RTO Insider

Your Eyes and Ears on the Organized Electric Markets

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

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FERC Eliminates Wind's Reactive Power Exemption

By Michael Brooks

WASHINGTON — New wind generators will be required to provide reactive power following a FERC order last week eliminating their exemption from having to provide the service (RM16-1).

Inverters, necessary for wind turbines to provide reactive power, have become much less expensive since FERC exempted the resource from having to provide the service. *Source: ABB*

Reactive power, essential for controlling the voltage of the grid, can be measured at three points: the generator itself, the generator substation or the point of interconnection. Synchronous generators' reactive power is measured at the interconnection point.

The commission's order revises the commission's *pro forma* generator interconnection agreements — both small and large — to require nonsynchronous generators' reactor power to be measured at the high side of generator substations. In its Notice of Proposed Rulemaking in November, FERC had proposed the interconnection point, but it was persuaded by commenters who said doing so would require additional investment in equipment.

FERC issued the wind exemption in Order 661 in 2005 because it was concerned that the cost of the technology needed to provide reactive power would inhibit the development of the resource. Improvements in that technology since then have made it far less expensive, and FERC said that continuing the exemption could result in insufficient reactive power as wind power grows and traditional synchronous generation retires.

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Exelon Threatens to Close Nine Mile Point 1; NY Lawmaker Calls for Immediate Action

By William Opalka

Exelon told New York regulators last week that it will close its Nine Mile Point Unit 1 nuclear plant rather than refuel it next March if the state has not guaranteed it a financial lifeline by September (16-E-0270).

The company announced its plans in a June 14 filing with the New York Public Service Commission in response to requests from commercial and industrial customers for more time to comment on Exelon's proposal for cost-based compensation for its nuclear plants. That proceeding is running concurrent with one on New York's proposed Clean Energy Standard that includes a mechanism to compensate nuclear plants through zero emission credits (ZECs). (See *New York Would Require Nuclear Power Mandate, Subsidy*.)

The company proposed the cost-based plan because it believed the CES process would be too lengthy. Exelon said last week it supports the request to extend the comment deadline until July 15, after a June 24 PSC technical conference on its proposal.

In a filing in May, in which it proposed the cost-based compensation plan, Exelon also said it must "make immediate decisions" regarding the nuclear plants' continued operation. But last week's filing is the first time the company said it would not refuel Nine Mile Point in March.

Exelon told the PSC its Constellation Energy Nuclear Group could not count on a CES

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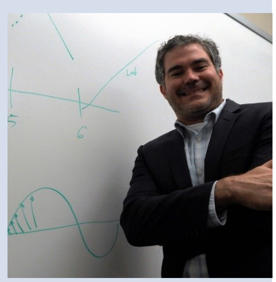
Cathey's Inner Geek Helps SPP Incorporate New Technologies

By Tom Kleckner



LITTLE ROCK, Ark. — It doesn't take much for SPP's Casey Cathey to let his inner geek flag fly.

"Have you heard about Solar Reserve's salt tower?" he asks, jumping to his feet and grabbing a marker. Cathey steps to the whiteboard and begins to sketch a representation of the 110-MW Crescent Dunes Solar Energy Plant in Nevada. It is capable, its developers say, of providing enough firm solar energy to power 75,000 homes.

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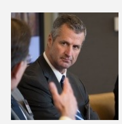
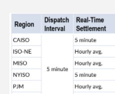
Also in this issue:



Lack of Carbon Pricing Distorting RTO Markets, CEOs, Ex-Regulator Say

Organized markets are being distorted because of policymakers' failure to price carbon, a panel told a New York Energy Week audience. (p.3)



Region	Dispatch Interval	Real-Time Settlement
CAISO		5 minute
ISO-NE		Hourly avg.
MISO	5 minute	Hourly avg.
NYISO		5 minute
PJM		Hourly avg.
SPP		5 minute

FERC Issues 1st RTO Price Formation Reforms

RTOs will be required to align their settlement and dispatch intervals under new price formation rules approved by FERC. (p.24)

RTO Insider

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Exelon Threatens to Close Nine Mile Point 1

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that is "merely speculative."

"In order for CENG to make the investment and commitment necessary to keep Nine Mile Unit 1 and Ginna in operation, it needs the certainty provided by a commission order approving the CES *and* a signed contract procuring zero emission credits from the nuclear generators," Exelon wrote. "CENG cannot simply roll the dice and make substantial investments on the hope that the program ultimately adopted by the commission is sufficient to justify the substantial investments and commitments required to enable continued operation of CENG's upstate nuclear plants. Thus, CENG will need a contract in hand by September 2016. Time is of the essence." Exelon also wants a pricing formula determined by the PSC by Aug. 1.

In response, the chairman of the New York State Senate energy committee last week called for the immediate implementation of the nuclear subsidy in the CES before the entire proposal is finalized by state regulators.

"There is one thing everyone agrees on, and that's the pressing need to make sure that our nuclear fleet does not retire prematurely due to current economic conditions in the energy sector," said Republican Joseph Griffo, chairman of the Senate Energy and Telecommunications Committee.

The "Tier 3" of the CES is a special payment for nuclear generating stations that credits them for ZECs. Other tiers of the CES create incentives for wind, solar and other renewable resources. The PSC had promised an order that would compensate all eligible resources by the end of the summer. (See *Stakeholders Debate New York Clean Energy Standard*.)

"There are many opinions about how best to go forward with the broader Clean Energy Standard and, in particular, how to do so in the most cost-effective way for consumers," Griffo said. "We need to slow down and evaluate the full CES more carefully in order to reach our goals while protecting ratepayers."

The PSC on Thursday reiterated that the CES would be completed this summer.

"The department fully understands the difficulties facing the upstate nuclear fleet, which is why we have been working for the past six months to create a plan that will ensure the future viability of these emission-free resources and continue New York's progress in reducing greenhouse gas emissions," it said in a statement.

Exelon said refueling Nine Mile Point's 620-MW Unit 1 would cost approximately $55 million. The company just finished refueling Unit 2 at the plant. The two units, located on the shores of Lake Ontario, north of Syracuse, generate a combined 1,900 MW.

The company has previously said that it would need financial support to keep its single-unit, 581-MW R.E. Ginna plant operating after a reliability support services agreement with Rochester Gas & Electric expires next March.

Griffo was joined in his statement by several state legislators from districts that include or are near to the upstate nuclear fleet on Lake Ontario. The other plant is Entergy's James A. FitzPatrick plant, adjacent to Nine Mile Point. Entergy has said it will close FitzPatrick and Gov. Andrew Cuomo has excluded its Indian Point facility near New York City from eligibility for the CES. (See *New Lifeline for FitzPatrick Nuclear Plant*.)

Separately, the Oswego County Industrial Development Agency issued its own statement advocating quick action.

"Nine Mile Point 1, and the thousands of families and jobs it supports, as well as the surrounding community and our state, needs regulators to implement the CES as soon as possible. We are very close to the finish line in this regulatory process, and the news that the plant could shut down without the CES is a reminder that the state's economic and environmental future is now at stake," CEO L. Michael Treadwell said.

Clarification

In the June 7 edition, an article, *Independent Market Monitors Wouldn't Have It Any Other Way*, may have given a mistaken impression of the role of the ISO-NE's Internal Market Monitor. The internal monitoring staff of 20 handles day-to-day monitoring and market power mitigation; produces monthly, quarterly and annual markets reports assessing market competitiveness and making recommendations; conducts investigations of participant behavior; and refers violations to FERC's Office of Enforcement. ISO-NE's external monitor, Potomac Economics, produces monthly and quarterly reports for internal use and an annual public assessment critiquing market performance and making recommendations.

New York Energy Week 2016

Lack of Carbon Pricing Distorting RTO Markets, CEOs, Ex-Regulator Say

By Rich Heidorn Jr.

From left to right: moderator Rich Heidorn Jr., *RTO Insider* editor-in-chief; Gordon van Welie, ISO-NE CEO; Brad Jones, NYISO CEO; and Nora Brownell, former FERC and Pennsylvania PUC commissioner *© New York Energy Week*

NEW YORK — Organized markets are being distorted because of policymakers' failure to price carbon, two grid operator CEOs and a former FERC and state commissioner told a New York Energy Week audience last week.

"I would say that in my … 16 years, this is the most vulnerable that I've seen the market construct yet," ISO-NE CEO Gordon van Welie told more than 75 industry participants at Goldman Sachs' office in lower Manhattan.

Van Welie appeared on a panel with NYISO CEO Brad Jones and former FERC and Pennsylvania Public Utility Commissioner Nora Brownell, who both joined van Welie in lamenting that CO_2 emissions remain a market externality. The conference was created in 2013 by EnerKnol, an energy policy research and data company.

"We value what nuclear brings to the table" as a baseload, low-carbon resource, Jones said. "But our markets don't."

Asked about Gov. Andrew Cuomo's proposed zero emission credits for upstate New York nuclear units, Jones said, "We'd like to see that be temporary in nature … a bridge into a future where the market can really resolve these issues."

Obvious Solution

Brownell was blunt.

"We don't have the leadership to deal with the obvious solution, which is a carbon tax. It's straightforward, it's transparent, it sends the right market signals," said Brownell, who served on FERC from 2001 to 2006. "The market signals are there; we're not allowing them to really work. And the more we create these constructs, the more we ultimately distort markets."

Van Welie said the lack of carbon pricing is putting the public policy of achieving reliability through wholesale markets in conflict with that for reducing carbon emissions.

Allowing resources with "out-of-market" contracts under state clean energy procurements to offer into the capacity market will distort price formation, said van Welie. "And that really creates a problem in terms of ensuring reliability, but it also creates a problem with regard to the long-term incentive in the market as well."

'Fundamental Questions'

Brownell said the conflict raises "fundamental questions."

"Do we really value markets, and have we done a sufficient job of illustrating the economic benefits of markets?

"Secondly, what is the role of the RTO? We have piled on … to what was originally a pretty straightforward economic dispatch reliability model. I'm not saying they are incapable of doing this; I just wonder if they are the best entity to do it. Or we are burdening them to the point where they really can't do their fundamental job well, which is ultimately and critically important to both economic development and the environment in which we live."

Building Infrastructure

Jones and van Welie also shared their challenges in building the electric and gas infrastructure needed to meet reliability and environmental goals.

Jones noted that it has historically taken 10 to 12 years to get new transmission approved, sited and constructed in New York.

Based on that, he said, the ISO "would have two years remaining in our 14 years to interconnect everything into the system to meet the [2030 state goal of 50% renewables]. That is not possible. We have to improve our ability to move these projects through the system.

"Given that we have a single siting authority, it does give us the advantage to begin to streamline that process," he added.

For the six-state ISO-NE, siting issues are compounded by cost allocation disagreements.

Unlike the "singular objective" that made the region's $12 billion transmission buildout for reliability possible, there is less consensus on transmission to deliver renewables, van Welie said.

Part of the problem is that some renewable developers are trying to connect in weak parts of the region's grid. "Up in Maine, we have 3,000 MW of wind projects trying to interconnect to a transmission system designed to serve 300 MW of load," van Welie said.

"We've spoken to the developers and said, 'Why don't we do a cluster study and why don't you guys sort of get together and pool your money and all share in this investment that's required and we can get you all connected?' They don't want to do that.

"And then we turn around to the states and say, 'There's a bunch of wind developers up here in Maine, some of which have actually signed contracts with you,' he continued. "'Can't we get you guys to pay for some transmission to integrate them?' And we can't get that to happen either. And so we're

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New York Energy Week 2016

Lack of Carbon Pricing Distorting RTO Markets, CEOs, Ex-Regulator Say

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stuck, quite honestly."

Van Welie said he has some hope that state clean energy solicitations will break the log jam.

"Maybe they'll choose one that's up in Maine and we'll actually resolve this problem," he said. "If they don't, I think we're going to remain stuck."

Cost Allocation

Complicating New England's transmission challenge is the Order 1000 cost allocation methodology approved by FERC. "The northern states don't agree with the cost allocation and they're the ones that would have to site these transmission projects," van Welie said. "Ultimately I think we're going to do something like what Texas did" with its Competitive Renewable Energy Zones (CREZ), he said.

Jones

Jones, who worked for ERCOT and Luminant before joining NYISO last year, said he sees lessons in how Texas and California — other single-state ISOs — were able to build renewables.

"In order to meet this aggressive goal, we have to begin identifying in advance where we think some of these renewables will locate. And then by that identification we can begin to build out a collector system, which allows those renewables to feed into the market," he said. "We have to begin to remove some of that risk that is … on the developers by building out transmission to locations where we think there's a high probability for those developers to come."

Gas-Electric

For New England, the challenge of upgrading the transmission grid is compounded by its stressed natural gas infrastructure. This is a concern, van Welie said, because gas will be needed to balance renewables for the next "several decades," until storage becomes more affordable.

"One of the most vexing problems we have is this disconnect between how the gas

"We've spoken to the developers and said, 'Why don't we do a cluster study and why don't you guys sort of get together and pool your money and all share in this investment that's required and we can get you all connected?' They don't want to do that."

Gordon van Welie, ISO-NE

industry is regulated and the electric industry is regulated," he said. "I think we all launched into wholesale markets 15 years ago thinking that the markets would do a great job of optimizing existing infrastructure, and of course they've done that. But we have now pushed the gas system to the limit."

"So there's nobody looking out to say, 'How do we plan the gas system to be able to make efficient fuel delivery to the electric system?' When we've approached the FERC on this issue, basically they're boxed in because of the Federal Power Act," which, van Welie said, doesn't allow the commission to ensure that the gas system is adequate to meet the needs of the power system.

Brownell echoed van Welie's concern, urging "integrated planning."

"We need to look at the entire infrastructure needed. Texas [CREZ] worked. It just totally worked. … We just cannot continue to do things state by state, silo by silo, policy by policy," she said.

Distributed Generation, New York REV

The panelists also gave their views on distributed generation, New York's Reforming the Energy Vision initiative and its proposed rewrite of the utility revenue model.

"The debate about the big or the small grid [being] either/or is not really a debate that I buy into," Jones said. "It really has to be both. We can't … have a large renewable program and then trust that all that will be developed in rooftops. … To get the efficiencies out of building renewables in a way that just doesn't cost too much for all of our customers, we need to do that in large scale. And so a lot of that large-scale [generation] will be a distance away from our [load] so it really has to be a combination of both the big grid and the small grid."

Brownell

Brownell, who served on the Pennsylvania commission (1997-2001) when it eliminated utilities' monopolies and adopted customer choice, and now serves on the board of National Grid, was asked her reaction to the New York Public Service Commission's May order seeking to change the utility revenue model.

Instead of earning returns on investments in large, centralized power systems, utilities would have "earnings opportunities" based on their performance as a "platform" enabling distributed resources and other new technologies. (See NY REV Order Revamps Utility Business Model.)

"Utilities cannot deny that the business model is changing with them or without them," she said. "So I think there is real leadership among some — not all — to be part of that solution.

"The challenge is that if you're going to have performance metrics — and we've seen them in the U.K.; they've worked for years — they need to be clear, they need to be measurable.

"You can't have what you had in the telecom industry, which was: 'We'll give you extra money for doing the following 10 things, but we're not going to really measure whether you've done them.'"

"We don't have the leadership to deal with the obvious solution, which is a carbon tax."

Nora Brownell, former FERC commissioner

CAISO NEWS

CAISO Study Would ID Gas Generators Vulnerable to Early Retirement

By Robert Mullin

Concerned that large numbers of gas-fired generators will retire early because of competition from lower-cost renewables, CAISO last week proposed a study to identify the most vulnerable units in its balancing area.

The initiative to gauge the risk of "economically driven" retirements is a result of California's 50% by 2030 renewable portfolio standard, enacted last year.

That mandate — along with other state and federal environmental measures — is expected to increasingly leave nonrenewable resources at the margins of the ISO's wholesale markets, reducing the income stream for gas generators already dealing with depressed power prices.

Transmission planners would use the study's findings to assess how potential gas retirements would affect reliability and congestion in ISO load pockets, including local capacity requirements (LCR) areas — regions with increased resource adequacy requirements based on limited import capability. The ISO's largest metropolitan areas — the Los Angeles Basin, San Diego and the San Francisco Bay Area — are all LCR areas.

ISO staff said the study will not evaluate the impact of gas retirements on overall system resource adequacy, instead limiting its focus to local impacts.

"We'll go through all the LCR areas one by one," said Yi Zhang, CAISO regional transmission engineer lead, during a June 13 conference call to discuss the study with stakeholders.

Calpine idled its gas-fired Sutter Energy Center in Yuba City, Calif., earlier this year for economic reasons. *Source: Calpine*

The ISO will accept comments on the proposed study — including its necessity — until June 27.

Study results are intended to inform the ISO's 2016-2017 transmission planning cycle and the long-term planning process.

The study would screen for potential gas retirements by first overlaying the ISO's 2015-2016 production cost models — the framework for determining the most cost-efficient generation configuration for serving load — with expected portfolio changes stemming from the 50% renewables mandate. The latest LCR results would also be factored into the assessment.

Based on that information, CAISO would apply three criteria to identify whether a gas unit exhibits a high potential for early retirement:

- A capacity factor below the typical value for the type of generator;
- No revenue from ancillary services; and
- Not required to meet LCR.

A unit meeting the first two criteria, but also needed to meet LCR in a designated area, would likely avoid retirement — except in LCRs with surplus generation.

"If one area has a surplus, there may be some risk of early retirement," Zhang said.

Calpine Vice President Mark Smith questioned the soundness of CAISO's criteria for determining the financial viability of units deemed vulnerable.

"You know retirement is fundamentally an economic decision [for generating companies]," Smith said. "Why aren't you using financial information to assess this rather than the criteria you've chosen?"

He contended it would "a very, very dangerous assumption" that any units will be compensated to "stay around."

Calpine earlier this year idled its gas-fired Sutter Energy Center in Northern California, saying the plant was not economically viable. In 2012, the California Public Utilities Commission directed the state's three investor-owned utilities to enter into contracts with the 578-MW, combined cycle plant to keep it operating for reliability reasons, but those agreements expired later that year. The PUC has resisted the idea of California developing a capacity market — or any system of capacity payments — to keep such plants available.

"Trying to do a bottom-up analysis of individual units and trying to understand the value chains they have access to is a far broader exercise," replied Neil Millar, CAISO executive director of infrastructure development.

"This is our first time to take on this analysis and our focus is the risk to the grid," Millar said, adding that the ISO will refine its approach in the future.

Zhang said CAISO plans to share a list of potential retirements during a September stakeholder meeting.

News from FERC

FERC Suspends Klamath Dam Licensing

FERC last week granted PacifiCorp's request to suspend the relicensing proceeding for the 169-MW Klamath Hydroelectric Project in order to give the utility more time to transfer the facility to new owners ahead of the removal of four dams (Project No. 2082-027).

The fate of the project — which straddles the California-Oregon border along the Klamath River — became the subject of negotiations among state and federal agencies, Native American tribes, environmental groups and local farmers in 2008. Two years later, PacifiCorp reached a settlement agreement to remove four of the project's dams, contingent on passage of federal legislation authorizing the removal.

Congressional inaction triggered dispute resolution proceedings early this year, resulting in PacifiCorp agreeing to transfer the project's license to a new entity — the Klamath River Renewal Corp. — in July. That entity is expected to immediately file with FERC to surrender and remove the dams under the commission's process, rather than await approval from Congress.

"Requiring the parties, other stakeholders and commission staff to simultaneously proceed with both a relicensing proceeding and a transfer and surrender proceeding would be burdensome and an inefficient use

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CAISO NEWS

CAISO to Study Impact of Gas Shortages on Reliability

SoCal More Vulnerable to Curtailments

By Robert Mullin

CAISO transmission planning staff last week proposed studies on the implications of gas shortages on grid reliability.

The planners outlined the studies in a June 13 stakeholder call, saying they will consider the risks to Northern California as well as the more vulnerable southern part of the state.

The disparity between the regions stems from design differences in their pipeline systems and the synergy between Southern California's storage facilities and its pipeline network.

"Gas storage in the [Los Angeles] Basin is critical [to pipeline operations]," said ISO senior advisor David Le, referring to the gas system's dependence on the Aliso Canyon storage facility.

Le pointed out that the Aliso Canyon — closed earlier this year because of a gas leak — is vital not only for its massive 86 Bcf storage capacity, but also for its ability to quickly supply large volumes of gas to support pipeline pressure.

Aliso Canyon usually accounts for more than 65% of the inventory held in Southern California's four major storage sites. The facility also boasts a daily withdrawal capacity of 1.86 Bcf, which helps keep 17 gas-fired generators in the basin supplied with gas under strained conditions.

That withdrawal capability is usually tapped during summer months to help generators meet peak demand. CAISO says that, because of the "magnitude and speed" of the generators' consumption, pipeline capacity is often insufficient to supply their needs without the ability to backfill from storage such as Aliso Canyon.

CAISO plans to model multiple scenarios stemming from the closure of Aliso Canyon to assess the potential long-term impact of the gas system's balancing act on Southern California's grid reliability. Planning staff will develop scenarios in which gas pipeline operators and gas generators lose access to other storage facilities in the region in addition to Aliso.

The study is intended to take a long view, looking at the implications of such gas curtailments to inform transmission planning for 2021 and 2026 as California advances on its 50% renewables mandate.

A parallel study would examine the likelihood for gas curtailments in Northern California, a region with a "much different" gas system, according to Binaya Shrestha, CAISO regional transmission engineer lead.

To provide context for his assertion, Shrestha pointed to the February 2011 gas outages that cut supplies to a number of San Diego-area generators. "Southern California is [subject to] historical outages, but in Northern California, there hasn't been any curtailment of that level for gas-fired plants," he said.

That success can be attributed in part to both the line capacity and topology of the gas system.

The region's backbone pipeline — Line 401/402 — has a firm capacity of more than 2 Bcfd. Additional supply arrives via the Mojave gas system originating in the southern part of the state, which serves about 2,200 MW of generation in the ISO's Pacific Gas and Electric zone.

The proximity of gas storage facilities to Northern California's backbone pipeline provides flexibility for the region's gas system. *Source: CAISO*

Furthermore, nearly all of Northern California's eight major gas storage facilities are distributed along the length of Line 401/402. That arrangement provides operational flexibility because gas can be injected into the system from multiple sites.

Those facilities also equip the region's gas suppliers with a combined 238 Bcf in inventory capacity — double that in Southern California — and more than 4.5 Bcf in withdrawal capacity.

Still, the ISO wants to better understand the dynamics of gas supply in Northern California to investigate what chain of events leading to curtailments could compromise the region's electric reliability.

Stakeholders must submit comments about the gas-electric studies by June 27. Findings will be incorporated into the ISO's draft transmission plan early next year.

News from FERC

Continued from page 5

of resources," the commission said in its ruling.

FERC OKs NextEra Tariff Revisions Covering CAISO Competitive Projects

FERC last week accepted a NextEra Energy compliance filing revising a tariff for two transmission projects the company has been awarded through CAISO's competitive selection process (ER15-2239-002).

The commission agreed with NextEra's explanation that the tariff's formula rate would only apply a 150-basis-point adder to an initial assessment of the long-term cost of debt for the projects — a figure based on the company's debt cost for a Texas project. The adder, the company clarified, would be recalculated once long-term debt is actually issued.

The commission also rejected a request by the California State Water Project that NextEra's tariff clarify the term "third-party debt," ruling that the argument was outside the scope of the proceeding.

"The commission has repeatedly held that compliance filings are limited to the specific directives of the commission's order," the commission wrote. "The sole issue on review is whether the filing party has complied with those directives."

— Robert Mullin

ERCOT NEWS

ERCOT Board OKs Rio Grande Valley Fixes

By Tom Kleckner

ERCOT's Board of Directors last week unanimously approved two transmission projects intended to ease congestion and reliability concerns in South Texas, where proposed LNG plants are expected to increase the region's load.

The Regional Planning Group's Valley Import Project will add a static VAR compensator at two 138-kV substations, at an estimated cost of $91 million. The Hidalgo-Starr Project will result in two new 345-kV lines, a 345-kV double-circuit line, two 345/138-kV transformers and various other improvements in the North McAllen-Edinburg region. The project is estimated to cost $51.5 million.

Both projects are projected to go into service as early as 2019.

Two LNG plants have already been approved for Corpus Christi and Brazoria, south of Houston. Another eight plants have been proposed, including six — an additional 2,400 MW of load — for the Port of Brownsville on the Mexican border.

ERCOT said further improvements may be needed to meet the Rio Grande Valley's load in 2023, but the compensators will buy time until a long-term solution addresses the challenge.

"The issue we face is a limited amount of generation in the Valley," Warren Lasher, ERCOT's director of system planning, told the board June 14. "This is a situation where if we could get generation to site in the Valley region, it would significantly increase reliability in the region and preclude the need to build more transmission. … If [the two projects] get built, we would not need additional transmission into the Valley."

Lasher said two large combined cycle gas plants have signed generation interconnection agreements, but neither were included in the planning models as they have not yet been "collateralized." Staff did conduct a sensitivity analysis that assumed 780 MW of new generation and 700 MW of LNG load; it showed reliability criteria could be met without additional import facilities.

Board member Judy Walsh, a former Texas commissioner and MISO's board chair, wondered aloud whether building additional generation might be a cheaper alternative.

"It looks like chicken and eggs to me," she said. "Without a [financial] product to incent generation, it makes it less likely generators will build."

"If the board approves this, if the SVCs are installed, would that discourage new generation?" asked Public Utility of Texas Commissioner Ken Anderson, who also suggested eliminating mitigation schemes and letting prices rise.

Lasher said congestion pricing would influence future decisions about generation, but the SVCs could also play a role by changing the voltage-stability limits in the Valley.

"The SVCs will not be competing with the generation units. They will be changing the voltage-stability limits in the Valley, and may actually support the ability for thermal-based congestion to create a little more pricing incentive."

Anderson also asked whether eliminating mitigation schemes in the Valley and letting prices rise would lead to the construction of more generation.

"The challenge in the Valley is that it doesn't affect just the Valley," pointed out Potomac Economics' Beth Garza, director of ERCOT's Independent Market Monitoring Unit. "It affects all the prices in the South load zone."

Two transmission projects went into service in the region during the last two months, easing some of the congestion issues. However, Direct Energy's 524-MW Frontera combined cycle plant will disconnect from ERCOT during the third quarter and begin dispatching into the Mexican market.

"One thing in favor of strengthening transmission … is that it's pro market," said unaffiliated board member Peter Cramton. "It allows a larger set of generators to compete in a more robust marketplace. You don't always want to throw money at transmission, but at same time, you have to recognize it's transmission that's enabling the market."

American Electric Power, which owns the two substations that will be upgraded and proposed both projects last year, will handle the construction. Sharyland Utilities and CPS Energy also submitted a proposal for the Valley Import Project.

Board of Directors Briefs

Board Expands Greens Bayou RMR Contract to 2018

The ERCOT Board of Directors approved extending a reliability-must-run contract with NRG Energy for its Greens Bayou Unit 5 plant in the Houston area. The RMR, ERCOT's first in five years, will run through June 30, 2018, at which time additional generation and transmission infrastructure is expected to be in service.

The 371-MW natural gas-fired generator was originally scheduled to be mothballed June 27, but ERCOT's RMR contract June 3 made the unit available to the market through September. (See *ERCOT to Keep NRG's Greens Bayou Plant Running for Summer*.)

Staff analysis indicates Greens Bayou Unit 5 is needed to maintain or support reliability in the region over the short term.

"Having that unit available will reduce the likelihood of having to engage a constraint-management plan, which would likely mean

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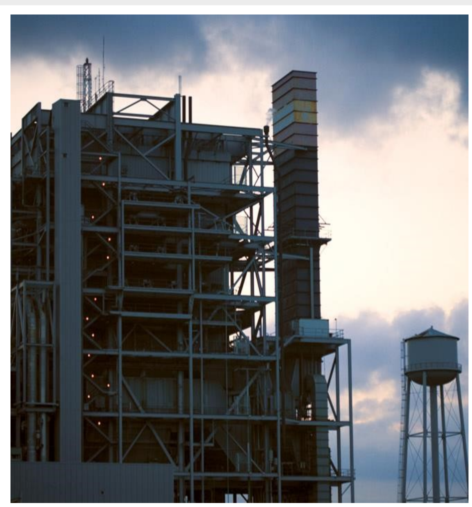

ERCOT News

Board of Directors Briefs

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load shed," said Warren Lasher, ERCOT's director of system planning.

Under the RMR agreement's terms, ERCOT will make a standby payment to NRG of $3,185/hour during on-peak hours, whether or not the unit runs.

Directors Carolyn Shellman, of CPS Energy, and Read Comstock, of Direct Energy, both encouraged additional discussion on the ISO's RMR practices at the next board meeting. "I think we should encourage a holistic review of the RMR protocols," Comstock said.

Lasher said staff will begin evaluating must-run alternatives, which it will bring to the board in August. The Technical Advisory Committee is also creating a task force to focus on the issue.

"I would like to see the market solve these situations, so we don't have to," Director Judy Walsh said.

Staff said the region's reliability concerns will subside before the summer peak of 2018, when the $590 million Houston Import transmission project — "the ultimate [RMR] exit strategy," Lasher called it — is expected to be completed. New generation is also on the way, with NRG's 390-MW PH Robinson peaking facility expected to come online later this summer and Exelon's 1,148-MW Colorado Bend combined cycle plant to follow in July 2017.

ERCOT also added 75 MW of power last week when NRG converted a gas turbine at its Houston-area W.A. Parish facility into a cogeneration unit. The unit was originally built to produce steam and electricity as part of the Petra Nova post-carbon capture and sequestration joint venture with JX Nippon Oil & Gas Exploration. The unit went into mothballs May 19 during its conversion process.

Magness: Mild Weather Cuts into Admin Revenue

CEO Bill Magness said ERCOT's year-to-date revenues are $2.3 million over budget, despite a $2.2 million shortfall in the administrative fee that is attributed primarily to mild weather this year. He said the ISO is on track to finish $3.1 million above budget, thanks to positive variances in resource management, hardware and software, and employee benefit costs.

"It looks like we can create a favorable variance, but we don't know what the weather's going to be like," Magness said.

ERCOT's senior meteorologist, Chris Coleman, said this summer will "likely" not be as warm as last summer — the 17th hottest in Texas over the past 121 summers — or 2011, when sustained heat led to several peak-demand records and seven emergency alert notifications.

"This summer is one of the more difficult forecasts I've put together," Coleman said. "Most indicators suggest a milder summer. I can guarantee you we will not see a repeat of 2011."

Coleman said ocean temperatures, the primary influence on weather patterns, have been above normal in both the Pacific and Atlantic Oceans. He also said the transition from the second-strongest El Niño on record to what he expects to be a neutral or weak La Niña could lead to above-normal temperatures in the late summer.

The meteorologist said he does see "more potential for hurricane activity in the Gulf of Mexico" than his first four years with ERCOT. Coleman predicted five hurricanes, of which one or two could be in the Gulf, and the potential for two storms to make landfall in Texas.

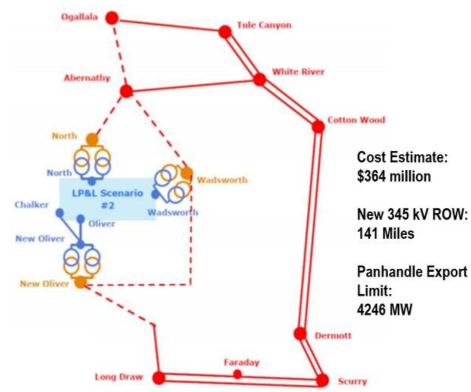
"It doesn't mean Texas will be hit by a tropical storm or hurricane," he said, "but if there are three to five in the Gulf, the potential is greater."

Dan Woodfin, ERCOT's director of system planning, said it would take "really, really extreme" weather conditions to affect the grid's operations. The ISO said last month it has more than enough natural gas and renewable energy capacity to meet its projected summer peak this year. (See *ERCOT Briefs: Ample Capacity; Outage Procedures*.)

"We're not expecting a 2011 summer," Woodfin said. "We have procedures in place should something out of the ordinary happen."

The Rio Grande Valley, long a trouble spot for congestion, "looks better this summer than it has in quite a few years," Woodfin said. He said a 345-kV line was completed last month and a cross-valley project went into service two weeks ago, easing some concerns.

LP&L Integration Could Unlock More Panhandle Wind Energy



Rio Grande Valley load forecast Option 40W
Source: ERCOT

Lasher shared staff's report on how to integrate Lubbock Power & Light into ERCOT, which recommends a plan that would allow for further export of the Texas Panhandle's ample wind energy supplies.

Lasher said staff's "option 40W" will cost $364 million and result in 141 miles of new 345-kV rights of way, but it could also help export 4,246 MW of wind energy elsewhere on the grid.

"It's not the low-cost option," he said, "but it's preferred specifically because it's consistent with the longer-term needs ERCOT has identified for the region."

LP&L announced last September it planned to disconnect from SPP and join ERCOT by 2019. Xcel Energy, whose Southwestern Public Service subsidiary serves LP&L's load, asked FERC in May for an $88.7 million interconnection switching fee should the municipal utility proceed with its plan. (See *Xcel Asks for $88.7M Fee for Lubbock Switch to ERCOT*.)

Staff combined studies supplied by LP&L and Sharyland Utilities, which has transmission assets in the Panhandle, and folded them into its own analysis. The final report will be filed in the Public Utility Commission of Texas' LP&L docket (# 45633).

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Changes to Calculation of Market's Physical Responsive Capability

ERCOT's methodology for determining ancillary service requirements will change July 1 when it adjusts the reserve discount factor (RDF) in the market's physical responsive capability (PRC) calculation on quick-response online generation.

The board unanimously approved staff's recommendation on the adjustment, pleasing PUC Commissioner Ken Anderson, who has raised concerns over an event last August when the ISO's scarcity pricing adder, the operating reserve demand curve (ORDC), did not appropriately reflect a reduction in the PRC.

"In defense of ERCOT, these changes are looking to solve the problem we saw last August … the disconnect between the ORDC and PRC," he said.

On Aug. 13, operators deployed non-spinning reserve service as the PRC dropped to 2,371 MW. However, ERCOT's real-time online reserve capacity was 3,629 MW, which was reflected in wholesale prices.

ERCOT buys responsive reserve service to ensure sufficient PRC is available. The measure approved by the board aligns the ISO's systemwide discount factor, lowering it from 2% last year to 1%. It also makes operational adjustments to the RDF.

Board Approves 13 Revision Requests

The board pulled one nodal protocol revision request (NPRR) from the consent agenda but gave it its unanimous approval following a brief discussion.

NPRR758 is designed to provide improved transparency to market participants when transmission outages that could create congestion are submitted with less than 90 days' notice. It would identify outages that have historically resulted in high congestion costs, as adjusted through stakeholder review to account for upgrades and other changes.

"I'm concerned we don't have a clear-cut requirement to how we came up with the list and published it," said Nick Fehrenbach, manager of regulatory affairs and utility franchising for the City of Dallas, before offering up the motion for approval. "We need clear requirements and how we can change them, or we're leaving ourselves in a quandary."

TAC Chair Randa Stephenson, of the Lower Colorado River Authority, said the subcommittee and ERCOT staff will "work to ensure a list of high-impact outages is available to public knowledge."

The board's consent agenda resulted in the approval of nine more NPRRs, two system change requests (SCRs) and a nodal operating guide revision request (NOGRR).

- NPRR709: Modifies the alternative-dispute resolution procedure and clarifies parts of the settlement and billing dispute process.
- NPRR752: Clarifies revision request protocol language to reflect current ERCOT practices.
- NPRR754: Revises the posting frequency of the load-forecast distribution factors report. Posting is required only when the factors are changed.
- NPRR761: Clarifies that a resource will not be eligible for make-whole payment startup-cost compensation in the day-ahead market when the market considers the resource as not having a startup cost.
- NPRR762: Removes references to the provision of responsive reserves across the DC ties.
- NPRR763: Corrects the formula for calculating qualified scheduling entities' monthly block load transfer amount to reflect a charge, rather than a payment.
- NPRR764: Changes calculations for charges to entities short their capacity obligations in reliability unit commitment. Calculations for wind and solar resources will be based on their production potential.
- NPRR765: Eliminates publisher names for various fuel price indexes and provides additional clarifying language regarding the use of a substitute source for daily fuel prices.
- NPRR766: Aligns the description of the systemwide discount factor with the proposed operational adjustment to the RDF in the physical responsive capability calculation; also aligns the posting for RDFs applicable to both generation and load resources.
- SCR788: Updates the formula used to calculate the "generation to be dispatched" (GTBD) value and help minimize GTBD oscillations from one security-constrained economic dispatch interval to the next.
- SCR790: Adds an additional level of geographical granularity — the Panhandle/North area — to reports on wind power production and forecasts.
- NOGRR050: Removes ERCOT's requirement to produce outage-scheduling reports until systems can be changed to include only transmission service providers' outages.

— Tom Kleckner

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ISO-NE NEWS

FERC Accepts ISO-NE Auction Results

By William Opalka

FERC accepted the results of ISO-NE's 10th Forward Capacity Auction last week, again rejecting allegations of market manipulation and concluding that the prices were just and reasonable (ER16-1041).

The auction, covering the 2019/20 commitment period, saw prices drop to $7.03/kW-month from last year's $9.55/kW-month. It was the first decline in four years. (See *Prices Down 26% in ISO-NE Capacity Auction*.)

The Utility Workers Union of America has claimed the Brayton Point generating plant in Massachusetts has been withheld from the last three auctions to drive up capacity prices. The plant, purchased by Dynegy in 2015 from Energy Capital Partners, is scheduled to close next year. (See *FERC Again Rebuffs Brayton Point Union*.)

"We emphasize, as the commission has stated in previous orders, that the commission's Office of Enforcement reviewed Brayton Point's bidding behavior in FCA 8 to determine whether further investigation of Brayton Point was warranted and 'found credible justifications for the owners' retirement decision and elected not to widen its investigation to include Brayton Point,'" FERC said. "We are not persuaded by Utility Workers Union's allegations that market manipulation affected FCA 10, as the record is devoid of any evidence to that effect, and we similarly reject Utility Workers Union's request for a stay pending discovery and further adjudication of that allegation."

The commission also said that a "rigorous" review by ISO-NE's Internal Market Monitor determined FCA 10 was competitive.

FERC Backs ISO-NE in Tariff Dispute

In a separate order, the commission rejected a complaint that alleged ISO-NE violated its Tariff when it refused to qualify an increase in a Massachusetts generating plant's output for FCA 10 (EL16-48).

Northeast Energy Associates, owner of the Bellingham generating station, agreed with ISO-NE that an additional 10 MW of capacity was a "significant increase" but disagreed on whether it should be treated as new or existing capacity. New capacity is required to submit a composite offer linking incremental summer qualified capacity to existing winter qualified capacity.

NEA said the 10 MW should have been added to the existing summer qualified capacity without a composite offer and asked the commission to order ISO-NE to include the increase as if it had cleared FCA 10 — a move that would result in capacity payments to NEA of almost $844,000.

FERC sided with ISO-NE, saying that NEA, which is owned by subsidiaries of NextEra Energy and GDF SUEZ Energy Resources, misread the Tariff.

"We agree with ISO-NE that ... the Tariff is clear that a significant increase must abide by all the provisions applicable to a new generating capacity resource," FERC wrote.

This is the second time FERC has addressed a capacity increase for Bellingham. Previously, FERC granted a waiver to allow the plant to participate when the company submitted a late interconnection deposit. ISO-NE wanted to disqualify the resource, but the commission said a good-faith effort was made to submit a timely payment after NEA discovered its oversight. (See *FERC Overrides ISO-NE, Grants Waiver for Late Capacity Payment*.)

MISO NEWS

FERC OKs Change to MISO SSR Process; Rejects Rule on Interconnection Rights

FERC last week accepted portions of MISO's system support resource (SSR) Tariff changes but rejected the RTO's proposal regarding the retention and transfer of interconnection rights (ER12-2302-004).

The changes allow new generation not available at the time of reliability studies and SSR designation to become an alternative to an SSR assignment.

However, FERC told MISO its proposal on interconnection rights had gaps.

MISO permits owners and operators of retiring SSR facilities to retain or transfer interconnection service. FERC said that in three filings, the RTO hasn't yet proposed an impartial method for implementing the rule.

"MISO must propose additional procedures that ensure that the retention and transfer of interconnection service is offered on a fair, transparent and nondiscriminatory basis," FERC said. "MISO is required to propose additional procedures, which should, among other things, allow a clear and consistent way in which generators seeking a transfer of interconnection service from a retiring generator may identify opportunities and address how such a generator would be chosen for such service."

FERC also said MISO's February filing to remove language regarding retention of interconnection service from its SSR procedures and insert them into Attachment X "merely moves this provision from one Tariff section to another without providing the requisite additional procedures."

— Amanda Durish Cook

Planning Subcommittee Briefs

MISO Outlines Work Plan for PJM Retirement Coordination

MISO released a work plan last week detailing how it and PJM will use the next six months to improve coordination of generation retirements.

The RTOs' cooperation on generator retirement studies was one of six directives mandated by FERC in an April order (EL13-88) that stemmed from a 2013 complaint from Northern Indiana Public Service Co. (See *MISO, PJM Working to Comply with NIPSCO Order*.)

At last week's Planning Subcommittee meeting, MISO said it and PJM will develop a proposal on retirement studies coordination by July.

MISO said it would work on the issue in meetings of the subcommittee, Planning Advisory Committee, and the RTOs' Interregional Planning Stakeholder Advisory Committee and Joint and Common Market.

MISO	PJM
26 weeks (180 days) notice prior to retirement	90 days notice prior to retirement
75 days to perform reliability assessment	30 days to perform reliability assessment and provide an initial estimate of time it will take to complete transmission upgrades to mitigate all reliability issues
Required to keep retirement information confidential unless it identifies reliability issues caused by the retiring unit	Retirement information is publicly available.

Tariff requirements for retirement studies *Source: MISO*

Neil Shah, MISO adviser of seams administration, said the RTOs would be starting from scratch. "The joint operating agreement doesn't have any retirement coordination language," he said.

The RTOs differ on retirement rules. MISO requires 26 weeks' notice prior to retirement, giving it time for a 75-day reliability assessment; PJM requires a 90-day notice and only 30 days of reliability assessment. Further, MISO keeps retirement information confidential unless a reliability concern is identified. PJM has no such confidentially rules and makes retirement information publicly available.

Shah said MISO would submit its work plan to FERC with an informational status filing that is due June 20. Additional status filings are due Aug. 19 and Oct. 18.

He also said MISO plans to share draft JOA language with stakeholders at the RTOs' Nov. 15 joint and common issues meeting in time to file proposed JOA revisions with FERC by Dec 15.

Pseudo-Ties to Require System Impact Studies; Would be Barred from Sink Switching

MISO wants to conduct system impact studies on all pseudo-tied units with transmission service requests and forbid them from switching sinks until the requests expire.

The RTO is proposing a system impact study be required for all pseudo-tie transmission service requests and that firm point-to-point transmission service be required for the life of the pseudo-tie.

MISO has also proposed that pseudo-tied exports be sourced from a designated generating facility in its commercial model and be modeled in the external balancing authority. Pseudo-tied imports must be sourced from the local balancing authority where the generating unit is physically located and must sink into the MISO local balancing authority where the unit is being pseudo-tied.

"Participants are changing pseudo-ties to another sink after they have a transmission service request," MISO senior transmission planning engineer Ankit Pahwa said. "It's a shortcoming in the existing process … and a gray area that has not been covered yet."

Pahwa said the proposed changes have been coordinated with PJM. He added that participants with existing pseudo-tied transmission service requests would be grandfathered from an impact restudy.

Currently, transmission service requests are evaluated based on an OASIS available flowgate capability evaluation, with only long-term requests — 18 months or longer — requiring a system impact study. Neither long-term nor short-term requests require a source/sink analysis, Pahwa said.

"From MISO's perspective, we want to be 100% sure that we capture the transmission service impacts if a pseudo-tie moves to a different [local balancing authority]," Pahwa said.

"I think what we're wrestling here is, does there need to be different treatment for

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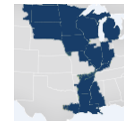
MISO NEWS



FERC to MISO: Stop Paying Retired Units for Reactive Power

By Amanda Durish Cook

FERC ordered MISO last week to revise its Tariff to ensure it is not overpaying for reactive power or show cause why it should not have to do so (EL16-61).

Currently, MISO can compensate resource owners for providing reactive supply and voltage control service, even after the units are deactivated or transferred to another owner.

During a Thursday Organization of MISO States board meeting, Chris Miller, of FERC's Office of Energy Market Regulation, said the RTO would have a difficult time convincing the commission it should not make the change.

In 2014, the commission issued a similar order requiring PJM to stop making reactive power payments to retired generation.

FERC also directed MISO to "post to its website and maintain a chart that lists all resource owners whom receive compensation for reactive service along with their respective current reactive service revenue requirements."

Avon Lake power plant

NRG Midwest to Repay PJM

In a related order, the commission ordered NRG Midwest to repay PJM with interest revenue the company received for reactive services at the Avon Lake coal plant over about three months after it deactivated one unit (ER16-1443).

Avon Lake's Unit 7, located west of Cleveland on Lake Erie, was deactivated in mid-April but continued to collect reimbursement for reactive services while NRG Midwest's April 18 revised rate schedule was pending. The closure of the unit reduced Avon Lake's annual revenue requirement for reactive services by almost $163,000 to $1.6 million.

In the order, FERC accepted NRG's adjusted revenue requirement for reactive services, which reflects the diminished generation at Avon Lake.

FERC also created a new docket (EL16-72) to determine whether NRG's reactive power rate for its fleet in the American Transmission Systems Inc. zone of PJM is reasonable.

In May, the commission approved revised reactive services rates for Constellation Power Source Generation in accordance with the 2014 order. (See "Constellation's Reactive Payments Cut Due to Retirements," *FERC Rulings in Brief: Week of May 19*.)

PSC Briefs

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pseudo-ties … much like there are different evaluations for network resource interconnection service for reliability purposes? At the minimum, you need to be sure you have the appropriate type of analysis," MISO's Jeff Webb said.

Webb said more conversations with other RTOs were needed before a final proposal. Stakeholders have until July 15 to comment on MISO's proposal.

MISO Delves into MTEP 16 Studies

MISO is in the midst of developing model scopes for the 2016 Transmission Expansion Plan (MTEP 16), said Dave Ditner of the RTO's system modeling department. The RTO's modeling will include a 2017 summer peak with wind contributions of 15.6% and 2021 modeling of summer peak, summer shoulder and light load scenarios with wind contributions ranging from 15.6 to 90%.

William Kenney, an expansion planning engineer for MISO's Southern Region, also presented the finalized MTEP 16 voltage study scope. The study will use nine 2021 power flow models, including summer, winter and a shoulder with wind at 40%. MISO will release the final MTEP 16 voltage stability study in October.

Additionally, seven transfers will be studied in model year 2021 under the MTEP 16 transfer analysis scope:

- MISO North to SPP;
- Two different paths from Manitoba Hydro to MISO North;
- PJM in Northern Illinois to PJM Ohio;
- Missouri and Illinois to PJM Ohio;
- SPP to Southern Co.'s territory; and
- MISO South to SPP.

MISO will finalize the transfer analysis in mid-August.

Storage May Be Removed from Non-Transmission Alternatives

MISO presented stakeholders with draft language on Business Practices Manual 020, continuing a nearly yearlong discussion on non-transmission alternatives.

The RTO is suggesting separating energy storage devices that could solve a transmission issue from BPM language on non-transmission alternatives. MISO is also recommending discussion on whether storage can serve as a non-traditional transmission alternative move to the Planning Advisory Committee, MISO's Matt Tackett said.

In April, MISO proposed classifying storage as a non-traditional transmission alternative. (See "Energy Storage Prompts 2nd Transmission Alternative Category," *MISO Planning Subcommittee Briefs*.)

Indianapolis Power & Light's Lin Franks said storage provides frequency control and voltage control much like transmission.

MISO will present a second draft of the BPM language at the August Planning Subcommittee meeting.

— Amanda Durish Cook

MISO NEWS

Planning Advisory Committee Briefs

Clean Power Plan Report Nears Conclusion

MISO has almost finalized its Clean Power Plan analysis after incorporating stakeholder feedback.

Senior Policy Studies Engineer Jordan Bakke said MISO integrated most comments and corrections from five stakeholder groups. The RTO also added an executive summary, reorganized the report for clarity and added explanations on modeling methods and assumptions before sections presenting detailed results.

MISO didn't accept all stakeholder recommendations, rejecting a request not to take a position on the most inexpensive compliance strategies. The RTO has concluded that a mass-based plan would be less costly than a rate-based plan. (See *MISO: Mass-Based CPP Plan 1/3 Cost of Rate-Based*.) It said that it "simply laid out … observations and indicated the conditions that are needed for the different compliance implementations."

"We wanted to stay away from absolute statements on which compliance methods should be used," Bakke said.

MISO also declined to compare its study with CPP studies by other RTOs, saying the purpose of its study is an independent analysis of its member states.

"As we are not active participants in other studies, a comparison would be best conducted by a third party and should be kept outside the scope of MISO's report," the RTO said.

Bakke said MISO and PJM would begin to jointly scope an evaluation of CPP compliance along the MISO-PJM seam in late July.

"We haven't decided exactly what the study will look like," Bakke said. "It will be somewhat limited in nature. We want to focus on what is the impact of the two regions coming together" with possibly divergent compliance methods and trading programs.

MISO will finalize the report after reviewing stakeholder input on the executive summary, which is due July 1.

MTEP 17 Futures Process Enters Stakeholder Inspection

MISO is seeking input on a complex approach to the Transmission Expansion Plan 2017 (MTEP 17) futures analysis that relies on stakeholders weighting the probability that particular developments will occur.

The weightings would reflect RTO staff and member consensus on the relative probability and impact of future economic and policy conditions to assess the cost-effectiveness of different transmission solutions.

MISO is proposing to use a 30% weighting for existing trends, 40% for policy regulations and 30% for accelerated alternative technologies.

Matt Ellis, senior transmission planning engineer, said MISO's North and South zones will use a single set of weights for the MTEP 17 scope.

He said carbon reduction regulation is the single biggest unknown in the 2017 weighting process, but reductions are likely to advance regardless of policy decision.

"Even with the [CPP] stay, we see our members going forward with compliance plans," Ellis said. "We see regulations aren't the ceiling — they're the floor."

MISO is asking sector representatives to complete a futures weighting feedback form by June 29.

RTO officials also launched a third and final stakeholder comment period for the MTEP 17 generation siting process, a prediction of where resources will be built that is intended to guide future transmission expansion.

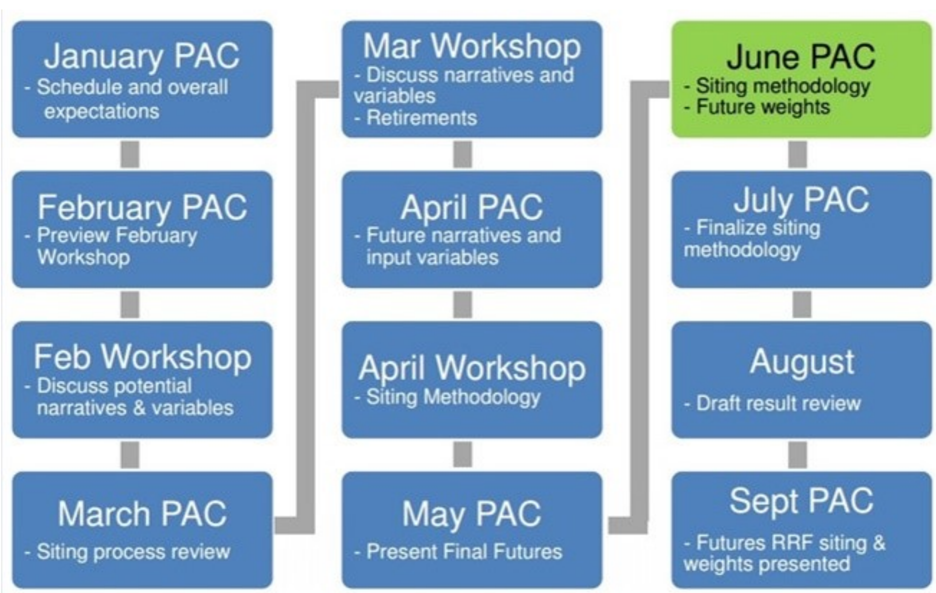
MISO is proposing to prioritize sites associated with generators in the interconnection queue without a signed agreement, existing brownfield sites, and sites for retired and mothballed generation that have not been redeveloped.

Ellis said mothballed sites usually contain infrastructure that can be reused and will be considered before greenfield sites, for which planners have to ask, "'Is it close to a natural gas pipe? What sort of distance to load does it have?'"

MISO won't site thermal units in National Ambient Air Quality Standards nonattainment areas in the South region unless nearby coal units retire.

For wind siting, MISO will expand beyond sites provided by the existing Regional Generator Outlet Study (RGOS) because of the possibility that wind additions will surpass renewable portfolio standards. Renewable planning firm Vibrant Clean Energy said that by combining RGOS Zone wind capacity and active and withdrawn wind projects in the queue, MISO could site about 50 GW of new wind projects, with the potential to site an additional 34 GW.

The RTO is also considering adding zonal resource adequacy requirements into MTEP 17 futures to ensure that it meets both local clearing requirements and the current North/South 1,000-MW transfer re-



MTEP 17 futures timeline *Source: MISO*

Continued on page 14

MISO NEWS

MISO Names 3rd External Affairs Director in 5 Years

MISO has named Kari Bennett as its new executive director of external affairs — the third person to take on the position in less than five years.

Bennett

Bennett joined MISO in December 2013 as senior corporate counsel and most recently served as the RTO's senior director of program strategy. She previously served as a commissioner on the Indiana Utility Regulatory Commission.

Indiana's inspector general cleared Bennett's move to MISO after determining it would not violate the state's revolving door policy because she would not lobby the commission in her new role.

Bennett replaces Michelle Bloodworth, who served in the post for just over a year. Bloodworth started a firm, MAB Consulting, in Birmingham, Ala.

John Shepelwich served as MISO's director of external affairs from October 2011 to June 2013 before returning to AEP Virginia to assume the role of communications manager.

— Amanda Durish Cook

FERC Allows Entergy Arkansas' Recovery of Nuke's Decommissioning Funds

FERC last week gave the go-ahead for Entergy Arkansas to collect the wholesale portion of its service company's annual decommissioning requirement for Arkansas Nuclear One's Unit 2 (ER16-644).

The commission's June 16 order addressed a December request by Entergy Services to allow Entergy's Arkansas operating company to recover the annual decommissioning requirement in its rates.

Entergy told FERC the Arkansas Public Service Commission recently slapped a $2.87 million annual decommissioning requirement on Unit 2. It asked the commission to allow Entergy Arkansas to collect the $155,554 owed under its Tariff by Entergy's Louisiana and New Orleans subsidiaries.

The New Orleans City Council protested Entergy's initial filing, opposing the company's waiver request of the notice requirements for future changes to the annual decommissioning requirement. Entergy responded by clarifying it would give the council the opportunity to review and participate when making future changes.

FERC ordered Entergy to make a compliance filing within 30 days and said any increases in the annual revenue requirement would require a new filing and updated studies.

Nuclear One's 987-MW Unit 2 went online in 1980, and its current licenses expires in 2038. It is one of two nuclear units at the site along the Arkansas River in western Arkansas.

— Tom Kleckner

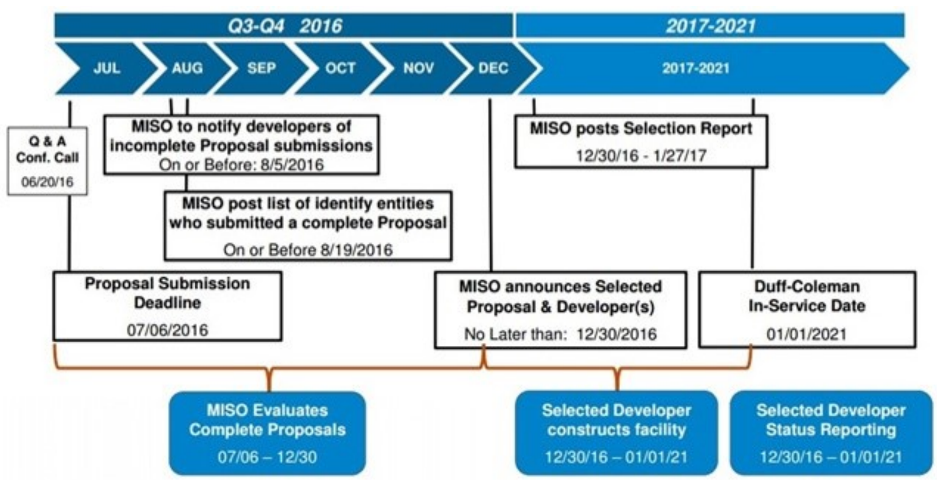
PAC Briefs

Continued from page 13

striction.

MISO will also site commercial and industrial demand response near the 10 busiest industrial buses and residential DR near the 10 busiest nonindustrial buses in each local balancing area. Distributed generation will be similarly sited by using data from the top 10 load buses in each local balancing area.

The RTO is asking for stakeholders to comment on proposed siting methodology by June 29. It will address the overall MTEP 17 study scope during the July 20 PAC meeting.



Remaining timeline for Duff-Coleman project *Source: MISO*

Duff-Coleman Proposals due July 6

Proposals for the Duff-Coleman transmission project — MISO's first competitively bid transmission line — are due July 6. The RTO will select a developer by Dec. 30.

Brian Pedersen, senior manager of competitive transmission administration, said MISO will accept proposals from qualified developers who have provided a $100,000 deposit.

MISO will begin considering proposals once they are submitted, even if they are turned in ahead of the bid deadline. It will post a list of bidders by Aug. 19.

— Amanda Durish Cook

MISO News

Organization of MISO States Briefs

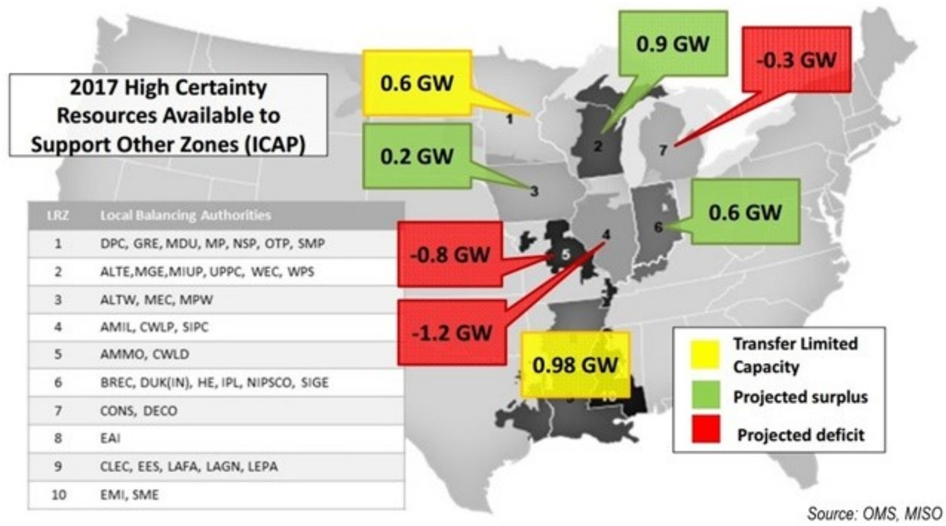
OMS Revising RTO and FERC Communication Process

The Organization of MISO States is reviewing and revising its decision document — the rules for approving position statements submitted to MISO and FERC.

Last updated in 2009, the document describes the group's guidelines for creating issue statements, discussing and voting on issues, and filing comments.

An ad-hoc working group has been modifying the document in a "half-dozen" conference calls, Public Service Commission of Wisconsin administrator Janet Wheeler told a June 16 meeting of the OMS board.

The group will hold at least one more meeting the last week of June to finalize the document, which will be presented for board approval in July.



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

Source: OMS, MISO

OMS President Reacts to OMS-MISO Survey Results

OMS President Sally Talberg spoke with the board about the recently released OMS-MISO survey results, which indicate the RTO may face a generation shortfall in 2018. (See *OMS-MISO Survey: Generation Shortfall Possible by 2018*.)

Talberg noted the 2018 outlook would have been "gloomier" if not for the fact that MISO load growth and demand are down for the second year in a row.

OMS Looking for New Employees

OMS is seeking to hire a director of member services and advocacy and a part-time office assistant in its Des Moines office. Resumes will be accepted until July 1.

— Amanda Durish Cook

NYISO News

NY Tx Developers Ask FERC to Order a Do-over

By William Opalka

Three competitive transmission developers asked FERC last week to order NYISO to issue a new request for proposals for transmission upgrades to alleviate congestion and bring renewable energy downstate (EL16-84).

The RFP was issued in February in response to a New York Public Service Commission order that declared a public policy need for two projects in the Mohawk and Hudson valleys to deliver energy to load centers in and around New York City. (See *NYPSC Directs NYISO to Seek Tx Bids*.)

The developers — Boundless Energy NE, CityGreen Transmission and Miller Bros. — say NYISO violated its Tariff and FERC directives under Order 1000 when it solicited projects without conducting its own review and instead deferred to state regulators.

"We are filing a petition with FERC because the NYISO violated its FERC tariff by inappropriately deferring to the New York Public Service Commission rather than follow its FERC-approved transmission planning function," Boundless President Rod Lenfest said in a statement.

"Based on FERC's own guidelines, the NYPSC has a limited role in the energy transmission planning process. While that planning process allows the NYPSC to identify to the NYISO the transmission needs for the state, here the NYPSC went even further and pushed for a particular project solution to meet those needs. Rather than consider these projects along with other alternatives that could reduce costs for consumers, the NYISO decided to consider only proposals for the particular projects identified by the NYPSC."

The developers asked FERC "to confirm that the NYISO, not the NYPSC, is the entity that is required to study and identify the specific project solutions."

The plaintiffs said the ISO should follow its normal study process — including its base assumptions and generator dispatch modeling — to consider competing solutions without excluding specific technologies or relying on the PSC's assumptions and modeling.

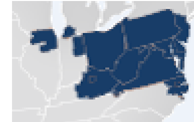
Developers' proposals, which were submitted in late April, are currently being evaluated by NYISO staff.

Boundless CEO E. John Tompkins said in an affidavit that the company is seeking a stay of the solicitation process in the appellate division of the state Supreme Court.

The company participated in an evaluation of potential projects last year by NYPSC staff, but staff recommended that the developer be disqualified because its proposals were deemed to be not cost-effective. (See *NYPSC Staff Recommends $1.2B in Transmission Projects*.) Boundless also sought a rehearing of the NYPSC order that declared the public policy need, but that petition was denied in February.

Earlier this month, NYISO named 10 project finalists in a concurrent public policy proceeding designed to alleviate congestion in the Buffalo area. (See *NYISO Identifies 10 Public Policy Tx Projects*.)

PJM NEWS



Kormos, Former PJM Exec, Signs on with Exelon

Mike Kormos, who abruptly resigned in March from his post as PJM executive vice president and chief operations officer, began a job last week as Exelon's president of wholesale markets and energy policy.

"Mike brings extensive knowledge of the wholesale electricity markets," said Joe Dominguez, executive vice president of governmental and regulatory affairs and public policy. "His expertise in market innovation and design … will strengthen Exelon's policy efforts as we continue to advocate for market reforms that will benefit our customers, our communities and our companies." (See *Exelon to Close Quad Cities, Clinton Nuclear Plants*.)

Kormos was with PJM for 27 years, and last year he sought to replace retiring CEO Terry Boston. The post went to Andy Ott, who long had been Kormos' equal on the organizational chart. (See *Kormos Marks Quarter Century Mark at PJM*.)

At the time of Kormos' resignation, Ott said his position would not be filled. Ott this month announced organizational changes, assigning Kormos' duties overseeing the Operations Division to Senior Vice President Stu Bresler. (See *Ott Restructures PJM Divisions, Leadership*.)

Kormos (second from right) chats with PJM Board Member Terry Blackwell (left); Ed Tatum, American Municipal Power; and David "Scarp" Scarpignato, Calpine, at the annual meeting of the Mid-Atlantic Conference of Regulatory Utilities Commissioners in Williamsburg, Va., on Monday. © *RTO Insider*

In his new role, Kormos will be in charge of formulating and furthering Exelon's positions on energy and transmission bulk system policy planning, developing effective wholesale energy markets, overseeing the company's participation in NERC initiatives and monitoring grid reliability issues, including cybersecurity, the company said.

Kormos, who will report to Dominguez, has served on several boards, including the Eastern Interconnection Planning Collaborative, Reliability First Corp. and Eastern Interconnect Data Sharing Network.

He holds a bachelor's degree in electrical engineering from Drexel University and earned an MBA from Villanova University.

— Suzanne Herel

News from FERC

FERC Won't Revisit Cost-Based Energy Offer Cap Ruling

FERC last week denied a request by PJM's Independent Market Monitor to clarify or rehear a March order in which the commission found fault with the RTO's use of the cost-based energy offer cap as the sole measure of short-run marginal cost in calculating capacity market caps (EL14-94, ER16-1291).

At the same time, it accepted PJM's compliance filing in response to the March ruling. (See *FERC Rejects PJM's Method for Capacity Offer Caps*.)

In its request, Monitoring Analytics generally supported FERC's order but called flawed the use of market-based offers as the measure of short-run marginal costs when they are higher than cost-based offers.

"The Market Monitor contends that the extent to which a market-based offer exceeds a cost-based offer constitutes a markup, and markup is not part of a competitive offer," the commission said.

"We continue to find that, with limited exceptions, PJM should use, for the purpose of calculating a unit-specific capacity market offer cap, a resource's non-zero market-based offer to reflect its marginal costs," FERC ruled. "Simply because a market-based offer exceeds a cost-based offer does not necessarily establish that the market-based offer fails to reflect a resource's marginal costs."

The March ruling stemmed from a 2014 FirstEnergy petition that said PJM's Market Monitor was violating the Tariff by calculating marginal costs using the lower of the market-based offer and cost-based offer.

FERC Denies Rehearing on Order Requiring DR in Capacity Auctions

FERC denied Talen Energy's request for rehearing of a July 22 order that required PJM to include demand response in its transition auctions for Capacity Performance (ER15-623, EL15-80).

That ruling caused the RTO to delay the transition auctions. (See *FERC Orders PJM to Include DR, EE in Transition Auctions*.)

The commission also accepted a compliance filing by PJM in response to the July 22 order.

Talen had sought to apply a ruling by the D.C. Circuit Court of Appeals that voided FERC's jurisdiction over DR in energy markets. However, the Supreme Court later reversed that ruling. (See *Supreme Court Upholds FERC Jurisdiction over DR*.)

"Accordingly, we dismiss Talen's rehearing request as moot," FERC said.

FERC also dismissed an objection by the Advanced Energy Management Alliance Coalition regarding the method PJM proposed to measure and verify DR participation in the transition auctions, saying it was an unrelated issue.

Commissioner Tony Clark concurred in a separate statement.

"I write separately to note my policy and procedural disagreements with the underlying order as fully explained in my separate statement of July 22, 2015," he said.

Clark dissented from that order, saying it was improper procedurally because the commission had previously approved "unambiguous" Tariff language barring DR and energy efficiency from the auctions.

— Suzanne Herel

PJM NEWS

FirstEnergy Foes Ask FERC to Step in Again in Ohio Dispute

By Ted Caddell and Suzanne Herel

Groups opposing FirstEnergy's plan to win subsidies from Ohio regulators asked FERC last week to again intervene in the dispute (EL16-34, *et al.*).

The Electric Power Supply Association, Dynegy, NRG Energy and others filed a joint protest, asking FERC to block the company's revised bid to win revenues from Ohio ratepayers for its merchant generation. The Sierra Club, the Environmental Defense Fund and the Ohio Consumers' Counsel also filed protests.

FirstEnergy asked the Public Utilities Commission of Ohio in May to withdraw an eight-year power purchase agreement — in which the company's regulated utilities would purchase output from the company's merchant generators — after FERC ruled April 27 that the PPA, and one for American Electric Power, would be subject to its affiliate abuse review.

In its place, FirstEnergy wants Ohio regulators to approve a customer charge that it hopes would avoid triggering federal oversight (14-1297-EL-SSO). (See *AEP, FirstEnergy Revise PPA Requests to Avoid FERC Review*.)

The modified plan "would allow for the same transfer of captive customer money to market-regulated affiliates and shareholders, but without the affiliate PPA that initially triggered FERC jurisdiction," the EPSA petitioners wrote last week. "In short, [First Energy Services] and the FirstEnergy [electric distribution utilities] are attempting to achieve the same result as their initial proposal, while evading the commission review mandated by the April 27 order."

Dynegy and NRG also joined other independent power producers in a letter to the PJM Board of Managers last week, in response to a PJM white paper about resource investment in competitive markets. (See *PJM Study Defends Markets, Warns State Policies Can Harm Competition*.)

While they did not mention the Ohio situation specifically, the companies said PJM's markets manage resource adequacy just fine on their own.

"What PJM's markets have not done — and should not do — is provide protection for certain suppliers who want to be shielded from market risk," the companies told the board. "Generators that are unable to compete because their facilities are inefficient or their operating costs are too high must make rational business decisions about their future operations, but PJM should not feel compelled to change its market rules to protect them."

They further urged the RTO to educate policymakers about the negative effects their proposals can have when they interfere with the markets.

The Sierra Club urged FERC to "not allow this brazen end-run" around the commission's review.

"With their latest gambit, FES and the FirstEnergy EDUs apparently think that they can achieve the same results as their initial plan while evading FERC review by simply eliminating the affiliate PPA," the Sierra Club wrote. "The modified plan poses the same threat to the commission's affiliate transaction rules as does the affiliate PPA."

The Environmental Defense Fund filed similar arguments and spread the word through a blog post.

"It's not usually a good idea to dis federal regulators," wrote Dick Munson, EDF's director of Midwest Clean Energy. "FirstEnergy doesn't seem to care.

"The utility does deserve credit for persistence and creativity, yet its new proposal doesn't even pass the laugh test," Munson continued. "To avoid FERC jurisdiction, for instance, FirstEnergy now claims its subsidy will no longer guarantee the operation of its uneconomic power plants. Yet the utility's new surcharge is contingent on the continued operation of virtually the same number of megawatts of its nuclear and fossil generation."

Ohio Consumers' Counsel Bruce Weston also weighed in, asking FERC to order FirstEnergy to "show cause why it should not be found to be in violation of the Federal Power Act, FERC's [April 27] order and/or FERC's affiliate restrictions regulations."

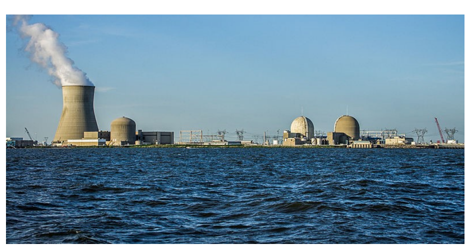
FirstEnergy's modified request "strictly involves adjustments to retail electric rates, which is designed to be solely under the jurisdiction of the PUCO," company spokesman Doug Colafella said. "The objective of our plan — safeguarding our customers against long-term price increases and volatility — can still be achieved without a purchased power agreement."

Del. Lawmakers Try to Block Artificial Island Plan; Developer Says Project Still on Track

By Suzanne Herel

The Delaware House of Representatives last week unanimously passed a resolution aimed at blocking a proposed stability fix for New Jersey's Artificial Island nuclear complex that could raise bills for the state's ratepayers.

House Concurrent Resolution 89, sponsored by Energy Committee Chair Trey Paradee, directs the state Department of Natural Resources and Environmental Control to deny any easement request related to the project as long as the current cost allocation is in place.



That formula assigns $354 million of the $410.5 million project to customers in Delaware and on the Delmarva Peninsula, according to the resolution.

A number of agencies representing those customers, along with Delaware Gov. Jack Markell, have filed their opposition with FERC and PJM, saying the distribution factor cost allocation method (DFAX) is unjust and that the customers paying the most stand to receive just 10% of the load savings benefits. (See *Officials Urge PJM to Reject Artificial Island Proposal*.)

Under the proposal, an average residential customer could expect to see an extra $1 to

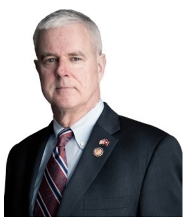
Continued on page 31

SPP NEWS

House Panel OKs Bill Targeting Clean Line Project

By Tom Kleckner

A U.S. House of Representatives committee last week approved legislation that aims to stop Clean Line Energy Partners' plans to build a 700-mile HVDC transmission through Oklahoma and Arkansas.



Womack

The House Committee on Natural Resources advanced the Assuring Private Property Rights Over Vast Access to Land (APPROVAL) Act by a 19-11 vote June 15. The bill is sponsored by Rep. Steve Womack, one of the members of an all-Republican Arkansas congressional delegation that is united in opposition to the Clean Line project.

The bill would amend the Energy Policy Act of 2005 to prohibit the secretary of energy and federal power agencies from using eminent domain for transmission rights of way without first receiving approval from a state's governor and regulatory body. It also restricts the transmission line's siting to existing federal right of way or land managed by federal entities.

Womack said the bill is "another positive step toward passage in a long and hard-fought battle to allow states to retain the historic precedent of authority for interstate transmission projects."

"It is our firm belief that the [Energy Department] has overstepped its bounds, and reversing this decision through the passage of the APPROVAL Act remains a top priority," Womack said, speaking for the rest of his state's delegation.

Houston-based Clean Line issued an opposing statement, saying that if the bill became law, "it would kill jobs by creating significant barriers to the many businesses in Arkansas … that build American infrastructure, as well as raise electric power costs."

"Denying American consumers access to the lowest-cost clean energy resources is never good policy," added Clean Line, which noted more than $100 million in private funds have been invested in the project.

Clean Line's Plains & Eastern Clean Line is a $2.5 billion, privately funded project that is supposed to deliver 4,000 MW of wind power from the Oklahoma Panhandle through Arkansas to the Mississippi River. The line would interconnect with the Tennessee Valley Authority near Memphis, after first dropping off 500 MW at a converter station in central Arkansas.

Clean Line proposed the project in response to the Energy Department's 2010 request for proposals for transmission projects under Section 1222 of EPACT 2005, which authorizes the department to participate in "designing, developing, constructing, operating, maintaining or owning" new transmission.

The department approved the project in March, saying it would participate through the Southwestern Power Administration, a federal agency that markets hydroelectric power from 24 dams in six states. (See *DOE Agrees to Join Clean Line's Plains & Eastern Project*.)

The Arkansas Sierra Club said it opposes Womack's bill.

"The Clean Line project has been in the works since 2010 and has undergone a very thorough and expensive public permitting process in accordance with federal law," said the Sierra Club's Arkansas director, Glen Hooks. "Rep. Womack's bill seeks to change that law after the permitting process has been underway for years. That's not only bad for our state's air and economy, it's blatantly unfair to the company."

Arkansas Sen. John Boozman has filed a matching bill that is co-sponsored by the state's junior senator, Tom Cotton. The Senate Committee on Energy and Natural Resources held a hearing on the bill in May but has taken no action on it since then.

"Arkansans should be heard in discussions that impact their lands," Boozman said in a statement released by his office. "Our bill restores the role of states, which in the past had the freedom to approve or reject electric transmission projects. These decisions should not be made behind the closed doors of a federal agency in Washington, D.C."

FERC Denies Rehearing in Otter Tail-Central Power Dispute

FERC last week clarified its December ruling ordering settlement procedures for new SPP member Central Power Electric Cooperative's transmission service rates while denying a request for rehearing (ER16-209).

The commission's December order accepted revisions to SPP's Tariff that added a formula rate template and implementation protocols to recover revenue from the use of Central Power's transmission facilities. FERC also established hearing and settlement procedures. The North Dakota utility became an SPP member on Jan. 1.

Otter Tail Power, a MISO member, filed a request for clarification and rehearing, which was supported by regulators in Minnesota, North Dakota and South Dakota.

The utility asked FERC to ensure all issues related to the Integrated System were included in the settlement proceeding. Otter Tail also asked for a rehearing of the commission's decision not to address rate pancaking or to impose a hold-harmless condition as a result of Central Power joining SPP.

FERC agreed with Otter Tail's and the state regulators' separate requests for clarification, saying it intended to include in the settlement hearings "whether any service agreement provisions are needed to mitigate the impact of duplicative or pancaked rates on the integrated transmission system."

However, the commission rejected the rehearing request over pancaked rates, asserting "separate inter-RTO transmission charges are consistent with commission precedent." FERC said Otter Tail could address its concerns over credits for transmission facilities and having to pay for year-round SPP transmission service in the settlement procedures.

FERC also rejected Otter Tail's argument that it had "erred" in dismissing a request for a hold-harmless condition, citing precedent in other cases.

— Tom Kleckner

SPP NEWS

Cathey's Inner Geek Helps SPP Incorporate New Technologies

Continued from page 1

Cathey explains how the 10,000 tracking mirrors encircle the 640-foot molten salt tower, following the sun's movements to concentrate sunlight onto a large receiver at the top of the tower. Molten salt flows through the receiver and down piping inside the tower, eventually being stored in a thermal tank. The salt is then passed through a steam-generation system that provides electricity as needed.

"I'm sorry, but I really geek out about things like this," a visibly excited Cathey says.

It comes with the job. As manager of operations analysis and support, Cathey led the group that produced a 2015 wind-integration study that revealed SPP could successfully handle wind-integration levels as high as 60%. That same group is now working on a follow-up analysis, the newly renamed Variable Generation Integrated Study.

Cathey also represents SPP on the ISO/RTO Council's Emerging Technologies Task Force, which has further exposed him to the new technologies and challenges facing the electric industry.

"What we've learned is everyone has problems," he says. CAISO "has too much solar; we have a lot of wind; [and] Toronto has reduced their nuclear plants to offset the wind."

Front-Row Seat

Cathey almost can't believe his luck at having a front-row seat to the latest in technological innovation.

"It's pretty amazing, especially with the people I get to meet and talk to. Ph.D.s, *Popular Science*, Elon Musk," he says. "I used to put that stuff on a pedestal, but then you get to meet them and see where we're at and where we're going, and you start to realize where the human race is in terms of technology.

"There are a lot of brilliant people out there, but at the same time, there's a lot of things we can do better," he added. "There's a lot of stuff we can improve on."

For now, Cathey and SPP are working to educate themselves on wind and solar energy, behind-the-meter resources, and batteries, flywheels and other energy storage technologies. The more staff knows, Cathey says, the better they can forecast.

What's Out There?

"We're focused on our current business functions as a balancing authority and market reliability. It's starting to be a little worrisome that we don't know what's out there, and we don't have rules in place to report it."

Cathey says SPP currently has a requirement that any behind-the-meter resource capable of producing 10 MW or more has to register in the Integrated Marketplace, so it can be modeled correctly. He says loopholes in the requirement allow for derating resources or splitting them up, saying the ratings of some resources do not always tell the whole story.

"The worst risk is if there are many smaller facilities we don't know about, we could potentially coordinate outages incorrectly and we would not know the real impacts on the Bulk Electric System," he says. "At these small magnitudes, they're not going to bring down the system, but if we don't know about certain generation and we're not coordinating it, we could have a problem with efficiency and reliability.

"We understand the capabilities and types of generation out there, but … we're pretty much in the same boat as a lot of other ISOs and RTOs. We don't know what we don't know, and [other RTOs] don't know. The loads themselves don't know."

To get better information, SPP has surveyed its members about their behind-the-meter resources.

The RTO hasn't yet settled on a name for the resources. MISO calls them DERs (distributed energy resources) while ERCOT refers to them as DG (distributed generation). And SPP?

"We don't have a term yet, but I'm sure it'll be a different acronym when we come up with it," Cathey says with a laugh. "Right now, we just want to know about it, so that our models are accurate."

The RTO will eventually require more stringent reporting on distributed generation, Cathey says — and despite some stakeholder fears, the requirement will not force them to register the resources in the market or to inhibit their contributions to state renewable portfolio standards.

SPP does have an acronym for stored energy resources: SERs. Staff has drafted a revision request that would add energy storage capability to the Integrated Marketplace's rules, enabling the resource to be registered as a generator type for regulation only. Staff has tweaked the revision request to take advantage of PJM's and MISO's experience with the technology.

Cathey says SPP's current rules are not "conducive to allow us to embrace that technology."

"You can actually help out the system by plugging [the batteries] in … they're providing regulation-down service," says Cathey, who expects the first SER to show up by year-end. "That extends the life of conventional resources, because we're not [ramping] them up and down. We're sending the battery up and down."

SPP's current wind-integration study was renamed to include technologies like these, but its primary focus remains wind. The RTO has already seen wind integration reach 48.32%, a record for all North American ISOs and RTOs. It currently has 12,397 MW of installed and available wind capacity, with another 33,819 MW in development.

Cathey says the current study, which will use updated models and assumptions to analyze frequency response and transient response, is an extension of the 2015 study. It will take a "much more thorough" look at voltage, he said. The first study ignored thermal constraints and used an hourly ramp, but the second study will honor thermal ratings and use a five-minute ramp, "so it's much more realistic."

"Frequency and ramp, that's one aspect we're really interested in," he says. "Is there a real problem when we have 50%, 60% wind penetration, while honoring thermal constraints? Are we Chicken Little, or is this an actual problem?"

SPP is working with Powertech Labs to develop a module that honors thermal constraints and is placed on top of its voltage-security assessment tool. Cathey says the RTO is past the R&D phase with the

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SPP NEWS

Cathey's Inner Geek Helps SPP Incorporate New Technologies

Continued from page 21

technology, which will eventually be rolled out to other ISO/RTOs.

"The model basically … lets us know we need to concentrate further on [a] scenario and build in more planning and operational processes," he says.

Data, Data and More Data

Cathey is also helping out with SPP's Synchrophasor Strike Team's work, which is intended to ensure the RTO isn't pushing phasor measurement units (PMU) without stakeholder buy-in.

PMUs are devices that measure the voltage, frequency and angle of the grid's electrical waves, using a common time source for synchronization. The devices can take samples hundreds of times a second, while the standard SCADA systems can have scan rates of 10 to 30 seconds.

"If we're making measurements at that scale, we can determine whether there are issues with the models," Cathey says. "But the problem with PMU incorporation is the data is so much. An operator needs to understand if it's just a blip on the system for a nano-second. You're talking petabytes [1 million gigabytes] of data. You're well beyond terabytes."

Staff is currently working on how best to filter the data and make it more manageable for operators. In the meantime, SPP has posted a revision request that would require all new generators to have a PMU. The request has been vetted within the strike force, which will determine whether the cost-benefit analysis justifies requiring existing generation to be retrofitted with PMUs.

Oklahoma Gas & Electric, which has installed more than 200 PMUs as part of a Department of Energy grant, has become a proponent of the technology, Cathey said.

"They're the [subject-matter experts] for the industry, not just our area," he says. "According to OG&E, the cost is not that much. Where the cost comes into play is if your substation or your switchyard is not capable of accepting the PMU.

"These are things we don't traditionally think about. We think about power, getting it from Point A to Point B and whether the line can sustain it. … Now, we're thinking about very engineering-centric problems."

Which is exactly the way Cathey likes it.

FERC NEWS

FERC Proposes Protections on Critical Infrastructure Information

By Michael Brooks

WASHINGTON — FERC last week issued a Notice of Proposed Rulemaking to implement legislation enacted last year to protect the grid from terrorist attacks (RM16-15).

The Fixing America's Surface Transportation (FAST) Act, signed by President Obama in December, was mainly a highway funding bill, but it also amended the Federal Power Act to require FERC to update its critical energy infrastructure information (CEII) regulations. (See *Transportation Bill Includes Grid Security Measures*.)

The NOPR details how the commission plans to update its procedures for designating CEII, sharing CEII with other government agencies and sanctioning employees for unauthorized disclosures.

"Obviously, maintaining the confidentiality of critical infrastructure information is absolutely essential to our work in this area, particularly on reliability," Commissioner Cheryl LaFleur said. "The FAST Act contains important new authority for the commission that allows us to both protect critical information and confidentially share it with government and private parties."

LaFleur in particular praised Congress' exemption of CEII from Freedom of Information Act disclosure.

The sanctions for unauthorized release of CEII stemmed from former Chairman Jon Wellinghoff publicly discussing a confidential FERC analysis on the grid vulnerability to physical attacks. The NOPR says that any FERC employee who knowingly discloses CEII would be subject to termination and/or criminal prosecution. Commissioners who do so would be referred to the Energy Department's Inspector General.

FERC Chairman Norman Bay would not detail what criminal statutes an employee would be prosecuted under, only saying that CEII is not the same as classified material.

Comments on the NOPR are due 45 days after its publication in the *Federal Register*.

NERC Databases

FERC also amended its regulations to require NERC to provide the commission and staff access to three of its databases (RM15-25).

The rule gives FERC access to NERC's transmission availability data system, generating availability data system and protection system misoperations databases. (See *FERC to Look over NERC's Shoulders on Reliability*.) It will not take effect, however, until the commission issues a final order implementing the FAST Act provisions.

Commission Clarifies EQR Rules

FERC last week clarified its Electric Quarterly Report (EQR) reporting requirements, emphasizing that transmission providers must report transmission-related data (RM01-8, *et al.*).

The order also updates the EQR Data Dictionary, effective with the report for the fourth quarter of 2016, clarifying reporting requirements and fields related to "Increment Name" and "Commencement Date of Contract Terms." It also makes changes regarding the "Time Zone" field options and deletes fields for reporting e-Tag data.

Future minor or non-material changes to EQR reporting requirements and the Data Dictionary will be posted directly to the commission's website, and EQR users will be alerted via email of the changes.

— Rich Heidorn Jr.

FERC Eliminates Wind's Reactive Power Exemption

Continued from page 1

Order 661 did not exempt other types of nonsynchronous generation, such solar, but FERC has been treating them similarly to wind on a case-by-case basis. The commission has sometimes required that balancing authorities demonstrate that the lack of reactive power from a non-wind, nonsynchronous generator would threaten reliability before requiring it to provide the service.

The new requirements apply to all new nonsynchronous generators, regardless of type, that have not executed a facilities study agreement as of 90 days after publication in the *Federal Register*. They would not apply to existing generators, including those making upgrades that require new interconnection requests. FERC said these provisions would allow generators to complete the interconnection process without delay or extra costs.

FERC approved the new requirements at Thursday's meeting, which was open to the public again after the commission closed it last month. (See *Pipeline Protesters Force FERC to Close Monthly Meeting*.) Staff's presentation of the order was interrupted by two protesters, who urged the commission to halt approval of natural gas pipelines.

"There's a certain irony here because the protesters interrupted a presentation by staff on commission work that can enable a higher degree of penetration by wind resources while maintaining reliability," Chairman Norman Bay said in response. "This final rule will ensure comparable and nondiscriminatory treatment of both traditional resources and new resources, such as wind and solar, in the provision of reactive power, while recognizing that some technological differences remain."

"Today's rule recognizes that wind and other nonsynchronous generators, which are an increasingly important part of the fleet, now have the technical ability to provide reactive power at reasonable cost, and so they'll now be required to do so," Commissioner Cheryl LaFleur said. "I think today's rule highlights that wind and solar are no longer just niche technologies."

FERC News

FERC Issues 1st RTO Price Formation Reforms

By Michael Brooks

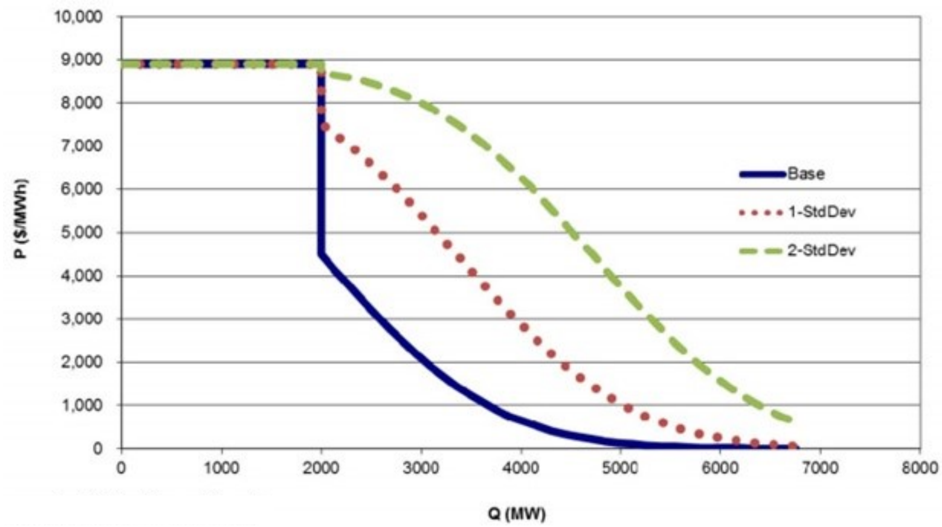
WASHINGTON — RTOs will be required to align their settlement and dispatch intervals and implement shortage pricing during any shortage period under new price formation rules approved last week by FERC (RM15-24).

The rules require RTOs to settle real-time energy, operating reserves and intertie transactions in the same time interval it dispatches, prices and schedules them, respectively. Although all RTOs currently dispatch resources in five-minute intervals, ISO-NE, MISO and PJM settle those transactions based on the average price for all dispatch intervals during the hour.

This misalignment distorts price signals, as compensation is based on average hourly prices rather than specific periods, including those of greatest need. "These distorted price signals can mute a resource's financial reward for being able to quickly respond to system needs and create a disincentive for resources to respond to price signals," Stanley Wolf, of FERC's Office of Energy Policy and Innovation, said at the commission's open meeting Thursday.

Region	Dispatch Interval	Real-Time Settlement
CAISO		5 minute
ISO-NE		Hourly avg.
MISO	5 minute	Hourly avg.
NYISO		5 minute
PJM		Hourly avg.
SPP		5 minute

Current real-time settlement processes *Source: MISO*



Operating reserve demand *Source: Prof. William Hogan, Harvard*

Additionally, in some RTOs, an energy or reserve shortage is required to last a minimum amount of time before shortage pricing is triggered. "Due to such delays, short-term prices fail to reflect potential reliability costs, as well as fail to reflect the value of both internal and external market resources responding to a dispatch signal," Wolf said.

Commissioner Colette Honorable called the order — the first final rule in the commission's efforts to reform price formation in the organized electricity markets — a "milestone." The commission began evaluating price formation in 2014 and issued a Notice of Proposed Rulemaking in September. (See *NOPR Requires RTOs Switch to 5-Minute Settlements*.)

"These requirements will help ensure that rates for energy and operating reserves are just and reasonable and will align prices with resource dispatch instructions and operating needs, provide appropriate incentives for resource performance and maintain reliability," FERC said.

The final order clarifies that the rules would apply to all supply resources, including demand response.

The new requirements take effect 75 days after publication in the *Federal Register*. Each RTO will be required to make a compliance filing 120 days after that detailing the tariff changes needed to implement the new rules. The order stipulates that FERC will allow an additional year after the compliance filing deadline for the settlement interval changes to go into effect, while it will allow another 120 days for the shortage pricing changes.

"I know that it will take some time and effort for the RTOs to comply with the portion of the rule on settlement intervals; it won't necessarily be easy," Commissioner Cheryl LaFleur said. "However, I think it's critically important that markets send clear, accurate, timely and undiluted price signals."

Dynegy to Buy out Energy Capital's Stake in Plant Deal

By Ted Caddell

Dynegy will pay $750 million to buy out Energy Capital Partners' 35% stake in their joint venture to purchase 17 fossil fuel plants in the U.S. owned by French utility ENGIE.

The companies announced the $3.3 billion venture, Atlas Power, in February. At the time, Dynegy said it was going to buy out Energy Capital's stake in five years. (See *Dynegy, Energy Capital to Buy 8.7 GW in $3.3B Deal*.)

But Dynegy CEO Robert Flexon said Wednesday that the company decided to accelerate the purchase to take advantage of lower debt prices and more quickly integrate the generation assets into its fleet.

"The significant improvement in the financial markets since announcing the transaction in February provided an excellent opportunity for us to approach ECP about an earlier timetable," Flexon said in a statement. "This transaction accelerates our company's transformation, enabling us to increase our presence further in the most desirable markets with high quality assets."

By buying out Energy Capital's share early, Dynegy is paying $184 million less than the terms stated at the outset of the agreement. It will also save $40 million a year in interest.

When completed, the deal will give Dynegy an additional 9 GW of generation, slightly more than the initial 8.7 GW announced after updating for winter capacity. Ninety percent of the plants are natural gas-fired, in line with Dynegy's quest to shift away from coal-fired generation. Flexon had said the company wanted to take on the ENGIE fleet on its own, but because it was committed to other acquisitions at the time, including $6.5 billion in two acquisitions of 19 plants from Duke Energy and Energy Capital, it needed to take on a partner.

Dynegy said it expects to close the ENGIE deal by the end of the year, after which the company will have a total of about 34.7 GW of generation, 71% of that gas-fired and 29% coal.

Company Briefs

OPPD Board Votes to Shut Down Fort Calhoun

The Omaha Public Power District's board voted unanimously to close the 479-MW Fort Calhoun nuclear plant by the end of the year. The closure of the plant, the country's smallest nuclear facility, affects 700 employees and will lead to a decommissioning effort expected to cost $1.2 billion.

The vote came after management reported that it cost the utility about $71/MWh to generate power at the plant, double the national industry average. The utility can purchase power on the open market for about $20/MWh.

The utility has sunk nearly $700 million into Fort Calhoun over the past decade for upgrades, flood repairs and to extend the plant's license to 2033. The plant was commissioned in 1973.

More: *Omaha World-Herald*

Oil Firm Files Lawsuit Over Kemper Delay

Oil exploration firm Treetop Midstream Services sued Southern Co. over the tardy Kemper coal-gasification plant in eastern Mississippi, from which Treetop was

committed to buy carbon dioxide to stimulate depleted oil fields.

Treetop is seeking $100 million and punitive damages from Southern, claiming that the utility committed fraud by misleading it on the construction timeline. The Kemper power plant is more than two years behind schedule and is now expected to be operational in the third quarter of this year.

Treetop had signed a contract for 30% of Kemper's CO_2 output to pump into oil fields to tap supplies previously considered uneconomic. The company spent nearly $100 million to construct a CO_2 pipeline linking Kemper and its oil-producing area. The plant's operator, Southern subsidiary Mississippi Power, canceled the Treetop contract earlier this month.

More: *Watchdog.org*

Consumers Opens 1st Solar Garden on Campus

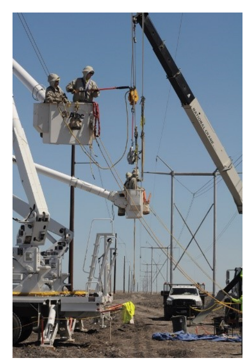
Consumers Energy has opened its first solar power plant on the campus of Grand Valley State University in Western Michigan. The facility is a 3-MW array that is also the state's largest community solar project.

The 17-acre Solar Gardens includes Michigan-made solar panels. "This new Solar Gardens location illustrates our commitment to finding new approaches that will sustain our state for generations to come," Consumers CEO John Russell said.

The company is expecting to open a similar solar garden site about 60 miles away at Western Michigan University later this summer.

More: *Consumers Energy*

AEP Wins Award for Reconductor Project



American Electric Power won the Edison Electric Institute's highest award for a project in Texas where it upgraded two 345-kV transmission lines without taking them out of service.

The Energized Reconductor Project in the Lower Rio Grande Valley of Texas incorporated robotic equipment and "energized barehand" work methods, in which the linemen wear conductive suits and come in contact with live wires. Working with

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COMPANY BRIEFS

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contractors Quanta Services and CTC Global, AEP was able to replace 240 miles of line while they remained energized, negating the need for alternate generation during the project. AEP estimated it saved more than $43 million.

“Traditional construction methods would have required taking those lines out of service, but AEP developed an innovative technical solution that permitted the company to successfully upgrade the system while maintaining service and reliability," said EEI President Tom Kuhn in presenting the company with its 2016 Edison Award.

More: Edison Electric Institute

Lincoln Rejects Request to Disclose Pricing Information

Lincoln Electric System says it will stop publishing breakdowns for the cost of generating electricity at specific facilities in the wake of demand by a wind energy producer to see its financial books.

Gary Aksamit, the head wind power developer Aksamit Resource Management, earlier this year demanded the state’s four largest public power entities disclose their generation costs. The utilities say they gave him thousands of pages of documentation but that revealing certain data would put them at a competitive disadvantage.

LES has historically sold power directly to end users and published details on its generation costs. With SPP’s 2014 implementation of the Integrated Marketplace, the utility now buys and sells electricity in competition with other regional power suppliers.

More: Lincoln Journal Star

Orion Renewable Eyes 250-MW Wind Farm in North Dakota

The Orion Renewable Energy Group says it is planning a 115-turbine wind farm in western North Dakota, capable of generating 250 MW.

The California company has not filed a conditional use permit with county officials, but it said it has completed most of its land leasing and environmental studies. If Orion receives county approval, it will file an application with the state’s Public Service Commission by the end of the year.

More: The Dickinson Press

LG&E-KU Begins Commercial Solar Building Program

Louisville Gas & Electric and Kentucky Utilities launched a new business solar service in which the utilities will construct, own and operate individual solar facilities for commercial and industrial customers.

The ground or rooftop solar arrays ranging from 30 kW to 5 MW will be built on customer property by Kentucky-based Solar Energy Solutions.

“Providing regulated distributed generation through this new customized business solar service will be a new venture for us, but we expect this to be responsive to our customers’ needs,” said John P. Malloy, vice president of LG&E and KU Energy customer service.

More: SurfKY News

Company Proposes 100-MW Solar Farm in Va. Tidewater

Community Energy Solar has filed preliminary applications to develop a 100-MW, 1,200-acre solar farm near the towns of Boykins and Newsoms in Virginia’s Tidewater region. The company said it plans to begin construction of the $175 million Southampton Solar project by the end of 2017.

The company has developed about 1,400 MW of solar in 13 states since 1999 and is building an 80-MW facility in Accomack County, Va., which is expected to come online by the end of this year.

The company’s latest plans were filed with Southampton County, and it will need approval from PJM, the state Department of Environmental Quality and various other regulatory agencies before going forward.

More: The Tidewater News

Seattle Company Applies to Build Floating Wind Farm

Trident Winds applied to build a wind farm off the coast of California in which the wind turbines will be mounted on tethered, floating pylons much like offshore oil drilling rigs, rather than bolted to the sea floor like other proposed offshore U.S. wind projects.

The company wants to construct 100 636-foot floating turbines about 15 miles off the coast of Morro Bay. When completed, the facility would generate up to 1 GW. If it is approved, it would be the largest offshore wind project in the nation.

Because of the technological challenges, the project isn’t expected to go online until 2025.

More: The San Diego Union Tribune; The Mercury News

FEDERAL BRIEFS

Judge Rejects EPA Attempt to Block Testimony

A federal judge rejected EPA’s effort to block a former official from testifying on behalf of a coal company that is suing the agency. The agency argued that Jeff Holmstead, a former EPA air pollution expert who left the agency in 2005, would have a conflict of interest because of his former position.

“That dog won’t hunt,” Judge John Preston Baily said of EPA’s argument. He also dismissed as “ridiculous” EPA’s claim that Holmstead was unqualified to testify as an expert witness.

Holmstead, who now works for law firm Bracewell, is an expert witness for Murray Energy. The company has sued EPA, alleging it has not accounted for or studied coal industry job losses resulting from its air pollution regulations, as required under the Clean Air Act.

More: The Hill

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FEDERAL BRIEFS

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Senate to Consider Coal Cleanup Bill

Cantwell

Four senators introduced a bill that would require coal companies to prove they have the resources to clean up mining areas after they close. Coal companies have been able to simply declare they can afford cleanup costs, without any financial assurance, a process called "self-bonding."

The recent spate of coal company bankruptcies has called into question the ability of distressed coal producers to handle the cleanup costs.

"We need to make sure the taxpayer isn't on the hook for cleanup work by bankrupt coal companies anymore," Sen. Maria Cantwell (D-Wash.) said in a statement. "Self-bonding clearly isn't working, and we need to stop this dicey practice from continuing."

More: The Hill

Green Groups ask FERC for PennEast Pipeline Hearing

A group of environmental organizations is asking FERC to hold an evidentiary hearing on the need for the PennEast pipeline that would deliver natural gas from Pennsylvania mostly to New Jersey utilities.

"FERC must have substantial evidence of significant public benefit to approve PennEast's application, but the company's existing record fails to meet that test," said a senior attorney with the Eastern Environmental Law Center. The center charges in a complaint that PennEast used the fact that six owners of the pipeline have contracted for about 75% of the proposed pipeline's capacity as evidence of public need.

The New Jersey Sierra Club, however, didn't join in the suit, saying the tactic would be unsuccessful. "What we're more concerned about is that FERC and PennEast fix any defects they have in their applications and filings," said Jeff Tittel, Sierra Club director.

More: Mercer Me

DOE Issues $82 Million in Nuclear Research Grants

The Department of Energy has identified 93 projects in 28 states that will receive $82 million in grants to advance nuclear energy research.

"Nuclear power is our nation's largest source of low-carbon electricity and is a vital component in our efforts to both provide affordable and reliable electricity and to combat climate change," Energy Secretary Ernest Moniz said. "These awards will help scientists and engineers as they continue to innovate with advanced nuclear technologies."

More: Department of Energy

NRC Names New Director of Office of Investigation

Howell

The Nuclear Regulatory Commission named Kimberly A. Howell as director of its Office of Investigation.

Howell, who has 20 years of federal law enforcement experience, was deputy assistant inspector general for investigations in the Office of Personnel Management. Before that, she held investigative positions with the Food and Drug Administration, the Secret Service and the Postal Service.

NRC's investigation office creates new policies, procedures and standards for investigating licensees, contractors, vendors and other third-party organizations.

More: DailyEnergyInsider

EPA Moves Ahead with CPP Incentives Despite Stay

McCabe

Despite a stay issued by the U.S. Supreme Court, EPA said it would go forward with a plan that issues incentives for states that comply with implementation of the Clean Power Plan.

"Taking these steps will help cut carbon pollution by encouraging investment in renewable energy and energy efficiency," EPA's Janet McCabe said. The Clean Energy Incentive Program gives states compliance credits for pushing forward renewable and efficiency projects.

The Supreme Court suspended enforcement of the Clean Power Plan until an appeal by states could be settled. "EPA is attempting to downplay the significance of the stay and argue against clear legal precedence as a last-ditch effort to scare states into spending scarce resources complying with a rule that could very well be overturned," said Sen. James Inhofe (R-Okla.), chairman of the Environment and Public Works Committee.

More: The Hill

EIA Report: CPP Will Push Development of Renewables

An Energy Information Administration report concludes that EPA's Clean Power Plan would accelerate the development of renewable energy at an annual rate of nearly 5%.

"California sees strong growth in renewable generation by 2030 as a result of the state renewable targets," the EIA said. "Similarly, the Northwest region is expected to increase renewables generation as well. The Northeast shows an increase in both natural gas and renewables generation by 2030, and a small decline in nuclear generation due to planned retirements."

EIA's estimates were based upon the assumption the plan would be implemented. The plan is currently on hold as a result of a Supreme Court stay.

More: Morning Consult

Entergy's Indian Point Unit 2 Back Online After Repairs

Entergy's Indian Point Unit 2 nuclear plant went back into service late Thursday after a

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FEDERAL BRIEFS

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refueling outage, inspection and repairs. The repairs included replacement of 278 bolts and plates that were discovered damaged during an inspection.

A group of environmental organizations filed an unsuccessful emergency petition with the D.C. Circuit Court of Appeals to prevent Entergy from bringing the plant back online. Friends of the Earth and other groups said Entergy hasn't provided a root cause analysis of the bolt degradation issue.

The Nuclear Regulatory Commission said there are no safety concerns. Entergy will conduct a separate bolt inspection at Unit 3 early next year.

More: *Entergy*; *Friends of the Earth*

Court Upholds Blocking Minn. Clean Energy Law

A federal appeals court upheld a ruling that Minnesota's 2007 clean energy law illegally regulated out-of-state utilities by requiring state power producers who import electricity to reduce greenhouse gas emissions elsewhere.

The ruling by the 8th U.S. Circuit Court of Appeals was a victory for North Dakota and its utility and coal interests, which argued that the Minnesota law unconstitutionally hampered their ability to sell electricity from coal-fired power plants and to build new coal generators. The law, known as the Next Generation Energy Act, restricted electricity imports from power plants that increase greenhouse gases, unless they reduce those emissions.

The court's decision does not affect the law's requirement that Minnesota utilities get 25 to 30% of their electricity from renewable sources such as wind and solar.

More: *Star Tribune*

STATE BRIEFS

CALIFORNIA

Weak Auction Prompts Cap-and-Trade Concerns

The state's cap-and-trade system faces an uncertain future after just 11% of available carbon allowances were sold during last month's quarterly auction, generating only 2% of expected revenues. Some analysts attribute the surplus of allowances to other state programs that effectively limit utilities' emissions and their demand for allowances.

Questions also loom about whether cap and trade can continue beyond 2020 without explicit authorization from the state legislature, which last year failed to pass a bill that would have extended the program.

The California Chamber of Commerce continues to challenge the program in court, contending that the allowance system effectively constitutes a tax, which should have been implemented only with a supermajority vote by the legislature.

More: *Los Angeles Times*; *Napa Valley Register*

CONNECTICUT

Regulator Says Utility Cyberattacks Likely

Arthur H. House, chairman of the Public Utilities Regulatory Authority, told a business group that utilities are likely targets of attacks by computer hackers.

House on Thursday spoke to the Connecticut Business and Industry Association's conference in Farmington, explaining PURA's recent cybersecurity report that encourages a cooperative cybersecurity plan between the state and utilities. Part of the plan is to conduct closed-door talks with utilities outside of the regulatory system to maintain security of sensitive information.

"There will be a cyberattack on our utilities," House said. "The questions are, when will it happen and how we will be able to manage it?"

More: *Hartford Courant*

DISTRICT OF COLUMBIA

PSC Denies Rehearing of Exelon-Pepco Merger

The D.C. Public Service Commission on Friday unanimously upheld its decision to allow Exelon to purchase Pepco Holdings Inc.

While maintaining her opposition to the merger itself, Chairwoman Betty Ann Kane said the commission acted within the law in approving the deal and that there was no basis for rehearing.

Opponents Public Citizen and D.C. Solar United Neighborhoods, who had asked for a rehearing, said they will take their appeal to court. Meanwhile, D.C. People's Counsel Sandra Mattavous-Frye said her office is reviewing the decision before deciding whether to challenge it. (See *District, OPC Ask PSC to Reconsider Exelon-PHI Merger*.)

More: *Washington City Paper*

ILLINOIS

Court Rejects Net Metering Extension to Community Solar

A state court of appeals ruled that Commonwealth Edison isn't required to extend net metering rates to community solar projects in a defeat for a consumer protection group and the Environmental Defense Fund.

The Citizens Utility Board and the EDF had requested the Commerce Commission apply net metering rates to customers who signed on to community solar projects. ComEd opposed the request, and the ICC agreed, saying the Public Utilities Act prohibits the commission from issuing such a mandate. On appeal, the 1st District Appellate Court upheld the commission's dismissal.

"The commission is an administrative agency responsible for setting utility rates, whose powers and duties are set forth in the act," the court wrote. "Consequently, we give substantial deference to the commission's decisions in light of its expertise in the area of utility ratemaking."

More: *Cook County Record*

LOUISIANA

Proposed Entergy Plant Draws Backlash from Neighbors

Entergy's proposal to build a new generation unit at a brownfield site in Eastern New Orleans is drawing heated opposition even before any formal plans have been filed.

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State Briefs

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Nearly 50 community leaders, consumer advocates and environmental activists gathered June 15 at a New Orleans City Council public hearing to speak against the new natural gas-fired plant.

Entergy New Orleans has not officially asked the council to approve its plans, but earlier this year it identified the new unit as a key investment in its long-term power generation plan. The company shuttered the aging 918-MW Michoud power plant earlier this year and hopes to build a fast-starting 250-MW combustion turbine at the site. A formal filing is expected soon.

New Orleans East residents are concerned the plant would pollute their neighborhoods and contribute to sinking land. Opponents also argue Entergy is not making a big enough effort to embrace energy efficiency and renewable sources in its planning.

More: The Times-Picayune

MARYLAND

State Launches 3-Year Solar Pilot Program

The Public Service Commission has approved regulations setting the foundation for a community solar pilot program that will go into effect next month.

The program will focus on providing renewable energy benefits for low- and moderate-income consumers.

The three-year pilot aims to provide access to solar-generated electricity to all state customers, without requiring ownership of the systems, and attract investment in the state's renewable infrastructure and green economy.

More: Maryland PSC

MICHIGAN

Lawmakers Consider Renewable Energy 'Goals,' not Mandates

The House and Senate energy committees are proposing new renewable energy goals, rather than a new renewable portfolio standard, even as the state's two major utilities say they would support new mandates.

A Senate bill would set a 35% renewable goal by 2025, while House legislation includes a 30% goal by 2025. Neither plan includes penalties if the targets aren't met. The current RPS mandates 10% renewables by 2015.

While some lawmakers are opposed to renewable mandates, large utilities say they would comply. Steve Kurmas, vice chairman of DTE Energy, said the utility "will build incremental renewables with or without a mandate." David Mengebier, senior vice president of governmental and public affairs for Consumers Energy, said the company would be "OK" with mandates.

More: MLive

MINNESOTA

Regulators Approve Coal Plant Retirements

Taconite Harbor power plant

Minnesota Power said it will study the implications of reducing its coal reliance after the Public Utilities Commission approved the utility's 15-year resource plan, which calls for more investments in wind, solar and natural gas and the retirement of coal units at two plants.

Under the plan, the Taconite Harbor plant in Schroeder would discontinue coal use by 2020, and two coal-fired units at the Clay Boswell plant in Cohasset would shut down in 2022.

The PUC asked that the Duluth-based utility study its changing resource mix. Minnesota Power, which now relies upon coal for 75% of its power, plans to transition to equal one-third parts coal, renewables and natural gas. A decade ago, Minnesota Power's portfolio was 95% coal.

More: Associated Press

MISSOURI

City Utility, KCP&L Reach Settlement over Tx Usage

Kansas City Power and Light will pay the City of Independence's utility nearly $12 million in installments during the next four years to settle a disagreement over transmission costs.

The case stems from Independence Power and Light's decision to change its status with SPP from non-transmission owner to transmission owner last year. That meant new rates whenever SPP used IPL's transmission system. Independence had billed KCP&L for an annual transmission revenue requirement of $7.2 million, and KCP&L objected to the higher rate.

The settlement requires FERC approval.

More: Independence Examiner

MONTANA

NorthWestern Asks PSC to Halve Mandated Solar Rates

NorthWestern Energy asked the Public Service Commission to cut the amount it is mandated to pay to commercial solar projects of 3 MW or less. The utility told the PSC that the mandated price to qualified facilities is too high and is hurting consumers.

NorthWestern wants the current rate cut in half and the contracts shortened. The state's rate is $66/MWh, similar to the price the company gets for its own hydroelectric power.

The solar projects are each capable of powering about 540 homes, and there are more than 80 on the current docket, NorthWestern said. "For each 3-MW project, the differential between the QF rate and the rate we propose is about $5 million per solar contract," said John Alke, a NorthWestern attorney. The contracts run 25 years.

More: Billings Gazette

Court Allows Colstrip Lawsuit to Continue

A state judge expressed alarm last week at the estimated 200 million gallons of contaminated water seeping annually from leaky ash-storage ponds at the Colstrip power plant and allowed a lawsuit challenging the state's enforcement efforts to proceed.

District Judge Robert Deschamps rejected arguments from Department of Environmental Quality officials that they were appropriately managing the problem. A 2012 deal between regulators and Talen

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State Briefs

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Energy, Colstrip's manager, was intended to clean up decades of contamination of underground drinking water supplies. Under a separate settlement, the plant's six owners paid $25 million to Colstrip residents whose water was fouled by the plant's ash ponds.

Environmentalist groups are challenging the 2012 agreement, which set few deadlines for action and could entail years of further study.

More: Associated Press

NEW HAMPSHIRE

Cooperative First to Buy from Wind Farm

The New Hampshire Electric Cooperative is the first buyer of power produced by the Antrim Wind project. The cooperative will purchase 25% of the $65 million project's output, or about 7.2 MW.

The 20-year agreement represents about 3% of the cooperative's total demand. The 5.4 cents/kWh its customers pay for generation is among the state's lowest. The cooperative said the power will help it meet its mandate under the state's renewable portfolio standard and its own goal of having 25% of its demand served by renewable energy by 2025.

Construction is to begin later this year with operations starting by the end of 2017.

More: New Hampshire Union Leader

NEW YORK

RG&E, NYSE&G Rate Hikes Approved

Regulators approved the first rate increases in four years for Rochester Gas & Electric and New York State Electric and Gas customers. The increases are effective July 1 and will be phased in over two years.

A typical RG&E electricity customer would pay $1.10 more per month beginning in July, another $2.39/month a year after and a third increase of $2.84/month in July 2018. NYSEG customers would see monthly increases totaling $5.75/month by July 2018.

Part of RG&E's increase would help pay for the Ginna Retirement Transmission Alternative that is intended to mitigate the possible closure of the Ginna nuclear power plant. RG&E electric customers already are paying a $2.20/month surcharge to keep Ginna operating until March to maintain system reliability.

More: Democrat & Chronicle

Bill Would Block PSEG-LI Power Purchases

Two state legislators introduced a bill last week that would force PSEG-Long Island to separate electricity purchasing planning from system management to reduce what the lawmakers believe is a conflict of interest.

Assembly members Fred Thiele Jr. and Dean Murray introduced legislation to separate the functions, saying that PSEG-LI may face conflicts of interest because it produces power from its own units. The utility has recommended that the Long Island Power Authority not buy power from a planned 750-MW Caithness power plant, which it said is not needed.

PSEG-LI took over managing the electric grid on Long Island from the Long Island Power Authority last January. It was also instructed to develop plans to purchase power.

More: Long Island Business News (subscription required)

NORTH CAROLINA

Roanoke River Basin Files Coal Ash Suit Against Duke

The Roanoke River Basin Association has filed another lawsuit against Duke Energy over its coal ash management, this one alleging that Duke's Mayo power plant violated the federal Clean Water Act.

The suit alleges that 6.9 million tons of ash from the plant have contaminated Mayo Lake, wetlands and groundwater.

The group has filed a similar suit against Duke over its Buck plant. The filings claim that state and federal officials aren't properly enforcing environmental laws.

More: The Charlotte Observer

NORTH DAKOTA

PSC Approves Brady I Wind Farm; Brady II Next?

The Public Service Commission last week unanimously approved the contentious $250 million, 87-turbine Brady Wind Energy Center I. The NextEra Energy Resources project will provide 150 MW of power for Basin Electric Power Cooperative.

The project faced stiff opposition and went through the longest hearing for a proposed wind farm in state history, with 15 hours of testimony on March 31. The PSC also consented to construction of a 19-mile transmission line.

NextEra expects construction to begin this month, with the project scheduled to be completed by the end of the year. The project is part of a proposed two-phase wind complex in the state's southwest. The PSC is still considering the application for the adjoining 150-MW Brady Wind II project, which calls for 72 turbines.

More: The Bismarck Tribune

OHIO

Finalists for PUCO Seat Sent to Kasich

A Public Utilities Commission nominating committee pared down a list of nine candidates to four to fill a vacancy, and now the final selection will be made by Gov. John Kasich.

The final four are Sam Gerhardstein, former director of government affairs at Columbia Gas of Ohio; Dave Hall, a state Republican legislator who sits on the House Public Utilities Committee; Howard Petricoff, an energy attorney who recently retired; and Gregory Williams, an attorney who served as Kasich's senior law clerk in 2011.

Nineteen people applied for the opening.

More: Columbus Business First

PENNSYLVANIA

FE Companies Get OK for Infrastructure Upgrades

State regulators approved infrastructure improvement plans for FirstEnergy's four

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STATE BRIEFS

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Pennsylvania utilities, which will allow the utilities to recover the costs through customer charges effective July 1.

The Public Utility Commission's decision affects customers of Pennsylvania Power, West Penn Power, Metropolitan Edison and Pennsylvania Electric.

Under the plan, Penn Power expects a 0.3% increase in distribution charges; Penelec will boost charges 0.04%; Met-Ed will implement a 0.03% hike; and West Penn Power will increase charges by 0.06%.

More: DailyEnergyInsider

VERMONT

Governor Signs Revamped Power Plant Siting Bill

Gov. Peter Shumlin signed a renewable energy bill that gives "substantial deference" to towns where renewable projects would be located.

The legislation was based in large part on the recommendations of the Solar Siting Task Force to give localities more say in the Public Service Board permitting process for projects that have been determined to meet the state's energy and climate goals.

The General Assembly passed the bill on June 9 after a previous version of energy siting legislation was vetoed by Shumlin over concerns of the unintended effects of new wind sound standards.

More: Gov. Peter Shumlin

VIRGINIA

Dominion Plan to Bury Power Lines Met with Skepticism

The State Corporation Commission questioned Dominion Virginia Power's request for a $140 million proposal to bury its most vulnerable power lines to decrease outages.

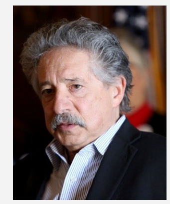
The project, which would put about 400 miles of distribution lines underground during the first phase, would increase customers' bills by about $6/year. Commissioners questioned whether the same result could be achieved through other, less expensive efforts, such as tree trimming.

The utility originally asked state regulators to approve a $263 million plan. The commission is expected to rule in the next few weeks.

More: Richmond Times-Dispatch

WISCONSIN

Madison Initiates Two Residential Solar Programs



Soglin

Madison Mayor Paul Soglin last week introduced two residential solar programs intended to ease the cost of panel purchase and installation.

The first program, MadiSUN Group Buy for Rooftop Solar, allows residents to band together and use the city's competitive bidding process to secure inexpensive bids from prequalified service providers. The city is now recruiting households for the program.

The second program, a partnership with a local credit union, allows residents to finance all of their solar-related expenses at a low fixed rate.

More: Solar Industry

Del. Lawmakers Try to Block Artificial Island Plan; Developer Says Project Still on Track

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$3 on their monthly electric bill. The charge would be much higher for commercial customers.

"This could cost businesses thousands of dollars a month and burden local residents for something that will not benefit them," Paradee said. "That's the definition of a bad deal. We might not have been successful in appealing to FERC, but we have the final say when it comes to environmental permitting."

The project calls for the construction of a transmission line that will be buried beneath the Delaware River connecting Artificial Island to Delaware with the goal of improving reliability on the grid.

"Under current project plans, an easement will be sought from the Department of Natural Resources and Environmental Control to connect the line on the Augustine Wildlife Area … and the Augustine Wildlife Area is a renowned deer and waterfowl habitat in Delaware," the resolution states.

When asked if the resolution could kill the project, Sharon Segner of LS Power, which is constructing the marine crossing, responded, "Absolutely not. It is a nonbinding resolution that must be passed by both the House and Senate in Delaware. A Delaware resolution does not have the force of law. In addition, a resolution expires at the end of the legislative session, which is in two weeks in Delaware.

"We continue to support the Delaware Public Service Commission's efforts in addressing the cost allocation for the Artificial Island project, as this is the real challenge for Delaware. We hope FERC grants both the rehearing request of the Delaware PSC and LS Power." (See Stakeholders Ask FERC to Rehear Cost Allocation Order.)

PJM issued a statement urging policymakers not to delay the project. "We are sympathetic to the concerns about cost allocation, which must be resolved by the federal commission," it said. "It would be unfortunate to delay this necessary project and its reliability benefits."

Following complaints about the cost allocation for this project as well as the proposed Bergen-Linden Corridor upgrade, FERC held a technical conference in January. It asked: Is there a definable category of projects for which the DFAX method might not be appropriate, and could a fair approach be developed for those occasions? The commission on April 22 upheld the cost allocation for both projects. (See FERC Upholds Cost Allocation for Artificial Island, Bergen-Linden Projects.)

The Artificial Island project faces other hurdles. After Public Service Electric and Gas submitted estimates nearly doubling the cost of its scope of work to $272 million, PJM planners decided to consider alternate configurations. One is to terminate the new transmission line at Hope Creek instead of Salem. However, if the scope of the work is changed substantially, it could require PJM to solicit new bids under FERC Order 1000. (See Artificial Island Cost Increase Could Lead to Rebid.)