that it does not face “imminent resilience concerns that require immediate action.”

The New York Public Service Commission said it agreed that ISO and stakeholder efforts to address bulk system resilience “are comprehensive and continuous,” asking for no other FERC measures beyond its “continued attention.” The PSC also agreed with the ISO's suggestion for the commission to host a technical conference on bulk system resilience.

The Independent Power Producers of New York also supported the ISO's approach and said FERC should not force it to abide by PJM's suggested deadlines. “Efforts to ensure resilience should not be rushed to meet some arbitrarily short time frame unless they are justified by the evaluation of the ISO/RTO,” the group said.

The New York Transmission Owners also called on the commission to respect regional differences. “Any requirement to change course could impede resilience efforts already underway in the stakeholder process,” they said.

MISO

The Organization of MISO States said NERC standards, combined with initiatives from RTOs, state regulators, utilities, mu-

Continued on page 38

“While seams issues are broader than the concept of resilience, MISO is correct that the commission should not ignore the benefits of greater, more effective and efficient interregional cooperation in this proceeding.”

MISO Transmission Owners



FERC & FEDERAL NEWS

Don't Rush on Resilience, Commenters Urge

Continued from page 37

nicipalities and others were enough to ensure long-term resilience. No additional rules or standards are necessary, the group said, especially those that might impede on state jurisdiction. "It is clear to the OMS that the appropriate processes are already in place to identify and adapt to the evolution of the industry and perceived threats to resilience," the group said.

The MISO Transmission Owners emphasized that RTOs have only part of the answer to resilience, noting the role of distribution systems.

"MISO and its utility members have developed an integrated electric system that is currently sufficiently resilient, and MISO has identified no imminent resilience crises requiring commission action," they said. "Notwithstanding MISO's and its members' regional efforts, enhancements to interregional coordination will promote greater resilience. Thus, while seams issues are broader than the concept of resilience, MISO is correct that the commission should not ignore the benefits of greater, more effective and efficient interregional cooperation in this proceeding."



Entergy said it saw no need for a federal role in determining the proper long-term resource mix — "at least in MISO."

The company called for resource adequacy to "continue to be a shared responsibility in MISO," with state and local regulators determining the fuel mix.

"In this way, state and local regulators ensure diversity of fuel resources consistent with each area's needs and those regulated utilities' customers bear the cost burden and the reliability and resiliency benefits of those local regulators' decisions," Entergy said. "Direct federal action to regulate the long-term resource mix also could jeopardize utilities' continued participation in MISO."

In a joint filing, the Coalition of MISO Transmission Customers and Illinois Industrial Energy Consumers said that resilience is already central to the RTO's reliability

assessments. "The commission should not carve out resilience and treat it as a discrete characteristic of wholesale electricity markets," they said, adding that any resilience requirements should be subject to cost-benefit analyses.



Northern Indiana Public Service Co. said that most grid innovation is happening with customer-owned technologies that connect at the distribution level, urging FERC to work with state regulators to address resilience "across the entire electric value chain." The company said that a "top-down, nationally focused approach could overemphasize one or two parts of the overall electric system" and fail to account for the adoption of storage devices, electric vehicles, microgrids and DERs.



Alliant Energy used its comments to call for modernizing the Public Utility Regulatory Policies Act and criticize qualifying facilities "that haphazardly site themselves on the grid, causing distribution system and system planning issues." Alliant said PURPA must be reworked to incent QF developers to concentrate on "system reliability and long-term grid stability."

SPP



SPP's Market Monitoring Unit emphasized the importance of creating standards and metrics to quantify and measure resilience.

"We recommend that in addition to defining resiliency, the commission and the parties should also engage in discussions to measure resiliency in order to assess whether an area has or has not attained resiliency. This measurement may also contribute in creating new market mechanisms to promote resiliency," the Monitor said.

It pointed to SPP's 30 to 36% capacity margins over peak needs but said that those high levels do not necessarily equate to resilience.

The MMU also said the resilience discussion should not be used "as a venue to pro-

mote certain price formation proposals."

CAISO



The California Public Utilities Commission said the state "has made substantial efforts to ensure grid reliability and resiliency by ensuring redundancy and coordination in its energy planning efforts," citing the deployment of distributed energy resources and smart inverters.

It also noted the state "continues to aggressively plan for a changing climate to ensure Californians have safe, affordable and reliable access to electricity."



Nevada Hydro, which develops pump storage projects, said CAISO's transmission planning process has fallen short in properly valuing hydropower. CAISO's "trans-mission economic assessment method (TEAM) has not fully applied the method to storage projects and has not quantified the grid reliability and resiliency benefits of the projects it has examined," the company said. It said FERC should direct RTOs to include pumped storage hydro in transmission studies and resource adequacy planning.



Southern California Edison said FERC should consider regional differences and costs. It said it shares CAISO's view that FERC's proposed definition of resilience is lacking.

It said the use of the term "disruptive events" is indistinguishable from "contingencies," which, per NERC reliability standards, refers to unexpected failures or outages of a [Bulk Electric System] component."

Contributing to this article were Robert Mullin, Jason Fordney, Amanda Durish Cook, Tom Kleckner, Michael Kuser, Rory D. Sweeney and Rich Heidorn Jr.

Oncor Financing Tamps down Sempra Earnings

By Jason Fordney



Financing costs related to the acquisition of Texas utility Oncor helped pushed Sempra Energy's earnings down by \$94 million in the first quarter compared with the same period last year.

The parent company of San Diego Gas & Electric reported net income of \$347 million (\$1.33/share), compared with \$441 million (\$1.75/share) in the first quarter of last year. Sempra closed on the Oncor transaction on March 9, the day after the Texas Public Utility Commission approved the \$9.45 billion all-cash deal. (See [Texas PUC OKs Sempra-Oncor Deal, LP&L Transfer.](#)) Sempra said it expects \$320 million to \$360 million in earnings from Oncor this year. Sempra funded the transaction with \$3 billion in equity and \$6.6 billion in debt. Sempra, which also owns Southern Califor-

nia Gas, earned \$2.96 billion in revenues for the quarter, compared with \$3.03 billion a year earlier.

SDG&E reported earnings of \$170 million in the quarter, compared with \$155 million in the same quarter last year, primarily because of changes in consumption patterns that affected electric distribution revenues this year and a lower tax rate, partially offset by a higher interest expense.

Like other utility interests in California, Sempra is focused on revising California's liability laws to reduce the risk and financial impact from wildfires, which have led to lawsuits and other financial woes as state investigators explore evidence that power lines caused the devastating and costly disasters.

Sempra CEO Jeff Martin, who replaced retiring chief Debra Reed on May 1, noted there are several pieces of legislation moving through committees in the California legislature. (See [Calif. Legislation Shields](#)

[Utilities from Wildfire Costs.](#))

"While the current text of the bills doesn't directly address inverse condemnation, we and other stakeholders are also looking to separately address this issue in Sacramento," Martin said.

Last November, the California Public Utilities Commission rejected SDG&E's request to recover from ratepayers \$379 million in costs related to 2007 wildfires. The ruling ignited a "three-pronged" — legislative, regulatory and legal — effort from the state's investor-owned utilities to change wildfire liability laws. The CPUC found that SDG&E had not properly maintained its system. (See [Besieged CPUC Denies SDG&E Wildfire Recovery.](#))

California's investor-owned utilities say climate change plays a large role in the increasing number and severity of wildfires, and they cannot be held solely responsible for the billions of dollars in related costs for the disasters.

COMPANY BRIEFS

GE, Alliant Announce Iowa Wind Farms with 470-MW Capacity



GE Renewable Energy and Alliant Energy announced May 8 that they are partnering on two wind farms in Iowa.

The projects will consist of 190 GE turbines for a total installed capacity of 470 MW that Alliant will own and operate. They are part of Alliant's plan to install up to 1,000 MW in wind capacity in Iowa by the end of 2020.

More: [GE](#)

Sierra Club Plans to Sue Power Plant over Emissions

The Sierra Club on May 9 said it intends to file a lawsuit against a coal-fired power plant in Cheswick, Pa., and NRG Energy, which owns the plant, for violating the

Clean Air Act and Pennsylvania State Implementation Plan.

The environmental group sent a notice of intent to sue to NRG, its Gen-On subsidiary and the Cheswick Generating Station. In it, the group said the plant isn't operating its pollution control scrubbers as much as it could and, as a result, is emitting excessive amounts of nitrogen oxides, which cause smog.

The Sierra Club also says the plant is allowing soot, coal dust and fly ash to travel off its property and into surrounding neighborhoods, in violation of the air pollution permit it received from the Allegheny County Health Department in November 2017.

More: [Statelmpact](#)

Beaver Valley Unit 1 Refueling Outage Shortest Ever

FirstEnergy Nuclear Operating Co. (FENOC) said its Beaver Valley Power Station Unit 1 in Shippingport, Pa., returned to service at 3:58 a.m. on May 10, following an April 15 shutdown for refueling and maintenance.

The FirstEnergy subsidiary said the 25-day



outage was the shortest in the plant's 42-year history, beating a 27-day refueling outage in 2004.

During the outage, FENOC said, approximately one-third of the unit's 157 fuel assemblies were exchanged and more than 6,300 work activities associated with inspections, preventive maintenance and improvement projects were completed.

More: [FENOC](#)

Entergy Says Actors Hired Without Its Knowledge

Entergy New Orleans said May 10 that a public relations firm working for it acted without its knowledge when it hired actors

Continued on page 40

COMPANY BRIEFS

Continued from page 39

to appear at hearings in support of Entergy's plan to build a \$210 million power plant.

The company's internal investigation found that Hawthorn Group, which provides it with consulting services, hired a company called Crowds on Demand to create the appearance of support for the plant.

Despite the admission, the New Orleans City Council said it will conduct its own investigation.

More: [The New Orleans Advocate](#)

Wind Catcher Gets Arkansas Approval, Waiting on Oklahoma

The Arkansas Public Service Commission has approved the \$4.5 billion Wind Catcher Energy Connection project, Southwestern Electric Power Co. said May 8.

The project is a joint effort between SWEPSCO, which will own 70% of it, and

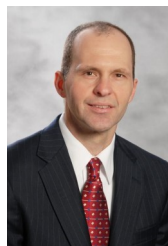
Public Service Company of Oklahoma, which will own the remaining 30%. It includes a wind farm in Oklahoma, a 350-mile power line and two substations.

The Oklahoma Corporation Commission hasn't approved the project and a spokesman for the commission said it doesn't have a timetable for reaching a decision on it.

More: [Enid News](#)

Exelon Names Nigro CFO, Promotes Others

Exelon said May 8 it has named Joseph Nigro senior executive vice president and CFO, succeeding Jack Thayer, who was named senior executive vice president and chief transformation officer. James McHugh, who is senior vice president of wholesale trading for Exelon's Constellation subsidiary, will replace Nigro as Constellation CEO and become an executive vice president of



Nigro

Exelon, serving on its Executive Committee.

More: [Exelon](#)

Santee Cooper Paid SCANA Bonuses on VC Summer

Santee Cooper paid nearly \$9 million of the bonuses received by SCANA executives and managers for their work on the companies' failed attempt to expand the V.C. Summer nuclear power plant, according to documents released May 9 by South Carolina Gov. Henry McMaster's office.

Santee Cooper, which is owned by the state of South Carolina, made the payments in response to bills that the investor-owned SCANA sent it. It stopped paying for the bonuses that SCANA executives and managers were receiving for their work on the expansion when it refused to pay a \$3.3 million bill SCANA sent it on Aug. 31, 2017.

SCANA sent that bill a month after the two companies had pulled the plug on the expansion.

More: [The State](#)

FEDERAL BRIEFS

House Votes to Continue Licensing Yucca Mountain

The House of Representatives on May 10 voted 340-72 to direct the Department of Energy to continue a licensing process for a permanent repository for spent fuel from the nation's nuclear power plants at Yucca Mountain in Nevada and also proceed with a separate plan for a temporary storage site in New Mexico or Texas.

The vote probably will be moot as both Nevada senators have vowed to block the bill and one, Dean Heller, is a Republican in a close race, so Senate Majority Leader Mitch McConnell (R-Ky.) is unlikely to try to advance the bill, as doing so would hurt Heller's re-election bid.

More: [The Associated Press](#)

EIA Expects Natural Gas to Increase Generation Share

The Energy Information Administration said May 8 that it expects the share of utility-scale electricity generation from natural

gas-fired power plants to rise from 32% in 2017 to 34% in both 2018 and 2019.

In its "Short-Term Energy Outlook," the EIA also said it expects coal's share of the country's generation mix to fall from 30% last year to 29% in 2018 and 2019.

The EIA said it expects nuclear generation, which provided 20% of the country's power last year, to provide the same amount this year and fall to 19% next year.

More: [EIA](#)

TVA Board Approves Fixed Fee for Wholesale Customers



The Tennessee Valley Authority's board of directors on May 10 approved charging the utilities that buy power from TVA a fixed fee equaling 6% of its overall

wholesale rate.

TVA said it will reduce the variable portion of its wholesale rate by 6%, so the change

will be revenue neutral.

Nonetheless, the change was opposed by small business and environmental organizations, with the Sierra Club saying it "will force customers to pay more on their electric bill before they even flip a switch."

More: [Memphis Flyer](#)

State, Local Attorneys Ask Court to Rule on CPP

Attorneys for 16 states, six cities and a county on May 9 asked the D.C. Circuit Court of Appeals to issue a ruling on the legality of the Clean Power Plan.

The court heard arguments in the case in September 2016, but President Trump took office before it issued a ruling, and attorneys for the Trump administration successfully asked it to hold off on issuing one to let the administration work through the process of repealing the rule.

The administration now wants the court to hold off another 60 days and the attorneys,

Continued on page 41

FEDERAL BRIEFS

Continued from page 40

led by acting New York Attorney General Barbara Underwood, are contesting its request.

More: [The Hill](#)

DOE Considering Defense Law to Help Coal, Nuke Plants



| House Science, Space and Technology Committee

Energy Secretary Rick Perry on May 9 told the House Science, Space and Technology Committee that the Trump administration is considering using the Defense Production Act to keep struggling coal and nuclear

plants operating.

The act, which was passed during the Korean War, could allow the administration to provide help to the power industry, specific power plants and/or regions in the name of national security.

“That’s approaching this from an economic standpoint and I think ... it’s about the national security of our country, of keeping our plants, all of them, online, being able to deliver energy” in an emergency, Perry said. “So, we’re looking at a number of ways to approach this. I know the Defense Production Act is one of those ways to address [it] that we’re looking at very closely as well.”

More: [The Hill](#)

McIntyre Says Law not Obvious Fit for Coal, Nuke Bailout

FERC Chairman Kevin McIntyre said May 10 that the Defense Production Act, which Energy Secretary Rick Perry is considering using to help struggling coal-fired and nuclear power plants, is “perhaps not the most obvious fit” for that purpose.

“I am sure DOE has a handle on that issue,”

McIntyre said in response to a question from a moderator at an energy conference put on by *The Washington Post*.

Sen. Martin Heinrich (D-N.M.), who spoke on a panel before McIntyre, said Perry’s proposal is “just not market-based” and is meant to bail out a “few uneconomic” power plants.

More: [Washington Examiner](#)

DOE Issues RFI for Development Of Small, Modular Coal Plant

The Department of Energy’s Office of Fossil Energy on May 8 issued a request for information for input on the development of small-scale, modular coal-fired power plants.

The department said it is seeking technical and market considerations to inform the research and development needed to support the design, construction and operation of a pilot version of a small-scale, modular coal plant.

The deadline for submitting responses is 8 p.m. EDT June 8.

More: [Department of Energy](#)

STATE BRIEFS

CALIFORNIA

CAISO Gives 50% Chance of Stage 2 Emergency this Summer



CAISO said May 9 in its annual summer forecast that there’s a 50%

chance it will have to declare a “Stage 2” emergency for the first time since 2007, in part because of a dry winter that has reduced hydropower output.

Under a Stage 2 emergency, customers that have signed up for incentive rates could be required to use less power during peak demand times, which typically are in late afternoon and early evening.

CAISO said there’s “an extremely low probability” that it will have to order rolling blackouts.

More: [The Sacramento Bee](#); [CAISO](#)

COLORADO

Xcel Gets More Time to File Generation Report

The Public Utilities Commission on May 9 gave Xcel Energy Colorado until June 6 to file a report detailing the generation sources it will use to meet future demand.

Xcel originally was supposed to file the report April 10, but the commission gave it until May 6. In granting Xcel permission not to file the report until June 6, the commission warned the company that it would not move the deadline back again.

Xcel said it needs more time to prepare the report because it is having trouble modeling how some of the renewable generation projects with the cheapest cost of producing power would fit onto its transmission grid.

More: [The Denver Post](#)

NEVADA

Valley Electric Association CEO Husted Resigns

Valley Electric Association said May 11 that CEO Thomas Husted has resigned “to pursue other interests.”

The Nevada electric cooperative said its board of directors has appointed Angela Evans interim CEO. Evans joined Valley Electric as executive vice president of operations in 2017 and previously has served as its acting COO.

More: [Pahrump Valley Times](#)

NEW MEXICO

PRC Sends Solar Farm Application to Hearing Examiner

The Public Regulation Commission on May

Continued on page 42

Connecticut Energy Bill Draws Mixed Reviews

Connecticut's General Assembly on Wednesday passed a bill that doubles the amount of renewable energy utilities must use to serve load — 40% by 2030 — while also revoking net metering guarantees that ensure rooftop solar owners earn retail prices for their excess electricity.

The bill now goes to Gov. Dannel Malloy, who said the legislation (SB 9) will help cut emissions and create “good jobs in the green economy, all while decreasing costs for ratepayers.”

The bill also extends \$8 million in renewable incentives for commercial users and allows them to sell their output to utilities

in 15-year contracts. The new law creates a 25-MW community solar program for residential customers who cannot afford to install their own solar panels.

Peter Rothstein, president of the Northeast Clean Energy Council, said in a statement that while the bill “contains a robust expansion of the state’s renewable portfolio standard,” it also includes “counterproductive provisions that will significantly harm the state’s rooftop solar market.”

Net metering “will essentially be dismantled,” Rothstein said.

A coalition of solar developers, solar proponents and environmental groups, including

SunRun, Vote Solar and the Connecticut Citizen Action Group, had also urged state lawmakers not to pass the law without amending its net metering language.

“Instead of restricting customers’ ability to choose solar and imposing a cap on solar investment, the bill’s community solar program should be strengthened to expand solar access,” the coalition said. “Rather than building Connecticut’s local clean energy economy, the current bill language puts the future of solar in Connecticut and thousands of jobs at risk.”

— Michael Kuser

STATE BRIEFS

Continued from page 41

9 voted 4-0 to send an application by El Paso Electric to build a 2-MW solar farm to a hearing examiner for further scrutiny after learning that the facility would be built by Affordable Solar, which has contributed to the re-election campaigns of commissioners Sandy Jones and Lynda Lovejoy.

Jones and Lovejoy last November cast two of the three votes needed to approve

Public Service Company of New Mexico’s purchase of five solar farms to be built by Affordable Solar for nearly \$73 million. A hearing examiner had recommended against approving the purchase.

El Paso Electric’s solar farm would cost \$4.52 million to build and require the company to spend another \$2.6 million on operations and maintenance, including outreach to potential buyers of power from the facility.

More: [Santa Fe New Mexican](#)

PNM Says Investigation into Coal Silo Collapse Unnecessary

The Public Regulation Commission doesn’t need to open a formal investigation into the March 17 collapse of a coal silo at the San Juan Generating Station, Public Service Company of New Mexico (PNM) said in a May 8 filing.

PNM said a formal investigation would delay repairs to the plant and possibly

Continued on page 43

STATE BRIEFS

Continued from page 42

require it to purchase more expensive power from other sources, hiking its customers' bills.

Nine advocacy groups asked the commission to open an investigation, with one saying PNM otherwise could use the collapse to make improvements to the plant that it would later ask the commission to have its customers pay for.

More: [Santa Fe New Mexican](#)

NEW YORK

NYSERDA to Provide \$10 Million For Clean Energy Projects

The New York State Energy Research and Development Authority said May 9 it is launching a pilot program called the Commercial and Industrial Carbon Challenge through which it will provide \$10 million for clean energy projects that reduce the carbon emissions caused by commercial and industrial buildings.

The program is meant to see if providing flexible uses of funding for clean energy projects is a more effective method of reducing carbon emissions than traditional state-supported programs, the agency said.

More: [NYSERDA](#)

Task Force: Entergy Should Sell Indian Point Property After Closure

The Indian Point Closure Task Force recommended May 9 that Entergy sell parts of the 240-acre property on which the Indian Point nuclear power plant is located to a developer soon after it closes the plant in 2021 so neighboring communities can begin recouping lost tax revenue.

The task force also recommended that the Hudson Valley Regional Economic Development Council set aside funds for attracting development to the communities around the plant and that Entergy use employees who will lose their jobs when it closes the plant to help dismantle the facility.

Gov. Andrew Cuomo created the task force about a year ago after Entergy said it planned to close the plant. The recommendations were contained in its annual report.

More: [The Journal News](#)

State to Install EV Charging Stations Along Thruway

Gov. Andrew Cuomo on May 9 announced a \$4.2 million plan to install more high-speed electric vehicle charging stations along the New York State Thruway.

Under the plan, the Thruway Authority will partner with the New York Power Authority to install fast-charging stations at

Thruway service areas and Thruway-owned commuter parking lots over the next two years.

When completed, the installation will allow EV owners to drive the length of the state without having to exit to recharge, Cuomo said.

More: [Gov. Andrew Cuomo](#)

PENNSYLVANIA

Judge Rules Transource Can Enter Properties to Survey for Tx Lines

A Franklin County court ruled May 8 that Transource Energy land agents can immediately enter county landowners' properties to perform surveying and testing for the Independence Energy Connection.

The ruling came after two days of hearings on the project, which would consist of two high-voltage transmission lines, one running 29 miles through Franklin County and the other running 16 miles through southern York County.

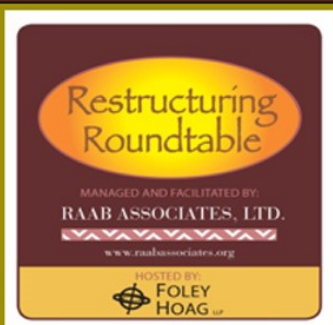
Residents of both counties have organized to fight the project. Transource sued 24 landowners in Franklin County and 36 landowners in York County to gain access to their properties.

More: [Public Opinion](#)

Continued on page 44

June 15, 2018

Save the date for a Special Roundtable:
Deep Decarbonization in the Transportation Sector



Stay tuned for more information & the opening of registration in early-to-mid-April

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

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

STATE BRIEFS

Continued from page 43

TEXAS

PUC Approves Changes Meant to Boost Smart Meter Portal Usage

The Public Utility Commission on May 10 approved a settlement agreement containing changes to the Smart Meter Texas portal that are designed to make it easier for electric customers to share the data about their power consumption that they can get from the site with companies that can help them interpret it and suggest actions that will enable them to save money.

The changes will make the portal more in line with national standards such as Green Button, which will make creating applications that use data from it easier for software developers.

The portal has been difficult for electric customers to use, which has led to only a small number taking advantage of the data

they can get from it to manage their power consumption.

More: [Solar Builder](#)

WASHINGTON

UTC Acknowledges Resource Plans, Calls for Fossil Fuel Scrutiny

The Utilities and Transportation Commission on May 7 formally acknowledged the updated 20-year energy resource plans for the state's three investor-owned electric utilities but called for greater scrutiny of the companies' plans for future investments in fossil fuel generation.

The commission directed Avista, Pacific Power and Puget Sound Energy to reconsider their reliance on coal-fired power plants and directed them to use a more robust cost-of-carbon estimate in future resource plans.

"It is imperative that utility planners recognize the risks and uncertainties associated with greenhouse gas emissions and identify a reasonable, cost-effective

approach to addressing them," the commission said.

More: [Utilities and Transportation Commission](#)

WEST VIRGINIA

Appalachian, Wheeling Power Seek Rate 7.85% Increase

Appalachian Power said May 9 that it and Wheeling Power filed a request with the Public Service Commission for a \$114.6 million revenue increase that would raise rates by 7.85%.

The company attributed half the requested increase to a significant decrease in the amount of power used by the two American Electric Power subsidiaries' customers.

It also said the increase is needed to cover the cost of infrastructure investments that the companies have made in generation facilities, their transmission systems and their distribution systems, including the underground distribution networks in Huntington, Charleston and Wheeling.

More: [Appalachian Power](#)

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

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