RTO Insider

Your Eyes and Ears on the Organized Electric Markets

ERCOT ■ ISO-NE ■ MISO ■ NYISO ■ PJM ■ SPP

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MISO's 4th Capacity Auction Results in $70 Disparity Between Zones

By Amanda Durish Cook

MISO's annual capacity auction again produced disparate, roller coaster results, with prices in three zones more than quintupling compared to last year, while results in Zone 4 dropped by half.

The RTO said unit retirements and capacity exports throughout its Midwest region led to six of the 10 zones clearing at $72/MW-day in the fourth annual Planning Resource Auction. In contrast, the entire MISO South region cleared at just $3/MW-day. Zones 2-7 relied more heavily on imports from other zones, driving an uptick in clearing prices:

- Zone 1 cleared at $19.72/MW-day, almost six times last year's $3.48;
- Zones 2, 3, 4, 5, 6 and 7 each cleared at $72/MW-day, a nearly 21-fold increase for zones 2-3 and 5-7, and a 50% drop for southern Illinois' Zone 4; and

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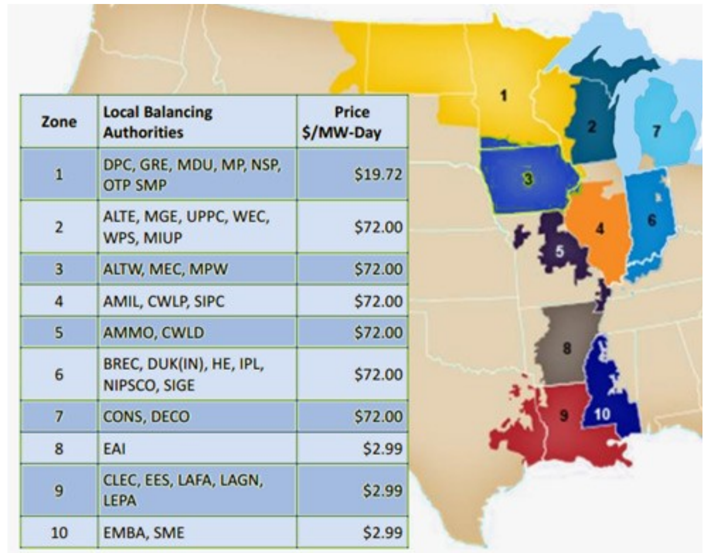

Zone	Local Balancing Authorities	Price $/MW-Day
1	DPC, GRE, MDU, MP, NSP, OTP SMP	$19.72
2	ALTE, MGE, UPPC, WEC, WPS, MIUP	$72.00
3	ALTW, MEC, MPW	$72.00
4	AMIL, CWLP, SIPC	$72.00
5	AMMO, CWLD	$72.00
6	BREC, DUK(IN), HE, IPL, NIPSCO, SIGE	$72.00
7	CONS, DECO	$72.00
8	EAI	$2.99
9	CLEC, EES, LAFA, LAGN, LEPA	$2.99
10	EMBA, SME	$2.99

MISO 2016/17 capacity auction clearing prices *Source: MISO*

PJM: MOPR Could be Improved, but not by May BRA

AEP, FirstEnergy Also Weigh in

By Suzanne Herel

PJM last week asked FERC not to order changes to the RTO's minimum offer price rule before May's Base Residual Auction but agreed the standard should be changed to counter subsidized offers from existing generators. The RTO said revisions could be made for next year.

Eleven generating companies had asked FERC to expand the MOPR, which currently applies only to certain new resources (EL16-49).

The complaint was filed before the Public Utilities Commission of Ohio approved power purchase agreements for FirstEnergy and American Electric Power. PUCO unanimously approved modified versions of the PPAs, which the companies said are crucial to keeping underperforming members of their Ohio fleets running, on March 31 (14-1297-EL-SSO and 14-1693-EL-RDR). (See *FERC Action Awaited Following PUCO OK on PPAs*.)

In their complaint, the

Continued on page 2

FERC OKs Changes to ISO-NE Retirement Rules

By William Opalka

FERC last week accepted rule changes meant to prevent generation owners in ISO-NE from exercising market power by retiring resources that are still economic (ER16-551).

The commission approved revised Forward Capacity Market rules that will require retiring generators to declare their intention with

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BREAKING NEWS

As we were going to press, the Supreme Court ruled unanimously that Maryland regulators' subsidies to a Competitive Power Ventures combined cycle plant intrudes on federal jurisdiction. Visit www.rtoinsider.com later today (4/19) for the story.

Also in this issue:

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PJM: MOPR Could be Improved, but not by May BRA

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generators said they feared such agreements could lead to below-cost offers from existing resources that would suppress capacity clearing prices.

AEP and FirstEnergy told FERC last week that granting the complaint would lead to higher prices for consumers.

PJM: Don't Rush Changes

In its answer, PJM said FERC should not rush to change the MOPR by next month.

"However, PJM agrees that under certain circumstances and given the existing PJM MOPR, sell offers in [Reliability Pricing Model] auctions submitted by existing generation capacity resources could result in unjust and unreasonable rates when such resources are subsidized by state-approved out-of-market payments," the RTO said.

FERC could find the MOPR provisions to be "incomplete and unsustainable" and direct PJM to revise the rules in time for the May 2017 BRA, it said.

Delaying changes "would allow the commission to carefully and comprehensively identify the problem raised by complainants and allow an orderly process to consider alternatives through an open stakeholder process," PJM said. The RTO suggested that FERC keep the issue open so that it could report back with results from its analyses.

"Such a 'staging' of this proceeding would provide stakeholders an inclusive role in formulating a rule having widespread application and send the appropriate signal that the issue requires further analysis and focus," PJM said.

The RTO said that if the commission decides to take action before next month's auction, it should consider two narrowly drawn, short-term alternatives: PJM could reject a sell offer that it believed would result in an unjust and unreasonable outcome, or FERC could order PJM to require a price floor for the PPA-related resources.

Higher Prices?

In its protest, AEP called the complaint "the latest in a continuing effort by various generators and marketers … to block AEP and FirstEnergy from implementing reasonable measures to benefit Ohio retail customers in a way that does not interfere with wholesale markets."

There is no "emergency" requiring immediate FERC action, it said, calling "fanciful" the complainants' notion that "the effect of the AEP PPA will be to dump thousands of megawatts of otherwise uneconomic generation into the upcoming capacity auction and materially suppress prices."

On the contrary, it said, excluding 6,000 MW from the AEP and FirstEnergy PPA units "for no valid economic reason could cause a substantial unwarranted cost increase to consumers in the PJM region."

It also said that because the complaint was filed before PUCO ruled, it doesn't take into account the amendments the commission made to the company's proposal.

FirstEnergy said the complaint was based on flawed assumptions.

"The complainants create a so-called market solution that is facially discriminatory and preferential and that would penalize and harm the retail customers of FirstEnergy and AEP while likely benefiting the complainants' shareholders with increased market share," the company said.

It, too, said there was no reason to address the issue before the May BRA.

FirstEnergy's Davis-Besse nuclear power plant

FERC News

FERC to Examine RTO Rules for Energy Storage

By Michael Brooks

FERC is seeking comment on energy storage's participation in the wholesale energy markets, questioning whether RTOs' rules are creating barriers for the resource (AD16-20).

The commission's Office of Energy Policy and Innovation last week sent identical letters to each of the grid operators under its jurisdiction, requesting data on "the eligibility of electric storage resources to participate in the RTO and ISO markets; the technical qualification and performance requirements for market participants; required bid parameters; and the treatment of electric storage resources when they are receiving electricity for later injection to the grid."

FERC staff simultaneously issued a request for comments on the same issues. Staff said it expects comments to take into account the RTOs' responses to their data requests, which are due May 2. Comments are due May 23.

There have "been some key developments in the technology and cost-effectiveness of electric storage resources," FERC staff said. "In light of these developments, staff is interested in examining whether barriers exist to the participation of electric storage resources in the capacity, energy and ancillary service markets." The commission also expects to examine whether tariff changes are needed if barriers to participation exist, staff added.

"Many energy storage project developers have experienced difficulty in accessing wholesale markets. Grid operations and markets were not originally designed with energy storage in mind," Jason Burwen, Energy Storage Association policy and advocacy director, said in a statement. "The Energy Storage Association supports efforts that increase access to wholesale markets for storage and establish market structures to realize energy storage's full value in lowering system costs and increasing system reliability."

5 Categories

The commission divided its questions to the RTOs into five categories:

- Eligibility: Which types of storage resources are qualified to participate in the markets and which are not? Are there different rules for different types? If so, why?
- Requirements: What are the minimum and technical requirements for storage to participate in the markets? What are the bases for these requirements (NERC reliability standards, for example)?
- Parameters: What are the required bid parameters for storage resources? Are there any parameters unique to storage?
- Distribution: Are there opportunities for aggregate storage resources or those connected at the distribution level to participate at the wholesale level? If so, what are they?
- Load: When would storage be considered a buyer of energy in the wholesale markets? What are the requirements when storage resources purchase electricity? Are they required to pay LMPs? Are there circumstances when storage can receive electricity but not be considered load?

Current RTO Discussions

FERC also asked the RTOs if there are any ongoing discussions or pending rule changes concerning energy storage.

Here is a snapshot of where they stand:

- CAISO last month asked FERC to approve a new Tariff provision that would allow storage and other distributed energy resources to participate in California's energy and ancillary services markets. An ongoing stakeholder initiative is focused on refining the ISO's market model to lower barriers for grid–connected DER. (See *CAISO Tariff Change Would Extend Market to DER*.)
- ERCOT last year created a Distributed Resource Energy and Ancillaries Market (DREAM) Task Force, providing a forum for stakeholders and staff to develop market rules related to DER. The DREAM team has submitted a final report for the Technical Advisory Committee's consideration at its April 28 meeting. (See "DREAM Task Force Submits Final Report," *ERCOT Technical Advisory Committee Briefs*.)
- ISO-NE has two large-scale pumped hydro storage facilities that can provide nearly 2,000 MW. The RTO developed a paper in January explaining how storage resources of at least 1 MW can participate in the energy and capacity markets. An updated white paper incorporating stakeholder feedback was released on March 31.

Ecoult Regulation Services Site *Source: East Penn Manufacturing*

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FERC NEWS

FERC to Examine RTO Rules for Energy Storage

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- NYISO says it was the first grid operator, in 2009, to establish FERC-approved market rules for limited energy storage resources. Its energy limited resources classification allows a capacity provider to sell a minimum of 1 MW for at least four hours. Several other products participate in the ancillary market. The ISO's Market Issues Working Group has begun a process to expand storage's presence. In November, FERC accepted NYISO's method for compensating Beacon Power's 20-MW flywheel storage facility for frequency regulation (ER12-1653).
- MISO is engaged in stakeholder discussions on incorporating storage into its markets. (See *MISO Stakeholders Provide Ideas on Incorporating Storage*.)

Zinc hybrid cathode battery being installed at Pacific Gas and Electric's San Ramon Advanced Technology Services testing facility. *Source: Eos Energy Storage*

- PJM is studying a way to remove barriers that distributed battery storage systems face when entering the markets. Currently, such resources have two options: interconnect as a generation source through the queue process or register as demand response. The review, prompted by a problem statement approved by stakeholders in February, will be limited to behind-the-meter generation of 20 MW or less. (See "Faster Path to Market for Distributed Resources to be Studied," *PJM MRC & Members Committee Briefs*.)
- SPP members are considering a staff proposal to create a technology steering committee as a forum for discussions on incorporating storage and other technologies. (See "More Detail Requested on Technology Committee," *Strategic Planning Committee Briefs*.)

At the Gulf Coast Power Association's spring meeting last week, Allan Stewart, executive director of North American power for PIRA Energy Group, predicted innovations in battery technology will start changing electric market fundamentals as soon as 2020 in California and Hawaii. (See related story, "Energy Storage Ready to Disrupt Industry?", *Overheard at GCPA Annual Meeting*, p.10.)

Robert Mullin, Suzanne Herel, Tom Kleckner and William Opalka contributed to this article.

CAISO NEWS

FERC ALJ: Shell, Iberdrola Owe California $1.1B over Energy Crisis

By Robert Mullin

A FERC judge ruled last week that Shell Energy North America and Iberdrola Renewables saddled California consumers with $1.1 billion in excess energy costs at the height of the Western Energy Crisis.

The initial decision by Administrative Law Judge Steven Glazer said the *Mobile-Sierra* presumption of "justness and reasonableness" does not apply to overpriced long-term contracts the two companies signed with the California Department of Water Resources (CDWR) shortly before the crisis ended in 2001 (EL02-60-007, EL02-62-006).

By that time, CDWR had assumed the role of electricity buyer of last resort after widespread manipulation drove Pacific Gas and Electric and the now-defunct California Power Exchange into bankruptcy, while the state's other two investor-owned utilities teetered on the brink of insolvency.

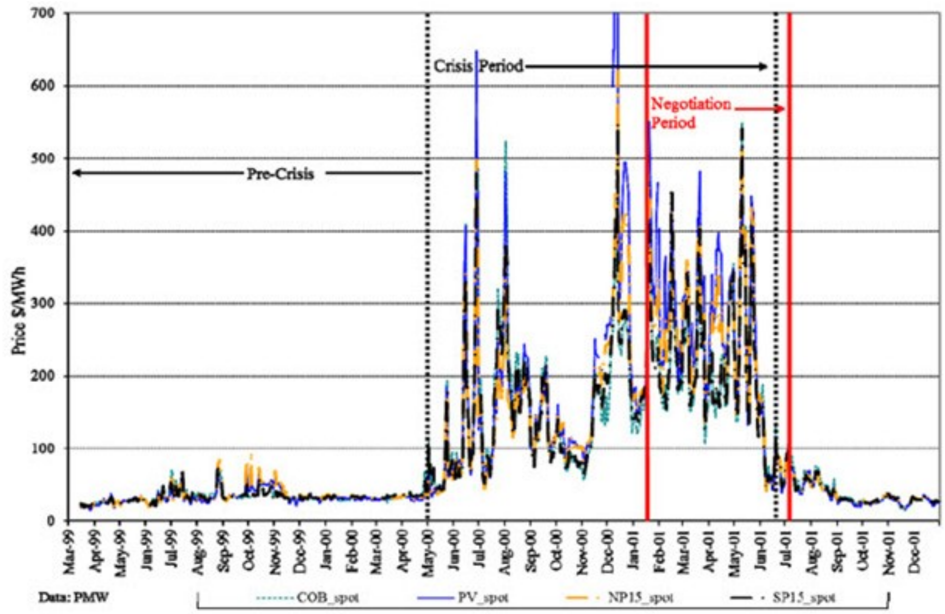
Glazer's ruling also reinstated Iberdrola as a party to the proceedings, reversing a previous dismissal from the case.

The California Public Utilities Commission initiated the case to recover costs from the crisis. Shell and Iberdrola are the only suppliers not to have settled or renegotiated the terms of their contracts with CDWR, which expired in 2011 and 2012.

While the initial decision is subject to further review and modification by the full commission, Glazer's opinion increases the likelihood that the two companies will be forced to disgorge at least some of the profits from the contracts. According to the ruling, the Shell and Iberdrola contracts strapped California consumers with an "excess burden" of $779 million and $371 million, respectively. Both estimates include interest accrued through April 2015.

"I am gratified that the ALJ agreed that FERC has a duty to vindicate the public interest and protect consumers from exorbitant overcharges that Shell and Iberdrola pocketed due to the worst electricity crisis and market meltdown in modern history," PUC Commissioner Mike Florio said in a statement.

The state has obtained $7.7 billion in settlements over other long-term contracts.



Spot prices: March 1999 through December 2001 *Source: Dr. Richard E. Goldberg via FERC*

It also has received about $4 billion in settlements over short-term contracts, with complaints pending against 13 companies involved in short-term deals, according to Florio.

The public interest consideration was pivotal — but not decisive — in Glazer's complex, 219-page decision to nullify the legal presumption of validity accorded to bilateral energy contracts.

Mobile-Sierra Reinterpreted

Grounded in Supreme Court precedent, the *Mobile-Sierra* doctrine holds that bilateral energy contracts can be voided only when a contract rate is shown to adversely affect the public interest. The burden of proof rests with the party seeking to break the contract, who must clearly show harm to the public. In 2003, FERC ruled that it was not in the public interest under the *Mobile-Sierra* rule to break CDWR's contracts with Shell and Iberdrola. California appealed the ruling to the 9th U.S. Circuit Court of Appeals.

A 2008 Supreme Court decision in *Morgan Stanley Capital Group Inc. v. Public Utility District No. 1 of Snohomish County* would introduce a new dimension to the California proceeding, which was eventually sent back to FERC on remand. Based on *Morgan Stanley*, FERC now had to add an additional test to the *Mobile-Sierra* rule: whether the terms of a contract were the result of market manipulation.

In his ruling, Glazer spelled out that the "questions to be decided here focus on the *Mobile-Sierra* rule as reinterpreted by *Morgan Stanley*."

"Specifically, those questions first ask whether the *Mobile-Sierra-Morgan Stanley* presumption of the justness and reasonableness of each of the contracts at issue is 'avoided' by reason of unlawful activity on the part of each wholesale marketer in making its contract with CDWR," Glazer wrote. "Alternatively, the next question asks whether the *Mobile-Sierra-Morgan Stanley* presumption is 'overcome' by reason of the contract's burden on consumers or other harm to the public interest."

The decision to overturn California's contracts with Shell and Iberdrola provided a mix of answers to both questions.

'Avoided' and 'Overcome'

Glazer's ruling against Shell rests on evidence that the company manipulated electricity spot prices during the crisis,

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employing many of the same strategies as Enron. The most harmful of those practices included false exports, false load scheduling and "anomalous" bidding strategies designed to drive up market clearing prices. The decision notes that Shell's head of electricity trading joined the company after working at Enron.

Expert witnesses in the proceeding disagreed about the impact of spot market manipulation on the forward power prices underlying the contracts. Glazer agreed with California's experts, who he said demonstrated that short-term prices affected forward prices in "a statistically significant manner."

Glazer also found that Shell's own trading activities contributed to the price spikes.

"Shell's behavior in short-term trading with CDWR affected forward prices," Glazer wrote. "Forward prices reflect expectations about future spot prices. Shell's manipulative activity and that of other suppliers in spot markets elevated spot market prices and made them much more volatile."

Shell's culpability did not end there. Glazer noted that the Shell team negotiating the long-term contract with CDWR was in close contact with the company's traders during the crisis and knew about the manipulative trading strategies in the spot market. He cited internal Shell emails showing that company negotiators understood the long-term contract was a "big bet" that the energy prices would eventually "tank."

And tank they did, leaving California holding long-term contracts priced far higher than markets in subsequent years.

"The continuing decline of forward prices after the deal was signed proved to be costly to CDWR," Glazer wrote. "It signaled that paying the high locked-in power prices of the Shell contract over the next two to three years would be more expensive for CDWR than acquiring power in the forward market would have been."

The demonstration of those excess costs for the public, coupled with the illegal market activity producing them, laid the legal groundwork for Glazer's decision: that the *Mobile-Sierra* presumption of justness and reasonableness was both "avoided" and "overcome" in the case of the Shell contract with CDWR — failing both tests established by *Morgan Stanley*.

Klamath Falls cogeneration facility *Source: Iberdrola Renewables*

Iberdrola Contract 'Overcome'

In his decision to overturn Iberdrola's contract, Glazer determined that while *Mobile-Sierra* was not "avoided," the doctrine was "overcome" because of the long-term costs carried by the state of California, which was forced to issue bonds to fund the electricity and capacity purchases.

Glazer said Iberdrola's power marketing unit engaged in manipulative practices during the crisis, including "parking" false exports of California power to be sold back into the state at elevated prices. And, as with Shell, Iberdrola employees negotiating with CDWR were shown to have coordinated their activities with the company's electricity traders.

Still, Glazer found no evidence that CDWR actually relied on forward prices to evaluate the contracts, breaking a link in the chain tying the contracts to the spot markets. Iberdrola's contract included a tolling arrangement by which CDWR controlled the dispatch of energy from its cogeneration facility in Klamath Falls, Ore.

"There are no records of CDWR modeling [Iberdrola's] Klamath contract pricing against forward price curves and no testimony from any witness for the complainants that the evaluation was done," Glazer said. "During the period it was negotiating long-term contracts, CDWR believed that forward price curves were an unreliable basis for setting prices for its long-term contract portfolio."

Iberdrola and Shell could seek a settlement with California for a discount from the $1.1 billion rather than take their chances that the commission will reject the ALJ ruling.

"We take our business and compliance with regulations very seriously," a Shell spokesman said in a statement. "As this is an ongoing legal matter, we will not be able to make any further comment at this time."

Iberdrola expressed confidence it would prevail.

"We are currently reviewing the ALJ's recommendation but continue to believe that the full commission will accept our arguments and those of FERC staff presented at the hearing," an Iberdrola spokesperson told *RTO Insider*.

While the company declined to elaborate on that point, Glazer's ruling does note that FERC staff believe Iberdrola's contract did not pose a "down the line" burden on California consumers relative to the rates they could have obtained after elimination of the dysfunctional market, contrary to the ALJ's own conclusions.

GCPA Annual Spring Conference

Grid Execs Talk Cybersecurity, Renewables, Order 1000

By Rich Heidorn Jr.

HOUSTON — NYISO CEO Brad Jones got to wear his cowboy boots again last Tuesday, returning to Texas for a discussion with the CEOs of SPP, MISO and his former employer, ERCOT.

Though three of the four grid executives claim Lone Star roots, Jones was the only one wearing boots onstage at the Gulf Coast Power Association's 30th annual spring conference.

Footwear aside, the four of them had much in common, including concerns over cybersecurity and their management of shifting generation resources. They also expressed sharply differing views on some subjects, such as the value of FERC Order 1000.

Bill Magness © *RTO Insider*

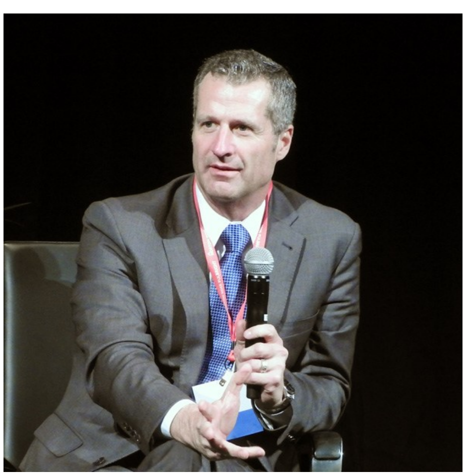
John Bear © *RTO Insider*

Impact of Low Gas Prices, Renewables

ERCOT CEO Bill Magness, who moderated, began the discussion by asking his colleagues whether natural gas or renewables were causing bigger changes in their operations.

"Both," responded MISO CEO John Bear, a Texas native. "Five years ago, we were about 85 to 90% provided by coal. It's about half that right now. So we've really made a significant shift because of the wind generation and obviously the gas coming online."

Bear said he didn't share the fears of some that the Clean Power Plan and other environmental rules will "rob of us our fuel diversity."



Brad Jones © *RTO Insider*

"In fact it's giving us fuel diversity," he said. "We're losing our storage, because that coal pile is largely going away for us. But we are adding a lot more flexibility because of those gas plants."

SPP CEO Nick Brown took note of his RTO's growing wind generation — 12.5 GW installed and another 4 GW in the transmission queue. The RTO set a new record at 2 a.m. April 5, with wind representing 48.32% of generation. (See related story, *Wind Energy's Growth Causes Second Look at 2 Tx Projects.*, p.18.)

"If you had asked me five years ago if we would ever see 48% of the generation online at a given point in time being from … wind, I would have laughed at you," Brown said. "And yet it is a reality. And I'm sure before the end of this year we'll see 50%."

In five years, Brown said, "we'll be predominantly a renewable generation fleet with some thermal. We're going to have to learn to operate differently."

Magness said ERCOT is, like MISO, affected equally by renewables and low gas prices. It has been trading wind records with SPP and also expects to exceed 50% penetration this year. "We're seeing hours of negative pricing across the system in a way that's relatively new," Magness said. "It used to be more isolated in the west zone."

By contrast, New York gets only 4% of its power from variable renewables, said Jones, who joined the ISO in October. Controllable hydroelectric facilities provide another 20%. (See *New NYISO Head: New York a 'Fantastic Opportunity'*.)

Unlike Texas, which is fighting the CPP in court, New York "wants to take leadership on low-carbon issues," Jones said.

Thanks to its participation in the Regional Greenhouse Gas Initiative, the state doesn't need to make any changes to comply with the CPP. But meeting Gov. Andrew Cuomo's Clean Energy Standard, which calls for renewables providing half the state's power by 2030, is another matter.

"To give you a sense of scale, [that would require] 25,000 MW of solar, if solar is the only technology we use. It's 15,000 MW of wind if that's the only technology, and we today have about 1,700" MW, he said.

Jones called out former ERCOT colleagues, joking, "I had to go to New York to get a capacity market." With low energy market prices and a demand for increasing renewables, he said, "it is very valuable to have."

Demand-Side Management

Because of the growth in intermittent

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"I had to go to New York to get a capacity market."

NYISO CEO Brad Jones, a former ERCOT exec

GCPA Annual Spring Conference

Grid Execs Talk Cybersecurity, Renewables, Order 1000

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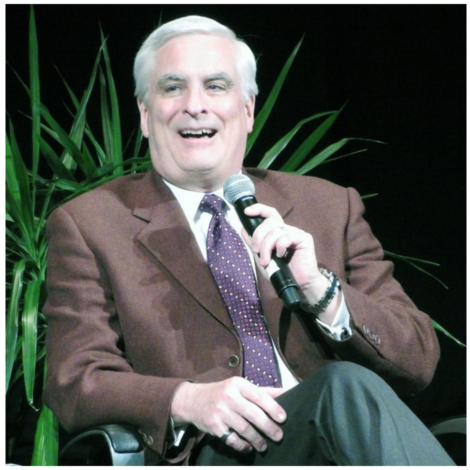
resources, Brown said grid operators "need to pay more attention to the demand side of the equation."

"Historically, as balancing authorities, we assume load is just this random event and then we chase it, most typically with these huge thermal machines," Brown said. "The engineer in me has always hated that."

He predicted policymakers will "allow wholesale market operators to send price signals to the end-use load and use that load as a controlling mechanism to help us balance."

Bear agreed on the need. "At some point, loads are going to start growing again," he said.



Nick Brown © *RTO Insider*

Is Order 1000 Worth the Trouble?

Bear and Brown also questioned the value of Order 1000 and its competition requirements.

Bear said MISO has already committed to building $6 billion in transmission to eliminate congestion in its footprint. "Because we did that, when you combine that with … $2 gas, there's not a lot of congestion on the footprint, so finding those economic opportunities [to justify new transmission projects] is really hard," he said.

He noted that transmission projects typically take eight to 10 years to complete. "Add an extra year to the process to bid those things out, pick amongst [the responses], work through the litigation process — I'm wondering if that's really necessary," he said.

Brown said SPP's board will soon make a decision on whether to authorize its first competitive transmission project. The RTO received 11 responses to its solicitation to build a 115-kV line between North Liberal and Walkemeyer in southwestern Kansas. (See SPP Issues RFP for 115-kV Transmission Project.)

"We now call into question the need for this line just because of changes in the load forecast," he said. "So we may have gone through all that [competitive solicitation] for nothing.

"I've always characterized the [Order 1000] process as very cumbersome, very costly, very time consuming. And it's going to be interesting to see if the benefit of the competitive process justifies the extremely complex process."

In contrast, Jones said he has a "positive perspective" on Order 1000, although he agreed on the need to "streamline" the competitive process.

Jones said the FERC order has helped New York break a "logjam" to initiate its first major transmission projects in 30 years.

One project, the Western Energy Connection, will add 1,000 MW of transmission capacity for hydro, gas and renewable generation, including the dam at Niagara Falls. "We can't get all of that hydro resource into the state. It's bottled up. And we're having to spill some of that water down the river," he said. (See NYPSC Directs NYISO to Seek Tx Bids.)

Cybersecurity Fears

The executives also shared their concerns over cybersecurity.

Bear said the issue was a minor concern for MISO five years ago. "The amount of time we spend on it now is unbelievable," he said. "It's that big black unknown. We're doing everything we can to make sure we're as prepared as we can be, but if anyone looks at you and says, 'Are you sure that we're never going to have an event?', you can't say 'I'm sure.'"

Brown called the issue "the most frustrating" part of his job and said SPP is no longer solely focusing on keeping hackers out of the system.

"What keeps me up at night is, are they already in and we don't know it? And the challenge is, I don't know how much to spend. What's the right amount? What's the right amount of risk mitigation for this type of event? I don't know the answer to that.

"How much protection do we have from our insurance carrier for a cyber penetration event? I still can't get straight answers," he added. "Even the coverage we have has certain exclusions in there that the underwriters are just adamant have to be there and I'm adamant that they can't be there. We just don't see eye to eye."

From left to right: ERCOT's Bill Magness, NYISO's Brad Jones, SPP's Nick Brown and MISO's John Bear © *RTO Insider*

GCPA Annual Spring Conference

Overheard at the GCPA Spring Conference

HOUSTON — Almost 500 electric and gas industry participants attended the Gulf Coast Power Association's 30th annual conference, where low gas prices, environmental rules and new technologies dominated discussion. Here are some of the highlights of the two-day meeting.

Texas Legislators Cite Rule Stability

Texas Reps. Phil King (left) and Eddie Lucio III
© RTO Insider

Texas Rep. Phil King, chairman of the state House of Representatives' State and Federal Power and Responsibility Committee, said he was proud lawmakers didn't change their 1999 law creating a competitive retail electricity market after natural gas prices spiked to more than $13/MMBtu in 2005. But he said the current low gas prices, which are putting pressure on the state's coal and nuclear generators, could necessitate some "incremental" changes to the market.

"You know, 1999 was a long time ago," he said, adding that changes should be made by the Public Utility Commission and not by the legislature. "I like the legislature for making policy; I'm not really crazy about us getting into the weeds on things, and that is a very weedy issue."

Rep. Eddie Lucio III spoke about the impact of diminished water supplies on the power industry, saying "desalination is part of our future," although current technology is not economical.

He also decried the fragmented, "Byzantine" structure of water authorities in the state, urging consideration of a proposed water grid that could deliver water from Louisiana and Oklahoma throughout Texas. "It seems very forward thinking," he said of the proposal, though acknowledging "some people really have concerns with it."

Impact of Low Oil, Natural Gas Prices

Neel Mitra, director of power and utilities for Tudor, Pickering, Holt & Co., said the U.S. could see an additional 10 GW of coal-fired generation retire by the end of 2017 if gas prices stay below $2/MMBtu.

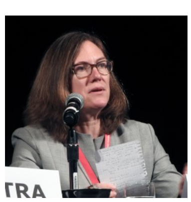
Mitra said conditions are the worst for coal plants in Pennsylvania, which can't compete with gas plants built near Marcellus Shale supplies, but that Texas plants also are in distress.

"What we've been seeing in real time is that the Texas plants that run mainly on [Powder River Basin coal] and lignite, which practically costs nothing, have been seasonally mothballing going into the summer, and capacity factors for those plants have been the lowest we've seen since we began tracking it in 2010," he said. "We've been tracking the fully loaded costs — fixed costs plus [operations and maintenance] plus fuel — and really we see only one plant in Texas that is covering its fixed costs in a $2 gas scenario."

Mitra said things would be worse if railway shippers, which had been charging $25 to $30/ton to ship PRB, hadn't reduced their prices, which he said are now between $15 to $20/ton. With PRB available from mines at $10/ton, he noted, two-thirds of the delivered cost can be transportation.

The South Texas Power Project and Comanche Peak nuclear plants also are at risk from the low prices, he said.

Mitra said he is "more bullish" for 2017. "LNG exports are probably the biggest piece that could get us back to higher natural gas prices."



Jen Snyder, vice president of North America natural gas research for Wood Mackenzie, said LNG exports will likely be affected most by whether Russia's Gazprom seeks to fight for market share in Europe.

"If Russia decides to support price and gives up market share as they did in 2009-2010, then the U.S. [LNG capacity utilization] is likely to run somewhere around 75%," she said. "But if Russia decides to go for market share … [it] would discourage further U.S. LNG projects," with utilization of existing projects ranging from 40 to 50%.

2016 Power Star Award

John Fainter received GCPA's Pat Wood Power Star Award, honoring him for his 18 years as CEO of the Association of Electric Companies of Texas.

Parker McCollough, vice president of legislative affairs for NRG Energy, praised Fainter, who retired at the end of last year, as a "champion herder of cats."

"During the course of his tenure at AECT, we never lost" in the legislature, McCollough said.

Former FERC Chairman **Pat Wood**, who presented the award, recalled meeting Fainter after being appointed to the PUCT in 1995. Wood said then-Gov. George W. Bush in 1995 appointed him with a mandate to create a competitive electric market.

The "very politically powerful" investor-owned utilities who made up AECT "were not that keen on getting into a market," Wood said.

Wood said Fainter's calm style and sense of humor were crucial to the enactment of the 1999 law, Senate Bill 7. "He was for me, for the industry, a lighthouse in the storm," Wood said.

In a keynote speech earlier, Fainter commented on technological changes reshaping the grid and new market entrants such as battery maker Tesla. "We're going to see new players in the industry. It's not going to be the same … seven companies … as when I came to AECT in 1998," he said.

Fainter also lamented EPA's regulatory "silos," which have subjected coal plants to separate regulations controlling carbon emissions, mercury emissions and particulate matter.

"Everybody wants clean air. Everybody wants clean water. Everybody wants a healthy environment," he said. "But there's

Continued on page 10

GCPA Annual Spring Conference

Overheard at the GCPA Spring Conference

Continued from page 9

got to be a reasonable way to deal with it. [Congress should] fix it so you can have an integrated way to address these issues and not do them one at a time with a different set of enforcement processes. To me that makes sense."

CCN 'Fatigue'

Two-thirds of attendees who participated in a GCPA poll at the conference said they believed Lubbock Power & Light's plan to join ERCOT will lead the PUCT to implement a process to bring additional loads to the grid operator.

David McCalla, Lubbock's director of electric utilities, said the transition will save Texas' 11th largest city (population 4 million) $350 million to $700 million it would have had to spend on a new generating plant after its full requirements contract with Xcel Energy expires in 2019. (See *SPP Ponders Response to Lubbock's ERCOT Move*.)

The switch wouldn't have been possible, McCalla said, if not for the transmission added as a result of the state's Competitive Renewable Energy Zones.

Former PUCT Chairman Paul Hudson cautioned that the commission is dealing with "CCN fatigue," a reference to state regulators' power to grant certificates of convenience and necessity for new transmission lines.

"Looking landowners in the eye is one of the most difficult tasks the PUC has," said Hudson, now a managing principal at Stratus Energy Group.

Environmental Debate

A present and former member of the Texas Commission on Environmental Quality sparred with a Sierra Club executive over what they called EPA's overreach.

Jon Niermann, who was appointed to the CEQ last September, said EPA exceeded its authority in the Clean Power Plan and that its Regional Haze rule would cost Texas $2 billion for no appreciable difference in visibility. Niermann said EPA rejected Texas' approach to the haze rule even though it would reach visibility goals much earlier than other states whose plans the agency approved. "It feels to me like EPA is imposing a double standard on Texas," he said.

Former CEQ Chairman Kathleen White, now director of the Armstrong Center for Energy & the Environment at the Texas Public Policy Foundation, decried what she called a "deterioration of the science that EPA uses in its risk assessments."

White said EPA is improperly using "co-benefits" to justify its rules, such as the CPP's potential to reduce particulate matter in addition to CO_2 emissions. "It's a little problematic," she said. "They're using the same basket of co-benefits over and over again."

Al Armendariz, senior representative for the Sierra Club's Beyond Coal campaign, said White's complaint EPA has issued an "unprecedented" number of regulations in recent years reflects the agency's effort to complete long-delayed rulemakings authorized by the Clean Air Act, including revamps of George W. Bush-era rules that were rejected by federal courts.

Armendariz said coal-burning generators have escaped paying for the environmental costs of their CO_2 emissions. "In order to have a functioning free market, people who are producing the products need to be paying the full cost of producing that product, including the climate impact. And that's not happening today," he said.

That brought a retort from Niermann. "I'm just skeptical of that causal connection, that fossil fuel burners are responsible for CO_2 and therefore for climate change and for paying for the economic costs that they're adding," he said.

White also jumped in, saying the United Nations Intergovernmental Panel on Climate Change has reported no evidence that "more frequent droughts, more frequent floods, more frequent extreme weather events" are occurring.

"There's no historical anomaly going on at this point," she said. "To talk about a causal connection is very, very problematic, as [are] claims that climate science is somehow unequivocally settled. No science is unequivocally settled."

Energy Storage Ready to Disrupt Industry?

Allan Stewart, executive director of North American power for PIRA Energy Group, predicted innovations in battery technology will start changing electric market fundamentals as soon as 2020 in California and Hawaii, by 2025 in New York and 2030 in ERCOT, MISO South and southern SPP. (See related story, *FERC to Examine RTO Rules for Energy Storage*, p.3.)

As batteries flatten the load curve and distributed generation reduces net load, Stewart said, marginal prices will be set by the least efficient baseload plants. "In this environment, I would argue a peaker is useless. It's absolutely worthless," he said.

Stewart said one source of innovation may be graphene polymer batteries, which have been licensed by car companies. "It has the potential, soon, to increase the range of electric vehicles to 600 miles and [reduce] the recharge time to eight minutes," he said. "Space age, you say. 2050 or beyond. Think again."

— Rich Heidorn Jr.

Left to right: Jon Niermann, Kathleen White and Al Armendariz © *RTO Insider*

ISO-NE News

Pilgrim to Refuel Next Year, Close in 2019

By William Opalka

Entergy said Thursday it intends to refuel the Pilgrim nuclear plant next year and then cease operations on May 31, 2019.

The company announced last year that the plant would close between 2017 and 2019 but deferred a decision on whether to perform one last refueling. (See Entergy Closing Pilgrim Nuclear Power Station.)

"The issue is that we have an obligation to provide the ISO-NE with power until that May 31, 2019, date. After looking at different options to best fulfill that commitment, we determined refueling Pilgrim was the most appropriate way for the company to meet the obligation," spokesman Patrick O'Brien said.

At the time of the closure announcement, company officials said the plant's annual revenue was projected to drop by $40 million a year because of low energy prices.

With a poor ranking for operational performance, the plant was also under increased scrutiny from the Nuclear Regulatory Commission. Meeting NRC requirements to continue operating would have required $45 million to $60 million in capital expenditures, the company said.

Cheap natural gas has depressed power prices and stressed nuclear plants throughout the country. Entergy closed its Vermont Yankee plant at the end of 2014. (See Vermont Yankee Retirement Leaves ISO-NE More Dependent on Gas.) The company also said it will close its James A. Fitzpatrick plant in New York in about a year, although state officials are trying to create incentives to keep it operating. (See New Lifeline for FitzPatrick Nuclear Plant.)

The final refueling will be a brief boon for the local economy. Entergy said Pilgrim's 2015 refueling outage required a $70 million investment in the plant, including $25 million in new equipment, and employed nearly 2,000 employees, including 1,184 extra contract workers.

Entergy said a team with decommissioning and Pilgrim plant experience will plan for the shutdown.

The 680-MW plant began commercial operations in 1972.

FERC Affirms ISO-NE's MOPR Exemption for Renewables

FERC has again upheld ISO-NE's limited exemption for renewables from the RTO's minimum offer price rule, saying it was necessary to protect consumers from paying for excess capacity (ER14-1639).

The commission voluntarily agreed to reconsider the issue after NextEra Energy and other generation owners asked the D.C. Circuit Court of Appeals to review FERC's January 2015 order rejecting their challenge of the exemption (15-1070).

The generators claimed the exemption, which is limited to 200 MW annually, suppressed clearing prices in the Forward Capacity Market. The exemption was contained in an order in which FERC accepted ISO-NE's compliance filing in response to the commission's requirement for a sloped demand curve.

The companies had relied on a previous FERC order that recognized that exemptions could suppress capacity prices. However, the commission said that a unique set of facts presented in a specific case could justify an exemption.

"The renewables exemption fulfills the commission's statutory mandate by protecting consumers from paying for … capacity that cleared through the [Forward Capacity Auction] and separately paying for renewable resources built by state entities to meet state policy objectives," FERC said.

— William Opalka

ISO-NE News

FERC OKs Changes to ISO-NE Retirement Rules

Continued from page 1

de-list bids in March rather than October, while moving the "show of interest" deadline for new capacity market entrants from February to April.

The order also gives the Internal Market Monitor greater leeway in determining whether an economic generation resource is being retired to raise capacity prices.

"ISO-NE's proposal includes several changes to the FCM timeline, which will benefit the market," FERC wrote. "By requiring retirement bids to be submitted in March and by requiring ISO-NE to post shortly afterwards information regarding the amount of existing capacity that may exit the FCM, project sponsors that are considering developing new resources will have better and more timely information about when and where new capacity may be needed.

"By moving the show of interest window to a date after the retirement bid deadline, new entrants will be able to use the information about potential retirements to inform their decision on whether to enter the FCM in the next auction," the commission said.

The rules will take effect with the 11th Forward Capacity Auction next year for the 2020/21 commitment period.

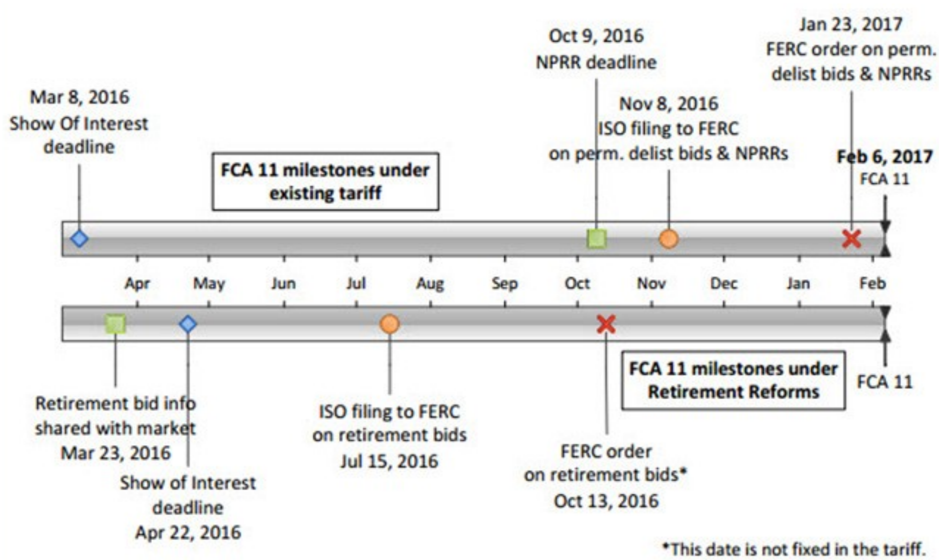
Generators submit de-list bids that specify a price below which an existing resource would not provide capacity. A static de-list bid signifies a one-year absence from the capacity market; a permanent de-list bid means the resource will exit the market. A capacity supplier wishing to permanently retire an existing resource regardless of price would submit a non-price retirement request.

IMM Review

The order also approved rule changes to address premature retirements of economic resources, a need ISO-NE said was identified by both its IMM and External Market Monitor. The RTO defines "uneconomic" retirement as the retirement of a capacity resource that would be expected to remain profitable if it continued running.

ISO-NE proposed that its IMM issue a determination on the reasonableness of generators' cost assumptions and the appropriateness of their proposed bids. Based on that, the RTO will file with the commission either the supplier's original bid or a mitigated bid.

Generators objected, saying the IMM should not be given such discretion, but FERC was not persuaded.



Comparison of simplified FCA timelines *Source: ISO-NE*

"The proposed reforms permit flexibility in the submitted forecasts and inputs of a retirement bid, so long as a supplier can show that those forecasts and inputs are reasonable," FERC said. "We find that this process will not result in an undue preference for the IMM's estimates of a supplier's retirement costs, but rather will initiate a dialogue whereby suppliers would have the opportunity to demonstrate that their proposed inputs to their retirement bids are reasonable."

Generators also contended there was no evidence of market power abuses in New England. But the commission said such proof was unnecessary.

"It is irrelevant whether suppliers have previously used physical withholding through retirement as a means to exercise market power. Our review here is limited to whether ISO-NE's proposal is just and reasonable and not preferential or unduly discriminatory," FERC wrote.

Brayton Point Allegations

The backdrop for the rule changes is the Utility Workers Union of America's contention that the 1,517-MW Brayton Point plant in Massachusetts is being closed to raise capacity prices.

Energy Capital Partners did not offer the plant in capacity auctions for 2017/18 and 2018/19 after announcing the plant would close in 2017. Brayton Point was sold last year to Dynegy, which said it would close the plant as scheduled.

The commission has repeatedly denied union complaints seeking to have the results of FCAs 8 and 9 voided. (See *FERC Again Rebuffs Brayton Point Union*.)

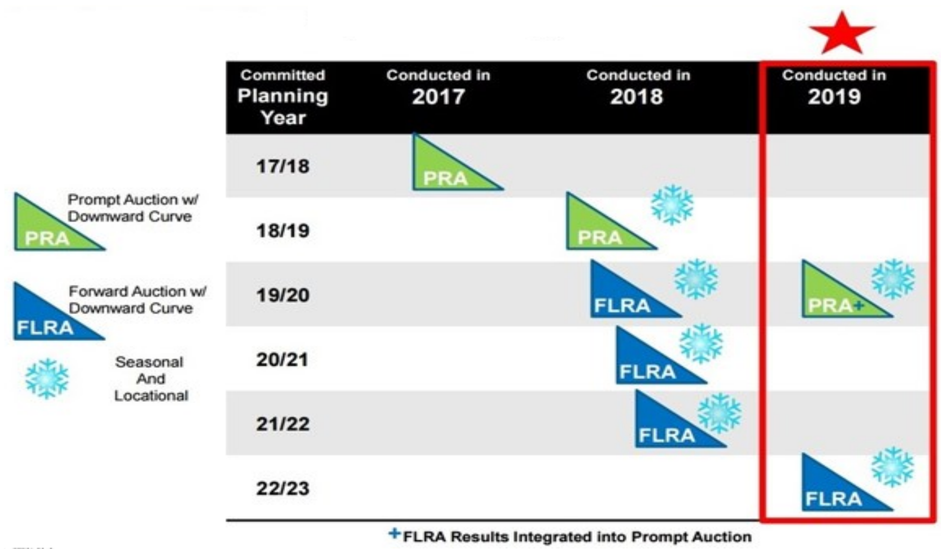
On April 14, the union filed a new challenge, citing ISO-NE's retirement rule changes to bolster its case for throwing out the results of FCA 10 (ER16-1041).

"As both ISO-NE and the commission have recently recognized ... omitting 'retiring' capacity entirely from the calculation of the Forward Capacity Auction price, as has occurred here, rather than including it at a 'proxy' or other price which represents its true costs, results in the auction being non-competitive and the resulting prices not just and reasonable," the union wrote.

MISO NEWS

MISO Fields More Auction Questions, Seeks Stakeholder Feedback

By Amanda Durish Cook



Source: MISO

MISO continues to move forward with modifications to its capacity market even as some stakeholders question the need for the proposed changes and others seek more time to consider their implications.

RTO staff are aiming to file Tariff changes with FERC in July to implement seasonal and locational capacity constructs. MISO also proposed creating a separate Forward Local Requirements Auction for deregulated regions in 2018.

That timeline sparked concerns for many market participants still skeptical of the proposed auction.

During an April 14 Resource Adequacy Subcommittee meeting, multiple stakeholders urged the RTO to postpone a filing for the FLRA based on the volume of questions regarding its design.

"There were a lot of good questions today, but MISO has essentially said, 'We'll consider them,'" said Marka Shaw, Exelon regulatory affairs manager. "I think there's a lot of work to be done, especially [before] a July filing."

MISO concedes that several design details for the FLRA have yet to be clarified. RTO staff have asked stakeholders for feedback about how congestion costs from the current Planning Resource Auction should be allocated to the FLRA, what the proposed auction's demand curve should look like and what resource adequacy plan rules should be implemented. MISO is also seeking reactions to the idea of bifurcated capacity procurement — separate auctions covering regulated and deregulated areas.

Price Risks in Bifurcation

Skeptical of bifurcation, independent power producers are instead pushing for a single three-year forward auction for all of MISO.

Consumer advocates urged the RTO to delay auction changes until results from the MISO-Organization of MISO States survey on available capacity are released in July — or until a capacity shortage becomes imminent.

Jim Dauphinais of Illinois Industrial Energy Consumers is among the opponents to the FLRA proposal. During last week's meeting, he contended that capacity price volatility can be best addressed by self-supply and bilateral contracts, pointing out that more than 65% of capacity in southern Illinois for the 2015/16 was procured by those means.

Dauphinais cautioned that the FLRA's proposed downward-sloping demand curve could act as a "wedge" to inflate prices before MISO's predicted capacity shortage in the 2021/22 planning year.

"There's volatility even if it's done three years in advance with a sloping demand curve," Dauphinais said.

Kevin Murray, representing the Coalition of Midwest Transmission Customers, sought clarification on whether load-serving entities in deregulated areas could develop a forward fixed resource adequacy plan and make bilateral agreements to circumvent a forward auction altogether, something MISO says will be possible.

AARP's Bill Malcolm questioned the need for what he called a PJM-style forward auction.

"We urge more study on the matter," Malcolm said. "The rate impact on consumers should be fully vetted and be part of the discussion."

Mark Volpe, Dynegy senior director of regulatory affairs, focused on price volatility risks to the downside. He pointed to what he considered a "fundamental flaw" in the forward capacity auction design: The value of capacity in MISO's Zone 4 could approach zero as more generation projects come online in southern Illinois.

Jeff Bladen, MISO's executive director of market design, said Volpe's comment illustrated why the RTO is seeking feedback on bifurcated procurement.

"This is something we're acutely aware of, but I can't predict what the forward zone will look like," Bladen said, referring to how the auction might clear.

According to Bladen, MISO will not seek a specific price outcome for the forward auction, but it does want results to fall within a target reliability range.

Bladen also said MISO wants stakeholder feedback on the shape of the FLRA demand curve.

Meanwhile, draft Tariff changes for MISO's proposed seasonal and locational capacity constructs are almost complete, according to Renuka Chatterjee, MISO executive director of resource adequacy and transmission access planning. Still, the RTO could delay an expected July filing with FERC, depending on feedback from the Independent Market Monitor — and an unnamed MISO customer — regarding the creation of external resource zones.

The seasonal construct proposal outlines a single auction with two seasonal offers, while the locational construct sets out external resource zones. (See *MISO Delays Seasonal, Locational Capacity Constructs*.)

MISO News

Reliability Subcommittee Briefs

MISO Frequency Response Doubles NERC Requirements

MISO met NERC's frequency response requirement for 2015, although performance was not as good as a year earlier, adviser Terry Bilke told an April 13 Reliability Subcommittee meeting.

The RTO's estimated annual frequency response was -475 MW/0.1 Hz in 2015, complying with its obligation of -211 MW/0.1 Hz under NERC's frequency response standard (BAL-003-1).

Still, results from local balancing authorities were not as good as in 2014. "I was kind of hoping we'd see incremental improvement year-over-year," Bilke said, adding that the decline was small enough to be attributed to sampling error.

"We're still okay," RSC chair Tony Jankowski said. "But there's nothing that says we're going to be OK except for past performance. And obviously, that's [no] guarantee."

Data for the first quarter of this year showed that more than 400 generators provided no frequency response in the first quarter, while about 100 plants were determined to be harming MISO performance. Fewer than 200 generators rated an "OK" response, with a small number classified with "theoretical perfect performance."

"Interestingly, one of the best performers was a wind farm," Bilke said.

That assessment comes as MISO stakeholders are being asked to respond to FERC's Feb. 18 Notice of Inquiry, which seeks comment on whether RTO *pro forma* interconnection agreements should be changed to require all new generation be capable of providing frequency response (RM16-6).

Jankowski said the language in the notice indicates that FERC does not recognize all the factors at play.

"From the market's perspective, I don't think we have any indication that a generator is a frequency response generator or not, or a good performing generator or not," he said. "So to have any sort of expectation that we don't have enough [frequency response] because the market clears wrong, I don't buy that. There isn't a constraint for frequency response."

MISO thinks frequency response should be compulsory for new generation and voluntary for all existing generation, Bilke said. He added that if reliability declines in light of a changing resource mix, FERC should revisit the issue.

Comments on FERC's notice are due April 25. Jankowski urged the RSC to be "proactive" in making suggestions on frequency response incentives and penalties through local balancing authorities.

"Nothing precludes us from doing this today," he said.

March Incident Breaks 3-Month Perfect Score on Commitment Performance

Last month's sole "unacceptable" rating for real-time unit commitment performance — occurring March 22 — was attributed to an operator's mistake.

"We had a unit that was left on in an operator error," Steve Swan, MISO senior manager of dispatch and balance, said during a monthly operations update. "They misread the runtime. It's been addressed."

March otherwise contained all "excellent" daily performance ratings, receiving an overall score of 2.9 — just shy of "perfect," but breaking a trend of perfect 3 rankings in peak hour unit commitment since December.

The month had no minimum or maximum generation alerts or warnings nor any tie-line errors lasting longer than 15 minutes.

Swan also reported that -45,308 MW was added to MISO's inadvertent interchange balance in January, bringing the running total of imbalances since 2009 to -749,641 MW.

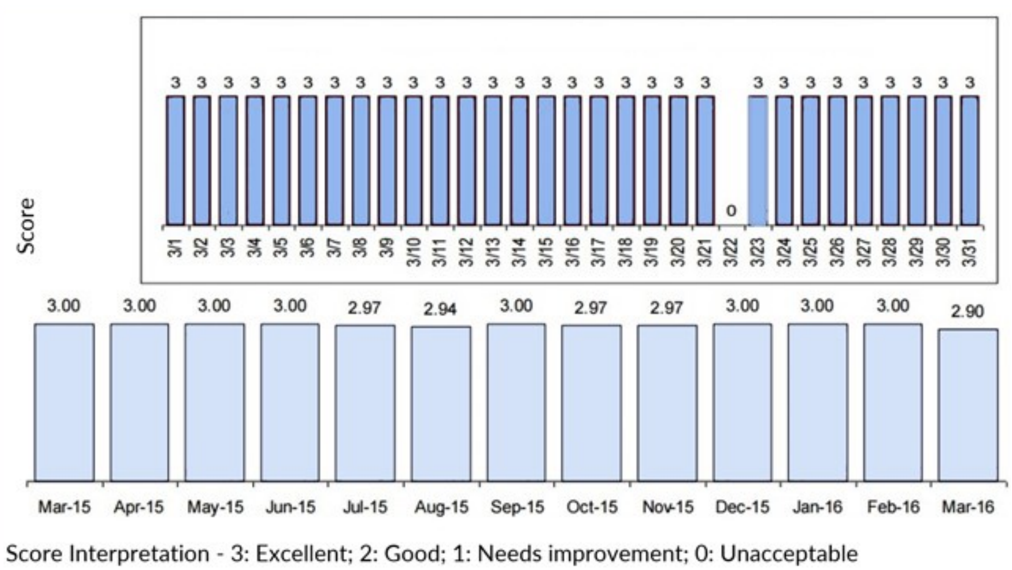
By the end of this month, MISO expects to complete two bilateral inadvertent interchange paybacks, where two balancing authorities swap under-generation for over-generation. Swan said MISO is also performing "internal data mining" to investigate why the footprintwide balance continues to be negative.

Seams Quarterly Report Released

MISO has released its latest quarterly report on seams issues.

"We historically haven't gotten a lot of review on [the report]," said Ron Arness, Seams Management Working Group liaison. He noted that, although feedback is light, stakeholders continue to request the report every year.

— Amanda Durish Cook



Daily real-time unit commitment rating at peak hour for March (top) and monthly performance (bottom). *Source: MISO*

MISO News

MISO's 4th Capacity Auction Results in $70 Disparity Between Zones

Continued from page 1

- Zones 8, 9 and 10 each cleared at $2.99/MW-day, a 9% drop for Zones 8 and 9. This was the first year for Zone 10, which covers Mississippi.

Save for Zone 4, all of the zones cleared below $3.50/MW-day last year.

MISO said 135,483 MW cleared for the planning year June 1 to May 31, 2017, a 1% drop from last year. The cleared resources include 122,379 MW of generation resources, 3,462 MW of behind-the-meter generation, 5,819 MW of demand resources and 3,823 MW of external resources.

The dip in available capacity in the 2016/17 planning year reflected data collected on the 2015 OMS-MISO Survey, the RTO said.

"The generation fleet across MISO is rapidly changing," said Richard Doying, executive vice president of operations and corporate services in a statement Thursday. "While more generation is retiring, resulting in a tighter supply across the MISO region, the auction results show that there are sufficient resources to maintain reliability for this planning year."

MISO said the creation of Zone 10 in Mississippi had no impact on capacity auction results.

MISO said the results were affected by FERC's Dec. 31 order requiring the RTO to make several changes in its auction rules (EL15-70, *et al.*). (See *MISO Seeks Adjustments on Capacity Import Limits*.)

MISO's rules allow mitigation of offers that exceed "conduct thresholds" that indicate potential economic withholding. MISO's threshold equals 10% of the cost of new entry (CONE) plus the applicable "reference level." Any resource desiring to offer above the threshold had to convince the RTO's Independent Market Monitor that it had costs that warranted a higher offer.

Previously, MISO had based its reference level on opportunity costs — what a capacity resource could earn by exporting to PJM. FERC said the $155.79/MW-day maximum bid MISO used in last year's auction was too high, because transmission constraints and PJM's heightened Capacity Performance rules meant exporting was not an option for all capacity resources. The order required MISO to set the initial offer reference price level to $0.

In press conference Friday, Doying said most units in this year's auction offered at prices below the conduct threshold.

The Dec. 31 order also said MISO's approach to determining capacity import limits didn't take into account counter-flows. MISO said the changes required "generally expanded import capability" into local resource zones and decreased local clearing requirements for most zones.

"I want to point out that supply is getting much tighter. … We expect to see further reductions in the future, so we may see more volatility in the future," Doying said.

He also said he didn't know where prices would have cleared without the new auction rules. "We don't run 'if' scenarios," he said.

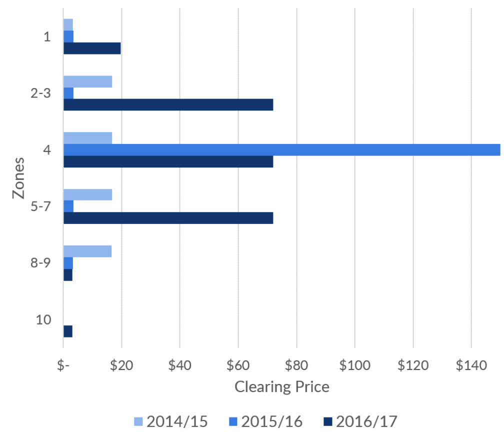
Doying pointed out that Zone 4's local clearing requirement was not binding this year, which contributed to it clearing uniformly with Zones 2-7. Regional constraints also were not binding, so zones were able to import and export freely with each other, and a single generator was able to set prices in multiple zones, Doying explained. On the other hand, Zone 1 had a limitation on exports, so capacity remained trapped in the zone and kept prices low.

The auction used a transfer limit of 876 MW between MISO South and MISO North/Central regions — down from 1,000 MW — as a result of the RTO's settlement with SPP over the use of its transmission.

MISO's Monitor has reviewed the offers and certified that the auction was conducted properly.

In a stakeholder conference call Friday, DTE Energy's James Czech asked if stakeholders can expect changes to capacity import limits every year. Laura Rauch, MISO's manager of resource adequacy coordination, said the limits would be recalculated for next year's auction and were changed this year to include PJM pseudo-ties. At a Thursday Resource Adequacy Subcommittee meeting, MISO said it expects to make a CIL compliance filing by Monday.

David Sapper of Customized Energy Solutions asked MISO to explain the disparity between the pre-auction supply



MISO Planning Resource Auction clearing prices ($/MW-day) *Source: MISO*

data and what was actually offered in the auction. "I think it's important to understand the delta there," he said.

Ron Ryckman, also with Customized Energy Solutions, asked for details on which facilities asked for facility-specific reference levels.

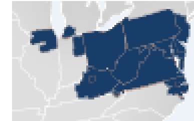
John Harmon, MISO manager of resource adequacy, said those issues would be discussed at the May 5 Resource Adequacy Subcommittee meeting.

The results were released as MISO is proposing rule changes that would result in a separate forward capacity procurement for deregulated areas such as Zone 4 and the addition of seasonality and external zone constructs. (See *Stakeholders React to MISO Proposed Auction Design*.)

MISO officials had hoped for an unremarkable auction after last year's nine-fold price increase in Zone 4. Watchdog organization Public Citizen claimed Dynegy improperly withheld capacity in southern Illinois after the company acquired four Zone 4 generators from Ameren. Public Citizen, Illinois Attorney General Lisa Madigan, the Illinois Industrial Energy Consumers and Southwestern Electric Cooperative filed complaints against MISO last May and June.

The issue was also the center of a FERC technical conference in October, and FERC's Office of Enforcement is conducting a nonpublic investigation into whether last year's auction clearing prices in southern Illinois were manipulated. Dynegy officials insist they did nothing wrong.

PJM News



PSE&G to PJM: We Told You So

Defends Artificial Island Cost Increase in Letter to Board

By Suzanne Herel

Public Service Electric and Gas on Thursday submitted a letter to the PJM Board of Managers defending the cost estimate for its share of the Artificial Island project, which has nearly doubled to $272 million.

PJM planners, who say the increase could lead to a rebid of the project, expect to update the board on the project when it meets this week. (See *Artificial Island Cost Increase Could Lead to Rebid*.)

PSE&G told the board it was not involved in determining PJM's initial cost estimate of $125.9 million, which later grew to $137 million.

'Unusual' Project

At the March meeting of the Transmission Expansion Advisory Committee, Vice President of Planning Steve Herling said PJM stood behind its choice of project for a stability fix at the New Jersey complex housing the Hope Creek and Salem nuclear reactors. The work is unusual, so PJM had little to compare it to, and the estimate didn't reflect a design-level study, he said.

LS Power was chosen for the bulk of the project, which involves building a new 230-kV transmission line from the nuclear complex, under the river and into Delaware. PSE&G and Pepco Holdings Inc. were assigned upgrades necessary for the interconnection. LS Power says it is standing by its $146 million cost cap.

PSE&G said it didn't begin preparing a detailed cost estimate for the 230-kV line terminating at the Salem substation until July, as its own proposals had the line ending at Hope Creek.

"PSE&G has clearly stated throughout this process that any work required to be done in Salem would be expensive and complicated," the company said, citing a handful of communications supporting the assertion.

"Any proposal with work at Salem will be very challenging; the location of the switchyard controls and protection are located inside of the nuclear generating station," it had told the board in July 2014.

In one of its proposals, it had said, "Due to experience with multiple historical baseline projects at Artificial Island, PSE&G can state that [Nuclear Regulatory Commission] governing requirements, critical site power maintenance and outage complexities, as well as known controls expansion limitations, will all contribute to design constraints potentially limiting a Salem expansion. PJM should carefully consider the implications of allowing such risks or costs to be understated or excluded from a total project cost comparison."

At April's TEAC meeting, planners said they are now considering alternate configurations, including terminating the new line at Hope Creek instead of Salem — a change in scope that could lead to rebidding for the project.

Tortured History

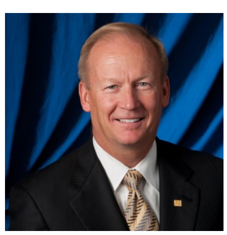
It was just the latest twist in the tortured history of the project, PJM's first competitive solicitation under FERC Order 1000.

PJM planners originally recommended awarding the stability fix to PSE&G, but the board reopened bidding to finalists following protests from spurned bidders, state officials and others, leading to awards for LS Power, PSE&G and Pepco.

In November, FERC ruled that PJM's proposed allocation of virtually all the project's costs to ratepayers in Delaware and Maryland might not be just and reasonable (EL15-95). At a technical conference in January, commenters said PJM's solution-based distribution factor cost allocation method was not appropriate for projects such as Artificial Island and the Bergen-Linden Corridor upgrade. (See *Commenters: DFAX Cost Allocation Inappropriate*.)

Committee Recommends 2 Industry Veterans for PJM Board

By Suzanne Herel



Oskvig

Takahashi

The PJM Nominating Committee is recommending Dean Oskvig, retired CEO of Black & Veatch, and Mark Takahashi, CFO of Ascendant Group, for election to the Board of Managers.

They would fill the spots left vacant by Richard Lahey and Jean Kinsey when they retire at this year's annual meeting, to be held next month.

Oskvig spent his entire 40-year career with Black & Veatch, where he began as an engineer and went on to become project manager, partner-in-charge, COO and ultimately CEO for energy. Previously, he served in the U.S. Air Force.

Takahashi is an international finance executive with 30 years of experience in energy finance after starting out as an engineer. He has worked in the engineering, procurement and construction, and power and utility sectors.

The committee also is recommending that South Carolina technical engineer Terry Blackwell be re-elected to the 10-person board. He was chosen last year to serve out the remaining term of William Mayben, who retired after eight years. (See *New PJM Board Member Elected, Re-election Eligibility Changed*.)

This will be the first board appointment under new terms adopted last year: Members will be ineligible for re-election once they turn 75 or have served five terms.

That precludes Lahey from seeking another term; he has served on the board since its inception in 1997.

PJM does not disclose the ages of its board members, so it's unclear whether Kinsey, who joined in 2003, could have sought another term.

SPP NEWS

Wind Energy's Growth Causes SPP to Take 2nd Look at Tx Projects

By Tom Kleckner

SANTA FE, N.M. — With wind energy reaching unprecedented penetration levels, SPP's Markets and Operations Policy Committee asked staff last week to re-evaluate whether two transmission projects in the windy Texas-Oklahoma Panhandle region should have their need dates accelerated.

Staff had been hoping to receive approval to accelerate the two projects, a recommendation that had already been OK'd by three working groups. However, stakeholder concerns over a lack of technical input, outdated studies of wind energy and going outside normal planning processes caused the MOPC to request further staff analysis.

The motion was unanimously approved. SPP staff will return the recommendation to July's MOPC meeting and will eventually need approval from the Regional State Committee.

"We can accommodate [the motion] and not impact reliability if we come back in July and make a decision," said Casey Cathey, SPP's manager of operations engineering analysis and support.

SPP said it set a new record for North American ISOs and RTOs when it registered a 48.32% wind-penetration peak April 5. (See "SPP Leapfrogs ERCOT with 48.32% Wind Penetration Mark," *SPP Briefs*.)

SPP's 2015 wind integration study recommended 19 transmission projects with notices-to-construct (NTCs) as candidates for acceleration. Ten of the projects have already been voluntarily sped up by transmission owners, four were found to be not feasible for acceleration and three were withdrawn as part of a near-term assessment and will be incorporated into the RTO's new planning process.

The two remaining NTCs — a 230-kV Southwestern Public Service project in the Texas Panhandle and a 345-kV Oklahoma Gas & Electric project in West Oklahoma — were recommended for acceleration. Cathey said accelerating the projects will reduce existing congestion and ease voltage-collapse fears.

Existing Congestion

"Both [systems] have congestion on them right now. … It's not wind coming three years from now," Cathey said. "The longer we delay, the more your benefits are reduced."

Cathey said SPS could shave half a year off its timeline without a cost to its sponsors, while the OG&E project could reduce its timeline by almost two years, saving $437,000 in the process.

The acceleration recommendation was approved by the Transmission, Economic Studies and Operating Reliability working groups.

Some MOPC members, however, expressed concern about re-evaluating projects outside the Integrated Transmission Planning (ITP) process and a lack of involvement by some of the working groups.

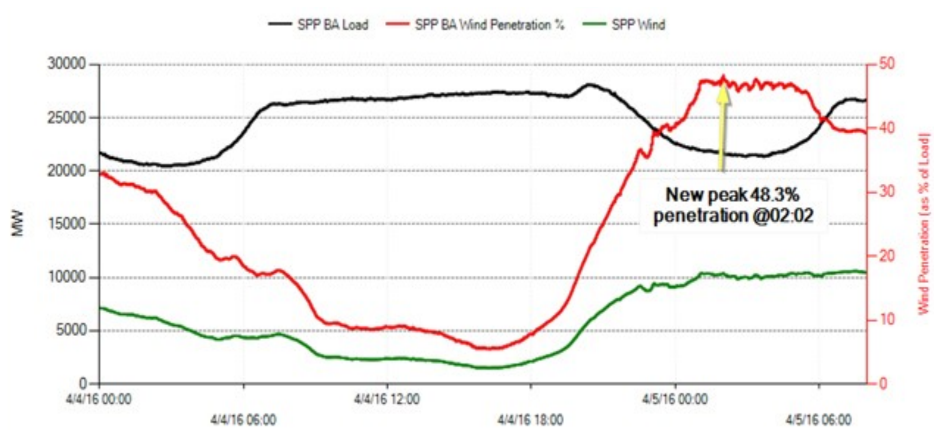
"I do not think the Tariff supports a re-evaluation or acceleration of an NTC outside of the ITP process," Sunflower Electric Power's Al Tamimi said in opposing the ESWG recommendation.

"My biggest concern is the lack of involvement, or minimal involvement, with the TWG through this process," Westar Energy's John Olsen said. "I get very uncomfortable sitting around this table to be making those kind of calls without having our technical folks review them."

American Electric Power's Richard Ross asked whether the re-evaluations could be conducted through SPP's high-priority study process. The RTO can conduct up to three such studies a year at the stakeholders' request.

"It seems we're tying SPP's hands here," Ross said. "To me, it makes sense to accelerate these projects, if this is the proper way of doing this. Has legal bought off on sprinkling some high-priority magic dust on this?"

"It may be we need a supplemental analysis to warrant the two accelerations," SPP Vice President of Engineering Lanny Nickell said. "Now we have to figure out a way legally to justify the acceleration of the projects in accordance with the Tariff. If the two TOs want SPP to direct acceleration, that's a change in the planning processes."



SPP load, generation and wind penetration *Source: SPP*

Wind Integration Study

The MOPC also unanimously approved staff's proposed scope for a second phase of a wind integration study, but only after revising the recommendation to ensure the TWG and ESWG are included in the review process.

The study will build on last year's analysis, with updated models and assumptions looking at wind cases as high as 60%. The results are to be published before next January's MOPC meeting.

Cathey said the report is intended to be a reliability study rather than a high-priority study and will use 2017 planning models. He said the Electric Power Research Institute will help staff on the report, which will also use data from PowerTech Labs' voltage security assessment tool.

"Phase II is about what we didn't have time

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SPP News

SPP to Cut Planning Reserve to 12%, Reduce Capacity Needs by 900 MW

By Tom Kleckner

SANTA FE, N.M. — Capitalizing on their $5.6 billion transmission buildout, SPP members voted last week to reduce the RTO's planning reserve margin to 12% from the current 13.6%.

The Markets and Operations Policy Committee approved a recommendation by the Capacity Margin Task Force that members said will reduce SPP's capacity needs by about 900 MW, saving about $1.35 billion over 40 years. The Strategic Planning Committee endorsed the task force's recommendations, contained in four white papers, as well.

The culmination of almost two years of work by the task force left SPC Chairman Mike Wise almost giddy with excitement. Wise said the reduced margin was made possible by SPP's transmission expansion.

"We've tied all of the real old legacy balancing authorities together in a substantial way," said Wise, senior vice president of commercial operations and transmission for Golden Spread Electric Cooperative. "One example of that is the old [Southwestern Public Service] area in SPP. That only had 59 MW [of] import capability. Now that capability is approximately 2,300 to 2,500 MW. … No longer is it an island."

The white papers captured the task force's work related to load-responsible entities (LREs), the planning reserve margin (PRM) and PRM assurance policy, and included a deliverability study. (See *SPP Capacity Margin Task Force Shares 'How Low' Reserve Margin Can Go*.)

The MOPC approved the policy package with one no vote and four abstentions. If approved by SPP's Board of Directors next week, the capacity margin policies would become effective next summer.

"These policies identify who is responsible for resource adequacy, what the resource adequacy requirement is, and how and when the resource adequacy requirement can be and should be met," said Sunflower Electric Power's Tom Hestermann, the task force's chair.

He said the policies are dependent on each other to balance economic and reliability benefits, and said they should be approved and implemented collectively.

The reserve assurance policy addresses concerns that current mechanisms to ensure sufficient reserve margins are inadequate. The policy incents LREs to correct planning reserve deficiencies.

Hestermann

Hestermann said the deliverability policy recognizes the Integrated Marketplace's successful performance and the expected adoption of the assurance policy. It would allow SPP to determine the deliverability of generating units within its footprint, enabling entities to purchase capacity on a short-term basis through bilateral contracts to meet the PRM requirement.

The Nebraska Public Power District's Paul Malone said he couldn't support the use of non-firm resources in transmission planning.

"You're putting firm resources on par with non-firm resources," he said. "I don't see how you can do that."

"The task force was very adamant that firm transmission be necessary in order to deliver to resources to serve load," responded Lanny Nickell, SPP's vice president of engineering. "You could still use the transmission services process, with the added benefit of getting [transmission congestion rights]."

Malone offered a motion directing staff to evaluate the use of coincident peaks in determining the reserve margin. The motion was amended to add an evaluation of other regions that include non-firm resources in their reserve margin calculations and passed unanimously.

As it has done during every step of the process, Oklahoma Gas and Electric abstained from the vote. Greg McAuley, OG&E's director of RTO policy and development, said his company wouldn't stand in the way, but it would voice its concerns.

"The deliverability issue, to us, is a theoretical exercise. It sounds good on paper, but it hasn't been tested," he said. "We're not convinced this has been vetted enough to the extent we'll be comfortable with it. If this turns out to be a bad decision, it'll be difficult to go back. We urge caution and a methodical approach to this … we would like to see more thought and more study go into it."

Changes will need to be made to SPP's Tariff and planning criteria, as the policies would replace "capacity margin" terminology with "reserve margin" terminology.

The task force will now turn its attention to developing a resource-adequacy workbook and guidelines with SPP staff.

Wind Energy's Growth Causes SPP to Take 2nd Look at Tx Projects

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to assess in Phase I," he said. "We're trying to do something that's [defensible] and accurate. We'd like to get a more dynamic, up-to-date look."

Cathey noted that with firm transmission rights now part of SPP's transmission congestion rights market, "We don't know what firm rights are any more.

"The wind blows, and it's in the money. We're backing down coal, and that's the reality of what's happening on the system."

Cathey said he expects the study to recommend policy and procedure changes, but that it "won't mandate anything."

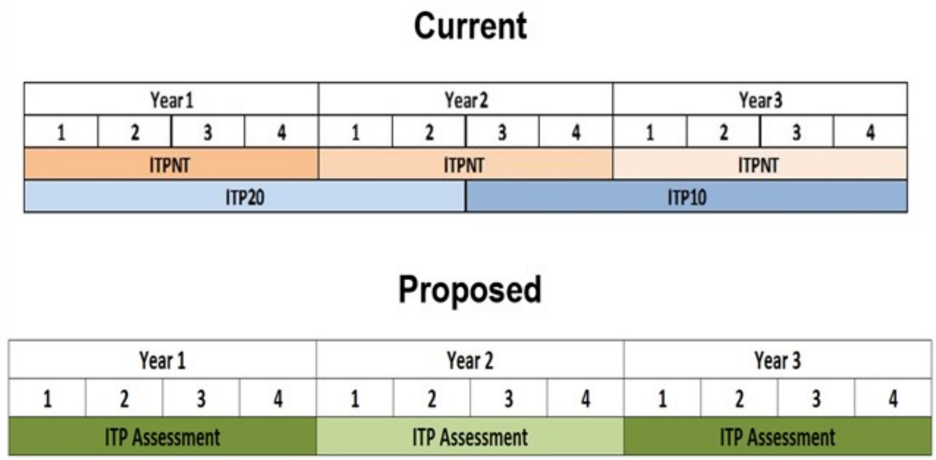
"There's a good chance we'll be at 60% wind penetration in 2017," said Bruce Rew, SPP's vice president of operations. "The sooner we can get [the study] done, the sooner we can be prepared for that."

Staff said the study will cost approximately $145,000, but it is waiting on further information from vendors.

SPP News

ITP Work Continues as Transmission Planning Improvements Loom for SPP

By Tom Kleckner



Annual ITP planning cycle *Source: SPP*

SANTA FE, N.M. — Only a few months away from revising its transmission planning process, SPP is continuing to work under the old Integrated Transmission Planning (ITP) format.

The Markets and Operations Policy Committee last week approved the scopes for the final studies to be conducted under the old rules. (See "MOPC Approves TWG, ESWG Recommendations" below.) Members then sat through the Transmission Planning Improvement Task Force's joint education session for the MOPC and the Strategic Planning Committee, getting an early look at recommendations that will be made in July.

The task force, assigned to develop "progressive, forward-thinking, regional planning processes," shared its current recommendations, which include:

- Implementing an annual ITP planning cycle;
- Using a standardized study scope;
- Establishing common reliability planning models; and
- Creating a staff/stakeholder accountability program by stressing timely data exchanges, reviews and approvals within the planning process.

"We want to treat this as a process improvement," said NextEra Energy Transmission's Brian Gedrich, the task force's chair.

SPP currently conducts a 20-year assessment focused on a strategic economic study (ITP20) without issuing notices to construct (NTCs); a 10-year assessment that can issue NTCs for mostly 100-kV projects and above; and a near-term assessment aimed at reliability needs and maintaining long-term firm service over a five-year horizon.

Gedrich said the current process winds up creating too many models "that don't necessarily line up with each other," and that scope documents can be "a real problem."

"We recreate a scope every time we start, and that can take a lot of time to get through the approval process," he said. "What's key to speeding up the process is [eliminating] slippage that has to be re-evaluated. Today, we basically have a three-year cycle. The [studies] are done sequentially in their own silos. We've found the three-year planning cycle to be too long … it can't be responsive to changes."

Gedrich said using a "holistic" planning approach and reducing the number of futures in new analyses to three would also speed up the process.

"We need to standardize the scope up front and not recreate the document every time," he said. "The futures would be more incremental changes."

The task force is recommending a transition to the new planning process in September 2017. The model builds and scope development would lead to the initial ITP assessment, to be completed in July 2019.

To keep up with the timeline, the current planning cycle will need to be completed and the necessary revisions to the new process would have to implemented. Those changes would include modifying the Tariff and other governing documents and securing the necessary tools and resources.

"The goal is results," Gedrich said. "We don't want to fail at the beginning. We want to be ready, so we don't hit a glitch."

The task force has a white paper out for review and comment. It will come back to the MOPC and Board of Directors in July for final approval.

MOPC Approves TWG, ESWG Recommendations

The MOPC accepted the Transmission Working Group's 2017 near-term and 2017 10-year assessments, an assessment of the system's compliance with NERC transmission planning (TPL) reliability standards, and re-evaluations of the 2016 near-term assessment and NTC evaluations.

The 2016 ITPNT identified 86 proposed upgrades comprising 49 projects and recommended 35 NTCs be issued. Fourteen additional NTCs are to be modified. The assessment will also result in eight NTCs being withdrawn, primarily because alternative projects were identified. The $140 million in withdrawn NTCs leaves the 2016 ITPNT with nearly $230 million in approved NTCs.

The recommended 2017 ITPNT scope will evaluate as potential violations NERC TPL-001-4 planning events that do not allow for nonconsequential load loss or curtailment of firm transmission service.

Stakeholders debated the scope's use of NERC standards. Antoine Lucas, SPP's planning director, said staff is seeking to incorporate the new TPL standard into the planning process rather than doing TPL assessments separately as in the past.

"This will be the last ITPNT as we know it," American Electric Power's Richard Ross said. "I don't want staff [spending] a whole lot of time trying to fix problems with a

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SPP NEWS

Markets and Operations Policy Committee Briefs

MOPC Accepts Z2 Task Force's Level-Payment Plan

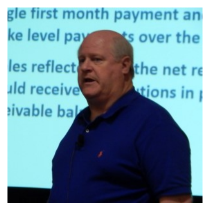
SANTA FE, N.M. — The Markets and Operations Policy Committee voted last week to use a level-payment plan to resolve years of incorrect credits for transmission upgrades.

The Z2 Payment Plan Task Force brought two payment plan options to the committee, recommending the level-payment plan over a staggered-payment option. The task force's recommendation cleared the 66.7% threshold for acceptance at 77.4% after a voice vote was inconclusive.

Under the level-payment plan, each entity with a net payable will be given the option to pay the entire amount at once or in equal installments every three months, beginning in November, with the final installment due in August 2017. FERC's interest rate for refunds will apply to the outstanding balances. (See "Z2 Task Force to Present Final Recommendations," *SPP Briefs*.)

The dollar amounts to be billed remain an unknown, which led to much of the members' reluctance to approve the recommendation. Midwest Energy's Bill Dowling called the schedule "problematic," saying he has "zero" money in the budget to handle bills that may be coming his way.

"I'm still questioning why we have to decide now, without knowing how many zeros we're talking about here, let alone how many commas," he said. "It's really tough to figure out where this money comes from, or how I get the money, until I get an invoice that says I have 30 days to pay."



Kays

"If we wait until later to decide and some other action is needed, like going to FERC, that might prolong this process even further," responded Oklahoma Gas and Electric's David Kays, the task force's chair.

"Ultimately, the amount you will pay or receive will be what it's going to be," said Aundrea Williams of NextEra Energy Resources. "Voting on the payment plan doesn't really affect what you're going to owe and receive."

Kays said the software used to calculate the credits is scheduled to be in production by June 1. He said historical data will be available for stakeholder review in time for the MOPC's October meeting.

SPP will review stakeholders' data with them in late May. Kays said staff will walk through the calculations and demonstrate the software is performing correctly.

Stakeholders will be exposed to confidential data, which will require signing nondisclosure agreements. Staff assured members the NDAs would not preclude their ability to communicate with FERC.

Market Working Group Gives Updates on Revision Requests

The committee approved a Market Working Group revision request to clean up the Tariff's out-of-merit-energy (OOME) language (RR 145) while remanding a second back to the working group for additional work (RR 154).

RR 145 is intended to correct dispatch and set point instructions for variable energy resources, clarify OOME treatment for qualifying facilities and make other minor changes to the Tariff's OOME provisions.

The second change, RR 154, would make it clear when SPP should perform a repricing of the day-ahead and real-time balancing markets. Current protocols and the Tariff allow for the repricing in the day-ahead

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ITP Work Continues as Transmission Planning Improvements Loom for SPP

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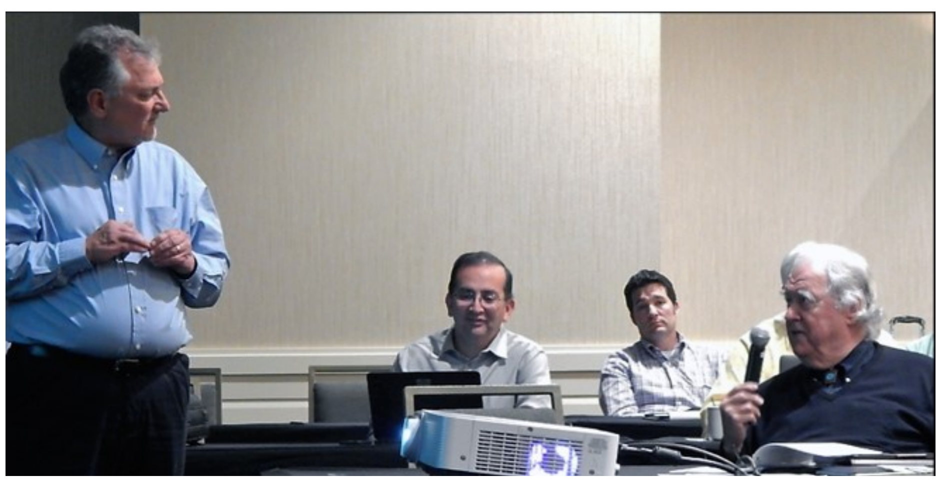
process that's about to be abandoned."

The committee also approved the TWG's recommendation to remove consideration of TPL-001-4 events not already considered in the 2017 ITP10's original scope. The motion passed with 13 nay votes and five abstentions.

TWG Chair Travis Hyde, of Oklahoma Gas and Electric, said the group's review of the TPL-001-4 standard revealed the 2017 ITP10 models did not meet SPP's modeling requirements and that the assessment could not be used for compliance.



Brian Gedrich, NextEra Energy Transmission (far left), and Harry Skilton, SPP (far right) © *RTO Insider*

The committee also approved the Economic Studies Working Group's updates to the 2017 ITP10 scope, which will result in using natural gas prices from the ABB reference case rather than NYMEX futures and updating language to allow for a Clean Power Plan and a reference case portfolio.

The ESWG must still complete needs assessments and develop solutions and a portfolio for the 2017 ITP10.

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market "for any reason at any time," said American Electric Power's Richard Ross, the MWG's chair.


Ross

Ross also:

- Updated the committee on its work regarding the SPP Market Monitoring Unit's nine suggested improvements to the market design. (See "Market Working Group Addressing Monitor's Recommendations," *SPP Board of Directors/Members Committee Briefs*.) Two of the nine recommendations — minimizing the over-allocation of transmission congestion rights and auction revenue rights in the day-ahead market, and improved reporting on planned outages — are complete, Ross said. A final report is expected to be presented at the July MOPC and board meetings.
- Briefed the committee on the MWG's Price Formation Task Force, which was created to "identify concerns with current pricing methodologies" and propose solutions. The task force is currently analyzing feedback gathered from the MOPC and the MWG.
- Told the committee that estimated costs for Integrated Marketplace RRs since September 2013 have surpassed $11 million. He said nine of the 10 RRs will be implemented this year and next.

SPP Pondering 'One-Offs' as Potential Seams Projects

SPP Principal Regulatory Analyst Sam Loudenslager brought the committee up to date on the RTO's effort to create a new class of seams transmission projects, which was rejected by FERC in November.


Loudenslager

SPP had proposed a new transmission category to identify projects that fall outside the Order 1000 interregional planning process or may not be eligible for cost allocation. FERC rejected it, saying the plan was too broadly drawn (ER15-2705). (See *FERC Rejects SPP Proposal for Seams Transmission Projects*.)

The RTO's staff has been seeking further direction from FERC to determine whether to make another filing. Loudenslager said his recent conversations with FERC staff indicated "they didn't think we could present a filing that would pass their legal concerns."

He said FERC staff focused on SPP's criteria for seams and interregional projects. "They didn't think we had been through the process enough.

"They suggested we might need to differentiate between [seams and interregional] projects," Loudenslager added. He said staff encouraged SPP to bring them potential projects that "didn't pass muster with MISO" as potential "one-offs."

SPP's current rules designate transmission facilities of 300 kV or above as "highway" facilities whose costs are allocated entirely on a regionwide, postage stamp basis. Facilities between 100 kV and 300 kV are "byway" facilities, with two-thirds of the costs assigned to the host zone and one-third allocated region-wide. Projects below 100 kV are allocated entirely to the host zone.

"We need a more convincing argument with FERC about why this needs to be a standard one-off," said Carl Monroe, SPP's chief operating officer. "We do have special circumstances where these one-offs have to be done outside the Order 1000 process, especially if they don't fall into the stipulation of shared costs. That way, parties outside MISO could agree to a process where we might be able to find agreement with MISO members that fall outside the Order 1000 process."

Loudenslager said FERC staff suggested SPP work with Associated Electric Cooperative Inc., a member of the Southeastern Regional Transmission Planning process based in Missouri. "To the extent we came up with something on AECI that didn't pass muster with MISO," he said, "they encouraged us to bring it to them as a one-off."

MOPC Chair Noman Williams, chief operating officer for SouthCentral MCN, suggested staff continue to develop a business practice to add some structure to the one-off process.

"Have it at least all laid out so we don't have to recreate the process [each time]," he said.

Staff Says No Further HPILS Construction Needed

Staff told the MOPC no additional construction is needed for the 2014 High Priority Incremental Load Study (HPILS) because of slumping oil prices and dropping rig counts.

The HPILS study, commissioned to address unexpected load growth resulting from oil and gas shale production, recommended $439 million in transmission upgrades to serve needs through 2013.

In approving the HPILS report in 2014, SPP's board directed members affected by HPILS loads and assumed generation additions to provide updated forecasts of those loads and generators before the quarterly MOPC and board meetings. The board also directed members to notify staff should additional notices-to-construct be required.

Jay Caspary, SPP director of research, development and special studies, said 110 MW of load remains unserved in North Dakota's Bakken Shale play through 2017 and 200-300 MW is unserved in New Mexico's Permian Basin oil fields in Eddy and Lea counties near the Texas Panhandle. He said the loads are "consistent with previous projections" and recommended no change in HPILS project construction.

Basin Electric Power Cooperative completed a 75-mile, 345-kV line in North Dakota in December, while Southwestern Public Service has energized three projects in the Permian Basin, adding 40 miles of 345-kV lines (which operate at 230 kV) and 19 miles of 115-kV lines. SPS is working on another project between Lubbock, Texas, and Hobbs, N.M., which is scheduled to be in service by 2020.

Some stakeholders questioned the accuracy of the load forecasts, given the low price of oil and dropping rig counts.

"These forecasts coming from folks who believe the price of oil will go back up to $50 or $60 a barrel kind of flies in the face of

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logic," Empire District Electric's Rick McCord said. "It doesn't make sense to come in here and say [the recent slowdown] doesn't have an impact. Could [SPP planners] give us some sort of an indication [of how much] load growth doesn't show up to change what we're doing?"

"We feel these [projections] are right for the system," Caspary said. "The load growth is still there. It's not what it was, but it's still amazing compared to the rest of the SPP system."

Ross asked whether staff could use its SCADA system to check "withdrawals off the transmission system."

"I'm sure we can do that," Caspary said, "but the directive we got was to look at the forecasts."

Consent Agenda/RRs

The committee approved in a near-unanimous vote a revision request to SPP Business Practice 7650, which defines procedures for processing competitive transmission proposals as part of the RTO's Integrating Planning Process.

The RR clarifies the steps taken to determine which detailed project proposals (DPPs) are equivalent to a transmission project in the Integrated Transmission Plan's Transmission Owner Selection Process' (TOSP) portfolio. The Business Practice Working Group (BPWG) said the criteria changes will further improve SPP's ability to "efficiently and accurately" complete the DPP process within the ITP's required timelines. DPP projects approved for construction as a competitive upgrade may be eligible for "incentive points" within the selection process.

A review of the first TOSP found a combined 1,672 DPPs were received for the 2015 ITP Near-Term and 10-Year assessments, and an additional 1,664 DPPs were submitted for the 2016 ITPNT. Stakeholders expressed their concerns that the drain on resources would affect the 2017 ITP10 schedule and lead to less-than-optimal solutions.

McCord, the working group's chair, said submitting better DPPs would allow staff to spend more of the 30-day assessment window on needs and solutions, rather than ensuring incentive-point qualification, and lead to more innovative solutions. The language changes to the business practice would be effective with the 2017 ITP10.

ITC Holdings' Marguerite Wagner cast the lone negative vote, following precedent set during the stakeholder process. The RR was approved by the BPWG and two other groups, with ITC Great Plains the sole dissenting vote each time.

"We don't oppose the language," Wagner said, "but we oppose the application of this language in the middle of the three-year cycle." She said technology improvements could help reduce the number of DPPs, "so it's unclear this is necessary at all."

The committee also approved four other RRs from the BPWG and seven additional RRs from the MWG and two other working groups as part of the consent agenda:

- BPWG-RR 147, clarifying the methodology to define a competitive upgrade's 50% completion status;
- BPWG-RR 148, updating BP 2150 to reference the current webRegistry;
- BPWG-RR 149, updating BP 6150 to reference NERC reliability standards;
- BPWG-RR 150, updating BP 4300 to reference a NERC reliability standard;
- MWG-RR 25_MPRR 211, adding language to identify offer costs eligible for recovery with a "market" or "reliability" commitment;
- MWG-RR 128, clarifying description of day-ahead start-up eligibility recovery rules;
- MWG-RR 137, aligning enhanced combined cycle language with that for quick-start resources;
- MWG-RR 142, preventing a resource from registering as a quick-start resource and a multiconfiguration combined cycle resource;
- ORWG-RR 141, allowing use of updated ratings for facilities, elements and flowgates that reflect current ambient conditions or more relevant system conditions; and
- ORWG-RR 146, removing the criteria revision process from the SPP operating criteria, as the process is now a MOPC process.

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Criteria Review

SPP Director of Planning Antoine Lucas reviewed with the MOPC a planning criteria study of the Integrated System's (IS) transmission grid that evaluates thermal and voltage limits and includes a stability assessment.

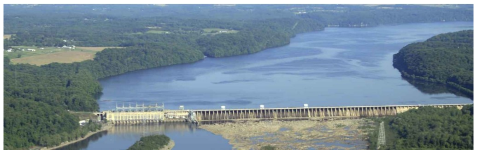
Lucas said a 2013 criteria study of the IS members — Basin, Western Area Power Administration-Upper Great Plains and Heartland Consumers Power District — identified four projects totaling $10.56 million to be completed before joining SPP in October 2015.

The study was updated when two additional IS members, Central Power Electric Cooperative and Tri-State Generation and Transmission, joined SPP in January. The 2016 integration study added two additional projects totaling more than $3 million.

— Tom Kleckner

Company Briefs

Susquehanna Endangered by Exelon Dam, Group Says



A conservation group named the Susquehanna River as the nation's third-most endangered, blaming Exelon's Conowingo Dam for allowing pollutants and sediment to flow into the Chesapeake Bay. American Rivers said the 88-year-old dam's ability to capture those materials is exhausted.

The Susquehanna, which runs nearly 500 miles from Cooperstown, N.Y., drains half of the state of Pennsylvania and provides more than half of the Chesapeake's fresh water. Nitrogen from farm runoff feeds algae blooms, creating dead zones.

Maryland officials have asked the U.S. Senate to reject legislation they say would allow Exelon to avoid complying with state water quality standards. Exelon, which is seeking to renew its federal license for the dam, said the company is working with stakeholders to protect the bay's health.

More: *The Baltimore Sun*; *American Rivers*

Documents Show ExxonMobil, Others Hid Climate Change Info

Documents released by the Center for International Environmental Law as part of its ongoing project on the energy industry's studies of climate change suggests industry insiders had hard knowledge of carbon dioxide's effect on the global climate as early as 60 years ago.

"From 1957 onward, there is no doubt that Humble Oil, which is now Exxon, was clearly on notice" about rising CO_2 levels, said Carroll Muffett, the center's director. Muffett and others involved in the project say the industry put together a group to monitor pollution studies and to encourage public skepticism to fight against environmental legislation.

The documents are the latest released by the center, which have led four attorneys general to begin investigating Exxon.

More: *The New York Times*

400-MW Wind Farm to Serve Kansas City, Google

A European utility company is teaming up with a Kansas developer to build a 400-MW wind farm in the southwest portion of the state. Enel Green Power North America, the American subsidiary of Italy's Enel, and Tradewind Energy announced the project April 8.

The $613 million Cimarron Bend project will be the largest wind farm Enel has ever built, and it will be the second largest wind farm in Kansas. The developers say the project will create 350 construction jobs and produce enough energy to power 150,000 households.

The project will consist of 200 wind turbines on 60 square miles. It will sell power to the Kansas City Board of Public Utilities, which serves as the municipal electric utility for the city, and Google.

More: *Lawrence Journal-World*

FirstEnergy Customers Offered 100% Wind Power at SOS Price

FirstEnergy is offering a limited number of Ohio customers the opportunity to switch to 100% wind-generated energy at the same price as standard power. The program, Switch2Green4Free, is open to the first 1,000 residential customers who enroll.

The power will be sourced through a contract with subsidiary FirstEnergy Solutions from wind farms throughout the country.

But Trish Demeter, managing director of Energy & Clean Air Programs at the Ohio Environmental Council, was skeptical about the promotional program's aim, saying that FirstEnergy still appears committed to fossil fuel generation. "We're not really seeing any clear path forward for FirstEnergy as far as making any real and substantial transition to a cleaner portfolio," she said.

More: *The Plain Dealer*

Exelon's Nine Mile Point Unit 2 Refueling Begins

Exelon removed Nine Mile Point Unit 2 from service last week for a planned refueling outage. For several weeks, more than 2,000 workers will replace nearly one-third of the reactor's fuel and perform thousands of inspections and maintenance activities.

The Unit 2 outage comes as Exelon is urging state utility regulators to implement new "clean energy" subsidies to help its nuclear plants survive the financial stresses caused by low-cost natural gas-fired power plants.

Nine Mile Point Unit 1 will continue to generate electricity during the Unit 2 outage.

More: *Syracuse.com*

Marathon Oil Selling Wyo. Holdings to Merit Energy

Marathon Oil announced last week it is selling its Wyoming oil-producing assets to Merit Energy for $870 million. It is selling leases in the Big Horn and Wind River basins, a reflection of the continued downturn in oil operations in those regions.

Marathon, which has a 100-year history of oil production in Wyoming, announced its intention earlier this year to sell up to $1 billion in assets in order to concentrate on wells that produce higher returns. Its core assets are in North Dakota and Texas.

"Ongoing portfolio management continues to drive the simplification and concentration of our portfolio to lower-risk, higher-return U.S. resource plays and support our 2016 objective of balance-sheet protection," Marathon CEO Lee Tillman said.

More: *Casper Star Tribune*

Duke Retires Wabash River Station Units After 63 Years

Four coal-fired units at Duke Energy's Wabash River Generating Station near Terre Haute, Ind., have gone cold after 63 years of service. Units 2, 3, 4 and 5 shut

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COMPANY BRIEFS

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down about a week before their air permits expired Friday.

One unit at Wabash Station is still active. Duke says it is investigating a possible fuel switch to natural gas.

More: The Journal Gazette

Purdue Scientists Pursue Hybrid Solar-Hydrogen Tech

Purdue University scientists are working with Swiss researchers to develop "hydricity," a term they've coined for a thermal-solar system that generates electricity and produces hydrogen to generate power when solar power is unattainable.

Hydricity uses concentrated solar energy to superheat water to produce steam for immediate power generation, as well as hydrogen, which is stored for generating electricity when there's little to no sunlight. Although the process is expensive, researchers see value in the project because stored hydrogen doesn't lose energy over time, unlike batteries.

"Here what we're doing by co-producing hydrogen, we avoid a step of making electricity and then storing it," said Purdue chemical engineering professor Rakesh Agrawal. "We directly make hydrogen from sunlight, and that's what makes it more efficient. We can do almost anything: purify water, produce chemicals, create fertilizer for food production."

More: Inside Indiana Business

Merger Credits Begin Rolling Out to Md., DC Pepco customers

Pepco customers in Montgomery and Prince George's counties will begin receiving the first of two $50 bill credits this month as part of the company's recent merger with Exelon. The second credit will be applied to bills in 2017.

D.C. ratepayers also should see a $54.59 credit in their bills this month.

Pepco said information about credits for customers in Delaware and New Jersey, also affected by the merger, will be forthcoming.

More: Washington Business Journal

Exelon Power Plant Site in Boston Sold

Exelon has agreed to sell its century-old New Boston Generating Station to Hilco Global and Boston developer Redgate Real Estate for undisclosed terms. The sale is set to close by the end of June.

The buyers have not disclosed their redevelopment plans, said a spokesman for Hilco, a Chicago-area financial services conglomerate whose redevelopment arm specializes in "maximizing the value of obsolete industrial sites." Hilco and Redgate beat out at least six other bidders for the property.

The plant, built in 1892 to burn coal, was later converted to oil and then to natural gas before being largely retired in 2007.

More: The Boston Globe

AEP's Crowder Joins GridLiance as President of South Central Region

Independent transmission company GridLiance continued to gather up industry expertise last week with the announcement that American Electric Power's J. Calvin Crowder has joined the company as president of the South Central region, which includes the ERCOT, MISO South and New Mexico grids.

Crowder

Crowder will oversee business development activities with public-power agencies from his base in Austin, Texas. Crowder was most recently president of AEP's Electric Transmission Texas (ETT), which he helped grow to $3 billion in assets.

"Calvin is a highly regarded electric utility industry executive who brings an in-depth understanding of the utility business, collaborative management style and excellent relationships with RTO officials as well as state and federal regulators," GridLiance CEP Ed Rahill said in a statement.

Crowder has 25 years of experience in the industry, much of it with AEP and its Central and South West predecessor. He has focused his career on regulatory and legislative matters, securing a $1.5 billion investment for ETT in ERCOT's Competitive Renewable Energy Zone.

Crowder earned his bachelor's degree in economics and his master's degree in regulatory economics from New Mexico State University.

Kansas City-based GridLiance, formed in 2014, completed its first acquisition of transmission assets earlier this month. (See GridLiance Closes Acquisition of Tri-County Co-Op's Tx Assets.)

— Tom Kleckner

Congress May Order CFTC to Back Down on Private Rights of Action

By Rich Heidorn Jr.

WASHINGTON — U.S. Sen. John Boozman (R-Ark.) last week introduced legislation that would force the Commodity Futures Trading Commission to grant SPP the same broad regulatory exemptions the commission granted other grid operators in 2013.

The commission's 2013 order exempted electricity transactions subject to FERC-approved tariffs from most provisions of the Commodity Exchange Act (CEA). SPP was not party to the order because its day-ahead market was not fully implemented at the time.

Unlike the 2013 order, the draft order CFTC is considering for SPP includes a preamble stating the commission's intent to preserve "private rights of action" under Section 22 of the CEA. (See *Witnesses Ask CFTC to Drop 'Private Rights' Clause*.)

CFTC Chairman Timothy Massad testified Thursday at a hearing of the Senate Appropriations Committee's Subcommittee on Financial Services and General Government, which is chaired by Boozman. The Arkansas senator did not raise the issue.

However, a Boozman spokeswoman said the senator introduced an amendment that was included in the manager's package at the Senate Agriculture Committee's markup on the CFTC's reauthorization Thursday.

"The amendment would ensure the current regulatory framework remains in place and prevent inconsistent regulations between FERC and CFTC," said spokeswoman Sara Lasure. She said Sen. Joe Donnelly (D-Ind.) co-sponsored the amendment.

Speaking at the Gulf Coast Power Association's annual meeting in Houston last week, SPP CEO Nick Brown said the RTO was working with Boozman to bar the commission from allowing private rights of action for wholesale electric markets.

"To open this to 100 [U.S.] district courts is just insane in my mind," Brown said. "I don't know a better word for it. … This would just be a field day for the legal community."

Other grid operators have expressed concern that the commission's reference to private rights in the SPP order could undermine their 2013 waiver.

"The real risk is for market participants who are in the [congestion revenue rights and financial transmission rights] markets," ERCOT CEO Bill Magness said. "When I had to come back to meetings at ERCOT and talk about CFTC again, it was a very unhappy day. We thought we were done with these discussions for a while."

FEDERAL BRIEFS

EPA Issues Notice to Fix MATS After SCOTUS Ruling

EPA issued a formal notice amending its 2012 rules governing toxic air pollutants from power plants in response to the U.S. Supreme Court ruling them illegal.

The agency issued a formal notice amending the Mercury and Air Toxics Standards, saying that the costs of regulating emissions such as mercury, nickel and arsenic are reasonable and far outweighed by the public health benefits. EPA had issued a similar finding, but while the rules were being written. The Supreme Court ruled that the cost analysis should have been done before.

The court remanded the rules back to the D.C. Circuit Court of Appeals, which declined to halt their enforcement. EPA's new cost analysis is largely based on its earlier one, with some supplementary material.

More: *The Hill*

EPA Ups Methane Emissions Estimates

EPA last week increased its estimates of U.S. methane emissions, a change likely to figure in a battle over regulations the agency plans to issue on oil and gas drillers. The change, which increased 2013 emission estimates by 13%, were contained in an annual inventory the agency submitted to the U.N.

The agency said the new data show that the oil and gas sector is the largest source of methane, accounting for a third of U.S. emissions. The agency had said previously that cattle and other livestock were the largest source.

Methane has a much larger effect on global warming than carbon dioxide but dissipates more quickly than CO_2.

More: *The Washington Post*

Brenner Returns to FERC As Administrative Law Judge


Brenner

FERC Chairman Norman Bay appointed veteran jurist Lawrence Brenner as senior administrative law judge.

The appointment marks Brenner's second appointment as a FERC administrative law judge. He also served as an ALJ for the Department of Labor and the Nuclear Regulatory Commission. Additionally, Brenner has been a Maryland Public Service Commissioner since 2007.

Prior to his appointment, Brenner practiced law in Maryland, D.C. and New York. He earned a bachelor's degree in economics from Brooklyn College and his doctorate from the State University of New York at Buffalo. Brenner also served in the Army in the Vietnam War.

More: *FERC*

Fed Agencies Seek Review of Dakota Access Spill Plan

EPA, the Department of the Interior and the Advisory Council on Historic Preservation want the U.S. Army Corps of Engineers to take a closer look at the Dakota Access pipeline plan.

The three federal agencies have asked the corps to perform another review of its spill contingency plans for the Energy Transfer Partners project. If constructed, the pipeline will stretch from North Dakota to terminals in Illinois. The corps has a role in the review process because of the pipeline's multiple waterway crossings.

The pipeline received the final state regulatory approval from Iowa on April 8, but construction cannot begin before all federal approvals are obtained. There are also numerous legal challenges to the proposed pipeline, which could delay the start of construction.

More: *The Associated Press*; *Newton Daily News*

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Federal Briefs

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Company Proposing Nuclear Waste Storage Facility in NM

Holtec International has filed a letter of intent with the Nuclear Regulatory Commission to build a $5 billion storage facility for nuclear waste near Carlsbad in Lea County, N.M. The company intends to build a long-term facility, with the idea that it would handle the waste while a permanent solution is found.

Holtec, a major supplier of stainless steel vessels used for dry-cask storage of nuclear waste, said its facility would store waste for up to 100 years, but it plans to initially apply for a license for 40 years.

If approved, it would give federal authorities time to come up with a longer-term solution for storing waste from commercial reactors. The government planned to use the Yucca Mountain repository in Nevada, but opposition led the Obama administration to pull the plug on that facility.

More: *The Associated Press*

Former NRC Scientist Gets Prison for Hacking Attempt

A former Nuclear Regulatory Commission scientist was sentenced to 18 months in prison for attempting to infect the Department of Energy computer network with malware.

Prosecutors said Charles Harvey Eccleston, a disgruntled, ex-NRC employee, first tried to sell email information to a foreign country at its embassy in the Philippines.

He later met with undercover federal agents in a sting operation, agreeing to upload a virus onto government computers.

More: *The Associated Press*

FERC Approves Transco Expansion in Jersey

FERC has approved Williams Partners' Transco Garden State Expansion Project, a series of compression improvements to an existing line aimed at boosting delivery in central New Jersey.

The $116 million New Jersey project will deliver an additional 180,000 dekatherms a day of natural gas to customers of New Jersey Natural Gas, which serves about 500,000 customers in Monmouth, Ocean, Morris, Middlesex, Sussex and Burlington counties.

Opponents complained that FERC's action is another illustration of the agency's willingness to side with pipeline operators.

More: *Williams Partners*; *NJ.com*

TVA to Seek Early Permit for Small Modular Reactors

The Tennessee Valley Authority plans to apply for an early site permit for building small modular nuclear reactors on its Clinch River site, but federal design approval is expected to take a decade.

TVA's application to the Nuclear Regulatory Commission will only evaluate the possibility of constructing an as-yet chosen design at its Clinch River site. It is starting the process with public meetings to discuss environmental and safety aspects.

The NRC review of the early site permit is expected to take three or more years. Design certification of a small modular reactor is expected to take up to five years, so a project could not realistically begin construction until the early 2020s.

More: *Oak Ridge Today*

Mass. Staffers Say Pipeline Co. Filed Misleading Documents

The Massachusetts Department of Environmental Protection staff accused Tennessee Gas Pipeline of filing misleading information to FERC in a bid to get permission to begin logging a pipeline right of way in a state forest.

The department says the Kinder Morgan subsidiary told FERC that Massachusetts officials wouldn't require a water quality certificate before allowing logging operations in a bid to get approval for tree cutting in the Otis State Forest as part of a pipeline construction project.

Tennessee Gas officials mischaracterized statements from state authorities, the department said.

More: *The Republican*

Forest Service Allows Pipeline Surveying in Va.

The U.S. Forest Service has granted developers of the Atlantic Coast Pipeline permission to survey new routes through the Monongahela and George Washington national forests. The agency previously rejected the planned route for the $5 billion, 500-mile project.

The agency is still requiring developer Dominion Resources to investigate alternate routes that don't go through national forests. The Forest Service previously criticized surveys done by project contractors, suggesting the surveys were flawed and shouldn't be used by FERC in determining approval.

More: *Augusta Free Press*

US Nuclear Workers Allegedly Sold Information to China

An East Tennessee resident who worked as a senior manager in the Tennessee Valley Authority's nuclear program is one of six Americans workers in the nuclear industry accused of selling information to China's top nuclear power companies.

None of the workers was named in a federal espionage conspiracy indictment against China General Nuclear Power, Chinese nuclear engineer Szuhsiung "Allen" Ho and Ho's firm, Energy Technology International. Ho allegedly conspired to solicit information that would allow his country to produce nuclear material based on American technology.

Aside from the Tennessee resident, whose gender was not specified, the Americans referenced in the indictment are engineers. Four work for an unnamed Pennsylvania-based nuclear energy firm, while the fifth works for a Colorado-based firm that supplies technical support to the nuclear industry.

More: *Knoxville News Sentinel*

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Federal Briefs

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Damages Awarded to Nuclear Plant Operators

The Court of Federal Claims has ordered the federal government to pay $76.8 million in damages to three New England nuclear plant operators for failing to create a permanent repository for spent nuclear fuel.

The ruling is the third time that the government has been ordered to pay Connecticut Yankee, Maine Yankee Atomic Power and Yankee Atomic Electric for costs they incurred for on-site storage of nuclear fuel at their decommissioned plants in Maine, Massachusetts and Connecticut. The companies sued in 1998, and the latest order covers costs incurred by the three companies from Jan. 1, 2009, to Dec. 31, 2012.

More: New Haven Register

Connecticut Yankee nuclear power plant *Source: Nuclear Regulatory Commission*

State Briefs

CONNECTICUT

Constellation, Bloom Energy Begin Microgrid Construction

The City of Hartford, Constellation and Bloom Energy have started construction of an 800-kW fuel cell microgrid that will provide 100% of the electricity for a school, a library, a senior center and a health clinic during nonemergencies. It will also provide emergency power to these locations in addition to a local fuel station and grocery store.

Constellation is providing engineering, procurement, construction and operation services. Bloom Energy is providing the fuel cells. The city will buy the electrical output at or below current market rates through a 15-year power purchase agreement.

The project, the state's first to be developed through a public-private effort, is scheduled for completion in the third quarter of 2016.

More: Constellation

State's Clean Energy Budget at Risk

Malloy

Environmentalists, union leaders, solar company executives and several lawmakers condemned a proposal by lawmakers to divert $22 million in clean energy funding to help close a state budget gap.

Gov. Dannel P. Malloy has proposed an alternative budget proposal that would close the budget shortfall without tapping into the funds. The state is facing a budget shortfall of $933 million.

More: Hartford Courant

IOWA

MidAmerican Energy to Build 2,000-MW Wind Farm

MidAmerican Energy says it will spend $3.6 billion to build a 2,000-MW wind farm in the state. Gov. Terry Branstad called it the largest economic development project in the state's history.

The cost of the project will be recovered through federal wind energy subsidies over 10 years, MidAmerican CEO Bill Fehrman said. When completed in 2018, it will bring the amount of wind energy produced by the company to 85% of its total annual sales, he said.

Fehrman would not say where the wind farm would be located. Negotiations are ongoing with state property owners, he said.

More: The Gazette

MAINE

New Solar Bill Passage Longshot Without Support

LePage

A bill aimed at boosting the state's solar industry passed the House 81-69 but faces a likely veto from Gov. Paul LePage. Opponents say the measure would saddle customers with higher electricity prices to pay for solar subsidies.

The bill would replace the current net metering system with hourly metering and a 20-year price guarantee on

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State Briefs

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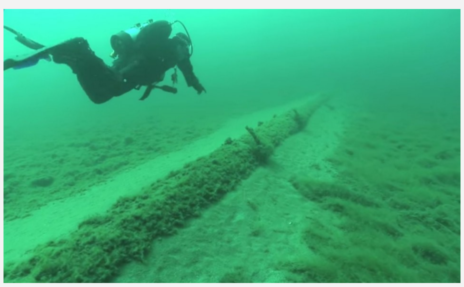
the rate that businesses and homeowners are compensated for producing electricity. Proponents say it would help create jobs in the solar industry and reduce reliance on fossil fuels.

State officials are sharply divided on the benefits, or lack thereof, of the bill, however. Public Utilities Commission Chairman Mark Vannoy has said it would cost ratepayers $22 million in the fifth year of the plan; Public Advocate Tim Schneider, meanwhile, says the bill would save consumers $122 million over the 20 years.

More: Portland Press Herald

MICHIGAN

Groups: Enbridge Violating Mackinac Pipeline Pact



A group of environmental organizations and Native American tribes are calling on state officials to terminate the flow of oil through Enbridge's Line 5, alleging the twin pipelines' advanced corrosion violates terms of a 1953 easement.

The groups cited data posted on Enbridge's website from a 2013 inspection that shows the pipeline suffers from corrosion in nine places, two dents and 35 weld cracks. One area of corrosion shows a 26% loss of pipeline wall thickness; the original easement agreement called for the pipes to be at least 0.812 inches thick.

"The law and this easement agreement are clear: State leaders cannot wait another year or more while Enbridge continues to violate safety conditions it agreed to and withholds safety inspection and other data from the public and the state," said environmental attorney Liz Kirkwood.

More: Detroit Free Press

Michigan State Now Coal-Free

Michigan State University's T.B. Simon Power Plant has switched from coal to natural gas, ending the university's use of coal. President Lou Anna Simon announced the transition on April 14.

Bob Ellerhorst, the university's director of utilities, said that the coal plant would have required expensive emissions controls to continue operating.

MSU first announced its coal-free intentions in 2012 as part of the university's Energy Transition Plan, which also stipulates that 40% of campus power will come from renewable sources by 2030. Currently, 15% of MSU's electricity is sourced from renewables.

More: Lansing State Journal

Entergy's Palisades at Center of Public Forum

A public forum on the relicensing of the Palisades nuclear plant is scheduled for April 21 in Kalamazoo.

The Sierra Club of Southwest Michigan, Michigan Safe Energy Future and D.C.-based Beyond Nuclear will lead a discussion on whether Palisades' operating license should be renewed. At 45 years old, the Entergy-owned plant is one of the oldest in the U.S. with one of the most brittle reactor vessels.

Kalamazoo is one of many cities in the state within a 50-mile secondary radiation zone of Palisades, which is situated on Lake Michigan.

More: MLive

MONTANA

DEQ to Keep Studying Suspended Coal Mine Project

State environmental officials will continue to study the potential effects of the proposed 20-million-ton-per-year Otter Creek coal mine near the Wyoming border, even though its sponsor, bankrupt producer Arch Coal, suspended the project.

The Department of Environmental Quality said it wants to determine the extent to which streambeds need to be protected at the site near Ashland. The work would prove valuable if the mine is revived or another proposal takes its place, a department official said.

A filing in Arch's federal bankruptcy case reveals the company lost a key coal lease for Otter Creek more than three months before the St. Louis company announced it was suspending its application.

More: Billings Gazette

NEBRASKA

Lawmakers Pass Wind, Climate Change Resolutions

The state Legislature passed a bill boosting wind energy development by a 34-10 vote, which proponents said will reduce regulatory obstacles for wind developers and make the state competitive with neighbors that produce more wind power.

Lawmakers followed up that tangible support for wind power by approving a non-binding resolution calling for official recognition of climate change. The resolution, passed by a vote of 28-3 in the nonpartisan body, calls for a special panel of legislators to examine climate change. "I think that's progress," sponsor Sen. Ken Haar said.

Wind power appears to be gaining support in the state. "Our customers are demanding a certain mix of renewables, and we have to recognize that," said Sen. Dan Watermeier, who previously opposed wind energy.

More: Lincoln Journal Star

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State Briefs

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Pipeline Regulator Agrees to Recuse Self from Keystone Issues

The new director of the Public Service Commission's division overseeing national oil and gas pipelines, a former engineer for Keystone XL pipeline sponsor TransCanada, said he will recuse himself from working on any issues related to the pipeline.

Scott Coburn made the promise before he was hired by the PSC by a 4-1 vote. Commissioner Crystal Rhoades opposed, saying the hiring gives the appearance of a conflict of interest.

TransCanada has withdrawn its plan to build the pipeline to existing lines leading to Gulf refineries, but the company has reserved its right to reapply.

More: The Associated Press

NEW HAMPSHIRE

North Country Chamber Drops Northern Pass Opposition

The North Country Chamber of Commerce has halted its opposition to the Northern Pass transmission project, which would import Canadian hydroelectric power. The chamber switched its position to neutral, citing a divided membership.

"We represent members who are both in favor and opposed to the Northern Pass project," the group said in a press release. "Therefore, we would like to be listed as neutral interveners and be the conduit for sharing information to our members."

Two chamber board members resigned in protest and a third said the board was pressured by developer Eversource Energy. The chamber voted three times over a five-day period in March and April until it finally changed its position from "opposed" to "neutral."

More: New Hampshire Union Leader

NEW JERSEY

Officials, Customers Blast Jersey Gas Rate Hike

Local elected officials and customers of New Jersey Natural Gas held a media event in front of a pizza joint to denounce the company's proposed 24% rate increase, which came after its executive compensation in 2015 increased about 40% from the previous year.

"What makes the 24% increase really outrageous and unacceptable is when you juxtapose it to the excessive increases in compensation for the executives at New Jersey Natural Gas," Belmar Mayor Matt Doherty said. "We're talking about Wall Street-type salaries to manage the smallest gas utility in the state of New Jersey."

The company defended the request, saying it is the first rate filing since 2007. The filing is now undergoing review by an administrative law judge.

More: NJ.com

NEW MEXICO

Anti-Coal Advocates Protest As PNM Rate Hearings Begin

About 50 climate change activists protested outside the state's Public Regulation Commission offices last week at the start of three weeks of hearings over Public Service Company of New Mexico's $123.5 million rate case. The protesters are calling for the utility to reduce its reliance on coal generation.

PNM's proposal involves a contract with Navajo Mine Coal Company to supply fuel to the Four Corners Power Plant. The company has defended its continued use of coal, calling the fuel an "affordable and reliable option" and contending that rates would be pushed even higher without it.

PNM says the 15.8% rate boost, its first in five years, is required to recover more than $650 million the company has spent improving its distribution network. The commission last year rejected a rate-increase request by the company.

More: Santa Fe New Mexican

Commission OKs Complaint Against PNM

The Public Regulation Commission voted unanimously to require Public Service Company of New Mexico to respond to a complaint by a clean-energy advocacy group over its loan to another company for the purchase of the San Juan Coal Mine.

PNM revealed earlier this year it formed a subsidiary, New Mexico Capital Utility, to loan Westmoreland Coal $125 million to purchase the mine on property adjacent to the San Juan Generating Station.

The PRC last month voted against a request by New Energy Economy, an anti-coal nonprofit, to investigate PNM's dealings in the mine purchase. But last week, the commission decided to allow a new complaint by New Energy to move forward and gave PNM 20 days to answer the complaint.

More: Santa Fe New Mexican

NORTH CAROLINA

State to Require 'Environmental Justice' Reviews of Landfills

The state will begin requiring "environmental justice" reviews of any landfills that it permits in response to objections that low-income residents and racial minorities are disproportionately affected by Duke Energy's statewide coal ash cleanup.

While the reviews are still being developed, advocates say they are expected to exceed state and federal health requirements. They will evaluate adverse socioeconomic, environmental and health risks associated with the facilities.

Coal ash, the byproduct of coal-burning generators, contains substances including mercury, cadmium and arsenic that can be harmful to people. An attorney with the Southern Environmental Law Center said people of color and low-income residents live closest to some of the state's coal ash waste sites.

More: North Carolina Health News

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STATE BRIEFS

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OKLAHOMA

Commission Rejects OG&E Solar Billing Plan

The Corporation Commission voted 3-0 against an Oklahoma Gas & Electric plan to change the way it calculates the bills for rooftop solar users and directed the utility to fully explore the issue in its pending rate case.

The order came almost two weeks after the commission indicated it wasn't happy with its options in OG&E's distributed generation tariff. The utility filed the case under a state law that allows regulated utilities to charge a different rate to rooftop solar users if they aren't paying their fair share of grid costs.

OG&E proposed a demand charge for the first time on residential and small commercial customers. The typical solar residential customer using 6 to 8 kW would pay $16 to $21 per month in demand charges.

More: *The Oklahoman*

PENNSYLVANIA

Judge: Sunoco May Build Pipeline Without Landowners' Permission

A Lebanon County judge has ruled that Sunoco Logistics may bury a natural gas liquids pipeline across the properties of three landowners who refused to sign easement agreements.

The Mariner East 2 pipeline will run 350 miles from the Marcellus Shale to a Delaware River terminal near Philadelphia.

The residents say they will appeal the ruling. They say Sunoco should not be considered a public utility, as the Public Utility Commission deems it, because most of the product flowing through the new line is expected to be shipped overseas.

More: *Lebanon Daily News*

SOUTH DAKOTA

County Officials Approve Brady II Wind Farm's Construction

Hettinger County officials have approved a permit for a second phase of the 72-turbine Brady Wind Energy Center project. The Planning and Zoning Board and the County Commission voted unanimously to approve the conditional-use permit, but it must still receive Public Service Commission approval.

Brady Wind II is technically a separate project with a separate power purchase agreement than the nearby Brady Wind I project. Developer NextEra Energy Resources has said that if Brady Wind I is denied by the PSC, it may not move forward with Brady Wind II.

Combined, the two phases of Brady Wind call for 159 turbines generating about 300 MW of power. SPP member Basin Electric Power Cooperative has signed a PPA with NextEra for Brady II's energy.

More: *The Bismarck Tribune*

TEXAS

Tribes Protest Coal Mine on Mexico Border

Members of several Native American tribes joined long-running attempts by environmentalists and local activists to shut down the Eagle Pass coal mine near the Mexican border, which they say threatens ancestral burial grounds. The tribes say transporting the high-sulfur coal, which is shipped to Mexico, would release hazardous particles into the air, and that the discharge from the operations would run off into a creek that ends in the Rio Grande.

Members of the Lipan Apaches, the Pacuache Band of the Cohuiltecan Nation and the Carrizo Comecrudo Tribe have teamed with the Comanche Nation of Oklahoma to criticize Dos Republicas, a company owned by Mexican companies partnered with the North American Coal Corporation and its subsidiary Camino Real Fuels.

More than 100 activists marched 9 miles from the Rio Grande to the mine on Saturday.

More: *The Texas Tribune*; *San Antonio Express-News*

VERMONT

Hearings Contentious on Renewable Energy Siting

Cheney

The state's process for deciding where solar and wind energy projects can be located were the subject of contentious hearings before two House of Representatives committees.

Margaret Cheney, a member of the Public Service Board, criticized several aspects of a Senate-passed bill now under consideration in the House, which would give the public more leverage over siting decisions. She said the bill called for the board to reopen a study of wind turbine noise complaints that would require a new case to be brought to the board.

Cheney said the vast majority of projects draw no complaints, but of those that do, "I think that some of it is growing pains in a changing world."

More: *The Associated Press*

WYOMING

Developer Says Wind Farm To be Operational by Year-End

sPower says construction has begun on the controversial 46-turbine Pioneer Wind Park, the first new wind farm in the state since 2010. The 80-MW project could provide as many as 179 temporary construction jobs.

Pioneer's power purchase agreement with Rocky Mountain Power requires it to be in commercial operation by the end of 2016. The project also faces a legal challenge. The Northern Laramie Range Alliance is appealing state regulators' decision last year to amend its permit after sPower acquired the project from Wasatch Wind.

The NLRA has challenged Pioneer at the state Supreme Court, FERC and in federal court, losing in each venue.

More: *Casper Star-Tribune*