RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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

ISSN 2377-8016 : Volume 2016/Issue 23 June 14, 2016

Lessons Unlearned: FERC's Punt on Market Monitors' Independence

After allegations of management interference led PJM to replace its internal market monitoring unit with an independent monitor in 2008, FERC had an opportunity to prohibit other RTOs from using the internal structure. Because it chose not to do so, the temptation for RTO officials to muzzle their MMUs remains.

FERC Ended SPP Audit Without Interviewing Key Witness

Oversight Committee Chairman Says He Can't Remember Many Details in Controversy

Third in a Series

By Rich Heidorn Jr.

Former monitors Catherine Mooney and John Hyatt | Oversight Comm. Chair Joshua Martin III | General Counsel Paul Suskie | MMU Director Alan McQueen

SPP Board of Directors' Oversight Committee Chairman Joshua W. Martin III refused to meet with monitors Catherine T. Mooney and John Hyatt when they raised concerns about the independence of the internal Market Monitoring Unit, referring them to Alan McQueen, a target of their complaints, and General Counsel Paul Suskie. Mooney and Hyatt were later fired and are now with Monitoring Analytics.

FERC auditors, who have been examining allegations that SPP officials interfered with the independence of its internal Market Monitoring Unit, effectively ended their audit at the end of April without interviewing a key witness.

That person is Joshua W. Martin III, the chairman of the SPP Board of Directors' Oversight Committee, which is charged with supervising the unit and protecting its independence.

Former SPP monitors Catherine Tyler Mooney and John Hyatt, who were fired in December, had asked to meet with Martin last September to discuss their frustration with the internal MMU structure and recommend a role for an external monitor. The monitors told Martin that pressure to please RTO management and conform to the positions of membership made it impossible to exercise the independence required by FERC.

Martin, however, refused to meet with them, telling them to talk instead to General Counsel Paul Suskie and their direct supervisor, MMU Director Alan McQueen, who was the target of some of their complaints.

Hyatt and Mooney say they were terminated for their efforts to exert independence. SPP officials have declined to give a reason for the firings, citing RTO policy not to publicly discuss personnel matters.

FERC announced in February 2015 it was conducting an audit of SPP that included an examination of the MMU's independence under Order 719 (PA15-6).

Yet the auditors effectively ended their 13-month inquiry without interviewing Martin, the single most important person to the protection of the MMU.

Continued on page 2

OMS-MISO Survey: Generation Shortfall Possible by 2018

By Amanda Durish Cook

Plant retirements could cause a generation shortfall in MISO as early as 2018, two years earlier than previously expected, according to the RTO's 2016 survey with the Organization of MISO States.

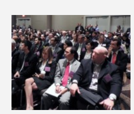
The survey, released Friday by MISO and OMS, forecasts a narrow surplus in 2017 but concludes that "action is required in the near term to ensure sufficient resources in future years."

For 2017, MISO is forecast to exceed the projected 15.2% reserve requirement by 0.9 GW (0.7% above the requirement), although multiple zones will be below their resource requirement and will have to rely on imports. Southern Illinois' Zone 4 could have a 0.5-GW surplus or a deficit as large as 1.2 GW. Zone 5 in Missouri is forecasted to have a 0.8-GW deficit, and Zone 7 in

Continued on page 16

Also in this issue:

EBA Annual Meeting Coverage



Panels at the Energy Bar Association's Annual Meeting discussed the Supreme Court's recent rulings and improving the transmission interconnection process. (p.3-7)

10837 Deborah Drive ■ Potomac, MD 20854 ■ (301) 983-0375 ■ info@rtoinsider.com ■ www.rtoinsider.com

RTO Insider

CAISO ERCOT ISO-NE MISO NYISO PJM SPP

Editorial

Editor-in-Chief / Co-Publisher
Rich Heidorn Jr. 202-577-9221

Contributing Editor
Ted Caddell 434-882-5589

Production Editor
Michael Brooks 301-922-7687

MISO Correspondent
Amanda Durish Cook 810-288-1847

PJM Correspondent
Suzanne Herel 302-502-5793

SPP/ERCOT Correspondent
Tom Kleckner 501-590-4077

CAISO/West Correspondent
Robert Mullin 503-715-6901

ISO-NE/NYISO Correspondent
William Opalka 860-657-9889

Subscriptions and Advertising

Chief Operating Officer / Co-Publisher
Merry Eisner 240-401-7399

Marketing Assistant
Ben Gardner

RTO Insider LLC
10837 Deborah Drive
Potomac, MD 20854
(301) 983-0375

Subscription Rates:

	PDF-Only	PDF & Web
Annual:	$1,175.00	$1,425.00
Quarterly:	315.00	400.00
Monthly:	125.00	150.00

Discounts available for corporations purchasing multiple subscriptions, non-profits, trade associations, government agencies, law firms and small businesses.

See details and Subscriber Agreement at rtoinsider.com.

FERC's Punt on Market Monitors' Independence

FERC Ended SPP Audit Without Interviewing OC Chair

Continued from page 2

SPP said that FERC auditors conducted an exit interview April 29 with RTO officials, including Suskie and McQueen, at which they outlined their conclusions.

"FERC auditors did not indicate any findings that SPP's MMU is not independent nor did the auditors indicate that SPP's MMU should be an external market monitor," SPP said in a statement. "We do expect FERC to issue recommendations for enhancements to SPP's MMU similar to those approved [in a revised policy statement on the MMU] by SPP's Board of Directors in January."

FERC declined to comment.

Martin said in an interview May 2 that although he met FERC auditors at an Oversight Committee meeting in D.C. last March, "this was not an in-depth session where we were looking at specifics. They were just giving us an indication of the scope of the audit, how it was going to proceed," he said.

Had it interviewed Martin, FERC would have found a board member seemingly detached from — or forgetful about — many of the details of the controversy surrounding the MMU.

Oversight Committee Role

Attachment AG of SPP's Tariff specifies that "the Market Monitor shall be an organization within SPP reporting to the Board of Directors, *excluding any SPP management representatives* serving on the Board of Directors." (Emphasis added.)

The MMU reports in particular to the board's Oversight Committee, which is composed of three outside directors led by Martin.

Despite the Tariff's prohibition against "SPP management" having an oversight role, RTO executives were regularly present when McQueen reported to the committee, according to committee minutes reviewed by *RTO Insider*.

In 2013 and 2014, for example, McQueen's direct supervisor, Stacy Duckett, vice president and chief compliance officer, usually recorded the minutes as the committee's secretary.

Duckett died in March 2015 following a long illness. Suskie, who succeeded Duckett as McQueen's supervisor, also attended meetings as secretary, as did Michael Desselle, vice president and chief compliance and administrative officer.

An SPP organizational chart shows McQueen reported to Duckett and, later, Suskie for "administrative purposes." Until recently, that included requests to hire new staffers, budget and organizational reviews, and McQueen's salary and bonus reviews.

Hyatt and Mooney say that when they pushed to oppose a position held by the RTO or members, McQueen often resisted, complaining, "You don't understand the pressure I'm under." McQueen declined to say whether he had made the remark. (See Part 1: *SPP Squelching MMU Independence, Former Monitors Say*.)

How could McQueen tell the Oversight Committee of such pressure when SPP management was present during the meetings? "We've been very, very open," Martin said. "Alan's communicated with me without management being there — through emails, through voice mail."

Larry Altenbaumer and Phyllis E. Bernard, the other two members of the committee, declined requests for comment, referring questions to Martin.

Judge, Regulator, CEO

By any measure, Martin is an accomplished figure. A one-time civil rights activist in Camden County, N.J., he studied physics as an undergraduate before becoming a patent attorney for Hercules, a chemical manufacturer. He later served on the Delaware Public Service Commission (1978-1982), including three years as chairman, and became the first African American member of the Delaware Superior Court (1982-1989).

He retired from the bench to become general counsel of Bell Atlantic Delaware, rising to CEO of the company, which was renamed Verizon Delaware (1996-2005).

He has now come full circle. In 2005, he become a partner at Potter Anderson & Corroon, a venerable Wilmington, Del., law firm founded in 1826, whose office is in Hercules Plaza, an office tower that once housed 1,800 Hercules employees. He retired as a partner at the end of 2013 and remains with the firm as counsel.

Continued on page 24

Energy Bar Association Annual Meeting 2016

Supreme Court's Refusal to Draw Bright Lines Frustrates Energy Bar

Better Timid than Wrong, Some Say

By Rich Heidorn Jr.

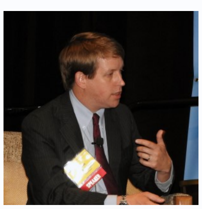
WASHINGTON — The Supreme Court's recent rulings in three state-federal jurisdictional cases provide only limited guidance for how it might decide future turf disputes, a panel of attorneys agreed in a discussion at the Energy Bar Association's Annual Meeting last week.

They disagreed, however, over whether the court should be praised for its diffidence.

The panel focused on the court's April ruling in *Hughes v. Talen* and its January order in *Electric Power Supply Association v. FERC*, with mentions of the 2015 ruling in *ONEOK v. Learjet*. (See Supreme Court Rejects MD Subsidy for CPV Plant, Supreme Court Upholds FERC Jurisdiction over DR.)

The court backed FERC's authority in both of the most recent cases — upholding its jurisdiction over demand response in *EPSA* and rejecting Maryland's subsidy of a generator that could have undermined PJM's FERC-regulated capacity auction.

'Very Narrow Decision'



But FERC General Counsel **Max Minzner** isn't letting the victories go to his head. The court's ruling in *Hughes v. Talen* was "a very narrow decision," Minzner said.

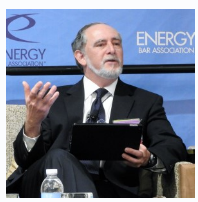
The court unanimously rejected Maryland's contract-for-differences with a natural gas plant, saying it violated the Constitution's Supremacy Clause, which establishes that federal law preempts contrary state law (14-614, 14-623).

Minzner said the ruling preserved "a wide range of tools for states to incentivize or affect generation" but found the Maryland program improper because it interfered with FERC's jurisdiction over wholesale electric markets and could distort price signals in PJM's annual capacity auctions.

"The court, I think, was clear that a significant number of traditional state activities that could in theory have an impact on the wholesale rate are likely to be preserved after *Hughes*," Minzner said. "There was a long discussion at the end [of the opinion] about the range of things the states can do without running afoul of this specific problem."

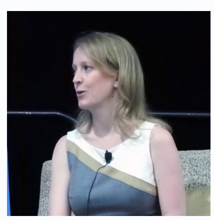
Connecticut Assistant Attorney General **Clare E. Kindall**, who co-authored an *amicus* brief in *Hughes*, said she was "relieved to hear that FERC's general counsel thinks it's a narrow ruling."

"I believe that the Supreme Court did narrow the 4th Circuit's original holding [against Maryland]. But I also think the *Hughes* case and this trio of cases is a full employment act for this group [lawyers] for the next 10 years, because I think there will be a lot of litigation over what exactly a state can and cannot do," she said. "There is a role for FERC and there's a role for the states. And this room will spend most of the next 10 years drawing those lines."



Dentons partner **Stuart A. Caplan**, who moderated the discussion, echoed Kindall's comments, complaining of "an unsatisfying lack of clarity in the decisions as to the basis of jurisdiction."

No End to Litigation



Bancroft partner **Erin E. Murphy**, a member of Talen's legal team, agreed that the rulings are "hardly going to put an end to litigation."

"The court was trying to avoid drawing particularly bright lines or giving a whole lot of guidance. It really had to approach each of the cases as: 'We're going to decide precisely what's before us and not say a whole lot more than that — which isn't all that unusual for how the court operates, particularly when it's dealing with an area like this that the court knows it's not the body with the great expertise."

Kindall lamented that the rulings did nothing to answer a policy question: "whether markets answer all questions."

"The markets have done a tremendous good," she said. "Connecticut is deregulated and [I] was a little offended by the idea that the only way to ensure reliable energy was to reregulate, which was one of the suggestions in *Hughes*. That struck us as a really wrong tack to take. ... The question becomes, if you have a market failure, how do you address it? That will have to be a [discussion] between the federal agencies and state agencies."

Not Identical

Minzner distinguished between the *EPSA* ruling, which he said was about the scope of the Federal Power Act, and the other two cases, which deal with "core Constitutional" questions about the meaning of the Supremacy and Commerce clauses.

"Those are related questions but I don't think they're identical," he said.

Kindall said *EPSA* (14-840, 14-841) was decided less on principle than practicality — the potential loss of demand response from wholesale markets.

"I think that was really what was guiding [the court] — and the fact that the states weighed in. They weren't there saying protect their jurisdiction. ... [They] said FERC absolutely should be able to do this as well [as the states]. You can sort of slice and dice all the legal analyses, but I think at the bottom that was what was really going on."

"We did have a few states on our side too," Murphy interjected, prompting laughter. But she said she agreed with Kindall's analysis.

"When you look at the way the court was thinking about it ... this is happening in FERC's market, and how else can we make sure that this happens in FERC's market if FERC can't control it? Which is a little bit divorced from a starting principle of: 'Is it wholesale or retail?'"

Field or Conflict Preemption?

Caplan said he believed the *Hughes* ruling was based on broad "field preemption" grounds — that it was an intrusion into exclusive federal jurisdiction — rather than the narrower "conflict preemption" — that it undermined FERC policy.

"It seemed that the court explicitly declined to consider what the effects on the wholesale market were, which would have been

Continued on page 4

Energy Bar Association Annual Meeting 2016

Future Grid is Here — Almost

By Rich Heidorn Jr.

WASHINGTON — A standing-room-only crowd got a glimpse of the grid of the future — and what's keeping us from getting there — at last week's Energy Bar Association Annual Meeting.

The session was titled "Tomorrow's Grid is Here." But in their description of the technical, regulatory and behavioral obstacles, some members of the panel seemed to want to add the word "almost."

"Electricity is a public good. Yet the system we've got is going through a huge transformation and from my perspective there's no one at the helm," said **Malcolm Woolf**, former head of the Maryland Energy Administration who is now senior vice president with Advanced Energy Economy, a national business association.

"Utilities are doing exactly what they're supposed to do based on historic incentives, but those may not be right for what we want today. The federal government is largely deferring to the states … and the states don't really have the capacity to drive this. They don't really know what they want.

"With the exception of a few states like New York and maybe California and Hawaii … I don't think those conversations are going on."

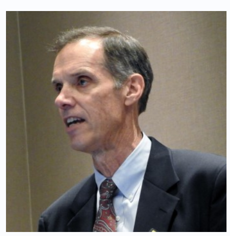
Not an Extension Cord

Woolf said policymakers need to stop thinking of the grid as "a long extension cord" with centralized generation and one-way power flow to a "market-maker network … where you've got a lot of distributed generation, a lot of centralized generation, all integrating to help our reliability and resiliency."

Corporate America has moved more quickly than regulators, Woolf said. "Sixty percent of the Fortune 500 have renewable and climate goals, yet it's only a handful that are going to be able to do deals because in most of the country it's really hard to do deals. In North Carolina, the SolarCity — solar leasing — model is not legal. In Maine [and] still vertically integrated states, you can't do offsite [power purchase agreements]. Talk to eBay who passed an offsite PPA bill three or four years ago in Utah and still hasn't been able to get the project up and running.

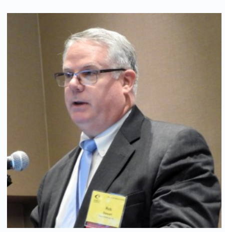
The "MGM [Grand hotel and casino] in Vegas has just decided to go off grid and pay a massive $80 million penalty to NV Energy because they just want to self-generate," he continued. "There's a whole array of state barriers because no one thought that business wanted their own solution."

Among the speakers was Deputy U.S. Assistant Energy Secretary **Michael Pesin**, who described the "three-legged stool" of research and development: technology, policy and markets.



Rudolph G. Terry, director of the Philadelphia Industrial Development Corp., gave a presentation on the conversion of the Philadelphia Navy Yard from a defense installation to an urban industrial campus with its own microgrid.

Providing the utility perspective was **Robert Stewart**, manager of smart grid and technology for Pepco Holdings Inc.



Pepco has 26,000 net metering customers (360 MW of solar capacity) and is receiving 1,000 applications a month. It can't accept them in some rural areas of New Jersey served by 12-kV lines. "We have five feeders that were closed [to new solar]," he said, adding that technical fixes will allow at least some to reopen eventually.

Impact of Electric Vehicles

Stewart also talked about the potential impact of electric vehicles, and how to make them practical for low-income drivers who could benefit from their low maintenance and operating costs.

"The problem is most of these people live in multi-dwelling units. They can't have their own charger. So rather than try and solve the issue with multi-dwelling units, if you gave them access to a charge someplace else — workplace charging through DC direct fast charge, [or] they stop and get a cup of coffee [and] top it off — it's more like an appliance to them."

Pepco faces another challenge in older, wealthier suburbs with high concentrations of EVs, such as Maryland's Montgomery and Prince George's counties. Because EVs draw about half the power of a full home load, such areas are at risk of overloading their transformers, Stewart said.

Based on a pilot program, Pepco believes most EV drivers will plug in between 4 and 8 p.m., increasing the afternoon peak load.

The company hopes to spread the load through time-of-use rates, which Stewart said could save the owner of a Nissan Leaf $300 a year. But utilities have a hard time making their case, he said.

"Even though you sit there with the numbers and you try to prove to them all you have to do is not charge between noon and 8 p.m. and you get [savings], the customer still is not with you," he said.

"They think there's something behind the scenes. It's too good to be true and the utility is really just trying to rip them off."

Supreme Court Frustrates EBA

Continued from page 3

necessary if the courts were applying the conflict preemption," he said.

Murphy and Minzner agreed that the ruling seemed to be based on field preemption.

Murphy also offered a defense of the court's refusal to draw bright jurisdictional lines. "While I think it's frustrating to people who practice to not have this clear guidance from them … I do think that [the court's] reluctance to provide it is animated by their decision that it's better to not give totally clear guidance than to mess it all up in an area that they don't understand as well as all the people in this room do."

"A refreshing breath of humility," Caplan quipped.

Energy Bar Association Annual Meeting 2016

After Years of Questions, Interconnection Customers Await Answers

By Rich Heidorn Jr.

WASHINGTON — FERC has been asking questions about improving the transmission interconnection process for eight years.

"There will be a point where we stop asking questions," FERC's **Arnie Quinn** promised during a panel discussion at the Energy Bar Association's Annual Meeting last week.

That point will come after the commission reviews the transcript of last month's technical conference on the subject and the post-conference comments it is now soliciting.

The commission's questions started in 2008, when it asked the RTOs to make proposals to reduce interconnection backlogs (AD08-2). The grid operators offered a number of changes, including clustering interconnection studies by location and establishing development milestones to weed out projects not progressing toward commercial development.

But the changes haven't ended developers' complaints about study delays or the difficulty in predicting interconnection costs. At the technical conference, transmission operators countered that the delays are caused by the high number of speculative interconnection requests, which force them to conduct restudies when a project drops out of the queue. (See *Generators, Tx Operators Spar over Interconnection Processes Before FERC*.)

Post-conference comments are due June 20 (RM16-12, RM15-21).

After that, the commission could respond with a prescriptive rulemaking, a policy statement — which wouldn't require transmission operators to make any changes — or a hybrid of the two, said Quinn, director of FERC's Office of Energy Policy and Innovation.

"The difficulty with this topic … is it's fairly straightforward to define the problem," Quinn said. "Identifying the solutions that are going to work everyplace — that's the harder nut to crack."

Incremental, Comprehensive Changes Sought

Last month's conference was called in response to a rulemaking request by the American Wind Energy Association, which argued that existing interconnection rules are outdated and discriminatory.

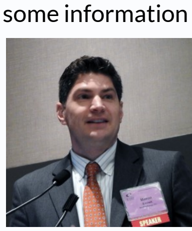
Panel moderator John Moore, of the Natural Resources Defense Council, opened the EBA session last week by quoting from Invenergy's testimony at the conference, in which the company related its experiences on the length of the interconnection processes: SPP (one year); PJM (two years); CAISO (two and a half years); MISO ("has seldom taken less than three years"); and NYISO (as long as six to seven years). "An interconnection process lasting three years or more can kill even the most serious of projects," Invenergy's Kris Zadlo said.

Quinn said he concluded from the conference testimony that developers are seeking both incremental improvements — including more access to models and the ability to self-construct interconnection facilities — and more comprehensive changes.

The comprehensive proposals are more controversial, Quinn said, citing a call for closer coordination between the transmission planning and the interconnection processes. "Instead of serially studying a bunch of projects over time, just identify an area on the transmission system where you'll need some upgrades. Using the transmission planning process to do that might smooth the interconnection process," Quinn explained.

The controversy? "Transmission is usually paid for by load; interconnection upgrades are typically paid for by the interconnection customers. So that can look like a cost shift, and — especially where the states are involved — they might want a say in the degree to which that cost shift occurs," Quinn continued.

Another suggestion is to cap interconnection cost estimates at an early stage in the interconnection process, as CAISO is doing. "If the interconnection customer can get some information on cost that can feel firm, the interconnection customer can keep moving on," Quinn said.



Panelist **Mason Emnett**, a federal regulatory attorney for NextEra Energy, had his own wish list. He said he would like RTOs to provide developers with information on their overloaded facilities. "Our transmission engineers can use that to go back to developers to give them a reality check and say, 'This is what you're facing.'"

Storage

Emnett also called for refinements in the modeling of storage resources. "RTOs generally consider the storage to be operating at full output — full discharge — at the worst time of the system, which generally is not going to be the time that the storage asset is operating that way."

But he said storage doesn't need an entirely separate process, either. "Nobody really loves [the current process]. The TOs don't, the RTOs don't, the generators don't. But I'm not sure how you come up with a different one for storage because the question that's being answered is largely the same: Are you changing the nature of the flows on the system? And what [is] the technical configuration of the equipment that you're interconnecting and how does that interact with other things?"

More Flexibility Needed

Emnett said RTOs should provide more flexibility, praising MISO's "net zero" policy.

"We've put some batteries on existing wind sites that had excess interconnection rights so that interconnection rights had already been studied at a certain level but they weren't being fully utilized. In our mind, why can't you just stick another resource on? You don't have to go through the full study because all you're using is something you've already got."

He also cited PJM policy allowing interconnection customers to install more capacity than it has in injection rights. The interconnection service agreement requires that the customer limit its output. "If you burn down my wires you are responsible for everything," Emnett said, summarizing.

Even if it requires a special protection scheme, Emnett said, "it's going to be, in all likelihood, less expensive than upgrades and able to be implemented much more timely than the two and a half years to get a 10-MW storage project" approved.

Continued on page 6

Energy Bar Association Annual Meeting 2016

Lawyers Take an Economics Class: Capacity Markets vs. Scarcity Pricing

By Rich Heidorn Jr.

Left to right: Moderator Gregory Lawrence of Greenberg Traurig, William Hogan, David Patton, Sam Newell and Joe Bowring © *RTO Insider*

WASHINGTON — Four Ph.Ds. joined in a tag-team debate last week on the virtues of scarcity pricing versus capacity markets in a panel discussion-cum-economics seminar at the Energy Bar Association's Annual Meeting.

It's unlikely any of the combatants, who have often sparred each other, came away with any different opinions. But the repartee was no less sharp for the familiarity.

William W. Hogan, research director of the Harvard Electricity Policy Group, staked out the energy market-only pole of the debate, repeating his argument that capacity markets are unnecessary if the energy and ancillary services markets "get their prices right."

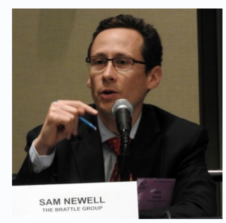
"Life is too short to spend your time trying to perfect capacity markets," Hogan said.

PJM Market Monitor **Joe Bowring** said Hogan's vision is unrealistic. "It's easy enough to say in a theoretical world that scarcity pricing should take care of everything. But we have yet to see that demonstrated in the real world," he said.

Administrative Determinations

Bowring also attempted to puncture any notion that scarcity pricing is much simpler than capacity markets.

"Let's not pretend that scarcity pricing is some automatic market mechanism that will simply take care of problems without an intervention," he said. "It is equally administrative as capacity markets — just different. You still have to determine … the appropriate net revenue. And it's a lot trickier than it sounds."



Sam Newell, a principal with The Brattle Group, challenged Bowring's assertion.

"Although the pricing in an operating reserve demand curve [ORDC] is administratively determined, actually there's less administrative determinations than in a capacity market because you're just saying what the prices should go to under certain real-time operating conditions."

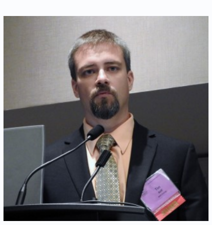
Continued on page 7

After Years of Questions, Interconnection Customers Await Answers

Continued from page 5

Standardizing the Process

The panel also discussed whether the commission should order more standardization in the grid operators' interconnection processes.



"I hope FERC will allow regional differences," said panelist **Tim Aliff**, MISO's director of reliability planning. He noted the RTO operates in 13 states. "So we have 13 different opinions of how things should be done."

Aliff also responded to Invenergy's description of interconnection timelines. "I do take exception to the [assertion that MISO takes] 'no less than three years' because it depends on where you are in our footprint," he said.

In March, FERC rejected the RTO's proposed changes to its queue process, saying they assumed the current backlog could be blamed on "speculative" projects and "fail[ed] to consider other potential factors" (ER16-675). The commission also said a proposed milestone payment could create barriers to entry for smaller developers. (See *MISO Queue Changes on Hold Pending Technical Conference*.)

Aliff said that in addition to working on revisions to its proposal, MISO is considering how it can accommodate additional wind growth.

In 2011, MISO approved multi-value projects (MVPs) designed to serve 26 GW of wind. The RTO has 15 GW of installed wind and another 10 GW in the queue.

"So if all of this generation were to interconnect and actually start generating, then we would be at the capacity or close to the capacity of our MVPs," he said. "So now we're kicking off the process to say what's the next step in this? We may or may not come out with MVP-like projects, but we want to get ahead of [the demand] again. We want to look at what the Clean Power Plan is going to do."

Energy Bar Association Annual Meeting 2016

Lawyers Take an Economics Class: Capacity Markets vs. Scarcity Pricing

Continued from page 6

In a capacity market, he continued, "You have to decide what is the reliability concept you're meeting. Is it summer peak? … You have to decide how different resources can qualify to meet that and so there's a lot more administrative determinations."

Concern over Volatility of Revenue Stream

David Patton, whose Potomac Economics provides monitoring services in MISO, ISO-NE, NYISO and ERCOT, expressed concern over the volatility of generators' revenue streams under scarcity pricing.

"Unless you're willing to price shortages at $200,000/MWh, you're not going to meet your planning requirements with the energy market alone," he said.

"Shortage pricing is not like a capacity market where you're going to get a level of revenue that might fluctuate by 10 to 20% a year. With shortage pricing, you might get 10 years of revenue in one year and then the other nine years the generators are going to think they're going bankrupt."

This is because shortage prices "increase exponentially when you get unusually hot weather and unusually high loads or unusually poor generator performance," Patton said. "Look at ERCOT in 2011 and compare the number of shortage incidents you had in that year to the prior 20 years."

That could lead to constant tinkering, Patton said. "You don't want policymakers to jump in when it's not producing revenues for a number of years. You also don't want them to jump in in the year when it produces $20 billion of revenue," he said. "Because that's what you signed up for."

Bowring added another potential negative consequence.

"What will happen if you go through eight years of very low revenues under scarcity pricing … and a significant number of units decide to retire because they can't see into the future? They don't know if [in] the ninth or 10th year there's going to be $20 billion. They retire if the revenues aren't adequate.

"There's a level of risk associated with scarcity pricing that differs from capacity markets, which is why the optimum might be to have more revenues in the scarcity pricing but not 100% of expected revenues," Bowring said.

> **"Let's not pretend that scarcity pricing is some automatic market mechanism that will simply take care of problems without an intervention."**
>
> **Joe Bowring, PJM Market Monitor**

Locational Issues

Bowring said he agreed with the need for scarcity pricing but said it "is done very ineffectively now" in PJM because the ORDC hasn't been made "adequately locational."

"Scarcity doesn't work if it's an aggregate, because you can be long aggregate in PJM or other big RTOs or ISOs and be very short in particular places," he said.

Joint Optimization

ERCOT has a different problem, said Patton: a failure to jointly optimize the energy and shortage markets so that the ISO can price transitory shortages.

"We perpetually undercompensate units like pump storage units, combined cycle units. They're way more valuable for reliability because they can ramp fast," he said. "But if you don't reveal the true state of the system in every five minutes you undercompensate them."

Market Mitigation

Hogan sought to allay what he called a misconception that shortage pricing is incompatible with price caps and other market mitigation measures.

"The advantage of this operating reserve demand curve … is that prices go up because of the scarcity of reserves. They don't go up necessarily because of high offers by the generators. So it is completely compatible to have offer caps — which are dealing with market power problems with generators — that are set by their variable cost of operation. You could have a $500 offer cap, say, on generators and then you have the operating reserve demand curve that is setting the price and the price is $3,000/MWh.

"All of the market mitigation … continue to exist. You don't have to get rid of that," he continued. "If you don't have the operating reserve demand curve, offer caps depress the price and do all kinds of bad things."

Changing Conditions

Newell said scarcity pricing may be better suited to respond to changes facing the industry.

"With variable energy resources suppressing energy prices — creating over-generation sometimes on the one hand, ramping shortages on the other — the nature of reliability is changing, and it's not just about summer peak.

"And that is another reason why I want to second what Dr. Hogan said. It is better to get the prices right — reflecting real-time conditions and telling the market what you need, when you need it — rather than just having a narrow administrative idea of reliability. So I would like to see more money moving into the energy and ancillary services markets and out of the capacity markets."

> **"Life is too short to spend your time trying to perfect capacity markets."**
>
> **William Hogan, Harvard Electricity Policy Group**

CAISO NEWS

Berkshire Market-Based Sales Restricted in 4 Western BAAs

By Robert Mullin

FERC last week revoked authorization for Berkshire Hathaway Energy subsidiaries to sell wholesale power at market-based rates in four neighboring balancing authority areas in the West.

The commission ruled that Berkshire failed to prove that its affiliates — which include PacifiCorp, NV Energy and 19 other generating entities — do not exercise horizontal market power in the PacifiCorp East (PACE), PacifiCorp West (PACW), Idaho Power and NorthWestern Energy areas (ER10-2475, *et al.*).

"In the absence of reliable delivered price test (DPT) analyses rebutting the presumption of market power, we find that the continuation of the Berkshire [subsidiaries'] market-based rate authority in these four balancing authority areas is not just and reasonable," the commission said.

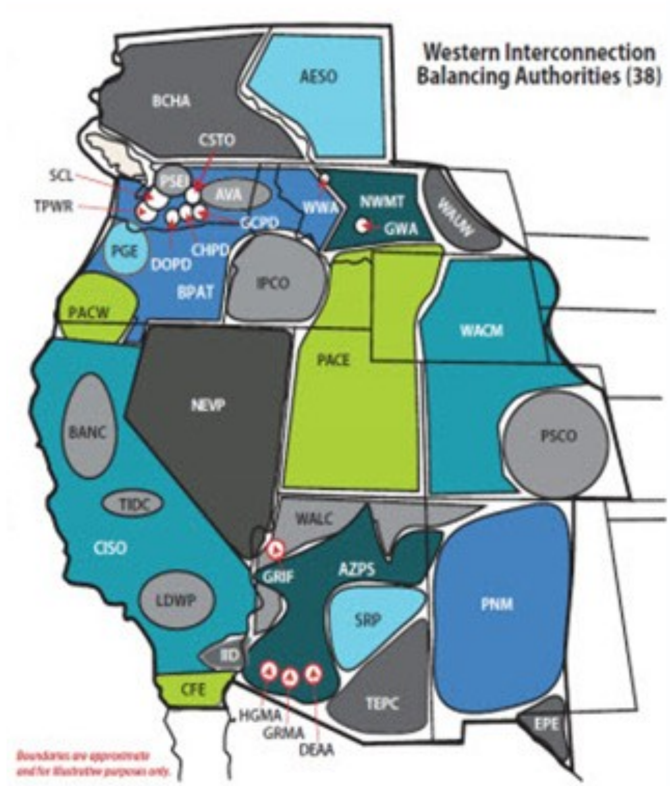
FERC ordered the companies to file revised tariffs limiting their market-based sales to regions outside the four areas within 30 days. The companies must also issue refunds for the period between January 9, 2015, and April 9, 2016.

The decision left intact Berkshire market-based rate authority in the Arizona Public Service, Bonneville Power Administration, Los Angeles Department of Water and Power, Western Area Power Administration Colorado-Missouri and WAPA Lower Colorado balancing authority areas, as well as in CAISO.

Berkshire companies are already prohibited from selling power at market-based rates in the NV Energy area covering most of Nevada.

FERC's ruling marks the second such setback for Berkshire in less than a month. In May, the commission declined to rehear a 2015 decision that prohibits PacifiCorp and NV Energy from offering energy into the Western Energy Imbalance Market (EIM) at prices above default energy bids because of concerns about the companies' combined market power. (See *Berkshire Denied Rehearing on EIM Market Power*.)

The June 9 order stems from Berkshire's 2013 acquisition of NV Energy, which put Warren Buffett's energy conglomerate in control of more than 19 GW of generation serving states throughout the western U.S. In light of the acquisition, the commission instituted a Section 206 proceeding requiring the Berkshire companies to submit evidence that their market-based rate authority remained valid in the four areas in question.



Boundaries are approximate and for illustrative purposes only. *Source: Western Electricity Coordinating Council*

While the Berkshire companies failed the indicative "pivotal supplier" and "wholesale market power" screens for initially assessing horizontal market power in the four areas, FERC policy allows a power supplier to rebut that presumption by performing a more thorough DPT analysis. The DPT factors in native load commitments to determine a supplier's "available economic capacity" — energy available for offer in the open market — over 10 different seasons and load conditions. The analysis must also consider the load commitments for and available supply from other generators in the region.

FERC's decision to revoke Berkshire's market-based rate authority ultimately rested on what the commission called a "flawed" DPT analysis from the company. The commission focused in particular on Berkshire's failure to calculate unique season and load levels for each of the four areas, instead relying on assumptions based on data for only the PACE area.

One example cited by the commission: "In the Idaho Power balancing authority area, Idaho Power would likely not be a competing supplier in certain season/load levels in the [available economic capacity] analysis, even though it is listed as having the most competing capacity in many of the season/load levels.

"The Berkshire [companies] are attempting to demonstrate that they do not have market power in four different balancing authority areas," the commission continued. "In order to do so, the DPT analyses submitted by the Berkshire [companies] should have used inputs, assumptions and facts appropriate to the unique characteristics of each balancing authority area when studying that particular area."

As a result of the decision, the Berkshire companies must each submit tariff revisions providing for default cost-based rates for the PACE, PACW, Idaho Power and NorthWestern areas — or inform the commission of their intention to use any cost-based tariff currently on file.

PacifiCorp — the largest Berkshire entity affected by the ruling — told *RTO Insider* that it continues to review the order but expects "limited impact" because of the small number of transactions involved.

"The bulk of PacifiCorp's wholesale sales occur at trading hubs that are outside the areas affected by the order, or within the Energy Imbalance Market, which is also not impacted by the order," spokesman Bob Gravely said.

CAISO NEWS

Low Gas Prices, Increased Solar Undercut CAISO 2015 Power Costs

Solar Generation Passes Wind

By Robert Mullin

Wholesale power costs in CAISO fell sharply last year as lower natural gas prices, increased solar generation and reduced loads more than offset the impact of a steep decline in hydroelectric output, according to a report from the ISO's Department of Market Monitoring.

The ISO's total cost of serving load decreased 31% to $8.3 billion in 2015, compared with $12.1 billion the previous year, the department said. Average wholesale costs dropped to $37/MWh from $52/MWh in 2014.

"Declining gas prices clearly had a role in the decrease," Keith Collins, CAISO manager of monitoring and reporting, said during a June 7 call to discuss the report.

Collins noted that the 40% decline in California gas costs followed a national trend, with SoCal Citygate and PG&E Citygate prices falling along with the benchmark Henry Hub price. He also pointed out that, controlling for gas prices, CAISO power costs were down only 6% year-over-year, a decrease likely attributable to a sharp rise in output from low-cost solar. Lower congestion and increased virtual supply — which improved convergence between day-ahead and real-time prices — added downward pressure, the department said.

Last year also saw a seemingly contradictory movement between total loads and peak loads, with the former down and the latter up. Collins noted that a September heat wave produced CAISO's highest annual peak load in five years, up nearly 5% from the 2014 peak.

Total and average load fell slightly for the year, continuing a trend of modest declines since 2012. The department attributed the drop-off to the growth of rooftop solar capacity, which the ISO estimates may have reached 4,000 MW last year.

Grid-connected solar reached a milestone in 2015, surpassing wind to become the largest source of renewable generation in the CAISO system. Solar output increased 38% during the year and accounted for nearly 7% of system energy. Wind output fell slightly, accounting for 5% of total supply. In 2014, solar provided less than 5% of system energy, below wind's 5.6%.

Geothermal generation also accounted for about 5% of supply, gaining 24% over the previous year. The department attributed the increase to a group of geothermal units formerly outside CAISO's footprint coming under its control.

In total, non-hydro renewables accounted for 18% of supply — not counting renewable imports — compared with 40% from natural gas and 8% from nuclear. Hydro (5%) and imports (28%) made up the balance.

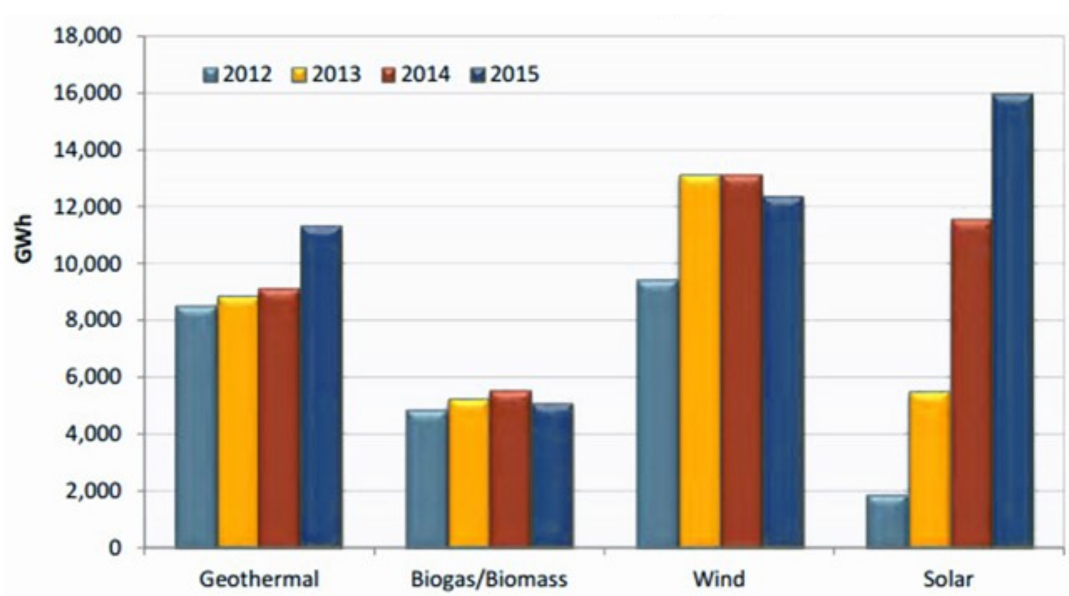
While NV Energy did not join the CAISO-run Western Energy Imbalance Market (EIM) until the final month of 2015, Collins reiterated the ISO's observation that the utility's membership quickly unified what was previously a fractured market. (See *NV Energy Has Smooth EIM Integration, CAISO Says*.)

"The inclusion of Nevada really changed the dynamic of the market," Collins said. The increased transfer capacity from NV Energy's transmission network has significantly improved the link between CAISO and the PacifiCorp East (PACE) balancing area, creating more uniform pricing for imbalance energy, he said.

"We see the optimization creating a one-EIM price for those regions," Collins said.

Other highlights of the report:

- Hydroelectric output dropped for the fourth straight year in the face of extreme drought, falling to one-third the 2011 level. Snowpack in the Sierra Nevada mountains — a natural store for run-of-river hydro operations — was at 3% of normal on May 1, 2015.
- Net imports fell 2% from 2014, mostly because of decreased imports from the Southwest. The department said the drop-off likely stemmed from lower price differentials between Southern California and the Palo Verde trading hub in Arizona.
- Intervals of negative pricing in Southern California during the second quarter were attributed to combined surpluses of wind and solar generation during a period when outages on the Path 15 transmission line limited flows to the northern part of the state. Negative prices in the 15-minute market occurred in about 4.7% of intervals during that quarter, compared with an average of 2% for the year.



Renewable generation by type *Source: CAISO 2015 Annual Report on Market Issues & Performance*

ERCOT NEWS

Texas PUC Opens Rulemaking on Smart Meter Web Portal

By Rory Sweeney

AUSTIN, Texas — If it's not completely broken, it doesn't need a complete fix, the Public Utility Commission of Texas decided last week.

The commission has been considering whether ERCOT should assume oversight of the web portal for customers' smart meter data or if it should remain under the control of Smart Meter Texas (SMT), an entity created by a coalition of transmission and distribution utilities (Project No. 42786). (See <u>Oversight of Smart Meter Data Debated at ERCOT</u>.)

The commissioners agreed at their open meeting Thursday with a recommendation by PUC staff that it open a rulemaking proceeding to reconcile data discrepancies but also limit operating-cost increases.

According to the staff, transferring authority to ERCOT would ensure that the interval data on SMT matched better with the data the ISO uses for market settlement. However, that move would also increase operating costs while simultaneously reducing the timeliness of delivering consumption data to the market.

The staff recommended that ownership of SMT remain with the transmission companies, but that the rulemaking consider the entity's governance, performance and funding. Additionally, the data that goes to SMT would come directly from ERCOT so they match.

While all three commissioners agreed with the staff's plan, Commissioner Kenneth W. Anderson Jr. stressed the importance of carefully delineating third-party access to customers' data on the site. He told staff "not to languish but to move expeditiously."

Fixing these issues are "important to the continued development of responsive demand in the ERCOT market," he continued, adding that new technologies exist to help overcome the problems. Chief among his concerns was maintaining privacy and ensuring that consumers provide "knowing consent" when allowing third parties to access their data.

Chairman Donna L. Nelson cautioned that they not "overregulate and stop this market from evolving" and charged the PUC to "go forth and do good."

ERCOT NEWS

Public Utility Commission of Texas Briefs

Unusual Transmission Line Siting Approved

AUSTIN, Texas — The Public Utility Commission of Texas approved a plan for a hybrid above/below-ground transmission line in the City of Frisco (Docket No. 44060). The project was notable for the financial commitment the city offered to bury the majority of the line. (See *Texas PUC OKs Undergrounding Tx Line; City Agrees to Foot Cost*.)

While the all-underground route would have cost more than $34 million — nearly $29 million more than the all-overhead route the PUC preliminarily approved — the city has agreed to pay approximately $13 million of the extra cost to have the lines buried in conjunction with an upcoming road-widening and waterline-installation project.

The cost savings of coordinating the projects was factored into the city's calculations, along with other implications, such as where the project will be sited. The city contended that Brazos Electric Cooperative, the utility overseeing the project, would have had to pay for the right of way, but said it would donate it if the line was sited underground. This, along with some design modifications, brought the cost difference to approximately $4.3 million.

Briefs for 'Precedential' Decision

Commissioners called for parties involved in a substation-siting dispute to provide briefs on whether the PUC has jurisdiction in the case (Docket No. 45175). The Colony, a city near Dallas, is arguing that it has jurisdiction under the state's Public Utility Regulatory Act to determine where the station can go. The local electric co-ops — Brazos and Denton County Electric — believe the PUC has authority under a different section of the same law.

Chairman Donna L. Nelson said the call for briefs in what she called a potentially "precedential" case was very wide to "get to the real heart of the conflict."

Commissioner Kenneth W. Anderson Jr. said the commissioners gain much more insight from back-and-forth replies to other briefs, where the parties tend to "savage" each other.

'More Meat' Needed for New Interconnection Rule

The commission also adopted a rule to comply with several statutes that affect the paperwork necessary to tie into ERCOT's grid (Project No. 45124). However, Anderson requested that, following the final approval, PUC staff open a new rulemaking process "to clarify the gaps that the statute doesn't cover." He said commission rules should delineate, among other things from the statute, what ERCOT should study to meet its need and reliability criteria, the impact on ERCOT's market and the process to receive approval for a DC tie into the system.

All of these could have unforeseen consequences. For example, commenters pointed out that ERCOT's handling of DC ties could — if too broadly defined — affect ERCOT's independence from FERC jurisdiction.

"We need to put a little more meat on the bones of this rule because it's not like the normal transmission asset," he said.

'Deceptive' Offers on Customer-Choice Website

Saying that she continues to be "bothered" by "deceptive" offers on the website customers use to choose a power generator, Nelson announced a stakeholder meeting in her office June 21 to address the issue (Project No. 45730).

"Sometimes, I think things move a little faster when a commissioner gets involved," she said. "The Power to Choose website kind of needs some work right now. The whole concept of choice doesn't work if customers aren't educated about what they're buying."

Anderson said he's still "convinced" of the necessity of the website and that the only questions are exactly what might change. He said he uses it to shop and has always paid less than the last regulated rate.

The commissioners cautioned retail energy providers against putting out offers that are significantly below cost or whose rate requires meeting unreasonably specific consumption targets. However, they also disapproved of requiring retail electric providers to create standardized offers, saying those would be anti-competitive.

© RTO Insider

Though the site isn't perfect, Commissioner Brandy Marty Marquez urged consumers who are overwhelmed by the shopping process to request a tutorial from PUC staff, who find it "one of the most exciting things" to do, she said.

'Shock' over SPP Z2 Billing Plans

Marquez said it was "shocking" that SPP plans to request repayment over 10 months of transmission upgrades that were approved over a period of more than eight years. (See related story, *Z2 Project Faces Further Hurdles, Possible Delay*, p.27.)

The commissioners said they were concerned for ratepayers shouldering the burden of the repayments over such a short period.

Additional Actions

The commission also:

- Approved applications by American Electric Power's Texas affiliates, Texas New Mexico Power, Oncor, CenterPoint Energy and Sharyland Utilities to adjust their energy-efficiency cost-recovery factors.
- Returned to an administrative law judge the application by Luminant and Oncor to transfer ownership and administration of the decommissioning trust for Comanche Peak Nuclear Power Plant. The application was based on a plan that is being changed and resubmitted by the bankruptcy court overseeing the decommissioning process, so it needed to be revised.
- Approved publishing a proposed rule on how distributed generation facilities can connect to the grid (Project No. 45078). The proposal would allow interconnection agreements to include the end-use customer, the owner of the DG facility, an owner of rights to energy produced from the DG facility or the owner of the premises at which the DG facility is located.

— Rory Sweeney

ERCOT NEWS

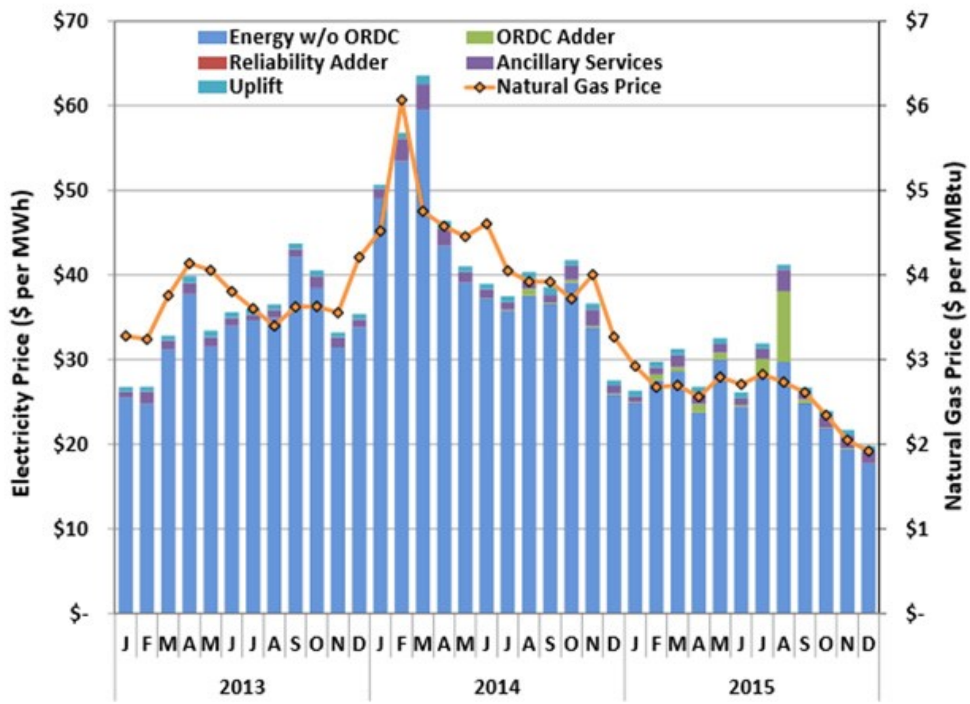
ERCOT IMM: Low Gas Prices Reduce Costs, Congestion Revenue

By Tom Kleckner

ERCOT's Independent Market Monitor said the market "performed competitively" in 2015, with low natural gas prices helping reduce energy costs and congestion revenue to record lows.

Potomac Economics' annual State of the Market report, filed with ERCOT and the Public Utility Commission of Texas, said the ISO's average real-time energy price fell 34% last year to \$26.77/MWh, eclipsing 2012's prices (\$28.33/MWh) as the lowest annual energy cost since the nodal market came online in December 2010.

The drop was fueled by average natural gas prices 41% lower in 2015 than 2014, falling from \$4.32/MMBtu to \$2.57/MMBtu. The Monitor said the correlation between gas prices and energy costs is to be expected in a "well-functioning, competitive market," as "fuel costs represent the majority of most suppliers' marginal production costs."



Average all-in price for electricity *Source: Potomac Economics*

"Suppliers in a competitive market have an incentive to offer supply at marginal costs, and natural gas is the most widely used fuel in ERCOT," the Monitor said.

Lower gas prices also contributed to a \$352 million decrease in congestion revenue, down 50% from 2014's record \$704 million, despite a similar number of binding constraints as the year before. The total was more than \$100 million lower than the previous low for congestion costs.

"This is largely due [to] the significant reduction in natural gas prices and the cumulative benefits of large investments in transmission facilities," the Monitor said, noting gas units are typically re-dispatched to manage system flows.

The report also indicates ERCOT's average real-time load was up 2.4% from 2014 — the ISO set a new hourly demand record of 69,877 MW on Aug. 10 — but that shortages were "rare" and planning reserves were above the minimum requirement. However, the Monitor said the market's net revenues were less than the amount needed to support construction of new gas units. It calculated net revenue for new gas turbines last year at \$23 to \$29/kW-year, far below the necessary \$80 to \$95/kW-year.

The Monitor found both nuclear and coal units to be money losers in 2015. The ISO's four nuclear units' generation-weighted average price was \$24.56/MWh in 2015, compared to the Nuclear Energy Institute's estimated operating costs of \$27.53/MWh last year. Coal and lignite units averaged \$25.94/MWh prices, compared with the Monitor's assumed fuel-only operating costs of approximately \$30/MWh.

"This is significant because the retirement or suspended operation of some of these units could cause ERCOT's capacity margin to fall below the minimum target more quickly than anticipated," the Monitor said. It currently predicts ERCOT's reserve margin will stay above its 13.75% target "for the next several years."

The Monitor acknowledged ERCOT made several improvements to its market in 2015 in response to its recommendations, but it said three suggestions from last year have yet to be addressed. It recommends ERCOT:

- Implement real-time co-optimization of energy and ancillary services;
- Modify the real-time market software to better commit load and generation resources that can be online within 30 minutes; and
- Price future ancillary services based on the shadow price — the system cost for the last megawatt of load — of procuring the service.

The Monitor also said the PUC should evaluate policies that create incentives for loads to reduce consumption for reasons unrelated to real-time energy prices, including the need for emergency response service (ERS) and the allocation of transmission costs. It said the "lucrative" ERS program limits the motivation for loads to participate and contribute to load formation in the real-time market, while rising transmission costs "significantly" increase the already substantial incentive to reduce load during the summer season's probable peak intervals.

"Both of these mechanisms provide strong incentives for load to act in ways that are not aligned with the most efficient electricity market outcomes," the Monitor said, "which are to ensure that the price continually reflects both the cost to provide (supply) and the value to consume (demand)."

ISO-NE NEWS

Maine PUC Staff Advises Against Pipeline Contracts

By William Opalka

Staff members are recommending that the Maine Public Utilities Commission not approve natural gas pipeline capacity contracts paid for by electric and gas customers.

An Examiners' Report released last week said market changes since the price spikes of 2014's polar vortex make it unlikely electric generators will make commitments for pipeline capacity in an effort to stabilize prices.

"The commission does not find that the market and rule changes to date are likely to alter the fact that the region's generators do not make long-term commitments for pipeline capacity," the report said, which is written as a draft order (2014-00071).

Maine's Energy Cost Reduction Act, passed in 2013, authorized the PUC to execute "energy cost reduction contracts" for 200 million cubic feet of natural gas costing up to $75 million a year, if it found that the contracts would save ratepayers money. The law allows the PUC to administer and resell the pipeline capacity.

The report said that much has changed since the law was passed and that historic low prices for natural gas have removed the urgency felt two years ago.

It cited incremental gas pipeline construction projects that are coming online as a source of supply. (See *FERC Denies Bid to Block Algonquin Pipeline Expansion*.) It also said the Pay-for-Performance program created by ISO-NE to encourage greater reliability from New England's power plants has altered the energy landscape by encouraging dual-fuel generation. (See *FERC Denies Rehearings on ISO-NE Pay-for-Performance*.)

The report comes two weeks after Kinder Morgan withdrew its application with FERC for the Northeast Energy Direct pipeline through New England, citing a lack of commitments from potential customers and an uncertain regulatory outcome for ratepayer financing.

"Hot on the heels of the recent downfall of Kinder Morgan's massive pet pipeline project, this is an important victory on the path to stopping the patchwork effort across New England to build a polluting pipeline on the backs of consumers," pipeline opponent Conservation Law Foundation said in a statement.

"We believe there is a strong case that electricity prices will be lower if the region has more gas pipeline capacity," Tim Schneider, the state's public advocate, told the *Portland Press Herald*. "This is why we supported Maine buying capacity as part of a regional effort. If Maine doesn't buy capacity, it puts the regional effort at risk."

Northern Pass, PUC Staff Reach Pact on NH Utility Designation

Northern Pass Transmission and New Hampshire Public Utilities Commission staff have reached a settlement that would allow the company to conduct business in the state as a public utility.

The settlement, filed with the PUC last week, must still be approved by the commission. It is contingent on the Northern Pass transmission line receiving all state and federal permits.

"NPT asks that the commission find ... that it would be for the public good for NPT to engage in business in those towns in which it seeks to construct an electric transmission line and associated facilities," the settlement says.

"We are pleased to have achieved this settlement that establishes the framework for the safe operation and maintenance of Northern Pass under New Hampshire regulations," said Bill Quinlan of Eversource Energy, NPT's parent company.

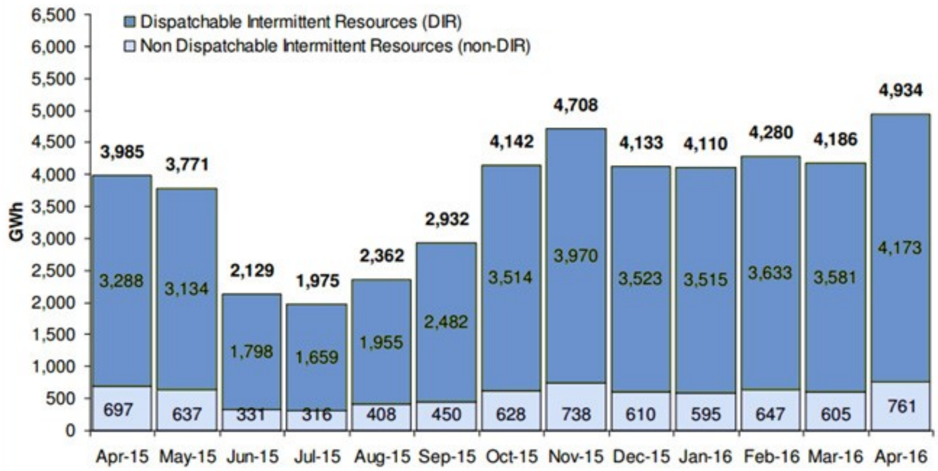
The settlement says the developer has the technical, managerial and financial expertise needed to conduct business in the state.

Also included in the agreement is a commitment from Northern Pass to provide $20 million, allocated from the developer's Forward NH Fund, for clean energy programs or economic development initiatives approved by the commission.

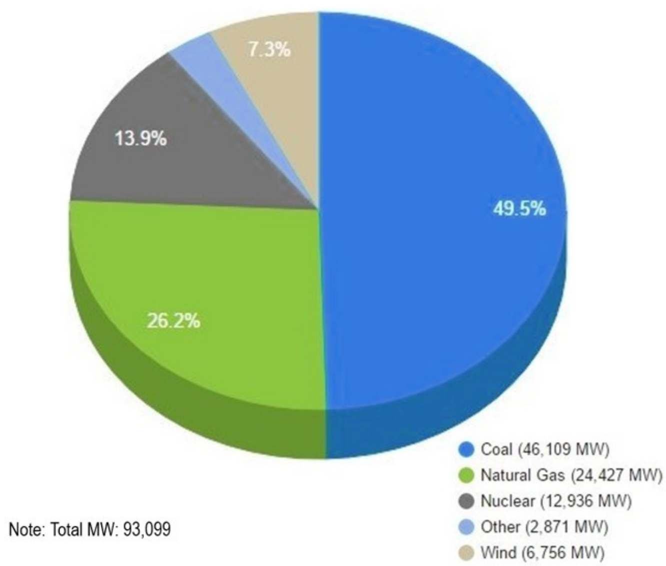
— William Opalka

MISO NEWS

RSC Briefs



Monthly wind energy generation *Source: MISO Market Evaluation and Design Department*



MISO resource mix on June 10, 2016 *Source: MISO*

Monthly Reports Show MISO Reliable Through Spring

Despite higher-than-normal temperatures and severe storms, MISO's grid remained stable over the months of April and May, Senior Manager of Dispatch Steve Swan told the Reliability Subcommittee last week.

Unit commitment was nearly perfect and there were no minimum or maximum generation events, Swan said in presenting the RTO's monthly operations updates. April's full report has already been posted, while May's will be online by June 21.

April's peak load was 79.5 GW, set on the 26th, while May's was 95.4 GW, set on the last day of the month.

A 14% jump in natural gas prices at the Henry Hub drove April's day-ahead energy prices up 16% to $22.49/MWh, but prices remained low because of MISO's "very strong wind production and low spring-time load levels."

Despite the uptick, MISO said natural gas costs were still 26% lower in a year-over-year comparison. Henry Hub prices averaged $1.91/MMBtu for April, up from March's average of $1.67/MMBtu but still lower than the $2.58/MMBtu average a year ago.

Wind turbines produced 4,934 GWh of energy in April, the highest ever for MISO. Wind's share of MISO electricity production was 10.9%, up from 8.8% in both March 2016 and April 2015.

Use of coal-fired resources continues to trend downward. Coal supplied 38.9% of April's total energy, down from 40.5% in March and 48.3% in April 2015.

Gas-fired generation was down slightly to 25.3% in April from 26.5% in March. The number still surpasses April 2015's 18.4% share.

MISO Wants More Response in Frequency Response

The RSC is concerned about the reliability of MISO's frequency response under a changing resource mix.

The RTO said changes to the fleet, including the retirement of baseload generation, development of utility-scale wind and solar units and increased demand-side resources, could impact its performance.

MISO adviser Ed Skiba said a coordinated issues statement would be submitted to the Steering Committee for consideration in its issues review process.

"Frequency response is one of our key issues. The main thing is we're trying to stay ahead of how the world evolves," RSC Chair Tony Jankowski said.

Skiba said staff has seen "overall improved governor response from the fleet" although there were missing answers in most of the 18 governor surveys returned by balancing authorities.

Results showed the average frequency response of the generation fleet was a -0.35% of capacity/0.1-Hz frequency change. MISO said a figure closer to -1%/0.1 Hz is ideal.

In the near term, Skiba said MISO plans to send an abbreviated survey, requiring a limited amount of data.

Monitor: Changes Needed for Reliability

While the Independent Market Monitor's State of the Market report for 2015 has not been released yet, Potomac Economics Vice President Michael Wander said the report will show that MISO needs market modifications to support reliability.

"Our State of the Market does reach a conclusion that changes are needed both for reliability and efficiency," Wander told the RSC. "Our results show a significant amount of generator commitment that is missing is actually being scheduled in the look-ahead process."

Wander said the appendix's aggregate data sets will be presented to MISO staff for analysis.

— Amanda Durish Cook

MISO NEWS

MISO: Auction Design July Filing Doubtful, 2017 Implementation in Question

By Amanda Durish Cook

MISO is unlikely to meet a July 15 target for filing its proposed competitive retail solution (CRS) with FERC, raising doubts that changes can be implemented in time for the 2017/18 planning year.

Jeff Bladen, MISO executive director of market services, said the timeline has been placed on hold while the RTO and its Independent Market Monitor attempt to strike a compromise.

Bladen announced the delay during a Monday conference call of the Resource Adequacy Subcommittee (RASC), where the RTO had intended to review draft Tariff language. “Given the ongoing working with the Market Monitor on alternative approaches … we did not post draft Tariff language,” Bladen said.

He said MISO will continue to work with the Monitor until a “hybrid” version of the competitive retail solution emerges. MISO’s Board of Directors ordered staff and Potomac Economics into negotiations late last month. (See *Board Orders Negotiation in Auction Disagreement*.)

Pressed by stakeholders, Bladen said a July filing is becoming “less likely.”

Audrey Penner, market access and regulatory affairs officer at Manitoba Hydro, asked when MISO would have to file in order to implement changes in time for next year’s capacity auction.

MISO RASC liaison Renuka Chatterjee said a filing targeting 2017/18 implementation could be submitted as late as September. But she added, “We feel the further we get away from July, the less likely a 2017/18 implementation is.”

Dynegy’s Mark Volpe said “a 2017/18 implementation is paramount to Dynegy” and asked that August be used to vet the hybrid resolution.

Seeking Common Ground

While both MISO and the Monitor want unique auction treatment and use of a sloped demand curve for competitive retail areas such as Southern and Central Illinois, the two differ on other key elements:

- The Monitor maintains the entire footprint can be kept on a prompt auction schedule and says MISO’s proposed three-year forward auction will create doubt in generators wanting to suspend or retire.
- The Monitor wants all planning needs represented with a sloped demand curve; MISO wants to use the sloped curve only in competitive retail areas.

“What we’ve been talking about is a prompt hybrid and a forward hybrid, and at some point we’re going to have to choose which one to present to FERC,” Potomac’s Michael Chiasson said.

“While I can speak to what has been proposed, I can’t talk about what a final proposal would look like,” Bladen said. “We simply don’t have one today.”

Whatever hybrid resolution results, Bladen said there is “no chance” MISO will support a forward auction for the entire footprint.

Bladen said he hoped to have an outline of a hybrid proposal by the RASC’s next meeting, June 29-30.

Ameren, Dynegy, Industrials Weigh in

Both Ameren Illinois and Dynegy say they prefer the Monitor’s proposal over MISO’s. In comments submitted to the RTO last week, Ameren repeated its call for a single Planning Resource Auction with the addition of a sloped demand curve for deregulated areas.

“Our position at this time continues to be opposition to the MISO proposal in favor of the concepts put forth by the IMM. … Our support of the IMM proposal is conditioned on reviewing more detailed information in the future, including any proposed tariff language and/or changing dynamics in Illinois,” the company said.

Dynegy says MISO’s proposal does not address minimum offer price rules or other means for mitigating buyer market power. “Dynegy would prefer MISO embrace the co-optimized prompt year-only CRS market design proposed by the IMM because we believe Dr. [David] Patton’s proposal lays out a viable foundation for efficient price formation,” the company said.

Illinois Industrial Energy Consumers repeated its earlier stance that the entire proposal is unwarranted: “IIEC continues to believe the MISO [proposal] is unnecessary for either Southern Illinois or the broader MISO footprint and would act to unduly subsidize generation resources at the expense of consumers even when the capacity market is not tight.”

Bladen called the feedback “helpful” but declined to address any specific points raised by the three entities. “Having that kind of well-thought-out commentary is very valuable as MISO has these alternatives on the table,” he said.

Avoidable Costs Filing Remains on Track

MISO’s announcement of the delay comes little more than a week after it again pushed back its schedule for proposed seasonal and locational auction constructs. Meanwhile, RTO officials said the FERC-required filing on avoidable costs is expected to take place as planned on June 28.

During the meeting, Chiasson reviewed Tariff language on technology-specific avoidable costs that relies on PJM’s default values and the monthly Consumer Price Index. (See *MISO Moves Forward on Auction Design; Seasonal Filing Delayed Again*.)

Sue Kelly, CEO of the American Public Power Association, said that mandatory capacity markets are coming under increasing scrutiny. “When Exelon, [American Electric Power], FirstEnergy and Duke all complain that these markets are not working, you know we are living in interesting times,” she said at APPA’s annual meeting in Phoenix on Monday. “The question is — what will replace these capacity constructs if and when they collapse of their own weight? We must stay vigilant to make sure public power utilities can continue to self-supply power to their retail customers.”

MISO NEWS

OMS-MISO Survey: Generation Shortfall Possible by 2018

Continued from page 1

"This is a crucial period given the amount of resources that have retired and will retire during the survey horizon."

Sally Talberg, OMS President

Lower Michigan could have 0.3-GW shortfall.

By 2018, the survey says, MISO will face a 0.4-GW shortfall if no "low certainty" generation — projects in the interconnection queue that have not signed interconnection agreements — are completed. Under the same worst-case scenario, the gap rises to 0.5 GW in 2019, 1.9 GW in 2020 and 2.6 GW in 2021.

Half of MISO zones are predicted to experience a shortfall by 2021, with only the Dakotas (Zone 1), Wisconsin and Upper Michigan (Zone 2) and MISO South (zones 8, 9 and 10) showing sufficient capacity. Zone 4 could have the largest shortage at 1.7 GW.

Under a best-case scenario that assumes all low-certainty resources go into commercial operation, the 15.2% planning reserve margin could be met throughout 2018-2021, reaching 16.9% in 2018, 17.1% in 2019, 16.1% in 2020 and 15.5% in 2021.

Worsening Forecast

Last year's survey predicted a 2.6-GW regional surplus in 2017, a 1.7- to 2.3-GW regional surplus in 2016 and a deficit by 2020. (See *MISO Survey: No Shortfall Until 2020*.)

Jennifer Curran, MISO vice president of system planning and seams administration, said the worsening forecast resulted solely from increased retirements, including those in Southern Illinois. (See *Dynegy to Shutter 3 Ill. Coal Plants; Blames MISO Market Design*.) The new survey appeared to be on track with last year's forecast, pegging the 2017 regional surplus at 2.7 GW, but calculations were adjusted to reflect recently announced retirements.

According to MISO staff, the survey took into account all recently announced retirements, including DTE Energy's planned retirement of eight coal-fired units in Michigan beginning in 2020 and the 2017 closure of Exelon's Clinton Nuclear Generating Station in Illinois. For the first time, the survey included merchant generators in addition to load-serving entities.

Time to Get to Work

During a Friday conference call, both Curran and Sally Talberg, OMS president and chair of the Michigan Public Service Commission, stressed that state officials and regulators and load-serving entities should be working on resource adequacy plans.

"I would note that the load-serving entities in Zone 4 can take action any time using bilateral contracts," said Curran, who also noted MISO's plan to change the capacity auction design for the zone. (See *MISO Moves Forward on Auction Design; Seasonal Filing Delayed Again*.)

"This is a crucial period given the amount of resources that have retired and will retire during the survey horizon," Talberg said.

MISO CEO John Bear said the RTO will continue to support "state regulators and members as they take necessary actions to ensure continued resource adequacy in 2018 and beyond."

Curran said MISO's flood of retirements is partially offset by lower demand, but that retirements are still outpacing new resource additions. She said while the number of projects in the generator interconnection queue has increased, the number of projects that complete the process and begin producing power "has remained flat." For 2017, the survey predicted 0.7 GW of high-certainty new resource additions.

"Firming up those planned generation interconnections is going to be important," Curran added.

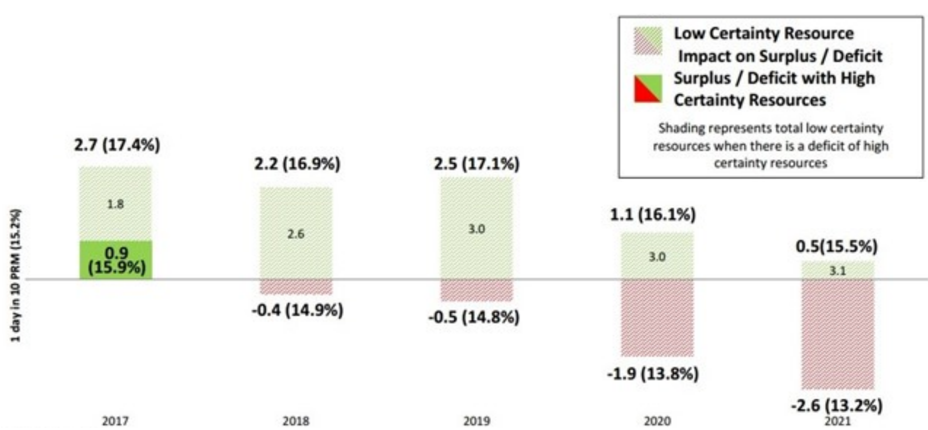
In 2017, the survey shows zonal transfer limitations keep some projected capacity from serving load elsewhere. Curran said the constraints in Zone 1 are being addressed with transmission construction and that MISO is in talks to identify a solution to the transfer limits between the North and South regions.

Disparity

During the conference call, multiple stakeholders questioned the survey's forecast, asking why the capacity auction results showed a larger surplus than the survey results for the second year in a row. (See *MISO's 4th Capacity Auction Results in Disparity*.)

"It's a survey and we have made certain assumptions," Curran responded. "This is a reflection of 2017, not the current year auction results." She said the survey is not the "end-all, be-all" in future capacity.

MISO plans to hold a detailed breakdown of survey results at the June 29 Resource Adequacy Subcommittee meeting.



Projected capacity position in ICAP gigawatts (% reserves) *Source: OMS, MISO*

NYISO NEWS

New York Could Manage Sharp Solar Growth Within 15 Years, Study Says

By William Opalka

New York could accommodate up to 4,500 MW of wind generation and 9,000 MW of solar photovoltaic capacity by 2030 with no system reliability issues, according to a NYISO draft study released last week.

The backdrop to the "Solar Integration Study" is New York's Reforming the Energy Vision initiative, which promotes adoption of cleaner and more distributed energy resources as well as state incentives that promote rooftop solar generation. New York's Clean Energy Standard also mandates the state derive 50% of its electricity from renewables by 2030. (See *Cuomo: 50% Renewables by 2030, Keep Nukes Going*.) The NYISO study focuses on system impacts — rather than the costs or economics — of renewable energy.

A National Renewable Energy Laboratory study this year found that New York has the potential to install 46.4 GW of rooftop solar PV — which represents the upper limit of potential installations rather than a prediction, the study notes.

"The growth of solar PV energy as a source of electric generation is being strongly influenced by various public policy initiatives, including programs established by the State of New York in the State Energy Plan," NYISO said.

The NYISO study included:

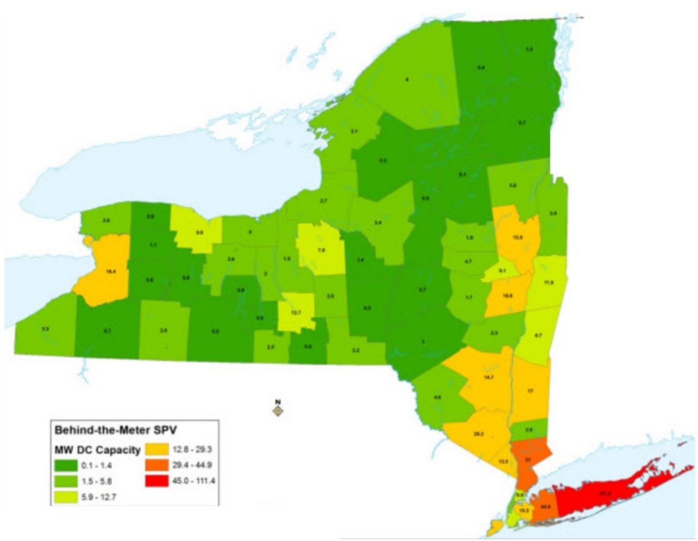
- Development of hourly solar profiles and a 15-year solar PV projection by zone in New York;
- "Lessons learned" and integration studies from other regions experiencing significant growth in solar and wind resources;
- The impact of various levels of solar PV and wind penetration on the state's grid regulation requirements; and
- Potential reliability concerns associated with the frequency and voltage ride-through characteristics of solar installations.

The study points out that the $1 billion NY-Sun Initiative announced in 2012 will yield 3,000 MW of solar PV for the state, more than 500 MW of which had been installed by the end of 2015.

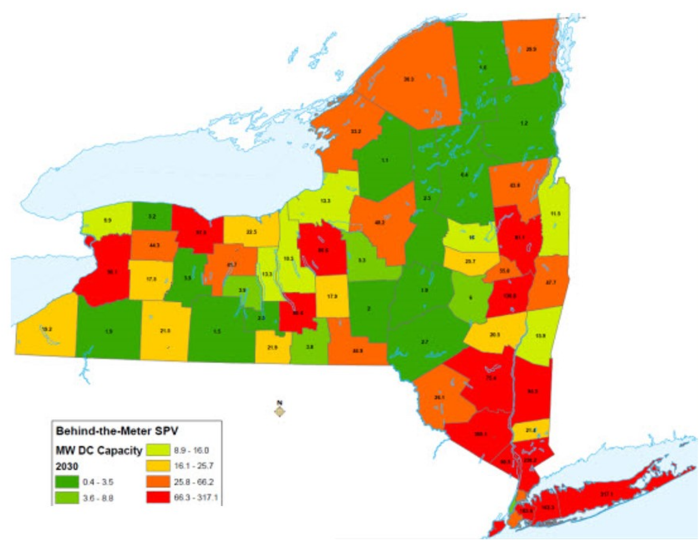
"As the penetration levels of solar PV and wind increase, any projected increases in regulation requirements are relatively minor and can readily be accommodated within the current market rules and system operations," the study says.

The study recommends that NYISO advocate for industry standards requiring solar inverters to have voltage and frequency ride-through capabilities and request that the state establish similar requirements for the non-bulk power system.

NYISO says the study will lay the groundwork for additional research by the ISO.



2015: 514 MW DC



2030: 3,000 MW DC

Behind-the-meter solar PV *Source: NYISO*

Connect with us on your favorite social media

NYISO NEWS

New York Debates PPAs or RECs for Clean Energy

By William Opalka

New York policymakers grappled last week to find the most cost-effective way to reach the state's 50% renewable energy target by 2030 while maintaining a competitive electricity market.

The New York Public Service Commission held a technical conference June 9 to discuss the state's proposed Clean Energy Standard, the roadmap intended to transition the state away from fossil fuel — and eventually nuclear — generation (15-E-0302).

"Without question, thinking about how we are going to get new resources into our mix is key to our success," PSC Chair Audrey Zibelman said.

At the conference, industry stakeholders debated whether power purchase agreements, renewable energy credits or some combination of both would be the best way to achieve renewable goals without exposing consumers to price risks in an environment of low natural gas prices. The state is moving away from the current centralized procurement by the New York State Energy and Research Development Authority.

Under both the PPA and REC approaches, the total payment per megawatt-hour, including energy and capacity, would be set at the start of the project. Under fixed-price RECs, the generator would be exposed to fluctuations in commodity value (energy and capacity revenue).

Under a bundled PPA, ratepayers would accept commodity price risk, with the net program cost determined based on the difference between the PPA and energy and capacity values. "Where at any point in time the value of energy/capacity exceeds the contracted PPA amount, the program cost per megawatt-hour becomes negative (i.e., [load-serving entity] customers benefit from paying the renewable electricity generator less than the market value of energy and capacity)," explained the PSC staff's cost study, which was released in April.

The study assumed PPAs and RECs would be used equally to procure the 5.2 GW of Tier 1 renewables envisioned by 2023. Those resources would be dominated by land-based wind (38%) and solar power developed under the NY-Sun initiative (52%). The remainder would be supplied by utility scale solar, bioenergy, hydropower, imports and offshore wind. (See *NYPSC: Minimal Cost to Meet 50% Renewable Goal*.)

New York currently has about 2.5 GW of renewables: almost 2,000 MW of wind resources and 500 MW of solar.

Gavin Donohue, president of the Independent Power Producers of New York, said the REC-only approach is what brought the state to its current level of success. "It takes the risk away from ratepayers and puts it solely on ... the generator sector," he said. "We feel very strongly that if it's not broke, don't fix it."

Donahue said long-term fixed contracts wouldn't permit consumers to benefit from innovations that might lower power prices.

"The PPAs don't reflect the changes over the long term in the marketplace," he said.

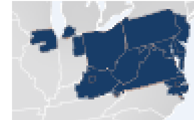
Anne Reynolds, executive director of the Alliance for Clean Energy New York, said developers who belong to her group say the current REC model has limitations.

"Yes, the REC-only approach has gotten us a good deal of renewables built, but if you look at the pace of what we've accomplished over the past 10 years, it is not enough to get us to 50%," she said.

"We think the way to do that is to attract the maximum number of developers we can to New York so that you get a robust lineup of projects and you get good competition."

Consumers would benefit from long-term low prices and generation that doesn't rely on fossil fuels, she said.

PJM NEWS



Ott Restructures PJM Divisions, Leadership

PJM CEO Andy Ott on Friday announced organizational changes that will give additional responsibilities to senior vice presidents Stu Bresler and Vince Duane — a move Ott had foreshadowed following the departure of Executive Vice President and Chief Operations Officer Mike Kormos in March.

Bresler, who has been overseeing the Markets Division, will add the Operations Division, formerly overseen by Kormos, to his duties. Vice President Mike Bryson will continue to lead Operations.

The newly formed Law, Compliance and External Relations Division will report to Duane, the RTO's general counsel, and include the State & Member Services Division and the Compliance Division, which already had been moved under Duane's supervision earlier this year. Vice President Denise Foster will continue to lead State & Member Services.

The new division will address legal and regulatory components and oversee communications with various audiences.

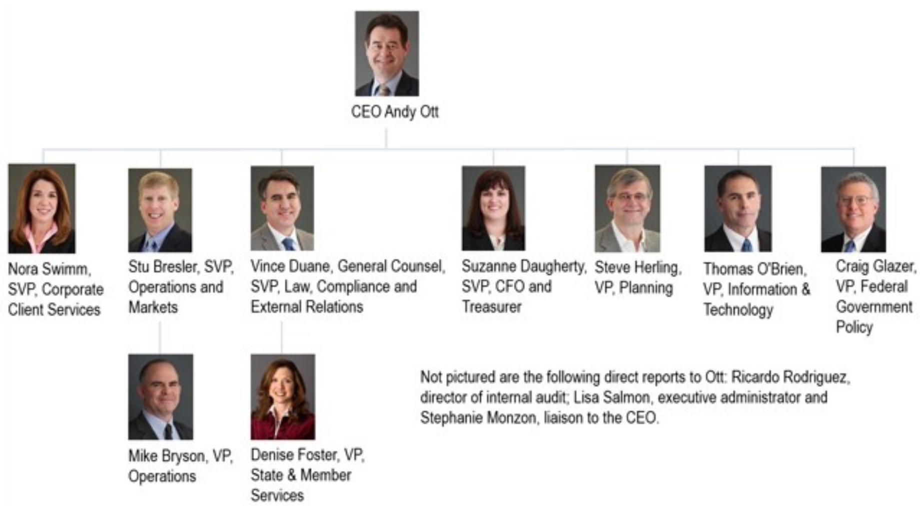
"We are making some changes to our structure as our organization continues to grow and evolve," Ott said. "Our objective with this realignment is to better serve our stakeholders by positioning internal processes — and those conducting them — to better support company strategies."

The changes will take effect July 6.

Ott was named CEO in October after a six-month transition period at the side of Terry Boston, who retired. (See Boston Retirement Prompts Additional Promotions at PJM).

When PJM announced Kormos' departure, Ott had said that his position would not be filled. (See PJM COO Kormos Leaving; Post Won't be Filled.)

— Suzanne Herel



PJM's revised organization chart *Source: Information provided by PJM*

OC Briefs

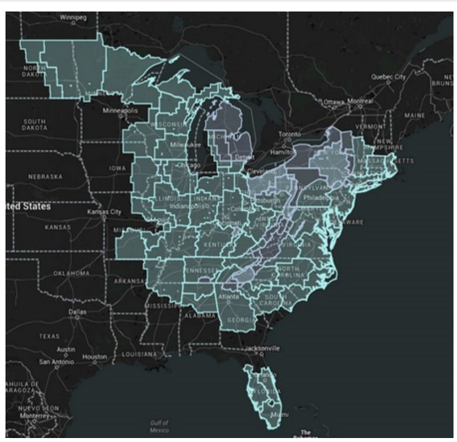
PJM Plans to End Compensation for CP Units Participating in Winter Testing

Beginning this year, Capacity Performance units no longer would be compensated for participating in cold weather testing, which is set to be continued under a plan that the PJM Operating Committee will be asked to endorse in August.

The program is voluntary, noted PJM's David Schweizer, and generators may self-schedule their own testing.

The rationale behind the change, which was first mentioned in April, is that PJM expects generators to factor the cost of testing into their offers. (See "Plan: Continue Cold Weather Testing, End Compensation for CP Participants," PJM Operating Committee Briefs.)

All units will be required to be Capacity Performance beginning in the 2020/21 delivery year.



As PJM moves to a Capacity Performance model, designed to avoid the outages experienced during the polar vortex, the RTO wants to continue winter testing but end generator compensation.

There were no other changes recommended for the program, which Schweizer said was valuable even though it didn't yield much useful data last winter because of warmer temperatures.

Several members representing generation said the testing program will be a tough sell absent compensation.

"Without compensation, the program will dry up," said one stakeholder who asked not to be identified.

John Farber of the Delaware Public Service Commission supported the plan.

"Customers are paying for premium capacity. The question is if they're getting it," he said. "We support where PJM is going with this. We really think compensation should be covered through the CP offer."

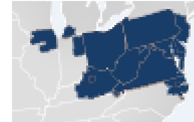
Committee Chair Mike Bryson said staff would incorporate members' comments into revised manual language that will be brought to a first read in July.

PJM Won't Ask FERC to Rehear Ramp Rate Proposal

PJM will not ask FERC for a rehearing of its performance assessment hour (PAH) ramp rate proposal, which the commission rejected on May 31. (See FERC Rejects Ramp Rate Exception in PJM Capacity Rules.)

Continued on page 21

PJM NEWS



MIC Briefs

Members Delay Endorsement of Manual 15 Changes Regarding Definitions, Fuel Cost Policy

VALLEY FORGE, Pa. — The PJM Market Implementation Committee will hold a special meeting June 29 to continue discussion about the process for approving fuel cost policies and redefining terms, including "market seller."

The changes, which stem from an annual review of Manual 15, were on the MIC's agenda for endorsement Wednesday, but after spending one and a half hours talking about them, members asked to continue to work the issue.

One of the topics of discussion was new language added to clarify that the "market seller is the entity that submits a cost-based offer and is responsible for maintaining all information necessary to calculate resource's cost-based offer."

Members said they wanted to make sure that any new definitions were consistent with the Tariff.

Catherine Mooney of Monitoring Analytics also proposed language changes on behalf of the Independent Market Monitor.

"The purpose of Manual 15 is to develop the primary input for market power mitigation. This is one of the Market Monitor's primary responsibilities," she said.

In a case where a market seller is an agent of the generation owner, it needs to have access to all of the information required to not only calculate but also support a cost-based offer, she said.

Mooney also introduced language that would clarify the Monitor's authority in evaluating fuel cost policies.

More Flexible Parameter Limited Exception Process Approved

The committee, with two abstentions, endorsed a proposal to make the parameter limited schedule exception process more flexible.

"The most important goal is to solve the problem of inflexibility," PJM's Tong Zhao said. (See "Manual Changes to Detail Unit-Specific Operating Parameter Adjustment Process under CP," *PJM Operating Committee Briefs*.)

The revisions allow generators to request an exception if they learn of a need after the Feb. 28 deadline. They also permit a temporary exception to be extended to a period or a persistent exception if the need arises after the deadline.

In addition, the changes give PJM and the Monitor more time to review requests and give their determinations to market sellers.

Retroactive Black Start Billing Charges Focus of Proposed Study

PJM's Tom Hauske introduced a problem statement and issue charge designed to mitigate the potential for large, retroactive black start charges.

Currently, the Tariff does not address when the Monitor will review the costs for new units entering black start service outside of the annual revenue recalculation period.

A number of new units have recently entered black start service, many replacing retiring units. To ensure PJM had sufficient resources, most of these new units entered service before their initial capital costs and annual revenue requirements were approved by the Monitor — some with a lag of six months or longer.

That resulted in significant charges to load in April.

"We would all benefit from more transparency. … If you have these things under review for a period of time and

Continued on page 22

OC Briefs

Continued from page 20

The Tariff changes would have exempted a capacity resource from nonperformance charges if it was following PJM's dispatch instructions and operating at an acceptable ramp rate during periods of high load. They were drafted as a temporary measure to guard against generators self-scheduling prior to a PAH.

"As of right now, it's status quo," said PJM's Rebecca Stadelmeyer, who convened a number of lengthy discussions over the past few months to win stakeholder consensus. "You need to be at expected Capacity Performance immediately."

"We have decided internally that we're not going to request a rehearing, largely because we took a good look at the arguments using examples we had from stakeholder endorsement," Bryson said. "I think data is the next cog in getting this done. We'll continue to collect that. I don't know if we necessarily need an emergency situation to get all the data, though a performance assessment hour would help."

Stu Bresler, senior vice president for operation and markets, agreed.

"We were disappointed that FERC didn't take our word for it, but it seems the only thing that will change their minds at this point is data," he said.

GOs to be Questioned on Governor Response Survey Results

PJM is concerned that most units participating in PJM's Governor Response Survey did not provide reasons for deviating from NERC settings.

Schweizer said staff would be reaching out to generation operators to better understand the survey results, including why 5% of units didn't participate.

Of those responding, 76% reported they had a governor capable of changing output in response to changes in interconnection frequency; 69% said their governor was operational; and 53% responded that their governor was capable of operating with the settings recommended by NERC.

About 43% of combustion turbines, 29% of combined cycle units and 24% of steam/fossil units reported they were capable of providing frequency response in accordance with NERC guidelines. Only 8% of hydro units and 1% of nuclear units reported such capability.

Two-thirds of the units did not provide a reason for deviation from NERC settings.

Among the reasons reported: control mode does not allow (10%); did not align with NERC-recommended dead-band (9%); and set with a slightly less droop setting of 4% (5%).

— Suzanne Herel

PJM NEWS

PC/TEAC Briefs

PJM to Open FERC Order 1000 Proposal Window in Late June

PJM expects to open its second 2016 Regional Transmission Expansion Plan window in the last week of June, TEAC Chair Paul McGlynn said.

Its scope will consist of a year 2021 analysis of N-1 and N-1-1 thermal and voltage contingencies; generation deliverability and common mode outages; and load deliverability thermal and voltage.

Planners to Recommend $340.6M Solution to Congestion in AP South

Planners are sticking with their decision to recommend that the PJM Board of Managers approve a $340.6 million market efficiency project to address congestion at the AP South interface.

Since last month, when PJM told the Transmission Expansion Advisory Committee of its intention to back the proposal, planners have conducted additional sensitivity studies on the selected project using lower gas prices. They did not perform additional studies on three competing proposals. (See "Planners Choose Project to Relieve APSouth Congestion," *PJM Planning Committee and TEAC Briefs*.)

Project 9A (without capacitors), submitted by Dominion High Voltage and Transource Energy, performed even better at providing production cost savings with low gas inputs, PJM said.

LS Power's Sharon Segner continued to object to the project being chosen without further study of the three cheaper competing proposals. They ranged from $72 million to $253 million.

For one thing, she said, there was no carbon pricing in the model, so the project is being approved as if the Clean Power Plan, currently stayed by the Supreme Court, will not be implemented.

"Basically, you're approving the project based on a zero-carbon pricing model in the non-[Regional Greenhouse Gas Initiative] states," she said. "If you had carbon pricing in the model, project 9A would look different, and competing projects would be different."

Given the cost of the project, she added, it should be tied to cost caps.

A letter to the TEAC from LS Power's Northeast Transmission Development expounded on her concerns. Another letter echoed her complaints regarding the carbon pricing assumptions.

"We'll take a closer look at the operating agreement," responded McGlynn. "We've certainly done a lot of studies and sensitivities under a number of variables. We think we are satisfying the requirements of the Operating Agreement."

The expected in-service date is 2020.

Newark Airport's Increased Energy Need May Spark Reliability Violation

Newark Liberty International Airport has identified a need for additional energy resources. Its current load is about 40 MVA, but a new planned terminal is expected to increase that load by about 33 MVA.

Continued on page 23

MIC Briefs

Continued from page 21

they're accumulating charges, we'd like to see how large that accumulation might be," said Jeff Whitehead of Direct Energy. "If we could minimize it, that would be good. If we can't, we need to at least understand what the liability is going to be."

"The back charges were a shock to our members and clients," added Carl Johnson of the PJM Public Power Coalition. "Even if we don't know what the scope of that is going to be, just knowing it exists is helpful."

"There are more coming," Hauske replied. "We can come up with an estimate."

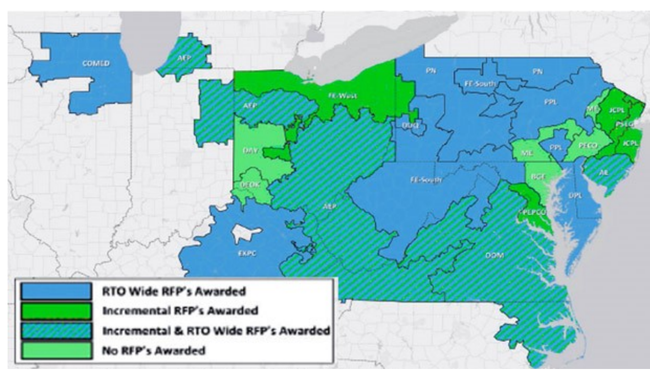
Conference Call Set to Discuss Auction-Specific Bilateral Transactions

A special MIC conference call will be held June 24 to discuss proposed clarifications to auction-specific bilateral transactions.

Assistant General Counsel Jen Tribulski said the changes aim to preserve the physicality of the transactions and ensure members' indemnification.

The new rules assign auction credits and bonus payments to the buyer, while the seller retains the obligation to perform. (See "PJM Proposes Clarifications to Bilateral Transactions," *PJM Market Implementation Committee Briefs*.)

Members said they wanted more information on the clarifications.



Incremental and RTO-wide black start awards since 2012 *Source: PJM*

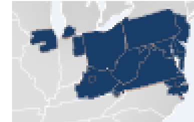
Committee Endorses 2 Problem Statements from Members

With little discussion, the committee unanimously approved:

- A problem statement and issue charge presented by Bruce Campbell of CPower to review the demand response registration submission deadline. (See "CPower Proposes to Study Necessity of DR Registration Submission Deadline," *PJM Market Implementation Briefs*.)
- A problem statement and issue charge from Direct Energy's Whitehead and Sharon Midgley of Exelon to discuss potential enhancements to the residual auction revenue rights process. (See "Exelon, Direct Energy Suggest Studying Residual ARR Process," *PJM Market Implementation Committee Briefs*.)

— Suzanne Herel

PJM NEWS



PC/TEAC Briefs

Continued from page 22

Meanwhile, the Port Authority of New York and New Jersey's future plans for its PATH rail line are anticipated to add another 8 MVA for a total of 81 MVA.

The airport's energy needs are expected to increase further with planned upgrades to Terminal B and Terminal C.

The facility's load will be served by two new 345-kV underground cable circuits, part of the Bergen-Linden Corridor project. Existing 26-kV circuits will be used for backup.

However, that presents a potential reliability violation, because a portion of the 26-kV station property is owned by the airport, and it has requested the use of the land back. In addition, the 26-kV facilities are aging and potentially thermally overloaded.

Artificial Island Project Alternatives, Cost Continue to be Studied

PJM and Public Service Electric and Gas are continuing to look at ways to reduce the cost of the Artificial Island stability fix, including moving the 230-kV line to Hope Creek instead of the Salem substation.

"Cost estimates are being developed for the new configuration," McGlynn said. "We are looking at it from a scheduling perspective as well — what potential impact it may have on changing the design of the project. There is also ongoing work relating to analytical work and stability studies." (See *Artificial Island Cost Increase Could Lead to Rebid*.)

Installed Reserve Margin Study Assumptions Endorsed

The Planning Committee endorsed the 2016 installed reserve margin (IRM) study assumptions developed by the Resource Adequacy Analysis Subcommittee.

The recommendation retains the current load model selection process with one minor change: clarifying that the annual peak can only be drawn from the summer peak week. (See "IRM Assumptions Presented for First Read," *PJM Planning Committee and TEAC Briefs*.)

PJM's Tom Falin said that had the change been implemented for last year, the same load model would have been selected, and the IRM would have been the same.

Planners also will continue to model a 2.5-GW ambient derating for the summer.

PJM Beefing up Details of TO Upgrade Exemption Proposal

PJM staff is adding more details to its plan to exclude typical transmission substation equipment from competitive windows as a result of questions that FERC had regarding the RTO's proposal to exclude some low-voltage projects from the process. The commission responded to PJM's voltage floor proposal with a May 27 deficiency notice ordering the RTO to provide additional information (ER16-1335).

"With this process, it's going to be similar [to the voltage floor proposal] because we're basically excluding problems that we think will result in a transmission owner upgrade," PJM's Mark Sims said. "If [FERC] had concerns with the voltage floor, they probably would have concerns with this." (See "Typical TO Upgrades Would be Excluded from Competitive Window under Proposal," *PJM Planning and TEAC Briefs*.)

Among FERC's concerns was how stakeholders could comment on exempted projects. PJM's Sue Glatz said the RTO is drafting a compliance filing to FERC due at the end of the month regarding the voltage floor exemption.

The PC will be asked to endorse the TO upgrade exemption next month.

80% of Projects Submitted in Past 6 Months Wouldn't Meet New Procedures

About 80% of the projects submitted to the proposal queue would have been bumped if new submittal procedures had been in place, PJM's Dave Egan said in his semiannual update of the project queue. (See "Stricter Rules Proposed for Queue Submittal Process," *PJM Planning Committee and TEAC Briefs*.)

More than half of the projects for the six-month queue were submitted on the last day, he said.

He noted there has been an uptick in solar projects in Virginia and North Carolina and a slight reduction overall in natural gas.

Task Force Breaks into Subgroups to Study Minimum Design Standards

The Designated Entity Design Senior Task Force, created to draft minimum design requirements for competitively solicited facilities, has divided into three subgroups to focus on transmission lines, substations and system protection, and control design and coordination. (See "Task Force will Create Design Standards for Competitive Projects," *PJM Planning Committee and TEAC Briefs*.)

The protection subgroup has determined that Manual M7 is a good starting point but will be examining additional items, including metering requirements, commissioning procedures and disturbance monitoring equipment.

The main focus of the substation subgroup will be different voltages, criteria-based design, functional layout, future expansion and minimum outages.

The task force expects to deliver its recommendations to the PC in September.

Network Upgrade Cost Allocation Process Hits a Snag

PJM is studying issues it has identified with the network upgrade cost allocation process for new service queue requests.

PJM's Aaron Berner explained that in studying the need for projects, customers are evaluated together. But when it comes to allocating the cost of approved projects, transmission service customers aren't allowed to share costs with the other customers.

"Everybody is studied together. Then we come to the point in the Tariff that discusses cost allocation as opposed to mechanics. We then cannot allocate cost to transmission service customers," he said.

He expects to return next month with a draft problem statement to address the issue.

— Suzanne Herel

SPP News

Lessons Unlearned: FERC's Punt on Market Monitors' Independence

FERC Ended SPP Audit Without Interviewing Key Witness

Continued from page 2

It was in his seventh-floor office, with a commanding view that reaches New Jersey, that Martin sat down for an hour-long interview with *RTO Insider*.

Martin, who has been an SPP board member since 2003, forcefully defended his decision not to meet with Hyatt or Mooney and said he agreed with the decision to fire them.

He also insisted he had seen no evidence that the MMU was being pressured by executives to conform with RTO and stakeholder desires on market rules, as the two monitors contend.

But Martin said he was unable to answer numerous questions about the controversy, repeatedly answering with variations of "I don't know" or "I don't recall."

He acknowledged that Potomac Economics — in addition to performing the functions formerly done by Mooney and Hyatt — is also doing an audit of the MMU, but said, "I don't know the scope." He also said he did not know when McQueen, whose retirement was announced in January, would be leaving. And he hasn't seen a job description for McQueen's replacement.

Below are excerpts from *RTO Insider's* interview with Martin.

Martin was asked about the reasoning behind the Oversight Committee's revised policy statement on the MMU's independence.

The new statement makes the committee responsible for all salary and bonus decisions for McQueen and other MMU employees and ensured that the MMU director could meet the committee in executive sessions without RTO officials present.

Who was responsible for Alan McQueen's salary and bonus evaluations [before the revised statement]?

Had it interviewed Martin, FERC would have found a board member seemingly detached from — or forgetful about — many of the details of the controversy surrounding the MMU.

"It would have gone to the board — and then through the administrative process of SPP — and to the board. That's my assumption."

You say you assume it went through the board. You're a member of the board; why wouldn't you be aware of it?

"I just don't remember specifically. It wouldn't have been significant enough for me to have that in my brain. But considering the fact that it had to go somewhere, and it didn't come through the Oversight Committee specifically like it did this year, my assumption is it would have been in that package of compensation increases for the entire organization."

And where did that package come from? That would have come from RTO management, right?

"Oh sure, human resources, RTO management, Human Resources Committee — all of that."

So then is it fair to say that up until this most recent year and this change where the Oversight Committee was involved, that Alan McQueen's compensation was being determined or recommended, at least, by RTO staff, RTO management?

"As best as I can recall, that would be accurate."

Was there a realization that that was not compliant with Order 719? Is that why you changed it?

"Not to my knowledge. I don't know that the issue was ever raised. It wasn't raised with me."

Despite the Tariff's prohibition against "SPP management" having an oversight role, RTO executives were regularly present when McQueen reported to the committee, according to committee minutes reviewed by *RTO Insider*.

Martin went on to suggest that SPP might not have been in violation of Order 719 because the order allows the MMU to report to RTO management for "administrative purposes, such as pension management, payroll and the like."

Payroll seems to me to be a more ministerial function — like how many deductions do you want taken out [of your paycheck] as opposed to supervision, which is: Are you doing a good job? Should you get a bonus? Should you get a raise this year?

"To be fair about this, assuming that there was some need for clarification on that, that was probably the genesis of the change that was made" regarding compensation.

You say it was probably the genesis, but you were there. You are the chairman of the committee. Wouldn't you know what the genesis was?

"Well, here's what I'm trying to distinguish. It wasn't that we had FERC standing over us saying, 'You must do this.' But we looked at the situation concerning the independence of the MMU and we accepted certain changes that would make it clear that they were independent and that was one of them."

When did those discussions start as to changing the statement?

"Good question. I can't answer that. I just don't know specifically when they started."

What's your first recollection? Who suggested it?

"I don't remember that either. I can tell you that those discussions were ongoing in 2015. But I can't tell you what the initial impetus for that was. It may well have been Alan McQueen who said, 'I think we need to take a look at how the MMU operates versus the board and the

Continued on page 25

SPP NEWS

Lessons Unlearned: FERC's Punt on Market Monitors' Independence

FERC Ended SPP Audit Without Interviewing Key Witness

Continued from page 24

Oversight Committee.' But I can't be specific on that. I just don't remember."

Martin was asked about the letter Hyatt and Mooney sent him in September.

What do you recall about that?

"What stood out for me more than anything else in that letter was the fact that there was this issue of a contract that they wished. And obviously directors do not negotiate contracts with employees. For that reason, I referred them to staff, specifically to the SPP general counsel, Paul Suskie."

[Editor's Note: The letter recommends some MMU functions be transferred to an external monitor, which Hyatt and Mooney offered to join. It does not mention the word "contract."]

The mention of the contract was why you chose not to meet with them? Even to talk about more generic issues?

"That stood out to me more than anything else because I'm very careful about my role as a director. Even though Southwest Power Pool is structured differently from a lot of organizations I've been associated with, the last thing you want is directors poking their noses in places where they shouldn't be poking their nose in — namely operational issues.

"We're supposed to set policy for the organization. And I felt that what I was being asked to get involved in there was beyond the scope of my role as chairman of the Oversight Committee. So I referred them to Paul Suskie, who ... was general counsel and would be able to address whatever issue they wanted to advance."

They have told me that Alan McQueen, their boss, was ... preventing them from acting as independently as they thought the MMU should act. And they say that you telling them to go back and meet with McQueen and Suskie ... was not in the spirit of you providing oversight for the independence of the MMU.

"Let me be very clear with you. If the issue were that simple — i.e., if they were coming to me purely to address the question of independence — we would have had a different situation. My analysis of what I was being asked to get involved in went beyond that and therefore I took the position that as a director and as chairman of the Oversight Committee, I should not get involved in that discussion and that's why I referred them to the general counsel."

Couldn't you have bifurcated the discussion? Say I'm not going to talk about contracts or what the solution is but I will talk to you about the problem?

"I never got that far because a quick assessment of what I did would suggest that those issues were so interwoven that a bifurcation wouldn't be possible."

Martin was asked about the decision to fire Hyatt and Mooney, which McQueen discussed with the Oversight Committee at its Dec. 7 meeting.

Did the Oversight Committee explicitly approve the firing, or did it just say [to McQueen], 'We won't stop you from doing so?'

"My recollection is we acknowledged that what was happening from a human resources perspective was going forward. I don't believe we approved that. ...That's my best recollection. As I think back on it, I don't know why we would have to have approved it, because it was a human resource matter, a personnel matter...

"I can't discuss with you publicly the personnel issues ... but we did get a briefing on what Alan intended to do."

Do you have any misgivings about the decision to terminate them?

"I thought that this was an appropriate decision for management to take. Recognize that as a board member I'm not involved in making that decision. This is not a policy decision. This is a personnel decision and this had worked its way through the various personnel levels. I felt that what was being requested was not unreasonable and I saw no basis for the Oversight Committee to refute what was getting ready to happen. It wasn't our position to second guess the human resources structure."

Martin

This was McQueen's decision to fire them, not human resources, right?

"I'm assuming that it worked its way through human resources to make sure that all the T's were crossed and I's were dotted. That happens in any organization."

What is the process at SPP to terminate somebody?

"You're asking for more detail than I can give you. The best I can do is to tell you this is a human resources function."

Martin was also asked about the timing of the revised policy statement — which the committee approved Dec. 23, nine days after Hyatt and Mooney were fired — and the announcement of McQueen's retirement. Martin announced the statement and the retirement at the January board meeting. McQueen, who has been with SPP since 2003, told *RTO Insider* he was leaving to spend more time with his grandchildren in northern Michigan.

A cynic would say SPP ... got rid of the two malcontents but that looked kind of bad — they're going to say they were fired for trying to assert their independence. 'We [SPP] disagree with that and to show that that's not true we're going to put out this statement.' But just in case FERC isn't satisfied with that, Alan McQueen is going to be gone by the end of the year anyway so it's going to be a moot point when the audit comes out.

Continued on page 26

SPP NEWS

Lessons Unlearned: FERC's Punt on Market Monitors' Independence

FERC Ended SPP Audit Without Interviewing Key Witness

Continued from page 25

[Martin smiles.] "Well, I can understand how somebody could look at all of the facts and extract that conclusion. But without getting into the details of why Alan McQueen elected to retire — and this was his election, let me be very, very clear with you. As a director I certainly am not aware of any desire to push Alan McQueen out. The Oversight Committee of the board has been very, very supportive of Alan and his role with the MMU. That's a separate issue — his decision to retire."

Why announce McQueen's retirement in January when no date certain was given for his departure?

"It was announced at that time because a process had to be initiated for his replacement. That's obviously going to be a public process."

OK, but we're now into May and I'm not aware that you've begun that process.

"The process of pursuing a replacement for Alan is not one that I'm directly involved in. That, too, is a staff function. But I wouldn't assume because you haven't seen a name emerge that the process isn't underway."

You're saying that RTO management will choose McQueen's replacement, not the board?

"Well, they're going to do the mechanics of dealing with advertising the position and all of that. That's where the process is going to be initiated. Ultimately, and obviously, the board is going to make the decision."

When will the transition occur?

"Sometime this year. … What I can be clear about is the fact that it is his intention to be there until a replacement is in place. That much I can share with you. I just can't be more specific.

"This is a very important role. You've obviously got to put the right person in that position, and I'm confident knowing that there isn't going to be a vacuum there."

What will you be looking for in a replacement for Alan McQueen?

"Really, a continuation of what we have right now. A very competent, talented MMU that's able to satisfy its almost daily requirements from the FERC for information [and] also satisfy what Southwest Power Pool needs. An MMU that's comfortable working through the Oversight Committee, which knows that we are available if there are some concerns and what have you.

"I'm looking for the kind of competence and expertise that would parallel the other RTOs and ISOs from around the country."

Are there certain minimum academic or professional qualifications that you're looking for?

"I can't answer that question — simply because I haven't seen the job description. If you were to ask me specifically do we want someone with a Ph.D. in economics, I don't know that answer. Obviously Alan [who has a master's in economics] doesn't have one. A number of RTO/ISOs across the country do. I just don't have an answer for that question."

[Editor's Note: Editor-in-Chief Rich Heidorn Jr. is a former member of FERC's Office of Enforcement and participated in a 2008 audit of SPP.]

Previously in this Series

Part 1

- *SPP Squelching MMU Independence, Former Monitors Say*
- *Order 719: FERC Balanced MMU Independence Against RTO Autonomy*

Part 2

- *SPP MMU Struggles to Find its Voice*
- *Independent Market Monitors Wouldn't Have It Any Other Way*
- *State Regulators: FERC Probe into Bowring Allegations Fell Short*

Former Monitors Dispute SPP Claims over 'Contract'

Joshua W. Martin III, chairman of the SPP Board of Directors' Oversight Committee, said he refused to meet with Market Monitors Catherine Tyler Mooney and John Hyatt last year because their letter requesting a meeting included a proposal that the RTO sign a contract with them to set up an external monitor.

SPP General Counsel Paul Suskie said in a statement that Hyatt and Mooney proposed that they would form their own company and that SPP would fund their startup costs and award them a no-bid contract — essentially the arrangement that PJM agreed to with Joe Bowring when he left the RTO's payroll and founded Monitoring Analytics in 2008. (See *Independent Market Monitors Wouldn't Have It Any Other Way*.)

Mooney said it was Suskie and MMU Director Alan McQueen who initiated the discussion of contracts. Although the letter recommends some MMU functions be transferred to an external monitor, which Hyatt and Mooney offered to join, the word contract is not mentioned.

"John and I felt that this was premature. The OC needed to make a policy decision about whether to pursue an external unit first," she said. "We discussed whether an open request for proposals for an external MMU contract could be conducted in a way that would protect our careers given the retaliation we were experiencing. John and I never ruled out any options. We did not ask for a contract."

If SPP had chosen an open solicitation, it's unlikely it would have received many responses. When Texas issued a solicitation last year for monitoring of ERCOT, only incumbent Potomac Economics submitted a bid.

"We had very good jobs [at SPP]," Mooney said. "All we had to do to keep them was to keep our mouths shut. But we felt that was a compromise of our principles. … We felt that would compromise the SPP MMU's integrity."

— Rich Heidorn Jr.

SPP News

Z2 Project Faces Further Hurdles, Possible Delay

By Tom Kleckner

Transmission Service Customer	Request #	Estimated Directly Assigned Z2 Revenue Credit Payment Due	
		Total Term	Before 9/1/2016
Group A Total		**$56,410,613**	**$12,457,343**
American Electric Power	1162214	$41,195,846	$9,097,416
Arkansas Electric Cooperative Corp.	1161209	$7,419,564	$1,638,487
Northeast Texas Electric Coop.	1161974	$2,669,182	$589,444
Oklahoma Municipal Power Authority	1159596	$5,126,021	$1,131,996
Group B Total		**$42,750,393**	**$5,215,397**
American Electric Power (in addition to request 1162214)		$21,545,607	$2,188,909
Chanute, Kansas		$19,936	$9,303
Golden Spread Electric Coop.		$4,313,008	$382,942
Kansas Electric Power Coop.		$6,195,560	$877,704
Oklahoma Municipal Power Authority	78697838	$103,953	$4,966
Westar		$10,572,329	$1,751,573

Directly assigned Z2 costs *Source: SPP*

SPP's "year of focus" on the eight-year-old Z2 crediting project may now stretch into 2017 after the Board of Directors on Monday sided with stakeholders and delayed a vote on waiver requests that would allow the work to stay on schedule.

SPP staff last week asked the Markets and Operations Policy Committee, the Regional State Committee and the Cost Allocation Working Group to reject requests by six transmission customers for waivers that would reduce their bills under the project. All three committees tabled or took no action on the requests, despite staff warnings that the failure to act could push the project into next year.

On Monday, the board followed suit, deferring action during a special one-hour conference call with the Members Committee. The MOPC will try to resolve stakeholder concerns over staff's reading of the RTO's Tariff, waiver eligibility and invoice amounts during its July 12-13 quarterly meeting.

'Full and Proper Vetting' Needed

"I fully understand SPP's desire to move forward and get the baseline established to do that," said Les Evans, COO for Kansas Electric Power Cooperative, whose company is facing a $6 million bill. "We believe we need to have a face-to-face so everyone can have a full and proper vetting of the issues."

"I listened to the MOPC call … a number of points were raised that I wholeheartedly agree with," SPP Director Phyllis Bernard said. "I think [the vote] was premature. I think [the discussion] needs to be face-to-face. My concern is if the board [was] to take a vote today, we [would be] affirming something that isn't particularly clear and that's hotly disputed."

Attachment Z2 of the Tariff details how entities that fund network upgrades can receive reimbursements through transmission service requests that could not have been honored "but for" the upgrade. But a series of problems have prevented SPP from doing a proper accounting to determine which companies owe money and which are due to receive it.

In January, the Z2 project team set a Nov. 4 date for the project's completion. CEO Nick Brown told members that same month the project would be his organization's focus this year. (See "Brown: Finishing Z2 Crediting Project RTO's Top Priority," SPP Board of Directors/Members Committee Briefs.)

$99 Million in Waiver Requests

Staff asked the three committees last week to recommend approving a different set of waivers allowing four point-to-point transmission customers to reduce their Z2 obligations. All three committees endorsed the recommendation — as did the board Monday — meaning that $56.4 million in payments due from American Electric Power, Arkansas Electric Cooperative Corp., the Northeast Texas Electric Cooperative and the Oklahoma Municipal Power Authority (OMPA) will now be allocated to the base plan and included in regional and zonal charges under SPP's Tariff rather than being directly assigned to the companies, who were designated as "Group A."

Staff also asked stakeholders to reject an additional $42.8 million in "Group B" waiver requests from AEP, OMPA and four additional transmission customers that SPP said don't qualify for waivers. But Steve Purdy, SPP's manager of generation interconnections, told the RSC an error had incorrectly included OMPA's waiver request in Group B and said that further requests in the group may also be "waivable."

Because the MOPC had tabled the Group B recommendation earlier in the week, the RSC voted unanimously to delay its decision until it meets July 18. The CAWG also agreed not to vote on the Group B recommendation and will discuss those waivers at its next meeting July 6.

Why Go Ahead with a Vote?

"If we know there are issues out there, why are we going ahead with a vote?" asked Oklahoma Corporation Commission Vice Chairman Dana Murphy on June 10. "This process has been going on for eight years, and the first presentation made to us was a few months ago. If we've waited eight years, I don't think a few months will cost us."

SPP COO Carl Monroe said approving both staff recommendations would allow the RTO to continue the historical calculation of transmission credits owed and due. He said two months of work has already gone into determining who owes what and how much, work that might have to be redone if further waivers are granted.

Staff said Monday it still plans to publish the final numbers, the source of much stakeholder consternation, in September. The first invoices will be due in November.

Continued on page 28

SPP NEWS

Z2 Project Faces Further Hurdles, Possible Delay

Continued from page 27

"Part of the calculations depend on knowing the ... base-plan funding rates going forward," Monroe said. "With no action taken on this, the best we can assume is Group A is the only one waived. If that changes in the next few months, that backs us up."

"I don't know that July 18 affects us that much, given the eight years it's taken to get here," Murphy said.

Donna Nelson, chair of the Public Utility Commission of Texas, joined Murphy in resisting the Group B recommendation. She said the situation facing the RSC was "systemic" of the larger problem facing the committee.

"Eleven years is a long time," said Nelson, counting from 2005, when SPP created the aggregate transmission service study process that resulted in Attachment Z. "We need to have the option of doing what we think is right and not be blamed for delaying something that's been delayed forever."

Not Assigning Blame

Monroe said staff is not attempting to assign blame. "The intent is to continue the process," he said.

During an open meeting of the Texas PUC on Thursday, Nelson updated her fellow commissioners on the Z2 billings. Commissioner Brandy Marty Marquez said she found the amount of money involved "shocking."

"I can understand the concerns being raised," Marquez said. "We are going to be concerned about the impact to ratepayers."

SPP staff divided the waiver applicants into two groups after spending several months calculating credit payments due from long-term reservations for transmission service and determining whether the credits should be base-plan funded or directly assigned to individual transmission customers. Staff sent reports on April 28 to all customers with directly assigned upgrade costs, giving them an opportunity to ask for waivers.

The board in April approved a level payment plan in which 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. Payments were to begin in November, with the final installment due in August 2017. (See "Board Approves Z2 Level Payment Plan," *SPP Board of Directors Briefs*.)

SPP has scheduled a two-day review session for the Z2 credit-settlement system June 28-29 at its Little Rock headquarters. The session will run 9 a.m. to 4:30 p.m. each day.

SPP News

SSC Briefs

SPP, MISO Agree to Conduct 'Targeted' Joint Tx Study

SPP and MISO have ended months of uncertainty by agreeing to a second joint system study, which will take a "targeted" look at the two entities' newly created Integrated System seam in the Upper Midwest.

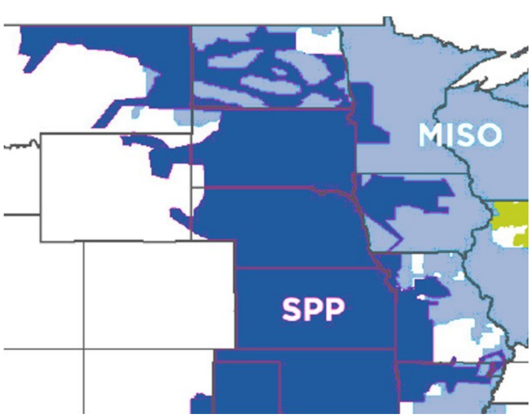
SPP staff told the Seams Steering Committee, which met in Dallas on June 8, that the MISO members of the Interregional Planning Stakeholder Advisory Committee (IPSAC) voted last month to pursue the study. The Joint Planning Committee, composed of SPP's David Kelley, director of interregional relations, and MISO's Eric Thoms, manager of planning coordination and strategy, made it official May 31 when the two agreed to begin the study.

The RTOs conducted their first joint study last year, identifying three potential interregional transmission projects. However, they were unable to reach agreement on pursuing any of them. (See *SPP, MISO Conclude Joint Study Empty-Handed*.)

SPP's interregional coordinator, Adam Bell, said both staffs have begun discussions on the study's scope. He said the staffs are planning to discuss the draft scope at a possible IPSAC meeting in July and hope to wrap up the study in the first quarter of 2017.

Kelley told the committee both staffs have a "desire" to do a larger study, but they are constrained by lack of manpower.

Bell said SPP will continue discussions with MISO to incorporate process improvements identified by stakeholders during the IPSAC's March meeting.



Source: ACES

SPP also is conducting a joint study with Associated Electric Cooperative Inc. (See *SPP, AECI Endorse Scope for 2016 Joint Planning Study*.)

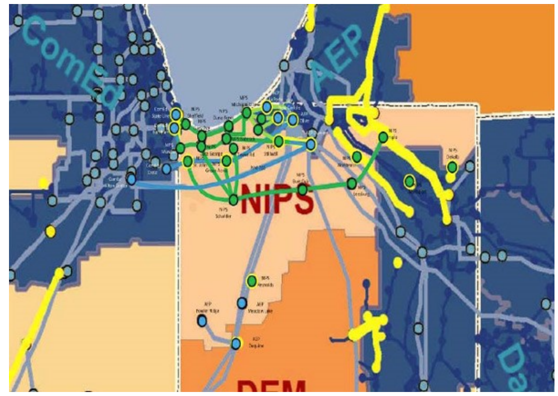
Staff told the committee the study is focused on five "target areas" in AECI's footprint where there have been recurring operational problems:

- Northeast Oklahoma (potential overloads, voltage issues);
- Southwest Missouri (potential overloads, voltage issues);
- Central Missouri (potential low-voltage issues);
- Wheaton area, southwest Missouri (potential upgrades); and
- Mid-Missouri (potential low voltages).

"The scope was intentionally left broad to give us the flexibility we need to create these … areas and most efficiently target them," Bell said. "Some stem from operational issues we see regularly that aren't showing up in typical planning areas."

The models are to be developed by the end of July, with preliminary results due in November and a final report in January.

Committee Recommends SPP Intervene in FERC's NIPSCO Docket



The SSC unanimously endorsed a motion recommending SPP intervene at FERC in an ongoing dispute between MISO and PJM over their interregional planning (EL13-88).

MISO and PJM have until June 20 to submit a compliance filing responding to an April 21 order in which the commission partially denied and granted a 2013 complaint by Northern Indiana Public Service Co. over the RTOs' processes. (See *MISO, PJM Working to Comply with NIPSCO Order*.)

SPP's options are limited because it did not intervene before the order was issued. Given choices between intervening out-of-time, commenting on MISO's eventual compliance order or petitioning for a declaratory order, the committee voted to recommend the RTO "intervene out-of-time without comments but justification."

"It's really hard to come in at this late stage and ask for standing in the case," Kelley said. He suggested SPP could intervene once MISO and PJM make their filing and potential Tariff changes.

The vote was partially driven by SPP member ITC Holdings' intervention in the case. ITC, one of seven intervenors to request a rehearing of the order, said the commission should clarify that its directives to MISO also apply to potential interregional economic projects along the SPP-MISO seam.

FERC directed MISO to lower its interregional project voltage threshold with PJM from 345 kV to 100 kV and remove the $5 million minimum cost requirement. MISO currently has the same 345-kV threshold for economic projects along its seam with SPP, which has limited the ability of the entities to agree on interregional projects.

Staff reminded members that FERC is under no obligation to accept ITC's request or clarify the applicability issue.

"My analysis leads me to believe … the commissioners probably won't answer ITC," SPP attorney Matthew Harward said. "If it grants ITC's request for clarification, that could potentially impact SPP."

Harward said he understood that several motions opposing ITC's request have been filed, but he had yet to review them.

Kelley said MISO staff has told him the RTO is "taking the policy position that these things do not apply" to SPP and MISO and that the order is related only to the MISO-PJM seam.

Harward seemed to agree. "The order is narrowly drawn for the PJM-MISO seam," he said.

– Tom Kleckner

COMPANY BRIEFS

Apple Files with FERC for Market-Based Rate Authority

Apple's newly formed energy subsidiary has filed with FERC to begin selling wholesale power from its solar facilities in California and Nevada (ER16-1887).

Apple Energy, formed on May 20 and headquartered in Delaware, asked FERC last week for market-based rate authority to offer capacity and other services, such as spinning reserves, frequency response and operating reserves, in CAISO.

However, the company also seeks permission to sell in NYISO, MISO, ISO-NE, SPP and PJM, suggesting further expansion. The company asked for approval within 60 days of the filing.

More: *9to5Mac*; *Tech Times*

WPPI Energy Seeking 100 MW of Renewables

WPPI Energy, a Wisconsin public power supplier, said it is looking to secure 100 MW of renewable energy for its companies in Wisconsin, Michigan and Iowa to meet regulatory mandates in those states.

WPPI, which serves 51 municipal electric utilities in the three states, already has several wind projects in development. Its current plan is to sign power purchase agreements stretching 20 years or more, the company said.

More: *Milwaukee Journal Sentinel*

DCNS Joins Maine Floating Turbine Consortium

French defense contractor DCNS Group has formed a partnership with Maine Aqua Ventus, the University of Maine-led consortium developing a floating offshore wind farm.

Maine Aqua Ventus aims to build a 12-MW wind farm near Monhegan Island in a pilot program supported by the U.S. Department of Energy. The role of DCNS, which builds submarines and naval vessels, is still being defined, according to the consortium.

Frederic Le Lidec, DCNS's marine renewable energy director, said the company is working on three marine renewable technologies: tidal energy, ocean thermal energy conversion and offshore wind. He said DCNS is offering its services in engineering, construction, installation, maintenance and project management.

More: *Portland Press Herald*

Shell Chemical to Build Pa. Ethane Cracker Plant

Shell Chemical Appalachia announced plans to build a massive, multibillion-dollar ethane cracker plant near Pittsburgh.

The plant will need 105,000 barrels of ethane a day, produced in the Marcellus and Utica shale fields of Pennsylvania, Ohio and West Virginia. It will break down, or "crack," that ethane into 1.5 million metric tons of ethylene, a chemical used in the production of plastic, a year.

The complex will receive $1.65 billion in tax credits spread over a quarter century. Pennsylvania officials hope the complex will spur other industries in the area. Shell will begin construction within 18 months on the grounds of a former zinc smelter in Beaver County. While the company wouldn't give an exact cost of the project, a similar ethane cracker in Lake Charles, La., cost $11 billion.

More: *The Philadelphia Inquirer*

Exelon to File for 20-year Extension for Peach Bottom

Only days after announcing that it will close two nuclear generating stations in Illinois, and that another in Pennsylvania is at risk, Exelon Generation announced that it will seek a 20-year extension for its Peach Bottom Atomic Power Station in Delta, Pa.

The licenses for the plant's two reactors expire in 2033 and 2034, but the company said it will file for the extensions in 2018. Reactor license renewals typically take about two years to make their way through the Nuclear Regulatory Commission process.

More: *PennLive*; *Exelon*

Wisconsin's Dairyland Power Inks 98-MW Wind Deal

The Dairyland Power Cooperative has agreed to buy the output of a proposed 98-MW wind farm near Platteville, Wis., nearly tripling the co-op's wind capacity.

The 49-turbine Quilt Block wind farm is gathering regulatory approval and is scheduled to come online by the end of 2017.

Dairyland's agreement would increase wind's contribution to its load from 4.5% to 12.6%. The co-op has a goal to source 18% of its power from wind by 2025.

More: *Associated Press*

DTE Energy to Retire 8 Coal Units at 3 Plants

DTE Energy will close eight coal-fired units at three Michigan plants in the next seven years.

The Detroit utility said the affected units at its River Rouge, St. Clair and Trenton plants will be retired between 2020 and 2023. The three plants represent a quarter of the company's total electricity production. The utility said employees impacted by the shutdowns will be offered jobs at its other facilities.

The move will leave DTE with just six coal-fired units of the 17 it had in 2015. Earlier this year, DTE retired three other coal-fired units and said the lost generation would be replaced with wind, solar and natural gas resources.

More: *Crain's Detroit Business*

Dominion's Chesapeake Center Coal Ash Estimate Triples

Dominion Virginia Power has three times as much coal ash stored at the company's

Continued on page 31

COMPANY BRIEFS

Continued from page 30

Chesapeake Energy Center near Norfolk than it previously estimated, according to documents received as part of a Sierra Club suit.

Dominion previously estimated the amount of coal ash at the site was about 1 million tons. But the company's newer estimates say the three impoundments contain about 3 million tons.

The Sierra Club is asking in a civil suit for the company to remove all of the ash from the site to a lined landfill away from the Elizabeth River to prevent heavy metals from leaching into groundwater and into the river. The suit is scheduled to be heard later this month.

More: *The Virginian-Pilot*

Toyota's New HQ will Draw 25% Power from Solar

Toyota's massive new North American headquarters in Plano, Texas, will draw about 25% of its electricity from a 7.73-MW solar facility mounted on three parking garages.

In the project's first phase, two 2.45-MW systems will be installed by August 2017, with a 2.83-MW system by December 2017. The seven-building campus, which is about halfway finished, is expected to be completed sometime in 2017.

Toyota did not disclose the cost of the facility, one of the largest in the state. The company estimates the entire campus and moving costs for employees will total about $1 billion.

More: *The Dallas Morning News*

Talen to Run Natural Gas to Montour Plant

Talen Energy is in the process of selecting an entity to construct, own and operate a 15-mile pipeline to bring natural gas to the 1,500-MW Montour plant as part of a project to convert its two coal-fired units to dual-fuel by 2018.

The estimated cost of modifying the plant in north-central Pennsylvania, near the Marcellus Shale natural gas fields, is about $70 million.

"The Montour plant is located in close proximity to one of the largest natural gas formations in the world, the Marcellus shale," Talen CEO Paul Farr said. "Co-firing the plant to burn natural gas produced in Pennsylvania enables Talen Energy to leverage the strategic location of the plant."

More: *Talen Energy*

New Technology is the 'Uber of Battery Storage'

Solar industry veteran Shihab Kuran has founded a company to offer modular grid-scale lithium-ion battery systems that can be delivered by truck, train or barge.

The Power Edison systems travel in special containers that can be stacked like Legos and shipped according to shifting demand.

"We are the Uber of battery storage," said Kuran, who also founded solar energy generation company Petra Systems. "We're going to offer a solution for the duration that it's needed, and, after that, we'll take our solution and repurpose that for other applications."

More: *Bloomberg*

Cooperative Hires Lightower To Build Fiber Network

The Delaware Electric Cooperative has chosen Lightower Fiber Networks to build a 250-mile, custom fiber network that will provide a secure way for the co-op to communicate with substations and remote advanced electrical equipment.

The project, which connects 28 sites in Delaware, includes the construction of 180 miles of new network.

More: *Lightower*

Cities to Break Contracts with Indiana Michigan Power

Nearly a dozen cities in Indiana and Michigan have given Indiana Michigan Power the required four-year notice to end their power purchase agreements. The cities, which all belong to the Indiana Michigan Municipal Distributors Association, plan to break their contracts in 2020, six years earlier than the agreements were originally slated to end.

A city administrator in Niles, Mich., estimated that the city is paying 30% more than market price for electricity, while a general manager for Mishawaka Utilities, in Indiana, put the figure at around 20% over market value.

While the cities could individually buy electricity from other utilities, they can also renegotiate a deal with Indiana Michigan Power.

More: *Associated Press*

FEDERAL BRIEFS

SCOTUS Declines to Stop MATS Rule

The Supreme Court on Monday declined to review a D.C. Circuit Court of Appeals ruling allowing EPA to continue enforcing its Mercury and Air Toxics Standards (MATS) while the agency complies with a 2015 high court ruling to address procedural issues (15-1152, *Michigan, et al. V. EPA, et al.*).

In the 2015 decision, the court found that EPA had failed to take costs into consideration when deciding whether the MATS rule was "appropriate and necessary" under the Clean Air Act. The court allowed EPA to continue enforcing the rule, however, while the agency addressed the court's concerns. The agency responded with a supplemental finding, saying the cost review did not change its opinion on the need for the rule and proposing to leave MATS unchanged.

Several states asked the D.C. Circuit to require the agency to conduct a new rulemaking, a request the court rejected in December. The litigation is largely moot: Most power plants covered by

Continued on page 32

FEDERAL BRIEFS

Continued from page 31

the rule complied or retired by the deadline of April 2015. Some plants received a one-year extension on the deadline, which has also passed.

More: POWER Magazine

IEA Says Renewable Subsidies Still Needed

A report by the International Energy Agency says that subsidies are still needed to ensure continued growth of renewable energy.

Government subsidies make renewable energy projects less risky investments. But the IEA warns that as the energy generated by renewables becomes less expensive, governments may look to scale back the subsidies.

"As we enter this new phase, the question becomes what can the policymaker do to maintain bankability [and] reduce the risk of investments in generation without just throwing subsidies out, which isn't where anyone wants to be," said Toby Couture, director at the German renewable energy consultancy E3 Analytics and an author of IEA's report.

More: Greentech Media

Iceland Testing New Carbon Capture Method

Scientists working in Iceland are testing a new method of carbon capture and sequestration, injecting CO_2 from a geothermal plant into basalt to form calcite, theoretically locking the gas in the ground permanently.

CarbFix, as the project is known, has so far resulted in about 95% of the CO_2 injected being converted to calcite. So much calcite was formed by the testing process that a pump used to test the water became clogged with the mineral. The scientists found that the calcite formed in less than two years.

Iceland is practically all basalt, making it an ideal location to test the new method. The project is being conducted in partnership with the Icelandic capital's municipal utility, Reykjavik Energy, at a plant about 15 miles east of the city. Work is being done now to figure out a way to scale the project up to industrial sizes and to find other suitable locations with enough basalt.

More: The New York Times

Report: US Solar Installations To Double in Coming Year

Developers rushing to meet a deadline for a federal solar tax credit are driving U.S. solar installations to nearly double the total capacity in 2016, according to a report by GTM Research. By the end of the year, 14.5 GW of solar capacity will be online, the report says.

Solar installations rose 24% in the first quarter this year, about 64% of all new electric generation capacity during that period, according to the report.

Most of the utility-scale projects were pushed through on expectation of the year-end solar tax credit expiration. The credit was extended for five more years, however. The extension will spur more than 20 GW of additional solar capacity by 2021, GTM said, though the utility-scale market is expected to contract next year and in 2018.

More: Reuters

FERC Grants Rehearing On NJ Pipeline Project

FERC has granted the request for new hearings on Transco's Garden State Expansion project after a group of municipalities said the company failed to give proper notice of meetings and didn't meet environmental requirements.

Although not a large project — it involves a new compressor station, upgrades to another substation and upgrading some existing pipeline — the municipalities and environmentalists called it a win.

"Anytime we get FERC to reopen a docket and have a rehearing is an environmental victory," said Jeff Tittel, New Jersey Sierra Club director. "FERC almost never grants a rehearing and the fact that they did it shows that there were significant problems in the approval of Transco's application."

More: Planet Princeton

Annual NRC Meeting on Indian Point Gets Heated

The Nuclear Regulatory Commission held its annual public meeting on the operation of Entergy's Indian Point nuclear station, and things got heated, with members of the public telling the commission it is failing in its job to keep the plant operating safely.

"You don't care about our lives, you don't care about our future," said Susan Shapiro, who identified herself as a member of the Indian Point Safe Energy Coalition, a protest group. "All you care about is how you are going to grease the pockets of Entergy."

David Lew, an NRC deputy administrator overseeing the northeast region, said Indian Point is operating within guidelines. "Our overall conclusion is that Indian Point operates safely and will continue to operate safely," he said.

More: Westchester County Business Journal

Talen Reports Leaks At Susquehanna Plant

Talen Energy, operator of the Susquehanna nuclear plant in Pennsylvania, reported the discovery of two small leaks of radioactive water while shutting Unit 1 down last week for regular maintenance.

Staff discovered one leak inside the containment structure and a second leak in lines leading to instrumentation sections of the unit. Both leaks were contained and there was no danger, according to the report made to the Nuclear Regulatory Commission.

"When the plant is operating, there are certain areas you can't access when it's in power," said spokesman Todd L. Martin. "When we did the downpower to address the initial leak, that's when we found this additional leakage, and that prompted the second notification."

More: The Citizens' Voice

STATE BRIEFS

CALIFORNIA

Del Mar Releases Climate Action Plan

Del Mar became the second city in San Diego County — after San Diego — to announce an objective of moving to 100% renewable energy by 2035. That goal is part of a larger climate action plan to reduce the city's greenhouse gas emissions.

The oceanfront city hopes to encourage regional utility San Diego Gas and Electric to fully switch to renewable energy by that year, but it is also considering working with neighboring towns to create a community choice aggregator that would serve residents who opt to switch electricity providers.

More: *The San Diego Union-Tribune*

Gas Plant Owners Seek State Support for Contracts

Owners of gas-fired power plants are warning that they will be forced to shut down their units if the state doesn't support their need for long-term contracts to maintain operations.

The plant owners argue their units are needed to ensure reliability on a grid that is increasingly subject to intermittent output from cheaper renewables.

A glut of natural gas and a boom in solar has driven wholesale power prices to unexpectedly low levels, threatening the viability of relatively modern gas-fired facilities.

More: *Reuters*

COLORADO

Boulder, Xcel Enter Into Settlement Talks

In the latest chapter in their ongoing dispute, the City of Boulder and Xcel Energy are discussing a possible settlement that would end the city's push to form a municipal electric utility.

The city's bid to municipalize has not ended just yet, however. Boulder will continue to work on its application to the state Public Utilities Commission to acquire certain Xcel facilities and create its own utility, while also engaging in settlement talks with Xcel.

A proposed settlement could come before the City Council this summer, and a new franchise agreement requiring voter approval could be placed on the November ballot.

To date, the city has spent more than $10.4 million on its municipalization bid, about $8 million of which came from the Utility Occupation Tax approved by voters in 2011, which generates about $1.9 million in revenue a year.

More: *Daily Camera*

ILLINOIS

ICC Approves Southern, AGL Resources Merger

The $12 billion merger between Southern Co. and AGL Resources, which would create the second largest utility in the U.S. by customer count, has cleared another hurdle, receiving approval from the Commerce Commission

AGL is the parent company of Nicor Gas, which has 2.2 million customers in the state. The companies expect to complete the merger by the end of the year.

More: *Southern Co. and AGL*; *Sonoran Weekly Review*

IOWA

Company Challenges Archeologist over Burial Ground

Energy Transfer Partners says State Archeologist John Doershuk overstepped his bounds by recommending the company reroute its Dakota Access Pipeline to avoid land that Native Americans say is a sacred burial ground.

ETP said that a 2004 survey of the same land by the same archeologist "cleared the property we are crossing of any historic archeological sites." It said Doershuk's jurisdiction is over human remains only if they are 150 years old or older, and even then, he can only oversee their relocation and handling.

The Utilities Board granted permission for construction to start where the company already has landowners' permission, but the state Department of Natural Resources issued a stop-work order based on Doershuk's findings.

More: *The Gazette*

MAINE

Businesses Lobby PUC Over Net Metering Changes

A coalition of business owners and nonprofit groups are urging the Public Utilities Commission to take a slower approach to major changes in net metering compensation to solar power owners.

In April, the Legislature narrowly defeated a bill that would have changed how behind-the-meter solar is credited, which put the issue in front of regulators.

More than two dozen businesses and environmental groups sent a petition Thursday requesting that the PUC give lawmakers and stakeholders more time to continue working on the issue in order to make sure that changes do not affect existing net metering customers and destabilize the rooftop solar industry.

More: *Portland Press Herald*

MARYLAND

PSC Staff Says No to BGE's Microgrid Plan

The staff of the Public Service Commission is advising against a microgrid pilot plan by Baltimore Gas and Electric.

BGE has applied to build two public-purpose microgrids, each with a capacity of 2 to 3 MW. It would recover the $16.2 million cost through a customer charge.

The PSC staff questioned the legality of utility-owned microgrids and is asking the commission to take a larger look at the state's microgrid policies.

More: *Microgrid Knowledge*

MASSACHUSETTS

House Passes Bill to Boost Renewable Imports

The House of Representatives approved legislation that would require utilities to solicit long-term contracts for 1.2 GW each of Canadian hydroelectricity and offshore wind.

Supporters say the measure is a critical step in reducing greenhouse gas emissions and replacing energy that has left or will be

Continued on page 34

STATE BRIEFS

Continued from page 33

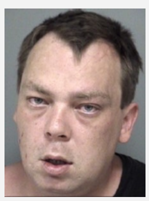
leaving the New England energy grid in the coming years, including the scheduled 2019 shutdown of the Pilgrim nuclear power plant in Plymouth.

Some environmental activists say the House bill doesn't go far enough in promoting renewable energy, while power generators say it interferes with the development of energy markets. (See Massachusetts Clean Power Bill Hit from All Sides.)

More: WBUR

MICHIGAN

Suspect in Attempted Substation Bombing Arrested



Buchanan

Battle Creek police arrested Joshua Buchanan on Thursday in connection to a firebomb found by workers at a Consumers Energy substation the day before.

Police did not provide any other information about Buchanan or the arrest. The Battle Creek Bomb Squad spent several hours at the substation removing a "crude incendiary device" and two gasoline cans. Sgt. Troy Gilleylen said the potential explosive device was not very sophisticated. The FBI is assisting in the investigation, and Buchanan could face terrorism charges.

"If this was put together properly it could have caused a lot of issues," Gilleylen said. "These items were found inside a fenced area and under some heavy electrical equipment that routes power through Battle Creek."

More: Battle Creek Enquirer; WZZM

Consumers Fined $516K For Estimating Bills

The Public Service Commission has fined Consumers Energy $515,800 over failing to provide thousands of its ratepayers with accurate meter readings.

Regulators announced the fine after an investigation into the company's practice revealed the utility was violating rules for estimated billing. The PSC said Consumers lacked efficient monitoring, controls and customer communications.

The PSC said Consumers Energy improperly relied on usage estimates for more than a year for 12,671 customers. The fine represents about $200 for each customer whose usage was estimated in the past 16 months.

More: WOOD

MISSOURI

PSC Wants in on Great Plains-Westar Deal

Public Service Commission staff have asked the commission to intervene in Great Plains Energy's acquisition of Westar Energy, citing a 15-year old agreement in which Great Plains agreed to get PSC approval if it wanted to acquire a public utility.

The agreement stems from Great Plains' purchase of Aquila in 2001. Great Plains countered that the agreement only applies to the purchase of utilities in the state. Westar is based in Kansas.

More: The Kansas City Star

PSC Seeks Compromise Over its Authority

After utilities made an unsuccessful push to dramatically overhaul the state's regulatory framework last legislative session, the Public Service Commission is moving to explore a "middle ground" on the way it oversees them.

The commission voted to open a case to bring together utilities, consumer groups and other parties in the hopes of brokering a conversation outside of the legislature. The move comes after the utilities' failed effort to reduce the PSC's discretion over setting rates and approving utility expenses.

Electric utilities said they need faster reimbursement to incentivize investment in aging infrastructure, but consumer groups countered the changes are unnecessary.

More: St. Louis Post-Dispatch

MONTANA

State's Coal Production Down by 4M Tons in 2016

Coal production in the state declined by nearly a third during the first four months of 2016, with coal companies producing 4 million fewer tons so far this year.

The decline in demand was caused by the mild winter weather and utilities switching fuel sources, said Bud Clinch of the Montana

Coal Council. Lower sales volume and lower coal prices may reduce tax revenues by as much as $25 million, he said.

More: Montana Public Radio

NEBRASKA

Aksamit Sues for Muni Generating Cost Data

Aksamit

A Nebraska wind-energy producer has asked state courts to force three public power entities to disclose their generation costs.

Aksamit Resource Management filed the action in three counties where it is building wind projects. Ratepayers "should know the costs and revenues associated with their publicly owned and operated public power districts," CEO Gary Aksamit said. "When we get this information, we plan to share it with all Nebraskans so they can better understand why their electric rates have increased so much in recent years."

The Nebraska Public Power District and the Omaha Public Power District say the information amounts to trade secrets and may be kept confidential, while the Municipal Energy Agency of Nebraska says it has provided sufficient information already.

More: Omaha World-Herald

County Supervisors OK 160-Turbine Wind Farm

Invenergy The Antelope County Board of Supervisors approved a plan by Invenergy to erect 160 wind turbines. The supervisors imposed several conditions on the project, such as increased setback distances and completion of a noise analysis within 24 months after the structures are erected.

Continued on page 35

STATE BRIEFS

Continued from page 34

Eight turbines in the original proposal were dropped because of potential conflict with flight space around the Neligh airport.

More: *Associated Press*

NEW JERSEY

Group Re-forms to Fight JCP&L Tx Line

A local protest group has re-formed to oppose Jersey Central Power & Light's proposal to build a $75 million transmission line between Aberdeen and Red Bank. The same group successfully fought the same transmission line project in the 1990s.

Residents Against Giant Electric said it is concerned about the proposal's effect on property values, health risks and aesthetics.

JCP&L's Monmouth County Reliability Project consists of a 230-kV line that would run 10 miles along a commuter railroad.

More: *Asbury Park Press*

NORTH CAROLINA

Court Orders NCUC to Reconsider Gas Plant Bond

The state Court of Appeals has ordered the Utilities Commission to revisit its decision to require environmental activists to pay a multimillion-dollar bond in order to appeal the commission's approval of a Duke Energy power plant near Asheville.

The commission will hold a hearing on June 17 to reconsider its decision to require activist groups NC WARN and The Climate Times to put up a $10 million bond to pay for the cost of potential delays to the $1.1 billion project should their appeal be unsuccessful. Duke had asked for the bond amount to be set at $50 million.

The activists argued that requiring such a high bond was, in effect, blocking them from access to the appeal process.

More: *WFAE*

NORTH DAKOTA

PSC Conducts Hearing On Brady Wind II

The Public Service Commission spent 10 hours last week listening to testimony and comments regarding NextEra Energy's proposed 72-turbine, 150-MW Brady Wind Energy Center II.

If approved, the $250 million project in Hettinger County will adjoin the proposed 87-turbine Brady Wind I wind farm in neighboring Stark County to the north. Brady Wind I and Brady Wind II could be online as soon as December, NextEra said.

If construction is not finished by December and the turbines aren't operational, NextEra will be fined by Basin Electric Power Cooperative for not fulfilling its end of a power purchase agreement.

More: *The Dickinson Press*

OHIO

9 Selected for PUCO Seat Consideration

The nominating council for the Public Utilities Commission has selected nine candidates from the 19 who applied for the vacancy left by outgoing Chairman Andre Porter.

The council selected Edward Hess, Dave Hall, M. Howard Petricoff, Sam Gerhardstein, Lawrence Friedman, James Teitt, Andrew Thomas, Mark Ward and Gregory Williams for consideration. The council will interview the candidates on June 16.

The names of four finalists will then be forwarded to Gov. John Kasich for the final decision. Sierra Club activist Daniel Sawmiller, who led the opposition against FirstEnergy's proposed power purchase agreements, did not make the cut.

More: *Columbus Business First*

OREGON

Pot Growers Urged to Save Energy, Water

A state task force is likely to recommend ways that legalized indoor marijuana growers can economize on their intensive

use of energy and water rather than impose any limits on the booming horticultural business.

The panel is set to report to the legislature later this summer, likely proposing a new certification process that would encourage growers to conserve resources and suggest ways the state can provide education on the subject. Energy experts are concerned the growing demand from pot growers will require adjustments in the power grid.

The new industry, which became legal in October, is interested in energy efficiency but says best practices have not been established and information is not widely available.

More: *The Oregonian*

PENNSYLVANIA

PUC Appoints Mumford as Market Oversight Director

Daniel J. Mumford, who spent 26 years with the Public Utility Commission's Bureau of Consumer Services, has been appointed director of the Office of Competitive Market Oversight. Mumford most recently helped direct the commission's investigations into the state's retail electric and natural gas markets and formulate changes in the wake of the polar vortex of 2014.

"Those regulatory changes served consumers well by enhancing supplier disclosure requirements, strengthening consumer protections and reducing the time needed to switch suppliers," PUC Chair Gladys M. Brown said. "As Pennsylvania's markets continue to evolve, we are pleased to have Dan at the helm leading OCMO."

Megan G. Good, an analyst with the PUC's Bureau of Technical Utility Services, will become the OCMO deputy director.

More: *Pennsylvania PUC*

Continued on page 36

STATE BRIEFS

Continued from page 35

RHODE ISLAND

Bill to Hinder Power Plant Sails Through House

The House of Representatives voted 64-7 to approve a bill intended to block a $700 million natural gas-fired power plant proposed in Burrillville.

The bill would require any tax agreement that the Burrillville Town Council reaches with developer Invenergy to be voted on in a town-wide referendum. Invenergy and its supporters, which include construction unions and business groups, say the legislation could lead to similar efforts to block infrastructure projects in other communities.

About half of the plant's 900-MW capacity was successfully bid into the ISO-NE's Forward Capacity Auction for delivery year 2019/20.

More: Providence Journal

TEXAS

Prices in Deregulated Markets Still Higher than Regulated

Consumers shopping for electricity in the state's deregulated market in 2014 paid more on average than those without choices, though the price disadvantage was smaller than in years past, according to a new study.

Residential power prices in deregulated markets, which cover about 85% of Texas, averaged 15.5% higher than those in regulated areas, where consumers cannot choose their providers. But the difference between the two markets has been shrinking in recent years. Statewide, power prices are below the national average.

The study was conducted by the Texas Coalition for Affordable Power, which advocates for cities and other local governments and negotiates their power contracts. It analyzed federal data on residential prices stretching back to 2002, the first year most of the state was deregulated.

More: The Texas Tribune

State Expecting 'Bumper Crop' Of Solar Farms this Summer

At least 20 "community solar" farms are scheduled to either be built or come online this summer in the state, according to industry insiders at last week's Solar Power Southwest Conference.

The state is expected to have 14 GW of solar projects on the grid, but most of the focus has been on utility-scale and rooftop projects. Under community solar programs, homeowners in single-family dwellings can purchase individual solar panels on a farm and receive credits on their monthly light bills based on production.

Advocates say that community solar fills in the gaps by allowing renters and those homeowners restricted by covenants or with large shade trees on their property to purchase panels at these off-site, third-party solar farms to take advantage of those credits.

More: Houston Business Journal

FAA Signs off on 86-Turbine Wind Farm in Chapman Ranch

The Federal Aviation Administration ruled that 86 wind turbines planned for Chapman Ranch, near Corpus Christi, won't be hazardous for air navigation, clearing a significant hurdle for the proposed wind farm's developer, Apex Clean Energy.

The agency conducted separate studies for each individual wind turbine that evaluated the structure and its impact on air traffic. Analysts concluded that each would present no hazard to air navigation, provided that the wind turbines have markings and lighting as stipulated.

The Corpus Christi City Council adopted a resolution in 2014 opposing the proposed wind farm. That position hasn't changed, said Tom Tagliabue, the city's director of intergovernmental relations. The council voted later that year to annex 16 square miles of Chapman Ranch in hopes that it would halt the project, but Apex said the turbines are not planned for construction in the city-annexed land.

More: Corpus Christi Caller-Times

VERMONT

Gov. Vetoes Renewable Energy Siting Bill

Shumlin

Gov. Peter Shumlin vetoed a bill giving communities more say in the siting of wind and solar power projects.

Shumlin said he supported the parts of the bill giving towns and regional planning commissions more input in the siting of energy projects, but he objected to the tighter standards for noise from wind turbines. The standards effectively would "make Vermont the first state in the country to declare a public health emergency around wind energy, without peer-reviewed science backing that assertion up," the governor said in his veto message.

The governor's other objections included language on solar energy that he said could create a problem with deeds when properties are sold, and a lack of funding for regional planning commissions to do new energy planning work.

More: Burlington Free Press

VIRGINIA

DEQ Issues Permits for Dominion's Ash Pond Draining

The Department of Environmental Quality issued a draft of a permit that would allow Dominion Virginia Power to drain up to 5 million gallons of coal ash pond water a day into the James River. The permit is one of four the company will need to begin draining the impoundment at Chesterfield Power Station.

The company is under federal mandate to drain the ash ponds at Chesterfield and

Continued on page 37

STATE BRIEFS

Continued from page 36

Bremo Bluff Power station. Environmental groups won a legal challenge to the company's first efforts at Bremo, and they vow to study the permit to make sure it meets the necessary standards.

The state will accept written comments about the permit through July 21.

More: *Richmond Times-Dispatch*

Pipeline Foes Plant Corn In Symbolic Barricade

Foes of the proposed Atlantic Coast and Mountain Valley pipelines, assisted by veterans from the anti-Keystone XL Pipeline effort, planted corn in the paths of the two projects in Franklin. They hope the "Seeds of Protest" will grow into a symbolic barricade of the shale-gas pipelines.

"I have children and grandchildren and I want them to grow up in a world with clean water, clean air and healthy food to eat," said Mekasi Horinek Camp, a member of the Ponca Tribe, who joined in the protest. "Anything that threatens Mother Earth threatens my children and grandchildren."

More: *The Roanoke Times*; *The Daily Progress*

WISCONSIN

Madison Council Approves Ambitious Energy Plan

The Madison City Council adopted a measure last week to cut the city's emissions 80% by 2050.

The plan creates an inventory of city-owned property that could house rooftop solar and establishes the Property Assessed Clean Energy (PACE) program to assist property owners in financing energy upgrades. The city has also committed to creating permanent energy staff positions and reviewing its climate change plan.

The plan also recommends the city obtain a quarter of its electricity from clean sources by 2025 and half by 2030.

More: *Midwest Energy News*

WYOMING

Solar Supporters Boost Net Metering Expansion

Solar advocates have asked legislators to back a proposal lifting the 25-kW cap on solar installations eligible to sell surplus power back into the grid, expanding the practice of net metering to larger projects. Supporters hope the measure will boost commercial solar installations and create jobs as the state confronts the declining fortunes of its oil, gas and coal industries.

The measure is expected to meet opposition from utilities, including PacifiCorp, which last month told state lawmakers the practice amounted to paying subsidies to homes and businesses with solar panels.

More: *Casper Star-Tribune*