RTO Insider
Your Eyes and Ears on the Organized Electric Markets
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ISSN 2377-8016 : Volume 2017/Issue 9 February 28, 2017

Merger Hearings Over, PUCT and NextEra Ponder Oncor 'Deal-Killers'

By Tom Kleckner

Oncor CEO Bob Shapard (left) listens as NextEra Energy CEO Jim Robo address the PUC. | © *RTO Insider*

AUSTIN, Texas — The Public Utility Commission of Texas concluded four days of hearings on NextEra Energy's proposed $18.7 billion acquisition of Oncor on Friday with both regulators and the Florida company warning of potential "deal-killers."

The hearing concluded after NextEra's legal staff submitted into the record a revised list of regulatory commitments, which now number 72. The applicants, intervenors and commissioners briefly discussed minor revisions to the document before adjourning the hearing.

PUC staff and intervenors have sought to revise some of the company's earlier commitments, with staff expressing concerns over Oncor's existing debt, credit ratings, board makeup, budgets, dividend policies and ring-fencing measures.

CEO's Last-Minute Pitch

In a last-minute appearance before the PUC on Thursday, NextEra CEO Jim Robo said several of staff's revisions to the commitments would qualify as

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Stakeholders See Shortcomings in Western Interregional Tx Planning

By Robert Mullin

PORTLAND, Ore. — Stakeholders last week expressed concerns over how the Western Interconnection's four transmission planning organizations can align their separate regional processes to identify projects that could provide interregional benefits.

"I think we need to have a bit of a rethink about the relationship between planning processes — either at the planning regions or at [the Western Electricity Coordinating

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ISO-NE Begins Discussing Order 1000 Public Policy Tx Projects

By Rich Heidorn Jr.

New England's needs for energy infrastructure, which have been debated in the courts and state legislatures, moved to ISO-NE's Planning Advisory Committee last week as stakeholders began discussing the potential for major transmission projects under FERC Order 1000.

Although EPA's Clean Power Plan may be eliminated by the Trump administration, state clean energy goals could drive

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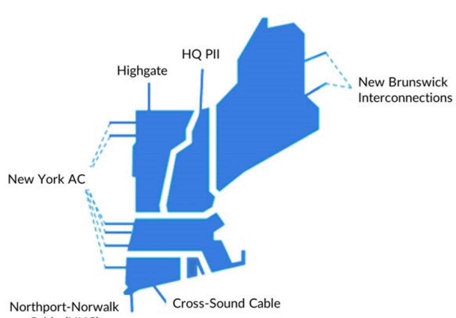

New England's external interfaces (HQ = Hydro-Quebec) | *ISO-NE*

Pruitt Meets the EPA

Reports: Trump to Propose 25% Budget Cut

By Rich Heidorn Jr.

WASHINGTON — Scott Pruitt had his coming out at the EPA last week, promising to root for the Washington Nationals, obey the rule of law and "be a good listener."

The new administrator took no questions following the 11-minute noontime speech Feb. 21.

Pruitt received an EPA lapel pin, an EPA baseball cap and a polite, partial standing ovation, as he was introduced as a father, husband, former state senator and a businessman — the former co-owner of the Texas

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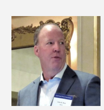

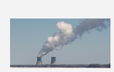

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Subscription Rates:

Payment Frequency	PDF-Only	PDF & Web
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Quarterly:	380.00	475.00
Monthly:	150.00	175.00

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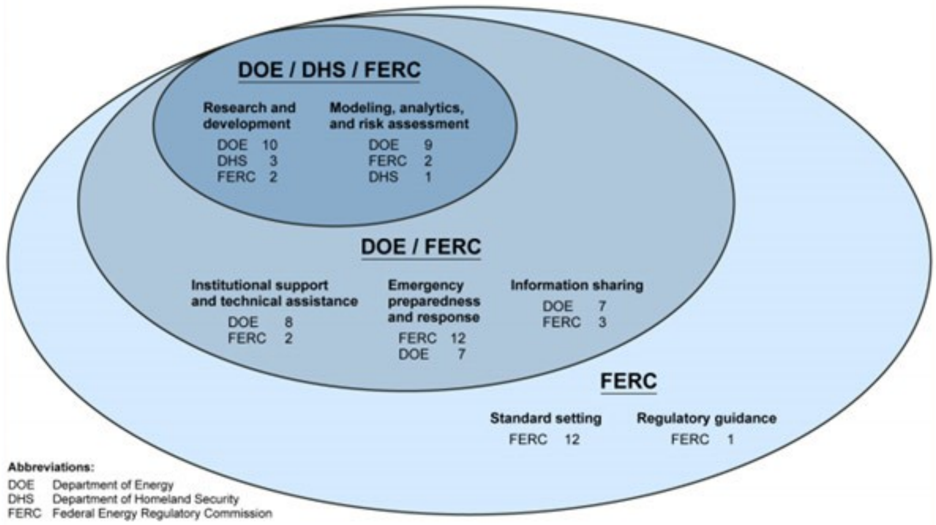
In This Week's Issue

Note:

RTO Insider will not publish its weekly newsletter next week (March 7). We will, however, still be publishing content daily on our website.

GAO Gives Good Marks to Federal Efforts to Safeguard Grid

By Wayne Barber



Overlap in federal grid resiliency efforts | *GAO*

The U.S. Government Accountability Office said last week it is satisfied that federal agencies are collaborating with each other on grid resilience and not duplicating efforts.

A GAO report released Friday, "Electricity: Federal Efforts to Enhance Grid Resilience," notes that the federal government has launched more than two dozen efforts and spent nearly a quarter billion dollars between 2013 and 2015 to improve the grid's ability to withstand everything from hurricanes and geomagnetic disturbances to physical and cyberattacks.

The Department of Energy, the Department of Homeland Security and FERC reported implementing 27 grid resiliency efforts since 2013.

The efforts addressed three federal priorities: developing and deploying tools to enhance awareness of potential disruptions; planning and exercising coordinated responses to disruptive events; and ensuring actionable intelligence on threats is quickly communicated between government and industry.

GAO concluded that the grid reliance efforts are not being pursued in silos and are stressing collaboration between federal agencies as well as states and private industry stakeholders. In researching the report, GAO not only surveyed federal officials, but also representatives of the Edison Electric Institute, American Public Power Association and National Rural Electric Cooperative Association, whose members own most of the grid.

"We have previously reported that fragmentation has the potential to result in duplication of resources," GAO said. "For example, fragmentation can lead to technical or administrative functions being managed separately by individual agencies, when these functions could be shared among programs. However, we also have reported that fragmentation, by itself, is not an indication that unnecessary duplication of efforts or activities exists."

GAO auditors did not find any instances of duplication among the 27 federal grid resiliency efforts. "None of the efforts had the same goals or engaged in the same activities," GAO said.

Of the 27 efforts, 12 were related to FERC's role in reviewing and approving mandatory NERC reliability standards. Cyberattacks were considered in 15 of the 27 programs, while physical attacks and natural disasters were addressed in 12. Operational accidents were analyzed in only five of the programs, GAO found. Federal funding for DOE and DHS grid resiliency activities from fiscal year 2013 through fiscal year 2015 totaled approximately $240 million.

Efforts Have Sparked Progress

Federal grid efforts have sped the development of new technologies and improved coordination and information sharing between the federal government and industry related to potential cyberattacks, GAO said. It cited Homeland Security's Resilient Electric Grid program, which developed a new superconductor cable that can connect several urban substations, mitigating disruptions by enabling multiple paths for electricity to flow if a single substation loses power.

Three DOE and DHS efforts addressed resiliency issues related to large, high-power transformers, but the goals were distinct. One effort focused on developing a rapidly deployable transformer to use in the event of multiple large, high-power transformer failures; another focused on developing next-generation transformer components with more resilient features; and a third focused on developing a plan for a national transformer reserve.

Homeland Security and Energy officials identified the Electricity Subsector Coordinating Council, an industry group, and the Energy Sector Government Coordinating Council as key mechanisms that help coordinate grid resiliency efforts. (See *Interdependence Key to Cyber Efforts, Congress Told* and *States Want Cyber Best Practices; Santorum Seeks 'Warriors'*.)

The GAO study was dated Jan. 25 and was initially presented to Rep. Don Beyer (D-Va.), the ranking member on the Oversight Subcommittee of the House Committee on Science, Space and Technology.

Pruitt Meets the EPA

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Rangers' AAA farm club in Oklahoma City. Because the Rangers are in the American League, Pruitt joked, he would feel no divided loyalties becoming a Nationals fan.

Pruitt was confirmed Feb. 17 on a largely party line vote. (See *Pruitt Begins Hostile Takeover at EPA*.)

His low-key speech did not mention any of the more than a dozen lawsuits he filed against the agency, including the one now pending against the Clean Power Plan, nor the executive orders President Trump is reportedly readying that would undo the CPP and one expected Tuesday requiring a review of the 2015 Waters of the United States rule. There was no hint of the 25% budget cut President Trump is reportedly proposing for the agency.

But without mentioning any specific targets, Pruitt gently lectured the approximately 75 EPA employees in the Rachel Carson Green Room that "process matters," saying the job of the regulator is "to give certainty to those that they regulate." He also criticized the use of consent decrees that he said bypass the Administrative Procedures Act, calling it "regulation through litigation."

Jefferson, Madison and Hamilton

Pruitt's address came the day before Oklahoma officials released thousands of emails illustrating a cozy relationship between the former state attorney general and energy companies.

Pruitt opened the speech by telling a story from Joseph Ellis' book "Founding Brothers" about how Thomas Jefferson, James Madison and Alexander Hamilton reached a deal over a bill authorizing the federal government to assume the states' debts. Pruitt recounted how Madison and Jefferson agreed over dinner to Hamilton's plan — in return for a promise to move the capital from New York to the banks of the Potomac.

Pruitt said the anecdote was meant to harken days when compromise was possible, contrasting it with the "very toxic environment" he said dominated the country now.

"I seek to be a good listener," he promised. "You can't lead unless you listen."

He also quoted from Daniel Hannan's "Inventing Freedom," to highlight the principle that "process matters."

"Regulations ought to make things regular. Regulators exist to give certainty to those that they regulate. Those that we regulate ought to know what's expected of them so that they can plan and allocate resources to comply. That's really the job of the regulator," he said.

'Informed Decisions'

Pruitt said following the proper processes "sends a message that we take seriously our role of taking comment and offering response and making informed decisions." In oral arguments over Pruitt's challenge of the CPP in September, EPA had defended its outreach, saying it received 4.3 million comments and held more than 600 meetings with stakeholders during the rulemaking. (See *Analysis: No Knock Out Blow for Clean Power Plan Foes in Court Arguments*.)

The new administrator also said rulemaking "needs to be tethered to the statute."

"The only authority that any agency has in the executive branch is the authority given to them by Congress. Sometimes those authorities are broadly stated, giving much discretion to agencies … but other times Congress has been very prescriptive … we need to respect that."

Pruitt also said the agency should see itself as a "partner" with state regulators "and not adversaries."

He closed the speech by quoting Sierra Club founder John Muir's observation that man "needs beauty as well as bread," insisting that one can be "both pro-energy and jobs and pro-environment."

In his confirmation hearing in January, Pruitt had defended letters he sent to EPA and other federal officials — on state government stationary and signed by him — that had been authored by oil and gas companies, saying he was representing the state's interest because the industry is responsible for one-quarter of the state's budget.

Sierra Club Executive Director Michael Brune did not appreciate the shout out to his organization's founder. "John Muir is rolling over in his grave at the notion of someone as toxic to the environment as Scott Pruitt taking over the EPA," he said in a statement.

Confronting the Bureaucracy

Pruitt's plans for the agency are certain to be met with skepticism, if not hostility, by many in the EPA bureaucracy.

John O'Grady, an EPA environmental scientist who leads the union that represents 9,000 EPA employees, told *The Guardian* that Pruitt's remarks came across "very professionally and conciliatory. He didn't come out heavy handed."

Pruitt

"Mr. Pruitt isn't a proponent of addressing climate change or of a strong EPA, so it won't surprise me when they start to whittle away at what we do as an agency," O'Grady added. "I'm wondering when the hammer is going to fall."

Before Pruitt's confirmation, dozens of EPA employees took part in a lunch hour rally outside the agency's Chicago regional headquarters opposing his appointment. More than 400 former EPA officials signed a letter to Congress also seeking to block him.

But the new administrator is doing his best to wrest control of the agency. Immediately following his confirmation, EPA issued a press release quoting elected officials and industry leaders celebrating him and criticizing the agency's "harsh regulatory overreach," "runaway bureaucracy" and "toxic regulatory environment." Rep. Jim Bridenstine (R-Okla.) was quoted calling EPA "one of the most vilified agencies in the 'swamp' of over-reaching government."

The EPA workforce would be far smaller, if Trump has his way. The president will reportedly call for a 24% cut in EPA's budget, part of broad cuts in domestic spending intended to fund increases in defense outlays.

EPA's budget would be cut by $2 billion to $6.1 billion, according to news reports, with staff cut to 12,000 workers from 15,000.

The cuts would be far deeper than Congress has proposed, reducing EPA's budget to its lowest level since the early 1990s and its staffing to the lowest since the 1980s. The House Appropriations Committee in 2015 called for reducing the agency's funding by only $718 million.

Trump officials have said they will not slash the 40% of the agency's budget that is sent to state, tribal and local governments as environmental grants. That means the cuts would fall more heavily on programs protecting air and water.

"We have real doubts that can be done without substantially weakening the ability of EPA to respond to environmental problems and to carry out its core functions that are all established in law," John Coequyt, global climate policy director for the Sierra Club, told Bloomberg.

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CAISO News

CAISO Stakeholders Seek Clarity on Black Start Procurement Plan

By Robert Mullin

CAISO market participants continue to seek more details about an "expedited" ISO proposal to procure black start resources.

During a Feb. 21 call to discuss the plan, stakeholders pressed ISO staff to provide more specific information on the expected technical requirements for black start units, how the procurement process would play out and the contract terms for selected resources.

The ISO developed the proposal after identifying a need for additional black start resources in the transmission-constrained San Francisco Bay Area, which falls within Pacific Gas and Electric's service territory. (See *CAISO Kicks off Initiative to Procure Black Start Resources*.)

CAISO's draft plan envisions significant collaboration between the ISO and an affected transmission owner to develop the specifications describing the requirements and selection criteria for the black start resource in the procurement process. The ISO would approve or reject the TO's recommended resources. (See *CAISO Proposes TO-focused Black Start Procurement*.)

Ellen Wolfe, president of Resero Consulting, sought to know more about the history of black start procurement in California, questioning why CAISO was developing a new process.

"Historically, [TOs] have developed the restoration plans — is that correct?" Wolfe asked.

Neil Millar, CAISO executive director of infrastructure development, confirmed that utilities previously were solely responsible for devising black start plans. With the creation of CAISO, system restoration took on a collaborative approach in which the ISO "accumulates, reviews and can modify" plans if it identifies shortcomings.

"So it's a layered approach, with the [TOs] taking a first cut and then the ISO looking at the aggregate of the various restoration plans and reviewing to make sure that there are adequate black start resources available," Millar said, noting that the requirement for developing plans is now a "shared responsibility."

San Francisco skyline

Millar added that the ISO's tariff allows for the acquisition of additional black start resources if needed.

"That's the direction we see needing to move, but the question is how do we go about doing that and where should those costs actually fall?" he said.

Wolfe turned her focus to the proposed collaborative procurement process itself, asking whether the affected TO would get just the technical information from a resource bidding as black start capable, or cost information as well.

"We're expecting that [the TO] would get all that information" from the bids, said Scott Vaughan, CAISO lead grid assets engineer. "Then they would provide a recommendation to the ISO and we would look at the analysis and either agree or not."

Wolfe asked if the TO would effectively be acting as the "agent" for all the load-serving entities within its territory "in terms of making prudent financial choices as well."

"The one point that we want to be clear on is that the ISO is ultimately procuring the additional service under our Tariff, so while we're looking for the heavy participation of the [participating] TO to sort out which is the best resource, we ultimately have to wear our procurement decision," Millar said.

Paul Nelson, electricity market design manager at Southern California Edison, sought more specifics on the potential length of the contracts and wondered whether entering multiyear arrangements with generators marked a "new area" for the ISO.

"Is this something you've done in the past?" Nelson asked.

CAISO currently has multiyear contracts for black start capability with TOs and generators, but they offer no compensation, explained Andrew Ulmer, the director of federal regulatory affairs at the ISO.

"So it's a little different, because we're talking about contracts with non-zero price terms now and figuring out a way to address that fact and allocate costs," Ulmer said. "But [there is] no real difference in the structure of the contracts we have today."

Ulmer added that the ISO is specifically seeking stakeholder feedback on the terms of the contracts.

Brian Theaker, director of market affairs at NRG Energy, asked if CAISO expected to publish a list of resources capable of meeting the black start requirements in the San Francisco area before conducting the solicitation.

"I think our expectation was that we would be able to define geographically the area that would help us meet the requirement, and that the generators themselves would be able to decide whether or not they were in or out," Millar said.

Theaker raised the potential for a conflict of interest in the procurement.

"Is it possible that PG&E — in addition to being an entity that would review the offers into the solicitation process — would also be a party that would be participating in the solicitation process?" he asked.

Millar said it could happen, but it was unlikely because any black start-capable resource already owned by the utility is probably already included in the system restoration plan. "I think we'll take your point that there needs to be some check and balance on a potential conflict there," Millar added.

Alan Wecker, market design analyst at PG&E, said his company is "thinking through" the conflict-of-interest issue to ensure that it develops "walled-off procedures similar to how we run our [requests for offers] — such as the storage RFO — where we have our utility side participating as a bidder."

CAISO is leaning toward a cost-of-service approach for compensating generators rather than providing a capacity-type payment sufficient to support the operation of an otherwise unprofitable resource. Under the current proposal, contracts — in which the ISO would be the counterparty — would run either five or 10 years with a clause re-

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CAISO NEWS

Stakeholders See Shortcomings in Western Interregional Tx Planning

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Council] — [and] the interregional coordination process" among the four Western planning groups, Fred Huette, senior policy associate with the Northwest Energy Coalition (NWEC), said during the Western Planning Regions' annual interregional coordination meeting.

The Feb. 23 meeting brought together stakeholders and representatives of CAISO, ColumbiaGrid, Northern Tier Transmission Group (NTTG) and WestConnect to discuss interregional coordination under FERC Order 1000. The order requires transmission providers to participate in a planning process that identifies the most cost-effective solutions to transmission needs and allocate costs based on estimated benefits.

No Interregional Projects Identified

In the 2016/17 planning cycle, the four groups have not identified any interregional projects driven by regional needs. Like most parts of the country, the West is experiencing stagnant or declining loads. None of the regions declared a reliability, economic or public policy requirement for any transmission projects, let alone one that crosses regional seams.

NTTG and WestConnect received submissions for three interregional projects — SWIP-North (Western Energy Connection), Cross-Tie (TransCanyon) and TransWest Express (TransWest Express) — intended to move renewable energy from the inland West toward California. The projects are based on the prospect that California will need more renewables, but no requirement has been identified yet.

All three are seeking cost allocation through WestConnect. NTTG said Western Energy Connection did not submit details on SWIP-North in time to be considered for cost allocation during the current cycle, while the other two projects have not sought allocation.

"The conclusion that came out of [the study process] is that our draft regional plan will support the addition of any one of those interregional projects, but those interregional projects are not necessary to satisfy NTTG's needs," said **Craig Quist**, PacifiCorp director of area transmission planning and vice chair of the NTTG Planning Committee.

'Areas of Concern' Dissolved by Load Reductions

Larry Furumasu, senior planning engineer with ColumbiaGrid, said his group's study showed that 15 previous "areas of concern" within the Pacific Northwest were ameliorated by load reductions last year.

Neil Millar, CAISO executive director of infrastructure development, said the ISO's transmission plan this year is a "bit unique in being so light." He said loads are declining because of increased behind-the-meter generation — largely rooftop solar.

"We think we've at this point exhausted economically driven transmission opportunities," Millar said. "So we're really at a bit of a calm before the storm until we move forward with transmission planning to address broader renewable portfolio standards, with [California's] 50% by 2030 goal in particular."

'Big Picture' on Economic Upgrades

On the theme of economically driven projects, Ellen Wolfe of Resero Consulting asked WestConnect a "big picture" question: How is a project determined to be "economic?"

Wolfe posed the actual case of a CAISO transmission path in Valley Electric Association's Nevada service area that rings up about $60 million worth of congestion annually in the export direction. The ISO has little motivation to relieve the constraint because the trapped generation means lower costs for California consumers, although in-state renewables are more likely to be curtailed.

"So Nevadans would actually win if this constraint was relieved, because they would see this renewable energy flow to Nevada," Wolfe said, asking how such a project would get identified and paid for if the ISO was not motivated to do so. "I didn't see in [WestConnect's] study description how that kind of project would pop up. It's really a project in the CAISO footprint that would benefit WestConnect."

Kegan Moyer, a consultant representing WestConnect, said he wasn't familiar with the constraint in question, but that "high levels of congestion on a regionally significant element" would prompt the group to

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CAISO Discusses Black Start Plan

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quiring one year's notice for termination.

On the issue of cost allocation, Wolfe asked if ISO staff had considered collecting the costs through CAISO's transmission access charge. The ISO has proposed having individual TOs recover the expense from its customers through its reliability services rate schedule.

Ulmer said staff had considered the TAC alternative, and that the Tariff would allow the ISO to "peanut butter" the cost across all scheduling coordinators.

"But if we wanted to step back and make a more geographic, precise allocation of these costs, would that mechanism meet that requirement? We don't think it would," Ulmer said.

The ISO is seeking comments on the black start procurement proposal by Feb. 28 and plans to issue a draft final proposal by March 14. ISO management expects to submit a final plan to the Board of Governors approval in May.

CAISO NEWS

Stakeholders See Shortcomings in Western Interregional Tx Planning

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explore potential upgrades. He noted, however, that there is "very, very little" congestion within WestConnect, a U-shaped region that includes all or most of Nevada, Arizona, New Mexico, Colorado and Wyoming.

Wolfe pressed her point.

"So that's the question: If the constraint's not in WestConnect, but it benefits WestConnect [to relieve it], how does anyone ever decide to relieve it?" she asked.

Moyer replied that WestConnect would not have the "purview" to plan within the Valley Electric system.

"It seems like a great project for interregional coordination, but I don't really see how it gets actually coordinated," Wolfe said.

Inherent Challenges

Dave Smith, director of engineering and operations at TransWest Express, wondered what is preventing the current interregional planning process from performing more like a regionalized process that would come about with the expansion of CAISO into PacifiCorp's territories and other parts of the West.

CAISO's Millar pointed to the inherent challenges of having multiple organizations work together on a project-by-project basis as opposed to a more "coordinated, programmatic" approach under a single organization.

"I don't believe the ISO message is that the interregional process flat out won't work, but we do [have] a higher … expectation for success on an opportunity in a broader footprint as opposed as to having to move through all the different reviews [and] approvals," Millar said.

"I think one of the biggest challenges with regards to interregional transmission projects is that they're all tied to the regional process," Moyer said. "And for an official [interregional transmission project] evaluation to really have full meaning behind it, there has to be a regional need identifying each of the applicable regions."

Solution?

NWEC's Huette offered a possible solution: that the four organizations consider more closely coordinating their regional planning processes, rather than just collaborating on the interregional process. The theory: Interregional projects could be the most cost-effective way to collectively serve regional needs, which are currently identified through discrete, if not isolated, regional processes.

"If we get too process-bound here, I think we may lose some opportunities or delay some opportunities that might be worth looking at," Huette said.

Smith said it would be helpful to have some kind of scorecard showing where each group is in its evaluation of an interregional project. "You all say it's in different places, but where is it?" Smith said.

Allocating Costs, Calculating Benefits

Smith also contended that the planning groups should start thinking about cost allocation, perhaps drawing up a sample project to demonstrate how costs would be shared according to benefits.

"I would encourage that this group move forward with those discussions. …Waiting for the next annual meeting is a long time away for that discussion," he said.

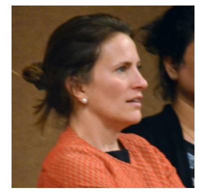
"All four regions … we have a common tariff," ColumbiaGrid President Patrick Damiano responded. "There is a common tariff language framework that's been approved through FERC that talks about how cost allocations take place for interregional transmission projects."

"Everybody won't be adopting California's [cost allocation], if that's what you're asking," PacifiCorp's Quist told TransWest Express' Smith.

Gary DeShazo, CAISO director of regional coordination, said he didn't think the issue was so much cost allocation but rather how to calculate the benefits of a project.

"You can't do cost allocation unless everybody can agree to the benefits," DeShazo said. "So if you've got four different ways to calculate the benefits across the four different planning regions, then there will be questions asked. Am I paying more from this project than I should be?"

Non-Transmission Alternatives



Julia Prochnik, director of western regional grid planning with the Natural Resources Defense Council, said she saw no mention of non-transmission alternatives in the groups' presentations. "I know that right now that there wasn't any identification of need in regional plans, but it would be something nice for the future to see how some of these other components could address different scenarios," she said.

Damiano explained that ColumbiaGrid has a complex mix of FERC-jurisdictional, federal and municipal members — with only its FERC-jurisdictional members subject to Order 1000.

"We didn't identify any Order 1000 need, so there was no reason to look at non-wires alternatives under Order 1000, at least for ColumbiaGrid," Damiano said.

CAISO's Millar joked that he was "crushed" that Prochnik didn't see his reference to non-transmission alternatives buried in his slides.

"But we do look for those solutions and we do have a separate section in the transmission plan now where we identify all the places [where] we are already relying on the emergence of preferred resources," he said, referring to non-emitting generation.

As the meeting wrapped us, Huette raised the need for stakeholders to be kept regularly informed about the interregional planning process, even if not required to be part of every step of the process.

"I'm not asking for a lot here," he said. "I'm not asking for every single detail, but I think it would be helpful for those of us not involved in those discussions to hear a bit more about what is happening on the interregional level among the four planning regions during the year."

ERCOT News

Merger Hearings Over, PUCT, NextEra Ponder Oncor 'Deal-Killers'

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"burdensome conditions" or "deal-killers."

He said a number of the changes would affect how credit rating agencies viewed the deal, a point Mark Hickson, the company's executive vice president of corporate development, strategy and integration, made frequently to the commission earlier in the week. (See *NextEra Still Faces Skepticism over Oncor Acquisition* and *NextEra CEO Crashes PUC Hearings on Oncor Acquisition*.)

Robo told the commissioners he wanted to address "head-on" issues raised during the first two days of hearings on the acquisition (Docket 46238), which he said he had watched online.

Texas vs. Florida

Having heard concerns from the commissioners over Oncor's potential out-of-state ownership, Robo played up his Texas ties. Robo noted his wife grew up in Dallas, their marriage took place in Dallas and his many in-laws in the state include the mayor of Waco (Kyle Deaver). He also noted that NextEra has invested $8 billion in Texas through various subsidiaries.

"There's been a lot of talk and discussion about how Oncor is a gem, and I couldn't agree more," Robo said. "I've been very clear … I love the Oncor management team. I've asked every one of them to stay. I do know this: As good as Oncor is, as terrific a company as NextEra is, we will be a better utility together. That's my vision."

Robo said Oncor and NextEra's utility, Florida Power & Light, will be able to share best practices, benefiting both of them. Oncor CEO Bob Shapard's "team will teach us things; we'll teach Bob's team things. We'll be a better company going forward," he said.

PUC commissioners began the hearing last Tuesday by peppering Shapard with questions about whether Oncor would approve of being managed by a Florida company with a reputation as an aggressive competitor.

"A broad concern in the pink building," Commissioner Ken Anderson said, referring to the nearby state Capitol, "as well as with the stakeholders, is that [NextEra is] not known as being wallflowers. Even early on in this process, they have gently reminded us that [our approach] wasn't the right approach."

Anderson

Shapard worked hard to allay the PUC's concerns.

NextEra is "trying to show they're listening," he said. "They're trying to convince you they're listening to other parties." As the owner of FP&L, NextEra is the largest investor, employer and taxpayer in Florida, a position it has vigorously protected, Shapard acknowledged.

"When they first came in [to Texas], they thought this market was like Florida, but it's not," Shapard said. "I think Jim will trust us to handle business in Texas."

Ring Fencing

Robo also addressed the commissioners' concerns over NextEra's unregulated businesses, citing his "very clear business strategy of de-risking" them. He also said NextEra would not try to pass on affiliate costs from its subsidiaries in Oncor's upcoming rate case. "Our intention is not to layer costs on Texas customers," he said.

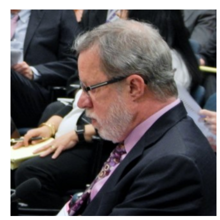
NextEra and Oncor say the ring fence proposed in the acquisition is sufficient. PUC staff and intervenors Texas Industrial Energy Consumers (TIEC), the Texas Office of Public Utility Counsel and the Steering Committee of Cities Served by Oncor are pushing for stronger protection.

Staff said the acquisition would be "funded with high levels of debt that would significantly increase NextEra Energy's debt as a percentage of total capitalization, while removing the protective ring fencing currently protecting Oncor."

The changes "would expose Oncor to the substantial risks of NextEra Energy's nonregulated businesses, which carry much more risk than that of a [transmission and distribution] utility," staff said.

A strong ring fence has been credited with insulating Oncor from its unregulated generation and retail energy affiliates when a Chapter 11 bankruptcy took down Energy Future Holdings, the company formed by private equity investors following a leveraged buyout of TXU Corp. in 2007.

PUC staffer Stephen Mack said there was no disputing that the ring fence around Oncor has served its purpose and the risks to the company are lower than if it had been exposed to the "EFH family." Oncor has "maintained a strong credit rating, and it cares deeply about maintaining that credit rating," Mack said.



Gay

Attorney Geoffrey Gay, representing cities served by Oncor, noted that when Hunt Consolidated withdrew its offer for Oncor last year, the utility was still able to reach out to 18 other entities to gauge their interest. "That tells me the industry in general recognizes Oncor is a gem," Gay said. "It's worth a lot, and its ownership will be beneficial to whoever acquires it."

Board Makeup

The makeup of Oncor's board of directors is one of the central points of contention. NextEra has committed to an Oncor board composed of 11 people, with three designated as "disinterested directors" and four independent from NextEra and its subsidiaries.

The company has promised to maintain Oncor's independence by placing Texas residents and independent directors on the utility's board. Shapard would chair, with General Counsel E. Allen Nye Jr. succeeding him as CEO. Nye is the son of former TXU CEO Erle Nye, who retired from the company before the 2007 buyout. (See *NextEra Energy Talks Up its Oncor Acquisition*.)

Robo told the PUC that changes to the

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board composition, or any of about a dozen other commitments, would be deal-killers.

"I appreciate you coming in and being so frank," Commissioner Brandy Marty Marquez said.

"I feel very strongly that when we make commitments, we'll do what we say," Robo responded.

NextEra says it needs to maintain control over Oncor's board to ensure its ability to appoint or remove the utility's directors. The company said that is a fair trade-off for lending its A- credit rating and $59.2 billion market capitalization to help Oncor eliminate the more than $11 billion in debt left by EFH.

The Texas entities don't see it the same way. TIEC submitted testimony from Charles Griffey, a former executive with Houston-based Reliant Energy, who offered a number of recommendations, including a requirement that all the board members be Texas residents.

"The TIEC members represent billions of dollars captive to Oncor that could be harmed if this doesn't turn out well," said the TIEC's legal counsel, Phillip Oldham. "Our group requires us to kick the tires, look under the hood and see how much stress this situation can endure.

"We ask you to take a hard look at that issue in particular," he said. "Our desire is to ensure Oncor is protected and continues to do the job it's been doing, even if there are problems with the parent."

Oldham

Debt Overhang

Oldham also said NextEra is not really "extinguishing" Oncor's debt, a position with which Anderson agreed.

"That's not really correct," Anderson told an Oncor panel of witnesses. "It's being refinanced. Whatever the amount and however you describe it, what they're really doing is spreading the peanut butter over a bigger piece of bread."

Hickson said that NextEra has $12.2 billion in funding for the transaction — $9.8 billion for an 80% interest in Oncor and $2.4 billion for a 20% interest in various holding companies.

He agreed that the full debt would not transfer to NextEra, saying the company would assume only $6.5 billion, in line with its 60/40 debt-to-equity ratio.

"We have said we are going to finance this transaction in a way that allows us to maintain our strong credit rating," Hickson said. "We are laser focused, as we always have been as a company, in maintaining our credit metrics, which means maintaining our target metrics."

Hickson pointed Anderson to commitment No. 71, which requires NextEra and its subsidiaries to "provide advance notice of their corporate separateness to lenders on all new debt."

Anderson expressed concern during the week about the ability of NextEra's affiliates to collect expenses from Oncor.

"I haven't decided what I think about it completely yet," Anderson said. "Where we've talked about federal tariffs, it's not going to be sufficient for me. I'll come up with the language, but this falls pretty close to being a deal-killer for me."

"We know what your deal-killers are; we just haven't determined what ours are," Chairman Donna Nelson said, referring to herself and Marquez.

Not on the Record

Robo did not testify on the record Thursday and was not made available for comment afterward. He answered the commissioners' questions in what was an "emergency" open meeting of the PUC — framed as an opportunity to visit with the commissioners and

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Commissioners Ken Anderson, Donna Nelson and Brandy Marty Marquez. | © *RTO Insider*

ERCOT TAC Endorses Change to Unregistered DG Reporting Requirements

The ERCOT Technical Advisory Committee on Friday unanimously endorsed a revision to the Commercial Operations Market Guide (COPMGRR044) that aligns with a previously approved protocol change.

Nodal Protocol Revision Request 794 was approved by the Board of Directors on Feb. 14 and by the TAC in January. It moves reporting requirements for unregistered distributed generation from the Commercial Operations Market Guide to the protocols.

The vote was conducted by email after the February TAC meeting was canceled.

— Tom Kleckner

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get to know them better.

"We envision [Robo's] discussion as a statement of opportunity and to discuss the company's position," said NextEra's lead legal counsel, Anne Coffin. "It's no different than calling people up before regular open meetings. It's not evidence; it's simply dialogue."

Attorneys for the intervenors declined an opportunity to put Robo under oath, agreeing to expedite the hearings by having their witnesses respond to Robo's comments following the open meeting.

Attorney Matt Henry huddles with Oncor witnesses (from left to right) Stephen Ragland, David Davis, Bob Shapard and Jim Greer. | © *RTO Insider*

April 29 Deadline

The PUC is scheduled to next take up the case at its March 30 open meeting. It has an April 29 deadline to issue an order.

"I have found this entire process, the intervenors, the staff … to be extremely informative to us," Hickson said. "We have learned so much since July 29 [when the company's deal with EFH was announced]. We have a lot of very thoughtful participants in this room. It has shown us time and time again we haven't been able to think of everything on our own. We have been continuing to welcome that input. It's been very helpful in getting us to where we are today."

The PUC's approval would end EFH's nearly three years in bankruptcy. What's left of TXU has already spun off its Texas competitive businesses — power generator Luminant and retailer TXU Energy — as standalone companies.

On Feb. 17, a U.S. bankruptcy judge in Delaware accepted EFH's plan after the company said it had resolved a final dispute, with noteholders agreeing to modify what they were owed. The settlements were with two creditor groups, who were offered 95% or 87.5% of their make-whole claim premiums, in addition to full principal and interest. The groups had been seeking about $800 million.

ISO-NE NEWS

ISO-NE Begins Discussing Order 1000 Public Policy Tx Projects

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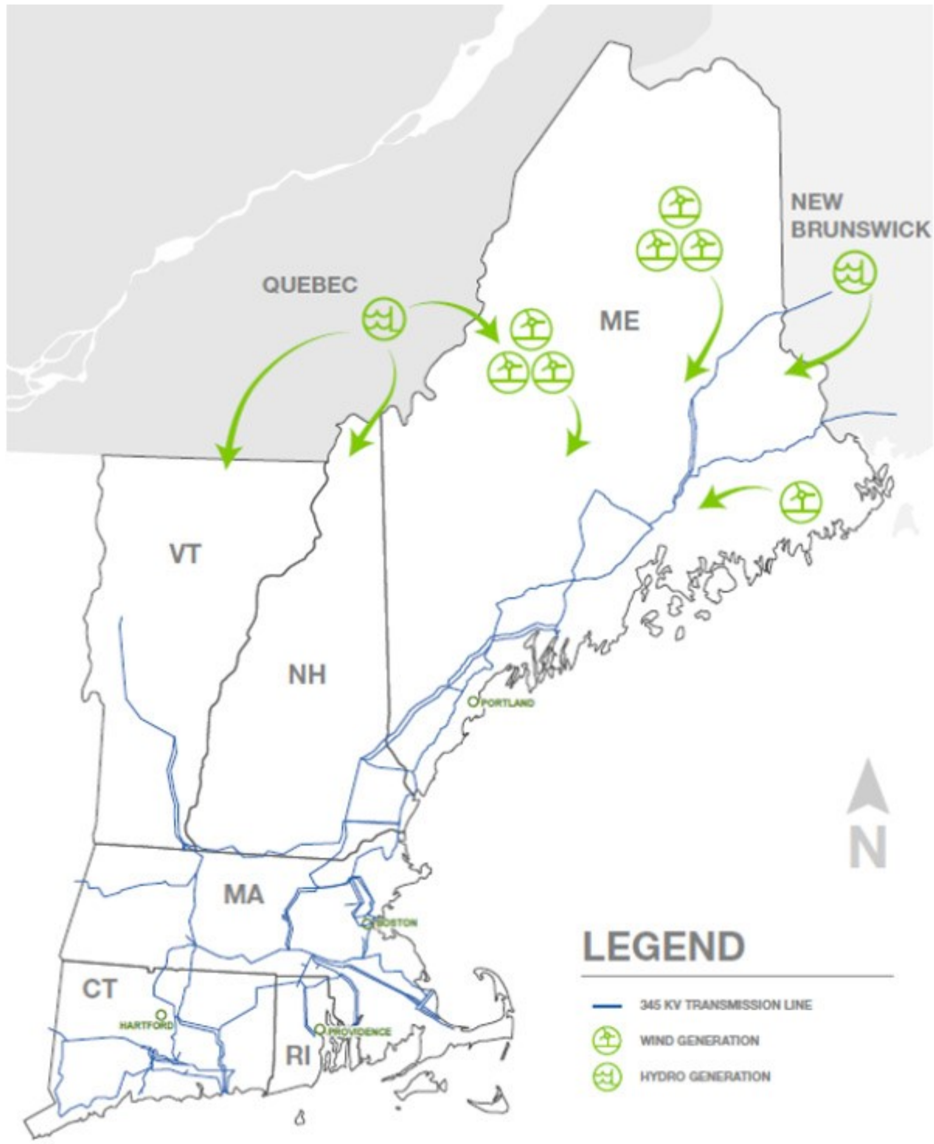
projects that deliver Canadian hydro and wind power from Maine and the Atlantic Ocean. Order 1000 requires public utility transmission providers to consider "transmission needs driven by public policy requirements [PPR] in both the local and regional transmission planning processes."

ISO-NE last month invited stakeholders to identify public policies that could drive transmission needs, in compliance with the FERC rule. Stakeholders had until Feb. 25 to submit their ideas. (The RTO will post the proposals by March 3 on its Public Policy Transmission Upgrades page.)

At the PAC meeting Thursday, the Conservation Law Foundation and Avangrid outlined the policies they believe ISO-NE should consider, prompting a debate with the New England States Committee on Electricity (NESCOE) over FERC's and the RTO's jurisdiction.

"This is a very important program and crucial to both the states' and [ISO-NE's] ability to meet their obligations in this area," said David Ismay, senior attorney for CLF.



ISO-NE transmission needs for public policy | *Avangrid*

Public Policy Drivers

Ismay outlined potential transmission upgrades resulting from:

- State renewable portfolio standards, which will require about 20% of ISO-NE load to be served by renewables by 2030;
- The 2016 Massachusetts Energy Diversity Act, which mandates procurement of 9.45 TWh of hydro or hydro and RPS by 2022 and 1,600 MW of offshore wind by 2027; and
- The Massachusetts and Connecticut Global Warming Solutions Acts of 2008, which require 2050 statewide emissions limits at least 80% below 1990 (Massachusetts) and 2001 (Connecticut) levels.

Ismay said ISO-NE's 2016 Economic Study — still in development — and the 2015 Economic Study: Evaluation of Offshore Wind Deployment indicate the scale and type of upgrades that could meet the RPS targets and import large amounts of Canadian hydro and offshore wind.

Those studies identified transmission to eliminate bottlenecks between load and wind resources in Maine; a project for moving Canadian hydro to Southeast Massachusetts (SEMA); and transmission to SEMA from the Rhode Island/ Massachusetts Wind Energy Area designated by the Bureau of Ocean Energy Management.

"We think there is a need for a north-south connection from Canada, from Maine, from both of those perhaps, to the SEMA load zone and this is a need that has been much discussed," Ismay said.

Ismay said the RTO should conduct a transmission study to identify "a range of cost-effective" upgrades able to satisfy the state initiatives, adding "I'm sure there's other ways to do it" beyond those identified in studies to date.

'Could This Go Anywhere?'

"All well and good," one stakeholder

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responded when Ismay finished his presentation. "But if the states have no agreement as to cost sharing, could this go anywhere at all?"

"The way I read the language that's already in the Tariff and the way I read the FERC orders, this is a process that already has cost allocation in the Tariff for it," Ismay answered. "The cost allocation can potentially be modified if the states reach agreement, but it's not dependent on the states reaching an agreement. As the Tariff and the last order from FERC currently stand, it's clear that this is an ISO process — not one that the states may wholly control but one that they absolutely may contribute to and may drive."

Dorothy Capra, director of regulatory services for NESCOE, disagreed with Ismay's interpretation.

"I don't want to get into a legal argument here, but let's just say NESCOE disagrees with the way CLF is interpreting Attachment K," she said, referring to the section of ISO-NE's Tariff governing the regional system planning process. "We believe that the states do have the right to say whether or not their policies actually require transmission."

Ismay acknowledged states can challenge public policy declarations. "Say a stakeholder other than the state identifies a valid PPR … and the states say, 'You know that second one? We're good. We'll show you how this doesn't impact regional transmission.' I would expect [ISO-NE] to consider that and to weigh that in its assessment," he said.

State	% RPS	Target Year
Maine	10%	2017
Connecticut	20%	2020
New Hampshire	25%	2025
Massachusetts	25%	2030
Rhode Island	31%	2030
Vermont	70%	2030

New England state renewable portfolio standards | *Conservation Law Foundation*

Jose Rotger of Emera Energy asked for the RTO's legal interpretation. "Does the ISO believe that it can begin a public policy transmission study regardless of whether there was a request filed by NESCOE and the states?" he asked.

"I'm not going to do the hypothetical," responded Theodore Paradise, assistant general counsel for operations and planning. When Rotger persisted, Paradise would not budge. "If this was court, I'd say, 'Asked and answered.'"

Jurisdictional Challenge to FERC

NESCOE and state regulators from the region have challenged FERC's May 2013 order accepting ISO-NE's compliance filing amending its Tariff in accordance with Order 1000's local and regional transmission planning and cost allocation requirements, as well as the commission's March 2015 order on rehearing (ER13-193 and ER13-196).

Transmission developer LS Power Transmission and others have also challenged FERC's rulings, saying the compliance filings by ISO-NE, NYISO and SPP still favor regulated incumbents over independent developers. (See *Tx Developers Challenge NYISO, SPP, ISO-NE Order 1000 Filings*.)

Order 1000 described PPRs as those "established by local, state or federal laws or regulations (i.e., enacted statutes passed by the legislature and signed by the executive and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level)" and include "local laws and regulations passed by a local governmental entity, such as a municipal or county government."

NESCOE said the commission was arbitrary and capricious in "requiring the selection of public policy-driven projects in the region-wide transmission plan, rather than solely the establishment of procedures to consider (i.e., identify and evaluate) transmission projects driven by state and local public policy requirements."

The committee also said FERC exceeded its authority under the Federal Power Act and violated state sovereignty in expanding the requirements of Order 1000 "from an obligation to consider public policies in transmission planning to an obligation to select policy-driven projects" (15-1139, 15-1141). Oral arguments in the case were held

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ISO-NE Electric Market Falls $1.8B in 2016; LMPs, Gas Prices Lowest on Record

ISO-NE's wholesale electric market totaled $4.1 billion in 2016, down 30% from 2015, thanks to low natural gas prices and mild weather that cut demand and eliminated pipeline congestion and resulting price spikes.

LMPs averaged $28.94/MWh last year, down from $41/MWh, while natural gas — which produced 49% of the region's electricity — averaged $3.09/MMBtu, down from $4.64/MMBtu. The Energy Information Administration reported last month that gas prices last year were the lowest since 1999.

ISO-NE said preliminary figures showed demand for electricity fell 2.1% last year to 124,323 GWh. "An unconstrained transmission system allows the least expensive power plants to be used to meet demand across the region," the RTO noted in a press release. "Congestion has been virtually eliminated in New England with $8 billion in transmission upgrades since 2002."

"When New England's natural gas power plants can access low-cost fuel, wholesale power prices tend to remain low," CEO Gordon van Welie said in a statement. "By comparison, extremely cold temperatures three winters ago resulted in pipeline constraints and caused natural gas — and wholesale electricity — prices to hit record highs."

— Rich Heidorn Jr.

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before the D.C. Circuit Court of Appeals on Jan. 13.

Details

Steve Garwood of New Hampshire Transmission asked ISO-NE officials about the level of detail they sought in filings due Feb. 25, noting that the RTO's template "asks for very specific upgrades."

Director of Transmission Planning Brent Oberlin said the level of detail provided by CLF is "a start."

"We laid out the template … hoping for much more specificity," he added.

In considering transmission projects for Canadian hydropower, for example, "I don't know what the cost of the [energy] source is … so depending on where I land [the beginning of the transmission line], I may be picking the most expensive generator on the planet. And since the ISO doesn't procure resources, it's a little tough to work out."

Avangrid: Leverage Existing Tx

Also presenting was Avangrid's Paul Dumais, who highlighted the same public policies as CLF, while also mentioning the Clean Power Plan.

Dumais noted that the region has already made significant transmission investments through reliability projects, saying the RTO should insist that in ensuring sufficient transmission to accommodate public policies "we leverage the investments we've already made."

He also expressed concern over the choice of planning assumptions, saying the RTO should balance reliability against cost.

"For example the assumptions made about generation dispatch in the minimum interconnection standard versus the capacity capability interconnection standard will drive different levels of upgrades," he said.

"We would encourage NECSCOE … to talk about how … it's not necessarily needed that the system be designed for the peak day with generation at nameplate rating and the interconnection at New Brunswick flowing at the 1,000-MW [limit]. … What's more important is that over the 8,760 hours [per year], the generation is generally deliverable into the market. This requires us to look at it differently, such that we're not building transmission to necessarily meet the worst-case situation — that there's recognition that at some points in time there's likely to be some congestion and people can live with that given the cost to overcome it."

Untangling from CPP

In his environmental regulatory update, ISO-NE's Patricio Silva gave the PAC a briefing on what he said were the steep challenges facing the Trump administration's plan to scuttle EPA's Clean Power Plan.

Silva noted that EPA acted following its 2009 finding that greenhouse gas emissions present a threat to public health and welfare and that the agency had a duty to act.

"It's a final rule. Withdrawing the finding requires an additional rulemaking and they have to offer a justification to essentially

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counter the existing regulatory record," he said. "This approach presents a variety of legal hurdles and some administrative rulemaking hurdles. It is not clear that this would succeed. There are ample example of litigation where such approaches came to naught."

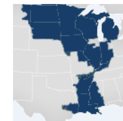
Successfully withdrawing the endangerment finding would eliminate EPA's rationale for regulating emissions from existing generators under Clean Air Act Section 111(d) and new units under Section 111(b).

Silva said that could pose a new risk to generators, who have been protected from private litigation over GHG emissions by the Supreme Court's 2011 *American Electric Power vs. Connecticut* decision, which said EPA's regulatory authority over emissions precluded any "private right of action."

"If EPA determines they do not have the authority under 111, the decision in *AEP vs. Connecticut* seems to imply … that generators could subsequently be subject to private litigation," Silva said. "This is a very complicated area of law and regulation that is fraught with significant risk for existing and new generators. … Many of my counterparts at the other ISO/RTOs are watching this matter with a great deal of focus for the potential impacts."

ISO-NE transmission options for integrating more renewables | *ISO-NE*

MISO NEWS



MISO Won't Seek Rehearing on Auction Redesign

By Amanda Durish Cook

MISO will not ask FERC to rehear its previously rejected Competitive Retail Solution, which would have applied a sloped demand curve and three-year forward capacity auction to the RTO's retail-choice areas.

MISO spokesperson Jay Hermacinski last week confirmed the decision.

The RTO also notified stakeholders by letter, explaining that its stance was influenced by improved planning efforts from Michigan and Illinois and FERC's current limbo. (See Backlog, Delays Feared as FERC Loses Quorum.)

"Following our filing of the CRS proposal, near-term resource adequacy circumstances have improved with passage of legislation in Michigan and Illinois, as well as other factors such as increased ability to import capacity into those states," the letter read.

Late last year, Illinois and Michigan — which maintains a 10% retail choice cap — passed legislation to subsidize nuclear plants and provide a blanket energy policy, respectively. (See *Illinois Lawmakers Clear Nuke Subsidy* and *Michigan Energy Bill Preserves RPS, 10% Retail Choice Cap*.)

MISO reiterated its commitment to work with Illinois regulators, lawmakers and utilities to address potential future capacity shortages. The issue will also be taken up with stakeholders at the March 8 Resource Adequacy Subcommittee meeting.

The RTO said its "immediate next steps" will focus on coordinating its resource adequacy process with Illinois in particular.

"While Illinois has addressed some short-term concerns around potentially retiring capacity, critical additional tools are still needed to ensure improved long-term price signals for committed capacity to reliably serve consumers in the state," MISO said. "Given this, we have concluded the most productive near-term effort is working closely with state officials and Illinois stakeholders who continue the work of developing a state-based approach to fully address long-term resource adequacy requirements."

FERC's current uncertainty also figured into the RTO's reasoning. It is unclear when new commissioners will be appointed and a quorum restored to address a rehearing, MISO said.

Bear

The RTO will continue to work on "solutions focused on competitive retail areas that do not implicate the traditionally regulated areas of the MISO region" and maintain separation between rules for vertically integrated utilities and competitive retail suppliers.

"The FERC order does not change that commitment," MISO said.

At a Feb. 21 Informational Forum, MISO CEO John Bear attempted to calm what he called "some trepidation among stakeholders, saying the RTO will not apply a forward market or sloped demand curve systemwide.

"We're going to stand by that," Bear said.

However, given the "brevity" of FERC's order (ER17-284), MISO is interested in getting more detail from the commission, Bear said. It is still unclear whether MISO will receive detailed commission guidance. (See *FERC Rejects MISO's 3-Year Forward Auction Proposal*.)

FERC Accepts MISO Bylaw Changes

FERC has accepted MISO's plan to pare down pre- and post-service restrictions on its directors as part of a package of transmission owner agreement bylaw changes.

The short Feb. 23 order (ER17-686) approved all MISO's requested bylaw changes effective Feb. 27. MISO staff said the bylaw change was needed to attract more board member recruits.

Most prominently, FERC's delegated order cuts the pre-service restriction to one year and eliminates a post-service restriction. MISO's directors had been subject to a two-year pre- and post-service prohibition on affiliations with RTO members, affiliates and market participants. (See *Board OKs Pay Hike, Change to Independence Rules*.)

The edits also added the gender-neutral "board chair" in lieu of "chairman" and specified that adjustments to board compensation must be made by an independent compensation consulting firm. MISO last year used firm Willis Towers Watson to up board compensation by $4,000 annually.

Other bylaw edits the commission approved allow board elections to take place earlier in the year, remove the requirement that the annual MISO members meeting be held on the second Thursday of December — allowing for more flexible scheduling — and eliminate the specific Jan. 1 due date for the annual $1,000 MISO membership fee. MISO staff said membership fee billing and payment usually takes place sometime after Jan. 1.

Finally, the edits clarify that member voting — even voting to remove a board member — can take place outside of meetings.

— Amanda Durish Cook

Lower Energy Prices, Load for MISO in January

CARMEL, Ind. — Mild temperatures and inexpensive natural gas resulted in a slight load decrease and lower energy prices in MISO in January.

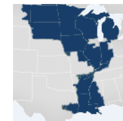
Average load was 76.2 GW, a 0.7-GW decrease over December. LMPs averaged under $30/MWh systemwide, a 7.6% decrease from December, with real-time prices of $28.04/MWh and day-ahead prices of $28.69/MWh. The average January gas price was $3.28/MMBtu, a decrease of 8.6% from the prior month.

Operating conditions in MISO during January were "generally favorable," punctuated by a few short-lived severe weather conditions, Executive Director of Market Design Jeff Bladen said at a Feb. 21 Informational Forum. MISO reported zero minimum or maximum alerts or warnings.

MISO also recorded 4,245 GWh of systemwide wind production in the month, a drop from December's 5,687 GWh, but 3% higher than January 2016's 4,110 GWh.

— Amanda Durish Cook

MISO NEWS



Panelists Share Successes, Challenges in MISO Session on Diversity

By Amanda Durish Cook

From left to right: Glover, Kilpatrick, Parsley, MISO Vice President of Human Resources Greg Powell, Mays-Medley, Broadhurst and Chatterjee. | © *RTO Insider*

CARMEL, Ind. — Six panelists shared tales of shattering the old boys' mold and being a minority in a sea of white employees during a discussion convened by MISO last week on increasing diversity in the energy industry. The discussion was part of the RTO's Informational Forum.

Glover

Paula Glover, CEO of the American Association of Blacks in Energy, said she has walked through workplaces where she has spotted just three African Americans among 500 employees.

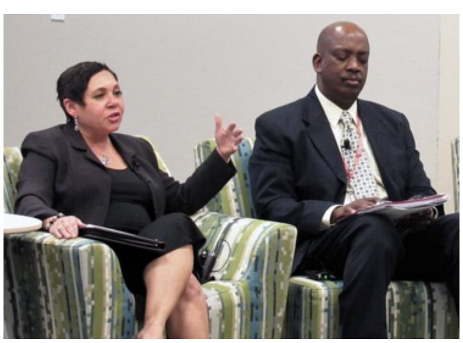
"The people I engage with on a daily basis do not look like me," Glover said, noting that while African Americans make up 12% of the workforce, their employment rate in the energy industry is 7%.

"You tell me of diversity all you want, but if I can't pinpoint it, it's not there," she said. "The numbers do not pan out well for this industry."

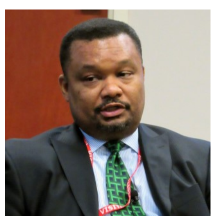
Counted Twice

Carolene Mays-Medley, executive director of Indiana's White River State Park and a former Indiana Utility Regulatory commissioner and state representative, said that early in her career, she remembers being counted twice as a minority because she was both black and female.

"When I got started around 1982, it was an old boys' club," said Marlene Parsley, Big Rivers Electric's director of resources and forecasting. She said starting out young and female, she learned that not "rocking the boat" earned her respect among her colleagues.

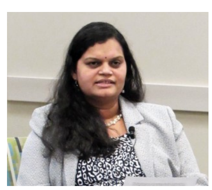


Mays-Medley and Broadhurst | © *RTO Insider*



Kilpatrick

"It is important to be the person in the room sometimes, because it does give that diversity of thought," said Korlon Kilpatrick, director of regulatory affairs for Citizens Energy Group.



Chatterjee

MISO Executive Director of System Operations Renuka Chatterjee joined the RTO as a young engineer 17 years ago.

"To understand my personal journey, you have to understand my Ellis Island story," said Chatterjee, who was born and raised in India and came to the U.S. in 1997. Chatterjee spoke of entering engineering school while her female cousins did not attend college. She said even while earning a doctorate in the U.S., she learned it was common to be one of a handful of female students in science and technology courses.

"I recall one interview [in India], I was viewed as not a good investment because I would get married and have babies," she said.

Starting a Career at the Bottom

Donald Broadhurst, general manager of Midwest transmission construction and maintenance at Duke Energy, said he began his energy career as a low-level employee. "I started out at the bottom. I was a substation electrician, but I wasn't satisfied with that," Broadhurst said. "The most important part is you. You have to do what you want to and not let others set limits."

Broadhurst said corporate support can improve diversity.

"It does start at the top, and you have to make sure that your organization understands that it is a priority. I think it should. It has to be weaved in the talent lifecycle from recruitment to training to succession," he said.

Mays-Medley said she has always been frustrated when she hears a company recruiter complaining about a lack of qualified female and minority candidates. "I ask, 'Where are you looking?' Maybe you need to diversify your candidate pool. … You can't say that you don't know where to go. There are lots of places to look," she said.

Parsley said Big Rivers will reach out to churches and community centers to cast a wider recruiting net. "A lot of times, hearing 'not a good fit' means, 'They don't think like me,'" Parsley said.

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MISO NEWS

MISO Board Gets Update on Queue Rules, Competitive Tx Monitoring

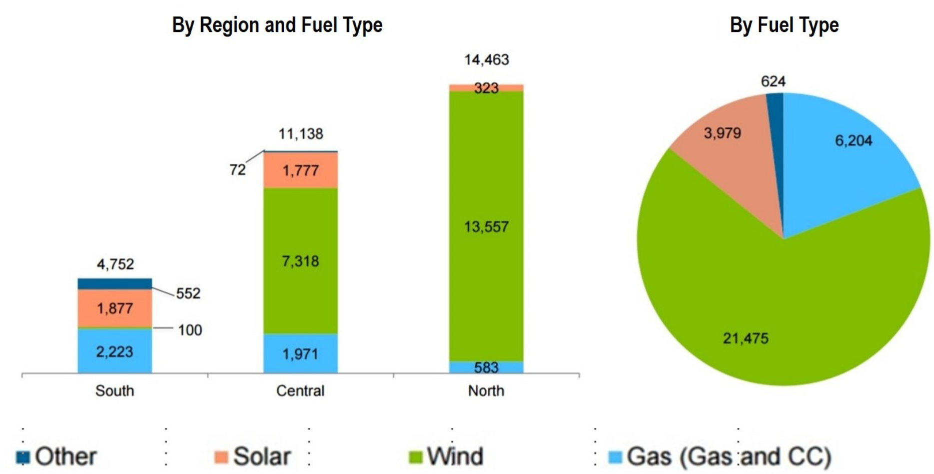
By Amanda Durish Cook

Although MISO's new queue design has just been implemented, RTO officials are continuing to look for improvement.

"We are not done. Queue reform is a journey, not a destination," MISO Vice President of System Planning and Seams Coordination Jennifer Curran told the System Planning Committee of the Board of Directors on Feb. 21. FERC approved the changes in January. (See *FERC Accepts MISO's 2nd Try on Queue Reform*.)

Curran said that while MISO has already addressed multiple requirements that could arise from FERC's December Notice of Proposed Rulemaking (RM17-8) requiring changes to *pro forma* large generator interconnection rules, the NOPR could require additional work on cost caps and eliminating barriers to storage's participation.

In 2008, MISO found that if it didn't change its queue process, it would take a "clearly unacceptable" hundreds of years to process all of the project requests then in the queue, Curran said. Since then, MISO has moved from a "first-come, first-served" approach to a "first-ready, first-served" approach. She said historically 15% of queue entrants' requested megawatts make it to commercial operation.



2017 definitive planning queue | *MISO*

MISO's new rules are designed to reduce restudies, allowing it in some instances to keep milestone payments from withdrawn projects to fund transmission upgrades on which other queue projects relied.

"Queue reform is, and has been, an on-going process. We will continue working with stakeholders to ensure we have the most efficient and effective rules in place to interconnect resources of all types," Curran said.

Curran said the MISO queue remains dominated by wind projects, although there is also a "non-negligible" number of solar requests. She said the number of projects in the queue will face uncertainty in 2020 as wind production tax credits expire and planned wind projects could drop.

Wind has long had the highest project drop-out rates because several developers often enter the queue to serve a single load area, Curran said.

She also said MISO's future HVDC lines must enter the interconnection queue

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Panelists Share Successes, Challenges in MISO Session on Diversity

Continued from page 16

Creating Inclusion

Glover said work culture is key to creating an inclusive environment. "For companies, it is 'Who are we?' when people walk in the door," she said. Glover expressed optimism for the future, saying that millennials are entering the workforce accustomed to working in diverse environments.

Broadhurst said some people think of diversity as a threat to the majority white male industry and view it as "taking someone's seat." He said he always viewed jobs as being earned. "When you're an African-American leader and you bring on another African American, it's viewed differently than if your white counterpart [hires a white employee]. But if it's the right thing to do, you must do it. You don't just reach back for people that look like you; you look for talent," he said.

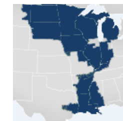
Glover said existing workforces feeling threatened by diversity programs is "a real thing." She said successful diversity programs include a management discussion addressing the fear and resentment the programs may evoke.

Mays-Medley said minorities and women have to stop competing "so hard" against one another or "tearing one another down" in the workplace. "I've come to realize that we do it because the seats are so limited. And the vision from the top is we can only have one position. That vision from the top has to be broadened."

MISO CEO John Bear said the RTO engages in "intentional" diversity and has a board that's more diverse than the RTO average. MISO South Vice President Todd Hillman said the RTO is creating a diversity and inclusion resource group for its employees.

According to MISO, the RTO's workforce is 70% male/30% female and 74% white/26% non-white. From 2013 to 2016, MISO's new hires have been 65% male/35% female and 67% white/33% non-white. The U.S. electric power workforce as a whole is 78% male/22% female and 79% white/21% non-white, according to the RTO.

MISO NEWS



MISO Board Gets Update on Queue Rules, Competitive Tx Monitoring

Continued from page 17

under its “other” category because merchant lines can behave like new generation with their ability to inject energy.

Aside from 72 MW of storage planned for MISO Central, there is not a lot of storage on the horizon, she said. Storage also is a part of the RTO’s “other” queue categorization.

Duff-Coleman in Monitoring Phase

MISO has moved into the monitoring phase of Republic Transmission’s Duff-Coleman project construction in southern Indiana and Kentucky, Priti Patel, regional executive for MISO North and executive director of the RTO’s Competitive Transmission Administration, told stakeholders.

The RTO will receive quarterly project reports from Republic Transmission that will detail any construction delays or cost overruns, Patel said. Before Order 1000, she said, MISO received “vary basic” project reporting on market efficiency and multi-value projects.

Project reporting “is a very critical tool for MISO, to hold developers responsible. … Mainly, we will monitor and make visible the developer’s activities on the project so the developer eventually delivers what they have promised,” Patel said.

MTEP 16’s Huntley-Wilmarth upgrade — though not competitively bid because of Minnesota’s right-of-first-refusal statute — will also be subject to the more intensive reporting as a market efficiency project, Patel said. (See *MTEP 16 Proposes 394 Projects at $2.8 Billion*.)

Although MISO has no jurisdiction over the two projects, she continued, stakeholders can use its progress reports to raise any concerns to state or federal regulators.

Director Phyllis Currie asked if MISO encountered anything unexpected in last year’s competitive bid process.

MISO was impressed that all 11 developers provided “much more” information than required of them in the request for proposals, Patel replied.

MISO General Counsel Andre Porter halted the board’s question on whether any developers left disgruntled with the process. “That’s best left for closed session,” he said.

In a related matter, Patel said that MISO will complete its qualification of transmission developers by March 7.

MISO NEWS

Advisory Committee Briefs

RTO Delays Filing Pseudo-Tie Proposal

Stakeholders last week continued discussions on MISO's pseudo-tie approval process, even after narrowly approving more stringent requirements in December.

In a Feb. 22 Advisory Committee conference call, stakeholders learned that MISO did not file the proposed *pro forma* pseudo-tie agreement and Business Practices Manual language with FERC, as originally planned after the 5-4 approval by the Reliability Subcommittee on Dec. 16. There were 13 abstentions on that vote. (See *MISO Stakeholders Narrowly Support New Pseudo-Tie Rules*.) The RTO cited the narrow margin of victory and the fact that abstentions outnumbered 'yes' and 'no' votes in its decision to postpone a filing to better explain the proposed process to stakeholders.

Advisory Committee Chair Audrey Penner said the topic was brought back to the committee for more discussion at the request of stakeholders. She said no action was required under the Stakeholder Governance Guide, and the item was placed on the agenda only to bring it to the attention of the committee. "This doesn't happen very often," Penner said.

"It really signals that more stakeholders were interested in getting more information from MISO," Vice Chair Tia Elliott said.

The proposed rules dictate that pseudo-tie owners notify MISO a year in advance of implementing a new pseudo-tie and create a congestion management process; the rules also say proposed pseudo-ties can be rejected if a market-to-market flowgate is not within 2% of MISO and the neighboring market's calculated generator-to-load distribution factor.

Penner said MISO will not revoke existing pseudo-ties that fail the 2% test. "MISO believes that all pseudo-ties currently meet this requirement, and that's why it won't be retroactively applied," Penner said.

Reliability Subcommittee Chair Tony Jankowski said he has not heard from MISO staff on whether the issue will be brought up for more discussion in his subcommittee. Stakeholders and the RTO are currently creating agenda items for the next subcommittee meeting in April.

Entergy's Matt Brown said his company voted against the pseudo-tie proposal because of incomplete information but would consider a better documented agreement, even one with a requirement more stringent than the 2% threshold.

Committee to Hold Current Events Discussions

The Advisory Committee will begin holding quarterly current events discussions in response to stakeholder calls for more in-depth policy conversations.

Penner said the committee will set aside time for discussions of policy issues and industry trends beginning at the next in-person meeting in New Orleans on March 22. Penner said she envisioned committee members tackling no more than two topics per meeting. The quarterly discussion format arose from MISO's stakeholder redesign. (See *MISO Takes Stakeholders' Temperature on Redesign*.)

American Electric Power's Kent Felix said he viewed the discussions as another opportunity for stakeholders to guide MISO on policy issues. WEC Energy Group's Chris Plante asked if the committee's stakeholder sectors might vote to express positions on the topic. Penner said committee leadership had not discussed the possibility of voting during the discussions, but it could be explored.

Madison Gas and Electric's Megan Wisersky asked if the discussions would be recorded in minutes. Penner said she would take notes, as she could not partake in the discussion as chair, but said it remains to be seen if there would be formal notetaking from MISO.

Penner asked for topic ideas for the first discussion by March 1.

Steering Committee Able to Approve Charters, Management Plans Again

Stakeholders approved a correction to the Stakeholder Governance Guide that restores the Steering Committee's power to approve charter and management plans.

Elliott said edits approved in December inadvertently deleted a sentence that delegated charter and management plan review for MISO parent committees to the Steering Committee.

"If we don't get to this change, the Advisory Committee will have to approve all of the charters," Elliott said.

After its powers were restored, the Steering Committee approved by consent several charters or management plans, including those governing the Market Subcommittee, the Seams Management Working Group, the Resource Adequacy Subcommittee, the Loss of Load Expectation Working Group, the Planning Advisory Committee, the Planning Subcommittee and the Interconnection Process Task Force.

— Amanda Durish Cook

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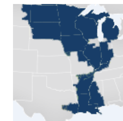


Steering Committee Briefs

Gas-Electric Topics Migrate from RASC to RSC

Gas-electric topics currently discussed in MISO's Resource Adequacy Subcommittee will move to the Reliability Subcommittee where they are a better fit, Steering Committee members decided during a Feb. 22 conference call.

Gas-electric coordination is more closely related to grid reliability than resource adequacy, leadership of the two panels said.

"Once I started to review stakeholder comments on its applicability to resource adequacy, I said, 'Yes, these issues have more applicability to the Reliability Subcommittee,'" said Shawn McFarlane, MISO liaison for the RASC.

RSC Chair Tony Jankowski said he also agreed with the swap.

Among the RSC's duties will be providing input to MISO on a pilot program that sends hourly estimated gas usage profiles to selected pipeline operators so they have advance notice of generating units' fuel needs. The profiles are based on MISO's day-ahead market results. (See "Gas-Electric Discussions in 1st Quarter," *MISO Resource Adequacy Subcommittee Briefs*.)

RASC Chair Chris Plante said his subcommittee will continue to talk gas-electric coordination as it relates to implementing a seasonal aspect to the Planning Resource Auction.

MISO Stakeholders to Hear Changes to Alternative Dispute Resolution

MISO will describe proposed changes to its alternative dispute resolution process in a presentation at the March Advisory Committee meeting, repeating the presentation at the April Informational Forum, to ensure wide exposure of the revisions, the Steering Committee decided.

MISO legal counsel Daniel Malabonga said changing Tariff Attachment HH's language on alternative dispute resolution has been on his "wish list" for years. Malabonga said the attachment is used when parties want to "meet in the middle" over contractual disputes; the revisions include a confidentiality agreement and the legal definition of indispensable parties — parties whose participation is necessary to work out an agreement. MISO's Alternative Dispute Resolution Committee, which meets in private, has already approved the changes, which have not yet been made public.

Steering Committee Chair Tia Elliott asked that MISO address stakeholder responses before filing the changes with FERC to avoid protest filings.

"Even though this may be on the fast track to being filed, I would like stakeholders to have the opportunity to provide feedback," Elliot said.

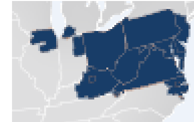
Justin Stewart of MISO's stakeholder relations unit said the RTO would honor the request.

Auction Redesign Drives 2016 Overspending

MISO Finance Subcommittee Chair Mitch Myhre said the RTO ended 2016 $2.2 million over its operating budget (1%). Capital spending was $2 million (6.5%) over budget. Myhre said both instances of overspending were driven by the development of the rejected capacity auction redesign.

— Amanda Durish Cook

PJM NEWS



Stakeholders Caught in PJM-IMM Dispute over Fuel-Cost Policy Review

By Rory D. Sweeney

PJM stakeholders have lingering questions about the RTO's plan to implement a fuel-cost policy review process — despite a three-hour discussion intended to help sort out the issue.

Those questions focused on how the review will unfold in light of an ongoing debate between PJM and its Independent Market Monitor about who has the final word on policy approval.

Responses from PJM and the Monitor only added to the confusion.

The issue provoked tension between the two during PJM's submission of a compliance filing with FERC on hourly generation offers. While that filing was supposed to focus on improving flexibility for such offers, PJM also initiated a petition under Section 206 of the Federal Power Act to implement changes to its policy-approval rules and penalties.

During that proceeding, Monitor Joe Bowring argued that the RTO was attempting to usurp his authority to review fuel-cost policies. PJM requires generation units that use fuels with volatile prices to explain their methodology for purchasing fuel so the RTO and Monitor can confirm it was secured through a competitive process.

PJM argued that approval of the policies was wholly under its authority, and FERC accepted the RTO's proposal earlier this month, including its delineation of review responsibilities. (See *FERC Seeks More Details on PJM Fuel-Cost Policy Proposal*.)

The debate extended into a Feb. 21 special session of the Market Implementation Committee, where PJM was emphatic that generators can't hold separate discussions with the Monitor on such policies.

"PJM needs to be involved in those discussions," said Jeff Schmitt, manager of market analysis. "There is only one process."

Bowring responded that his role remains separate from that of PJM.

"Just to be clear: We have our own separate standard of review that we've had for some time," he said. "If we ultimately disagree with PJM's decision, we'll make that clear [to PJM]. Our role remains our role."

"You review for market power, but what you do not do is approve the fuel-cost policy," PJM attorney Steve Shparber responded.

Shparber said that generators must follow PJM's policy on the matter — not a Monitor "shadow" policy.

"There's only one fuel-cost policy, and that's approved by PJM," he said.

Bowring countered that he wasn't suggesting that there is a "parallel process."

"We understand the process, but it's not definitive about market power," Bowring said.

The Monitor added that FERC's ruling isn't going to change how his team reviews policies, and that he didn't think the ruling was intended to have that effect.

That exchange occurred near the middle of the meeting, but it colored many subsequent questions from stakeholders, who asked what shape the process would take and how generators would be notified about whether their policies need approval.

"In the last 18 months, we've been in touch with every single owner in PJM, so no one should be oblivious," Bowring said.

Schmitt clarified that generators currently only require a policy that covers any fuel type the unit might use, but PJM plans to enhance that in the future.

"Ideally, we'd like to have a one-for-one where every unit has its own policy [for each fuel type], but we're not there yet," he said.

Bowring has repeatedly called for policies to be systematic, algorithmic and verifiable, but PJM has hesitated to require algorithmic accounting. That didn't sit well with stakeholders.

"I guess my concern is you're asking us to be comfortable with a standard that is: They comply with a document that the public cannot see," said Gregory Carmean, the executive director of the Organization of PJM States Inc.

Catherine Mooney, who works for Bowring's firm Monitoring Analytics, suggested developing sample-approved language that's verifiable but not algorithmic, but Schmitt declined to commit to that.

Schmitt said PJM's long-term plan is to get all policy information into a database rather than an approved document. Until then, RTO staff stressed that stakeholders need to follow the guidelines in the manuals.

During the meeting, PJM also displayed a slide that compared maintenance costs for units that run — which can recover for variable operations and maintenance (VOM) — versus units that don't run, which recover avoidable cost rates. Dave Pratzon of GT Power Group questioned PJM's grouping of combustion turbine hot gas path inspections under VOM when 2015 rule changes excluded major overhauls and inspections of CTs and combined cycle units in VOM.

Schmitt said revisions to the CT and CC rules might be necessary but will likely need to be handled with a problem statement after the fuel-cost policy issue is resolved to figure out the best way to "unwind" them, given the complexities of three-year forward-looking energy auctions.

Buck combined cycle plant

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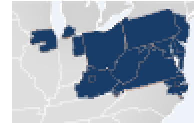


MRC/MC Briefs

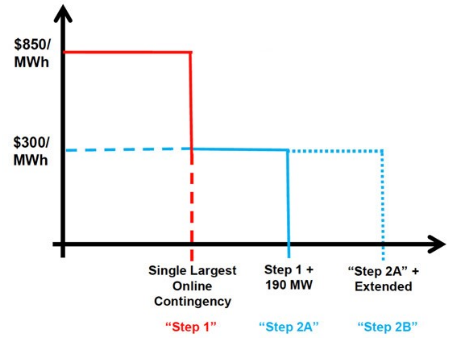
Markets and Reliability Committee

The Waiting is the Hardest Part

WILMINGTON, Del. — After months of rule changes, PJM stakeholders decided to largely take a break at last week's Markets and Reliability Committee meeting. Aside from endorsing some administrative revisions and an uncontroversial exception to competitive bidding for substation equipment, members rejected or deferred votes on all other voting items, often citing FERC's lack of a quorum for why there is no pressing need to decide.

Decision on Order 825 Implementation Postponed Until March

Stakeholders agreed to delay voting for a month on additional rule changes associated with Order 825, which requires that shortage pricing be triggered for any period of energy or operating reserve. The order required PJM to eliminate its practice of waiting until a shortage is forecast for a sustained period before shortage pricing. (See *FERC Issues 1st RTO Price Formation Reforms*.)



PJM plan for shortage pricing | *PJM*

To continue to avoid "transient shortages," PJM has proposed a two-part response to the order. The first part, which was filed last month, satisfies FERC's requirements for initiating shortage pricing. The second part — which PJM plans to submit to FERC as a Federal Power Act Section 205 filing contingent upon approval at the Members Committee meeting in March — would adjust its operating reserve demand curves. (See "Order 825 Implementation Moves Forward," *PJM Market Implementation Committee Briefs*.)

"Is this a decision the commission could make absent a quorum?" American Municipal Power's Ed Tatum asked. PJM staff confirmed that there has been a challenge in the docket, so FERC wouldn't be able to accept it via delegated approval.

Susan Bruce of the PJM Industrial Customer Coalition asked if a vote could be delayed another month to work out issues. It's possible, PJM's Adam Keech responded, but the delay might create exposure for PJM's markets if FERC requires implementation of five-minute settlements, also mandated by Order 825, by May.

Keech also explained that an increase in the market clearing price will have as much as triple the impact on reserve clearing price credits. PJM's analysis found that a 5% increase in the clearing price would add about $6.4 million, or 15%, to the credits, while a 10% increase in the price would add

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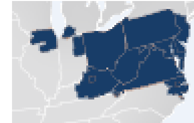

MRC/MC Briefs

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about $8.7 million, or 20%.

For the purposes of simplicity, the sensitivity study assumed that lost opportunity cost credits remained static. Generally, however, "as the clearing price credits go up, the opportunity cost credits go down," Keech said.

Stakeholders Deny Replacement Capacity Initiative; Consider Other Incremental Auction Changes

A problem statement and issue charge to address replacement capacity failed to garner 50% approval after presenter Bob O'Connell of Panda Power Funds navigated around objections to secure a vote. He'll get another chance on a separate problem statement involving incremental offers next month, when members also will consider the proposed charter language for the Incremental Auction Senior Task Force.

Several members had attempted to postpone voting on the problem statement for a month, but a vote to postpone fell short, receiving 3.33 in a sector-weighted vote that required 3.34 to pass. That allowed O'Connell to call for a vote.

Tom Rutigliano of consulting firm Achieving Equilibrium said a delay would help alleviate problems with the problem statement, such as what he called a mischaracterization of some FERC orders that put stakeholders "on a path to repeat the same conclusions that FERC has already rejected." But O'Connell was intent on bringing the motion to a vote. Rutigliano then proposed some hastily devised amendments, some of which O'Connell accepted.

Citigroup Energy's Barry Trayers also proposed amending the language to focus on streamlining the replacement-capacity process and reducing PJM staff discretion. O'Connell considered this a friendly amendment and included the revisions.

"Really this is a vote about whether we want to try to solve the problem on our own or if we want to have the commission solve it for us," O'Connell said.

The proposal to revise the replacement-capacity rules comes after recent stakeholder debates about the impact of "paper capacity" — when a market participant offers into Base Residual Auctions and buys out of the obligation during subsequent Incremental Auctions to take advantage of price differences. (See "PJM Has No Objection to IMM's 'Paper Capacity' Report," *PJM Market Implementation Committee Briefs*.)

Regarding his second problem statement proposal, O'Connell said PJM's opportunity-cost calculator needs to be recalibrated to account for penalty rates implemented along with the Capacity Performance market construct.

Independent Market Monitor Joe Bowring challenged a work activity to find ways to incorporate nonperformance charge rates into the calculators. O'Connell agreed to add "where appropriate" or "if necessary" as a revision.

The task force charter language was developed in response to a problem statement presented by Direct Energy that was approved in November. It focuses on the Incremental Auction structure and how excess capacity is sold back by PJM.

PJM's Brian Chmielewski, who is facilitating the task force, said detailed replacement capacity issues will be addressed in a separate problem statement and issue charge.

Transmission Replacement Activity Hiatus Extended

Stakeholders agreed to extend the Transmission Replacement Process Senior Task Force's hiatus for another 90 days, citing FERC's continued silence on the issue.

In August, the commission issued an Order to Show Cause questioning whether PJM transmission owners are complying with their local transmission planning obligations, specifically with respect to supplemental projects, as required by Order 890. (See "Transmission Task Force Halts Most Action in Response to FERC Order," *PJM Markets and Reliability and Members Committees Briefs*.)

The TOs responded in October, but FERC has not acted on the filing and has no deadline for doing so.

PJM's Fran Barrett, who is facilitating the task force, said the commission's loss of its quorum was unexpected and recommended extending the deferral.

Some stakeholders called for using the downtime to resolve the problems. "We can work a thorny issue for FERC so FERC doesn't have to work it for us," Tatum said, who added that he has "great concern" with extending the hiatus.

"The time we have been waiting for FERC to act has not been wasted time. We have been working hard," Exelon's Gloria Godson said.

O'Connell said the decision should be based on whether there is anything to talk about. "Just go ahead and tell Fran: 'Fran, we have enough meat for a meeting. Go ahead, and schedule it. If we don't have enough meat, don't schedule it,'" he said.

Barrett agreed to return to next month's meeting with an update.

Stakeholders Endorse Revisions

Stakeholders endorsed by acclimation several manual revisions and other operational changes:

- Revisions to Manual 22 to update terms and definitions, developed as part of a periodic review of the manual. The term revisions largely replace "partial outage" so that the manual now refers to forced, maintenance and planned outages as "derated." For example, "Equivalent Forced Partial Outage Hours" became "Equivalent Forced Derated Hours."
- Revisions to manuals 13 and 27 will add the Mid-Atlantic Interstate Transmission Co. as a transmission owner in PJM. MAIT is a new subsidiary of FirstEnergy that owns and operates the company's transmission assets in the Met-Ed and Penelec utility territories. (See *NJ Opposition Derails FirstEnergy's Tx Reorganization — but not Projects*.)
- Revisions to the RTEP and the Operating Agreement to exempt certain transmission substation equipment from Order 1000 competitive bidding. (See "Endorsements Sail Through by Acclimation," *PJM Planning Committee and TEAC Briefs*.) John Farber of the Delaware Public Service Commission staff took the microphone to thank PJM for its attention to the topic. The measure was also later endorsed by the Members Committee.

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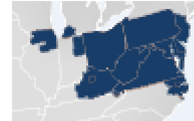
PJM NEWS



PJM Moves to Tighten Pseudo-Tie Standards Despite Stakeholder Pushback

By Rory D. Sweeney

WILMINGTON, Del. — PJM and its stakeholders last week found themselves at odds for the second month in a row over requirements for external generators, as members insisted on more time to consider the RTO's *pro forma* pseudo-tie agreement.

The stakeholders' decision to delay a vote came at Thursday's Markets and Reliability Committee meeting. Later in the meeting, the RTO announced that the Board of Managers will unilaterally file a contentious pseudo-tie rule that members rejected at the January MRC meeting.

Stakeholders had voted to apply stricter requirements to new pseudo-ties but declined to apply them to existing pseudo-tied units, as PJM requested. The lack of endorsement meant that PJM can't file its proposal under Section 206 of the Federal Power Act and will file instead under Section 205. (See "PJM Uncomfortable with Separate Pseudo-Tie Rules," *PJM Markets and Reliability and Members Committees Briefs*.)

"PJM management's fairly strong recommendation to the board was to file both [new and existing] as 205," said Senior Vice President of Operations and Markets Stu Bresler. "I can tell you that the board is sensitive to adhering to the stakeholder process," Bresler said. He said PJM plans to file with FERC by March 10.

PJM Public Power Coalition's Carl Johnson commended the RTO on its openness throughout the process but said the proposal created an unreasonable lack of certainty on whether units will be approved.

American Municipal Power's Ed Tatum said the proposal could have been revised enough to find common ground between PJM's desire for stricter standards and stakeholders' concerns.

"It is a bit unfortunate," he said. "We could have prevented what will likely be many protests. I feel like we could have gotten this right."

Members Balk at *Pro Forma* Agreement

Earlier in the meeting, stakeholders stood fast, insisting on additional time to improve the language of the *pro forma* pseudo-tie agreement despite concerns that further delay could create confusion during an emergency. Members said that FERC's lack of a quorum meant there was no pressing need to rush the agreement for a commission filing.

"It's not just delay for delay's sake," Johnson said. The existing document is better than previous versions, he said, but additional improvements could be made.

The *pro forma* agreement is intended to ensure uniformity in the rules for future pseudo-tie generators. But PJM said it has had trouble obtaining agreement with other balancing authorities on pseudo-tie terms, and variations in wording have created confusion about correct operating procedures. PJM staff said they have discussed it with neighboring transmission operators, including Duke Energy, SPP, MISO and East Kentucky Power Cooperative.

The agreement will address congestion management with entities where PJM doesn't already have such an agreement, ensure impacts of the pseudo-tied unit are recognized in market flows, require firm status for transfers and require use of NERC's interchange distribution calculator redispatch mechanism.

"What I'm finding is that even in discussions with other [balancing authorities] … not one of them has a problem with the agreement *per se*. They just have a concern with pseudo-ties. MISO feels the agreement is redundant. … The vast majority of what's in there is not redundant," PJM Associate General Counsel Jacqui Hugee said.

Bruce Bleiweis of DC Energy said he recently attended a NYISO meeting where stakeholders didn't know what a pseudo-tie was, so it's unlikely that the education process would be expedient there.

PJM: Let FERC Sort it Out

Several stakeholders asked that any disputes be resolved before submitting the agreement to FERC, but PJM General Counsel Vince Duane urged the opposite.

"After trying as best we can to get substantive input from our neighbors, [the idea is to] file with the commission, and that will allow everyone to come in and file their opinions," he said. "We need to get a forum in place, and I'm not confident the stakeholder processes outside of PJM are going to provide that forum any time soon."

While the new process might take longer than before to secure necessary approvals, PJM expects it will give applicants more certainty about expectations for pseudo-ties. The agreement would also expand the RTO's existing reimbursement agreement, which would be codified in the Tariff. If the parties can't come to terms on the agreement, PJM would file the unexecuted agreement for FERC review.

MRC/MC Briefs

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Members Committee

Members Approve Uplift Proposals

Following up on swift action taken at last month's MRC meeting, members endorsed a two-phase implementation of revisions to address uplift. (See "Work on Uplift Moves Forward Despite NOPR," *PJM Markets and Reliability and Members Committees Briefs*.)

Two stakeholders complained that the proposals didn't align with FERC's order on the issue. "I don't agree that the package is counter to FERC's order," PJM Public Power Coalition's Carl Johnson replied. "In fact, I think it's the first step to something they might approve."

Consent Agenda Endorsed

The committee also endorsed:

- Tariff, Operating Agreement and Reliability Assurance Agreement revisions to update definitions.
- Revisions to the PJM Tariff regarding operating parameters.

— Rory D. Sweeney

FirstEnergy Seeking ZECs to Aid Sale of Ohio Nukes

By Rory D. Sweeney

After reporting a loss of $6.2 billion ($14.49/share) for 2016, FirstEnergy's CEO said the company plans to seek subsidies for its Davis-Besse and Perry nuclear plants in Ohio to make them attractive to buyers and allow the company to exit competitive generation in 2018.

"I can't speak for prospective new owners of these four nuclear units, but I can tell you this: Running nuclear reactors isn't something that just anybody can do. And there is a significant amount of capital risk associated with that business," CEO Charles E. Jones said in response to analysts' questions during an earnings call Wednesday. "I'm not sure people are going to be willing to take on the risk of even the next refueling outage, which is very expensive, so I don't think there's any guarantee — absent some other support for these units — that they're going to keep running far into the future."

The "support" would be zero-emissions credits, which have been approved for nuclear power plants in Illinois and New York but face challenges in federal court.

FirstEnergy's multibillion-dollar loss for 2016, which came on revenue of $14.6 billion, includes asset impairment and plant exit costs related to its decision to leave competitive generation by mid-2018. The company reported earnings of $578 million ($1.37/share) in 2015 on revenue of $15 billion.

For the fourth quarter, FirstEnergy posted a loss of $5.8 billion ($13.44/share) on revenue of $3.4 billion versus a loss of $226 million ($0.53/share) on revenue of $3.5 billion a year earlier. Higher corporate operating expenses and increased retirement costs factored into the loss, but it was partially offset by reductions in the valuation of pension and post-employment benefits.

The company's adjusted earnings were $2.63/share for 2016 compared to $2.71/share for 2015 and 38 cents/share for the fourth quarter compared to 58 cents/share a year ago.

Perry nuclear plant

Jones said the company's generation fleet will go into bankruptcy without a buyer, and a buyer is unlikely without more financial certainty for the nuclear assets.

"These assets are now valued at somewhere around $1.5 billion and that includes the nuclear fuel that they own. The debt is significantly higher than that. … It's highly unlikely that we'll get the book value to a place that's greater than the debt. … Absent something to raise the value of these units and make them attractive to a buyer, there's only one way for us to exit this business," he said. "I've been up front with the legislators that I have met with, personally, to tell them, 'Don't do this [approve ZECs] for FirstEnergy because it's unlikely we're going to be the long-term owner-operators of these assets.'"

PJM has remained agnostic about state actions but active in figuring out ways to address them.

"Our position is not whether a state should or shouldn't do whatever it is they want to do, but [what] we have to think about is how do we make sure the market remains competitive. … We need to protect the

Continued on page 26

OGE Doesn't Let Earnings Shortfall Mar 'Good Year'

By Tom Kleckner

OGE Energy CEO Sean Trauschke isn't the kind of guy to let a 2-cent shortfall ruin his good nature.

"Hi, how are you?" he said, enthusiastically greeting one financial analyst after another during Thursday's fourth-quarter earnings call, often engaging them in friendly chit-chat. Employees say that's Trauschke's ebullient style, calling him a "genuine guy."

OGE reported net income of $57.9 million ($0.29/share) in the fourth quarter of 2016, compared to $29.4 million ($0.15/share) the year prior. Although that missed the Zacks consensus estimate of 31 cents/share, investors pushed the company's stock price up $1.15 to $36.10/share by Friday's close.

For the year, the company reported net income of $338 million ($1.69/share), compared to $271 million ($1.36/share) in 2015.

"It was a good year, both operationally and financially," Trauschke said. "We do have a lot of good things happening at our company and in our communities."

Trauschke said OGE's utility, Oklahoma Gas and Electric, added 9,000 customers during the year, just above its historical growth rate of 1%, while adding 100 MW of load. He said a rebound in oil and gas prices is increasing the state's economic activity, pointing out that Oklahoma City's unemployment rate stands at 4%.

The CEO attributed the increase in yearly earnings to a $114 million impairment taken in 2015 against Enable Midstream Partners, a gas gathering and processing joint venture with Texas' CenterPoint Energy. OGE's 26.3% ownership in Enable resulted in a $141 million cash contribution, up slightly from $139 million the year before.

"This is free, unencumbered cash flow for OGE to use for our capex programs and support dividend growth," CFO Steve Merrill said.

CenterPoint, the majority partner, has been looking to sell or spin off its 55.4% share of Enable. (See *CenterPoint Abandons REIT Plan; Offers Stake in Gas Partnership to OGE*.)

OGE, which has the right of first offer (ROFO) and the right of first refusal on CenterPoint's stake, made another bid for it Feb. 15 with an unnamed partner. CenterPoint rejected an earlier OGE offer in September.

"Enable [has] great assets and prime locations," Trauschke said. "We are excited about what the future holds."

OG&E asked the Oklahoma Corporation Commission for a $69 million rate increase last summer. An administrative law judge in December recommended a $41 million increase, and a hearing was held before the OCC on Feb. 2.

"We are confident in our case and optimistic regarding the ultimate outcome," Trauschke said.

OGE issued guidance of $1.93 to $2.09/share for consolidated earnings in 2017, assuming normal weather.

Big Spending, Shrinking Coal Fleet in NiSource's Future

By Amanda Durish Cook

NiSource is holding firm to its plan to retire half of its coal generation by 2023 while increasing infrastructure spending from already record levels, the company told Wall Street analysts Wednesday.

The company's Northern Indiana Public Service Co. will close its 480-MW Bailly coal-fired plant near Chesterton, Ind., by mid-2018 and plans to shutter Units 17 and 18 (a combined 722 MW) at the 1,780-MW R.M. Schahfer plant near Wheatfield, Ind., by the end of 2023. (See *NIPSCO Considers Closing 4 Coal Units in 7 Years*.)

NiSource spokesman Nick Meyer confirmed that MISO in mid-December approved the Bailly coal plant retirement for May 31, 2018. Meyer said both retirements are primarily the result of "low market gas prices and an aging coal fleet."

The retirements are part NIPSCO's biannual integrated resource plan submitted to the Indiana Utility Regulatory Commission on Nov. 1. The plan is still awaiting commission approval.

During an earnings call, NiSource CEO Joseph Hamrock said the company's IRP does not call for any new generation through 2019. A longer-term proposal to replace the capacity will come in the next IRP in 2018, the company said.

Bailly Generating Station

In 2015, about 70% of NIPSCO's approximately 3,800-MW generation fleet was coal-fired. Natural gas generation comprises roughly 20% of NIPSCO capacity, the lion's share at the 535-MW Sugar Creek Energy plant near Terre Haute, Ind.

While NiSource's coal capacity will shrink, it expects its infrastructure spending to balloon. Hamrock said NiSource invested a record $1.5 billion in gas and electric utility infrastructure in 2016, including replacement of 406 miles of gas pipeline, 60 miles of underground cable and more than 1,200 electric poles.

Hamrock also reaffirmed the IRP's proposal to upgrade its remaining coal fleet, with the utility asking regulators for approval to invest $400 million in environmental upgrades at the two remaining Schahfer units and its 580-MW Michigan City coal plant.

Hamrock highlighted the company's gas base rate case settlement approvals in Kentucky, Maryland, Pennsylvania and Virginia, as well Indiana regulators' approvals of a seven-year $824 million gas modernization plan and a settlement granting NIPSCO a $72.5 million annual electric rate increase.

Altogether, NiSource plans $20 billion in long-term gas infrastructure investments and $10 billion in long-term electric infrastructure spending. Hamrock said NiSource now expects to invest between $1.6 billion and $1.7 billion in infrastructure in 2017, up from a prior estimate of $1.5 billion.

"We're committed to further reducing our greenhouse gas emissions through these continued gas modernization investments and planned coal-fired plant retirements as we diversify our electric generation portfolio," Hamrock said. In early 2016, he noted, NiSource signed on for EPA's Methane Challenge Program, committing to reduce methane emissions by 300 Mcf over five years.

NiSource reported 2016 income of $328.1 million ($1.02/share) from continuing operations, compared to 2015's $198.6 million ($0.63/share). Fourth-quarter earnings from continuing operations were $88.8 million ($0.28/share) versus $64.4 million ($0.20/share).

2016 was the first fiscal year for NiSource as an exclusively regulated utility, following its separation from Columbia Pipeline Group in mid-2015.

Hamrock said NiSource added 33,000 new customers in 2016, the best growth in a decade. NiSource serves roughly 500,000 electric customers in northern Indiana and 3.5 million natural gas customers in seven states.

FirstEnergy Seeking ZECs to Aid Sale of Ohio Nukes

Continued from page 25

integrity of the regional market price," PJM CEO Andy Ott said in an interview with *The Plain Dealer*, Cleveland's major daily newspaper. "We have to figure out a way to harmonize what is happening in wholesale markets and what is happening at the state level."

Last month, RTO stakeholders approved the creation of the Capacity Construct/Public Policy Senior Task Force to consider how to ensure that PJM's markets don't run afoul of state initiatives. Its first meeting is on March 6. (See *PJM to Review Impact of State Public Policies on RPM*.)

He also noted that the company has restructured its finances in preparation for a potential return to cost-of-service regulation in Ohio.

"We successfully restructured our credit facilities to provide the necessary financial flexibility to become a fully regulated company," he said.

On the regulated utility side, distribution deliveries increased 4% in the fourth quarter. Weather-related usage resulted in an 8% increase in residential sales compared to the prior-year period, while commercial sales increased 3% because of a combination of weather and stronger demand. Heating degree days in the fourth quarter were 8.9% below normal but 26.3% higher than the same period of 2015. Deliveries to industrial customers increased nearly 2%, primarily because of higher usage in the shale gas and steel sectors.

The regulated transmission business increased because of a higher rate base associated with its Energizing the Future infrastructure program. Earnings were flat year over year, reflecting an increase in rate base offset by a lower return on equity at its electric transmission subsidiary, American Transmission Systems Inc., as part of its comprehensive formula rate settlement.

In its competitive generation business, its commodity margin was down compared to 2015 from lower capacity revenues and contract sales volume, though it was partially offset by higher wholesale sales and lower capacity and fuel expenses.

Eversource 2016 Results Up Despite Warm Q1

By Julie Gromer

Despite one of the warmest-ever first quarters in New England, Eversource Energy reported 2016 earnings of $942.3 million ($2.96/share), up 7% over 2015 earnings of $878.5 million ($2.76/share). Revenues fell 4% to $7.64 billion.

The 2015 earnings included 5 cents/share in integration costs. The company, which had previously operated under its six electric and gas distribution companies in Massachusetts, Connecticut and New Hampshire, rebranded under the Eversource name in February 2015. (See *Northeast Utilities Rebranding as Eversource Energy*.)

In the fourth quarter, the company reported earnings of $229.2 million ($0.72/share), up from $181.8 million ($0.57/share) in 2015 but below the Zacks consensus estimate of 75 cents. Fourth-quarter revenues of $1.78 billion also fell short of analysts' expectations of $1.97 billion.

The company largely offset the negative impact of the warm weather in the first quarter by managing operating costs, Eversource CEO Jim Judge said.

Eversource projected 2017 earnings per share of between $3.05 and $3.20 and long-term EPS growth through 2020 of between 5 and 7%.

"2016 was a year of continued strong earnings and dividend growth and the emergence of new opportunities for us to be the catalyst for clean energy development in New England," Judge said. "We envision 2017 to be a year during which many opportunities to enhance service and clean energy options for our customers advance, from bringing clean hydroelectric power into the region, to enabling solar, energy storage, natural gas expansion and offshore wind development."

In December, the company announced it had become 50-50 partners with Denmark-based DONG Energy in Bay State Wind, which plans to develop an offshore wind site south of Martha's Vineyard. The 300-square-mile site has the potential to develop at least 2,000 MW. Bay State Wind expects to bid the project into the initial Massachusetts solicitation for offshore wind this summer.

The company is also an investor in Spectra Energy's proposed Access Northeast natural gas pipeline, which has stalled following legal setbacks in Massachusetts and New Hampshire. Connecticut, Rhode Island and Maine passed legislation allowing their electric distribution companies to sign long-term contracts for natural gas pipeline capacity, but in August, the Supreme Judicial Court in Massachusetts ruled that the Department of Public Utilities does not have the authority to review and approve such contracts. In October, the New Hampshire Public Utilities Commission said it could not approve such contracts under current law.

"One option involves pursuing a change in the laws in Massachusetts and New Hampshire so that they align with statutes in Connecticut, Rhode Island and Maine," said Lee Olivier, executive vice president for enterprise strategy and business development. "We also appealed the New Hampshire PUC order to the state Supreme Court, which agreed last week to consider the case. Another avenue is to secure contracts with natural gas distribution companies in Massachusetts and other New England states."

Eversource is also an investor in the Northern Pass transmission project to bring Canadian hydropower into New England. Last month, the New Hampshire Supreme Court upheld a lower court ruling that the project had the right to bury a power line under a state highway. Hearings on the project are expected before the New Hampshire Site Evaluation Committee between April and July. The company hopes to have a permit from the Department of Energy late this year, with construction beginning early in 2018 and operations commencing in late 2019.

PSEG Becoming Energy Marketer in 'Defensive Move'

By Rory D. Sweeney

Public Service Enterprise Group has received approval to operate as a third-party supplier of retail electric energy in New Jersey and eastern Pennsylvania, company officials said during its report on earnings for the fourth quarter and full year of 2016.

"The forecast for 2017 doesn't assume meaningful contribution from retail sales, but Power's team will begin its marketing efforts," CFO Dan Cregg said.

"This is primarily a defensive move on our part," said CEO Ralph Izzo. "We've opted to pursue this organically, building the capability in-house. We still are targeting between 5 and 10 TWh at its maturity. … We have a head of the operation onboard that we've hired and a couple support folks and are talking to people about some of the back-office fundamentals that we don't want to build on our own."

The business would be in addition to its requirement to provide power to default customers within its footprint that don't shop around — about 11 of the company's 50 annual terawatt-hours of production, Izzo said.

"What we're looking to do here is to basically claw back some of the [customers who purchased elsewhere] that over years had gone away either by some combination of migration or changing of thresholds for the [basic-service] customer. We think that it will help us capture some lost margin and improve our management of basis differentials," Izzo said.

PSEG reported income of $887 million ($1.75/share) for 2016 compared to $1.68 billion ($3.30/share) for 2015. For the fourth quarter, the company reported a loss of $98 million (-$0.19/share) compared to income of $309 million ($0.60/share). Expenses associated with the early retirement of coal-gas units at the Hudson and Mercer generating stations and reserves for a leveraged lease impairment accounted for the difference in year-end results, company officials said. The fourth-quarter loss reflects the impact of depreciation and other expenses associated with the plant retirements.

Operating earnings for the year were $1.48 billion ($2.90/share), virtually unchanged from the $2.91/share earned in 2015. Operating earnings were $279 million ($0.54/share) for the quarter compared to $255 million ($0.50/share) for the same period last year.

Company officials and analysts largely shrugged off the quarterly losses, noting annual operating results came solidly within its guidance of $2.80 to $2.95/share.

"The board's recent decision to increase the common dividend by 4.9% to the indicative annual level of $1.72/share represents confidence in our firm's investment strategy and an acknowledgment of our strong financial condition," Izzo said.

COMPANY BRIEFS

AES Plans to Acquire sPower for $853M

AES announced last week plans to acquire sPower, the 10th largest solar developer in the U.S., for $853 million in cash from private equity firm Fir Tree Partners.

The acquisition will give AES an additional 1,274 MW of utility-scale solar power plants and a portfolio of 10,000 MW of projects in various stages.

AES will take on sPower's operations and a 50% equity stake in all projects, with Alberta Investment Management Corp. assuming the other half.

More: Greentech Media

AEP, Dynegy End Partnership in 2 Plants

Zimmer power plant

American Electric Power and Dynegy last week agreed to part ways in their joint ownership of two Ohio coal-fired power plants, with each company taking the other's share in one plant.

Under the agreements, AEP will sell its 330-MW share of the Zimmer plant, while Dynegy will sell its 312-MW share of the Conesville plant. AEP would own 92% of Conesville after the deals close, with Dayton Power & Light owning a 129-MW share of Unit 4.

The deals are expected to close in the second quarter, but they will require FERC approval.

More: American Electric Power

Duke Appoints Former Edison CEO to Board

Craver

Ted Craver will join Duke Energy's board of directors Wednesday, the company announced last week.

Craver is the former CEO of Edison International. He had worked at the company for 12 years before becoming CEO in 2008, holding the position until he retired in September last year.

Prior to joining Edison, he worked in the banking and finance sector for 22 years. He received both his bachelor's in economics and MBA from the University of Southern California.

More: Duke Energy

Duke Files for Lower PURPA Rates with NCUC

Duke Energy told the North Carolina Utilities Commission last week that its avoided costs under the Public Utility Regulatory Policies Act have dropped to $35/MWh.

That means it will pay solar qualifying facilities $1 billion more than it should over the next 12 years unless the commission lowers the avoid cost rate in the state, Duke said. Solar developers dispute Duke's calculations. "Our view is that the statement Duke made that customers are overpaying for solar is just plain wrong," said Brian O'Hara, senior vice president of strategy for Strata Solar.

The commission will hold a hearing on the rates on April 18.

More: The Charlotte Observer

SolarCity Shifting Business Model to Upfront Payment

SolarCity is shifting its business model to one in which customers pay for their rooftop solar systems upfront, parent company Tesla announced Wednesday.

The company's original business model was to lease rooftop solar systems to customers with no upfront costs in exchange for payments over 20 years.

The original model forced the company to constantly raise hundreds of millions of dollars from investors to cover the costs of the systems it was installing.

More: The Buffalo News

Indiana Michigan Power to Build 2 New Substations

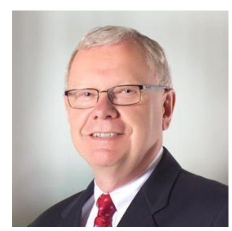
Indiana Michigan Power will construct two new electrical substations and retire two others as part of a $170 million improvement program.

The Central South Bend Reliability Project also includes 2 miles of underground transmission line. It is part of a program that is meant to improve reliability and support economic development in the South Bend, Ind., area.

Work on this portion of the project is expected to begin in early 2018 and finish in 2019.

More: South Bend Tribune

Robert Powers to Retire As AEP Vice Chairman



Powers

American Electric Power announced last week that Robert Powers, vice chairman, will retire from the company Aug. 4. There are no plans to fill his position.

Prior to his current position, Powers was executive vice president and chief operating officer at AEP for six years. He has also served as president of AEP Utilities, executive vice president of AEP Utilities East, executive vice president of generation and vice president of nuclear and technical services during his 19 years with the company.

He joined AEP in 1998 as senior vice president of nuclear generation.

More: American Electric Power

FEDERAL BRIEFS

Pruitt Reportedly Tapping Ally for Agency Post

New EPA Chief Scott Pruitt is picking an attorney who is no stranger to battling EPA rules to head the agency's Office of Policy, a person familiar with the decision told Axios.

Samantha Dravis would come to EPA after serving in senior roles with the Republican Attorneys General Association and its affiliated Rule of Law Defense Fund. Pruitt is a former chairman of both organizations, and both groups have battled the Obama administration's Clean Power Plan.

The choice is reportedly raising concerns within EPA about Dravis' lack of environmental policy experience.

More: *Axios*

Lawmakers to Trump: Fill FERC Commissioner Seats


Walberg

Ninety-three members of the House of Representatives have signed a letter asking President Trump to prioritize the nomination and confirmation of commissioners to FERC.

The letter, which cites the need for a quorum for FERC to serve its essential functions, is written on letterhead from Rep. Tim Walberg (R-Mich.), who serves on the House Energy and Commerce Committee.

"We urge you to swiftly nominate commissioners to FERC and restore important progress on energy infrastructure development," the congressmen said.

More: *Rep. Tim Walberg*

Aging US Dams Need Repairs

Dam components don't last forever, and that's becoming a major issue.

By 2020, 70% of U.S. dams will be more than 50 years old, according to the American Society of Civil Engineers. In 2015, the Association of State Dam Safety Officials listed some 2,000 state-regulated high-hazard dams as needing repairs.

In 2016, the association estimated it would cost $60 billion to rehabilitate all dams that needed to be brought up to safe condition, with nearly $20 billion needed to repair dams with a high potential for hazard.

More: *The New York Times*

Report: Electrification Will Slash Carbon Emissions

Total electrification of transportation and heating in the U.S. would lead to a 72% reduction in greenhouse gases from energy, according to a whitepaper by The Brattle Group.

The group found fully electrifying vehicles and heating devices by 2050 could lead to an increase of 3,560 TWh of new electricity demand that year compared with non-electrification.

One factor that could complicate the projections is a shift in the transportation paradigm to autonomous vehicles and shared fleets.

More: *Vox*

Study: Shutting Nuclear Plant Would Save Upward of $261M

Pacific Northwest ratepayers could save hundreds of millions of dollars if the Bonneville Power Administration and Energy Northwest were to close the Columbia Generating Station and replace its output with renewable energy, according to a new study by McCullough Research.

The study, which was commissioned by the anti-nuclear group Physicians for Social Responsibility, places the savings between $261.2 million to $530.7 million over 10 years.

"The report faults CGS for what makes it so valuable: We make electricity round-the-clock," said Mike Paoli, a spokesman for Energy Northwest. "With wind and solar, a lot of the generation happens at off-peak times. When peak demand comes, you have to have baseload generation to cover that."

More: *The Associated Press*

Cheney Appointed as FERC Administrative Law Judge

Judge Clark S. Cheney has been appointed a FERC administrative law judge, the commission announced last week.

Since February 2016, Cheney has served as an ALJ with the Social Security Administration in Baltimore, Md. Prior to that, he was an attorney adviser and acting assistant general counsel at the U.S. International Trade Commission. He also worked in private practice as a founding partner of the Paterus Law Group.

Cheney is a 2002 graduate of Georgetown University Law Center. He earned a bachelor's degree in electrical engineering from the University of Utah.

More: *FERC*

Pruitt Meets the EPA

Continued from page 4

Emails Released

The day after Pruitt's speech, the Oklahoma attorney general's office released more than 6,000 pages of his email correspondence in response to an open records lawsuit by the watchdog group Center for Media and Democracy.

The emails show Pruitt taking talking points from energy companies, including American Electric Power and Oklahoma Gas & Electric, for letters complaining to federal environmental officials over rules on ozone, fracking and greenhouse gas emissions from oil and gas production.

Among the emails were some obtained previously by *The New York Times*, which reported in 2014 that Pruitt had sent letters to EPA, above his signature on state letterhead, that had been drafted by Devon Energy, an Oklahoma oil and gas producer.

The emails were "basically a big, long bear hug between Pruitt and oil and gas companies," said Ken Cook, president of the Environmental Working Group, a nonprofit group that claims a mission of protecting human health and the environment.

The release of the emails also called into question Pruitt's assertion in his confirmation hearing that he had never used private email for state business. KOKH, the Fox affiliate in Oklahoma City, reported that the attorney general's office confirmed Pruitt had used a private account for some official correspondence.

STATE BRIEFS

CALIFORNIA

Bills Aims to Rid Grid of Fossil Fuels by 2045

State Sen. Kevin de Leon introduced legislation last week that would require the state to get 100% of its electricity from renewable sources by 2045. The bill also would move ahead by five years, to 2025, the state's existing target to get 50% of electricity from renewable energy.


de Leon

Last year, the state drew about 27% of its electricity from renewables, according to the Energy Commission. By law it was required to draw 25%.

If passed, the bill would make the state the second to commit to a carbon-free grid, the first being Hawaii, which set a deadline of 2045.

More: *InsideClimate News*

COLORADO

PUC Engineer Recommends Denial of Boulder's Utility Plan

The Public Utilities Commission's chief engineer has recommended the commission deny an application by the city of Boulder to acquire certain Xcel Energy assets needed to begin operating a municipal electric utility.

Boulder has technically created the utility but needs approval of a plan that would allow service to customers within city limits before it can begin operations. The city has proposed a five-year wholesale contract in which it would lease the Xcel facilities it hopes to acquire back to Xcel starting on the first day of the potential municipal utility's operation. During the contract period, Boulder wants to purchase power from Xcel while it builds out city power generation assets.

In testimony filed earlier this month, the PUC's chief engineer noted the commission did not have clear authority to order Xcel to enter a contract to lease the property after Boulder acquires it.

More: *Daily Camera*

IDAHO

Environmentalists Appeal Gateway West Tx Lines

Environmental group Western Watersheds Project has filed an appeal with the Department of the Interior's Board of Land Appeals seeking to stop construction of two high-voltage transmission lines in the southwestern part of the state. The group says the project will damage the habitat of the imperiled sage grouse.

The appeal, filed this month, involves two segments of the 1,000-mile Gateway West transmission line project intended to deliver 1,500 MW from southern Wyoming through the southern part of the state to points west, potentially tapping into Wyoming's wind energy.

More: *The Associated Press*

ILLINOIS

Regulators OK Plan to Share Anonymous Energy Usage Data

State regulators last week approved a plan by Commonwealth Edison to release anonymized energy usage data to third-party companies and researchers.

"One of the great benefits of smart meter technology is the availability of data that will enable a growing sector of energy tech companies to design new products and pricing programs that will help customers save money and meet the growing interest for more choice and personalized services," Val Jensen, ComEd's senior vice president of customer operations, said in a press release announcing the program's approval.

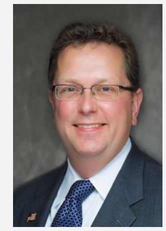
The data will come in 30-minute intervals for all zip codes where smart meters have been deployed and will adhere to the 15/15 rule.

More: *Midwest Energy News*

INDIANA

Solar Advocates Criticize Net Metering Bill

The Indiana Distributed Energy Alliance has issued a letter to the chair of the Senate Committee on Utilities claiming statements made by the sponsor of a bill that would end net metering are "simply not true" and may have "unfairly influenced" the committee's vote.


Hershman

Senate Bill 309, sponsored by Sen. Brandt Hershman, allows utilities to stop providing net metering incentives as soon as they equal 1% of a utility's peak summer load. The committee voted last week 8-2 to pass the bill along to the full Senate, which is expected to vote on it Thursday at earliest. The letter, signed by IDEA's president, Laura Ann Arnold, asks the committee not to move forward on its report until the alleged misstatements can be rectified.

According to the letter, one of the misstatements is that net metering goes away when utilities hit 1% of their baseload generation under current Utility Regulatory Commission rules.

More: *pv magazine*

KENTUCKY

Proposed Legislation Seeks to Reduce Rate Increases

Two measures with bipartisan support have been introduced in the House of Representatives with the goal of reducing rate increases that Kentucky Power customers in the eastern portion of the state are facing.

House Resolution 109 seeks reconsideration from the Public Service Commission in regards to the approval of rate increases. House Bill 455 would increase the commission's ability to protect the public interest with respect to utility services and allow the commission to review cases where an out-of-state utility provider acts in a manner that might be contradictory to what the commission allows for state-based utility providers.

More: *The Hazard Herald*

MAINE

Cities Greenlight Solar Farms on Old Landfills

Portland and South Portland approved plans Wednesday to partner in a solar project with ReVision Energy that would build solar farms on old landfills in each city in hopes of making money in the long run.

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STATE BRIEFS

Continued from page 30

ReVision will install a 2,992-panel photovoltaic array on a capped 34-acre landfill in South Portland and 2,816 panels on a 44-acre landfill in Portland. Each array would generate 1.2 million kWh of energy a year.

Each city will purchase electricity from ReVision at higher rates than traditional pricing for the first six years, before being able to purchase the equipment outright for nearly $1.6 million. ReVision predicted each city would make money after 10 years and potentially make $3 million over the 40-year life of the projects. An outside review outlined a worst-case scenario in which the cities could potentially lose money.

More: *Portland Press Herald*

MARYLAND

Solar Job Creation Soars by 27% in 2016

The state added 1,160 new solar jobs in 2016, a 27% increase over the previous year, bringing the industry's employment to more than 5,400, according to an annual solar jobs census by the Solar Foundation.

Last year's boon came while the U.S. solar market nearly doubled, with production capacity growing 95% to 14,626 MW, according to a preview of the upcoming U.S. Solar Market Insight report.

In a move that accelerated a previous renewable energy goal, state lawmakers earlier this month voted to override Gov. Larry Hogan's veto of a requirement that a quarter of the state's electricity come from renewable sources by 2020.

More: *The Baltimore Sun*

MINNESOTA

Bipartisan Effort Aims for 50% Renewables

Lt. Gov. Tina Smith has announced a bipartisan proposal that would increase the state's renewable portfolio standard from 25% by 2025 to 50% by 2030.


Smith

The state presently gets 21% of its electricity from renewable sources and is on track to surpass the current goals set 10 years ago by the Next Generation Energy Act.

The governor's office said the state presently has 15,000 clean energy jobs that contribute more than $1 billion in yearly economic activity. Increasing the state's RPS to 50% would help continue this growth while benefiting the state's economy, health and environment, the administration said.

More: *North American Wind Power*

NORTH DAKOTA

Senate Says 'No' to Wind Energy Moratorium

The Senate passed legislation Wednesday calling for a study of the state's energy plan after stripping the bill of a two-year moratorium on new wind development.

Senate Bill 2314, as passed by the Senate Energy and Natural Resources Committee last week, would have prevented the Public Service Commission from approving wind farm applications submitted in the two years beginning Aug. 1 unless it determined added generation was necessary.

Republican Sen. Dwight Cook, who introduced the moratorium amendment, has expressed concerns that wind energy production is causing coal production to decline. "We had the discussion we needed to have," Cook said after the vote.

More: *Forum News Service*

TEXAS

67% of Houston Ratepayers Don't Understand Their Electric Bills

Sixty-seven percent of Houston ratepayers don't fully understand their electric bills, according to a poll released Feb. 21 by the website PowertoConfuse.org.

The survey also found about half of Houston's energy buyers identified lower energy costs as the primary improvement they'd like to see from their current energy companies, and 42% said they want improvements in the transparency, timeliness and accuracy of rate and energy usage information. Forty percent of respondents said they would change their retail energy providers today if they weren't locked into a contract.

The survey was conducted by independent research firm Lab42.

More: *Energy Manager Today*

VIRGINIA

Governor Vetoes Coal Tax Credit Bill for 3rd Year

For the third year in a row, Gov. Terry McAuliffe vetoed a bill to reinstate coal tax credits last week, citing their "ineffectiveness" as his reason.

The bill by Republican Del. Terry Kilgore would have reinstated up to $7.3 million in tax credits for coal mine owners and coal-buying power companies.

McAuliffe cited a 2012 Joint Legislative Audit and Review Commission report finding that coal production declined at the same rate or faster even with the state-issued tax credits as the basis for his reasoning.

More: *The Roanoke Times*

Enviros Upset by Language Dropped from Coal Ash Bill

A bill passed by the House of Delegates last week would require Dominion Virginia Power to study whether its coal ash ponds might pollute the water, but environmentalists are upset that the bill drops stronger language that was included in the version of the bill that the Senate passed on Feb. 7.

As passed by the Senate, SB 1398 requires the director of the Department of Environmental Quality to consider the environmental studies when granting permits to close coal ash ponds. But the House version provides that the DEQ director "shall not suspend, delay or defer the issuance of any permit" pending the completion of the environmental assessment. "In deciding whether to issue any such permit, the director need not include or rely upon his review of any such assessment," the House version also says.

"You might say that the only thing that remains are some of the ashes of the first bill," Del. Mark Keane said when introducing the bill on the floor.

More: *Capital News Service*