RTO Insider
Your Eyes and Ears on the Organized Electric Markets
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Power Markets at Risk from State Actions, Speakers Tell FERC

By Rich Heidorn Jr. and Michael Kuser

Massachusetts DPU Chair Angela M. O'Connor and NHPUC Commissioner Robert R. Scott | *© RTO Insider*

WASHINGTON — RTO capacity markets are in serious danger from state renewable procurements and subsidies for nuclear plants, speakers told FERC on Monday.

Jeffrey W. Bentz, director of analysis for the New England States Committee on Electricity, said failing to coordinate ISO-NE's capacity market with state renewable procurements will lead to oversupply and excessive costs to ratepayers in the region.

"Maybe that's not in the next three to five years," he said on the first day of a two-day technical conference on the impact of state electricity policies on ISO-NE, NYISO and PJM. "But down the road, clearly we can see that train wreck coming and it would probably be the end of the markets as we know them today."

New Hampshire Public Utilities Commissioner Robert R. Scott also had a warning: "It is not possible to fully preserve the benefits

Continued on page 35

Salt River Project Signs on to Become 9th EIM Participant

By Robert Mullin

Phoenix-based Salt River Project (SRP) on Thursday signed an agreement with CAISO that puts the utility on track to join with the Western Energy Imbalance Market (EIM) in April 2020.

By linking up with the EIM, SRP will follow a course already charted by Arizona's biggest utility, Arizona Public Service, which began trading in the West's only real-time electricity market last October. (See *Arizona Public Service, Puget Sound Energy Begin Trading in EIM*.)

Publicly owned SRP is Arizona's second largest electricity provider and the biggest supplier of water in the greater Phoenix area. It serves more than 1 million customers within a territory that covers more ground than the state of Delaware.

Continued on page 5

DC Circuit Puts Hold on CPP, MATS Challenges

By Michael Brooks and Rich Heidorn Jr.

The D.C. Circuit Court of Appeals granted the Trump administration's requests to hold in abeyance lawsuits challenging EPA's Clean Power Plan and Mercury and Air Toxics Standards, small but important victories for the president — just before his 100th day in office — as he tries to reverse the Obama administration's regulations on fossil fuel-fired power plants.

The orders also come just before a march in D.C. protesting President Trump's climate change policies.

The administration filed its requests on the CPP and MATS cases — along with several others regarding numerous lawsuits concerning Obama-era environmental regulations — shortly after Trump signed an executive order at EPA headquarters last month directing agencies to review all existing regulations "that potentially burden the development or use of domestically produced energy resources." (See *Trump Order Begins Perilous Attempt to Undo Clean Power Plan*.)

The court on Friday ordered the suit against the CPP, filed by 26 states, to be paused for 60 days, with EPA required to file a status report in 30 days.

Stay

Implementation of the CPP was stayed by the Supreme Court in February 2016, shortly after the states filed their challenge, and the D.C. Circuit heard more than seven hours of oral arguments in September. The

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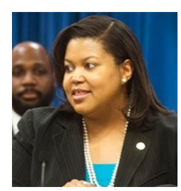
No 2nd Term for FERC's Honorable



FERC Commissioner Colette Honorable announced she will not seek a second term on the commission when her term expires June 30. (p.24)

Also in this issue:

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IN THIS WEEK'S ISSUE

Correction

An article in the April 25 issue on the Gulf Coast Power Association's Spring Conference incorrectly attributed a quote to ERCOT CEO Bill Magness.

It was NYISO CEO Brad Jones who said that if ISOs and RTOs are going to accommodate distributed generation on their systems, "We have to chart that path for the aggregators. We have to show them what type of generation we need. We have to show them how we price them and how we dispatch them. We have to show these providers how we'll monitor their performance."

CAISO NEWS

Utility Proposal Would Increase Legacy Costs for California CCAs

By Robert Mullin

Californians who receive their electricity service from one of the state's growing number of community choice aggregators (CCAs) could face higher costs under a plan being proposed by the state's three investor-owned utilities.

The proposal — filed jointly by Pacific Gas and Electric, Southern California Edison and San Diego Gas & Electric — calls for the California Public Utilities Commission to adopt a new approach to apportioning the utilities' costs for energy contracts among the departing and remaining customers.

Utility customers departing for CCAs and direct access arrangements "are not paying their full share of costs associated with the long-term contracts [for renewables], forcing other customers to pay more," PG&E said in a statement. California's direct access program allows nonresidential retail customers to purchase power from independent electricity suppliers.

The new plan would replace the PUC's current formula for calculating those costs — the power charge indifference adjustment (PCIA) — with a new system the utilities call the portfolio allocation methodology (PAM).

The PCIA acts as an exit fee, requiring customers departing for CCA to pay for their estimated share of the contracts IOUs signed to meet California's energy policy mandates, such as the renewable portfolio standard and energy storage requirements. The fees are assessed until the termination of the contracts. Departing customers also pay a competition transition charge (CTC) that represents their share of a utility's costs for older fossil fuel generation.

'Financially Indifferent'

The fees are designed to keep the IOUs' remaining bundled service customers "financially indifferent" to the departure of CCA customers, the PUC has said.

The PCIA's calculation relies on an estimate of "above-market" costs incurred by the IOUs for procuring or building policy-driven resources.

But the utilities see a problem with that approach. The PUC bases its "above-market" cost assessment on administratively defined benchmarks developed during a time when prices for renewable energy credits and resource adequacy were higher than they are today. That makes the IOUs' portfolios appear cheaper than they actually are, the utilities contend.

"This directly translates into departing load customers paying PCIA and CTC rates that do not fully pay for their share of the actual above-market costs of the portfolios, which is contrary to law," the utilities said.

Under the utilities' PAM proposal, departing customers would be charged based on the "actual" costs for the contracts procured on their behalf. On the flip side, those customers would also be allocated the "actual value" of contract portfolios, including RECs, capacity credits and revenues generated from providing ancillary services.

Under the new methodology, rates for the contracts would be regularly trued-up in the same manner as those charged to the IOUs' remaining bundled customers, although the utilities note that most of the agreements in question are fixed-cost.

The IOUs are proposing to implement PAM on a "vintaged-portfolio" basis that depends on the customer's departure date, "ensuring that all customers are only assigned the costs and benefits of resources actually procured or built on their behalf."

"We can achieve the state's clean energy goals while also supporting customer choice and treating all customers fairly and equally," said Steve Malnight, PG&E's senior vice president of strategy and policy.

Consumer Protections Needed

Woody Hastings, renewable energy implementation manager for the Santa Rosa-based Center for Climate Protection, told *RTO Insider* his support for the proposal would in part depend on whether it contains adequate consumer protections. "We have long held that the PCIA is broken," he said.

Hastings said that while his organization agrees with the concept of bundled ratepayer indifference, his assessment of the plan would come down to exactly what expenses the utilities would roll into the new methodology.

"We need some kind of assurance that avoidable costs are being avoided," Hastings said. "A third-party audit should happen [in order] to show that the numbers being presented are valid."

In their filing, the utilities said they will seek approval to develop a formal process to provide load-serving entities with access to portfolio and contract data as part of the PAM.

"PAM is transparent, objective and fully consistent with California law ... and should be expeditiously adopted by the commission," the utilities wrote.

CAISO NEWS

CAISO Considers Fast-Track Approval for 2 Tx Projects

By Robert Mullin

CAISO management is considering whether to approve two low-cost transmission upgrade projects using an accelerated procedure that bypasses the usual stakeholder process and the Board of Governors.

One project would entail landscaping changes needed to accommodate an uprate on the Pacific DC Intertie, Southern California's direct link with hydroelectric generation coming out of the Pacific Northwest.

The other would employ cutting-edge technology to avert the temporary threat of summertime overloading on key transmission lines serving the San Diego area.

CAISO bylaws allow for ISO management to approve projects with capital costs less than $50 million on an expedited basis under conditions in which there is an "urgent" need for the project, coupled with a "high degree of certainty" those projects won't conflict with other solutions being considered in the normal transmission planning process.

Another requirement is the accelerated timeline must be "driven by the ISO's evaluation process or external circumstances," according to CAISO. The process also comes with some obligations on the part of management, including requirements to allow stakeholders to review and comment on the project, followed by a briefing of the board.

The two projects under consideration could receive approval early next month, the ISO said.

External developments are driving the need for the proposed Pacific DC Intertie project, requested by Southern California Edison in response to upgrades performed by the Bonneville Power Administration at the line's northern terminus at Celilo Station, near The Dalles Dam in Oregon.

BPA's improvements have increased the line's north-to-south transfer capability from 3,100 MW to 3,220 MW. To capture its estimated 60 MW share of the uprate, SoCalEd must pay for its portion of the costs to grade and recontour the land under the southern end of the line, which it owns jointly with the Los Angeles Department of Water and Power (LADWP).

Celilo Station, the northern terminus of the Pacific DC Intertie. | © *RTO Insider*

Total costs are expected to come in at less than $1 million. CAISO considers the nudge in capacity to be "extremely cost effective" for SoCalEd — estimated at less than $10/kW.

"We do think it would be a waste not to capture the incremental benefits," Neil Millar, the ISO's executive director of infrastructure development, said during an April 25 call to discuss the projects.

"Barring new information to the contrary, the ISO is interested in moving forward with approval" of the intertie project, CAISO has said. SoCalEd expects LADWP to complete the grading work in October.

The proposed San Diego area project is more technologically complex.

San Diego Gas & Electric is seeking to deploy advanced power flow devices on area transmission lines in order to reduce the utility's local capacity requirements during the summer of 2018.

The utility is concerned that completion of the Sycamore-Penasquitos 230-kV transmission project — recently pushed back from early to late June 2018 — could meet with further delays. That would increase the risk next summer of overloading the Mission-Old Town 230-kV circuit — a pair of lines serving a populous load pocket in the city — under circumstances in which peak loads shift dramatically because of variability in behind-the-meter solar output. CAISO estimates that it could be forced to shed as much as 370 MW of load within 30 minutes of a line outage.

The risk is, in part, being precipitated by the retirement of the 950-MW natural gas-fired Encina power, which could be given an extended life to help mitigate the potential overload problem until the Sycamore-Penasquitos line is energized.

John Jontry, manager of Electric Transmission Grid Planning at SDG&E, noted that keeping Encina's capacity in reserve would be a costly solution.

"The less generation we have to procure, the less we have to pay," Jontry said.

The utility is instead proposing using a combination of a portion of Encina generation complemented by power flow control devices installed on the Mission-Old Town line that would, in an emergency, create up to 5 ohms of impedance on the line, forcing flows into other parts of the system.

"The devices push power away from the line to which they are connected," said Andee McCoy, an executive with Smart Wires, the company that manufactures the equipment.

McCoy added that the "breadth" of the deployment could be correlated with the amount of Encina generation expected to be online next year.

Depending on the number deployed, estimated costs run from $6 million to $12 million, compared with $8 million to $10 million for a phase-shifting transformer and $20 million to $30 million to reconductor the lines for what is effectively a temporary issue for the utility.

Jontry also lauded the fact that a "big chunk" of the capital costs are covering devices that could be redeployed to other areas when they're no longer needed for the Mission-Old Town line.

"We're kind of breaking new ground here because it's a new way of looking at utility infrastructure," Jontry said.

CAISO NEWS

Salt River Project Signs on to Become 9th EIM Participant

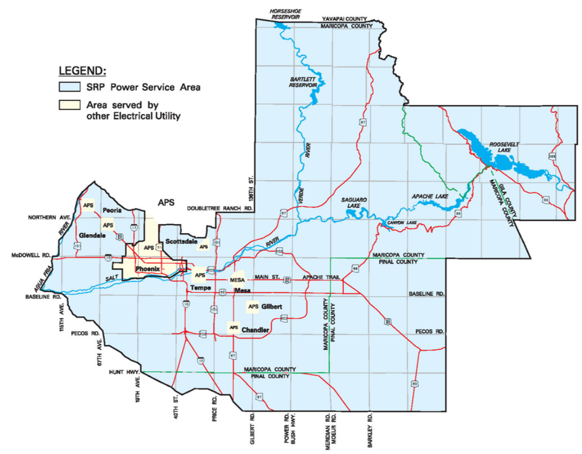
Continued from page 1

The utility estimates that it will save up to $4.5 million yearly by participating in the EIM.

"The EIM can help save money for SRP and its customers by providing real-time access to the lowest-cost resources across a significant portion of the Western grid," John Coggins, SRP's senior director of power delivery, said in a statement. "It will complement SRP-owned generating resources and energy purchases from the wholesale market."

SRP controls about 9.5 GW of generating capacity, which includes the utility's ownership of 3,461 MW of natural gas, a 688-MW share in the output from the Palo Verde nuclear plant and 745 MW of renewable generation, more than half of which is hydroelectric. The portfolio also includes 2,225 MW of coal-fired generation.

Perhaps most important for the EIM, which relies on having ample transmission capacity to prevent market separation, SRP offers key transmission assets that will improve transfer capability in the desert Southwest. Among them are 500-kV lines extending from Phoenix to points north and west, including to the Mead and Marketplace wheeling points near the California-Nevada border, the Navajo generating station in northern Arizona and the Palo Verde plant west of the city. Palo Verde, Mead and Marketplace all function as key pricing points for power wheeled into the Southern California market.



Salt River Project electric service area | © *RTO Insider*

Under its agreement with CAISO, SRP will pay the ISO a $910,000 fixed implementation fee to cover preparations for EIM membership. Those include integrating SRP's full network model into the market's software, facilitating data exchange and performing market simulations leading up to the go-live date.

SRP will be the ninth balancing authority to join the EIM. Besides APS, current members include PacifiCorp, NV Energy and Puget Sound Energy. Portland General Electric is scheduled to begin trading in the market this October, followed next spring by Idaho Power. Sacramento Municipal Utility District and Seattle City Light are slated to join in April 2019, making them the first publicly owned participants.

CAISO estimates that the EIM has produced $142 million in gross benefits for its members since the market commenced operation in November 2014. The benefits represent either cost savings — for example, the reduced need for reserves and greenhouse gas credits — or increased profits from merchant operations. The market's ability to reduce renewable curtailments also enables participants to collect renewable energy credits that would not otherwise be issued. (See EIM Benefit up 8% in Q4 with APS, Puget Sound Additions.)

ERCOT NEWS

TAC OKs Changes to CRR Calendar, Communications Rules

ERCOT's Technical Advisory Committee last week unanimously approved changes to the ISO's congestion revenue rights (CRR) activity calendar and its Nodal Operating Guide.

Both votes were conducted by email following an April 24 information session. The TAC canceled its regularly scheduled meeting due to a lack of voting items.

The first change updates ERCOT's CRR calendar following the Board of Directors' approval earlier in April of a nodal protocol revision request (NPRR). NPRR808 extended the CRR auction process into the third year forward — with one monthly and one long-term auction each calendar month — and revised the percentages sold in its long-term sequence. It also aligned modifying load zones to the timetable.

"This should be a huge benefit to our market, and I'm excited to see it implemented," Morgan Stanley's Clayton Greer emailed his fellow TAC members after the vote.

ERCOT's Carrie Bivens, manager of forward markets, said during the information session that the TAC's approval was required by May 1 in order to be ready for the long-term auction that begins this fall. She said staff has not yet completed testing to ensure the credit monitoring and management system can handle the additional inventory.

"We believe we can, but the risk remains out there," Bivens said.

The change to the Nodal Operating Guide (NOGRR167) revises it to be consistent with NPRR776, which was also approved by the board in April and aligns the protocol language with currently used verbal communication practices between transmission service providers, qualified scheduling entities and generation resources. The TAC had tabled NOGRR167 during its March meeting.

The committee is scheduled to meet again May 25.

— Tom Kleckner

MISO NEWS

MISO's Next Step on Storage: 'Common Issues' Meeting; Task Team?

By Amanda Durish Cook

Kim Sperry, director of market engineering (left), and Kari Bennett, executive director of external affairs | © RTO Insider

CARMEL, Ind. — MISO will schedule a "common issues" meeting in response to a request from a group of stakeholders to better define energy storage, a prelude to the possible formation of a task team dedicated to the issue.

Consumers Energy, DTE Energy, Ameren, Xcel Energy and Indianapolis Power and Light, which all own storage resources, submitted a joint request that MISO create a model for storage's participation in the market and track its growth using the RTO's Market Roadmap project list. The companies asked that MISO revise its Tariff, dispatch methodology, capacity constructs and models used to determine interconnection rights to "recognize the physical and operational characteristics of energy storage resources."

At an April 26 Steering Committee meeting, Chair Tia Elliott said the common issues meeting will be used to gather information before creating an energy storage task team or work group. The meeting date has not been scheduled by MISO's stakeholder relations team.

The RTO is already under pressure to revise its rules for storage under FERC's Feb. 1 order in response to a complaint by IPL over compensation for the 20-MW battery at its Harding Street Station. (See *MISO Ordered to Change Storage Rules Following IPL Complaint*.)

Justin Stewart of MISO's stakeholder relations unit said the stakeholders' request was too broad to be covered by a single Market Roadmap assignment, saying it "touches too many market functions."

Under the stakeholder redesign completed last year, Steering Committee members can assign completed issues submissions forms to other committees, reject considering the issue altogether, assign it as a common issue or send it back for more detailed information.

Aligned with NOPR

DTE's Nick Griffin, who authored the request, said his proposal aligns with the aims of FERC's Notice of Proposed Rulemaking on energy storage, issued in November. (See *FERC Rule Would Boost Energy Storage, DER*.)

"Whether or not FERC mandates this, we feel this will be useful to leverage storage in the MISO market," Griffin said.

Steering Committee members said the topic could warrant a common issues meeting and then a possible task team. But they said creating storage market definitions was too tall an order for a typical Market Roadmap assignment.

"The topic of energy storage does touch many of the areas under [the main MISO committees]. It may be appropriate for us to consider a task force or a work group … where these issues related to energy storage can be discussed," Elliott said.

MISO Executive Director of External Affairs Kari Bennett said the RTO was open to creating a stakeholder group to handle energy storage topics as part of a "big picture evaluation."

"I think there's a lot of embedded issues in here, and the Market Roadmap typically only handles one issue. … I think that a common issues meeting could be used to tease out all of those individual issues," Alliant Energy's Mitchell Myhre said.

MISO Executive Director of Market Design Jeff Bladen said a task team could use its six-month lifespan to come up with a "package of recommendations," then have the RTO's committees review their possible responsibilities in creating market definitions for storage. "Because it's so important, it would be important for stakeholders to get a chance to think through all of those issues in a multifaceted fashion," Bladen said.

Compliance Filing in IPL Complaint

In March, MISO requested a rehearing of FERC's order in the IPL complaint, arguing that the storage NOPR is a "near-complete" overlap of the ordered storage revisions (EL17-8). MISO said IPL's insistence that it participate fully in the market is hollow, as the Harding Street storage only provides primary frequency response.

However, with FERC at a near-standstill from the lack of a quorum, MISO made a compliance filing April 3 in response to the order, proposing the creation of a new resource category, Stored Energy Resource – Type II, that would not be limited to regulating services (ER17-1376). The proposal would require that storage function largely as a demand response resource, except that it would be treated as a regular generation resource for settlements and would not be eligible for revenue sufficiency guarantee payments or day-ahead margin assurance payments.

"We made a compliance filing in the docket, but it doesn't do justice to the issue," Bladen said, indicating that a more detailed market model for storage is inevitable.

FERC Seeks More Details on MISO Pseudo-Tie Proposal

By Amanda Durish Cook

FERC staff wants more details on MISO's proposed *pro forma* pseudo-tie agreement, which the RTO hopes to begin enforcing in June. On Friday, staff issued a deficiency letter posing 10 questions to the RTO — some of which echoed concerns stakeholders raised in December. (See MISO Stakeholders Narrowly Support New Pseudo-Tie Rules.)

The proposal would allow proposed pseudo-ties to be rejected and existing ones revoked if a market-to-market flowgate is not within 2% of MISO and the neighboring market's calculated generator-to-load distribution factor.

The rules also require market participants to agree to a congestion management plan with both RTOs prior to pseudo-tie implementation and to maintain long-term firm transmission service requests from source to sink for the life of the pseudo-tie. New transmission service requests would have to be submitted a year in advance. The agreement also opens approved pseudo-ties up for restudies when changes to the source or sink occur.

FERC's questions asked for details in particular about the generator-to-load distribution factor threshold, the transmission service request requirement and MISO's attempts to coordinate with PJM before filing the proposal in February.

Coordination with PJM

FERC staff asked "the extent to which MISO worked with neighboring balancing authorities" — in this case, PJM — in developing the protocol, including the right to terminate pseudo-ties and the requirements for firm transmission. They asked MISO to list which issues were discussed and which were still unresolved at the time of its filing, and to describe any efforts to include the agreement in the RTOs' joint operating agreement.

PJM filed a protest to the proposed *pro forma*, complaining that it had not been given input in MISO's rulemaking process.

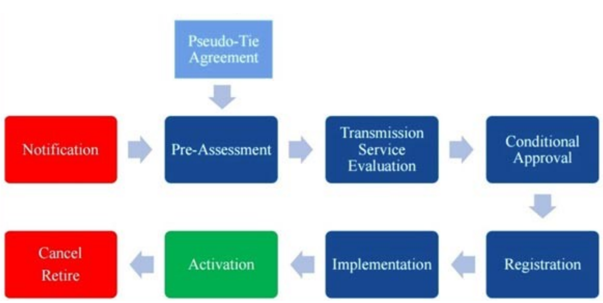
"Please explain why the proposal includes only one balancing authority (i.e., MISO) as a signatory to the agreement, when both the native and attaining balancing authorities are impacted entities in a pseudo-tie arrangement," staff asked. "How does such proposal adequately address the concerns of other entities involved in the pseudo-tie arrangement related to the agreement?"

Stakeholders asked MISO late last year if the RTO would attempt to memorialize a version of its agreement in the JOA, but staff said at the time that there was no need to do so. MISO Senior Director of Regional Operations David Zwergel said in April that the two RTOs were considering adding coordinated pseudo-tie policies to their JOA.

Termination Process

Staff want to know more about MISO's process for terminating a pseudo-tie. They asked what notification or coordination MISO would use with the involved balancing authority and also asked if terminating the agreement would have the same results as terminating the pseudo-tie, as MISO used both phrases in the agreement.

Distribution Factor



Pseudo-tie agreement implementation process | *MISO*

MISO's explanation of its 2% generator-to-load distribution factor threshold seemed too vague for FERC staff. They asked how the RTO would account for modeling differences between balancing authorities and how it decided the 2% figure was appropriate. In the agreement, MISO proposed comparing its generator-to-load distribution factor to either an interchange distribution calculator or the other balancing authority's generator-to-load distribution factor, and FERC staff asked how MISO would decide which one to use.

Application to Existing Pseudo-Ties

Staff want clarification on whether the new rules will apply to existing pseudo-ties, pointing out that MISO contradicted itself in the agreement language by saying that existing pseudo-ties could be revoked if the generator-to-load distribution factor doesn't line up within the 2% while writing, "MISO proposes that the requirements outlined in the agreement will not be retroactively applied to existing pseudo-ties."

"Does MISO's proposal intend to apply … to existing pseudo-ties that were implemented prior to the effective date that the *pro forma* agreement was added to the Tariff?" staff asked.

In previous stakeholder meetings, MISO staff have said that while the RTO doesn't envision having to revoke any existing pseudo-ties based on the 2% threshold, it wants the right to rescind existing pseudo-ties in case an attaining RTO drastically changes its model and large discrepancies between models occur.

Firm Transmission

The firm transmission requirement is also a source of ambiguity, FERC staff said. They asked if pseudo-ties would be de facto cut off if a transmission service request (TSR) expires, and if pseudo-ties would be suspended in the time it takes to transition an old TSR to a new one. What happens, they asked, to pseudo-ties granted approval before the new *pro forma* but not yet holding TSRs, or pseudo-ties without TSRs that have cleared the capacity auction?

Restudies

MISO must provide FERC proposed conditions for the restudy of pseudo-ties, with more detail around "circumstances under which changes to the source or sink data could occur that would require a restudy of

Continued on page 9

MISO NEWS

Advisory Committee Briefs

AC Prods Restart on Tighter Uninstructed Deviations

CARMEL, Ind. — The MISO Advisory Committee is attempting to resuscitate a yearslong discussion on whether the RTO should crack down on generators that fail to follow dispatch instructions.

Although the committee did not ultimately decide whether to ask for a proposal during the April 26 conference call, it planned for more discussion on the topic at its May 4 call.

Multiple stakeholders asked MISO to convene a workshop on the uninstructed deviations issue to discuss the RTO's analysis and what its proposal will look like.

Chair Audrey Penner said the issue has repeatedly fallen on and off the committee's work plan. "It seems like no one is working quite together on this issue," Penner said. She asked stakeholders if they want action from MISO, if they think the issue needs to be dropped or if the issue would solve itself with the introduction of five-minute settlements.

"I think MISO wants to hear more clearly from stakeholders on what they want," Penner added. She asked sectors to provide suggestions on the issue to the Market Subcommittee, where discussion will take place.

MSC Chair Kent Feliks, who noted that narrowing uninstructed deviations "has been discussed for years in pretty good detail in the Market Subcommittee," said input from AC sectors would be helpful.

The issue has earned "medium" priority on MISO's Market Roadmap list of market improvements — with a goal last October for a formula change and tighter bands by the end of 2017 — but the project has been at a standstill for a year.

John Weissenborn, MISO's director of market services, said the delay can be chalked up to RTO staff working on other, more pressing priorities. He said MISO will run a study using historical data that could provide generators guidance on whether their current ramp rate would pass muster under tighter bandwidths.

"I think there has been a lack of coalescing around the issue," Weissenborn told stakeholders. "It is an important issue, and there is a reliability issue with these dragging megawatts." He added that aligning the dispatch signal with five-minute settlements is a "very good step" but wouldn't eliminate the issue of generators receiving make-whole payments despite not responding to dispatch instructions.

The Independent Market Monitor has repeated concerns over the last five years that slow-ramping resources have too much flexibility to deviate from dispatch instructions, with bandwidths so generous that generators can ignore dispatch signals and still profit using the day-ahead margin assistance payment. (See *Monitor Again Criticizes MISO's Uninstructed Deviation Rules*.) "Generators can essentially ignore dispatch signals and not be penalized under MISO's rules," the committee summarized.

Currently, MISO flags generators if they

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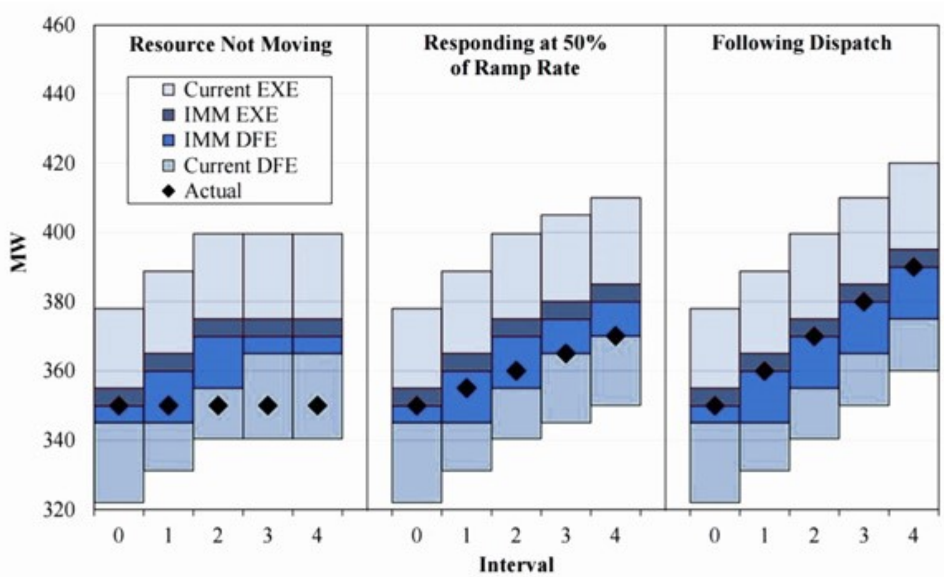


Illustration of proposed and existing threshold | *Potomac Economics*

FERC Seeks More Details on MISO Pseudo-Tie Proposal

Continued from page 8

the TSR," FERC said.

The RTO also has to establish who will be responsible for the cost of network upgrades if a restudy shows they are needed.

Staff also asked that MISO describe the operational and dispatch data it receives from pseudo-tied generators and how often it gets such data.

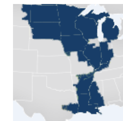
The RTO has 45 days to respond to the commission's questions.

Future of Pseudo-Ties

FERC's questions come as the future of pseudo-ties themselves is threatened. MISO Market Monitor David Patton filed a Section 206 complaint April 6, claiming that the increasing use of pseudo-ties degrades reliability, hampers efficient dispatch and raises costs. He asked FERC to eliminate PJM's existing pseudo-tie definition (EL17-62). (See *Pseudo-Tie Feud Rises as Patton, NYISO Protest PJM Proposal*.)

MISO has predicted that about 2,800 MW of its generation will pseudo-tie into PJM in the 2017/18 planning year beginning June 1.

MISO NEWS



Advisory Committee Briefs

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deviate more than 8% from dispatch instructions for four consecutive five-minute intervals. Monitor David Patton has recommended MISO move to a system based on ramp rate. The threshold for failure to follow dispatch would be set at 2.5 minutes, or half of the unit's offered ramp capability, capped at 10% of the dispatch level to limit gaming. Units that do not respond to instructions after 20 minutes would be flagged and potentially disqualified from receiving real-time offer revenue sufficiency guarantee payments or day-ahead margin assistance payments.

Organized Feedback Process Ask Crops up at AC Strategic Retreat

Stakeholders from the AC again called attention to what they called MISO's inconsistent process for gathering and sharing stakeholder feedback.

The topic was brought up in closed meetings at a committee strategic retreat, held in early April in Montreal.

MISO's stakeholder relations team, committee liaisons and stakeholders are currently working on a more transparent and formal process on how the RTO accepts and shares stakeholder feedback, Penner reported at the April 26 AC meeting.

Stakeholders have said repeatedly that MISO needs to have a more formal and transparent process on how it collects and when it publicly shares feedback. (See *MISO Takes Stakeholders' Temperature on Redesign*.)

Currently, it's up to MISO discretion on what feedback is shared, although the RTO does allow stakeholders to indicate which feedback should be considered confidential. At times, MISO summarizes comments without attributing companies; in other situations, the RTO shares verbatim excerpts and reveals the source. Requests for stakeholder feedback and the summarized or truncated feedback itself is usually shared on meeting presentations.

Some committee members have suggested staggering meetings so companies have more time to submit feedback and no longer juggle simultaneous feedback deadlines. MISO usually allows about two weeks for stakeholders to draft and organize comments on proposals. While discussing improvements to its feedback process, the committee is also soliciting presentation ideas for the next two Board of Directors meetings.

'Day in the Life of a Megawatt'

During the annual stakeholder meeting in Branson, Mo., in June, MISO stakeholders will not conduct a usual hot topic discussion, Penner said. Instead, each of MISO's nine sectors will make a short presentation to the board.

NRG Energy's Tia Elliott suggested that the MISO sectors share "A Day in the Life of a Megawatt" theme, with each sector explaining their piece of the energy lifecycle. Penner asked for ideas on what sector representatives might want to present.

The usual hot topic discussion format will resume at the September board meeting in St. Paul, Minn., and AC leadership wants discussion ideas. Those wishing to submit a topic for consideration must fill out a request form.

MISO Executive Director of External Affairs Kari Bennett said state regulators have mentioned discussing distributed energy resources. Adam McKinnie, chief utility economist for the Missouri Public Service Commission, affirmed that his commission would be interested in discussing how DERs are used and how it might be tracked.

"I think it would be an interesting topic to handle," McKinnie said.

WEC Energy Group's Chris Plante also suggested that each sector could discuss its version of a top-three goals for MISO before the board, possibly using past and present recommendations in the Monitor's State of the Market Reports for inspiration.

Sector Vote Redo Breaks Nominating Committee Tie

The previous tie among two stakeholders to serve on MISO's Nominating Committee has been broken, with Entergy's Matt Brown beating out Madison Gas and Electric's Megan Wisersky.

The other stakeholder seat will be held by Arkansas Public Service Commission Chairman Ted Thomas. (See "Committee Could Lengthen Board Member's Tenure," *MISO Board of Directors Briefs*.) The vote for the second stakeholder seat originally ended in a tie among MISO's seven voting sectors. In addition to the two stakeholders appointed by the AC, the committee consists of three board members.

"There will be regular updates from the Nominating Committee throughout 2017," Bennett said. The terms of Directors Thomas Rainwater, Paul Bonavia and Baljit Dail expire at the end of the year. Rainwater and Bonavia have not reached MISO's limit of three three-year terms and both will seek re-election. With five first-time directors added since 2015, veteran board member Dail — who has reached the term limit — has agreed to seek re-election for an additional three-year term if the Nominating Committee deems that a waiver is appropriate and the rest of the board agrees.

— Amanda Durish Cook

MISO NEWS

Informational Forum Briefs

MISO: Successful March Market Operations

CARMEL, Ind. — In spite of higher outages, some instances of severe weather and more expensive natural gas, MISO staff reported smooth market operations overall in March.

Systemwide energy prices averaged $29.51/MWh in March, about 50% higher than March 2016. The increase was owed mostly to an increase in natural gas prices, which jumped 63% from a year earlier, MISO said at an April 25 Informational Forum. Day-ahead prices averaged $29.44/MWh for the month. Natural gas prices at the Henry Hub and Chicago Citygate rose about $1/MMBtu from last March.

Colder temperatures in the MISO footprint drove load to an average 70.8 GW during March, a 2.4-GW year-over-year increase.

MISO Executive Director of System Operations Renuka Chatterjee said markets easily navigated an 88-GW load peak on March 15, even with planned and forced outages hitting a total 43.4 GW, a product of the spring maintenance season. She also said markets were largely unaffected by tornadoes and thunderstorms in MISO's South and Central regions.

However, 14.6 GW of forced generation outages and high load drove up congestion, leading to real-time LMP spikes at the Texas and Louisiana hubs, hitting $54/MWh and $40/MWh, respectively. As a result, MISO monitored deviations between day-ahead and real-time pricing for the month. Price divergence averaged 24%, compared to last March's 12%.

MISO also paid extra attention to its scheduling of units for the month after a unit was unnecessarily given a delayed stop time on March 12. Chatterjee said the inefficient scheduling of just one unit caused the metric to be flagged for monitoring.

"That goes to show how tight these metrics have become," she said.

NERC Official: Shifting Resource Mix Could Mean Standards Revision

Some reliability standards could use an update to reflect the increasing adoption of renewable generation sources, NERC Chief Reliability Officer Mark Lauby said in a report on the organization's 2017 reliability leadership summit in March.

Lauby said the existing AC system will have to accommodate a changing resource mix in the near term and grid operators will have to make sure enough energy is on hand. Shifting resources may require a revision of some standards, Lauby said, such as NERC's revised definition for the Bulk Electric System, which includes thresholds of 20 MW for individual facilities and 75 MW for aggregate facilities.

"We're going to be working with industry to review these standards and see what … standards need updating," Lauby said. "I just worry about the speed. I don't want to look in the rearview mirror and wish I would have done something. It's going to take some good analysis."

He said NERC also wants to make sure that state regulators fully understand the impacts of any renewable portfolio standards they might pass.

"When it comes to standards for reliability, I think of what Scotty said to Captain Kirk [in "Star Trek"]: 'I can't change the laws of physics,'" he joked.

MISO Deputy General Counsel Eric Stephens asked what industry employees can do to mitigate reliability risks. Lauby said those in the energy industry can make risks to reliability known through outreach.

"I think we also need to understand implications themselves. … Some folks said it could be 60% of generation on the distributed side [in the future]. We need to understand what those implications are and how those standards need to be adjusted for more ramping, voltage support and frequency response."

Lauby also thanked MISO for its vigilance. "I have to say, I really appreciate the continued focus MISO has on reliability."

Renuka Chatterjee | © RTO Insider

The RTO, meanwhile, is weighing whether to submit comments to NERC on cutting back on the amount of revised and new standards it introduces annually.

MISO Consulting Advisor Terry Bilke said NERC rolls out 35 to 40 changes to standards and new standards per year. At the April Reliability Subcommittee meeting, he said the RTO might offer comments to NERC on how to "stabilize" the standards.

Bilke also said MISO believes that NERC should be required to meet criteria before introducing new or revised reliability standards.

MISO Hurricane Prep in May

The RTO will conduct hurricane action plan training with MISO South member operators throughout May in preparation for the Atlantic hurricane season beginning in June. It also will host emergency communication presentations for state and local emergency officials.

"We haven't had one yet, but I do think it's inevitable, obviously, and we want to be ready for that," MISO CEO John Bear said.

The RTO convened a hurricane readiness team last spring to spot inadequacies in contingency plans and train MISO South operators. (See *MISO Sees Enough Capacity for Summer*.)

— Amanda Durish Cook

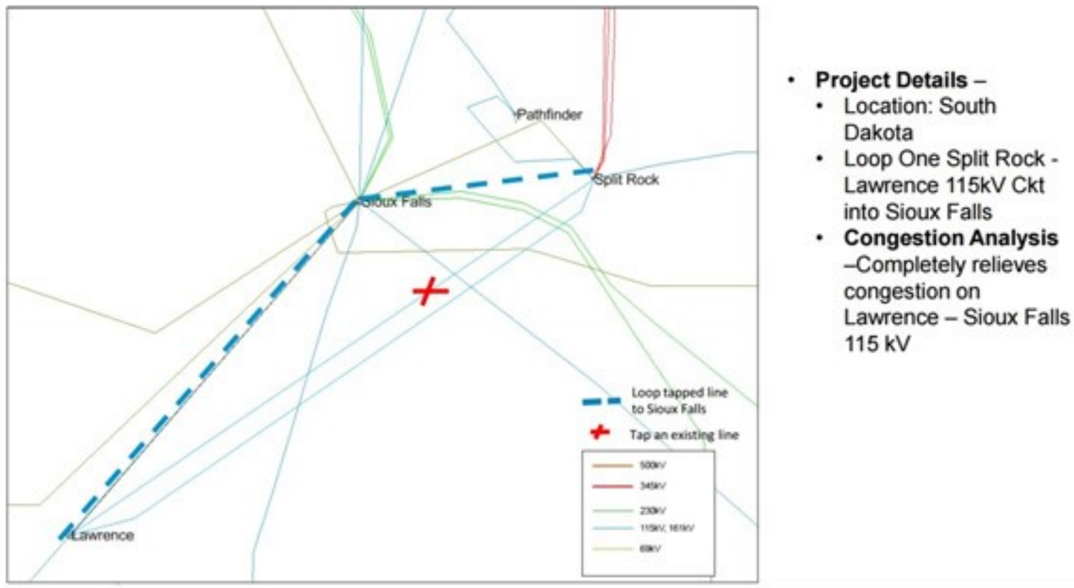
"When it comes to standards for reliability, I think of what Scotty said to Captain Kirk: 'I can't change the laws of physics.'"

Mark Lauby, NERC

MISO NEWS

MISO Stakeholders Give Go-Ahead on SD Interregional Project

By Amanda Durish Cook



Split Rock project | *MISO, SPP*

The first MISO-SPP interregional project inched closer to reality Thursday with a vote of confidence from the MISO Planning Advisory Committee.

Four stakeholder sectors in attendance at a special April 27 PAC meeting — Environmental, Transmission Owners, Coordinating and Power Marketers — voted unanimously to approve the South Dakota project's regional review. The $5.2 million project will relieve congestion on the tie line shared between the Western Area Power Administration and MISO's Xcel Energy territory. (See 1 Project Recommended for MISO-SPP Coordinated Plan.)

The PAC charter does not require a voting sector quorum for project recommendation votes. MISO moved its stakeholder vote from the Interregional Planning Stakeholder Advisory Committee to the PAC late last year amid concerns that a vote in the IPSAC wouldn't give stakeholders time to process voting issues and would be poorly attended. (See "PAC Could Hold IPSAC Vote Outside of Interregional Meetings," MISO Planning Advisory Committee Briefs.)

SPP, meanwhile, will hold its stakeholder vote at a Seams Steering Committee teleconference May 3. SPP officials have also recommended its stakeholders approve the project, the only joint recommendation

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NYISO NEWS

Management Committee Briefs

NYISO Sets Wind Energy Record in March

RENSSELAER, N.Y. — NYISO achieved a wind energy record of 1,574 MW at around noon on March 2, representing 9% of the state's power generation, COO Rick Gonzales told the Management Committee on Wednesday. The record production came six days before powerful storms lashed Rochester and other parts of western New York. Rochester Gas & Electric reported four wind gusts on March 8 that were in the top 10 ever recorded in Rochester.

The high wind storm event led to multiple transmission line outages, prompting NYISO to reduce both West Zone generation and Ontario imports to manage system reliability. More than 30,000 households were left without power for days.

New York wind storm cleanup | *Office of Gov. Andrew Cuomo*

In his operating performance report, Gonzales also said that NYISO had reduced production costs by $5.5 million so far this year through congestion coordination with PJM under the ISO's Broader Regional Markets initiative.

LBMP up Almost 70% over March 2016

Locational-based marginal prices (LBMP) averaged $34.97/MWh in March, an almost 70% increase over the $20.66/MWh a year earlier and a $4 increase over February.

The year-to-date average through March was $37.81/MWh, a 23% increase from $30.68/MWh a year ago.

The rise in power prices was less dramatic than that in natural gas. Prices at Transco Z6 NY averaged $3.49/MMBtu in March, up 169% over the prior year.

Con Ed Black Start Testing Increased

The Management Committee voted to increase testing for black start generating units in Consolidated Edison's service territory.

Under Tariff changes approved by the committee, all Con Ed black start units must fully test every year, rather than every other year. The units will be required to energize a transmission bus. Synchronization testing and partial testing of steam units are eliminated under the new procedures. Post-test supplemental resource evaluation running of the steam units is also eliminated, as it would necessitate synchronization.

The change will bring the Con Ed territory into compliance with NERC reliability standard EOP-005 for black start testing, David Mahlmann, the ISO's operations manager, said at the meeting on April 26.

Con Ed registered as a NERC transmission operator in July 2016. Previously, the utility had been operating only under the black start rules of the New York State Reliability Council. The council has updated its testing requirements to comply with the NERC rule and directed the ISO to change its rules.

The motion approved by the committee recommends that the NYISO Board of Directors authorize a FERC filing of the Tariff changes reflecting the new testing requirements, which were also incorporated in the ISO's system restoration manual.

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NYISO News

Management Committee Briefs

Continued from page 13

Liam Baker of Eastern Generation expressed concern about incremental costs resulting from the increased testing. "Do I have to file a [Section] 205 at FERC every time I make a capital improvement?" he said. "It might not be millions of dollars but tens of thousands, and it gets ridiculous when you have to hire counsel for a small amount."

NYISO Assistant General Counsel Carl Patka said that incremental unit cost compensation is outlined in the Tariff, which "says that the generator will submit to the ISO its actual costs incurred, and the ISO together with FERC has 30 days to respond."

Customer Satisfaction High

Market participants and customers are generally happy with their interactions with NYISO, according to the grid operator's biannual customer satisfaction survey, conducted by the Siena College Research Institute (SRI).

SRI Director Don Levy told the Management Committee the ISO received a 98.8% "customer inquiry satisfaction" score on the survey, which had a response rate of 31%. The respondents were those who had made inquiries of the ISO on any subject, whether concerning an invoice or a Tariff detail.

The ISO's rating on market participant satisfaction was lower, at 78% on a response rate of 23%. The 354 participants included end users, generation owners, other suppliers, public power and environmental entities, and transmission owners. There was brief debate at the meeting as to whether the lower score qualified as a B- or a C+.

Levy said the two surveys resulted in a combined score of 88.5%.

The surveys identified several areas in which NYISO could improve, according to Levy:

- Tariff, legal and regulatory webpages;
- ISO manuals, technical bulletins and user's guides;
- Market mitigation and analysis interactions;
- Transparency of operations; and
- Increasing the consideration of stakeholder input.

Respondents said the ISO's strengths included accurate customer settlement invoices; timely responses to credit department inquiries; staff's professionalism; fair handling of all interactions; and the communications department.

NYISO Switching to NAESB Digital Certificate

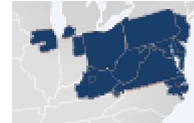
Beginning May 1, NYISO has stopped accepting its own certificates for Market Information System (MIS) applications, instead requiring a valid North American Energy Standards Board (NAESB) digital certificate, Stakeholder Services Team Lead Diana Ortiz said.

"As we speak, we are updating the wildcard SSL server certificates for all MIS production applications," Ortiz said. The ISO has been transitioning to the new system since last year to be fully compliant with FERC Order 676-H by May 15. (See *FERC Backs NERC, NAESB Standards*.)

NYISO stopped issuing its own certificates for MIS applications on March 1, and about 85% of market participants have already completed the transition process. A significant portion of those who have not made the switch no longer need access to MIS applications, Ortiz said. Anyone in doubt as to their status can contact Stakeholder Services for assistance by calling 518-356-6060, sending an email to stakeholder_services@nyiso.com or using the live chat feature on www.nyiso.com.

— Michael Kuser

PJM NEWS



PJM Asked to Explain Day-Ahead Commitment Assumptions

By Rory D. Sweeney

VALLEY FORGE, Pa. — Is PJM's day-ahead auction more art or science?

That question was raised by several stakeholders at last week's special session of the Market Implementation Committee on price transparency, after the disclosure that PJM operators — rather than algorithms — make the final decision on which units clear the day-ahead auction.

PJM's Mike Ward, who manages the day-ahead market operations, downplayed human involvement in the process, saying "most of the tweaking is on the edges." But that didn't satisfy Calpine's David "Scarp" Scarpignato or Public Service Enterprise Group's Gary Greiner, who questioned the subjectivity of the operators.

"I'm sure you're doing things that 'make sense,' but when you get people making the decisions, I could adjust things differently around the edges than what you might," Scarp said.

"We'll run two, three, four more cases to keep adjusting it. We don't just take it [once], that's it and we approve it," Ward said. "It's hard to describe how we do it. … I judge [the benefit or harm] by the number of people calling and complaining."

To avoid cutting into units' profit, the operators compare LMPs to costs, Ward said, and consider many other factors, such as minimum or maximum runtimes.

"Are there rules for that or is it more art than science?" Greiner asked.

"We don't want people to lose money," Ward responded. He noted that the percentage of load bidding into the day-ahead auction has risen from 75% when he started to "close to 100%" today.

PJM's Chris Callaghan explained the RTO's commitment review process, which ensures system reliability by allowing reliability engineers to provide input for commitment decisions and review the final plan. Any additional units identified as necessary from that final reliability check are committed in the Reliability Assessment and Commitment run. Engineers look first at non-cost options, followed by gas-fired combustion turbines, then by steam-generation units to satisfy reliability at the least cost, he said.

Continuing the discussion on price formation, PJM's Scott Benner explained the RTO's current thinking on complying with FERC Order 831, issued in November. The order caps at $2,000/MWh all incremental offers allowed to set LMPs and requires validation of offers exceeding $1,000/MWh to "ensure that a resource's cost-based incremental energy offer reasonably reflects that resource's actual or expected costs."

PJM plans to implement a process to address those requirements in November but must submit its compliance filing by May 8, Benner said. A third-party vendor will provide "near real-time" commodity prices to enable PJM to calculate theoretical cost-based offers and compare them with actual offers received.

"We should be able to understand their costs or at least their general spot market activity," Benner said.

"We'd be checking to make sure if your offer was in accordance with your fuel-cost policy," PJM's Jeff Schmitt said.

Throughout the presentations, stakeholders and PJM staff recommended objectives for the group's final product, many of which focused on providing deeper insight into how the RTO makes price-formation decisions.

PJM MRC OKs Uplift Solution over Financial Marketers' Opposition

By Rory D. Sweeney

WILMINGTON, Del. — Solutions for reducing uplift charges have been more than four years in the making, so PJM members at last week's Markets and Reliability Committee meeting were largely unconvinced when financial traders argued that voting on the solution's third phase was being rushed.

Financial stakeholders campaigned unsuccessfully for more than an hour to change the proposal.

Stakeholders then approved a package designed by PJM "to strike a balance between retaining the theoretical benefits of virtual trading while eliminating opportunities for virtual transactions to profit from the market without providing those benefits." It limits incremental offers and decremental bids to "locations where the settlement of physical energy occurs," where they compete directly with physical assets or trading hubs, where traders can take forward positions.

Up-to-congestion transactions would be limited to hubs, zones and interfaces — locations that are large aggregates. PJM said the change will address concerns that some UTC trades "do not benefit the market at a level commensurate with the profitability of the transactions." (See "Members Approve Uplift Proposals," *PJM Markets and Reliability and Members Committees Briefs*.)

Financial stakeholders mounted several efforts to influence the vote. They first called for deferring it until FERC has acted on Phase 2, which failed in a sector-weighted vote with 1.04 in favor. The MRC requires a two-thirds sector-weighted vote (3.33 out of 5). Only the Other Supplier sector — which includes financial traders — was in favor of the delay, with the other sectors almost unanimously opposed.

Attorney Ruta Skucas, who represents the Financial Marketers Coalition, called for the deferral, which was seconded by Joe Wadsworth of Vitol. Skucas said the proposal was changed significantly shortly before it went to vote and never received vetting at the Energy Market Uplift Senior Task Force, where the issue had been hashed out for years. The changes eliminated all but 41 nodes for UTCs, she said.

Wadsworth described the proposal as "taking a sledgehammer to the market," saying the root issue was modeling errors that could be addressed by a more "surgical" approach, such as eliminating trading at locations where the day-ahead and real-time models can't be aligned.

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PJM NEWS

MRC/MC Briefs

Markets and Reliability Committee

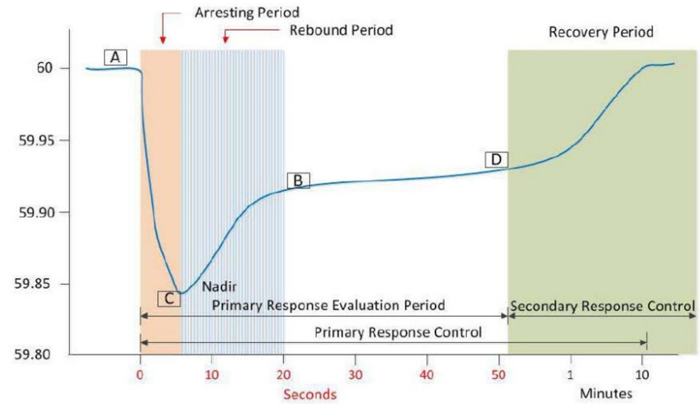
Stakeholders Defer Vote on Regulation Revisions

WILMINGTON, Del. — John Horstmann of Dayton Power and Light expressed concern that PJM's proposed regulation changes will have a "huge impact" on existing Reg D providers and noted that complaints have been filed at FERC opposing the changes PJM implemented in January. (See "New Regulation Rules Improving ACE Control," *PJM Operating Committee Briefs*.)

Based on the potential issues, Horstmann made a motion at Thursday's Markets and Reliability Committee meeting to defer a vote on the package until June, which would allow for the comment period at FERC to close. Members approved the delay in a 3.76 sector-weighted vote.

The package, jointly developed by PJM and the Independent Market Monitor, would replace the benefit factor with the "regulation rate of technical substitution," and the effective megawatt calculation would be the area under its curve. The mileage ratio from the regulation performance credit would be replaced with the "marginal rate of technical substitution" (MRTS), which will be added to the regulation capacity credit. Bowring said later that PJM meeting rules prevented him from responding to comments from Horstmann that he believed to be inaccurate.

The 24-month transition period will have a minimum MRTS of .65 for the first year, followed by a floor of .5 for the last year. The minimum allowable participation threshold will be raised from 40% to 50%.



Frequency disturbance example | *PJM*

"The transition offer by PJM, while a nice gesture, [is] not really compensatory for existing Reg D providers," Horstmann said.

CCPPSTF Charter Approved

The MRC approved the charter for the Capacity Construct/Public Policy Senior Task Force, declining to adopt language changes proposed by Market Monitor Joe Bowring.

Bowring suggested that one of the group objectives in the charter, which calls for "modifications to [the Reliability Pricing Model] that could accommodate/address both capacity construct objective and state actions," wasn't consistent with the charter's mission to "ensure potential state public policy initiatives and Reliability Pricing Model objectives are not at odds."

Bowring found no members willing to take up his suggested edits, and the charter passed with one objection and two abstentions.

The task force's three meetings since its formation in January have revealed deep differences between stakeholders. (See *PJM Capacity Task Force Debates the Value of Price Transparency*.)

Stakeholders Push Back on Paying for Frequency Response

PJM's David Schweizer presented a first read of the RTO's plan to address FERC's recent Notice of Proposed Rulemaking on frequency response. PJM's proposal has suggested that it might consider compensating units for maintaining primary frequency response, even though the NOPR is silent on the topic. (See "PJM Wants to Study Frequency Response," *PJM Operating Committee Briefs*.)

John Farber of the Delaware Public Service Commission staff took issue. "If we're purchasing this premium [Capacity Performance product], it should include this primary frequency response," he said.

He asked that the problem statement and accompanying issue

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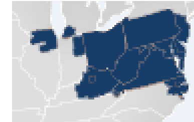
PJM NEWS



PJM MRC OKs Uplift Solution over Financial Marketers' Opposition

Continued from page 15

DC Energy's Bruce Bleiweis (left) and Vitol's Joe Wadsworth | *© RTO Insider*

"When we start removing what traders can do in managing their portfolios on a day-ahead and real-time basis, we're going to take away the uniqueness traders bring that leads to competition in the markets," he said.

Bruce Bleiweis of DC Energy also supported a delay, saying he's been involved with PJM for 21 years, and "this is the first time we've come to a rush to judgment."

Other stakeholders disagreed.

"My clients would have a different opinion of that," said attorney Susan Bruce, who represents the PJM Industrial Customer Coalition. "This is a solution that's a long time coming."

Direct Energy's Jeff Whitehead took exception to the accusations of rushed voting.

"I believe this issue has seen its day in court. There are buses that are available to virtual traders on the system today … where there are modeling issues between the day-ahead and real-time market. And because those modeling issues ostensibly can't be corrected by PJM, arbitrage opportunities exist that simply cannot be converged between the two markets," he said. "If traders are simply trading with themselves at points that cannot converge, I don't call that a market."

"The purpose of the markets is to provide real power to real customers at the lowest possible cost," said Joe Bowring, PJM's Independent Market Monitor. "To the extent that virtual transactions are not contributing to that, it's not appropriate to allow them to continue."

PJM's Adam Keech agreed, saying that rules for virtual trading are designed to have the "highest probability of adding the most to the system."

PJM staff said it's not clear when the proposal will be filed with FERC because contested filings require a quorum of commissioners to resolve, and the filing seemed likely to attract protest. Noha Sidhom, a financial trader who doesn't participate in the virtual market, then proposed bifurcating the package into separate filings so that the noncontroversial portions — the limits on INCs and DECs — could be approved by FERC staff and implemented, while the UTC changes — which likely will receive protest — can wait until the commission has a quorum.

Stakeholders debated for some time whether that proposal should be considered prior to voting on the original package, and eventually determined that it should not. The original proposal passed with a 4.07 sector-weighted vote, with all but the Other Suppliers in support.

MRC/MC Briefs

Continued from page 16

charge include language that the compensation would be considered "if appropriate or necessary." Schweizer said the documents were developed to allow dialogue on the topic while designing proposed solutions.

He said he will be seeking the Operating Committee's approval on Wednesday and asked that any proposed changes be submitted as soon as possible.

Manual Changes OK'd

Stakeholders endorsed by acclimation two manual revisions:

Manual 14B: PJM Region Transmission Planning Process. The changes correcting wording in the baseline thermal analysis section to match analytical procedures and replace all occurrences of "special protection system" with "remedial action scheme" per a change to the NERC glossary of terms.

Manual 18: PJM Capacity Market. The revisions conform to FERC's March 21 order tentatively approving PJM's "enhanced aggregation" plan to allow seasonal capacity participation as CP resources. Stakeholders deferred sunsetting the Seasonal Capacity Resources Senior Task Force until the May meeting so they can be informed of any action on the seasonal capacity filing at FERC. (See *PJM Outlines Aggregation Rules for Upcoming Capacity Auction*.)

Members Committee

Members Endorse Pricing Revisions

The Members Committee endorsed revisions to PJM's Tariff and Operating Agreement to address shortage pricing through the operating demand curve. (See "Shortage Rule Takes Effect amid FERC Silence," *PJM Market Implementation Committee Briefs*.)

The committee also endorsed changes to Manual 15 regarding fuel-cost policies. (See *PJM Fuel-Cost Policy Changes to Take Effect in May*.)

Both changes had received substantial discussion in previous meetings, so members had little to say about them Thursday. Bowring reiterated concerns he has mentioned previously about PJM's approach to handling fuel-cost policies.

— Rory D. Sweeney

SPP NEWS

No Consensus for SPP on Zonal Price Shifts

By Tom Kleckner

TULSA, Okla. — The issue of cost shifts within transmission pricing zones may soon surpass transmission upgrade credits as one of the most vexing problems facing SPP stakeholders.

Strategic Planning Committee Chair Mike Wise said last week that his committee has been unable to reach consensus on a more equitable means of determining cost shifts when new members join existing transmission pricing zones despite talks that began in January.

Kansas City Power and Light called for revising SPP's policy after the RTO put the City of Independence, Mo., into the utility's transmission pricing zone, increasing costs for KCP&L customers. (See *Strategic Planning Committee to Continue Work on Tx Cost Shifts*.)

The SPC held two special meetings during April — a month in which it doesn't normally meet — trying to reach consensus on a staff proposal for a "symmetrical" cost/benefit analysis and a phase-in process for regulatory assets that evaluates the time value of money.

"During discussion, it became clear we still didn't have agreement on staff's proposal," Wise told the Board of Directors and Members Committee last Tuesday. "It's concerning to me that in the stakeholder process, we couldn't come to a conclusion on this."

The SPC last met April 20 in Dallas, where it voted on a motion to adopt part of staff's proposal, rejecting calls to end the discussion entirely. The motion included a reference to "the understanding that the SPC does not endorse the outcome of any staff zonal placement decisions."

"Basically, [we] just approved a staff process for communication of potential zonal placements," KCP&L's Denise Buffington said.

She said in January her company would likely file a complaint with FERC if the SPC doesn't resolve the issue "to our satisfaction and in a timely manner." Stakeholders did agree to the first steps in the process, which begin with the applicant transmission owner (ATO) notifying SPP of its intention to join the RTO. Staff would then request data from the ATO, study the zonal placement and cost analysis, and facilitate discussions between the ATO and the transmission zone's incumbents.

Staff's straw proposal suggested that the ATO be given an opportunity to negotiate cost shifts with the other transmission owners and network customers in the affected zone, with any resulting agreements filed with FERC.

If no agreement is reached, SPP proposed filing a cost-shift mitigation plan if the shift increased network customers' baseline costs by more than 2.5%.

But staff now say there is little consensus for having a cost-shift threshold. Several stakeholders were adamant that they did not want SPP deciding what costs would be placed upon their customers.

"The problem is not with the mitigation, but the zonal placement criteria," Buffington said. "The criteria lead to the zonal placement, and it's the zonal placement that leads to cost shifts. The criteria that [dictate] the placement [are] the problem."

Staff has suggested using the following criteria in determining whether to place the facilities in a new zone:

- Whether the transmission facilities' annual transmission revenue requirement (ATRR) is less than the minimum zonal ATRR benchmark;
- The extent to which the transferring facilities substantively increase the SPP regional footprint; and
- The extent to which the transferring facilities' load received network service or long-term firm point-to-point service within existing zones prior to the transfer.

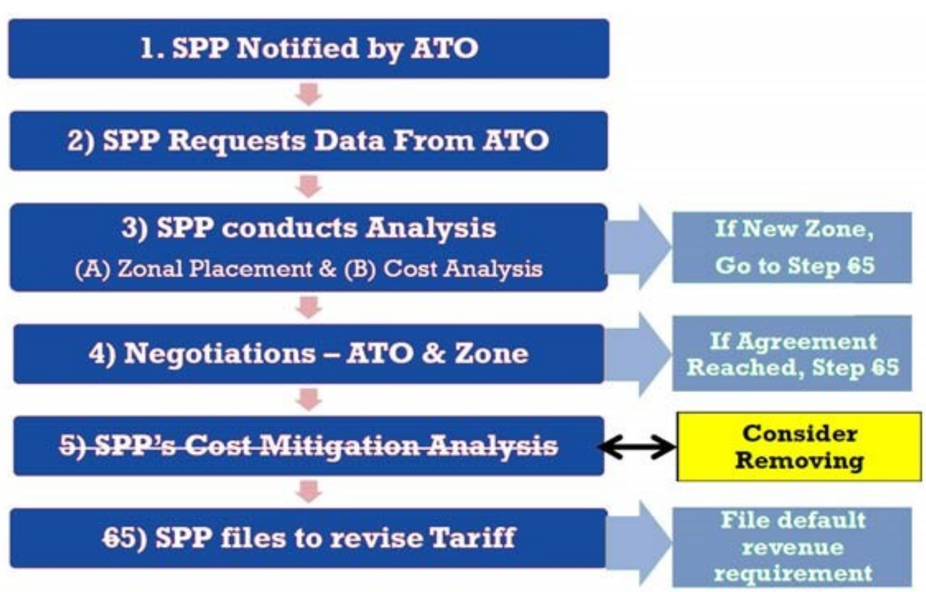
If the facilities are not placed in a new zone, staff would apply the following criteria in determining the existing zone in which to place the facilities:

- The extent to which the facilities are embedded within an existing zone;
- The extent to which the facilities are integrated with an existing zone; and
- The extent to which the facilities load received network service or long-term firm P2P service within each existing zone prior to the transfer.

Buffington has been leading the work on a revision request (RR172) that she said would establish a bright line between the costs of legacy transmission and new facilities planned by SPP to protect customers from paying for facilities that were not jointly planned. That work has been on hold, pending the SPC discussions.

Wise agreed the SPC would return with another update for the July meeting in Denver.

"This cannot die where it is," Board Chair Jim Eckelberger said.



Process flow chart: from six to five steps. | © *RTO Insider*

SPP NEWS

SPP Board Cancels Panhandle Line, Asks for New Congestion Study

By Tom Kleckner

TULSA, Okla. — SPP's Board of Directors last Tuesday sided with stakeholders' recommendation to cancel a major 345-kV line but promised a new study to address congestion in the footprint.

The board directed staff to pull Southwestern Public Service's Potter-Tolk line in the Texas Panhandle from the 2017 Integrated Transmission Planning 10-year assessment's portfolio. The project was originally identified as reducing congestion and adjusted production costs (APC), avoiding future reliability projects, and improving thermal and voltage stability margins.

However, the board in January asked SPP staff to further evaluate the project after SPS argued against the need for the line, saying it was "the wrong time" for it. The additional analysis and modeling changes revealed a 6.5% decrease in the region's APC savings, and a third-party review added $29 million to the project's $144 million projected cost after more detailed routing assumptions lengthened the line from 90 miles to 109. (See "Members OK Removing SPS Line from 2017 ITP10," *SPP Markets and Operations Policy Committee Briefs*.)

The board's move came following a lengthy discussion that raised questions about SPP's planning processes, the reliability of stakeholder data being provided for studies and the amount of additional wind energy that will eventually be built in the area.

Getting the Red and Yellow Out

"This hurts me to take this out of the portfolio, but that damn yellow and red has been in that area of Texas ever since we can remember," said Board Chair Jim Eckelberger, alluding to the shades used to denote high prices — often driven by congestion —on SPP's price contour map. "We've got to get rid of it. There's nothing blue [low-cost] down there. It's just congested all the time."

Eckelberger was able to mollify members by also asking SPP to conduct a high-priority study in a "thoughtful way" to "do away with the yellow." Staff will report back to the board and Members Committee in July with its study assumptions and scope for an analysis to be completed no later than April

SPP Board Chair Jim Eckelberger, Vice Chair Harry Skilton and SPS President David Hudson. | © *RTO Insider*

2018. That would also allow additional time to see how much additional generation is developed in the Panhandle.

"By the time we see the end result, we'll see an awful lot of what is actually being built in that area," Eckelberger said. "I'll be damned if we're going to have that yellow in there for the long term."

The motion passed easily, drawing only opposition from independent transmission provider ITC-Great Plains and an abstention from West Texas' Golden Spread Electric Cooperative.

Stuart Solomon, president of American Electric Power subsidiary Public Service Company of Oklahoma, asked the board to broaden its view and study congestion in other areas of the SPP footprint. "The Texas Panhandle is not the only place we're seeing extreme congestion," he said.

"As long as we're going through this process, why not?" Eckelberger responded.

The Potter-Tolk line would have run southwest of Amarillo to connect with an SPS power plant being re-evaluated for continued operation. Initial studies showed the line would reduce congestion in a frequently constrained area (FCA), but new load projections showed a reduction of almost 800 MW in the area.

In March, SPS parent Xcel Energy announced wind projects totaling 1,230 MW in New Mexico and Texas north of the FCA. Another 8.8 GW of wind projects, based on SPP's generation interconnection queue, have been proposed in the northern Panhandle.

"Based on these recent revelations and some of the uncertainty about these revelations, there's too much uncertainty to proceed with Potter-to-Tolk," SPP Engineering Vice President Lanny Nickell said. "The projects that have already been approved and come into service will dramatically reduce the congestion in the area. It doesn't eliminate it but reduces it."

PTC Impact

Steve Gaw, who represents the Wind Coalition, noted some of the study scenarios did not assume additional wind generation would be built. He said the phase-out of the production tax credit will lead to additional wind energy coming online after the first results of SPP's new transmission planning process are released and before it can be considered. Projects that begin construction this year will receive 80% of the PTC value, a percentage that will fall to 60% in 2018 and 40% in 2019.

Gaw said it is unrealistic to assume there will be no additional wind growth, considering 4 to 5 GW of wind generation sites have approved interconnection agreements, the queue contains a potential 27 GW of wind energy and the PTC deadlines.

"If the assumption here is to stay exactly as we are today … to me, that's an unreasonable assumption," he said. "That does not adequately encompass what wind development is going to do. I'm concerned that if we don't do something more … we're going to run into a significant issue without having properly prepared for it.

"Yes, there's a risk of building a project that's not needed. There's also a risk of not building a project that is needed."

"If you look back at … various studies over the years, you'll find we've been very conservative, probably too conservative, in forecasting the expansion of renewable generation in the footprint," ITC-Great Plains' Brett Leopold said. "It results in inefficiencies in planning."

Kicking the Can?

Golden Spread's Mike Wise filed a letter with SPP raising concerns about the project's withdrawal, noting it was the only FERC Order 1000-eligible project in ITP10. The letter was cosigned by Hunt Transmis-

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Export Pricing Task Force Seeks 'Business Proposition'

TULSA, Okla. — SPP Strategic Planning Committee Chairman Mike Wise said the committee's Export Pricing Task Force agrees with staff's determination that even building additional transmission will not guarantee the RTO can deliver its ample wind power outside its footprint.

In the group's most recent meeting in March, SPP staff said a market exists for renewable resources, but "rate stress" from building additional transmission and uncertainty that the energy would be deliverable led it to its conclusion. (See "Renewable Exports Unlikely, Task Force Concludes; Readies Final Report," *SPP Briefs*.)

"We're choking on wind," Wise told the Board of Directors meeting last week. "We run up against the export threshold [about 2,500 MW] on a continued basis."

Westar Energy's Kelly Harrison wondered aloud whether transmission is so expensive that it makes wind energy uneconomic to export.

"We're looking for a business proposition to mitigate that," Wise responded.

Harrison then asked whether SPP should leave it up to Clean Line Energy to move the wind energy. Clean Line's Plains & Eastern Clean Line would deliver wind-generated power from the Oklahoma Panhandle through Arkansas to Memphis, though it has met opposition. (See *Arkansas Landowners Seek to Stop Plains & Eastern Clean Line Project*.)

"That's why we're still meeting, until we can get a business proposition that makes sense," Wise said.

The task force will meet again in June, after several members pushed back against staff's recommendation to end the group's work.

> **"We're choking on wind. We run up against the export threshold [about 2,500 MW] on a continued basis."**
>
> **Mike Wise, Golden Spread Electric Cooperative**

Board Asks MOPC to Revisit Mitigated Offers

The board directed the Markets and Operations Policy Committee to revisit a revision request it had passed despite stakeholder concerns it needed more work (MRR214). (See "MWG Closing out MMU's Recommendations," *SPP Markets and Operations Policy Committee Briefs*.)

Board Chair Jim Eckelberger asked Nebraska Public Power District's Paul Malone, MOPC chair, to expand the discussion to look at the use of rapid-starting units "almost like ping-pong balls" and coal units.

"The way those units are being used is not being reflected in the market," Eckelberger said.

The change would allow market participants to use a 10% adder for mitigated offers, giving them more margin for error when submitting a mitigated offer curve. The Market Working Group also said the change would improve price formation in SPP's markets by removing a penalizing feature that may be suppressing offered prices today.

However, MWG Chair Richard Ross of American Electric Power said additional information since the MOPC meeting — where the request received seven "no" votes — had caused him to change his mind. Working with staff, Ross said, he realized the change would modify a mitigated offer as it was cleared, so that when units were dispatched above their minimum bids, it would affect LMPs.

"We didn't appreciate [that] those units on the margin, and sometimes not on the

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SPP Board Cancels Panhandle Line, Asks for New Congestion Study

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sion Services' Bill Bojorquez and distributed to members an hour after the board meeting began.

Wise and Bojorquez said that the conclusion that the only Order 1000 project was no longer needed "should raise several red flags to the board." They criticized the increased cost estimate ("We … were not shown sufficient evidence … the original cost estimate was unreasonable."); the "highly suspect" change in load projections; and a new generation plan for "new wind generation that lacks regulatory approval."

Wise's main point of contention was SPP's inability to relieve a north-south constraint that staff admitted costs the area about $38 million a year in congestion.

"For many years, a lack of transmission in this area has caused the establishment of the FCA and this constrained flowgate," Wise and Bojorquez wrote. "The result is significantly higher LMPs for all network consumer loads in the south part of the system, and the ITP process of SPP has not identified or offered a solution."

"We're really anxious to get not just the flowgate alleviated, but this FCA … eliminated," Wise told the board and members. "If not today, then when? If this isn't the line, then what is going to resolve the FCA and this flowgate? We can't just kick the can down the road another year and look at it again. That's what we've said for 10 years now."

Bill Grant, director of strategic planning for SPS, defended his company. "We didn't ask SPP to go out and use new assumptions," he said, referring to load projections that may not have been in the 2017 models.

"We need to continue to look at this area," he said. "If the wind does develop, some of that wind will be identified in the GI study. We're building generation too, so we might be paying for some of these projects as well. If we're the ones adding wind, that's the proper thing to do."

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margin, needed cost recovery under the [make-whole payments]," Ross said. "Technically, [MRR214] does what it says, but it's impacting the LMPs. It wasn't until we looked into things and said, 'Wait a minute. You may get everything you've set out to get in the request, but you don't settle the make-whole payments.'"

Ross said that while the change wouldn't affect the "lion's share" of the market, he said the MWG didn't give the revision request "the full scrutiny we probably should have."

"These RRs are developed by the members and looked at by staff," said Dogwood Energy's Rob Janssen, a former MOPC chair. "You expect to catch everything, but sometimes you don't."

The board did approve MRR125, which removes a day-ahead must-offer requirement the Market Monitoring Unit deemed unnecessary in its 2014 State of the Market report. The measure received opposition from three members; two more abstained.

"The day-ahead must-offer has limited value in this market," MMU Director Alan McQueen said. "This market is very robust in the day-ahead. Our analysis shows this [offer] doesn't really matter. Whether subjected to day-ahead limited must-offers or not, we see the same patterns."

Wise said stakeholders should work to clarify the market's use of physical withholding but received little support.

MMU Nears Compliance with FERC Audit

Oversight Chair Joshua W. Martin III told the board and members that SPP is on pace to complete the changes recommended by FERC's audit of the MMU. The audit, which took 17 months to complete, said the unit "should strengthen its independence and enhance its separation from" the RTO. (See *FERC Calls for Changes to Protect SPP Market Monitoring Unit Independence*.)

Martin said the project is almost completed and that testing had just begun of the card-access system that will separate MMU staff from RTO staff. MMU staff had worked alongside other RTO staffers, most in open cubicles.

Eric Callisto, an attorney with Michael Best & Friedrich who has served as the MMU regulatory counsel for two years, said much of the work was "already being implemented while the audit was ongoing." He said two more compliance reports will be filed by the end of July to wrap up FERC's recommendations.

Callisto pointed to the Oversight Committee's 2015 position statement on the MMU's independence, which opened by requiring the unit to "function independently of the RTO to avoid actual or apparent conflicts in its oversight role."

"One of the key items was the MMU had the resources to make comments to FERC at any point, even if it disagreed with the position that came through the stakeholder process," Callisto said.

He said the MMU now holds executive sessions with the committee and without SPP staff present, but still holds other executive sessions with SPP executives when relevant to the OC.

"It's that dialogue with the Oversight Committee that gives the MMU its independence," Callisto said. "The keystone of the relationship is having the ability to go into that confidential forum, talk about ideas and get confirmation of ideas.

"The last two years, we have seen the MMU file at FERC more often than it has in the past. I believe the MMU is more independent now than it was a year and a half ago," he said.

Among other changes, Callisto said, is the Oversight Committee's use of a non-SPP staff secretary when meeting with the MMU, the unit's logging of non-routine interactions with SPP executives and stakeholders, the MMU's use of outside counsel and a separate IT budget, and its "awareness that its role is advisory."

SPP Releases 2016 Annual Report: 'Forward'

SPP celebrates a milestone year with its 2016 annual report, which it distributed to the Board and Members Committee and posted online last week. The RTO once again used a single word as the report's title: "Forward."

"That's a good word to reflect on all that occurred in 2016," SPP CEO Nick Brown told directors and members.

The report harkens back to the organization's 75th anniversary and celebrates the many wind generation records SPP set last year, reaching the Integrated Marketplace's $1 billion mark for total savings and lowering its planning reserve margin from 13.6% to 12%.

"Given such a banner year, we could all be forgiven for wanting to rest on our laurels or to indulge a bit longer in nostalgia," Brown

AEP's Richard Ross (far right) explains stakeholders' recommendation to Director Harry Skilton (left) and SPS' David Hudson. | © *RTO Insider*

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Brown

and Eckelberger write. "As SPP crosses the threshold into the next quarter century of our existence, then, we look not back but forward. We believe … the facts and figures presented here do more than chronicle a year of our company's ongoing story: They point ahead to the next chapter."

That next chapter could include adding the Mountain West Transmission Group's membership, which should be determined by year-end. (See *Mountain West, SPP Tout RTO Membership to Colo. PUC*.)

Members Committee Approves 3 New Members

In a special members meeting, the board and members approved the nomination of three new representatives to the Members Committee and bylaw changes related to the Regional Entity.

Brent Baker (Empire District Electric), Kevin Noblet (Kansas City Power & Light) and Aundrea Williams (NextEra Energy Resources) will join the committee. They replace Kelly Walters (Empire) and Scott Heidtbrink (KCP&L), who retired, and Mark Tourangeau, who recently left NextEra.

Stakeholders also approved changing RE General Manager Ron Ciesiel's title to president, and adding a vice chair position to the RE's trustees. According to the Corporate Governance Committee's recommendation supporting the changes, the RE said Ciesiel's title change was "more appropriate and indicative of the position," and that the vice chair would ensure a "more consistent transition" should the chair be unable to complete his or her duties.

Board, Members Honor Skilton's Service

SPP's directors, the Members Committee, staff and other stakeholders honored longtime Director Harry Skilton with a standing ovation before adjourning the board meeting, his last as vice chair. Skilton, who remains on the board, stepped down after 13 years as the board's vice chair, a position in which he has been Eckelberger's steady right-hand man.

"For the last 13 years, Harry has been my sidekick," Eckelberger said, turning to Skilton. "I'd like to acknowledge my personal appreciation for what you have done."

Eckelberger and Skilton both joined the SPP board in 2000. The board has added three new members in the last year and is working to bring in the new blood.

Larry Altenbaumer, who joined the board in 2005, has replaced Skilton as vice chair and chair of the Finance Committee.

Board Approves Seams Policy Paper, ITPNT Portfolio

The board approved revisions to the Seams Projects Policy Paper and the 2017 ITP Near-Term assessment's portfolios. Both had been endorsed by the MOPC two weeks earlier.

The revised seams policy expands the definition of seams projects to include 100-kV and above solutions involving a tie line between SPP and its neighbor or transmission projects that do not cross regional boundaries. It also documents cost allocation policy decisions previously approved by the Regional State Committee and board in 2014.

ITC-Great Plains opposed the motion, saying the revisions did not clarify "the interaction between SPP's Order 1000 processes and the proposed Seams Transmission Project process." NextEra Energy Resources and Dogwood Energy abstained.

The board unanimously approved the 2017 ITPNT portfolio, which also passed the MOPC and the Transmission Working Group without opposition. The final portfolio included 15 new reliability projects and one modified project that solve 108 thermal and voltage needs, at a total cost of $60.3 million.

The board also unanimously approved a consent agenda that included a number of proposals previously approved by the MOPC:

- Bylaw changes for the nomination and selection of organizational group chairs and vice chairs, and their staggered term lengths. (See "Org Chairs also may See Changes," *SPP Markets and Operations Policy Committee Briefs*.)
- Staff's expedited re-evaluation of the need date for Basin Electric's Roundup-Kummer Ridge 345-kV project, to reflect lower load growth forecasts. (See "MOPC Endorses Re-evaluation of Basin Electric Project," *SPP Markets and Operations Policy Committee Briefs*.)
- A 50-MVAR reactor at the City Utilities of Springfield, Mo.'s 345-kV Brookline substation. The project was identified last year in a joint study with Associated Electric Cooperative Inc. (AECI).
- Regional funding for a new 345/161-kV transformer at AECI's Morgan substation and an uprate of a connecting 161-kV line at an estimated $9.2 million. The project is contingent on reaching an agreement for compensating AECI, which would not see reliability benefits from the project even though it sits within its service area.

The consent agenda also included 15 revision requests.

- CPWG-RR218: Adopts a $50 million

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"Given such a banner year, we could all be forgiven for wanting to rest on our laurels or to indulge a bit longer in nostalgia. As SPP crosses the threshold into the next quarter century of our existence, then, we look not back but forward."

SPP CEO Nick Brown and Board Chair Jim Eckelberger

SPP NEWS

MISO Stakeholders Give Go-Ahead on SD Interregional Project

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to come out of the RTOs' coordinated system plan study conducted last year.

Both stakeholder votes are nonbinding. The MISO-SPP Joint RTO Planning Committee — composed of staff with ultimate say over interregional issues — can override the votes.

Before the vote was conducted, MISO officials hinted that they would press for regional review regardless of their stakeholders' views.

"We're just trying to memorialize stakeholder opinion," MISO's Eric Thoms explained of the vote.

MISO PAC liaison Jeff Webb said the small project has already come a long way because it comes recommended by both MISO and SPP leadership, a first for the RTOs. "This is a procedural motion more than anything," he said. "We're merely seeking input … and we anticipate that no stakeholders would oppose the project. We have the right to take your vote under advisement, and we're very much inclined to check this project out."

MISO will proceed with a regional review process only if the JRPC also votes in favor of the project. If it is approved, the RTO would most likely process the project as part of its 2017 Transmission Expansion Plan, said Davey Lopez, MISO adviser for planning coordination and strategy.

At an April 25 Informational Forum, MISO CEO John Bear said the possible approval of the first MISO-SPP interregional project would be a "rare" occurrence, given the complex approval process the project must clear.

MISO would designate its portion of the project as miscellaneous, unable to qualify for cost allocation, because it does not meet the 345-kV voltage threshold required of its market efficiency projects. The RTOs have no voltage threshold on interregional projects, but they do have a $5 million cost criteria, a requirement that either RTO must see a 5% or greater share of the project's benefits and a condition that the estimated in-service date be within 10 years of project approval.

Acting on a complaint by Northern Indiana Public Service Co., FERC last year ordered MISO to eliminate its 345-kV threshold on interregional projects with PJM. (See *FERC Signals Bulk of NIPSCO Order Work Complete*.)

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unsecured credit allowance, a raise from $25 million, to reduce the costs of capital for utilities. SPP is the last RTO to adopt a $50 million limit.

- MWG-RR200: Removes bilateral settlement schedules at hubs and generation settlement locations from the over-collected losses (OCL) distribution calculation. Only schedules at a withdrawal point would be included in the OCL calculation.
- MWG-RR203: Adds a "last-chance" second set of auction revenue rights nominations in the monthly ARR process, where any source-sink path can be nominated.
- MWG-RR205: Allows the implementation of jointly owned units (JOU) registered under the combined-resource option to include the minimum regulation-capacity operating limit in its offers, and adds resource offer parameters that can be changed daily for a JOU's minimum physical capacity and physical-regulation capacity operating limits.
- MWG-RR216: Reinstates Tariff language omitted from RR173 related to eligibility of multiconfiguration resources for regulation-up or regulation-down service.
- MWG-RR217: Removes Tariff language related to violation relaxation limits to make the section consistent with a compliance filing in response to FERC's Order 825 on shortage pricing.
- MWG-RR219: Ensures language in SPP's Tariff meets FERC requirements for enhanced combined cycle units.
- ORWG-RR213: Creates a new appendix to the operating criteria that defines how the SPP reliability coordinator will operate voltage stability limited system constraints, as recommended by the Wind Integration Study.
- RTWG-RR202: Responds to FERC guidance on SPP's disparate treatment of point-to-point and network integration transmission service (NITS) during redispatch. NITS would be eligible for ARRs during limited times of the year and only for the service not subject to redispatch, but would not be eligible for long-term congestion rights. (See *SPP Hopes Congestion Rights Rule Change Wins FERC OK*.)
- RTWG-RR208: Implements the Transmission Planning Improvement Task Force's white paper for new regional planning processes by replacing current planning schedules with an annual transmission expansion plan; creating a standardized scope; establishing a common planning model for use across the various planning processes; and creating a staff/stakeholder accountability program. (See "SPC, MOPC Approve Improvements to SPP's Tx Planning Process," *SPP Strategic Planning Committee Briefs*.)
- RTWG-RR211: Establishes a $3 million minimum cost threshold for competitive projects.
- TRR223: Revises the Tariff to extend the timeline for conducting regional cost allocation reviews from three years to six.
- TWG-RR215 and TWG-RR186: Eliminates redundant requirements.
- TWG-RR224: Aligns the existing criteria with NERC's new definition of "special protection schemes" as "remedial action schemes." Also cleans up planning criteria language coinciding with changes made to the operating-horizon system operating limits methodology.

— Tom Kleckner

FERC NEWS

No 2nd Term for FERC's Honorable

By Michael Brooks

FERC Commissioner Colette Honorable announced Friday she will not seek a second term on the commission. Her current term expires June 30.

"After much prayer and consideration, I've decided not to pursue another term at the Federal Energy Regulatory Commission," Honorable said in a statement. "I appreciate the strong bipartisan support I've enjoyed over the years and look forward to continuing this important work after leaving the commission."

Honorable was nominated by President Barack Obama in August 2014 to fill the remainder of former Commissioner John Norris' term. The Senate unanimously confirmed the former Arkansas Public Service Commission chairman in December 2014. (See *Senate Confirms Honorable to FERC*.)

Neither Honorable nor FERC said when she would leave the commission. "We have nothing more than her statement," a FERC spokeswoman said.

Speaking at a commission technical conference on Monday, Honorable said she planned to remain in D.C.

"It's been short in many ways," she said of her time on the commission. "But in some ways I feel like we've done so much together. And don't worry. It isn't goodbye. … It's just I'll see you around. My daughter loves this area, so I'm not going anywhere. Where I'm going and when I'm going remains to be seen."

Honorable could serve until her successor is confirmed or the end of the current Congressional session, whichever comes first.

In the past, some commissioners have stayed on past their terms' expiration dates, saying they would wait until a replacement is named.

But Commissioner Tony Clark left at the end of September last year after his term expired in June without any nomination being submitted. And the commission has been without a quorum since February, when Chairman Norman Bay resigned after President Trump named Cheryl LaFleur acting chair.

Honorable had been interviewed on E&ETV's "OnPoint" web show April 24 and gave no hint of her impending decision. She also said the commission was "hopeful that any day, any week we will hear who the nominees will be" and that she had no insight into when they would be announced.

Stakeholders and members of Congress have grown increasingly agitated that the

FERC

president has not submitted any nominations to the Senate.

Honorable's chances of being reappointed diminished with Trump's election. Although the commission has not traditionally been marked by partisan divisions, the president gets to appoint members of his party to three of the five seats and pick the chairmanship. (See *CPP, FERC's Bay, Honorable Among Losers in Trump Win*.)

Since Republicans Philip Moeller and Clark left, the five-member panel had been all Democrats: Honorable, Bay (whose term ran through June 2018) and LaFleur (June 2019).

Although Bay's departure left an opening for a second Democrat, FERC insiders had not expected Honorable to remain.

DC Circuit Upholds FERC Ruling in PURPA Dispute

By Wayne Barber

The D.C. Circuit Court of Appeals last Tuesday declined to overturn a FERC decision requiring Portland General Electric to purchase the full output of an Oregon wind power project under the Public Utilities Regulatory Policies Act.

The three-judge panel also rejected a claim by PáTu Wind Farm that PGE was required to accept the wind producer's power through dynamic scheduling.

The court dismissed the utility's petition for lack of jurisdiction and denied PáTu's argument on its merits.

The case centered on a 2015 FERC ruling in which the commission determined that PGE must purchase all of the six-turbine, 9-MW wind farm's power under a power purchase agreement between the two parties set out under PURPA.

Because PáTu, located in rural Oregon, is not directly linked to PGE's grid, it sells power to the utility under the state Public Utility Commission's approved PPA for "off-system" generators.

In order to transmit power to PGE's grid, PáTu obtains transmission services from the Wasco Electric Cooperative and the Bonneville Power Administration. Wasco wheels PáTu's power to BPA, which in turn transmits the energy to PGE's Troutdale substation, the PPA's designated point of delivery.

"Before the ink had dried on the power purchase agreement, the parties locked in a dispute over the nature of Portland's purchase obligation," the court said.

Believing it had purchased a firm product, PGE required PáTu to set day-ahead schedules under which the wind farm committed to delivering whole blocks of energy for each hour of the day. If PáTu overscheduled its deliveries, PGE paid the favorable avoided cost rates for the power delivered and required the wind farm to make up the difference by buying firm power from BPA, which was compensated at the lower market rate because it was not generated by PáTu.

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DC Circuit Puts Hold on CPP, MATS Challenges

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stay was a surprise to many and came without explanation, but it's likely the Supreme Court wanted to avoid what happened with MATS.

The court in June 2015 found that rule illegal because EPA had not considered its costs. But because the rule, first proposed in March 2011, had not been stayed during the years of litigation, companies had been making investments and closing power plants in order to comply by the April 2015 effective date.

Instead of voiding the rule, the Supreme Court remanded the case back to the D.C. Circuit, which ordered EPA to rewrite the rule with a proper cost-benefit analysis. The court's Thursday order suspended the case until further notice. EPA is required to file a status report in 90 days.

The holds give the administration more time to figure out how to revise — or potentially rescind — the rules. It is unclear how it intends to do this. But in the case of the CPP, the order does stave off the court from potentially upholding the rule.

Chief Judge Merrick Garland did not participate in the order, as he had recused himself from cases while his nomination to the Supreme Court by President Obama was pending before the Senate.

EPA Request

EPA asked the court to delay action on the CPP challenge on March 28, the day Trump signed an executive order directing EPA Administrator Scott Pruitt to begin the lengthy process of undoing the rule.

"The Clean Power Plan is under close scrutiny by the EPA, and the prior positions taken by the agency with respect to the rule do not necessarily reflect its ultimate conclusions," EPA said in its motion. "EPA should be afforded the opportunity to fully review the Clean Power Plan and respond to the president's direction in a manner that is consistent with the terms of the executive order, the Clean Air Act and the agency's inherent authority to reconsider past decisions. Deferral of further judicial proceedings is thus warranted."

Environmental groups — including the Sierra Club, Environmental Defense Fund and Natural Resources Defense Council — filed a response April 5 contending that EPA's request "would have the effect of improperly suspending the rule without review by any court, without any explanation and without mandatory administrative process."

"The relief EPA seeks flouts the terms of the order by which the Supreme Court temporarily stayed enforcement of the rule. The Supreme Court did not invalidate the rule; consistent with the authority granted courts by the Administrative Procedure Act, it issued a stay pending a decision by this court and an opportunity for Supreme Court review. Now EPA wants the stay, but not the judicial review that formed the basis for it," they wrote. "Granting EPA's motion would effectively convert that temporary enforcement relief pending judicial review into a long-term suspension of the rule likely continuing for years, without any court having issued any decision on the rule's merits."

CPP's Vulnerabilities

Based on the judges' questions and comments during oral arguments in September, it appeared four of the five challenges — a Constitutional issue; a bill drafting error; EPA's alleged failure to provide sufficient notice of changes between the original and final plan; and a claim that it relied on dubious assumptions on the growth of renewables — had little chance of prevailing. But

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DC Circuit Upholds FERC Ruling in PURPA Dispute

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On the other hand, if PáTu underscheduled, PGE only accepted and paid for only scheduled deliveries, forcing the wind farm to dispose of the excess at less-favorable rates, the D.C. Circuit noted.

PáTu contended that PGE could only buy all of its variable output through "dynamic transfer" — or scheduling in real time. PGE countered that, under its PURPA agreement, the wind farm was a customer of the utility's merchant arm, not a transmission customer, and was therefore ineligible for dynamic scheduling.

In December 2011, PáTu filed a complaint with the PUC. The regulator saw nothing in the PPA requiring PGE to utilize dynamic scheduling, concluding that the utility must purchase all power PáTu generates and delivers.

But drawing a distinction between power "produced" and power "delivered," the PUC appeared to leave PGE free to refuse to purchase any power produced in excess of what PáTu scheduled.

PáTu appealed to the Oregon Court of Appeals, which affirmed the PUC's decision without opinion. The wind farm owner then filed a complaint with FERC, arguing that PGE must buy all of its output, scheduled or not, and that dynamic scheduling was the only way to accomplish that result.

FERC concluded that the PPA and PURPA regulations required PGE "to accept PáTu's entire net output ... delivered to Portland," the D.C. Circuit noted.

FERC rejected PáTu's specific request for dynamic scheduling, explaining that it has never required a utility to use any particular method to carry out its purchase obligation. It nonetheless clarified that, contrary to what the PUC had suggested, PGE could not escape its PURPA obligation by imposing overly rigid scheduling requirements or by refusing to purchase all power that PáTu produces.

PáTu Wind Farm construction

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DC Circuit Puts Hold on CPP, MATS Challenges

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the judges seemed to be seriously considering the argument that EPA overreached its authority by creating CO_2 emission limits that coal-fired generators can't meet, forcing a "generation switch" to natural gas and renewables. (See Analysis: No Knock Out Blow for Clean Power Plan Foes in Court Arguments.)

How Much Does it Matter?

Some observers say the administration may not succeed in killing the CPP, and that if it does, it will have little impact because the power industry's decarbonization will continue without the rule.

At a panel discussion at the Energy Bar Association annual conference in April, David Doniger, director of the NRDC's Climate and Clean Air program, said that most of the players in the electric industry have adjusted to the CPP's goals and are unlikely to reduce decarbonization efforts because of Trump's action.

"Whatever its noble objectives, it's relatively irrelevant whether or not [the CPP is] enforced," added panelist Ian C. Connor, global co-head of J.P. Morgan's Power & Utility Group. "I have little doubt ... that the industry will materially decarbonize and outstrip what the CPP is trying to do." (See EBA Panel: CPP's Demise not Certain — and it Doesn't Matter.)

CPP Supporters: EPA Must Act on Carbon

New York Attorney General Eric T. Schneiderman tweeted in response to the court's action Friday: "Despite today's temporary pause in litigation, the facts remain the same: @EPA is still legally obligated to limit carbon pollution."

"We are in a race against time to address the climate crisis," EDF General Counsel Vickie Patton said. "The Supreme Court is clear that EPA has a duty to protect Americans from dangerous climate pollution under our nation's clean air laws, and Environmental Defense Fund will take swift action to ensure that EPA carries out its responsibilities under the law. Climate progress and clean energy cannot be stopped by the litigation tactics of polluters."

CPP Opponents: Good Riddance

William Yeatman, senior fellow at the Competitive Enterprise Institute, which opposes the CPP, said the action means one of two potential outcomes: "1) Either the rule is nixed because the EPA determines that it is precluded from issuing a climate rule for existing power plants because they are already regulated under the Clean Air Act's hazardous air pollution program, or 2) the EPA significantly revises the rule to bring it 'inside the fence line' of electricity generating units, such that the agency no longer claims the authority to dictate to the states what their energy choices must be.

"Either way, the outcome will pardon the American economy from the ill-effects of the Clean Power Plan, which would have empowered the EPA to remake the electric industry," Yeatman said.

Jeff Holmstead, a partner with the Bracewell law firm who headed the EPA's Office of Air and Radiation from 2001 to 2005, called the news "important but not terribly surprising."

"I don't think the D.C. Circuit has ever gone ahead and decided on the legality of a rule when a new administration says it plans to rescind or revise it. The only question now is whether the case will be held in abeyance or remanded back to EPA. If the court had upheld the rule, it wouldn't have prevented the new administration from revoking it, but it might have made this effort harder. At the very least, today's ruling means that it will not take as long for the administration to undo the Clean Power Plan."

STAKEHOLDER SOAPBOX

ESA Takes Action to Address Regulatory Dissonance

By Matt Brown

The Energy Storage Association recently filed a complaint with FERC seeking a review of PJM's prior unilateral changes to its market for frequency regulation. Electricity markets are founded on the principle that practices affecting rates won't be changed arbitrarily, which ensures fair treatment of companies that invest in and operate electric resources. This is particularly important to ensure new resources like advanced energy storage enter markets and increase competition. For this reason, the decisions impacting tariffs that PJM has made must be submitted for review by FERC.

PJM was the first market to use the near instantaneous response time and precisely controlled input and output of storage systems as a cost-effective tool to ensure short-term grid stability. PJM's fast frequency regulation service (RegD) was designed for dynamic electric supply assets that are high-power, duration-limited and fast-responding, matching the moment-to-moment deviations of supply and demand to maintain the frequency of the electric grid. In contrast, PJM's conventional frequency regulation service (RegA) continued to enable the participation of traditional electric supply resources, which have slower response times and ramp rates but can sustain service indefinitely.

As a result, more than 265 MW of advanced energy storage are currently deployed in PJM — nearly all of it competing in the regulation market. These energy storage systems have lowered costs and generated value for the millions of customers in PJM.

Regulation Market Certainty & Unilateral Changes

Over the course of 2015, larger system conditions were leading PJM to call on its energy storage resources to sustain longer-duration service regularly. Because RegD service was designed to be short-duration, PJM decided to make changes to the frequency regulation market while convening a stakeholder consultation process. In late 2015, PJM artificially capped how much RegD service can be provided, and in early 2017, PJM changed the parameters of RegD service, including ending its use for only short-duration needs.

The changes to the parameters of RegD service undermine its original purpose — to provide efficient response to short-term deviations of system frequency (typically measured in minutes). Keeping the grid in balance over longer periods — up to an hour or more — is the role of energy markets or, in emergencies, reserves. In effect, PJM has decided to rely on regulation resources to correct prolonged system imbalances rather than address their root causes. Additionally, the parameters of RegD service also determine how market participants are compensated, and these changes constitute a substantive modification to the actual rates.

Typically, when changes of a magnitude that impact market structures and compensation are being considered, the market operator submits these changes to FERC for review and approval. This review is an important step and is a legal requirement because it ensures that our nation's wholesale electricity markets remain fair and accessible and that capable assets of all types are rewarded for their performance.

That is why ESA has submitted a Section 206 filing with FERC: to review the decisions made by PJM and enable the changes to RegD service to be considered as a formal tariff change. Moreover, without such review, nothing stops PJM from making changes of similar magnitude again in the future — creating significant uncertainty for energy storage market participants.

It is important to note that PJM staff were presented with proposals to address the broader system challenges that prompted the review of the frequency regulation market design — including proposals from ESA and its members — designed to meet PJM's needs as the grid operator while enabling energy storage owners to adapt to new conditions.

After much discussion, these proposals from many different stakeholder groups were not put into place, and instead PJM decided to implement the rule changes opposed in our complaint — changes that have obstructed advanced energy storage system owners, operators and developers, and substantively impacted the market tariffs and resulting compensation.

The Path Forward

We very much agree with PJM staff and other stakeholders that the rules and parameters applicable to RegD service can continue to be improved and can also be adapted (or be a model for future markets) to address broader system challenges at PJM like overgeneration and the need for more fast-responding, medium-duration reserves on the system. To date, PJM has done an effective job of addressing these challenges and has not seen any significant change to relevant system reliability metrics (e.g., NERC Control Performance Standard scores) since RegD service was implemented.

However, the root causes of system conditions that led PJM to seek longer-duration response from regulation resources in the first place have not been explored. In effect, PJM has sought to solve a larger system reliability issue through the regulation market. It is important that PJM staff investigate what appears to be a consistent oversupply issue that is leading to the prolonged system imbalances — and specifically calling on RegD resources to be continuously charging over extended periods of time.

Further review by FERC will ensure that the broader influences of these changes on market tariffs and performance are considered holistically, and that PJM will continue to be a leading innovator in creating the model for competitive energy marketplaces. We look forward to working with PJM staff, regulators and a broader group of grid stakeholders on developing a better strategy for ancillary services and applications for energy storage, and by undergoing a more formal process, we can ensure that PJM customers don't miss out on the ultimate objective — affordable and reliable energy, from increasingly sustainable sources.

Matt Brown is executive director of the Energy Storage Association, the voice of the energy storage industry, representing manufacturers, utilities, grid operators, developers and technology companies, and working to promote the adoption of competitive and reliable energy storage systems. More info is available at www.energystorage.org.

Stakeholder Soapbox

If you'd like to contribute an op-ed article, email the editor at rich.heidorn@rtoinsider.com.

FirstEnergy Hopeful on State, Federal Support

By Jason Fordney

"There is absolutely no change in the strategic direction that we want to take this company in."

FirstEnergy CEO Charles Jones

FirstEnergy is encouraged by possible new state and federal support for nuclear and coal-fired plants, but the company said it has not changed its plan to divest its merchant generation and become a fully regulated company by the middle of next year.

"There is absolutely no change in the strategic direction that we want to take this company in," FirstEnergy CEO Charles Jones said during a Friday call to discuss first-quarter earnings. "We do not want to be exposed to commodity-exposed generation any longer than we have to be."

In light of a $164 million first-quarter charge over unfulfilled coal delivery contracts, the Ohio-based utility holding company is eyeing a proposed nuclear subsidy from its home state and signals from U.S. Energy Secretary Rick Perry that federal policies toward coal generation could change.

The company reported earnings of $205 million in the quarter on revenues of $3.6 billion, including the charge related to coal delivery contracts. In the first quarter last year, the company earned $328 million on revenue of $3.9 billion.

Subsidiary FirstEnergy Solutions recently reached a $109 million settlement with BNSF Railway and CSX over long-term coal delivery contracts it terminated. The payments, guaranteed by FirstEnergy, are set to have begun on May 1, the company told the U.S. Securities and Exchange Commission in an April 27 filing. If that settlement is not completed — or a similar dispute with BNSF and Norfolk Southern Railway is not settled — damages could be much higher and lead FES to file for bankruptcy.

Coal supplier Tunnel Ridge also filed suit against First Energy subsidiary AE Supply over a terminated coal supply contract, which the company said could "be material."

FirstEnergy executives are hopeful that a bill for a proposed "zero-emission nuclear resource program" will reach Ohio Gov. John Kasich's desk by the end of June. The legislation would require electric distribution companies to secure the credits from qualified generation resources and recover the costs from ratepayers. Awarded according to nuclear output, the credits would gain FirstEnergy about $300 million/year.

"That amount in and of itself, I don't think, is enough to necessarily avoid a FES bankruptcy," Jones said. "It would be enough potentially for those assets to emerge from bankruptcy and for a reputable nuclear operator to be willing to take them on and run them forward."

FirstEnergy touts the proposal as helping the state meet its energy goals, but critics say it is a bailout for the company's nuclear plants. Ohio Citizen Action said the money should instead be invested in renewable energy and energy efficiency projects.

FirstEnergy owns the 889-MW Davis-Besse nuclear plant near Toledo and the 1,231-MW Perry plant near Cleveland, but the company wants to close or sell them.

Jones said that as the company assesses the implications of a FES bankruptcy, it is closely monitoring whether a new Energy Department study will lead to some type of support for coal plants.

Perry last month ordered his department to present by mid-June its evaluation of the premature retirements of baseload power plants, which is in part intended to determine whether energy markets adequately compensate the reliability benefits they provide. It is unclear what initiatives might flow from the process.

Perry's memo mentioned "the market-distorting effects of federal subsidies that boost one form of energy at the expense of others" and said the study would provide "concrete policy recommendations and solutions."

Jones said the Bulk Electric System is being overlaid on a congested and "not robust" natural gas delivery system, and problems with the natural gas system will flow to the electricity system.

FirstEnergy last quarter entered into an agreement to sell about 1,500 MW of AE Supply's gas and hydro assets for $925 million, a deal expected to close in the third quarter. A $40 million agreement to sell property and assets at the Hatfield's Ferry power station is expected to close in the third quarter of next year. Mon Power in March agreed to purchase the Pleasants power plant from AE Supply for $195 million.

Perry nuclear plant

Davis-Besse nuclear plant

Avangrid Q1 Net Income up 13% on NY, Conn. Rate Hikes

By Michael Kuser

Rate increases in New York and Connecticut helped Avangrid boost first quarter earnings by 13%.

The company, which benefited from increases for New York State Electric and Gas and Rochester Gas & Electric in New York, and United Illuminating in Connecticut, last Tuesday reported consolidated net income of $239 million ($0.77/share), compared with $212 million ($0.69/share) for the same period in 2016. Operating revenues were up 5.2% to $1.76 billion from $1.67 billion.

CEO James P. Torgerson told analysts on a conference call that the company is "on track" to meet its target of 8 to 10% compound annual earnings growth through 2020. Company officials also talked about prospects for the company's renewable generation business and gave a status report on other federal and state regulatory issues.

The company has "no expectations" of seeking a rate increase in 2017 for Central Maine Power, Torgerson said. Gov. Paul LePage has said high electric rates are hindering business, even though the state has the lowest industrial and residential energy prices in New England as of February, according to the Energy Information Administration. LePage claims, however, that Maine competes not with other states in New England, but with states like Michigan and Alabama, which have lower rates.

New York

On the slow progress in securing approval of NYSEG and RG&E's combined proposal for advanced metering infrastructure, Torgerson noted that the New York Public Service Commission has only two out of five commission seats filled. As part of the state's Reforming the Energy Vision initiative, the utilities are starting their AMI work by installing 20,000 smart meters in Ithaca.

Settlement talks on a request by multiple intervenors seeking to compel the utilities to institute a "collaborative process" on AMI issues have been slowed by the investigation into RG&E's response to a freak wind storm on March 8, which left more than 30,000 households without power for days.

RG&E's $145 million R.E. Ginna retirement transmission alternative project went in operation in the first quarter. The project upgraded transformers and other equipment at two substations, increasing the capacity for one 115-kV and three 345-kV underground lines.

Connecticut

Torgerson also said "timing is getting critical right now" on a decision by Connecticut lawmakers on whether to pay subsidies to Dominion Energy's Millstone nuclear plant in Waterford. S.B. 106, which is pending in the legislature now, "would put more cost back on to the customer," Torgerson said. "I think Dominion would say [it will] lower the cost, but I think it actually raises a little."

"There's been really no detailed information provided to be able to make a determination as to whether that plant truly needs to get a subsidy or not to continue to run and what kind of profitability it has," added CFO Rich Nicholas. "I think that's the biggest rub right now that's going on with Millstone and Connecticut." (See *Millstone No Dead Weight for Dominion, Says Opponents' Study*.)

ROE Move now up to FERC

Torgerson and Nicholas both commented on the D.C. Circuit Court of Appeals' April 18 ruling overturning FERC's 2014 order setting the base return on equity for Central Maine and other New England transmission owners at 10.57%. The court said the commission failed to meet its burden of proof in declaring the previous 11.14% rate unjust and unreasonable. (See *Court Rejects FERC ROE Order for New England*.)

"We all know that the 11.14% was in the range of reasonableness that FERC had set out, so we're waiting to see what FERC will decide to do," Torgerson said. "Then if they get over that, then we'll have to determine if setting the base ROE at the midpoint of the upper half of the range of reasonableness is just and reasonable in and of itself."

Nicholas looked for a more long-term resolution: "I think that the hope would be that maybe as we get new commissioners [at FERC] … that maybe they revisit the whole process and see if they can find a process whereby you avoid this pancaking where we now have four different complaints on the same issue."

Renewables Unit Continues Growth

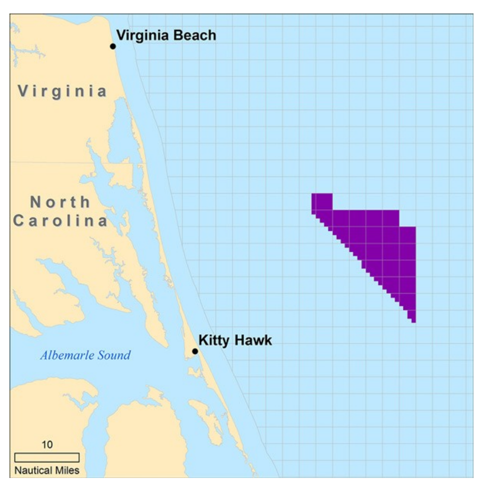
Avangrid Renewables' contribution to earnings per share increased by 41% in the first quarter from Q1 2016, rising to 26% of adjusted EPS. The company is looking to keep the growth momentum going with future projects, including by bidding on offshore wind projects in Massachusetts.

On April 25, Avangrid participated in the bidders conference for clean energy proposals in Massachusetts. Torgerson said that he hoped to leverage parent company Iberdrola's experience — the company has about 1.3 GW of offshore wind in operation or under construction — to win a contract to supply some of the 1,600 MW of offshore wind being solicited by Massachusetts.

The notice of intent to bid is due in early May, with proposals due at the end of July. The selection will probably come by the end of January 2018, Torgerson said.

"They are really encouraging proposals that would include generation able to commit to deliveries by the end of 2020," he said. Torgerson said the Massachusetts clean energy projects "not only will benefit Massachusetts and help them reach some of their renewable targets but also … help consumers in Maine by lowering energy prices in Maine."

In March, Avangrid Renewables won the Bureau of Ocean Energy Management's auction for an offshore wind lease on 122,000 acres about 24 nautical miles off the coast of Kitty Hawk, N.C. It was one of the final accomplishments of Avangrid Renewables CEO Frank Burkhartsmeyer, who is resigning May 17 to become CFO of Oregon-based natural gas provider NW Natural. (See *Avangrid Renewables CEO Steps Down to Take NW Natural Role*.)



Bureau of Ocean Energy Management

Q1 Earnings Briefs

Rock Fan Akins Says 'Don't Stop Believing' in AEP

Summoning his inner rocker, American Electric Power CEO Nick Akins said last week he is looking forward to the company's fully regulated future, one without merchant plants, capacity markets and auctions.

A drummer in his spare time, Akins told financial analysts at an earnings call Thursday that AEP's outlook reminds him of how he felt at this year's Rock and Roll Hall of Fame Induction Ceremony in New York.

"The ceremony was outstanding, as usual — much like AEP's performance in recent years — but there was still an overhang for me, because as a Journey fan [lead singer] Steve Perry spoke but didn't sing with the band at the ceremony," said Akins, who sits on the Rock and Roll Hall of Fame and Museum's board of trustees.

"I can tell you today that we feel at AEP very good about where we stand as a company today, with no real overhanging issues to cloud our view of where this company is going," he said. "It's as if Steve Perry, in fact, did sing once again with Journey. Don't stop believing in AEP." (See *AEP's Akins Optimistic over Regulated Future*.)

Investors haven't, pushing AEP's stock price from its $67.44/share open Thursday to close at $67.83/share Friday, despite missing analysts' expectations for the first quarter.

AEP reported first-quarter earnings of $592 million ($1.20/share), up from $501 million ($1.02/share) in Q1 2016. Operating earnings came in at 96 cents/share, missing Wall Street's expectations of 97 to 98 cents.

The Columbus, Ohio-based company attributed its drop in sales — to $3.9 billion from $4 billion — to its service territory's third-warmest temperatures in 40 years.

AEP did realize a $127 million profit through the earlier-than-expected sale of four merchant plants to Lightstone, a joint venture between The Blackstone Group and ArcLight Capital Partners. The plants include three fired by natural gas, with 2,533 MW of capacity, and the giant 2,665-MW Gen. James M. Gavin coal plant.

The company is plowing the transaction's proceeds back into its regulated business, transmission and AEP Renewables. Akins said AEP's affiliates are on pace to invest $300 million to $350 million in contracted renewables; the company has an investment goal of $1 billion over the next three years.

"Our progress has been consistent with our message of using a disciplined approach to methodically [reduce the] risk of merchant generation and augmenting … earnings from contracted renewables," he said.

AEP hopes to complete its strategic review of its merchant fleet this year, Akins said. He said the company has given its consent to Dayton Power and Light to retire its 603-MW share of a 2,317-MW coal plant due to close in 2018 and sell its 330-MW share of the 1,300-MW coal-fired William H. Zimmer Power Station to Dynegy in exchange for the latter's 312-MW share of Conesville Unit 4.

That will reduce the company's competitive generation business to its ownership stake in Conesville Power Station's four units (1,695 MW) and one of the Cardinal Power Station's three units (595 MW). The plants burn coal and oil.

AEP reaffirmed its earnings guidance range of $3.55 to $3.75/share.

AEP CEO Nick Akins on the drums at the Rock and Roll Hall of Fame in 2015. | *AEP*

Entergy Reports Another Bad Quarter

Entergy on Wednesday reported a first-quarter profit of $82.6 million ($0.46/share), far off the prior year's earnings of $230 million ($1.28/share). The drop came on the heels of an 80% fall in 2016's fourth-quarter earnings. (See *Entergy Beats Expectations Despite 80% Drop in Earnings*.)

The results included a $230.9 million charge for the costs of winding down Entergy Wholesale Commodities and its five nuclear units.

CFO Drew Marsh told analysts the company expects "pretty strong cash flow" for the next few periods because it won't be paying for refueling outages at two of the nuclear plants.

"Are we making any progress? I would say, absolutely," Marsh said. "Internally, we've been scrubbing the numbers down hard, so we would hope to show you some specific progress over the balance of the year."

CEO Leo Denault announced Entergy Louisiana recently signed a contract with a Calpine subsidiary to build a 360-MW gas peaking plant in Bogalusa, La. Entergy will operate the plant, which is expected to be completed in 2021.

Xcel Energy Says Q1 Earnings 'In Line'

Despite matching 2016 first-quarter performance, Xcel Energy CEO Ben Fowke said Thursday his company survived warmer temperatures with "first-quarter earnings … generally in line with our internal plan."

Xcel reported first-quarter earnings of $239 million ($0.47/share), virtually unchanged from the year prior of $241 million ($0.47/share). That fell short of the Zacks consensus estimate of 50 cents/share.

Fowke was unperturbed, saying that by keeping its operating costs flat for the year, the company will be on track to meet its earnings guidance of $2.25 to $2.35/share.

He also noted Xcel was named by the American Wind Energy Association as the No. 1 utility wind provider for the 12th straight year. The company has proposed adding almost 3,400 MW of new wind to its system as part of its "steel-for-fuel" strategy.

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Q1 Earnings Briefs

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NextEra Sees More Fossil, Nuke Retirements

NextEra Energy officials said they continue to see a bright future for renewable energy and darker days for traditional power sources.

Speaking during the company's April 21 conference call with financial analysts, NextEra CFO John Ketchum said "improved wind and solar economics" and low natural gas prices will "continue to lead to additional retirements of coal, nuclear and less fuel-efficient oil- and gas-fired generation units, creating significant opportunities for renewables growth going forward."

NextEra Energy Resources, the company's wholesale electricity supplier, owns and operates about 16,500 MW of wind and solar capacity. Ketchum said the company had signed contracts for 413 MW of new wind generation and 208 MW of solar energy during the first quarter.

"Customer origination activity continues to be largely driven by economics," he said. "Based upon continued equipment efficiency improvements and cost declines, Energy Resources can offer wind [power purchase agreements] at very competitive prices."

The company reported first-quarter earnings of $1.58 billion ($3.37/share), compared to $653 million ($1.41/share) a year earlier. Adjusted to exclude the effects of non-qualifying hedges, the net effect of "other than temporary" impairments, operating results from its Spain solar project and merger-related expenses, Q1 earnings were $820 million ($1.75/share) versus $732 million ($1.59/share) in Q1 2016.

— Tom Kleckner

COMPANY BRIEFS

SCANA Exec: Nuke Completion May Hinge on Tax Credit Extension

Whether SCANA subsidiary South Carolina Electric & Gas completes construction of the V.C. Summer nuclear plant in the aftermath of Westinghouse Electric's bankruptcy filing may hinge upon an extension of federal tax credits, a SCANA executive told stock analysts Thursday.

The tax credits would offset about $2.2 billion of the current $14 billion of projected construction costs, with the money going to ratepayers, provided the plant's two new reactors are online by the end of 2020. Presently, construction is 33.7% complete.

SCANA executive vice president and CFO Jimmy Addison said an extension could be granted soon as part of a continuing resolution to fund the federal government or as part of a more comprehensive tax reform package. Bills also have been introduced in the House and Senate.

More: *The Post and Courier*

Dynegy Says Nuke Subsidy May Cause It to Exit Southern Ill.

Blaming the state's move last year to subsidize its chief competitor Exelon, Dynegy said it will decide by year-end whether to exit the southern half of Illinois.

Dynegy said pulling out could jeopardize grid reliability for the part of the state served by Ameren Illinois. Its coal-fired fleet produces up to 5,500 MW, which is more than half the capacity needed at peak for Ameren Illinois' service territory.

Last year, after Exelon threatened to close two nuclear plants, Gov. Bruce Rauner signed into law the Future Energy Jobs Act, which will take effect this year and furnish up to $235 million a year to Exelon over the next decade. Dynegy is a plaintiff in a federal lawsuit to overturn the subsidies.

More: *Crain's Chicago Business*

Entergy Plans 2nd Attempt at Getting Power Plant Approved

After suspending a first attempt in February, Entergy says it will go back to the New Orleans City Council this summer to seek permission to build a power plant in New Orleans East, but the new project may be a scaled-back version.

Gary Huntley, Entergy's vice president of regulatory affairs, said an in-house study showed that over the next 20 years, the city's anticipated power demand will be 3 to 4% less than what was factored into its initial proposal. Accordingly, Entergy is contemplating a smaller generation unit that would use less ground water and have lower emissions.

Consumer advocates and environmental groups believe the city's power demands are considerably less than what's projected in Entergy's original 20-year forecast, with some, including the City Council last year, questioning whether the plant is needed.

More: *The Times-Picayune*

NH PUC Won't Reconsider Eversource PPA

New Hampshire regulators put the kibosh on a proposed power purchase agreement by Eversource Energy that would have allowed it to purchase 100 MW of the Northern Pass transmission line's power and offer it at a lower-than-market rate.

Eversource announced last June it had reached the 20-year agreement with Hydro-Quebec and cited it as one of the benefits of the transmission project.

The Public Utilities Commission ruled against the proposal on March 27, saying it went against the overriding principle of restructuring, then denied Eversource's request for reconsideration on April 20, saying the agreement was inconsistent with New Hampshire law.

More: *New Hampshire Union Leader*

FEDERAL BRIEFS

EPA Removes Climate Science Info from Website

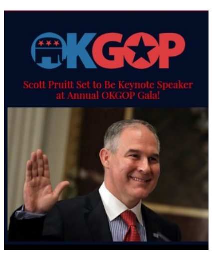
Less than 24 hours before thousands of people across the U.S. marched in protest of the Trump administration's climate policies, EPA removed several of its website pages containing detailed climate data and scientific information.

Among the pages that appeared to be gone was one cited to challenge EPA Administrator Scott Pruitt's statement in March that human activity is not a primary contributor to global warming. Another provided detailed information on the Obama administration's Clean Power Plan.

J.P. Freire, EPA's associate administrator for public affairs, said in a statement that the website "needs to reflect the views of the leadership of the agency" and that it was removing "outdated language" to make room to discuss what the agency is presently doing.

More: *The Washington Post*

Pruitt Backs out of GOP Fundraiser In Response to Ethics Complaint



© Oklahoma Republican Party

EPA Administrator Scott Pruitt won't be appearing at an Oklahoma Republican Party fundraiser after a Senate Democrat filed an ethics complaint saying the invitation implied attendees would be paying to meet with a federal official, which is illegal.

The invitation for the May 5 event read in part: "You do not want to miss Pruitt at this year's OKGOP Gala, as he discusses his plans to slash regulations, bring back jobs to Oklahoma and decrease the size of the EPA!"

This prompted Sen. Sheldon Whitehouse (D-R.I.) to file a complaint with the Office of Special Counsel, saying Pruitt would be violating the Hatch Act, which prohibits certain federal officials from participating in political events. Pruitt said EPA's ethics office approved his participation, but the people who sent out the invitation didn't comply with federal law and federal ethics law.

More: *The Hill*

Dems Introduce Federal 100% Renewable RPS Bill

Sanders

Speaking at a renewable energy rally Thursday outside the Capitol, Sens. Bernie Sanders (I-Vt.), Jeff Merkley (D-Ore.) and Ed Markey (D-Mass.) announced they would introduce bill that would require the U.S. to produce 100% of its energy from renewable or clean sources by 2050.

The bill has virtually no chance of advancing out of the chamber. It was introduced days before a march protesting the Trump administration's stance on climate change Saturday. At the rally, Sanders called out President Trump as being "more wrong" on climate change than any other policy.

"Mr. President, your job is to listen to the scientific community that is virtually unanimous in telling us that we have to transform our energy system away from fossil fuels to energy efficiency and sustainable energy," Sanders said.

More: *The Hill*

House Panel Considers Draft Bill to Allow Yucca Mountain Permitting

A House Energy and Commerce panel met to consider a draft bill that would give the federal government power to issue air permits for the proposed Yucca Mountain nuclear waste storage facility, while bypassing opposition by Nevadans.

The bill would enable the licensing process to resume while allowing the state's technical objections to be adjudicated in the Nuclear Regulatory Commission process, Rep. John Shimkus (R-Ill.) said.

Multiple Nevada lawmakers stated their opposition to the bill. "The idea that Nevada should be used as nothing more than a dumping ground for the rest of the country's nuclear waste is opposed by most Nevadans, Democrat and Republican alike," said Democratic Rep. Ruben Kihuen, whose district hosts Yucca Mountain.

More: *The Hill*

State Dept. Memo: US Has Few Legal Obligations Under Paris

An internal State Department memo obtained by Bloomberg News says the Paris Agreement poses relatively few legal obligations on the U.S. and characterizes them as "generally process-oriented."

The memo, which is marked as a draft, makes no recommendation as to whether the U.S. should remain in the agreement.

Under the terms of the agreement, the U.S. can't formally exit until 2019 and faces no specific reporting requirements until 2021, according to the document.

More: *Bloomberg Politics*

Mining Group Supports Leaving Paris After Meeting with Pruitt

The National Mining Association's board of directors voted last Tuesday to press President Trump to withdraw from the Paris Agreement on climate change after meeting with EPA Administrator Scott Pruitt last week.

The vote was 26-5, with some members abstaining, according to a source.

A NMA spokesman denied Pruitt urged the group to publicly support exiting the agreement, despite a source telling Politico he did.

More: *Politico*

Dems Try Again to Create Climate-Change Bond Program

Two Congressional Democrats have reintroduced a bill to create a fund — supported by a new, annual $200 million federal bond program — that states and cities could tap to finance projects to prepare for the impacts of climate change.

The bill, introduced by Sen. Dick Durbin (D-Ill.) and Rep. Ted Deutch (D-Fla.), is similar to legislation introduced in the Senate last year, which went nowhere.

"With rising tides and sunny-day flooding, my constituents in South Florida are all too aware of the urgent need to respond to climate change," Deutch said in a statement.

More: *The Hill*

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Federal Briefs

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1,000 Companies Urge Lawmakers not to Cut Energy Star

More than 1,000 U.S. companies, including some of the nation's largest manufacturers, sent a letter to the Trump administration and congressional leaders urging them not to cut the 25-year-old Energy Star program.

Companies signing the letter include United Technologies, Ingersoll Rand, Staples, LG Electronics USA, Panasonic, Samsung Electronics America and Nest thermostats, owned by Google.

Energy Star costs about $50 million per year to administer but saves consumers $34 billion per year in reduced energy costs. President Trump's proposed budget would eliminate its funding.

More: *The Associated Press*

Perry Wants to Renegotiate, Rather than Leave, Paris Agreement

Energy Secretary Rick Perry has come out in favor of the U.S. renegotiating the Paris Agreement on climate change, rather than walking away from it.

Speaking at the Bloomberg New Energy Finance conference in New York last Tuesday, Perry said the U.S. should renegotiate the 2015 deal so that European nations take on a larger share of emissions reductions.

Perry's position aligns him with White House adviser Jared Kushner and Secretary of State Rex Tillerson, who also want to stay in the accord. EPA Administrator Scott Pruitt and top strategist Steve Bannon want to withdraw.

More: *Bloomberg*

Report: US Ranks as 4th Largest PV Market

The U.S., with 40.3 GW, is the fourth largest PV market behind China, Japan and Germany, according to a report published by the International Energy Agency Photovoltaic Power System Programme.

The "Snapshots of Global Photovoltaic Markets 2016" report found that more than 303 GW of installed PV power was operational worldwide at the end of 2016. The agency said that's sufficient global capacity to produce 375 billion kWh annually and to cover 1.8% of the world's electricity demand.

The U.S. more than doubled its annual installations, from 7.3 GW to 14.7 GW, last year.

More: *pv magazine*

White Paper: Aug. Eclipse Unlikely To Impact Bulk Power System

A solar eclipse predicted by NASA for Aug. 21 is not likely to affect the North American bulk power system, according to a NERC white paper.

"A Wide-Area Perspective on the August 21, 2017 Total Solar Eclipse" recommends that utilities across the U.S. perform detailed studies of the eclipse's potential impact on their systems and retain necessary resources to meet the increased and varying load caused by loss of solar generation.

More: *NERC*

Court Delays Decision on EPA Rules On Heavy Metals in Wastewater

The 5th U.S. Circuit Court of Appeals granted a request by the Trump administration to delay a decision on Obama-era rules limiting water pollution from coal-fired power plants.

The court said it won't consider the lawsuit for at least 120 days.

EPA Administrator Scott Pruitt is reconsidering the 2015 regulations, which would have required utilities by next year to cut the amount of toxic heavy metals in wastewater piped into rivers and lakes.

More: *The Associated Press*

State Briefs

CALIFORNIA

Automakers Object to Volkswagen's Plan for EV Charging Stations

Volkswagen's plans to spend about $800 million in the state on electric vehicle infrastructure and projects as part of its settlement for diesel emissions cheating is facing objections from automakers and other groups.

Automakers oppose the proposed locations of some charging stations in areas that already have many electric vehicles and are concerned about the competitive advantages Volkswagen would get. The Sierra Club in a letter to the state urged Volkswagen to build more charging stations in disadvantaged communities.

Toyota, Honda and Hyundai, which are all trying to sell fuel cell vehicles, want Volkswagen to spend more money building hydrogen fueling stations, saying the current commitment by the state to put 100 such stations in place by 2020 is not on track.

More: *Reuters*

INDIANA

Tech and Finance CEOs Urge Gov. to Veto Anti Net-Metering Bill

More than a dozen tech and finance CEOs from across the state have signed a letter urging Gov. Eric Holcomb to veto a bill that would slash solar incentives for residential customers, saying it is bad for business.

Holcomb

SB 309, which passed the House and Senate, would allow customers who install solar systems before the end of 2017 to keep the retail credit rate for 30 years. However, they would receive 75% less for their net-metered solar energy because the retail rate of 11 cents/kWh would drop to the wholesale rate of 3 cents/kWh for extra solar energy produced, plus a 25-cent premium.

Signatories ranged from founders of ExactTarget and LifeOmic to company presidents and CEOs of Omicron Biochemicals, Octiv and Salsvue.

More: *PV-Tech*

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STATE BRIEFS

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MASSACHUSETTS

Environmentalists Seek FERC Rehearing on Pipeline in Forest

As Tennessee Gas Pipeline workers prepare to lay pipe, an environmental group asked FERC last week for a rehearing on its approval to proceed with tree-cutting and construction in Otis State Forest as part of its $93 million Connecticut Expansion Project. The group additionally requested the work be stayed.

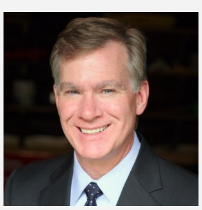
The Massachusetts PipeLine Awareness Network filed its request on multiple grounds, including issues relating to potential disruption of Native American sites along the pipeline's path. The group also maintained that natural gas demand forecasts didn't meet the target to make the pipeline a "public need" that would justify a supply increase.

The group incorporated arguments made by three lawmakers in recent letters to FERC indicating that the agency lacked a proper quorum when it made the decision and that the agency hasn't held a rehearing that Sandisfield residents requested more than a year ago.

More: The Berkshire Eagle

MINNESOTA

St. Paul to Power Municipal Buildings with 25% Solar



Coleman

The St. Paul City Council adopted an agreement Wednesday with GreenMark Solar to purchase up to 8 MW of electricity — about 25% of what is needed to power the city's municipal buildings — and is projected to save $165,000 next year on its energy bills.

St. Paul will save $9 million over the course of the 25-year agreement if Xcel Energy, which will remain the city's utility provider, increases its rates as it's done in recent years.

Mayor Chris Coleman signed the U.S. Mayor's Climate Protection Agreement in 2006, declaring the city would reduce its carbon emissions by 20% by 2020. Environmental Policy Director Anne Hunt is presently working on a plan to improve energy efficiency in buildings and homes, increase reliance on renewable energy, and eliminate the city's carbon footprint by 2050.

More: Pioneer Press

NEW JERSEY

DEP Returns PennEast Application for Water Permits

The state Department of Environmental Protection on Wednesday kicked back PennEast Pipeline's application for water permits for the $1 billion Marcellus Shale gas pipeline, citing deficiencies including the company's lack of access to the private land of uncooperative owners.

PennEast can't obtain the necessary easements along the pipeline's 120-mile route until it receives FERC approval.

While environmentalists hailed the action as a victory, a PennEast spokeswoman said the company filed the application on April 6 as a "routine step" and is resolving "a few outstanding items."

More: The Philadelphia Inquirer

NEW YORK

MTA to Performance Test 10 Electric Buses on NYC Roads

The Metropolitan Transit Authority is beginning a pilot program that will test the performance of 10 electric buses in New York City starting this December, Gov. Andrew Cuomo announced.

The MTA has secured board approval for a $4 million, three-year lease of the first five electric buses from Proterra, which will provide overnight charging buses. The lease of five additional buses from New Flyer will be presented to the board later this year. The New Flyer buses would have en route opportunity charging.

The pilot program will help the MTA refine and develop specifications for future electric bus procurements, Cuomo said.

More: Gov. Andrew Cuomo

PENNSYLVANIA

Quake Shakes up Concerns Of Pipeline Opponents

An earthquake Sunday shook up new concerns over the safety of plans to bury the Atlantic Sunrise pipeline in Lancaster County, which is the most seismically active county in the state.

Jay Parrish, the state's former state geologist and a county resident, who railed against pipeline builder Williams and FERC last June, said last week that moving the pipeline by a few miles could have avoided the most active earthquake zone in the state known to scientists. "True, there are no huge earthquakes, but if I was choosing to put a pipeline where there are some earthquakes and no earthquakes, I'd choose to put it where there are not any," he said.

Chris Stockton, a spokesman for Williams, said the pipeline will be designed specifically for an active seismic zone. "Once these areas are identified, pipeline engineers incorporate special design features to mitigate any issues the fault could create — for example, thicker-walled pipe, strain gauges and extra padded material during construction," Stockton said.

More: Lancaster Online

PECO Plan for Prepay Electric Meets Backlash from Consumer Advocates

A proposal by PECO Energy to launch a pay-as-you-go plan for electricity customers met backlash last week from consumer advocates at a public hearing.

More than a dozen people argued the plan would eliminate vital protections for participants, including a ban on winter shutoffs for low-income customers and protections afforded by state law for those who need electricity to chill medications or power medical devices. PECO said the prepay program will help consumers use less energy and wants to try it with up to 2,000 of its 1.6 million customers.

Administrative Law Judge Angela T. Jones oversaw the hearing and said she will rule in early 2018 on whether the plan is in the public's interest. The Public Utility Commission will make its decision after that and can accept, reject or modify Jones' ruling.

More: NewsWorks

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STATE BRIEFS

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RHODE ISLAND

Clean-Energy Jobs Rise 40% Since 2015

The number of clean-energy sector jobs in the state has increased 40% since 2015 — coming in at 14,000 and still growing, Gov. Gina Raimondo said last week at an event hosted by advocacy group Environment Council of Rhode Island.

The governor set a goal earlier this year to increase the amount of clean energy in the state to 1,000 MW by 2020. In 2016, the state had 100 MW of clean energy.

More: Rhode Island Public Radio

TEXAS

Houston Ranks as Largest Municipal Purchaser of Renewable Energy

Houston became the largest municipal purchaser of renewable energy in the U.S. after a solar farm in Alpine, which the city helped finance, began generating power last week.

The SolaireHolman farm, developed and run by French energy company ENGIE, consists of more than 200,000 solar panels spanning 360 acres.

Houston will pay 4.486 cents/kWh for solar energy through a power purchase agreement, which requires monthly payments over 20 years for the value of the solar power and does not require the city to own the solar equipment. The city is purchasing 50 MW of solar power, which is about 10% of what the city-owned buildings use.

More: FuelFix

WYOMING

Wind Energy Responsible for 9.4% of State's Electricity

Wind energy makes up 9.4% of electricity generated in the state, according to a report released last week by the American Wind Energy Association.

The report ranked the state 15th in the nation for wind-created electricity and found the industry employs almost 1,000 workers in the state.

More: KGWN

Power Markets at Risk from State Actions, Speakers Tell FERC

Continued from page 1

of competition … with a market design that seeks to replace low-cost resources with resources that cost more," he said in his written testimony.

FERC scheduled the conference out of concern that the RTO/ISO energy and capacity markets could lose relevance — or have their pricing signals undermined — because of state plans to procure out-of-market renewable power and prop up nuclear generators (AD17-11).

The conferees discussed the grid operators' efforts to address state-market conflicts, including white papers by PJM, and the New England Power Pool's Integrating Markets and Public Policy (IMAPP). The conference also came as FERC has pending before it challenges to zero-emission credits for nuclear generators in New York and Illinois.

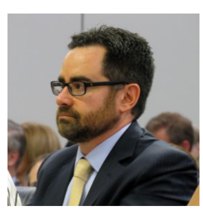
FERC staff indicated the high stakes posed by increasing tensions between state policies and RTO/ISO resource adequacy efforts, asking witnesses to consider whether there will be "a diminished role for the RTO/ISO."

Taking Matters into Their Own Hands

During the hearing, some state officials said they had taken power procurement into their own hands because the capacity markets haven't delivered the types of resources they desire.

Commissioner Colette Honorable and acting Chair Cheryl LaFleur | © RTO Insider

Among the problems: the lack of a price on carbon emissions and no recognition of the value of fuel diversity.



"The market was only delivering one product: natural gas [generation]," said **Robert Klee**, the commissioner of the Connecticut Department of Energy and Environmental Protection, who said the dependence on gas caused reliability concerns during the winter peaks, when generators must compete for fuel with heating customers. "We've been pretty lucky to have mild winters the last few years. We don't want to go back to the polar vortex."

Klee said difficulties getting additional gas pipelines to supply the region's generators had heightened state officials' concerns.

Still, he suggested state procurements likely won't provide all of the new power supplies needed for New England states planning to electrify transportation and building heating. "That's a lot of growth," he said.

Angela M. O'Connor, chair of the Massachusetts Department of Public Utilities, said the markets "have provided tremendous benefits" and that the capacity market has produced new generation to maintain reliability.

"But we are at a crossroads, and what the legislature requires us to do, we have to do," she said, referring to mandates to reduce greenhouse gas emissions by 80% below 1990 levels by 2050, and procure hydropower and offshore wind.

"The wholesale markets [are] … not going to get us our large-scale hydro or the offshore wind — or, frankly, gas pipelines."

Susanne DesRoches, deputy director of infrastructure policy for New York City, agreed. "We support the wholesale markets, but we see that innovation is needed," she said.

Scott Weiner, deputy for markets and innovation at the New York State Department of Public Service, said the state is at an "inflection point."

"Is there a role for the markets? Absolutely. Is it going to change? Probably. … The ener-

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Power Markets at Risk from State Actions, Speakers Tell FERC

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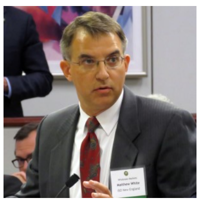
gy markets will always be there. The capacity market may not be."

Seth Kaplan, senior manager of regional government affairs for EDP Renewables, said the markets were constructed with gas turbines in mind at a time when renewables had little market share. Given the changes since then, he said, "it's not surprising that a square peg doesn't fit into a round hole."

Grid Operators Respond



Matt White, chief economist for ISO-NE, insisted the RTO had no intention of relinquishing its role as the guarantor of resource adequacy standards.

"We believe that resource adequacy requires a single point of responsibility and accountability. ISO-NE currently bears this responsibility. Another option is for the states to take on this role through local utilities; to date, however, the New England states have not expressed interest in assuming this role," the RTO said in its written testimony.

NYISO CEO Brad Jones said that while the ISO supports New York's ZECs, the program needs to be incorporated into the market. He said it could take three years to work out a solution.

Generators' Concerns

That was too long for witnesses representing independent power producers.

"The challenge before the commission, the states and all other stakeholders is no less than the question of whether the power industry will continue to use competitive markets as the basis for investment decision-making," Peter Fuller, vice president of market and regulatory affairs for NRG Energy, said in his written testimony.

In his response to questions, Fuller was a bit more optimistic: "We believe the markets can be adapted to give the states what they need … and figure out a way for those resources to have their role in the markets while not undermining the markets for those of us who have invested strictly on the basis of market revenues.

"I don't think we're are the tipping point yet," Fuller said. "But if we don't move fairly quickly [to] … ensure that markets can actually support the … renewable-based future … then we could very well tip over."

John Reese, senior vice president of Eastern Generation, said the issue is particularly acute in NYISO, which has a one-year forward capacity auction, unlike the three-year auctions in PJM and ISO-NE. Eastern Generation operates almost 5,000 MW of generation in NYISO and PJM, including 18% of New York City's capacity.

"I can't wait for seven years or eight years for this to work out," he said. "Regardless of which model we end up with, we need to be sending investment signals now!"

Déjà vu

John Shelk, CEO of the Electric Power Supply Association, lamented that policymakers had not accomplished more since FERC's September 2013 technical conference on the Eastern capacity markets. (See *Capacity Market Attracts Praise, Criticism at FERC*.)

"The one area of agreement is exactly the place that we're headed to that everyone said four years ago, 'Don't go there,' which was tranches: 'Let's pick X amount of nuclear, X amount of coal, X amount of gas.' Now it's worse. Now we're not just picking fuels, we're picking specific [generating] units that otherwise would have exited.

"This may have started in New York last year … but in short order it was adopted in my home state of Illinois and as everybody knows, it's now being actively considered in Ohio, Pennsylvania and New Jersey and Connecticut. So this isn't just a threat to the market in New York."

Without changes, Shelk said, his members may have to seek state approval of "flexible energy credits" to support generators that provide the ramping needed to support variable resources.

New York regulator Weiner also called for urgency. "We'll be having this same discussion two years from now unless there's a recognition that things have changed," he said.

LaFleur: FERC Will Act

In opening remarks Monday, acting FERC Chair Cheryl LaFleur acknowledged, "I'm very well aware that the wholesale markets … only can exist and continue through the buy-in of the states.

"I have said very many times there are three ways this could go: a designed market solution, a litigated outcome or a planned change in the regulatory construct of how we handle resource adequacy. The fourth outcome — an unplanned change in the regulatory construct, or unplanned and piecemeal regulation — is one that I think we should avoid because I think it would be a bad outcome for customers and market participants.

"Once we restore our quorum, this commission will almost certainly have to decide litigated complaints that are already pending before us, even as regions may be working on market solutions to file with us," she continued. "While we can't decide anything immediately because we lack a quorum, we must shape options and recommendations for a FERC 2.0 based on the record we develop today and tomorrow."

*[Editor's Note: **RTO Insider** will have full coverage of the technical conference later this week and in the May 9 newsletter.]*